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Forward

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For questions about data organization and proper plant identification, contact the editor: R.A. Norris, dbmubn@ars-grin.gov

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PI 601817. *Triticum aestivum* L., nom. cons. subsp. *aestivum*

Cultivar. Pureline. "TANDEM"; SD89119. CV-862; PVP 9800369. Pedigree - Brule/Agate. Released 1997. Awned, white-glumed, medium height and maturity, hard red winter with good winterhardiness. Moderately resistant to stem rust. Susceptible to leaf rust, tan spot, septoria leaf blotch, and wheat streak mosaic virus. Heterogeneous for resistance to the Great Plains Biotype of Hessian fly. Coleoptile length very long and straw strength medium. End-use quality characteristics include very high test weight, very large kernels with high kernel weight, very low flour ash, excellent flour extraction, high flour protein content, high water absorption with average mixing time, good mixing tolerance, and good loaf volume.

PI 601818. *Triticum aestivum* L., nom. cons. subsp. *aestivum*

Cultivar. Pureline. "CRIMSON"; SD89153. CV-863; PVP 9800368. Pedigree - TAM-105/Winoka. Released 1997. Awned, red-glumed, medium-late maturity, medium-tall, hard red winter with good winterhardiness. Moderately resistant to stem rust, tan spot, septoria leaf blotch, and wheat streak mosaic virus. Susceptible to leaf rust and the Great Plains biotype of Hessian fly. Coleoptile length very long and straw strength good. End-use quality characteristics include very high test weight, medium-sized kernels with average kernel weight, average flour ash and flour extraction, high kernel hardness, high flour protein content, high water absorption with average mixing time, average mixing tolerance, and good loaf volume.

The following were developed by Charles E. Simpson, Texas A&M University, P. O. Box 292, Stephenville, Texas 76401, United States; Olin D. Smith, Texas A&M University, Department of Soil & Crop Sciences, College Station, Texas

77843-2474, United States; B.A. Besler, Texas A&M University, Agricultural Research Sta., Yoakum, Texas 77995, United States; M.C. Black, Texas A&M University, Agricultural Res. and Ext. Ctr., Uvalde, Texas 78802-1849, United States. Received 12/22/1997.

PI 601819. *Arachis hypogaea* L.

Cultivar. Pureline. "TAMRUN 96"; Tx 896100. CV-59; PVP 9800338. Pedigree - Langley/Tx833841. Runner-type with partial resistance to tomato spotted wilt virus, southern stem rot (*Sclerotium rolfsii*) and pod rot (*Pythium myriotylum*). Prostrate growth similar to Florunner but lateral branch terminals more lifted and main stem less prominent. Flowers seldom on main stem, fruiting irregular on alternate nodes, sometimes near sequential. Pods mostly two-seeded with moderate constriction, slight beaks, and moderate reticulation. Tan testae. Pod and seed length and width 3-4% larger and 100-seed weight 5% heavier than Florunner.

The following were developed by Lynn M. Gourley, Mississippi State University, Box 9555, Mississippi State, Mississippi 39762, United States. Received 12/17/1997.

PI 601820. *Sorghum bicolor* (L.) Moench

Breeding. Pureline. MP 248; (TX623*IS7173C)-3-2-3-2-1. Pedigree - (TX623*IS 7173C)-3-2-3-2-1. Inbred 1 of 11 (Group 7) with acid soil tolerance. Grain sorghum maintainer or B-line. Plant color purple, grain with a white epicarp and absence of a testa, semi-open panicle, exsertion of about 8 cm. Seed weight of 1.66 gm 100 seed-1. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis were 67 and 58, and plant height was 107 and 137 cm, respectively.

PI 601821. *Sorghum bicolor* (L.) Moench

Breeding. Pureline. MP 249; (TX623*IS7173C)-12-2-1-1-1. Pedigree - (TX623*IS 7173C)-12-2-1-1-1. Inbred 2 of 11 (Group 7) with acid-soil tolerance. Grain sorghum maintainer or B-line. Plant color purple, grain with a white epicarp and absence of a testa, semi-open panicle, exsertion of about 5 cm. Seed weight of 2.14 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis were 71 and 63, and plant height was 101 and 158 cm, respectively.

PI 601822. *Sorghum bicolor* (L.) Moench

Breeding. Pureline. MP 250; (TX623*IS7173C)-12-2-1-2-1. Pedigree - (TX623*IS 7173C)-12-2-1-2-1. Inbred 3 of 11 (Group 7) with acid-soil tolerance. Grain sorghum maintainer or B-line. Plant color purple, grain with a white epicarp and absence of a testa, semi-open panicle, exsertion of about 10 cm. Seed weight of 1.97 gm 100 seed-1. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis were 70 and 62 and plant height was 116 and 158 cm, respectively.

PI 601823. *Sorghum bicolor* (L.) Moench

Breeding. Pureline. MP 251; (TX623*IS7173C)-12-2-3-2-1. Pedigree - (TX623*IS 7173C)-12-2-3-2-1. Inbred 4 of 11 (Group 7) with acid-soil tolerance. Grain sorghum maintainer or B-line. Plant color purple, grain with a white epicarp and absence of a testa, semi-open panicle, exsertion of about 8 cm. Seed weight of 2.00 gm 100 seed-1. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis were

70 and 61 and plant height was 104 and 107 cm, respectively.

PI 601824. *Sorghum bicolor* (L.) Moench

Breeding. Pureline. MP 252; (TX623*IS7173C)-58-1-3-1-1. Pedigree - (TX623*IS 7173C)-58-1-3-1-1. Inbred 5 of 11 (Group 7) with acid-soil tolerance. Grain sorghum maintainer or B-line. Plant color purple, grain with a white epicarp and absence of a testa, semi-open panicle, exertion of about 8 cm. Seed weight of 1.98 gm 100 seed⁻¹. In June plantings in Plainview, TX and Starkville, MS, days to 50% anthesis were 61 and 57 and plant height was 107 and 116 cm, respectively.

PI 601825. *Sorghum bicolor* (L.) Moench

Breeding. Pureline. MP 253; (IS7173C*TX623)-7-1-1-1-1. Pedigree - (IS 7173C*TX623)-7-1-1-1-1. Inbred 6 of 11 (Group 7) with acid-soil tolerance. Grain sorghum maintainer or B-line. Plant color purple, grain with a white epicarp and absence of a testa, semi-compact panicle, exertion of about 10 cm. Seed weight of 2.31 gm 100 seed⁻¹. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis were 63 and 63 and plant height was 110 and 174 cm, respectively.

PI 601826. *Sorghum bicolor* (L.) Moench

Breeding. Pureline. MP 254; (IS7173C*TX623)-7-1-1-2-1. Pedigree - (IS 7173C*TX623)-7-1-1-2-1. Inbred 7 of 11 (Group 7) with acid-soil tolerance. Grain sorghum maintainer or B-line. Plant color purple, grain with a white epicarp and absence of a testa, semi-compact panicle, exertion of about 5 cm. Seed weight of 2.49 gm 100 seed⁻¹. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis were 65 and 61 and plant height was 110 and 171 cm, respectively.

PI 601827. *Sorghum bicolor* (L.) Moench

Breeding. Pureline. MP 255; (IS7173C*TX623)-7-1-2-1-1. Pedigree - (IS 7173C*TX623)-7-1-2-1-1. Inbred 8 of 11 (Group 7) with acid-soil tolerance. Grain sorghum maintainer or B-line. Plant color purple, grain with a white epicarp and absence of a testa, semi-compact panicle, exertion of about 5 cm. Seed weight of 2.30 gm 100 seed⁻¹. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis were 67 and 57 and plant height was 98 and 119 cm, respectively.

PI 601828. *Sorghum bicolor* (L.) Moench

Breeding. Pureline. MP 256; (IS7173C*TX623)-7-1-2-2-1. Pedigree - (IS 7173C*TX623)-7-1-2-2-1. Inbred 9 of 11 (Group 7) with acid-soil tolerance. Grain sorghum maintainer or B-line. Plant color purple, grain with a white epicarp and absence of a testa, semi-compact panicle, exertion of about 2 cm. Seed weight 2.04 gm 100 seed⁻¹. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis were 68 and 58 and plant height was 91 and 128 cm, respectively.

PI 601829. *Sorghum bicolor* (L.) Moench

Breeding. Pureline. MP 257; (IS7173C*TX623)-13-1-2-2-1. Pedigree - (IS 7173C*TX623)-13-1-2-2-1. Inbred 10 of 11 (Group 7) with acid-soil tolerance. Grain sorghum maintainer or B-line. Plant color purple, grain with a white epicarp and absence of a testa, open panicle, exertion of about 8 cm. Seed weight 2.58 gm 100 seed⁻¹. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis were 69 and 69 and plant height was 125 and 171 cm, respectively.

PI 601830. *Sorghum bicolor* (L.) Moench
Breeding. Pureline. MP 258; (IS7173C*TX623)-70-2-1-2-1. Pedigree - (IS 7173*CTX623)-70-2-1-2-1. Inbred 11 of 11 (Group 7) with acid-soil tolerance. Grain sorghum maintainer or B-line. Plant color purple, grain with a white epicarp and absence of a testa, semi-open panicle, exsertion of about 2 cm. Seed weight 1.79 gm 100 seed-1. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis were 68 and 66 and plant height was 125 and 171 cm, respectively.

PI 601831. *Sorghum bicolor* (L.) Moench
Breeding. Pureline. MP 259; (FG1*(AT1)-36-4-2-2)-1-1-1-1. Pedigree - [(Wheatland Derivative*(2219B*CS-3541)-3-1)-6-4-1-1-2*(B-Yellow PI*IS 7173C)-36-4-2-2]-1-1-1-1. Inbred 1 of 38 (Group 8) with food grain quality and acid-soil tolerance. Grain sorghum maintainer or B-line. Plant color tan, grain with a white epicarp and absence of a testa, semi-open panicle, exsertion of about 0 cm. Seed weight of 2.80 gm seed 100-1. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis were 70 and 67 and plant height was 94 and 113 cm, respectively.

PI 601832. *Sorghum bicolor* (L.) Moench
Breeding. Pureline. MP 260; (FG1*(AT1)-36-4-2-2)-7-1-1-1. Pedigree - [(Wheatland Derivative*(2219B*CS-3541)-3-1)-6-4-1-1-2*(B-Yellow PI*IS 7173C)-36-4-2-2]-7-1-1-1. Inbred 2 of 38 (Group 8) with food grain quality and acid-soil tolerance. Grain sorghum maintainer or B-line. Plant color tan, grain with a white epicarp and absence of a testa, semi-compact panicle, exsertion of about 0 cm. Seed weight of 2.03 gm 100 seed-1. In June plantings in Plainview, TX and Starkville, MS, days to 50% anthesis were 71 and 63 and plant height was 91 and 110 cm, respectively.

PI 601833. *Sorghum bicolor* (L.) Moench
Breeding. Pureline. MP 261; (FG1*(AT1)-36-4-2-2)-7-1-2-1. Pedigree - [(Wheatland Derivative*(2219B*CS-3541)-3-1)-6-4-1-1-2*(B-Yellow PI*IS 7173C)-36-4-2-2]-7-1-2-1. Inbred 3 of 38 (Group 8) with food grain quality and acid-soil tolerance. Grain sorghum maintainer or B-line. Plant color tan, grain with a white epicarp and absence of a testa, semi-compact panicle, exsertion of about 2 cm. Seed weight 2.06 gm 100 seed-1. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis were 68 and 66 and plant height was 85 and 104 cm, respectively.

PI 601834. *Sorghum bicolor* (L.) Moench
Breeding. Pureline. MP 262; (FG1*(AT1)-52-2-1-2)-5-1-1-1. Pedigree - [(Wheatland Derivative*(2219B*CS-3541)-3-1)-6-4-1-1-2*(B-Yellow PI*IS 7173C)-52-2-1-2]-5-1-1-1. Inbred 4 of 38 (Group 8). Food grain quality and acid-soil tolerance. Grain sorghum maintainer or B-line. Plant color tan, epicarp white, testa absent, panicle semi-compact, exsertion approx. 10 cm., and seed weight 2.05 gm. 100 seed-1. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis 67 and 62, and plant height 107 and 116 cm. respectively.

PI 601835. *Sorghum bicolor* (L.) Moench
Breeding. Pureline. MP 263; (FG1*(AT1)-52-2-1-2)-5-1-2-1. Pedigree -

[(Wheatland Derivative*(2219B*CS-3541)-3-1)-6-4-1-1-2*(B-Yellow PI*IS 7173C)-52-2-1-2]-5-1-2-1. Inbred 5 of 38 (Group 8). Food grain quality and acid-soil tolerance. Grain sorghum maintainer or B-line. Plant color tan, epicarp white, testa absent, panicle semi-compact, exertion approx. 10 cm., and seed weight 2.12 gm. 100 seed-1. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis 67 and 60, and plant height 101 and 128 cm. respectively.

PI 601836. Sorghum bicolor (L.) Moench

Breeding. Pureline. MP 264; (FG1*(AT1)-52-2-1-2)-6-1-1-1. Pedigree - [(Wheatland Derivative*(2219B*CS-3541)-3-1)-6-4-1-1-2*(B-Yellow PI*IS 7173C)-52-2-1-2]-6-1-1-1. Inbred 6 of 38 (Group 8). Food grain quality and acid-soil tolerance. Grain sorghum maintainer or B-line. Plant color tan, epicarp white, testa absent, panicle semi-compact, exertion approx. 0 cm., and seed weight 2.73 gm. 100 seed-1. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis 70 and 71, and plant height 82 and 101 cm. respectively.

PI 601837. Sorghum bicolor (L.) Moench

Breeding. Pureline. MP 265; (FG1*(AT1)-52-2-1-2)-6-1-2-1. Pedigree - [(Wheatland Derivative*(2219B*CS-3541)-3-1)-6-4-1-1-2*(B-Yellow PI*IS 7173C)-52-2-1-2]-6-1-2-1. Inbred 7 of 38 (Group 8). Food grain quality and acid-soil tolerance. Grain sorghum maintainer or B-line. Plant color tan, epicarp white, testa absent, panicle semi-open, exertion approx. 9 cm., and seed weight 2.34 gm. 100 seed-1. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis 70 and 63, and plant height 91 and 131 cm. respectively.

PI 601838. Sorghum bicolor (L.) Moench

Breeding. Pureline. MP 266; (FG1*(AT1)-52-2-1-2)-7-1-1-1. Pedigree - [(Wheatland Derivative*(2219B*CS-3541)-3-1)-6-4-1-1-2*(B-Yellow PI*IS 7173C)-52-2-1-2]-7-1-1-1. Inbred 8 of 38 (Group 8). Food grain quality and acid-soil tolerance. Grain sorghum maintainer or B-line. Plant color tan, epicarp white, testa absent, panicle semi-compact, exertion approx. 0 cm., and seed weight 2.40 gm. 100 seed-1. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis 70 and 62, and plant height 85 and 104 cm. respectively.

PI 601839. Sorghum bicolor (L.) Moench

Breeding. Pureline. MP 267. Pedigree - [(Wheatland Derivative*(2219B*CS-3541)-3-1)-6-4-1-1-2*(B-Yellow PI*IS 7173C)-52-2-1-2]-9-1-1-1. Inbred 9 of 38 (Group 8). Food grain quality and acid-soil tolerance. Grain sorghum maintainer or B-line. Plant color tan, epicarp white, testa absent, panicle semi-compact, exertion approx. 0 cm, and seed weight of 1.86 gm. 100 seed-1. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis were 69 and 63, and plant height was 88 and 128 cm, respectively.

PI 601840. Sorghum bicolor (L.) Moench

Breeding. Pureline. MP 268. Pedigree - [(Wheatland Derivative*(2219B*CS-3541)-3-1)-6-4-1-1-2*(B-Yellow PI*IS 7173C)-52-2-1-2]-9-1-2-1. Inbred 10 of 38 (Group 8). Food grain quality and acid-soil tolerance. Grain sorghum maintainer or B-line. Plant color tan, epicarp white, testa absent, panicle semi-compact, exertion approx. 0 cm, and seed weight 1.63 gm. 100 seed-1. In June plantings at

Plainview, TX and Starkville, MS, days to 50% anthesis were 69 and 71, and plant height was 98 and 122 cm, respectively.

PI 601841. Sorghum bicolor (L.) Moench

Breeding. Pureline. MP 269. Pedigree - [(Wheatland Derivative*(2219B*CS-3541)-3-1)-6-4-1-1-2*(B-Yellow PI*IS 7173C)-52-2-1-2]-9-1-3-1. Inbred 11 of 38 (Group 8) with food grain quality and acid-soil tolerance. Grain sorghum maintainer or B-line. Plant color tan, epicarp white, testa absent, panicle semi-compact, exertion approx. 2 cm, and 100 seed weight of 1.48 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis were 69 and 66, and plant height was 98 and 122 cm, respectively.

PI 601842. Sorghum bicolor (L.) Moench

Breeding. Pureline. MP 270. Pedigree - [(Wheatland Derivative*(2219B*CS-3541)-3-1)-6-4-1-1-2*(B-Yellow PI*IS 7173C)-52-2-1-2]-22-2-1-1. Inbred 12 of 38 (Group 8) with food grain quality and acid-soil tolerance. Grain sorghum maintainer or B-line. Plant color tan, epicarp white, testa absent, panicle semi-open, exertion approx. 2 cm, and 100 seed weight of 2.57 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis were 70 and 67, and plant height was 94 and 119 cm, respectively.

PI 601843. Sorghum bicolor (L.) Moench

Breeding. Pureline. MP 271. Pedigree - [(Wheatland Derivative*(2219B*CS-3541)-3-1)-6-4-1-1-2*(B-Yellow PI*IS 7173C)-52-2-1-2]-22-2-2-1. Inbred 13 of 38 (Group 8) with food grain quality and acid-soil tolerance. Grain sorghum maintainer or B-line. Plant color tan, epicarp white, testa absent, panicle semi-compact, exertion approx. 2 cm, and 100 seed weight of 2.65 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis were 68 and 62, and plant height was 91 and 128 cm, respectively.

PI 601844. Sorghum bicolor (L.) Moench

Breeding. Pureline. MP 272. Pedigree - [(Wheatland Derivative*(2219B*CS-3541)-3-1)-6-4-1-1-2*(B-Yellow PI*IS 7173C)-52-2-1-2]-22-2-3-1. Inbred 14 of 38 (Group 8) with food grain quality and acid-soil tolerance. Grain sorghum maintainer or B-line. Plant color tan, epicarp white, testa absent, panicle semi-compact, exertion approx. 0 cm, and 100 seed weight of 2.28 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis were 68 and 59, and plant height was 82 and 128, respectively.

PI 601845. Sorghum bicolor (L.) Moench

Breeding. Pureline. MP 273. Pedigree - [(Wheatland Derivative*(2219B*CS-3541)-3-1)-6-4-1-1-2*(Wheatland Derivative *IS 71736)-13-5-1-2]-2-1-1-1. Inbred 15 of 38 (Group 8) with food grain quality and acid-soil tolerance. Grain sorghum maintainer or B-line. Plant color tan, epicarp white, testa absent, panicle open, exertion approx. 0 cm, and 100 seed weight of 2.47 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis were 73 and 69, and plant height was 91 and 107 cm, respectively.

PI 601846. Sorghum bicolor (L.) Moench

Breeding. Pureline. MP 274. Pedigree - [(Wheatland

Derivative*(2219B*CS-3541)-3-1)-6-4-1-1-2*(Wheatland Derivative *IS 7173C)-13-5-1-2]-2-1-2-1. Inbred 16 of 38 (Group 8) with food grain quality and acid-soil tolerance. Grain sorghum maintainer or B-line. Plant color tan, epicarp white, testa absent, panicle semi-compact, exertion approx. 0 cm, and 100 seed weight of 2.88 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis were 68 and 62, and plant height was 76 and 82 cm, respectively.

PI 601847. Sorghum bicolor (L.) Moench

Breeding. Pureline. MP 275. Pedigree - [(Wheatland Derivative*(2219B*CS-3541)-3-1)-6-4-1-1-2*(Wheatland Derivative *IS 7173C)-13-5-1-2]-2-2-1-1. Inbred 17 of 38 (Group 8) with food grain quality and acid-soil tolerance. Grain sorghum maintainer or B-line. Plant color tan, epicarp white, testa absent, panicle semi-open, exertion approx. 5 cm, and 100 seed weight of 2.56 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis were 67 and 61, and plant height was 88 and 116 cm, respectively.

PI 601848. Sorghum bicolor (L.) Moench

Breeding. Pureline. MP 276. Pedigree - [(Wheatland Derivative*(2219B*CS-3541)-3-1)-6-4-1-1-2*(Wheatland Derivative *IS 7173C)-13-5-1-2]-2-2-2-1. Inbred 18 of 38 (Group 8) with food grain quality and acid-soil tolerance. Grain sorghum maintainer or B-line. Plant color tan, epicarp white, testa absent, panicle semi-compact, exertion approx. 0 cm, and 100 seed weight of 2.30 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis were 68 and 60, and plant height was 82 and 110 cm, respectively.

PI 601849. Sorghum bicolor (L.) Moench

Breeding. Pureline. MP 277. Pedigree - [(Wheatland Derivative*(2219B*CS-3541)-3-1)-6-4-1-1-2*(Wheatland Derivative *IS 7173C)-13-5-1-2]-14-1-1-1. Inbred 19 of 38 (Group 8) with food grain quality and acid-soil tolerance. Grain sorghum maintainer or B-line. Plant color tan, epicarp white, testa absent, panicle semi-open, exertion approx. 0 cm, and 100 seed weight of 2.53 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis were 75 and 65, and plant height was 88 and 128 cm, respectively.

PI 601850. Sorghum bicolor (L.) Moench

Breeding. Pureline. MP 278. Pedigree - [(Wheatland Derivative*(2219B*CS-3541)-3-1)-6-4-1-1-2*(Wheatland Derivative *IS 7173C)-13-5-1-2]-14-1-2-1. Inbred 20 of 38 (Group 8) with food grain quality and acid-soil tolerance. Grain sorghum maintainer or B-line. Plant color tan, epicarp white, testa absent, panicle semi-open, exertion approx. 5 cm, and 100 seed weight of 2.30 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis were 73 and 71, and plant height was 91 and 122 cm, respectively.

PI 601851. Sorghum bicolor (L.) Moench

Breeding. Pureline. MP 279. Pedigree - [(Wheatland Derivative*(2219B*CS-3541)-3-1)-6-4-1-1-2*(Wheatland Derivative *IS 7173C)-13-5-1-2]-24-1-1-1. Inbred 21 of 38 (Group 8) with food grain quality and acid-soil tolerance. Grain sorghum maintainer or B-line. Plant color tan, epicarp white, testa absent, panicle semi-open, exertion approx. 2 cm, and 100 seed weight of 2.44 gm. In June

plantings at Plainview, TX and Starkville, MS, days to 50% anthesis were 70 and 68, and plant height was 85 and 119 cm, respectively.

PI 601852. Sorghum bicolor (L.) Moench

Breeding. Pureline. MP 280. Pedigree - [(Wheatland Derivative*(2219B*CS-3541)-3-1)-6-4-1-1-2*(Wheatland Derivative *IS 7173C)-13-5-1-2]-24-1-2-1. Inbred 22 of 38 (Group 8) with food grain quality and acid-soil tolerance. Grain sorghum maintainer or B-line. Plant color tan, epicarp white, testa absent, panicle semi-open, exertion approx. 5 cm, and 100 seed weight of 2.77 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis were 73 and 66, and plant height was 108 and 122 cm, respectively.

PI 601853. Sorghum bicolor (L.) Moench

Breeding. Pureline. MP 281. Pedigree - [(Wheatland Derivative*(2219B*CS-3541)-3-1)-10-1-2-1-1*(B-Yellow PI*IS 7173C)-36-4-2-2]-5-1-3-1. Inbred 23 of 38 (Group 8) with food grain quality and acid-soil tolerance. Grain sorghum maintainer or B-line. Plant color tan, epicarp white, testa absent, panicle open, exertion approx. 0 cm, and 100 seed weight of 2.70 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis were 67 and 62, and plant height was 119 and 171 cm, respectively.

PI 601854. Sorghum bicolor (L.) Moench

Breeding. Pureline. MP 282. Pedigree - [(Wheatland Derivative*(2219B*CS-3541)-3-1)-10-1-2-1-1*(B-Yellow PI*IS 7173C)-52-2-1-2]-5-1-1-1. Inbred 24 of 38 (Group 8) with food grain quality and acid-soil tolerance. Grain sorghum maintainer or B-line. Plant color tan, epicarp white, testa absent, panicle semi-open, exertion approx. 0 cm, and 100 seed weight of 2.37 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis were 70 and 59, and plant height was 91 and 98 cm, respectively.

PI 601855. Sorghum bicolor (L.) Moench

Breeding. Pureline. MP 283. Pedigree - [(Wheatland Derivative*(2219B*CS-3541)-3-1)-10-1-2-1-1*(B-Yellow PI*IS 7173C)-52-2-1-2]-5-1-2-1. Inbred 25 of 38 (Group 8) with food grain quality and acid-soil tolerance. Grain sorghum maintainer or B-line. Plant color tan, epicarp white, testa absent, panicle semi-open, exertion approx. 2 cm, and 100 seed weight of 2.22 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis were 71 and 66, and plant height was 107 and 125 cm, respectively.

PI 601856. Sorghum bicolor (L.) Moench

Breeding. Pureline. MP 284. Pedigree - [(Wheatland Derivative*(2219B*CS-3541)-3-1)-10-1-2-1-1*(B-Yellow PI*IS 7173C)-52-2-1-2]-10-1-1-1. Inbred 26 of 38 (Group 8) with food grain quality and acid-soil tolerance. Grain sorghum maintainer or B-line. Plant color tan, epicarp white, testa absent, panicle semi-compact, exertion approx. 15 cm, and 100 seed weight of 3.06 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis were 72 and 76, and plant height was 131 and 189 cm, respectively.

PI 601857. Sorghum bicolor (L.) Moench

Breeding. Pureline. MP 285. Pedigree - [(Wheatland

Derivative*(2219B*CS-3541)-3-1)-10-1-2-1-1*(B-Yellow PI*IS 7173C)-52-2-1-2]-10-1-2-1. Inbred 27 of 38 (Group 8) with food grain quality and acid-soil tolerance. Grain sorghum maintainer or B-line. Plant color tan, epicarp white, testa absent, panicle semi-compact, exsertion approx. 12 cm, and 100 seed weight of 3.04 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis were 71 and 72, and plant height was 149 and 189 cm, respectively.

PI 601858. Sorghum bicolor (L.) Moench

Breeding. Pureline. MP 286. Pedigree - [(Wheatland Derivative*(2219B*CS-3541)-3-1)-10-1-2-1-1*(B-Yellow PI*IS 7173C)-52-2-1-2]-13-2-1-1. Inbred 28 of 38 (Group 8) with food grain quality and acid-soil tolerance. Grain sorghum maintainer or B-line. Plant color tan, epicarp white, testa absent, panicle semi-open, exsertion approx. 10 cm, and 100 seed weight of 2.69 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis were 75 and 65, and plant height was 152 and 113 cm, respectively.

PI 601859. Sorghum bicolor (L.) Moench

Breeding. Pureline. MP 287. Pedigree - [(B-Yellow PI*(2219B*CS-3541)-3-1)-21-2-1-1-2*(B-Yellow PI*IS 7173C)-36-4-2-2]-4-12-2-2-1. Inbred 29 of 38 (Group 8) with food grain quality and acid-soil tolerance. Grain sorghum maintainer or B-line. Plant color tan, epicarp white, testa absent, panicle semi-open, exsertion approx. 0 cm, and 100 seed weight of 2.14 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis were 65 and 61, and plant height was 146 and 104 cm, respectively.

PI 601860. Sorghum bicolor (L.) Moench

Breeding. Pureline. MP 288. Pedigree - [(B-Yellow PI*(2219B*CS-3541)-3-1)-21-2-1-1-2*(B-Yellow PI*IS 7173C)-52-2-1-2]-12-1-1-1. Inbred 30 of 38 (Group 8) with food grain quality and acid-soil tolerance. Grain sorghum maintainer or B-line. Plant color tan, epicarp white, testa absent, panicle semi-open, panicle, exsertion approx. 0 cm, and 100 seed weight of 2.46 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis were 72 and 65, and plant height was 101 and 110 cm, respectively.

PI 601861. Sorghum bicolor (L.) Moench

Breeding. Pureline. MP 289. Pedigree - [(B-Yellow PI*(2219B*CS-3541)-3-1)-21-2-1-1-2*(B-Yellow PI*IS 7173C)-52-2-1-2]-12-1-2-1. Inbred 31 of 38 (Group 8) with food grain quality and acid-soil tolerance. Grain sorghum maintainer or B-line. Plant color tan, epicarp white, testa absent, panicle semi-open, exsertion approx. 8 cm, and 100 seed weight of 2.10 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis were 67 and 63, and plant height was 107 and 110 cm, respectively.

PI 601862. Sorghum bicolor (L.) Moench

Breeding. Pureline. MP 290. Pedigree - [(B-Yellow PI*(2219B*CS-3541)-3-1)-21-2-1-1-2*(B-Yellow PI*IS 7173C)-52-2-1-2]-15-1-1-1. Inbred 32 of 38 (Group 8) with food grain quality and acid-soil tolerance. Grain sorghum maintainer or B-line. Plant color tan, epicarp white, testa absent, panicle semi-open, exsertion approx. 0 cm, and 100 seed weight of 3.21 gm. In June

plantings at Plainview, TX and Starkville, MS, days to 50% anthesis were 67 and 60, and plant height was 104 and 140 cm, respectively.

PI 601863. Sorghum bicolor (L.) Moench

Breeding. Pureline. MP 291. Pedigree - [(B-Yellow PI*(2219B*CS-3541)-3-1)-21-2-1-1-2*(B-Yellow PI*IS 7173C)-52-2-1-2]-15-1-2-1. Inbred 33 of 38 (Group 8) with food grain quality and acid-soil tolerance. Grain sorghum maintainer or B-line. Plant color tan, epicarp white, testa absent, panicle semi-compact, exsertion approx. 0 cm, and 100 seed weight of 2.67 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis were 65 and 60, and plant height was 104 and 128 cm, respectively.

PI 601864. Sorghum bicolor (L.) Moench

Breeding. Pureline. MP 292. Pedigree - [(B-Yellow PI*(2219B*CS-3541)-3-1)21-2-1-1-2*(B-Yellow PI*IS 7173C)-52-2-1-2]-15-1-3-1. Inbred 34 of 38 (Group 8) with food grain quality and acid-soil tolerance. Grain sorghum maintainer or B-line. Plant color tan, epicarp white, testa absent, panicle semi-compact, exsertion approx. 2 cm, and 100 seed weight of 2.68 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis were 65 and 55, and plant height was 98 and 143 cm, respectively.

PI 601865. Sorghum bicolor (L.) Moench

Breeding. Pureline. MP 293. Pedigree - [(B-Yellow PI*(2219B*CS-3541)-3-1)-21-2-1-1-2*(B-Yellow PI*IS 7173C)-52-2-1-2]-23-2-1-1. Inbred 35 of 38 (Group 8) with food grain quality and acid-soil tolerance. Grain sorghum maintainer or B-line. Plant color tan, epicarp white, testa absent, panicle semi-compact, exsertion approx. 2 cm, and 100 seed weight of 2.74 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis were 68 and 65, and plant height was 110 and 131 cm, respectively.

PI 601866. Sorghum bicolor (L.) Moench

Breeding. Pureline. MP 294. Pedigree - [(B-Yellow PI*(2219B*CS-3541)-3-1)-21-2-1-1-2*(Wheatland Derivative*IS 7173C)-10-6-1-2]-3-2-3-1. Inbred 36 of 38 (Group 8) with food grain quality and acid-soil tolerance. Grain sorghum maintainer or B-line. Plant color tan, epicarp white, testa absent, panicle semi-open, exsertion approx. 15 cm, and 100 seed weight of 2.47 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis were 71 and 60, and plant height was 122 and 143 cm, respectively.

PI 601867. Sorghum bicolor (L.) Moench

Breeding. Pureline. MP 295. Pedigree - [(B-Yellow PI*(2219B*CS-3541)-3-1)-21-2-1-1-2*(Wheatland Derivative*IS 7173C)-10-6-1-2]-34-2-1-1. Inbred 37 of 38 (Group 8) with food grain quality and acid-soil tolerance. Grain sorghum maintainer or B-line. Plant color tan, epicarp red, testa absent, panicle semi-compact, exsertion approx. 8 cm, and 100 seed weight of 2.34 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis were 72 and 68, and plant height was 119 and 152 cm, respectively.

PI 601868. Sorghum bicolor (L.) Moench

Breeding. Pureline. MP 296. Pedigree - [(B-Yellow

PI*(2219B*CS-3541)-3-1)-21-2-1-1-2*(Wheatland Derivative*IS 7173C)-10-6-1-2]-34-2-3-1. Inbred 38 of 38 (Group 8) with food grain quality and acid-soil tolerance. Grain sorghum maintainer or B-line. Plant color tan, epicarp red, testa absent, panicle semi-compact, exsertion approx. 8 cm, and 100 seed weight of 2.46 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis were 72 and 65, and plant height was 116 and 149 cm, respectively.

PI 601869. Sorghum bicolor (L.) Moench

Breeding. Pureline. MP 297. Pedigree - (ICA Nataima*SC 326-6)-27-1-1-1. Inbred 1 of 75 (Group 9) with acid-soil tolerance. Grain sorghum fertility restorer or R-line. Plant color purple, epicarp brown, with a testa, panicle semi-compact, exsertion approx. 12 cm, and 100 seed weight of 2.19 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis were 71 and 65, and plant height was 131 and 177 cm, respectively.

PI 601870. Sorghum bicolor (L.) Moench

Breeding. Pureline. MP 298. Pedigree - (ICA Nataima*SC 326-6)-39-2-1-1. Inbred 2 of 75 (Group 9) with acid-soil tolerance. Grain sorghum fertility restorer or R-line. Plant color purple, epicarp brown, with a testa, panicle semi-compact, exsertion approx. 5 cm, and 100 seed weight of 2.17 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis were 70 and 68, and plant height was 91 and 101 cm, respectively.

PI 601871. Sorghum bicolor (L.) Moench

Breeding. Pureline. MP 299. Pedigree - (ICA Nataima*SC 326-6)-39-2-1-2. Inbred 3 of 75 (Group 9) with acid-soil tolerance. Grain sorghum fertility restorer or R-line. Plant color purple, epicarp brown, with a testa, panicle semi-open, exsertion approx. 5 cm, and 100 seed weight of 2.80 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis were 71 and 64, and plant height was 98 and 101 cm, respectively.

PI 601872. Sorghum bicolor (L.) Moench

Breeding. Pureline. MP 300. Pedigree - (ICA Nataima*SC 326-6)-54-1-1-3. Inbred 4 of 75 (Group 9) with acid-soil tolerance. Grain sorghum fertility restorer or R-line. Plant color purple, epicarp brown, with a testa, panicle semi-open, exsertion approx. 15 cm, and 100 seed weight of 2.49 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis were 71 and 68, and plant height was 125 and 177 cm, respectively.

PI 601873. Sorghum bicolor (L.) Moench

Breeding. Pureline. MP 301. Pedigree - (ICA Nataima*SC 326-6)-63-2-1-1. Inbred 5 of 75 (Group 9) with acid-soil tolerance. Grain sorghum fertility restorer or R-line. Plant color purple, epicarp brown, with a testa, panicle semi-compact, exsertion approx. 8 cm, and 100 seed weight of 1.71 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis were 74 and 68, and plant height was 98 and 104 cm, respectively.

PI 601874. Sorghum bicolor (L.) Moench

Breeding. Pureline. MP 302. Pedigree - (ICA Nataima*SC 326-6)-63-2-3-1.

Inbred 6 of 75 (Group 9) with acid-soil tolerance. Grain sorghum fertility restorer or R-line. Plant color purple, epicarp brown, with a testa, panicle semi-compact, exsertion approx. 2 cm, and 100 seed weight of 1.75 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis were 75 and 71, and plant height was 91 and 94 cm, respectively.

PI 601875. *Sorghum bicolor* (L.) Moench

Breeding. Pureline. MP 303. Pedigree - (IS 7254C*ICA Nataima)-33-1-2-2. Inbred 7 of 75 (Group 9) with acid-soil tolerance. Grain sorghum fertility restorer or R-line. Plant color purple, epicarp brown, with a testa, panicle semi-compact, exsertion approx. 8 cm, and 100 seed weight of 2.62 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis were 71 and 73, and plant height was 146 and 189 cm, respectively.

PI 601876. *Sorghum bicolor* (L.) Moench

Breeding. Pureline. MP 304. Pedigree - (IS 7254C*ICA Nataima)-34-1-1-1. Inbred 8 of 75 (Group 9) with acid-soil tolerance. Grain sorghum fertility restorer or R-line. Plant color purple, epicarp brown, with a testa, panicle semi-compact, exsertion approx. 5 cm, and 100 seed weight of 2.13 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis were 68 and 70, and plant height was 76 and 104 cm, respectively.

PI 601877. *Sorghum bicolor* (L.) Moench

Breeding. Pureline. MP 305. Pedigree - (IS 7254C*ICA Nataima)-34-1-1-3. Inbred 9 of 75 (Group 9) with acid-soil tolerance. Grain sorghum fertility restorer or R-line. Plant color purple, epicarp brown, testa, panicle semi-compact, exsertion approx. 2 cm, and 100 seed weight of 2.23 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis were 69 and 71, and plant height was 76 and 104 cm, respectively.

PI 601878. *Sorghum bicolor* (L.) Moench

Breeding. Pureline. MP 306. Pedigree - (IS 7254C*ICA Nataima)-34-1-2-1. Inbred 10 of 75 (Group 9) with acid-soil tolerance. Grain sorghum fertility restorer or R-line. Plant color purple, epicarp brown, testa, panicle semi-compact, exsertion approx. 10 cm, and 100 seed weight of 2.60 gm. In plantings at Plainview, TX and Starkville, MS, days to 50% anthesis were 72 and 73, and plant height was 128 and 198 cm, respectively.

PI 601879. *Sorghum bicolor* (L.) Moench

Breeding. Pureline. MP 307. Pedigree - (IS 7254C*ICA Nataima)-34-1-2-2. Inbred 11 of 75 (Group 9) with acid-soil tolerance. Grain sorghum fertility restorer or R-line. Plant color purple, epicarp brown, testa, panicle semi-compact, exsertion approx. 10 cm, and 100 seed weight of 2.78 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis were 72 and 72, and plant height was 143 and 192 cm, respectively.

PI 601880. *Sorghum bicolor* (L.) Moench

Breeding. Pureline. MP 308. Pedigree - (IS 7254C*ICA Nataima)-34-1-2-4. Inbred 12 of 75 (Group 9) with acid-soil tolerance. Grain sorghum

fertility restorer or R-line. Plant color purple, epicarp brown, testa, panicle semi-compact, exsertion approx. 10 cm, and 100 seed weight of 2.71 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis were 72 and 72, and plant height was 131 and 213 cm, respectively.

PI 601881. *Sorghum bicolor* (L.) Moench

Breeding. Pureline. MP 309. Pedigree - (IS 12666C*IS 3071C)-49-1-1-1. Inbred 13 of 75 (Group 9) with acid-soil tolerance. Grain sorghum fertility restorer or R-line. Plant color purple, epicarp white, testa absent, panicle semi-compact, exsertion approx. 0 cm, and 100 seed weight of 2.52 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis were 72 and 72, and plant height was 79 and 155 cm, respectively.

PI 601882. *Sorghum bicolor* (L.) Moench

Breeding. Pureline. MP 310. Pedigree - (IS 12666C*IS 3071C)-49-1-1-2. Inbred 14 of 75 (Group 9) with acid-soil tolerance. Grain sorghum fertility restorer or R-line. Plant color purple, epicarp white, testa absent, panicle semi-compact, exsertion approx. 0 cm, and 100 seed weight of 2.75 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis were 70 and 70, and plant height was 91 and 146 cm, respectively.

PI 601883. *Sorghum bicolor* (L.) Moench

Breeding. Pureline. MP 311. Pedigree - (IS 12666C*7B5113)-68-1-1-1. Inbred 15 of 75 (Group 9) with acid-soil tolerance. Grain sorghum fertility restorer or R-line. Plant color purple, epicarp brown, testa, panicle semi-open, exsertion approx. 0 cm, and 100 seed weight of 2.99 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis were 80 and 80, and plant height was 155 and 186 cm, respectively.

PI 601884. *Sorghum bicolor* (L.) Moench

Breeding. Pureline. MP 312. Pedigree - (IS 12666C*7B5113)-68-1-1-2. Inbred 16 of 75 (Group 9) with acid-soil tolerance. Grain sorghum fertility restorer or R-line. Plant color purple, epicarp brown, testa, panicle semi-open, exsertion approx. 5 cm, and 100 seed weight of 3.08 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis were 80 and 80, and plant height was 152 and 223 cm, respectively.

PI 601885. *Sorghum bicolor* (L.) Moench

Breeding. Pureline. MP 313. Pedigree - (IS 12666C*7B5113)-68-1-1-3. Inbred 17 of 75 (Group 9) with acid-soil tolerance. Grain sorghum fertility restorer or R-line. Plant color purple, epicarp brown, testa, panicle semi-open, exsertion approx. 0 cm, and 100 seed weight of 2.78 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis were 80 and 84, and plant height was 192 and 226 cm, respectively.

PI 601886. *Sorghum bicolor* (L.) Moench

Breeding. Pureline. MP 314. Pedigree - (TX430*IS 3071)-47-1-1-1. Inbred 18 of 75 (Group 9) with acid-soil tolerance. Grain sorghum fertility restorer or R-line. Plant color purple, epicarp white, testa absent,

panicle semi-compact, exertion approx. 0 cm, and 100 seed weight of 3.20 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis were 68 and 73, and plant height was 101 and 149 cm, respectively.

PI 601887. Sorghum bicolor (L.) Moench

Breeding. Pureline. MP 315. Pedigree - (NB 9040*IS 6944)-25-2-2-1. Inbred 19 of 75 (Group 9) with acid-soil tolerance. Grain sorghum fertility restorer or R-line. Plant color purple, epicarp white, testa absent, panicle semi-compact, exertion approx. 15 cm, and 100 seed weight of 2.30 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis were 70 and 72, and plant height was 119 and 125 cm, respectively.

PI 601888. Sorghum bicolor (L.) Moench

Breeding. Pureline. MP 316. Pedigree - (NB 9040*IS 6944)-33-2-2-1. Inbred 20 of 75 (Group 9) with acid-soil tolerance. Grain sorghum fertility restorer or R-line. Plant color purple, epicarp white, testa absent, panicle semi-open, exertion approx. 5 cm, and 100 seed weight of 2.32 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis were 73 and 70, and plant height was 116 and 104 cm, respectively.

PI 601889. Sorghum bicolor (L.) Moench

Breeding. Pureline. MP 317. Pedigree - (TX430*IS 6944)-1-2-1-1. Inbred 21 of 75 (Group 9) with acid-soil tolerance. Grain sorghum fertility restorer or R-line. Plant color purple, epicarp white, testa absent, panicle semi-compact, exertion approx. 0 cm, and 100 seed weight of 2.90 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis were 71 and 77, and plant height was 152 and 189 cm, respectively.

PI 601890. Sorghum bicolor (L.) Moench

Breeding. Pureline. MP 318. Pedigree - (TX430*IS 6944)-18-2-2-1. Inbred 22 of 75 (Group 9) with acid-soil tolerance. Grain sorghum fertility restorer or R-line. Plant color purple, epicarp white, testa absent, panicle semi-compact, exertion approx. 0 cm, and 100 seed weight of 2.43 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis were 68 and 66, and plant height was 107 and 134 cm, respectively.

PI 601891. Sorghum bicolor (L.) Moench

Breeding. Pureline. MP 319. Pedigree - (NB 9040*IS 9084)-10-2-2-1. Inbred 23 of 75 (Group 9) with acid-soil tolerance. Grain sorghum fertility restorer or R-line. Plant color purple, epicarp white, testa absent, panicle semi-compact, exertion approx. 0 cm, and 100 seed weight of 2.58 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis were 80 and 84, and plant height was 140 and 165 cm, respectively.

PI 601892. Sorghum bicolor (L.) Moench

Breeding. Pureline. MP 320. Pedigree - (NB 9040*IS 9084)-37-2-2-1. Inbred 24 of 75 (Group 9) with acid-soil tolerance. Grain sorghum fertility restorer or R-line. Plant color purple, epicarp brown, testa, panicle semi-open, exertion approx. 2 cm, and 100 seed weight of 2.80

gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis were 72 and 76, and plant height was 104 and 104 cm, respectively.

PI 601893. Sorghum bicolor (L.) Moench

Breeding. Pureline. MP 321. Pedigree - (NB 9040*IS 9084)-39-2-1-1. Inbred 25 of 75 (Group 9) with acid-soil tolerance. Grain sorghum fertility restorer or R-line. Plant color purple, epicarp brown, testa, panicle semi-open, exsertion approx. 2 cm, and 100 seed weight of 2.77 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis were 75 and 77, and plant height was 98 and 84 cm, respectively.

PI 601894. Sorghum bicolor (L.) Moench

Breeding. Pureline. MP 322. Pedigree - (NB 9040*IS 9084)-62-1-2-1. Inbred 26 of 75 (Group 9) with acid-soil tolerance. Grain sorghum fertility restorer or R-line. Plant color purple, epicarp brown, testa, panicle semi-compact, exsertion approx. 5 cm, and 100 seed weight of 2.32 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis were 72 and 69, and plant height was 104 and 128 cm, respectively.

PI 601895. Sorghum bicolor (L.) Moench

Breeding. Pureline. MP 323. Pedigree - (TX430*IS 9084)-7-2-1-1. Inbred 27 of 75 (Group 9) with acid-soil tolerance. Grain sorghum fertility restorer or R-line. Plant color purple, epicarp white, testa, panicle semi-open, exsertion approx. 5 cm, and 100 seed weight of 3.36 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis were 72 and 78, and plant height was 152 and 186 cm, respectively.

PI 601896. Sorghum bicolor (L.) Moench

Breeding. Pureline. MP 324. Pedigree - (TX430*IS 9084)-12-1-1-1. Inbred 28 of 75 (Group 9) with acid-soil tolerance. Grain sorghum fertility restorer or R-line. Plant color purple, epicarp white, testa absent, panicle semi-open, exsertion approx. 0 cm, and 100 seed weight of 2.44 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis were 78 and 77, and plant height was 104 and 113 cm, respectively.

PI 601897. Sorghum bicolor (L.) Moench

Breeding. Pureline. MP 325. Pedigree - (TX430*IS 9084)-12-1-2-1. Inbred 29 of 75 (Group 9) with acid-soil tolerance. Grain sorghum fertility restorer or R-line. Plant color purple, epicarp white, testa absent, panicle semi-open, exsertion approx. 0 cm, and 100 seed weight of 2.36 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis were 75 and 77, and plant height was 104 and 116 cm, respectively.

PI 601898. Sorghum bicolor (L.) Moench

Breeding. Pureline. MP 326. Pedigree - (TX430*IS 9084)-41-1-2-1. Inbred 30 of 75 (Group 9) with acid-soil tolerance. Grain sorghum fertility restorer or R-line. Plant color purple, epicarp white, testa absent, panicle semi-compact, exsertion approx. 0 cm, and 100 seed weight of 2.98 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis were 68 and 68, and plant height was 137 and 165 cm,

respectively.

PI 601899. Sorghum bicolor (L.) Moench

Breeding. Pureline. MP 327. Pedigree - (TX430*IS 9084)-43-1-1-1. Inbred 31 of 75 (Group 9) with acid-soil tolerance. Grain sorghum fertility restorer or R-line. Plant color purple, epicarp white, testa absent, panicle semi-open, exsertion approx. 5 cm, and 100 seed weight of 3.49 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis were 70 and 74, and plant height was 143 and 146 cm, respectively.

PI 601900. Sorghum bicolor (L.) Moench

Breeding. Pureline. MP 328. Pedigree - (TX430*IS 9084)-60-3-2-1. Inbred 32 of 75 (Group 9) with acid-soil tolerance. Grain sorghum fertility restorer or R-line. Plant color purple, epicarp brown, testa, panicle semi-open, exsertion approx. 2 cm, and 100 seed weight of 2.69 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis were 73 and 74, and plant height was 119 and 165 cm, respectively.

PI 601901. Sorghum bicolor (L.) Moench

Breeding. Pureline. MP 329. Pedigree - (NB 9040*MN 4508)-7-1-1-1. Inbred 33 of 75 (Group 9) with acid-soil tolerance. Grain sorghum fertility restorer or R-line. Plant color purple, epicarp brown, testa, panicle semi-open, exsertion approx. 0 cm, and 100 seed weight of 2.68 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis were 72 and 78, and plant height was 140 and 192 cm, respectively.

PI 601902. Sorghum bicolor (L.) Moench

Breeding. Pureline. MP 330. Pedigree - (NB 9040*MN 4508)-11-1-1-1. Inbred 34 of 75 (Group 9) with acid-soil tolerance. Grain sorghum fertility restorer or R-line. Plant color purple, epicarp brown, testa, panicle semi-compact, exsertion approx. 0 cm, and 100 seed weight of 3.23 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis were 70 and 70, and plant height was 119 and 113 cm, respectively.

PI 601903. Sorghum bicolor (L.) Moench

Breeding. Pureline. MP 331. Pedigree - (NB 9040*MN 4508)-11-1-2-1. Inbred 35 of 75 (Group 9) with acid-soil tolerance. Grain sorghum fertility restorer or R-line. Plant color purple, epicarp brown, testa, panicle semi-open, exsertion approx. 0 cm, and 100 seed weight of 3.40 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis were 71 and 70, and plant height was 122 and 125 cm, respectively.

PI 601904. Sorghum bicolor (L.) Moench

Breeding. Pureline. MP 332. Pedigree - (NB 9040*MN 4508)-11-2-2-1. Inbred 36 of 75 (Group 9) with acid-soil tolerance. Grain sorghum fertility restorer or R-line. Plant color purple, epicarp brown, testa, panicle semi-compact, exsertion approx. 0 cm, and 100 seed weight of 3.27 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis were 67 and 67, and plant height was 119 and 149 cm, respectively.

PI 601905. Sorghum bicolor (L.) Moench

Breeding. Pureline. MP 333. Pedigree - (NB 9040*MN 4508)-17-1-1-1. Inbred 37 of 75 (Group 9) with acid-soil tolerance. Grain sorghum fertility restorer or R-line. Plant color purple, epicarp white, testa absent, panicle semi-open, exsertion approx. 0 cm, and 100 seed weight of 2.88 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis were 73 and 71, and plant height was 134 and 168 cm, respectively.

PI 601906. Sorghum bicolor (L.) Moench

Breeding. Pureline. MP 334. Pedigree - (NB 9040*MN 4508)-34-2-1-1. Inbred 38 of 75 (Group 9) with acid-soil tolerance. Grain sorghum fertility restorer or R-line. Plant color purple, epicarp brown, testa, panicle semi-open, exsertion approx. 2 cm, and 100 seed weight of 2.37 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis were 67 and 71, and plant height was 143 and 180 cm, respectively.

PI 601907. Sorghum bicolor (L.) Moench

Breeding. Pureline. MP 335. Pedigree - (NB 9040*MN 4508)-35-1-2-1. Inbred 39 of 75 (Group 9) with acid-soil tolerance. Grain sorghum fertility restorer or R-line. Plant color purple, epicarp brown, testa, panicle semi-open, exsertion approx. 2 cm, and 100 seed weight of 2.99 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis were 71 and 74, and plant height was 146 and 183 cm, respectively.

PI 601908. Sorghum bicolor (L.) Moench

Breeding. Pureline. MP 336. Pedigree - (TX430*MN 4508)-7-2-1-1. Inbred 40 of 75 (Group 9) with acid-soil tolerance. Grain sorghum fertility restorer or R-line. Plant color purple, epicarp white, testa absent, panicle semi-open, exsertion approx. 0 cm, and 100 seed weight of 3.99 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis were 68 and 63, and plant height was 116 and 113 cm, respectively.

PI 601909. Sorghum bicolor (L.) Moench

Breeding. Pureline. MP 337. Pedigree - (TX430*MN 4508)-14-1-1-1. Inbred 41 of 75 (Group 9) with acid-soil tolerance. Grain sorghum fertility restorer or R-line. Plant color purple, epicarp white, testa absent, panicle semi-compact, exsertion approx. 0 cm, and 100 seed weight of 2.47 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis were 72 and 76, and plant height was 113 and 98 cm, respectively.

PI 601910. Sorghum bicolor (L.) Moench

Breeding. Pureline. MP 338. Pedigree - (TX430*MN 4508)-15-1-1-1. Inbred 42 of 75 (Group 9) with acid-soil tolerance. Grain sorghum fertility restorer or R-line. Plant color purple, epicarp white, testa absent, panicle semi-compact, exsertion approx. 0 cm, and 100 seed weight of 3.04 gr. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis were 69 and 70, and plant height was 122 and 186 cm, respectively.

PI 601911. Sorghum bicolor (L.) Moench

Breeding. Pureline. MP 339. Pedigree - (TX430*MN 4508)-15-1-2-1. Inbred

43 of 75 (Group 9) with acid-soil tolerance. Grain sorghum fertility restorer or R-line. Plant color purple, epicarp white, testa absent, panicle semi-open, exertion approx. 2 cm, and 100 seed weight of 2.56 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis were 73 and 73, and plant height was 128 and 158 cm, respectively.

PI 601912. Sorghum bicolor (L.) Moench

Breeding. Pureline. MP 340. Pedigree - (TX430*MN 4508)-26-2-1-1. Inbred 44 of 75 (Group 9) with acid-soil tolerance. Grain sorghum fertility restorer or R-line. Plant color purple, epicarp white, testa absent, panicle semi-open, exertion approx. 2 cm, and 100 seed weight of 3.16 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis were 75 and 76, and plant height was 134 and 162 cm, respectively.

PI 601913. Sorghum bicolor (L.) Moench

Breeding. Pureline. MP 341. Pedigree - (TX430*MN 4508)-51-1-1-1. Inbred 45 of 75 (Group 9) with acid-soil tolerance. Grain sorghum fertility restorer or R-line. Plant color purple, epicarp white, testa absent, panicle semi-open, exertion approx. 10 cm, and 100 seed weight of 2.76 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis were 67 and 67, and plant height was 158 and 165 cm, respectively.

PI 601914. Sorghum bicolor (L.) Moench

Breeding. Pureline. MP 342. Pedigree - (TX430*MN 4508)-51-1-2-1. Inbred 46 of 75 (Group 9) with acid-soil tolerance. Grain sorghum fertility restorer or R-line. Plant color purple, epicarp white, testa absent, panicle semi-open, exertion approx. 5 cm, and 100 seed weight of 3.83 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis were 67 and 71, and plant height was 152 and 174 cm, respectively.

PI 601915. Sorghum bicolor (L.) Moench

Breeding. Pureline. MP 343. Pedigree - (TX430*MN 4508)-73-1-1-1. Inbred 47 of 75 (Group 9) with acid-soil tolerance. Grain sorghum fertility restorer or R-line. Plant color purple, epicarp brown, testa, panicle semi-open, exertion approx. 2 cm, and 100 seed weight of 2.50 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis were 71 and 66, and plant height was 88 and 107 cm, respectively.

PI 601916. Sorghum bicolor (L.) Moench

Breeding. Pureline. MP 344. Pedigree - (NB 9040*IS 8577)-25-2-2-1. Inbred 48 of 75 (Group 9) with acid-soil tolerance. Grain sorghum fertility restorer or R-line. Plant color purple, epicarp brown, testa, panicle semi-open, exertion approx. 5 cm, and 100 seed weight of 3.05 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis were 72 and 73, and plant height was 119 and 140 cm, respectively.

PI 601917. Sorghum bicolor (L.) Moench

Breeding. Pureline. MP 345. Pedigree - (TX430*IS 8577)-8-1-1-1. Inbred 49 of 75 (Group 9) with acid-soil tolerance. Grain sorghum fertility restorer or R-line. Plant color purple, epicarp white, testa absent,

panicle open, exsertion approx. 12 cm, and 100 seed weight of 2.99 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis were 70 and 72, and plant height was 137 and 125 cm, respectively.

PI 601918. Sorghum bicolor (L.) Moench

Breeding. Pureline. MP 346. Pedigree - (TX430*IS 8577)-18-1-2-1. Inbred 50 of 75 (Group 9) with acid-soil tolerance. Grain sorghum fertility restorer or R-line. Plant color purple, epicarp brown, testa, panicle semi-compact, exsertion approx. 0 cm, and 100 seed weight of 2.41 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis were 70 and 71, and plant height was 113 and 119 cm, respectively.

PI 601919. Sorghum bicolor (L.) Moench

Breeding. Pureline. MP 347. Pedigree - (TX430*IS 8577)-26-1-2-1. Inbred 51 of 75 (Group 9) with acid-soil tolerance. Grain sorghum fertility restorer or R-line. Plant color purple, epicarp white, testa absent, panicle semi-open, exsertion approx. 0 cm, and 100 seed weight of 2.75 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis were 73 and 74, and plant height was 116 and 137 cm, respectively.

PI 601920. Sorghum bicolor (L.) Moench

Breeding. Pureline. MP 348. Pedigree - (TX430*IS 8577)-51-1-2-1. Inbred 52 of 75 (Group 9) with acid-soil tolerance. Grain sorghum fertility restorer or R-line. Plant color purple, epicarp white, testa absent, panicle semi-open, exsertion approx. 2 cm, and 100 seed weight of 3.46 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis were 72 and 71, and plant height was 140 and 219 cm, respectively.

PI 601921. Sorghum bicolor (L.) Moench

Breeding. Pureline. MP 349. Pedigree - (NB 9040*IS 2765)-2-1-1-1. Inbred 53 of 75 (Group 9) with acid-soil tolerance. Grain sorghum fertility restorer or R-line. Plant color purple, epicarp white, testa absent, panicle semi-compact, exsertion approx. 10 cm, and 100 seed weight of 3.52 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis were 67 and 63, and plant height was 101 and 94 cm, respectively.

PI 601922. Sorghum bicolor (L.) Moench

Breeding. Pureline. MP 350. Pedigree - (NB 9040*IS 2765)-6-1-2-1. Inbred 54 of 75 (Group 9) with acid-soil tolerance. Grain sorghum fertility restorer or R-line. Plant color purple, epicarp white, testa absent, panicle semi-open, exsertion approx. 8 cm, and 100 seed weight of 3.56 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis were 68 and 67, and plant height was 137 and 165 cm, respectively.

PI 601923. Sorghum bicolor (L.) Moench

Breeding. Pureline. MP 351. Pedigree - (NB 9040*IS 2765)-13-1-2-1. Inbred 55 of 75 (Group 9) with acid-soil tolerance. Grain sorghum fertility restorer or R-line. Plant color purple, epicarp brown, testa, panicle semi-open, exsertion approx. 25 cm, and 100 seed weight of 3.09 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50%

anthesis were 69 and 70, and plant height was 128 and 134 cm, respectively.

PI 601924. *Sorghum bicolor* (L.) Moench

Breeding. Pureline. MP 352. Pedigree - (NB 9040*IS 2765)-13-2-1-1. Inbred 56 of 75 (Group 9) with acid-soil tolerance. Grain sorghum fertility restorer or R-line. Plant color purple, epicarp white, testa absent, panicle semi-open, exsertion approx. 10 cm, and 100 seed weight of 3.43 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis were 67 and 70, and plant height was 116 and 113 cm, respectively.

PI 601925. *Sorghum bicolor* (L.) Moench

Breeding. Pureline. MP 353. Pedigree - (NB 9040*IS 2765)-13-2-2-1. Inbred 57 of 75 (Group 9) with acid-soil tolerance. Grain sorghum fertility restorer or R-line. Plant color purple, epicarp white, testa absent, panicle semi-open, exsertion approx 15 cm, and 100 seed weight of 2.54 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis were 67 and 65, and plant height was 122 and 140 cm, respectively.

PI 601926. *Sorghum bicolor* (L.) Moench

Breeding. Pureline. MP 354. Pedigree - (TX430*IS 2765)-5-1-2-1. Inbred 58 of 75 (Group 9) with acid-soil tolerance. Grain sorghum fertility restorer or R-line. Plant color purple, epicarp brown, testa, panicle semi-open, exsertion approx. 2 cm, and 100 seed weight of 1.77 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis were 80 and 80, and plant height was 174 and 189 cm, respectively.

PI 601927. *Sorghum bicolor* (L.) Moench

Breeding. Pureline. MP 355. Pedigree - (TX430*IS 2765)-20-1-2-1. Inbred 59 of 75 (Group 9) with acid-soil tolerance. Grain sorghum fertility restorer or R-line. Plant color purple, epicarp white, testa absent, panicle semi-open, exsertion approx. 10 cm, and 100 seed weight of 2.68 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis were 69 and 64, and plant height was 119 and 128 cm, respectively.

PI 601928. *Sorghum bicolor* (L.) Moench

Breeding. Pureline. MP 356. Pedigree - (TX430*IS 2765)-20-2-1-1. Inbred 60 of 75 (Group 9) with acid-soil tolerance. Grain sorghum fertility restorer or R-line. Plant color purple, epicarp white, testa absent, panicle semi-open, exsertion approx. 5 cm, and 100 seed weight of 3.31 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis were 68 and 69, and plant height was 134 and 149 cm, respectively.

PI 601929. *Sorghum bicolor* (L.) Moench

Breeding. Pureline. MP 357. Pedigree - (TX430*IS 2765)-20-2-2-1. Inbred 61 of 75 (Group 9) with acid-soil tolerance. Grain sorghum fertility restorer or R-line. Plant color purple, epicarp white, testa absent, panicle semi-compact, exsertion approx. 2 cm, and 100 seed weight of 3.30 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis were 68 and 66, and plant height was 113 and 107 cm, respectively.

- PI 601930. *Sorghum bicolor* (L.) Moench**
Breeding. Pureline. MP 358. Pedigree - L-1249. Inbred 62 of 75 (Group 9) with acid-soil tolerance. Grain sorghum fertility restorer or R-line. Plant color purple, epicarp brown, testa, panicle semi-open, exertion approx. 2 cm, and 100 seed weight of 1.75 gm. In a June planting at Starkville, MS, days to 50% anthesis were 66, and plant height was 128 cm.
- PI 601931. *Sorghum bicolor* (L.) Moench**
Breeding. Pureline. MP 359. Pedigree - L-1259. Inbred 63 of 75 (Group 9) with acid-soil tolerance. Grain sorghum fertility restorer or R-line. Plant color purple, epicarp brown, testa, panicle semi-open, exertion approx. 20 cm, and 100 seed weight of 2.26 gm. In a June planting at Starkville, MS, days to 50% anthesis were 57, and plant height was 165 cm.
- PI 601932. *Sorghum bicolor* (L.) Moench**
Breeding. Pureline. MP 360. Pedigree - L-1261. Inbred 64 of 75 (Group 9) with acid-soil tolerance. Grain sorghum fertility restorer or R-line. Plant color purple, epicarp brown, testa, panicle semi-open, exertion approx 5 cm, and 100 seed weight of 2.50 gm. In a June planting at Starkville, MS, days to 50% anthesis were 63, and plant height was 116 cm.
- PI 601933. *Sorghum bicolor* (L.) Moench**
Breeding. Pureline. MP 361. Pedigree - L-1287. Inbred 65 of 75 (Group 9) with acid-soil tolerance. Grain sorghum fertility restorer or R-line. Plant color purple, epicarp brown, testa, panicle, semi-open, exertion approx. 8 cm, and 100 seed weight of 2.79 gm. In a June planting at Starkville, MS, days to 50% anthesis were 74, and plant height was 104 cm.
- PI 601934. *Sorghum bicolor* (L.) Moench**
Breeding. Pureline. MP 362. Pedigree - L-1297. Inbred 66 of 75 (Group 9) with acid-soil tolerance. Grain sorghum fertility restorer or R-line. Plant color purple, epicarp brown, testa, panicle semi-open, exertion approx. 2 cm, and 100 seed weight of 2.26 gm. In a June planting at Starkville, MS, days to 50% anthesis were 65, and plant height was 137 cm.
- PI 601935. *Sorghum bicolor* (L.) Moench**
Breeding. Pureline. MP 363. Pedigree - V-2215. Inbred 67 of 75 (Group 9) with acid-soil tolerance. Grain sorghum fertility restorer or R-line. Plant color purple, epicarp brown, testa, panicle semi-compact, exertion approx. 5 cm, and 100 seed weight of 1.92 gm. In a June planting at Starkville, MS, days to 50% anthesis were 66, and plant height was 152 cm.
- PI 601936. *Sorghum bicolor* (L.) Moench**
Breeding. Pureline. MP 364. Pedigree - V-2301. Inbred 68 of 75 (Group 9) with acid-soil tolerance. Grain sorghum fertility restorer or R-line. Plant color purple, epicarp brown, testa, panicle semi-open, exertion approx. 0 cm, and 100 seed weight of 1.78 gm. In a June planting at Starkville, MS, days to 50% anthesis were 67, and plant height was 134 cm.

cm.

- PI 601937. *Sorghum bicolor* (L.) Moench**
Breeding. Pureline. MP 365. Pedigree - V-2308. Inbred 69 of 75 (Group 9) with acid-soil tolerance. Grain sorghum fertility restorer or R-line. Plant color tan, epicarp brown, testa, panicle, semi-open, exsertion approx. 8 cm, and 100 seed weight of 2.37 gm. In a June planting at Starkville, MS, days to 50% anthesis were 66, and plant height was 189 cm.
- PI 601938. *Sorghum bicolor* (L.) Moench**
Breeding. Pureline. MP 366. Pedigree - V-2310. Inbred 70 of 75 (Group 9) with acid-soil tolerance. Grain sorghum fertility restorer or R-line. Plant color purple, epicarp brown, testa, panicle semi-open, exsertion approx. 5 cm, and 100 seed weight of 3.01 gm. In a June planting at Starkville, MS, days to 50% anthesis were 67, and plant height was 140 cm.
- PI 601939. *Sorghum bicolor* (L.) Moench**
Breeding. Pureline. MP 367. Pedigree - V-2311. Inbred 71 of 75 (Group 9) with acid-soil tolerance. Grain sorghum fertility restorer or R-line. Plant color purple, epicarp white, testa absent, panicle semi-open, exsertion approx. 2 cm, and 100 seed weight of 2.53 gm. In a June planting at Starkville, MS, days to 50% anthesis were 62, and plant height was 137 cm.
- PI 601940. *Sorghum bicolor* (L.) Moench**
Breeding. Pureline. MP 368. Pedigree - V-2312. Inbred 72 of 75 (Group 9) with acid-soil tolerance. Grain sorghum fertility restorer or R-line. Plant color purple, epicarp brown, testa, panicle semi-open, exsertion approx. 8 cm, and 100 seed weight of 2.39 gm. In a June planting at Starkville, MS, days to 50% anthesis were 76, and plant height was 146 cm.
- PI 601941. *Sorghum bicolor* (L.) Moench**
Breeding. Pureline. MP 369. Pedigree - V-2313. Inbred 73 of 75 (Group 9) with acid-soil tolerance. Grain sorghum fertility restorer or R-line. Plant color purple, epicarp brown, testa, panicle, semi-open, exsertion approx 5 cm, and 100 seed weight of 2.41 gm. In a June planting at Starkville, MS, days to 50% anthesis were 59, and plant height was 146 cm.
- PI 601942. *Sorghum bicolor* (L.) Moench**
Breeding. Pureline. MP 370. Pedigree - V-2316. Inbred 74 of 75 (Group 9) with acid-soil tolerance. Grain sorghum fertility restorer or R-line. Plant color purple, epicarp brown, testa, panicle semi-compact, exsertion approx. 5 cm, and 100 seed weight of 2.50 gm. In a June planting at Starkville, MS, days to 50% anthesis were 76, and plant height was 198 cm.
- PI 601943. *Sorghum bicolor* (L.) Moench**
Breeding. Pureline. MP 371. Pedigree - V-2326. Inbred 75 of 75 (Group 9) with acid-soil tolerance. Grain sorghum fertility restorer or R-line. Plant color purple, epicarp brown, testa, panicle semi-open, exsertion approx. 15 cm, and 100 seed weight of 2.37 gm. In a June planting at

Starkville, MS, days to 50% anthesis were 67, and plant height was 192 cm.

The following were collected by Gaylord Mink, Washington State University, Irrigated Agricultural Res. & Ext. Ctr., Route 2, Box 2953-A, Prosser, Washington 99350, United States; Jim Myers, Oregon State University, Department of Horticulture, ALS 4017, Corvallis, Oregon 97331, United States. Received 12/01/1993.

PI 601944. *Acacia* sp.

Wild. M&M 145; W6 14689. Collected in Tanzania.

PI 601945. *Acacia taylori* Brenan & Exell

Wild. M&M 6; W6 14690. Collected in Tanzania.

PI 601946. *Senna x floribunda* (Cav.) H. S. Irwin & Barneby

Wild. M&M 38; W6 14692. Collected in Tanzania.

PI 601947. *Senna x floribunda* (Cav.) H. S. Irwin & Barneby

Wild. M&M 81; W6 14693. Collected in Tanzania.

PI 601948. *Senna x floribunda* (Cav.) H. S. Irwin & Barneby

Wild. M&M 62; W6 14694. Collected in Tanzania.

PI 601949. *Senna x floribunda* (Cav.) H. S. Irwin & Barneby

Wild. M&M 63; W6 14695. Collected in Tanzania.

PI 601950. *Senna x floribunda* (Cav.) H. S. Irwin & Barneby

Wild. M&M 124; W6 14696. Collected in Tanzania.

PI 601951. *Senna singueana* (Delile) Lock

Wild. M&M 40; W6 14697. Collected in Tanzania.

PI 601952. *Crotalaria* sp.

Wild. M&M 113; W6 14699. Collected in Tanzania.

PI 601953. *Crotalaria* sp.

Wild. M&M 135; W6 14700. Collected in Tanzania.

PI 601954. *Crotalaria* sp.

Wild. M&M 139; W6 14701. Collected in Tanzania.

PI 601955. *Crotalaria* sp.

Wild. M&M 152; W6 14702. Collected in Tanzania.

PI 601956. *Crotalaria* sp.

Wild. M&M 190; W6 14703. Collected in Tanzania.

PI 601957. *Crotalaria spinosa* Hochst. ex Benth.

Wild. M&M 157; W6 14704. Collected in Tanzania.

PI 601958. *Desmodium* sp.

Wild. M&M 47; W6 14705. Collected in Tanzania.

- PI 601959. *Indigofera* sp.**
Wild. M&M 200; W6 14706. Collected in Tanzania.
- PI 601960. *Indigofera arrecta* Hochst. ex A. Rich.**
Wild. M&M 61; W6 14707. Collected in Tanzania.
- PI 601961. *Indigofera arrecta* Hochst. ex A. Rich.**
Wild. M&M 125; W6 14708. Collected in Tanzania.
- PI 601962. *Indigofera cuneata* Baker ex Oliv.**
Wild. M&M 72; W6 14709. Collected in Tanzania.
- PI 601963. *Indigofera* sp.**
Wild. M&M 130; W6 14710. Collected in Tanzania.
- PI 601964. *Indigofera* sp.**
Wild. M&M 140; W6 14711. Collected in Tanzania.
- PI 601965. *Indigofera* sp.**
Wild. M&M 156; W6 14712. Collected in Tanzania.
- PI 601966. *Mimosa* sp.**
Wild. M&M 128; W6 14713. Collected in Tanzania.
- PI 601967. *Sesbania* sp.**
Wild. M&M 154; W6 14714. Collected in Tanzania.
- PI 601968. *Tephrosia* sp.**
Wild. M&M 207; W6 14715. Collected in Tanzania.
- PI 601969. *Tephrosia vogelii* Hook. f.**
Wild. M&M 94; W6 14716. Collected in Tanzania.

The following were donated by O.W. Norvell, Stanford University, Palo Alto, California, United States. Received 01/01/1989.

- PI 601970. *Strophostyles helvula* (L.) Elliott**
Wild. 755; W6 15693.
- PI 601971. *Strophostyles helvula* (L.) Elliott**
Wild. 761; W6 15696.

The following were developed by Cascade International Seed Company, Jonathan Green & Sons, Inc., United States. Received 08/19/1997.

- PI 601972. *Lolium perenne* L.**
Cultivar. "PEARL". PVP 9700368.

The following were developed by Seed Research of Oregon, Inc., Corvallis, Oregon, United States. Received 08/11/1997.

- PI 601973. *Agrostis stolonifera* L.**

Cultivar. "SR1119". PVP 9700390.

The following were developed by Resource Seeds, Inc., United States. Received 08/26/1997.

PI 601974. X Triticosecale sp.
Cultivar. "762". PVP 9700391.

The following were developed by Pure Seed Testing, Inc., P.O. Box 449, Hubbard, Oregon 97032, United States. Received 08/26/1997.

PI 601975. Lolium perenne L.
Cultivar. "CHARGER II". PVP 9700392.

The following were developed by Cascade International Seed Company, 8483 W. Stayton Rd., Aumsville, Oregon 97325, United States. Received 09/04/1997.

PI 601976. Cynodon dactylon (L.) Pers.
Cultivar. "BLACKJACK". PVP 9700395.

The following were developed by University of California, California Agr. Exp. Sta., Davis, California 95616, United States. Received 01/12/1998.

PI 601977. Medicago sativa L. subsp. sativa
Cultivar. "HIGHLINE". PVP 9800030.

The following were developed by Seminis Vegetable Seeds, Inc., Woodland, California, United States. Received 01/12/1998.

PI 601978. Lactuca sativa L.
Cultivar. "BUBBA". PVP 9800032.

The following were developed by Progeny Advanced Genetics, Inc., Salinas, California, United States. Received 01/12/1998.

PI 601979. Lactuca sativa L.
Cultivar. "DANNENBERG 66". PVP 9800033.

The following were developed by William D. Branch, University of Georgia, Coastal Plain Experiment Station, Department of Crop and Soil Sciences, Tifton, Georgia 31794-0748, United States. Received 01/12/1998.

PI 601980. Arachis hypogaea L.
Cultivar. "GEORGIA BOLD"; GA 921302. CV-60; PVP 9800041. Pedigree - Southern Runner/Sunbelt Runner//Sunbelt Runner. Unique from other runner-type peanut cultivars in having a combination of larger seed, distinctively dark green foliage, spreading runner growth habit, and medium maturity. In tests at multiple locations found to be

significantly higher in yield and dollar value by >15% over the long-term check Florunner. Also resulted in significantly higher grade percentage of total sound mature kernels (77 vs. 75%) than Florunner. Larger seed size than Florunner for both seed weight (64g 100-1 vs. 58g 100-and percentage of extra large kernels (30% vs. 15%). Greater proportion of normal shaped pods than Florunner, similar to Georgia Green. Comparable to Florunner in maturity, protein content, oil content, and flavor, but slightly higher oleic to linoleic fatty acid ratio (2.1 vs. 1.7). Moderate resistance to tomato spotted wilt virus (TSWW).

The following were developed by Minnesota Agricultural Experiment Station, St. Anthony Park, Minnesota, United States. Received 01/12/1998.

PI 601981. *Glycine max* (L.) Merr.
Cultivar. M91-455. PVP 9800050.

The following were developed by Thomas E. Devine, USDA, ARS, Plant Molecular Biology Lab., Building 006, Room 118, BARC-West, Beltsville, Maryland 20705-2350, United States; E.O. Hatley, Pennsylvania State University, Dept. of Agronomy, University Park, Pennsylvania 16802, United States; D. Starner, Virginia Polytechnic Institute & State Univ., Northern Piedmont Agricultural Research & Extension Center, Orange, Virginia 22960, United States. Received 01/12/1998.

PI 601982. *Glycine max* (L.) Merr.
Cultivar. Pureline. "Derry". CV-388; PVP 9800027. Pedigree - [(Wilson 6 X Forrest) X Perry X (Williams x PI 229358))] X Tracy M. Maturity group VI forage soybean. Grows exceptionally tall, 1.8 m. Flowers white and tawny pubescence. Seeds yellow with shiny seed coat luster and black hila. Subject to mutation at the I locus and often contains a low frequency (less than 1%) self colored black seed. Resistant to bacterial leaf blight, and bacterial pustule. Expressed field tolerance, at Beltsville, MD, to phytophthora root rot disease, but has no known phytophthora resistance genes. Susceptible to soybean cyst nematode, downy mildew disease, and southern stem canker disease.

The following were developed by Thomas E. Devine, USDA, ARS, Plant Molecular Biology Lab., Building 006, Room 118, BARC-West, Beltsville, Maryland 20705-2350, United States; E.O. Hatley, Pennsylvania State University, Dept. of Agronomy, University Park, Pennsylvania 16802, United States. Received 01/12/1998.

PI 601983. *Glycine max* (L.) Merr.
Cultivar. Pureline. "Donegal". CV-389; PVP 9800028. Pedigree - [(Wilson 6 X Forrest) X (Perry X (Williams x PI 229358))] X Burlison. Maturity group V forage soybean. Grows exceptionally tall, 1.8 m. Flowers white and tawny pubescence. Seeds yellow with dull seed coat luster and black hila. Rps3a gene for resistance to phytophthora root rot disease. Moderately resistant to race 5 and race 14 of the soybean cyst nematode, but is susceptible to race 3. Resistant to bacterial leaf blight and moderately resistant to bacterial pustule and downy mildew diseases.

Susceptible to southern stem canker disease.

The following were developed by Thomas E. Devine, USDA, ARS, Plant Molecular Biology Lab., Building 006, Room 118, BARC-West, Beltsville, Maryland 20705-2350, United States; E.O. Hatley, Pennsylvania State University, Dept. of Agronomy, University Park, Pennsylvania 16802, United States; D. Starner, Virginia Polytechnic Institute & State Univ., Northern Piedmont Agricultural Research & Extension Center, Orange, Virginia 22960, United States. Received 01/12/1998.

PI 601984. *Glycine max* (L.) Merr.

Cultivar. Pureline. "Tyrone". CV-390; PVP 9800029. Pedigree - [(Wilson 6 X Forrest) X (Perry X (Williams x PI 229358))] X Ripley. Maturity group VII forage soybean. Grows exceptionally tall, 1.8 m. Flowers white and gray pubescence. Seeds yellow with shiny seed coat luster and brown hila. Rps2 gene for resistance to phytophthora root rot disease and is resistant to bacterial pustule. Moderately resistant to downy mildew disease. Susceptible to soybean cyst nematode and southern stem canker disease.

The following were developed by Terral Seed, Inc., Lake Providence, Louisiana, United States. Received 01/12/1998.

PI 601985. *Glycine max* (L.) Merr.

Cultivar. "Terral TV5666RR". PVP 9800042.

The following were developed by R. G. Seed Company, Inc., North Carolina, United States. Received 01/12/1998.

PI 601986. *Nicotiana tabacum* L.

Cultivar. "RG81". PVP 9800035.

The following were developed by An H Hang, Washington State University, Irrigated Agriculture Res. & Ext. Center, Route 2, Box 2953-A, Prosser, Washington 99350-9687, United States; Matt Silbernagel, USDA, ARS, Vegetable Crop Production, IAREC, P.O. Box 30, Prosser, Washington 99350, United States; Phillip Miklas, USDA, ARS, Irrigated Agric. Research & Extension Ctr., 24106 North Bunn Road, Prosser, Washington 99350-9687, United States. Received 06/24/1997.

PI 601987. *Phaseolus vulgaris* L.

Breeding. USWA-48. GP-181. Pedigree - (NY5-161-W/A55) 88GH172-(3-1)-1-1-4-3-PRB-1-B-B-B. Very-upright, narrow-profile navy bean. Late maturing with seed size about 21 g per 100 seeds. Resistance to bean common mosaic virus and curly top virus.

PI 601988. *Phaseolus vulgaris* L.

Breeding. USWA-50. GP-182. Pedigree - (GH11/Pearl) 88GH164-(1-2)-1-B-1-18-B-B-B-B. High yield potential and medium maturity (93 days). Seeds dull white, slightly oblong shape and relatively small (17 g per 100 seeds). Resistance to common bean mosaic virus and curly

top virus. Resistant to rust. Most tolerant navy bean to root rot complex in Washington state.

The following were developed by William D. Branch, University of Georgia, Coastal Plain Experiment Station, Department of Crop and Soil Sciences, Tifton, Georgia 31794-0748, United States; A.B. SEED LTD., Israel. Received 01/12/1998.

PI 601989. *Lycopersicon esculentum* Mill., nom. cons. var. *esculentum*
Cultivar. "ATIR". See NSL 369025.

The following were developed by Asgrow Seed Company, Kalamazoo, Michigan, United States. Received 01/12/1998.

PI 601990. *Zea mays* L. subsp. *mays*
Cultivar. "ASG09". PVP 9800038.

PI 601991. *Zea mays* L. subsp. *mays*
Cultivar. "ASG07". PVP 9800039.

The following were developed by Verne A. Sisson, North Carolina State University, Crop Science Department, Oxford Tobacco Research Station, Oxford, North Carolina 27565, United States. Received 01/12/1998.

PI 601992. *Nicotiana tabacum* L.
Cultivar. Pureline. "OXFORD 207". CV-114; PVP 9800044. Pedigree - Coker 319 / K399. Flue-cured tobacco combining high level of resistance to bacterial wilt (*Pseudomonas solanacearum*) with high level of resistance to race 0 black shank (*Phytophthora nicotianae*) Also has resistance to races 1 and 3 of southern root knot nematode (*Meloidogyne incognita*). Resistant to fusarium wilt (*Fusarium oxysporum*). Susceptible to the predominant virus diseases of flue-cured tobacco. Exhibits good yield and quality characteristics.

The following were developed by Pioneer Hi-Bred International, Inc., 6800 Pioneer Pkwy., P.O. Box 316, Johnston, Iowa 50131-0316, United States. Received 01/12/1998.

PI 601993. *Brassica napus* L.
Cultivar. "44A89"; Argentina Canola. PVP 9800045.

PI 601994. *Brassica napus* L.
Cultivar. "45A71". PVP 9800046. Spring type.

PI 601995. *Brassica napus* L.
Cultivar. "46A65". PVP 9800047. Spring type.

The following were developed by Jacklin Seed Company, 5300 West Riverbend Avenue, Post Falls, Idaho 83854-9499, United States. Received 01/12/1998.

PI 601996. *Cynodon dactylon* (L.) Pers.
Cultivar. "SOUTHERN STAR". PVP 9800049.

The following were developed by Johannes Martinus Steenkamp, South Africa.
Received 01/12/1998.

PI 601997. *Capsicum annum* L.
Cultivar. "PIQUANTE". PVP 9800051.

The following were developed by Cebeco Zaden B.V., Rotterdam, South Holland,
Netherlands. Received 01/12/1998.

PI 601998. *Festuca ovina* L.
Cultivar. "QUATRO". PVP 9800052.

Unknown source. Received 01/12/1998.

PI 601999. *Capsicum annum* L.
Cultivar. "SUPERHOT". PVP 9800053. Developed in United States.

The following were developed by Pure Seed Testing, Inc., P.O. Box 449,
Hubbard, Oregon 97032, United States. Received 01/12/1997.

PI 602000. *Poa pratensis* L.
Cultivar. "PST-A418". PVP 9800055.

The following were developed by Lynn M. Gourley, Mississippi State
University, Box 9555, Mississippi State, Mississippi 39762, United States.
Received 12/29/1997.

PI 602001. *Sorghum bicolor* (L.) Moench
Breeding. MP 372. Pedigree - (NB 9040*IS 3071)-2-1-1-1. Inbred 1 of 46
(Group 10) with photoperiod sensitivity and acid-soil tolerance. Grain
sorghum fertility restorer or R-line. Plant color purple, epicarp white,
testa absent, 100 seed weight of 2.84 gm. Seed was produced in 1995-96
winter nursery in Mexico.

PI 602002. *Sorghum bicolor* (L.) Moench
Breeding. MP 373. Pedigree - (NB 9040*IS 3071)-7-1-1-1. Inbred 2 of 46
(Group 10) with photoperiod sensitivity and acid-soil tolerance. Grain
sorghum fertility restorer or R-line. Plant color purple, epicarp white,
testa absent, 100 seed weight of 3.08 gm. Seed was produced in a 1995-96
winter nursery in Mexico.

PI 602003. *Sorghum bicolor* (L.) Moench
Breeding. MP 374. Pedigree - (NB 9040*IS 3071)-31-2-1-1. Inbred 3 of 46
(Group 10) with photoperiod sensitivity and acid-soil tolerance. Grain
sorghum fertility restorer or R-line. Plant color purple, epicarp brown,
testa, 100 seed weight of 2.41 gm. Seed was produced in a 1995-96 winter
nursery in Mexico.

- PI 602004. *Sorghum bicolor* (L.) Moench**
Breeding. MP 375. Pedigree - (NB 9040*IS 6944)-4-1-1-1. Inbred 4 of 46 (Group 10) with photoperiod sensitivity and acid-soil tolerance. Grain sorghum fertility restorer or R-line. Plant color purple, epicarp brown, testa, 100 seed weight of 3.34 gm. Seed was produced in a 1995-96 winter nursery in Mexico.
- PI 602005. *Sorghum bicolor* (L.) Moench**
Breeding. MP 376. Pedigree - (NB 9040*IS 9084)-18-1-1-1. Inbred 5 of 46 (Group 10) with photoperiod sensitivity and acid-soil tolerance. Grain sorghum fertility restorer or R-line. Plant color purple, epicarp brown, testa, 100 seed weight of 3.26 gm. Seed was produced in a 1995-96 winter nursery in Mexico.
- PI 602006. *Sorghum bicolor* (L.) Moench**
Breeding. MP 377. Pedigree - (NB 9040*MN 4508)-29-1-1-1. Inbred 6 of 46 (Group 10) with photoperiod sensitivity and acid-soil tolerance. Grain sorghum fertility restorer or R-line. Plant color purple, epicarp white, testa absent, 100 seed weight of 3.02 gm. Seed was produced in a 1995-96 winter nursery in Mexico.
- PI 602007. *Sorghum bicolor* (L.) Moench**
Breeding. MP 378. Pedigree - (NB 9040*MN 4508)-32-1-1-1. Inbred 7 of 46 inbreds (Group 10) with photoperiod sensitivity and acid-soil tolerance. Grain sorghum fertility restorer or R-line. Plant color purple, epicarp brown, testa, 100 seed weight of 3.07 gm. Seed was produced in a 1995-96 winter nursery in Mexico.
- PI 602008. *Sorghum bicolor* (L.) Moench**
Breeding. MP 379. Pedigree - (NB 9040*IS 8577)-20-2-1-1. Inbred 8 of 46 (Group 10) with photoperiod sensitivity and acid-soil tolerance. Grain sorghum fertility restorer or R-line. Plant color purple, epicarp white, testa absent, 100 seed weight of 3.22 gm. Seed was produced in a 1995-96 winter nursery in Mexico.
- PI 602009. *Sorghum bicolor* (L.) Moench**
Breeding. MP 380. Pedigree - (TX430*IS 2765)-1-2-1-1. Inbred 9 of 46 (Group 10) with photoperiod sensitivity and acid-soil tolerance. Grain sorghum fertility restorer of R-line. Plant color purple, epicarp white, testa absent, 100 seed weight of 2.51 gm. Seed was produced in a 1995-1996 winter nursery in Mexico.
- PI 602010. *Sorghum bicolor* (L.) Moench**
Breeding. MP 381. Pedigree - (TX430*IS 2765)-2-1-1-1. Inbred 10 of 46 (Group 10) with photoperiod sensitivity and acid-soil tolerance. Grain sorghum fertility restorer or R-line. Plant color purple, epicarp white, testa absent, 100 seed weight of 3.44 gm. Seed was produced in a 1995-96 winter nursery in Mexico.
- PI 602011. *Sorghum bicolor* (L.) Moench**
Breeding. MP 382. Pedigree - (TX430*IS 2765)-3-1-1-1. Inbred 11 of 46 (Group 10) with photoperiod sensitivity and acid-soil tolerance. Grain sorghum fertility restorer or R-line. Plant color purple, epicarp white, testa absent, 100 seed weight of 3.01 gm. Seed was produced in a 1995-96

winter nursery in Mexico.

PI 602012. Sorghum bicolor (L.) Moench

Breeding. MP 383. Pedigree - (TX430*IS 2765)-3-3-1-1. Inbred 12 of 46 (Group 10) with photoperiod sensitivity and acid-soil tolerance. Grain sorghum fertility restorer or R-line. Plant color purple, epicarp white, testa absent, 100 seed weight of 2.64 gm. Seed was produced in a 1995-96 winter nursery in Mexico.

PI 602013. Sorghum bicolor (L.) Moench

Breeding. MP 384. Pedigree - (TX430*IS 2765)-6-1-1-1. Inbred 13 of 46 (Group 10) with photoperiod sensitivity and acid-soil tolerance. Grain sorghum fertility restorer or R-line. Plant color purple, epicarp white, testa absent, 100 seed weight of 3.66 gm. Seed was produced in a 1995-96 winter nursery in Mexico.

PI 602014. Sorghum bicolor (L.) Moench

Breeding. MP 385. Pedigree - (TX430*IS 2765)-8-2-1-1. Inbred 14 of 46 (Group 10) with photoperiod sensitivity and acid-soil tolerance. Grain sorghum fertility restorer or R-line. Plant color purple, epicarp white, testa absent, 100 seed weight of 3.30 gm. Seed was produced in a 1995-96 winter nursery in Mexico.

PI 602015. Sorghum bicolor (L.) Moench

Breeding. MP 386. Pedigree - (TX430*IS 2765)-10-1-1-1. Inbred 15 of 46 (Group 10) with photoperiod sensitivity and acid-soil tolerance. Grain sorghum fertility restorer or R-line. Plant color purple, epicarp white, testa absent, 100 seed weight of 3.35 gm. Seed was produced in a 1995-96 winter nursery in Mexico.

PI 602016. Sorghum bicolor (L.) Moench

Breeding. MP 387. Pedigree - (TX430*IS 2765)-13-3-1-1. Inbred 16 of 46 (Group 10) with photoperiod sensitivity and acid-soil tolerance. Grain sorghum fertility restorer or R-line. Plant color purple, epicarp white, testa absent, 100 seed weight of 3.27 gm. Seed was produced in a 1995-96 winter nursery in Mexico.

PI 602017. Sorghum bicolor (L.) Moench

Breeding. MP 388. Pedigree - (TX430*IS 2765)-15-2-1-1. Inbred 17 of 46 (Group 10) with photoperiod sensitivity and acid-soil tolerance. Grain sorghum fertility restorer or R-line. Plant color purple, epicarp white, testa absent, 100 seed weight of 3.19 gm. Seed was produced in a 1995-96 winter nursery in Mexico.

PI 602018. Sorghum bicolor (L.) Moench

Breeding. MP 389. Pedigree - (TX430*IS 2765)-21-1-1-1. Inbred 18 of 46 (Group 10) with photoperiod sensitivity and acid-soil tolerance. Grain sorghum fertility restorer or R-line. Plant color purple, epicarp white, testa absent, 100 seed weight of 4.23 gm. Seed was produced in a 1995-96 winter nursery in Mexico.

PI 602019. Sorghum bicolor (L.) Moench

Breeding. MP 390. Pedigree - (TX430*IS 3071)-11-2-1-1. Inbred 19 of 46 (Group 10) with photoperiod sensitivity and acid-soil tolerance. Grain sorghum fertility restorer or R-line. Plant color purple, epicarp white,

testa absent, 100 seed weight of 3.07 gm. Seed was produced in a 1995-96 winter nursery in Mexico.

PI 602020. *Sorghum bicolor* (L.) Moench

Breeding. MP 391. Pedigree - (TX430*IS 3071)-24-2-1-1. Inbred 20 of 46 (Group 10) with photoperiod sensitivity and acid-soil tolerance. Grain sorghum fertility restorer or R-line. Plant color purple, epicarp white, testa absent, 100 seed weight of 3.25 gm. Seed was produced in a 1995-96 winter nursery in Mexico.

PI 602021. *Sorghum bicolor* (L.) Moench

Breeding. MP 392. Pedigree - (TX430*IS 3071)-42-1-1-1. Inbred 21 of 46 (Group 10) with photoperiod sensitivity and acid-soil tolerance. Grain sorghum fertility restorer or R-line. Plant color purple, epicarp white, testa absent, 100 seed weight of 3.58 gm. Seed was produced in a 1995-96 winter nursery in Mexico.

PI 602022. *Sorghum bicolor* (L.) Moench

Breeding. MP 393. Pedigree - (TX430*IS 3071)-47-2-1-1. Inbred 22 of 46 (Group 10) with photoperiod sensitivity and acid-soil tolerance. Grain sorghum fertility restorer or R-line. Plant color purple, epicarp white, testa absent, 100 seed weight of 3.79 gm. Seed was produced in a 1995-96 winter nursery in Mexico.

PI 602023. *Sorghum bicolor* (L.) Moench

Breeding. MP 394. Pedigree - (TX430*IS 3071)-54-1-1-1. Inbred 23 of 46 (Group 10) with photoperiod sensitivity and acid-soil tolerance. Grain sorghum fertility restorer or R-line. Plant color purple, epicarp white, testa absent, 100 seed weight of 3.92 gm. Seed was produced in a 1995-96 winter nursery in Mexico.

PI 602024. *Sorghum bicolor* (L.) Moench

Breeding. MP 395. Pedigree - (TX430*IS 9084)-33-1-1-1. Inbred 24 of 46 (Group 10) with photoperiod sensitivity and acid-soil tolerance. Grain sorghum fertility restorer or R-line. Plant color purple, epicarp white, testa absent, 100 seed weight of 2.73 gm. Seed was produced in a 1995-96 winter nursery in Mexico.

PI 602025. *Sorghum bicolor* (L.) Moench

Breeding. MP 396. Pedigree - (TX430*MN 4508)-1-1-1-1. Inbred 25 of 46 (Group 10) with photoperiod sensitivity and acid soil tolerance. Grain sorghum fertility restorer or R-line. Plant color purple, epicarp white, testa absent, 100 seed weight of 3.22 gm. Seed was produced in a 1995-96 winter nursery in Mexico.

PI 602026. *Sorghum bicolor* (L.) Moench

Breeding. MP 397. Pedigree - (TX430*MN 4508)-2-1-1-1. Inbred 26 of 46 (Group 10) with photoperiod sensitivity and acid-soil tolerance. Grain sorghum fertility restorer or R-line. Plant color purple, epicarp white, testa absent, 100 seed weight of 3.46 gm. Seed was produced in a 1995-96 winter nursery in Mexico.

PI 602027. *Sorghum bicolor* (L.) Moench

Breeding. MP 398. Pedigree - (TX430*MN 4508)-12-2-1-1. Inbred 27 of 46 (Group 10) with photoperiod sensitivity and acid-soil tolerance. Grain

sorghum fertility restorer or R-line. Plant color purple, epicarp brown, testa, 100 seed weight of 3.70 gm. Seed was produced in a 1995-96 winter nursery in Mexico.

PI 602028. Sorghum bicolor (L.) Moench

Breeding. MP 399. Pedigree - (TX 430*MN 4508)-16-1-1-1. Inbred 28 of 46 (Group 10) with photoperiod sensitivity and acid-soil tolerance. Grain sorghum fertility restorer or R-line. Plant color purple, epicarp white, testa absent, 100 seed weight of 3.12 gm. Seed was produced in a 1995-96 winter nursery in Mexico.

PI 602029. Sorghum bicolor (L.) Moench

Breeding. MP 400. Pedigree - (TX430*MN 4508)-36-1-1-1. Inbred 29 of 46 (Group 10) with photoperiod sensitivity and acid-soil tolerance. Grain sorghum fertility restorer or R-line. Plant color purple, epicarp white, testa absent, 100 seed weight of 3.26 gm. Seed was produced in a 1995-96 winter nursery in Mexico.

PI 602030. Sorghum bicolor (L.) Moench

Breeding. MP 401. Pedigree - (TX430*IS 8577)-2-2-1-1. Inbred 30 of 46 (Group 10) with photoperiod sensitivity and acid-soil tolerance. Grain sorghum fertility restorer or R-line. Plant color purple, epicarp brown, testa, 100 seed weight of 2.69 gm. Seed was produced in a 1995-96 winter nursery in Mexico.

PI 602031. Sorghum bicolor (L.) Moench

Breeding. MP 402. Pedigree - (TX430*IS 8577)-19-1-1-1. Inbred 31 of 46 (Group 10) with photoperiod sensitivity and acid-soil tolerance. Grain sorghum fertility restorer or R-line. Plant color purple, epicarp white, testa absent, 100 seed weight of 3.95 gm. Seed was produced in a 1995-96 winter nursery in Mexico.

PI 602032. Sorghum bicolor (L.) Moench

Breeding. MP 403. Pedigree - (TX430*IS 8577)-25-1-1-1. Inbred 32 of 46 (Group 10) with photoperiod sensitivity and acid-soil tolerance. Grain sorghum fertility restorer or R-line. Plant color purple, epicarp brown, testa, 100 seed weight of 3.18 gm. Seed was produced in a 1995-96 winter nursery in Mexico.

PI 602033. Sorghum bicolor (L.) Moench

Breeding. MP 404. Pedigree - (TX430*IS 8577)-29-1-1-1. Inbred 33 of 46 (Group 10) with photoperiod sensitivity and acid-soil tolerance. Grain sorghum fertility restorer or R-line. Plant color purple, epicarp white, testa absent, 100 seed count of 3.42 gm. Seed was produced in a 1995-96 winter nursery in Mexico.

PI 602034. Sorghum bicolor (L.) Moench

Breeding. MP 405. Pedigree - (954063*ICA Nataima)-62-1-2-2. Inbred 34 of 46 (Group 10) with photoperiod sensitivity and acid-soil tolerance. Grain sorghum fertility restorer or R-line. Plant color purple, epicarp brown, testa, 100 seed weight of 2.85 gm. Seed was produced in a 1995-96 winter nursery in Mexico.

PI 602035. Sorghum bicolor (L.) Moench

Breeding. MP 406. Pedigree - (954063*ICA Nataima)-76-1-2-2. Inbred 35 of

46 (Group 10) with photoperiod sensitivity and acid-soil tolerance. Grain sorghum fertility restorer or R-line. Plant color purple, epicarp brown, testa, 100 seed weight of 2.82 gm. Seed was produced in a 1995-96 winter nursery in Mexico.

PI 602036. Sorghum bicolor (L.) Moench

Breeding. MP 407. Pedigree - (954063*ICA Nataima)-88-1-1-2. Inbred 36 of 46 (Group 10) with photoperiod sensitivity and acid-soil tolerance. Grain sorghum fertility restorer or R-line. Plant color purple, epicarp white, testa absent, 100 seed weight of 2.71 gm. Seed was produced in a 1995-96 winter nursery in Mexico.

PI 602037. Sorghum bicolor (L.) Moench

Breeding. MP 408. Pedigree - (954063*ICA Nataima)-88-1-1-3. Inbred 37 of 46 (Group 10) with photoperiod sensitivity and acid-soil tolerance. Grain sorghum fertility restorer or R-line. Plant color purple, epicarp brown, testa, 100 seed weight of 2.59 gm. Seed was produced in a 1995-96 winter nursery in Mexico.

PI 602038. Sorghum bicolor (L.) Moench

Breeding. MP 409. Pedigree - (ICA Nataima*SC 326-6)-28-1-1-2. Inbred 38 or 46 (Group 10) with photoperiod sensitivity and acid-soil tolerance. Grain sorghum fertility restorer or R-line. Plant color purple, epicarp brown, testa, 100 seed weight of 3.06 gm. Seed was produced in a 1995-96 winter nursery in Mexico.

PI 602039. Sorghum bicolor (L.) Moench

Breeding. MP 410. Pedigree - (ICA Nataima*SC 326-6)-54-1-3-1. Inbred 39 of 46 (Group 10) with photoperiod sensitivity and acid-soil tolerance. Grain sorghum fertility restorer or R-line. Plant color purple, epicarp brown, testa, 100 seed weight of 2.52 gm. Seed was produced in a 1995-96 winter nursery in Mexico.

PI 602040. Sorghum bicolor (L.) Moench

Breeding. MP 411. Pedigree - (ICA Nataima*SC 326-6)-57-1-2-1. Inbred 40 of 46 (Group 10) with photoperiod sensitivity and acid-soil tolerance. Grain sorghum fertility restorer or R-line. Plant color purple, epicarp brown, testa, 100 seed weight of 3.12 gm. Seed was produced in a 1995-96 winter nursery in Mexico.

PI 602041. Sorghum bicolor (L.) Moench

Breeding. MP 412. Pedigree - (ICA Nataima*SC 326-6)-85-1-1-2. Inbred 41 of 46 (Group 10) with photoperiod sensitivity and acid-soil tolerance. Grain sorghum fertility restorer or R-line. Plant color purple, epicarp white, testa absent, 100 seed weight of 2.53 gm. Seed was produced in a 1995-96 winter nursery in Mexico.

PI 602042. Sorghum bicolor (L.) Moench

Breeding. MP 413. Pedigree - (IS 7254*ICA Nataima)-3-2-2-1. Inbred 42 of 46 (Group 10) with photoperiod sensitivity and acid-soil tolerance. Grain sorghum fertility restorer or R-line. Plant color purple, epicarp white, testa absent, 100 seed weight of 2.96 gm. Seed was produced in a 1995-96 winter nursery in Mexico.

PI 602043. Sorghum bicolor (L.) Moench

Breeding. MP 414. Pedigree - (IS 7254*ICA Nataima)-4-1-2-2. Inbred 43 of 46 (Group 10) with photoperiod sensitivity and acid-soil tolerance. Grain sorghum fertility restorer or R-line. Plant color purple, epicarp brown, testa, 100 seed weight of 3.17 gm. Seed was produced in a 1995-96 winter nursery in Mexico.

PI 602044. Sorghum bicolor (L.) Moench

Breeding. MP 415. Pedigree - (IS 7254*ICA Nataima)-4-1-2-4. Inbred 44 of 46 (Group 10) with photoperiod sensitivity and acid-soil tolerance. Grain sorghum fertility restorer or R-line. Plant color purple, epicarp brown, testa, 100 seed weight of 2.60 gm. Seed was produced in a 1995-1996 winter nursery in Mexico.

PI 602045. Sorghum bicolor (L.) Moench

Breeding. MP 416. Pedigree - (IS 7254*ICA Nataima)-25-2-2-2. Inbred 45 of 46 (Group 10) with photoperiod sensitivity and acid-soil tolerance. Grain sorghum fertility restorer or R-line. Plant color purple, epicarp brown, testa, 100 seed weight of 2.49 gm. Seed was produced in a 1995-96 winter nursery in Mexico.

PI 602046. Sorghum bicolor (L.) Moench

Breeding. MP 417. Pedigree - (IS 7254*ICA Nataima)-28-2-2-1. Inbred 46 of 46 (Group 10) with photoperiod sensitivity and acid-soil tolerance. Grain sorghum fertility restorer or R-line. Plant color purple, epicarp brown, testa, 100 seed weight of 2.53 gm. Seed was produced in a 1995-96 winter nursery in Mexico.

The following were collected by Fred J. Muehlbauer, USDA, ARS, Washington State University, Grain Legume Genetics & Phys. Res. Unit, Pullman, Washington 99164-6434, United States; Edward J. Garvey, USDA, ARS, Natl. Germplasm Resources Laboratory, Room 409, Building 003, BARC-West, Beltsville, Maryland 20705-2350, United States; Luftër Xhuvëli, Agricultural University of Tirana, Dept. of Agronomy, Rr."Myslym Shyri", Tirana, Albania. Received 09/1996.

PI 602047. Malus sylvestris Mill.

Wild. Al 041; GMAL 4318. Collected 08/26/1996 in Albania. Latitude 40 deg. 11' 54'' N. Longitude 20 deg. 10' 35'' E. Elevation 1290 m. Pastures of Cajup. Widely scattered. Open hillside. Soil dry, gravelly. Companion plants Aegilops, Cornus mas, Colchicum sp. Tree 5-6m tall, crown rounded. Leaves 5cm long. Fruit small, 3cm diam., green.

PI 602048. Malus sylvestris Mill.

Wild. Al 053; GMAL 4319. Collected 08/26/1996 in Albania. Latitude 40 deg. 11' 54'' N. Longitude 20 deg. 10' 35'' E. Elevation 1290 m. Pastures of Cajup. NW facing hillside. Heavily grazed by sheep and goats. Tree 15m tall x 12m wide, multiple trunks 5 (3 had been cut probably for firewood). Fruit green with slight blush, elongated, 4-5cm long x 2.5cm wide. Leaves oval, 9cm long x 6cm wide.

PI 602049. Malus sylvestris Mill.

Wild. Al 092; GMAL 4320. Collected 08/28/1996 in Albania. Latitude 40 deg. 31' 22'' N. Longitude 20 deg. 49' 14'' E. Elevation 1380 m. Further along road near village of Dardha (means Pear). Growing within same

hillside as wild plum. Trees approx. 5-7m tall with rounded crown.

PI 602050. *Malus* sp.

Wild. Al 132; GMAL 4321. Collected 09/02/1996 in Albania. Latitude 41 deg. 50' 53'' N. Longitude 19 deg. 22' 45'' E. Elevation 1 m. Further up beach on the Island of Frans Joseph. Large trees, 20-25m tall. Crown upright.

The following were collected by Joseph Postman, USDA, ARS, National Plant Germplasm Repository, 33447 Peoria Road, Corvallis, Oregon 97333-2521, United States. Received 10/31/1996.

PI 602051. *Malus baccata* (L.) Borkh.

Wild. 96095; GMAL 4322. Collected 10/31/1996 in China.

PI 602052. *Malus sieversii* (Ledeb.) M. Roem.

Wild. 96099; GMAL 4323. Collected 10/31/1996 in China.

PI 602053. *Malus baccata* (L.) Borkh.

Wild. 96111; GMAL 4324. Collected 10/31/1996 in China.

The following were donated by Joseph Postman, USDA, ARS, National Plant Germplasm Repository, 33447 Peoria Road, Corvallis, Oregon 97333-2521, United States. Received 10/31/1996.

PI 602054. *Malus baccata* (L.) Borkh.

Wild. 96122; GMAL 4325. Collected in China.

The following were donated by Herman Gorz, University of Nebraska, Department of Agronomy, Lincoln, Nebraska 68583, United States. Received 11/20/1991.

PI 602055. *Melilotus albus* Medik.

Breeding. "Finestem"; "N1 Finestem"; Nebraska N-1; FC 24095; Ames 21587. Developed in United States. Pedigree - Page 44 has a photo of this line (figure 17). Many fine stems of the "hay" or "bushy" type. Grew 110 cm tall in Ames, Iowa, 1995.

The following were developed by Joe Brandon, Akron Field Station, Akron, Colorado, United States. Donated by Herman Gorz, University of Nebraska, Department of Agronomy, Lincoln, Nebraska 68583, United States. Received 01/30/1992.

PI 602056. *Melilotus officinalis* Lam.

Breeding. "DOPEY"; Ames 21624. Seed regeneration of 1995 was of standard (non-bushy) types. Contaminated before it reached the NPGS. Could segregate for bushy types in the next generation.

PI 602057. *Melilotus officinalis* Lam.

Breeding. "DOPEY2"; Ames 21625. Later than DOPEY, though nearly the same structure. Clump 14" tall, circumference of clump 5", and above ground 1 3/4" Promising at Akron, Colorado.

The following were developed by Dan Bland, University of Georgia, Dept. of Crop & Soil Sciences, 1109 Experiment Street, Griffin, Georgia 30223-1797, United States; Barry M. Cunfer, University of Georgia, Dept. of Plant Pathology, Georgia Station, Griffin, Georgia 30223-1797, United States; Jerry W. Johnson, University of Georgia, Department of Crop and Soil Sciences, 1109 Experiment Street, Griffin, Georgia 30223-1797, United States; G.D. Buntin, University of Georgia, Department of Entomology, Georgia Station, Griffin, Georgia, United States; John J. Roberts, University of Georgia, Dept. of Plant Pathology, Griffin Campus, Griffin, Georgia 30223-1797, United States. Received 01/12/1998.

PI 602058. *Hordeum vulgare* L. subsp. *vulgare*

Cultivar. Pureline. "GA-LUTTRELL"; LUTTRELL. CV-274. Pedigree - Volbar/Sussex. Released 1994. Six-row, bearded, early maturing, medium tall winter barley with excellent straw strength. One day earlier than Venus. Good resistance to scald (*Rhynchosporium secalis*) and barley yellow dwarf virus. Moderate resistance to net blotch (*Pyrenophora teres*).

The following were developed by Clay Sneller, University of Arkansas, Department of Agronomy, Fayetteville, Arkansas 72701, United States; Brian Diers, Michigan State University, Dept. of Crop and Soil Sciences, East Lansing, Michigan 48824, United States; Thomas G. Isleib, North Carolina State University, Department of Crop Science, Box 5155, Raleigh, North Carolina 27695-7629, United States. Received 01/12/1998.

PI 602059. *Glycine max* (L.) Merr.

Cultivar. Pureline. "Apollo". CV-380. Pedigree - Northrup King S23-12 x Elgin 87. Indeterminate with Group II maturity. Matures 123 days, seed yield 3,514 kg ha⁻¹, and plant height 89 cm. Seed 165 mg seed⁻¹, protein content 408 g kg⁻¹ and oil content 211 g kg⁻¹. Flowers purple, gray pubescence, and shiny yellow seeds with yellow hila. Resistance to races of phytophthora rot (*Phytophthora sojae*).

PI 602060. *Glycine max* (L.) Merr.

Cultivar. Pureline. "Olympus". CV-381; PVP 9800359. Pedigree - E84108 x Conrad. Intermediate with Group II maturity. Matures 120 days, seed yield 3447 kg ha⁻¹, and plant height 84 cm. Seed 152 mg seed⁻¹, protein content 409 g kg⁻¹ and oil content 209 g kg⁻¹. Flowers purple, tawny pubescence, and dull yellow seeds with black hila. Moderate resistance to Sclerotinia stem rot (*Sclerotinia sclerotiorum*).

The following were donated by N.I. Vavilov All-Russian Scientific Research, Institute of Plant Genetic Resources, 44 Bolshaya Morskaya Street, St. Petersburg, Leningrad 190000, Russian Federation. Received 04/1990.

PI 602061. *Arachis hypogaea* L.

Cultivar. K-412; Grif 239. Collected in China.

PI 602062. *Arachis hypogaea* L.

Cultivar. K-421; Grif 240. Collected in China.

- PI 602063. *Arachis hypogaea* L.
Cultivar. K-473; Grif 244. Collected in China.
- PI 602064. *Arachis hypogaea* L.
Cultivar. K-479; Grif 250. Collected in China.
- PI 602065. *Arachis hypogaea* L.
Cultivar. K-490; Grif 259. Collected in China.
- PI 602066. *Arachis hypogaea* L.
Cultivar. K-491; Grif 260. Collected in China.
- PI 602067. *Arachis hypogaea* L.
Cultivar. K-493; Grif 262. Collected in China.
- PI 602068. *Arachis hypogaea* L.
Cultivar. K-505; Grif 264. Collected in China.
- PI 602069. *Arachis hypogaea* L.
Cultivar. K-506; Grif 265. Collected in China.
- PI 602070. *Arachis hypogaea* L.
Cultivar. K-510; Grif 267. Collected in China.
- PI 602071. *Arachis hypogaea* L.
Cultivar. K-1495; Grif 271. Collected in Bulgaria.
- PI 602072. *Arachis hypogaea* L.
Cultivar. K-1665; Grif 273. Collected in Bulgaria.
- PI 602073. *Arachis hypogaea* L.
Cultivar. K-1669; Grif 275. Collected in China.
- PI 602074. *Arachis hypogaea* L.
Cultivar. 498583; Grif 276. Collected in Yemen.

The following were donated by Bartolak Zoltan, Ontozesi Kutato Intezet, Szarvas, Bekes, Hungary. Received 06/04/1990.

- PI 602075. *Arachis hypogaea* subsp. *fastigiata* Waldron
Uncertain. 14; NCAC 470; Grif 278. Collected in Brazil.
- PI 602076. *Arachis hypogaea* subsp. *fastigiata* Waldron
Uncertain. 17; Grif 279. Collected in Brazil.
- PI 602077. *Arachis hypogaea* subsp. *fastigiata* Waldron
Uncertain. 18; NCAC 549; Grif 280. Collected in Brazil.
- PI 602078. *Arachis hypogaea* subsp. *fastigiata* Waldron
Cultivated. 19; Grif 281; ACEITOSO. Collected in Brazil.
- PI 602079. *Arachis hypogaea* subsp. *fastigiata* Waldron
Uncertain. 20; NCAC 721; Grif 282. Collected in Brazil.

- PI 602080. *Arachis hypogaea* var. *vulgaris* Harz
Cultivated. 21; Grif 283; CATETO. Collected in Brazil.
- PI 602081. *Arachis hypogaea* var. *vulgaris* Harz
Uncertain. 34; Grif 284. Improved spanish peanut.
- PI 602082. *Arachis hypogaea* subsp. *fastigiata* Waldron
Cultivated. 40; Grif 285; NATAL COMMON. Collected in South Africa.
- PI 602083. *Arachis hypogaea* subsp. *fastigiata* Waldron
Cultivated. 41; Grif 286; RUSSIAN INTERNA. Collected in Former Soviet Union.
- PI 602084. *Arachis hypogaea* var. *vulgaris* Harz
Cultivated. 44; Grif 287; TAPANTOE.
- PI 602085. *Arachis hypogaea* var. *vulgaris* Harz
Uncertain. 45; Var 47-5; Grif 288. Collected in Madagascar.
- PI 602086. *Arachis hypogaea* subsp. *fastigiata* Waldron
Uncertain. 46; A 15; Grif 289.
- PI 602087. *Arachis hypogaea* var. *vulgaris* Harz
Uncertain. 49; AH 119; Grif 290. Collected in India.
- PI 602088. *Arachis hypogaea* var. *vulgaris* Harz
Uncertain. 50; AH 3275; Grif 291. Collected in India.
- PI 602089. *Arachis hypogaea* var. *vulgaris* Harz
Uncertain. 51; AH 7120; Grif 292. Collected in Myanmar.
- PI 602090. *Arachis hypogaea* var. *vulgaris* Harz
Uncertain. 52; AH 7144; Grif 293. Collected in Sri Lanka.
- PI 602091. *Arachis hypogaea* var. *vulgaris* Harz
Uncertain. 54; AH 7322; Grif 294. Collected in China.
- PI 602092. *Arachis hypogaea* var. *vulgaris* Harz
Uncertain. 56; NG 51; Grif 295. Collected in India.
- PI 602093. *Arachis hypogaea* subsp. *fastigiata* Waldron
Uncertain. 58; U 2-1-5; Grif 296. Collected in Tanzania.
- PI 602094. *Arachis hypogaea* subsp. *fastigiata* Waldron
Uncertain. 59; U 2-1-11; Grif 297. Collected in Uganda.
- PI 602095. *Arachis hypogaea* subsp. *fastigiata* Waldron
Uncertain. 61; U 4-41; Grif 298. Collected in Uganda.
- PI 602096. *Arachis hypogaea* var. *vulgaris* Harz
Uncertain. 65; 99-5; Grif 299. Collected in India.
- PI 602097. *Arachis hypogaea* subsp. *fastigiata* Waldron
Uncertain. 68; AH 70-70; Grif 300.

- PI 602098. *Arachis hypogaea* subsp. *fastigiata* Waldron
Uncertain. 94; AH 6989; Grif 301.
- PI 602099. *Arachis hypogaea* var. *vulgaris* Harz
Uncertain. 116; VRR 1; Grif 303. Collected in India.
- PI 602100. *Arachis hypogaea* subsp. *fastigiata* Waldron
Uncertain. 133; AH 2-21-14-1-14; Grif 304. Collected in India.
- PI 602101. *Arachis hypogaea* var. *vulgaris* Harz
Uncertain. 156; U 4-4-28; Grif 305. Collected in Zaire.
- PI 602102. *Arachis hypogaea* var. *vulgaris* Harz
Uncertain. 157; U 4-7-1; Grif 306. Collected in Israel.
- PI 602103. *Arachis hypogaea* subsp. *fastigiata* Waldron
Uncertain. 202; WCG 158; Grif 307. Collected in Brazil.
- PI 602104. *Arachis hypogaea* subsp. *fastigiata* Waldron
Uncertain. 210; Grif 308; TASHKENTSKIJ. Collected in Former Soviet Union
.
- PI 602105. *Arachis hypogaea* subsp. *fastigiata* Waldron
Cultivated. 242; Grif 309; VALENCIA SOLONTON. Collected in Zimbabwe.
- PI 602106. *Arachis hypogaea* subsp. *fastigiata* Waldron
Uncertain. 266; RCM 576; Grif 310. Collected in Brazil.
- PI 602107. *Arachis hypogaea* subsp. *fastigiata* Waldron
Uncertain. 290; W C G 118; Grif 311. Collected in Brazil.
- PI 602108. *Arachis hypogaea* subsp. *fastigiata* Waldron
Uncertain. 291; RCM 526; Grif 312. Collected in Paraguay.
- PI 602109. *Arachis hypogaea* subsp. *fastigiata* Waldron
Uncertain. 295; RV 10; Grif 313. Collected in Zimbabwe.
- PI 602110. *Arachis hypogaea* subsp. *fastigiata* Waldron
Uncertain. 297; WCG 151; Grif 314. Collected in Brazil.
- PI 602111. *Arachis hypogaea* subsp. *fastigiata* Waldron
Uncertain. 302; 288/63; Grif 315. Collected in Senegal.
- PI 602112. *Arachis hypogaea* subsp. *fastigiata* Waldron
Cultivated. 310; Grif 316; TESO BUNCH. Collected in Uganda.
- PI 602113. *Arachis hypogaea* subsp. *fastigiata* Waldron
Uncertain. 365; RCM 420; Grif 317. Collected in Bolivia.
- PI 602114. *Arachis hypogaea* var. *vulgaris* Harz
Uncertain. 422; MJH 014; Grif 318. Collected in Malaysia.
- PI 602115. *Arachis hypogaea* var. *vulgaris* Harz
Uncertain. 464; 2593-2; Grif 320. Collected in Malaysia.

- PI 602116. *Arachis hypogaea* var. *vulgaris* Harz**
Uncertain. 500; RG 79; Grif 321. Collected in Zimbabwe.
- PI 602117. *Arachis hypogaea* L.**
Uncertain. 44; Grif 322. Pedigree - *Arachis hypogaea* subsp. *hypogaea* x
Arachis hypogaea subsp. *fastigiata*.
- PI 602118. *Arachis hypogaea* L.**
Uncertain. 65/1; Grif 323. Pedigree - *Arachis hypogaea* subsp. *hypogaea* x
Arachis hypogaea subsp. *fastigiata*.
- PI 602119. *Arachis hypogaea* L.**
Uncertain. 65/2; Grif 324. Pedigree - *Arachis hypogaea* subsp. *hypogaea* x
Arachis hypogaea subsp. *fastigiata*.
- PI 602120. *Arachis hypogaea* L.**
Uncertain. 65/3; Grif 325. Pedigree - *Arachis hypogaea* subsp. *hypogaea* x
Arachis hypogaea subsp. *fastigiata*.
- PI 602121. *Arachis hypogaea* L.**
Uncertain. 65/4; Grif 326. Pedigree - *Arachis hypogaea* subsp. *hypogaea* x
Arachis hypogaea subsp. *fastigiata*.
- PI 602122. *Arachis hypogaea* L.**
Uncertain. 65/6; Grif 328. Pedigree - *Arachis hypogaea* subsp. *hypogaea* x
Arachis hypogaea subsp. *fastigiata*.
- PI 602123. *Arachis hypogaea* L.**
Uncertain. 65/7; Grif 329. Pedigree - *Arachis hypogaea* subsp. *hypogaea* x
Arachis hypogaea subsp. *fastigiata*.
- PI 602124. *Arachis hypogaea* L.**
Uncertain. 68; Grif 330. Pedigree - *Arachis hypogaea* subsp. *hypogaea* x
Arachis hypogaea subsp. *fastigiata*.
- PI 602125. *Arachis hypogaea* L.**
Uncertain. 81/29; Grif 331. Pedigree - *Arachis hypogaea* subsp. *hypogaea*
x *Arachis hypogaea* subsp. *fastigiata*.
- PI 602126. *Arachis hypogaea* L.**
Uncertain. 82/2; Grif 332. Pedigree - *Arachis hypogaea* subsp. *hypogaea* x
Arachis hypogaea subsp. *fastigiata*.
- PI 602127. *Arachis hypogaea* L.**
Uncertain. 83/3; Grif 333. Pedigree - *Arachis hypogaea* subsp. *hypogaea* x
Arachis hypogaea subsp. *fastigiata*.
- PI 602128. *Arachis hypogaea* subsp. *fastigiata* Waldron**
Uncertain. OKI R-10; Grif 334.
- PI 602129. *Arachis hypogaea* L.**
Uncertain. OKI R-12 0; Grif 335. Pedigree - *Arachis hypogaea* subsp.
hypogaea x *Arachis hypogaea* subsp. *fastigiata*.

The following were donated by Int. Crops Res. Inst. for the Semi-Arid Tropics, Patancheru P.O., Andhra Pradesh 502 324, India. Received 03/03/1990.

- PI 602130. *Arachis hypogaea* L.
Uncertain. ICG 10330; Grif 337.
- PI 602131. *Arachis hypogaea* L.
Uncertain. ICG 8030; Grif 338.
- PI 602132. *Arachis hypogaea* L.
Uncertain. ICG 7852; Grif 340.
- PI 602133. *Arachis hypogaea* L.
Uncertain. ICG 7850; Grif 341.
- PI 602134. *Arachis hypogaea* L.
Uncertain. ICG 7832; Grif 342.
- PI 602135. *Arachis hypogaea* L.
Uncertain. ICG 7827; Grif 343.
- PI 602136. *Arachis hypogaea* L.
Uncertain. ICG 7677; Grif 344.
- PI 602137. *Arachis hypogaea* L.
Uncertain. ICG 7307; Grif 345.
- PI 602138. *Arachis hypogaea* L.
Uncertain. ICG 7237; Grif 346.
- PI 602139. *Arachis hypogaea* L.
Uncertain. ICG 6323; Grif 349.
- PI 602140. *Arachis hypogaea* L.
Uncertain. ICG 5123; Grif 352.
- PI 602141. *Arachis hypogaea* L.
Uncertain. ICG 5118; Grif 353.
- PI 602142. *Arachis hypogaea* L.
Uncertain. ICG 5042; Grif 357.
- PI 602143. *Arachis hypogaea* L.
Uncertain. ICG 5030; Grif 360.
- PI 602144. *Arachis hypogaea* L.
Uncertain. ICG 4750; Grif 361.
- PI 602145. *Arachis hypogaea* L.
Uncertain. ICG 3559; Grif 365.
- PI 602146. *Arachis hypogaea* L.
Uncertain. ICG 3444; Grif 366.

- PI 602147. *Arachis hypogaea* L.
Uncertain. ICG 3336; Grif 367.
- PI 602148. *Arachis hypogaea* L.
Uncertain. ICG 3334; Grif 368.
- PI 602149. *Arachis hypogaea* L.
Uncertain. ICG 3263; Grif 369.
- PI 602150. *Arachis hypogaea* L.
Uncertain. ICG 2951; Grif 370.
- PI 602151. *Arachis hypogaea* L.
Uncertain. ICG 2947; Grif 371.
- PI 602152. *Arachis hypogaea* L.
Uncertain. ICG 2799; Grif 372.
- PI 602153. *Arachis hypogaea* L.
Uncertain. ICG 808; Grif 392.
- PI 602154. *Arachis hypogaea* L.
Uncertain. ICG 794; Grif 395.
- PI 602155. *Arachis hypogaea* L.
Uncertain. ICG 792; Grif 396.
- PI 602156. *Arachis hypogaea* L.
Uncertain. ICG 786; Grif 397.
- PI 602157. *Arachis hypogaea* L.
Uncertain. ICG 785; Grif 398.
- PI 602158. *Arachis hypogaea* L.
Uncertain. ICG 781; Grif 399.
- PI 602159. *Arachis hypogaea* L.
Uncertain. ICG 405; Grif 401.
- PI 602160. *Arachis hypogaea* L.
Uncertain. ICG 404; Grif 402.
- PI 602161. *Arachis hypogaea* L.
Uncertain. ICG 221; Grif 403.

The following were donated by V. Krivchenko, N.I. Vavilov All-Union Scientific Research, Institute of Plant Industry, 44 Bolshaya Morskaya Street, St. Petersburg, Leningrad 190000, Russian Federation. Received 11/08/1990.

- PI 602162. *Arachis hypogaea* L.
Cultivated. WIR-322; Grif 936; TASKENTSKIJ 112. Collected in Former Soviet Union.

The following were donated by Olin D. Smith, Texas A&M University, Department of Soil & Crop Sciences, College Station, Texas 77843-2474, United States. Received 08/1989.

- PI 602163. *Arachis hypogaea* L.**
Uncertain. C 3; Grif 5956. Collected in Burkina Faso. Yedere.
- PI 602164. *Arachis hypogaea* L.**
Uncertain. C 4; Grif 5957. Collected in Burkina Faso. Latitude 10 deg. 38' 0'' N. Longitude 4 deg. 46' 0'' W. Banfora.
- PI 602165. *Arachis hypogaea* L.**
Cultivated. C 8; Grif 5958; BALOLE. Collected in Burkina Faso. Latitude 13 deg. 5' 0'' N. Longitude 1 deg. 5' 0'' W. Kaya.
- PI 602166. *Arachis hypogaea* L.**
Uncertain. C 11; Grif 5959. Collected in Burkina Faso. Latitude 12 deg. 4' 0'' N. Longitude 2 deg. 14' 0'' W. Sabou. High incidence of rust and leafspot.
- PI 602167. *Arachis hypogaea* L.**
Uncertain. C 12; Grif 5960. Collected in Burkina Faso. Latitude 12 deg. 40' 0'' N. Longitude 1 deg. 32' 0'' W. Dapelgo.
- PI 602168. *Arachis hypogaea* L.**
Cultivated. C 17; Grif 5961; BOWANGA.
- PI 602169. *Arachis hypogaea* L.**
Uncertain. C 18; Grif 5962; VARIETY X 1.
- PI 602170. *Arachis hypogaea* L.**
Uncertain. C 19; Grif 5963. Collected in Burkina Faso. Latitude 12 deg. 4' 0'' N. Longitude 2 deg. 14' 0'' W. Sabou.
- PI 602171. *Arachis hypogaea* L.**
Uncertain. C 20; Grif 5964; VARIETY X 2.
- PI 602172. *Arachis hypogaea* L.**
Cultivated. C 26; Grif 5965; BONANGA. Collected in Burkina Faso. Lonlonbtenga.
- PI 602173. *Arachis hypogaea* L.**
Cultivated. C 28; Grif 5966; NASSARA PEANUT.
- PI 602174. *Arachis hypogaea* L.**
Cultivated. C 29; Grif 5967; BOUWANGA. Collected in Burkina Faso. Roubtenga.
- PI 602175. *Arachis hypogaea* L.**
Uncertain. C 30; Grif 5968. Collected in Burkina Faso. Latitude 12 deg. 58' 0'' N. Longitude 2 deg. 16' 0'' W. Namsigui (Yako). White stripes on seed.
- PI 602176. *Arachis hypogaea* L.**

Uncertain. C 34; Grif 5969. Collected in Burkina Faso. Latitude 13 deg. 20' 0'' N. Longitude 2 deg. 23' 0'' W. Yatenga Koudoumbo.

PI 602177. *Arachis hypogaea* L.

Cultivated. C 36; Grif 5970; NASSARA PEANUT. Collected in Burkina Faso. Sorgnaba.

PI 602178. *Arachis hypogaea* L.

Uncertain. C 37; Grif 5971. Collected in Burkina Faso. Latitude 13 deg. 5' 0'' N. Longitude 1 deg. 5' 0'' W. Kaya.

PI 602179. *Arachis hypogaea* L.

Uncertain. C 38; Grif 5972; NASSARA PEANUT. Collected in Burkina Faso. Latitude 13 deg. 13' 0'' N. Longitude 2 deg. 21' 0'' W. Gourcy.

PI 602180. *Arachis hypogaea* L.

Uncertain. C 41; Grif 5973. Collected in Burkina Faso. Bilinga.

PI 602181. *Arachis hypogaea* L.

Uncertain. C 42; Grif 5974; NASSARA PEANUT. Collected in Burkina Faso. Latitude 13 deg. 13' 0'' N. Longitude 2 deg. 21' 0'' W. Gourcy.

PI 602182. *Arachis hypogaea* L.

Uncertain. C 43; Grif 5975; NASSARA PEANUT. Collected in Burkina Faso. Latitude 13 deg. 5' 0'' N. Longitude 1 deg. 5' 0'' W. Timbo (Kaya).

PI 602183. *Arachis hypogaea* L.

Uncertain. C 44; Grif 5976. Collected in Burkina Faso. Latitude 11 deg. 10' 0'' N. Longitude 1 deg. 9' 0'' W. Gorkake (Po).

PI 602184. *Arachis hypogaea* L.

Uncertain. C 59; CN 309 B; Grif 5977.

PI 602185. *Arachis hypogaea* L.

Uncertain. C 60; CN 309 F; Grif 5978.

PI 602186. *Arachis hypogaea* L.

Uncertain. C 62; CN 50 C; Grif 5979.

PI 602187. *Arachis hypogaea* L.

Uncertain. C 63; CN 116 A; Grif 5980.

PI 602188. *Arachis hypogaea* L.

Uncertain. C 64; CN 116 J; Grif 5981.

PI 602189. *Arachis hypogaea* L.

Uncertain. C 65; CN 33 A; Grif 5982.

PI 602190. *Arachis hypogaea* L.

Uncertain. C 66; TS 9-3; Grif 5983.

PI 602191. *Arachis hypogaea* L.

Uncertain. C 68; TS 29-1; Grif 5984.

PI 602192. *Arachis hypogaea* L.

- Uncertain. C 85; A 2-4; Grif 5985.
- PI 602193. *Arachis hypogaea* L.**
Uncertain. C 92; Grif 5986.
- PI 602194. *Arachis hypogaea* L.**
Uncertain. C 93; M 287-74; Grif 5987.
- PI 602195. *Arachis hypogaea* L.**
Uncertain. C 97; 28-204; Grif 5988.
- PI 602196. *Arachis hypogaea* L.**
Uncertain. C 101; KH 149 B; Grif 5989.
- PI 602197. *Arachis hypogaea* L.**
Uncertain. C 102; KH 138 A; Grif 5990.
- PI 602198. *Arachis hypogaea* L.**
Uncertain. C 105; KH 424 A; Grif 5991.
- PI 602199. *Arachis hypogaea* L.**
Uncertain. C 114; WB-15-7; Grif 5992.
- PI 602200. *Arachis hypogaea* L.**
Uncertain. C 115; WB-9; Grif 5993.
- PI 602201. *Arachis hypogaea* L.**
Uncertain. C 119; A2-9; Grif 5994.
- PI 602202. *Arachis hypogaea* L.**
Uncertain. C 121; A3-1; Grif 5995.
- PI 602203. *Arachis hypogaea* L.**
Uncertain. C 122; T 153-83; Grif 5996.
- PI 602204. *Arachis hypogaea* L.**
Uncertain. C 123; B1-14; Grif 5997.
- PI 602205. *Arachis hypogaea* L.**
Uncertain. C 124; B2-7; Grif 5998.
- PI 602206. *Arachis hypogaea* L.**
Uncertain. C 128; A1-5; Grif 5999.
- PI 602207. *Arachis hypogaea* L.**
Uncertain. C 129; A1-6; Grif 6000.
- PI 602208. *Arachis hypogaea* L.**
Uncertain. C 132; A1-11; Grif 6001.
- PI 602209. *Arachis hypogaea* L.**
Uncertain. C 134; A2-1; Grif 6002.
- PI 602210. *Arachis hypogaea* L.**
Uncertain. C 135; A2-12; Grif 6003.

PI 602211. *Arachis hypogaea* L.
Uncertain. C 137; A3-2; Grif 6004.

PI 602212. *Arachis hypogaea* L.
Uncertain. C 138; A3-4; Grif 6005.

PI 602213. *Arachis hypogaea* L.
Uncertain. C 139; A3-5; Grif 6006.

PI 602214. *Arachis hypogaea* L.
Uncertain. C 140; A3-6; Grif 6007.

PI 602215. *Arachis hypogaea* L.
Uncertain. C 141; A3-7; Grif 6008.

PI 602216. *Arachis hypogaea* L.
Uncertain. C 142; A3-8; Grif 6009.

PI 602217. *Arachis hypogaea* L.
Uncertain. C 143; A3-11; Grif 6010.

PI 602218. *Arachis hypogaea* L.
Uncertain. C 144; A3-12; Grif 6011.

PI 602219. *Arachis hypogaea* L.
Uncertain. C 145; A3-13; Grif 6012.

PI 602220. *Arachis hypogaea* L.
Uncertain. C 146; A3-14; Grif 6013.

PI 602221. *Arachis hypogaea* L.
Uncertain. C 147; B1-1; Grif 6014.

PI 602222. *Arachis hypogaea* L.
Uncertain. C 148; B1-2; Grif 6015.

PI 602223. *Arachis hypogaea* L.
Uncertain. C 150; T 82-83; Grif 6016.

PI 602224. *Arachis hypogaea* L.
Uncertain. C 151; B1-5; Grif 6017.

PI 602225. *Arachis hypogaea* L.
Uncertain. C 154; B1-9; Grif 6018.

PI 602226. *Arachis hypogaea* L.
Uncertain. C 155; B1-11; Grif 6019.

PI 602227. *Arachis hypogaea* L.
Uncertain. C 158; B2-1; Grif 6020.

PI 602228. *Arachis hypogaea* L.
Uncertain. C 159; B2-2; Grif 6021.

PI 602229. *Arachis hypogaea* L.
Uncertain. C 160; B2-3; Grif 6022.

PI 602230. *Arachis hypogaea* L.
Uncertain. C 162; B2-8; Grif 6023.

PI 602231. *Arachis hypogaea* L.
Uncertain. C 163; B2-12; Grif 6024.

PI 602232. *Arachis hypogaea* L.
Uncertain. C 165; T2-83; Grif 6025.

PI 602233. *Arachis hypogaea* L.
Uncertain. C 166; T3-83; Grif 6026.

PI 602234. *Arachis hypogaea* L.
Uncertain. C 167; T4-83; Grif 6027.

PI 602235. *Arachis hypogaea* L.
Uncertain. C 169; T6-83; Grif 6028.

PI 602236. *Arachis hypogaea* L.
Uncertain. C 170; T7-83; Grif 6029.

PI 602237. *Arachis hypogaea* L.
Uncertain. C 171; T8-83; Grif 6030.

PI 602238. *Arachis hypogaea* L.
Uncertain. C 172; T9-83; Grif 6031.

PI 602239. *Arachis hypogaea* L.
Uncertain. C 173; T10-83; Grif 6032.

PI 602240. *Arachis hypogaea* L.
Uncertain. C 174; T11-83; Grif 6033.

PI 602241. *Arachis hypogaea* L.
Uncertain. C 175; T12-83; Grif 6034.

PI 602242. *Arachis hypogaea* L.
Uncertain. C 176; T13-83; Grif 6035.

PI 602243. *Arachis hypogaea* L.
Uncertain. C 177; T14-83; Grif 6036.

PI 602244. *Arachis hypogaea* L.
Uncertain. C 178; T15-83; Grif 6037.

PI 602245. *Arachis hypogaea* L.
Uncertain. C 180; T17-83; Grif 6038.

PI 602246. *Arachis hypogaea* L.
Uncertain. C 181; T18-83; Grif 6039.

PI 602247. *Arachis hypogaea* L.

Uncertain. C 182; T19-83; Grif 6040.

PI 602248. *Arachis hypogaea* L.
Uncertain. C 183; T20-83; Grif 6041.

PI 602249. *Arachis hypogaea* L.
Uncertain. C 184; T21-83; Grif 6042.

PI 602250. *Arachis hypogaea* L.
Uncertain. C 185; T529-2; Grif 6043.

PI 602251. *Arachis hypogaea* L.
Uncertain. C 186; T23-83; Grif 6044.

PI 602252. *Arachis hypogaea* L.
Uncertain. C 187; T24-83; Grif 6045.

PI 602253. *Arachis hypogaea* L.
Uncertain. C 188; T25-83; Grif 6046.

PI 602254. *Arachis hypogaea* L.
Uncertain. C 189; T26-83; Grif 6047.

PI 602255. *Arachis hypogaea* L.
Uncertain. C 190; T27-83; Grif 6048.

PI 602256. *Arachis hypogaea* L.
Uncertain. C 191; T28-83; Grif 6049.

PI 602257. *Arachis hypogaea* L.
Uncertain. C 192; T29-83; Grif 6050.

PI 602258. *Arachis hypogaea* L.
Uncertain. C 193; T91-83; Grif 6051.

PI 602259. *Arachis hypogaea* L.
Uncertain. C 197; T34-83; Grif 6052.

PI 602260. *Arachis hypogaea* L.
Uncertain. C 198; T35-83; Grif 6053.

PI 602261. *Arachis hypogaea* L.
Uncertain. C 199; T36-83; Grif 6054.

PI 602262. *Arachis hypogaea* L.
Uncertain. C 200; T37-83; Grif 6055.

PI 602263. *Arachis hypogaea* L.
Uncertain. C 201; T38-83; Grif 6056.

PI 602264. *Arachis hypogaea* L.
Uncertain. C 202; T39-83; Grif 6057.

PI 602265. *Arachis hypogaea* L.
Uncertain. C 203; T40-83; Grif 6058.

- PI 602266. *Arachis hypogaea* L.
Uncertain. C 205; T42-83; Grif 6059.
- PI 602267. *Arachis hypogaea* L.
Uncertain. C 206; T43-83; Grif 6060.
- PI 602268. *Arachis hypogaea* L.
Uncertain. C 207; T45-83; Grif 6061.
- PI 602269. *Arachis hypogaea* L.
Uncertain. C 208; T46-83; Grif 6062.
- PI 602270. *Arachis hypogaea* L.
Uncertain. C 209; T47-83; Grif 6063.
- PI 602271. *Arachis hypogaea* L.
Uncertain. C 210; T48-83; Grif 6064.
- PI 602272. *Arachis hypogaea* L.
Uncertain. C 211; T49-83; Grif 6065.
- PI 602273. *Arachis hypogaea* L.
Uncertain. C 212; T50-83; Grif 6066.
- PI 602274. *Arachis hypogaea* L.
Uncertain. C 213; T51-83; Grif 6067.
- PI 602275. *Arachis hypogaea* L.
Uncertain. C 214; T52-83; Grif 6068.
- PI 602276. *Arachis hypogaea* L.
Uncertain. C 216; T54-83; Grif 6069.
- PI 602277. *Arachis hypogaea* L.
Uncertain. C 217; T55-83; Grif 6070.
- PI 602278. *Arachis hypogaea* L.
Uncertain. C 218; T56-83; Grif 6071.
- PI 602279. *Arachis hypogaea* L.
Uncertain. C 219; T57-83; Grif 6072.
- PI 602280. *Arachis hypogaea* L.
Uncertain. C 220; T58-83; Grif 6073.
- PI 602281. *Arachis hypogaea* L.
Uncertain. C 222; T161-83; Grif 6074.
- PI 602282. *Arachis hypogaea* L.
Uncertain. C 223; T61-83; Grif 6075.
- PI 602283. *Arachis hypogaea* L.
Uncertain. C 224; T62-83; Grif 6076.

- PI 602284. *Arachis hypogaea* L.
Uncertain. C 225; T63-83; Grif 6077.
- PI 602285. *Arachis hypogaea* L.
Uncertain. C 226; T65-83; Grif 6078.
- PI 602286. *Arachis hypogaea* L.
Uncertain. C 228; T68-83; Grif 6079.
- PI 602287. *Arachis hypogaea* L.
Uncertain. C 229; T69-83; Grif 6080.
- PI 602288. *Arachis hypogaea* L.
Uncertain. C 230; T70-83; Grif 6081.
- PI 602289. *Arachis hypogaea* L.
Uncertain. C 231; T71-83; Grif 6082.
- PI 602290. *Arachis hypogaea* L.
Uncertain. C 232; T72-83; Grif 6083.
- PI 602291. *Arachis hypogaea* L.
Uncertain. C 237; T78-83; Grif 6084.
- PI 602292. *Arachis hypogaea* L.
Uncertain. C 238; T132-83; Grif 6085.
- PI 602293. *Arachis hypogaea* L.
Uncertain. C 240; T116-83; Grif 6086.
- PI 602294. *Arachis hypogaea* L.
Uncertain. C 241; T117-83; Grif 6087.
- PI 602295. *Arachis hypogaea* L.
Uncertain. C 243; T89-83; Grif 6088.
- PI 602296. *Arachis hypogaea* L.
Uncertain. C 244; T97-83; Grif 6089.
- PI 602297. *Arachis hypogaea* L.
Uncertain. C 245; T121-83; Grif 6090.
- PI 602298. *Arachis hypogaea* L.
Uncertain. C 247; T125-83; Grif 6091.
- PI 602299. *Arachis hypogaea* L.
Uncertain. C 251; T144-83; Grif 6092.
- PI 602300. *Arachis hypogaea* L.
Uncertain. C 252; T155-83; Grif 6093.
- PI 602301. *Arachis hypogaea* L.
Uncertain. C 253; T157-83; Grif 6094.
- PI 602302. *Arachis hypogaea* L.

- Uncertain. C 255; T162-83; Grif 6095.
- PI 602303. *Arachis hypogaea* L.**
Uncertain. C 256; T164-83; Grif 6096.
- PI 602304. *Arachis hypogaea* L.**
Uncertain. C 257; T166-83; Grif 6097.
- PI 602305. *Arachis hypogaea* L.**
Uncertain. C 258; T167-83; Grif 6098.
- PI 602306. *Arachis hypogaea* L.**
Uncertain. C 259; T170-83; Grif 6099.
- PI 602307. *Arachis hypogaea* L.**
Uncertain. C 261; T173-83; Grif 6100.
- PI 602308. *Arachis hypogaea* L.**
Uncertain. C 269; 1707 NcAc; 17132; Grif 6101.
- PI 602309. *Arachis hypogaea* L.**
Uncertain. C 270; 1710 NcAc; 17135; Grif 6102.
- PI 602310. *Arachis hypogaea* L.**
Uncertain. C 292; 47-10; Grif 6103.
- PI 602311. *Arachis hypogaea* L.**
Uncertain. C 295; Grif 6104; NIGERIA ZARIA.
- PI 602312. *Arachis hypogaea* L.**
Uncertain. C 296; Grif 6105; MARADI 1.
- PI 602313. *Arachis hypogaea* L.**
Uncertain. C 297; Grif 6106; MARADI 2.
- PI 602314. *Arachis hypogaea* L.**
Uncertain. C 298; Grif 6107; MARADI 3.
- PI 602315. *Arachis hypogaea* L.**
Uncertain. C 299; Grif 6108.
- PI 602316. *Arachis hypogaea* L.**
Uncertain. C 304; Grif 6109; TESSAOUA 4.
- PI 602317. *Arachis hypogaea* L.**
Uncertain. C 305; Grif 6110; TESSAOUA 5.
- PI 602318. *Arachis hypogaea* L.**
Uncertain. C 27; Grif 6111; OUAHIGOUYA. Collected in Burkina Faso.
- PI 602319. *Arachis hypogaea* L.**
Uncertain. C 33; Grif 6112; KOUTOURA. Collected in Burkina Faso.
- PI 602320. *Arachis hypogaea* L.**
Uncertain. C 54; 55-438; Grif 6113. Collected in Burkina Faso.

- PI 602321. *Arachis hypogaea* L.
Uncertain. C 73; 58-656; Grif 6114. Collected in Burkina Faso.
- PI 602322. *Arachis hypogaea* L.
Uncertain. C 75; TS 18-2; Grif 6115. Collected in Burkina Faso.
- PI 602323. *Arachis hypogaea* L.
Uncertain. C 88; TG-17; Grif 6116. Collected in Burkina Faso.
- PI 602324. *Arachis hypogaea* L.
Uncertain. C 90; A 2-6; Grif 6117. Collected in Burkina Faso.
- PI 602325. *Arachis hypogaea* L.
Uncertain. C 91; M 25-68; Grif 6118. Collected in Burkina Faso.
- PI 602326. *Arachis hypogaea* L.
Uncertain. C 94; F4 39-2; Grif 6119. Collected in Burkina Faso.
- PI 602327. *Arachis hypogaea* L.
Uncertain. C 95; Grif 6120; JIKA. Collected in Burkina Faso.
- PI 602328. *Arachis hypogaea* L.
Uncertain. C 98; A 2-3; Grif 6121. Collected in Burkina Faso.
- PI 602329. *Arachis hypogaea* L.
Uncertain. C 99; 241 D; Grif 6122. Collected in Burkina Faso.
- PI 602330. *Arachis hypogaea* L.
Uncertain. C 103; KH 197 A; Grif 6123. Collected in Burkina Faso.
- PI 602331. *Arachis hypogaea* L.
Cultivar. C 111; Grif 6124; SHULAMIT. Collected in Burkina Faso.
- PI 602332. *Arachis hypogaea* L.
Uncertain. C 131; T 67-83; Grif 6125. Collected in Burkina Faso.
- PI 602333. *Arachis hypogaea* L.
Uncertain. C 152; B1-6; Grif 6126. Collected in Burkina Faso.
- PI 602334. *Arachis hypogaea* L.
Uncertain. C 153; B1-8; Grif 6127. Collected in Burkina Faso.
- PI 602335. *Arachis hypogaea* L.
Uncertain. C 157; B1-15; Grif 6128. Collected in Burkina Faso.
- PI 602336. *Arachis hypogaea* L.
Uncertain. C 168; T5-83; Grif 6129. Collected in Burkina Faso.
- PI 602337. *Arachis hypogaea* L.
Uncertain. C 204; T41-83; Grif 6130. Collected in Burkina Faso.
- PI 602338. *Arachis hypogaea* L.
Uncertain. C 233; T73-83; Grif 6131. Collected in Burkina Faso.

- PI 602339. *Arachis hypogaea* L.**
Uncertain. C 234; T74-83; Grif 6132. Collected in Burkina Faso.
- PI 602340. *Arachis hypogaea* L.**
Uncertain. C 236; T76-83; Grif 6133. Collected in Burkina Faso.
- PI 602341. *Arachis hypogaea* L.**
Uncertain. C 250; T143-83; Grif 6134. Collected in Burkina Faso.
- PI 602342. *Arachis hypogaea* L.**
Uncertain. C 254; T159-83; Grif 6135. Collected in Burkina Faso.
- PI 602343. *Arachis hypogaea* L.**
Uncertain. C 260; T171-83; Grif 6136. Collected in Burkina Faso.
- PI 602344. *Arachis hypogaea* L.**
Uncertain. C 262; T174-83; Grif 6137. Collected in Burkina Faso.

The following were donated by Charles E. Simpson, Texas A&M University, P. O. Box 292, Stephenville, Texas 76401, United States; Roy N. Pittman, USDA, ARS, University of Georgia, Plant Genetic Resources Conservation Unit, Griffin, Georgia 30223-1797, United States; David E. Williams, USDA, ARS, Natl. Germplasm Resources Laboratory, Building 003, Room 400, BARC-West, Beltsville, Maryland 20705-2350, United States. Received 01/27/1993.

- PI 602345. *Arachis hypogaea* L.**
Landrace. 425; US 1552; Grif 7354. Collected in Brazil.
- PI 602346. *Arachis hypogaea* L.**
Landrace. 429; US 1553; Grif 7355. Collected in Brazil.
- PI 602347. *Arachis hypogaea* L.**
Landrace. 468; US 1557; Grif 7359. Collected in Brazil.
- PI 602348. *Arachis hypogaea* L.**
Landrace. 653; US 1565; Grif 7367. Collected in Brazil.

The following were collected by Jose F. M. Valls, EMBRAPA, CENARGEN, SAIN Parque Rural - C.P. 10.2372, CEP 70.770, Brasilia, Federal District 70770, Brazil. Donated by Charles E. Simpson, Texas A&M University, P. O. Box 292, Stephenville, Texas 76401, United States; Roy N. Pittman, USDA, ARS, University of Georgia, Plant Genetic Resources Conservation Unit, Griffin, Georgia 30223-1797, United States; David E. Williams, USDA, ARS, Natl. Germplasm Resources Laboratory, Building 003, Room 400, BARC-West, Beltsville, Maryland 20705-2350, United States. Received 01/27/1993.

- PI 602349. *Arachis hypogaea* L.**
Landrace. 11389; US 1574; Grif 7376. Collected in Brazil.
- PI 602350. *Arachis hypogaea* L.**
Landrace. 11406; US 1575; Grif 7377. Collected in Brazil.
- PI 602351. *Arachis hypogaea* L.**

Landrace. 11407; US 1576; Grif 7378. Collected in Brazil.

The following were donated by Charles E. Simpson, Texas A&M University, P. O. Box 292, Stephenville, Texas 76401, United States; Roy N. Pittman, USDA, ARS, University of Georgia, Plant Genetic Resources Conservation Unit, Griffin, Georgia 30223-1797, United States; David E. Williams, USDA, ARS, Natl. Germplasm Resources Laboratory, Building 003, Room 400, BARC-West, Beltsville, Maryland 20705-2350, United States. Received 01/27/1993.

PI 602352. *Arachis hypogaea* L.

Landrace. 552; US 1580; Grif 7382. Collected in Brazil.

PI 602353. *Arachis hypogaea* L.

Landrace. 1; US 1581; Grif 7383. Collected in Brazil.

PI 602354. *Arachis hypogaea* L.

Landrace. 2; US 1582; Grif 7384. Collected in Brazil.

The following were donated by Renato F A Veiga, Instituto Agronomico, Sistema de Introducao e Quarentena, Caixa Postal 28, Campinas, Sao Paulo 13001, Brazil. Received 11/01/1993.

PI 602355. *Arachis hypogaea* L.

Landrace. Grif 12045; TATU.

The following were collected by Raul Castillo, Instituto Nacional de Investigaciones Agropecuarias, Departamento de Recursos, Fitogeneticos, Estacion Experimental, Quito, Pichincha, Ecuador; Karen A. Williams, USDA, ARS, Natl. Germplasm Resources Laboratory, Building 003, Room 400, BARC-West, Beltsville, Maryland 20705-2350, United States; Cesar Tapia, Instituto Nacional Autonomo de Investigaciones Agropecuarias, Departamento Nacional de Recursos Fitogeneticos Y Biotecnolog, Estacion Experimental Sta. Catalina, Santa Catalina, Pichincha, Ecuador; David E. Williams, Internat'l Plant Genetic Resources Inst., Regional Office for the Americas, c/o CIAT, Int'l Ctr. for Tropical Agric., Cali, Valle, Colombia. Received 11/17/1995.

PI 602356. *Arachis hypogaea* var. *hirsuta* J. Kohler

Landrace. WWT-1318; mani paisano; Grif 12514. Collected 10/21/1995 in Pichincha, Ecuador. Latitude 0 deg. 2' 14'' N. Longitude 78 deg. 26' 46'' W. Elevation 2560 m. Canton Quito, Parroquia San Antonio, Localidad Tanlahuilla. Farm. Pedigree - Selection from Grif 12513, based on seed coat color. Plants said to be prostrate, about 40 cm diameter. Fruits with strong reticulation, humps, slight beak, 2-3 seeded. Seed brownish.

The following were collected by Karen A. Williams, USDA, ARS, Natl. Germplasm Resources Laboratory, Building 003, Room 400, BARC-West, Beltsville, Maryland 20705-2350, United States; Cesar Tapia, Instituto Nacional Autonomo de Investigaciones Agropecuarias, Departamento Nacional de Recursos Fitogeneticos Y Biotecnolog, Estacion Experimental Sta. Catalina, Santa Catalina, Pichincha, Ecuador; David E. Williams, Internat'l Plant Genetic Resources Inst., Regional Office for the Americas, c/o CIAT, Int'l Ctr. for Tropical

Agric., Cali, Valle, Colombia. Received 11/17/1995.

- PI 602357. *Arachis hypogaea* var. *aequatoriana*** Krapov. & W. C. Greg.
Landrace. WWT-1327; para nuci (Shuar); Nuse; Grif 12517. Collected 10/24/1995 in Sucumbios, Ecuador. Latitude 0 deg. 17' 50'' S. Longitude 76 deg. 39' 27'' W. Elevation 375 m. Canton Shushufindi, Parroquia Limoncocha, Comuna Yamanunga, 36.7 km from Proyecto towards Limoncocha, Shuar community. Pedigree - Selection from mixture with Grif 12518 based on seed coat color. Fruits with marked reticulation, containing 2-3-4 seeds. Seed purple.
- PI 602358. *Arachis hypogaea* var. *aequatoriana*** Krapov. & W. C. Greg.
Landrace. WWT-1331; mani blanco; Grif 12524. Collected 10/24/1995 in Sucumbios, Ecuador. Latitude 0 deg. 22' 23'' S. Longitude 76 deg. 39' 48'' W. Elevation 390 m. Canton Shushufindi, Parroquia Limoncocha. Localidad Rio Jivino. Chacra. Small farm. Plants erect, height 50 cm, erect lateral branches. Fruits with pronounced reticulation. 4 white seeds.
- PI 602359. *Arachis hypogaea* var. *aequatoriana*** Krapov. & W. C. Greg.
Landrace. WWT-1345; nuci; Grif 12553. Collected 10/29/1995 in Pastaza, Ecuador. Latitude 1 deg. 51' 29'' S. Longitude 77 deg. 49' 1'' W. Elevation 975 m. Prov. Pastaza, Canton Pastaza, Parroquia Simon Bolivar, Localidad Conguqui, km. 57 Puyo-Macas. Shuar farm house in Shuar native community. Pedigree - Selection from Grif 12551 based on seed coat color. Seed purple. Fruits with marked reticulation, 3-4 seeded.
- PI 602360. *Arachis hypogaea* subsp. *fastigiata*** Waldron
Landrace. WWT-1349; nuse (Shuar); Grif 12559. Collected 10/30/1995 in Ecuador. Latitude 2 deg. 27' 42'' S. Longitude 78 deg. 10' 16'' W. Elevation 890 m. Prov. Morona Santiago, Canton Sucua, Parroquia Sucua, Localidad Sucua, Cent. de Federacion, Shuar-Achuar. Seeds dark purple, flattened. Plants said to be erect.
- PI 602361. *Arachis hypogaea* L. var. *hypogaea***
Landrace. WWT-1374; caramelo; Grif 12597. Collected 11/04/1995 in Manabi, Ecuador. Latitude 0 deg. 50' 26'' S. Longitude 80 deg. 29' 26'' W. Elevation 10 m. Provincia Manabi, Canton Portoviejo, Parr. Charapoto, Localidad Charapoto. Market. Runner plants. Seeds nearly spherical, red with white stripes (overo).

The following were donated by N.I. Vavilov All-Russian Scientific Research, Institute of Plant Genetic Resources, 44 Bolshaya Morskaya Street, St. Petersburg, Leningrad 190000, Russian Federation. Received 04/1990.

- PI 602362. *Arachis hypogaea* L.**
Cultivar. K-386; Grif 238. Collected in China.

The following were developed by Lloyd R. Nelson, Texas Agricultural Experiment Station, The Texas A&M University System, Agricultural Research and Extension Center, Overton, Texas 75684-0290, United States. Received 09/01/1997.

PI 602363. *Triticum aestivum* L., nom. cons. subsp. *aestivum*

Breeding. Pureline. TX18NT; NSGC 6445. Pedigree - uncertain. Soft red winter wheat. Very good soft red wheat quality. Resistant to *Septoria nodorum*. Moderately resistant to powdery mildew and leaf rust. High test weight. Medium plant height. Tested in the 1996-97 Uniform Southern Soft Red Winter Wheat Nursery.

The following were developed by Kimberly Campbell, Ohio State University, Ohio Agric. Res. and Development Center, Dept. of Horticulture & Crop Science, Wooster, Ohio 44691-4096, United States; Robert W. Gooding, Ohio State University, Ohio Agricultural Research & Development Center, Department of Agronomy, Wooster, Ohio 44691-4096, United States. Received 09/01/1997.

PI 602364. *Triticum aestivum* L., nom. cons. subsp. *aestivum*

Breeding. Pureline. OH 536; NSGC 6446. Pedigree - P71761A4-31-5-33/MD55-286-21. Soft red winter wheat. Good winter hardiness. Spike awnless. Kernels red, ovate, with a narrow, shallow crease, rounded cheek, and a non-collared, short brush. Excellent yield. Excellent milling and baking quality. Contains Lr3. Tested in the 1996-97 Uniform Eastern Soft Red Winter Wheat Nursery.

The following were collected by Walter J. Kaiser, USDA, ARS, Washington State University, Regional Plant Introduction Station, Pullman, Washington 99164-6402, United States; Fred J. Muehlbauer, USDA, ARS, Washington State University, Grain Legume Genetics & Phys. Res. Unit, Pullman, Washington 99164-6434, United States; Calvin R. Sperling, USDA, ARS, Natl. Germplasm Resources Laboratory, Room 402, Building 003, BARC-West, Beltsville, Maryland 20705-2350, United States. Received 09/15/1989.

PI 602365. *Vicia narbonensis* L.

Cultivated. 010689-0202; W6 1973. Collected 06/01/1989 in Elazig, Turkey . Latitude 38 deg. 30' N. Longitude 39 deg. 22' E. Elevation 1270 m. Northwest side of Hazar Lake, near cemetery. 3km S of Firat Univ. Res. Sta. On road Elazig to Diyarbakir. Soil clay red, rocky. Occasional in semi-shade. NE facing slope, scattered oak scrub, grazed. Associated with *Crateagus*, *Prunus* sp. Plants 0.4m, erect.

The following were donated by Martin Steen, Seed Laboratory, Crop and Soil Science, Washington State University, Pullman, Washington 99164-6420, United States. Received 03/07/1990.

PI 602366. *Lathyrus japonicus* Willd.

W6 3509. Collected in United States.

PI 602367. *Trigonella corniculata* (L.) L.

Cultivated. W6 8197. Collected 1960 in Russian Federation.

The following were collected by Walter J. Kaiser, USDA, ARS, Washington State University, Regional Plant Introduction Station, Pullman, Washington 99164-6402, United States. Received 09/21/1992.

PI 602368. *Lathyrus latifolius* L.

Wild. W6 11000. Collected 09/21/1992 in Washington, United States. Latitude 46 deg. 44' 26'' N. Longitude 117 deg. 10' 20'' W. Elevation 765 m. Home of Walter J Kaiser, NW 420 Orion, Pullman, Washington.

PI 602369. *Lupinus pilosus* L.

Wild. WKT 35; 270685-0101; W6 11424. Collected 06/27/1985 in Aydin, Turkey. Latitude 36 deg. 48' 0'' N. Longitude 33 deg. 40' 0'' E. Elevation 520 m. 11km north of Aydincik and 20km from Gulnar. Along road cut. Soil stony and rocky. Dry, mostly shattered, pod borer.

The following were collected by Walter J. Kaiser, USDA, ARS, Washington State University, Regional Plant Introduction Station, Pullman, Washington 99164-6402, United States; Fred J. Muehlbauer, USDA, ARS, Washington State University, Grain Legume Genetics & Phys. Res. Unit, Pullman, Washington 99164-6434, United States. Received 07/01/1987.

PI 602370. *Vicia articulata* Hornem.

Wild. 280785-11; W6 11568. Collected 07/28/1985 in Canakkale, Turkey. Latitude 39 deg. 26' 0'' N. Longitude 27 deg. 11' 0'' E. Elevation 120 m. Bacili village, 7km after Ezine on road to Izmir. Found in *Vicia faba* threshing area.

The following were donated by Research Centre for Agrobotany, N.I.A.V.T., Taposzele, Pest H-2766, Hungary. Received 09/26/1987.

PI 602371. *Lupinus mexicanus* Cerv. ex Lag.

Wild. II-19-2; W6 14748.

The following were collected by Gene Aksland, Resource Seed, Inc., 6744 Avenue 304, Visalia, California 93291, United States. Donated by Gene Aksland, Goldsmith Seeds Inc., P.O. Box 1349, Gilroy, California 95020, United States. Received 05/23/1994.

PI 602372. *Lupinus albifrons* Benth.

Wild. W6 15604. Collected in California, United States.

PI 602373. *Lupinus microcarpus* var. *densiflorus* (Benth.) Jeps.

Wild. W6 15606. Collected 1985 in California, United States. Latitude 36 deg. 19' 0'' N. Longitude 119 deg. 17' 0'' W. Near the north fork of Keweah River east of Visalia. Flowers white.

PI 602374. *Lupinus stiversii* Kellogg

Wild. L-472; W6 15610. Collected 1985 in California, United States. Latitude 37 deg. 4' 0'' N. Longitude 119 deg. 29' 0'' W. Elevation 1520 m. On Auberry Road, near Auberry. Next to granite outcroppings and decomposed granite.

PI 602375. *Lupinus pilosus* L.

W6 15616. Collected 1980 in Israel.

PI 602376. *Lupinus microcarpus* var. *densiflorus* (Benth.) Jeps.

Wild. W6 15617. Collected 1985 in California, United States. Latitude 36 deg. 19' 0'' N. Longitude 119 deg. 17' 0'' W. Near north fork of Keweah River east of Visalia. Flowers magenta.

The following were developed by University of Kentucky, Frankfort, Kentucky, United States. Donated by K. T. Leath, USDA, ARS, Pennsylvania State University, U.S. Regional Pasture Lab, University Park, Pennsylvania 16802, United States. Received 07/14/1994.

PI 602377. *Vicia grandiflora* Scop.
Cultivar. W6 15698; WOODFORD.

The following were collected by Walter J. Kaiser, USDA, ARS, Washington State University, Regional Plant Introduction Station, Pullman, Washington 99164-6402, United States; Fred J. Muehlbauer, USDA, ARS, Washington State University, Grain Legume Genetics & Phys. Res. Unit, Pullman, Washington 99164-6434, United States. Received 1994.

PI 602378. *Lathyrus aphaca* L.
Cultivated. WJK94-T53; W6 16262. Collected 06/02/1994 in Turkey. Latitude 37 deg. 55' 0'' N. Longitude 40 deg. 14' 0'' E. Elevation 690 m. About 6-7 km NW of the village of Karacoli near Diyarbakir. In farmer's field.

The following were donated by J.H. Marion, NWFP Agricultural University, Tipan Project/USAID, Peshawar, North-West Frontier, Pakistan. Received 1995.

PI 602379. *Vicia monantha* Retz.
Wild. W6 17269. Collected 1986 in North-West Frontier, Pakistan. Found in a wheat field.

The following were collected by Nigel Maxted, Univ. of Southampton - Dept. of Biology, Med. & Biological Science Building, Bassett Crescent East, Southampton, England SO9 3TU, United Kingdom; Calvin R. Sperling, USDA, ARS, Natl. Germplasm Resources Laboratory, Room 402, Building 003, BARC-West, Beltsville, Maryland 20705-2350, United States. Received 1995.

PI 602380. *Vicia galeata* Boiss.
Wild. W6 17270. Collected 06/03/1991 in Uzbekistan. Latitude 39 deg. 48' 0'' N. Longitude 67 deg. 23' 0'' E. Elevation 880 m. Flat weedy cornfield 5 km southwest of railway bridge near Pertolrobad. Associated with grasses, legumes, plums and almonds. This seed was a contaminant of W6 8321. Collector number 8149.

The following were donated by J.H. Marion, NWFP Agricultural University, Tipan Project/USAID, Peshawar, North-West Frontier, Pakistan. Received 12/20/1991.

PI 602381. *Vicia monantha* Retz.
Wild. W6 9389B; W6 17650.

PI 602382. *Lathyrus aphaca* L.
Wild. W6 9390B; W6 17687. Collected 04/1986 in North-West Frontier,
Pakistan. Latitude 34 deg. 1' 0'' N. Longitude 71 deg. 33' 0'' E.
Malakandher Farm, Peshawar. Found in wheat fields. Seed mixed with W6
9390.

The following were developed by Pioneer Hi-Bred International, Inc., 6800
Pioneer Pkwy., P.O. Box 316, Johnston, Iowa 50131-0316, United States.
Received 01/29/1998.

PI 602383. *Glycine max* (L.) Merr.
Cultivar. "91B01". PVP 9800056.

PI 602384. *Glycine max* (L.) Merr.
Cultivar. "91B91". PVP 9800057.

PI 602385. *Glycine max* (L.) Merr.
Cultivar. "92B01". PVP 9800058.

PI 602386. *Glycine max* (L.) Merr.
Cultivar. "92B21". PVP 9800059.

PI 602387. *Glycine max* (L.) Merr.
Cultivar. "92B51". PVP 9800060.

PI 602388. *Glycine max* (L.) Merr.
Cultivar. "92B52". PVP 9800061.

PI 602389. *Glycine max* (L.) Merr.
Cultivar. "92B61". PVP 9800062.

PI 602390. *Glycine max* (L.) Merr.
Cultivar. "92B71". PVP 9800063.

PI 602391. *Glycine max* (L.) Merr.
Cultivar. "92B72". PVP 9800064.

PI 602392. *Glycine max* (L.) Merr.
Cultivar. "92B91". PVP 9800065.

PI 602393. *Glycine max* (L.) Merr.
Cultivar. "93B01". PVP 9800066.

PI 602394. *Glycine max* (L.) Merr.
Cultivar. "93B11". PVP 9800067.

PI 602395. *Glycine max* (L.) Merr.
Cultivar. "93B41". PVP 9800068.

PI 602396. *Glycine max* (L.) Merr.
Cultivar. "93B51". PVP 9800069.

PI 602397. *Glycine max* (L.) Merr.

Cultivar. "93B52". PVP 9800070.

PI 602398. *Glycine max* (L.) Merr.
Cultivar. "93B81". PVP 9800071.

PI 602399. *Glycine max* (L.) Merr.
Cultivar. "93B82". PVP 9800072.

PI 602400. *Glycine max* (L.) Merr.
Cultivar. "93B83". PVP 9800073.

PI 602401. *Glycine max* (L.) Merr.
Cultivar. "94B01". PVP 9800074.

PI 602402. *Glycine max* (L.) Merr.
Cultivar. "94B41". PVP 9800075.

PI 602403. *Glycine max* (L.) Merr.
Cultivar. "94B81". PVP 9800076.

PI 602404. *Glycine max* (L.) Merr.
Cultivar. "9492". PVP 9800077.

PI 602405. *Glycine max* (L.) Merr.
Cultivar. "95B41". PVP 9800078.

PI 602406. *Glycine max* (L.) Merr.
Cultivar. "95B71". PVP 9800079.

PI 602407. *Glycine max* (L.) Merr.
Cultivar. "97B61". PVP 9800080.

The following were collected by Dennis P. Sheehy, 69086 Allen Canyon Road, Wallowa, Oregon 97885, United States; Douglas A. Johnson, USDA, ARS, Forage and Range Research Laboratory, Utah State University, Logan, Utah 84322-6300, United States. Donated by Douglas A. Johnson, USDA, ARS, Forage and Range Research Laboratory, Utah State University, Logan, Utah 84322-6300, United States. Received 01/30/1997.

PI 602408. *Polypogon monspeliensis* (L.) Desf.
Wild. 96S-21; Q 37022. Collected 09/1996 in Mongolia. Latitude 44 deg. 48' 47'' N. Longitude 97 deg. 20' 58'' E. Elevation 1320 m.
Gobi-Altai-Aimag, Zakhuin Gobi a about 100 km from farm experimental area near the HQ of the Gobi A Ecological Reserve Area. 5% slope, aspect South. Small oasis. Soils are sandy, coarse, gravelly alluvial. Surface site armor of rocks and gravel on desert surrounding the oasis while wet soils appear to be mostly coarse sandy soil high in salts. Soils solonchak.

The following were developed by F.J.F. Shaw, Imperial Institute of Agricultural Research, Pusa, Bihar, India. Received 03/1927.

PI 602409. *Triticum turgidum* subsp. *durum* (Desf.) Husn.

Cultivated. NSGC 6447. Separation of species from original PI 72982.

The following were collected by V. Taysi, Agricultural Institute, Ankara, Ankara, Turkey. Donated by Jack R. Harlan, USDA-ARS, New Crops Research Branch, Crops Research Division, Beltsville, Maryland 20705-2350, United States. Received 08/23/1948.

PI 602410. *Triticum turgidum* subsp. *durum* (Desf.) Husn.
Landrace. 1370; Yumusak; NSGC 6448. Collected in Cankiri, Turkey.
Latitude 40 deg. 45' N. Longitude 33 deg. 25' E. 'Yumusak' in Turkish means 'soft'. Separation of species from original PI 166957.

The following were collected by Jack R. Harlan, USDA-ARS, New Crops Research Branch, Crops Research Division, Beltsville, Maryland 20705-2350, United States. Received 08/1948.

PI 602411. *Triticum turgidum* subsp. *durum* (Desf.) Husn.
Landrace. 246; Kurt; NSGC 6449. Collected 04/14/1948 in Bursa, Turkey.
Latitude 40 deg. 11' 0'' N. Longitude 28 deg. 15' 0'' E. Karagac Fernek.
Elevation between 0 - 304 m (estimated by GIS). 'Kurt' in Turkish means 'worm'. Separation of species from original PI 167049.

The following were collected by N. R. Sackville-Hamilton, International Board of Plant Genetic Resources, Yemen Ministry of Agriculture, FAO, Rome, Latium, Italy; Yemen Ministry of Agriculture, Sanaa, Yemen; H.A. Ashwal, International Board of Plant Genetic Resources, Yemen Ministry of Agriculture, FAO, Rome, Latium, Italy. Received 07/1981.

PI 602412. *Triticum turgidum* subsp. *durum* (Desf.) Husn.
Cultivated. Bohr Gamh; NSGC 6450. Collected 12/03/1980 in Yemen.
Latitude 16 deg. 54' 0'' N. Longitude 43 deg. 41' 0'' E. Elevation 1920 m. Al Sefra, 10km W of Sa'dah, Sa'dah Dist., Sa'dah Province. Store.
Separation of species from original PI 462106.

The following were collected by Consiglio Nazionale delle Ricerche, Istituto del Germoplasma, Via G. Amendola, 165A, Bari, Apulia 70126, Italy. Received 05/1982.

PI 602413. *Triticum turgidum* subsp. *durum* (Desf.) Husn.
Cultivated. MG 27028; NSGC 6451. Collected in Greece. Latitude 39 deg. 0' N. Longitude 22 deg. 0' E. Separation of species from original PI 468980.

PI 602414. *Triticum turgidum* subsp. *durum* (Desf.) Husn.
Cultivated. MG 27036; NSGC 6452. Collected in Greece. Latitude 39 deg. 0' N. Longitude 22 deg. 0' E. Separation of species from original PI 468984.

PI 602415. *Triticum turgidum* subsp. *durum* (Desf.) Husn.
Cultivated. MG 27040; NSGC 6453. Collected in Greece. Latitude 39 deg. 0' N. Longitude 22 deg. 0' E. Separation of species from original PI

468987.

- PI 602416. *Triticum turgidum* subsp. *durum* (Desf.) Husn.**
Cultivated. MG 27042; NSGC 6454. Collected in Greece. Latitude 39 deg. 0' N. Longitude 22 deg. 0' E. Separation of species from original PI 468989.
- PI 602417. *Triticum turgidum* subsp. *durum* (Desf.) Husn.**
Cultivated. MG 27061; NSGC 6455. Collected in Greece. Latitude 39 deg. 0' N. Longitude 22 deg. 0' E. Separation of species from original PI 469005.
- PI 602418. *Triticum turgidum* subsp. *durum* (Desf.) Husn.**
Cultivated. MG 27067; NSGC 6456. Collected in Greece. Latitude 39 deg. 0' N. Longitude 22 deg. 0' E. Separation of species from original PI 469011.
- PI 602419. *Triticum turgidum* subsp. *durum* (Desf.) Husn.**
Cultivated. MG 27068; NSGC 6457. Collected in Greece. Latitude 39 deg. 0' N. Longitude 22 deg. 0' E. Separation of species from original PI 469012.

The following were collected by F.H. Abdalla, University of Assiut, Faculty of Agriculture, Department of Agronomy, Assiut, Asyut, Egypt. Received 05/04/1988.

- PI 602420. *Triticum turgidum* subsp. *durum* (Desf.) Husn.**
Cultivated. 96; NSGC 6458. Collected 1979 in Sharqiya, Egypt. Latitude 30 deg. 25' 0'' N. Longitude 31 deg. 34' 0'' E. Belbais-Sharkia. elevation between 0 - 304 m (estimated by GIS). Resistance to powdery mildew (*Erysiphe graminis*). Separation of species from original PI 532053.
- PI 602421. *Triticum turgidum* subsp. *durum* (Desf.) Husn.**
Cultivated. 920; NSGC 6459. Collected 1979 in Gharbiya, Egypt. Quto-Garbia. Resistance to leaf rust (*Puccinia recondita*). Separation of species from original PI 532068.
- PI 602422. *Triticum turgidum* subsp. *durum* (Desf.) Husn.**
Cultivated. 1221; NSGC 6460. Collected 1979 in Egypt. Latitude 27 deg. 0' N. Longitude 30 deg. 0' E. Resistance to leaf rust (*Puccinia recondita*). Separation of species from original PI 532075.
- PI 602423. *Triticum turgidum* subsp. *durum* (Desf.) Husn.**
Cultivated. 1444; NSGC 6461. Collected 1979 in Egypt. Latitude 27 deg. 0' N. Longitude 30 deg. 0' E. Resistance to leaf rust (*Puccinia recondita*). Separation of species from original PI 532084.
- PI 602424. *Triticum turgidum* subsp. *durum* (Desf.) Husn.**
Cultivated. 2643; NSGC 6462. Collected 1979 in Egypt. Latitude 27 deg. 0' N. Longitude 30 deg. 0' E. Resistance to leaf rust (*Puccinia recondita*). Separation of species from original PI 532123.

The following were collected by L. Guarino, International Plant Genetic Resources Institute, Rome, Latium, Italy. Received 07/06/1987.

PI 602425. *Triticum turgidum* subsp. *durum* (Desf.) Husn.

Cultivated. 7368; Musane; NSGC 6463. Collected 06/20/1987 in Oman. Latitude 23 deg. 20' 0'' N. Longitude 57 deg. 20' 0'' E. Elevation 700 m. 30km W of Rustaq, Western Hajar. Farm store. Sown November, harvested April. Irrigated. Used for food. Separation of species from original PI 532272.

The following were collected by International Board for Plant Genetic Resources, AGPG, FAO, Via della terme de Caracalla, Rome, Latium 00100, Italy . Received 1988.

PI 602426. *Triticum turgidum* subsp. *durum* (Desf.) Husn.

Cultivated. MG 07781; NSGC 6464. Collected 01/02/1974 in Shewa, Ethiopia . Latitude 9 deg. 56' 0'' N. Longitude 38 deg. 47' 0'' E. Elevation 2200 m. Separation of species from original PI 534309.

PI 602427. *Triticum turgidum* subsp. *durum* (Desf.) Husn.

Cultivated. MG 18137; Chili; NSGC 6465. Collected 06/27/1976 in Tunisia. Latitude 34 deg. 0' N. Longitude 9 deg. 0' E. Elevation 485 m. Separation of species from original PI 534349.

The following were collected by Institute for Small Grains, Kragujevac, Serbia, Yugoslavia. Received 03/12/1971.

PI 602428. *Triticum aestivum* L., nom. cons. subsp. *aestivum*

Landrace. VIII/30-X35; NSGC 6466. Collected in Bosnia and Herzegovina. Latitude 43 deg. 9' 0'' N. Longitude 18 deg. 32' 0'' E. Gacko-Kula Fazlagica. elevation between 912 - 1216 m (estimated by GIS). Separation of species from original PI 362699.

The following were collected by E.L. Smith, USDA, ARS, 1301 N. Western St., Stillwater, Oklahoma 74075, United States. Received 03/1970.

PI 602429. *Triticum aestivum* L., nom. cons. subsp. *aestivum*

Landrace. ELS 6404-75-4; NSGC 6467. Collected 12/02/1964 in Shewa, Ethiopia. Latitude 8 deg. 50' 0'' N. Longitude 38 deg. 58' 0'' E. Elevation 2623 m. Southeast slope of Mt. Yerrer. Separation of species from original CItr 14630.

The following were donated by University of Nebraska, Nebraska Agr. Exp. Sta., Lincoln, Nebraska, United States. Received 07/1972.

PI 602430. *Triticum aestivum* L., nom. cons. subsp. *aestivum*

Landrace. 1228-111; Ajili; NSGC 6468. Collected in Tunisia. Latitude 33 deg. 32' 0'' N. Longitude 8 deg. 49' 0'' E. Jarcine. elevation between 0 - 304 m (estimated by GIS). Separation of species from original CItr 15432.

The following were collected by Frank N. Meyer, USDA-Bureau of Plant Industry, Washington, District of Columbia, United States. Received 11/25/1911.

PI 602431. *Triticum aestivum* L., nom. cons. subsp. *aestivum*

Landrace. 1705a; Amerikanka; NSGC 6469. Collected 11/08/1911 in Samara, Russian Federation. Latitude 52 deg. 59' 0'' N. Longitude 49 deg. 26' 0'' E. Bezenshook (Besentschuk), Government of Samara. Separation of species from original PI 32156.

The following were collected by V. Taysi, Agricultural Institute, Ankara, Ankara, Turkey. Donated by Jack R. Harlan, USDA-ARS, New Crops Research Branch, Crops Research Division, Beltsville, Maryland 20705-2350, United States. Received 08/23/1948.

PI 602432. *Triticum aestivum* L., nom. cons. subsp. *aestivum*

Landrace. 1078; Sari; NSGC 6470. Collected in Denizli, Turkey. Latitude 37 deg. 34' N. Longitude 29 deg. 4' 0'' E. Tavas. Elevation between 912 - 1216 m (estimated by GIS). 'Sari' in Turkish means 'pale, yellow'. Separation of species from original PI 166665.

The following were collected by Plant Breeding Station, Ankara, Ankara, Turkey. Donated by Jack R. Harlan, USDA-ARS, New Crops Research Branch, Crops Research Division, Beltsville, Maryland 20705-2350, United States. Received 09/1948.

PI 602433. *Triticum aestivum* L., nom. cons. subsp. *aestivum*

Landrace. 3983; NSGC 6471. Collected in Ankara, Turkey. Latitude 39 deg. 38' 0'' N. Longitude 34 deg. 29' 0'' E. Yerkoy. Elevation between 608 - 912 m (estimated by GIS). Separation of species from original PI 167728.

The following were collected by E.L. Smith, USDA, ARS, 1301 N. Western St., Stillwater, Oklahoma 74075, United States. Received 05/14/1964.

PI 602434. *Triticum aestivum* L., nom. cons. subsp. *aestivum*

Landrace. ELS 6404-9-A; NSGC 6472. Collected 1964 in Bale, Ethiopia. Latitude 7 deg. 1' 0'' N. Longitude 39 deg. 59' 0'' E. Elevation 2900 m. Near Goba, 400 km southeast of Addis Ababa. Separation of species from original PI 297856.

The following were collected by E.L. Smith, USDA, ARS, 1301 N. Western St., Stillwater, Oklahoma 74075, United States; C.E.H. Thomas, University of Reading, Reading, England, United Kingdom. Received 06/17/1964.

PI 602435. *Triticum aestivum* L., nom. cons. subsp. *aestivum*

Landrace. ELS 6404-17; NSGC 6473. Collected in Gojam, Ethiopia. Latitude 11 deg. 36' 0'' N. Longitude 37 deg. 23' 0'' E. Elevation 1860 m. Bahr Dar. Market. Separation of species from original PI 298554.

The following were collected by E. Bennett, Crop Ecology & Genetic Resources Unit, Plant Production and Protection Division, FAO, Rome, Latium, Italy. Received 04/13/1972.

PI 602436. *Triticum aestivum* L., nom. cons. subsp. *aestivum*
Landrace. FAO 29.911; NSGC 6474. Collected 1968 in Cyprus. Latitude 35 deg. 0' N. Longitude 33 deg. 0' E. Separation of species from original PI 372441.

The following were collected by E. Porceddu, Consiglio Nazionale delle Ricerche, Laboratorio del Germoplasma, Bari, Apulia, Italy; E. Bennett, Istituto del Germoplasma, Bari, Apulia, Italy. Received 07/1982.

PI 602437. *Triticum aestivum* L., nom. cons. subsp. *aestivum*
Cultivated. MG 4473; NSGC 6475. Collected 1971 in Sicily, Italy. Separation of species from original PI 470763.

PI 602438. *Triticum aestivum* L., nom. cons. subsp. *aestivum*
Cultivated. MG 4487; NSGC 6476. Collected 1971 in Sicily, Italy. Separation of species from original PI 470777.

The following were collected by Consiglio Nazionale delle Ricerche, Istituto del Germoplasma, Via G. Amendola, 165A, Bari, Apulia 70126, Italy. Received 07/1982.

PI 602439. *Triticum aestivum* L., nom. cons. subsp. *aestivum*
Landrace. MG 17991; NSGC 6477. Collected 06/30/1975 in Algeria. Latitude 35 deg. 43' 0'' N. Longitude 0 deg. 50' 0'' E. Elevation 420 m. Separation of species from original PI 470843.

PI 602440. *Triticum aestivum* L., nom. cons. subsp. *aestivum*
Landrace. MG 31205; Sindi; NSGC 6478. Collected 12/07/1973 in Shewa, Ethiopia. Latitude 9 deg. 38' 0'' N. Longitude 39 deg. 22' 0'' E. Elevation 2720 m. Spikes awned. Separation of species from original PI 480086.

PI 602441. *Triticum aestivum* L., nom. cons. subsp. *aestivum*
Landrace. MG 31206; Sindi; NSGC 6479. Collected 12/07/1973 in Shewa, Ethiopia. Latitude 9 deg. 37' 0'' N. Longitude 39 deg. 17' 0'' E. Elevation 2670 m. Spikes awned. Separation of species from original PI 480087.

The following were collected by International Board for Plant Genetic Resources, AGPG, FAO, Via della terme de Caracalla, Rome, Latium 00100, Italy . Received 1988.

PI 602442. *Triticum aestivum* L., nom. cons. subsp. *aestivum*
Cultivated. MG 07746; NSGC 6480. Collected 01/27/1974 in Shewa, Ethiopia . Latitude 9 deg. 42' 0'' N. Longitude 39 deg. 25' 0'' E. Elevation 3100 m. Separation of species from original PI 534293.

The following were collected by M. Crespo, Centro de Investigaciones, Fitoecogeneticas de Pairumani, Casilla 128, Casilla, Cochabamba, Bolivia. Donated by Avila L. Gonzalo, Banco de Germoplasma, Centro Fitotecnico de Pairumani, Casilla, Cochabamba 128, Bolivia. Received 10/08/1991.

PI 602443. *Triticum aestivum* L., nom. cons. subsp. *aestivum*

Landrace. 41; NSGC 6481. Collected 01/23/1983 in Cochabamba, Bolivia. Latitude 17 deg. 45' 0'' S. Longitude 64 deg. 53' 0'' W. Elevation 2000 m. Pojo, Carrasco. Separation of species from original PI 565264.

The following were developed by Neil W. Widstrom, USDA, ARS, Insect Biology & Population Mgmt. Res. Lab, Coastal Plains Experiment Station, Tifton, Georgia 31793-0748, United States. Received 01/15/1998.

PI 602444. *Sorghum bicolor* (L.) Moench

Breeding. Pureline. GT-IR6. GP-560. Pedigree - SGIRL-MR-1 X SGIRL Exp 4. Grain sorghum germplasm with resistance to leaf feeding by the fall armyworm (*Spodoptera frugiperda*) and with moderate resistance to seed feeding by the sorghum midge (*Contarinia sorghicola*). R line with brown seed with testa. Height averages 113 cm. Reaches anthesis at approx. 55 days after planting. Excellent panicle emergence.

PI 602445. *Sorghum bicolor* (L.) Moench

Breeding. Pureline. GT-IR7. GP-561. Pedigree - SGIRL-MR-1 X SGIRL Exp 4. Grain sorghum germplasm with resistance to leaf feeding by the fall armyworm (*Spodoptera frugiperda*) and seed feeding by the sorghum midge (*Contarinia sorghicola*). R line with brown seed with testa. Height averages 117 cm. Reaches anthesis in approx. 61 days after planting. Panicle medium loose with average panicle exertion.

PI 602446. *Sorghum bicolor* (L.) Moench

Breeding. Pureline. GT-IR8. GP-562. Pedigree - SGIRL Exp 4 X SGIRL Exp 3. Grain sorghum germplasm with resistance to leaf feeding by the fall armyworm (*Spodoptera frugiperda*) and moderate resistance to seed feeding by the sorghum midge (*Contarinia sorghicola*). R line with white seed with testa. Height averages 107 cm. Reaches anthesis in approx. 58 days after planting. Panicle medium loose with average panicle exertion.

The following were developed by Robert W. Yaklich, USDA-ARS, Soybean and Alfalfa Res. Lab., Building 008, Room 103, Beltsville, Maryland 20705, United States; Robert Leffel, USDA-ARS, Building 011, HH19, BARC-West, Beltsville, Maryland 20705, United States. Received 01/16/1998.

PI 602447. *Glycine max* (L.) Merr.

Breeding. Pureline. BARC-14 nodulated. GP-263. Pedigree - D76-8070(4) X Clark rj1. Determinate, Maturity Group V, maturing Oct. 23. Flowers white, tawny pubescence. Seeds yellow, black hila and seed size of 16.4 g 100-1. Seed contains 49.4% protein and 15.9% oil.

PI 602448. *Glycine max* (L.) Merr.

Breeding. Pureline. BARC-14 non-nodulated. GP-264. Pedigree - D76-8070(4) X Clark rj1. Determinate, Maturity Group V, maturing Oct.

23. Flowers white, tawny pubescence. Seeds yellow, black hila and seed size of 12.2 g 100-1. Seed contains 38.5% protein and 20.2% oil.

PI 602449. *Glycine max* (L.) Merr.

Breeding. Pureline. BARC-15 nodulated. GP-265. Pedigree - CX797-21(4) X Clark rj1. Indeterminate, Maturity Group IV, maturing Sept. 25. Flowers purple, tawny pubescence. Seed coat partially green, yellow cotyledons, black hila and seed size of 18.2 g 100-1. Seed contains 48.8% protein and 16.4% oil.

PI 602450. *Glycine max* (L.) Merr.

Breeding. Pureline. BARC-15 non-nodulated. GP-266. Pedigree - CX797-21(4) X Clark rj1. Indeterminate, Maturity Group IV, maturing Sept. 25. Flowers purple, tawny pubescence. Seed coat partially green, yellow cotyledons, black hila and seed size of 14.3 g 100-1. Seed contains 39.1% protein and 21.2% oil.

PI 602451. *Glycine max* (L.) Merr.

Breeding. Pureline. BARC-16 nodulated. GP-267. Pedigree - Essex(4) X Clark rj1. Determinate, Maturity Group V, maturing Oct. 15. Flowers purple, gray pubescence. Seeds yellow, buff hila and seed size of 13.1 g 100-1. Seed contains 43.2% protein and 19.7% oil.

PI 602452. *Glycine max* (L.) Merr.

Breeding. Pureline. BARC-16 non-nodulated. GP-268. Pedigree - Essex(4) X Clark rj1. Determinate, Maturity Group V, maturing Oct. 15. Flowers purple, gray pubescence. Seeds yellow, buff hila and seed size of 10.4 g 100-1. Seed contains 34.9% protein and 23.4% oil.

PI 602453. *Glycine max* (L.) Merr.

Breeding. Pureline. BARC-17 nodulated. GP-269. Pedigree - Ripley(4) X Clark rj1. Determinate, Maturity Group V, maturing Oct. 2. Flowers purple, gray pubescence. Seeds yellow, buff hila and seed size of 14.2 g 100-1. Seed contains 40.1% protein and 21.0% oil.

PI 602454. *Glycine max* (L.) Merr.

Breeding. Pureline. BARC-17 non-nodulated. GP-270. Pedigree - Ripley(4) X Clark rj1. Determinate, Maturity Group V, maturing Oct. 2. Flowers purple, gray pubescence. Seeds yellow, buff hila and seed size of 11.4 g 100-1. Seed contains 29.9% protein and 26.1% oil.

The following were developed by Joe W. Burton, USDA-ARS, North Carolina State University, Department of Crop Science, Raleigh, North Carolina 27695-7631, United States; James R. Wilcox, USDA, ARS, Purdue University, Department of Agronomy, West Lafayette, Indiana 47907-1150, United States; Greg Rebetzke, CSIRO Plant Industry, PO Box 1600, Canberra, Austr. Capital Terr. 2601, Australia; W.P. Novitzky, USDA, ARS, North Carolina State Univ., Dept. of Crop Sci., Raleigh, North Carolina 27695-7631, United States; Richard Wilson, USDA, ARS, North Carolina State Univ., 4114 Williams Hall, Raleigh, North Carolina 27695-7620, United States. Received 01/26/1998.

PI 602455. *Glycine max* (L.) Merr.

Cultivar. Pureline. "N94-2575". GP-261. Pedigree - (N90-2013 x CI726) sel. x N88-431(2). Reduced palmitic acid in the seed oil, 40 mg per g

oil. Flowers purple, tawny pubescence. Seeds yellow with black hila and shiny seed coat luster. Average weight per seeds 180 mg. Matures approx. Oct. 25, Maturity Group VII.

The following were developed by Jerry F. Miller, USDA, ARS, Northern Crop Science Laboratory, P.O. Box 5677, Fargo, North Dakota 58105, United States. Received 01/15/1998.

- PI 602456. *Linum usitatissimum* L.
Cultivar. Pureline. "SDT 9504"; CILI 3401.
- PI 602457. *Linum usitatissimum* L.
Cultivar. Pureline. "SDT 9505"; CILI 3402.
- PI 602458. *Linum usitatissimum* L.
Cultivar. Pureline. "SDT 9506"; CILI 3403.
- PI 602459. *Linum usitatissimum* L.
Cultivar. Pureline. "SDT 9507"; CILI 3404.
- PI 602460. *Linum usitatissimum* L.
Cultivar. Pureline. "SDT 9509"; CILI 3405.
- PI 602461. *Linum usitatissimum* L.
Cultivar. Pureline. "N 9510"; CILI 3407.
- PI 602462. *Linum usitatissimum* L.
Cultivar. Pureline. "N 9512"; CILI 3408.
- PI 602463. *Linum usitatissimum* L.
Cultivar. Pureline. "N 9517"; CILI 3409.
- PI 602464. *Linum usitatissimum* L.
Cultivar. Pureline. "N 9601"; CILI 3421.
- PI 602465. *Linum usitatissimum* L.
Cultivar. Pureline. "N 9604"; CILI 3422.
- PI 602466. *Linum usitatissimum* L.
Cultivar. Pureline. "N 9606"; CILI 3423.
- PI 602467. *Linum usitatissimum* L.
Cultivar. Pureline. "FP 1026"; CILI 3424.
- PI 602468. *Linum usitatissimum* L.
Cultivar. Pureline. "FP 1030"; CILI 3525.
- PI 602469. *Linum usitatissimum* L.
Cultivar. Pureline. "FP 1042"; CILI 3426.
- PI 602470. *Linum usitatissimum* L.
Cultivar. Pureline. "FP 1043"; CILI 3427.

The following were collected by David Spooner, USDA, ARS, Department of Horticulture, 1575 Linden Drive, Madison, Wisconsin 53706-1590, United States ; Ronald van den Berg, Wageningen Agricultural University, Department of Plant Taxonomy, General Foulksweg 37, Wageningen, Gelderland 6700 ED, Netherlands; William Garcia Fernandez, PROINPA (Programa de Investigacion de la Papa), IBTA (Instituto de Boliviano Tecnologia Agropecuaria), Calle Man Cesped 923, Cochabamba, Cochabamba, Bolivia; Maria Luisa Ugarte, PROINPA (Programa de Investigacion de la Papa), IBTA (Instituto de Boliviano Tecnologia Agropecuaria), Calle Man Cesped 923, Cochabamba, Cochabamba, Bolivia. Received 04/21/1993.

PI 602471. *Solanum yungasense* Hawkes

Wild. SFVU 6738; BE-4652; Q 30485. Collected 03/20/1993 in La Paz, Bolivia. Latitude 16 deg. 25' 0'' S. Longitude 67 deg. 31' 0'' W. Elevation 1715 m. Sud Yungas. Along the road to the village Siquilini, about 5 km NE from Chulumani. Growing as a weed in and at edges of the many cultivated fields in the area.

The following were donated by L.T. Colon, CPRO-DLO, Droevendaalsesteeg 1, Wageningen, Gelderland 6708 PB, Netherlands. Received 11/08/1995.

PI 602472. *Solanum vernei* Bitter & Wittm.

Wild. VRN 527; Q 35909.

The following were donated by Oscar A. Hidalgo, International Potato Center, Apartado 5969, Lima, Lima, Peru. Received 03/05/1996.

PI 602473. *Solanum tuberosum* L.

Cultivar. "MORADO PINGO LUKI"; CIP 703262; Q 36053. Quechua names for primitive cultivars from Bolivia. From CIP virus free collection.

PI 602474. *Solanum tuberosum* L.

Cultivar. "LBR-19"; CIP 1 381400.22; Q 36054. Pedigree - .787/BULK MEX. Late Blight resistant breeding stock.

PI 602475. *Solanum tuberosum* L.

Cultivar. "LBR-1"; CIP 382178.14; Q 36055. Pedigree - 380112.3 (375540.3 x XY BULK)/ BULK MEX. Late Blight resistant breeding stock.

PI 602476. *Solanum tuberosum* L.

Cultivar. "LBR-29"; CIP 386209.1; Q 36057. Pedigree - 380479.15 (I-967 x LT XY BULK)/ BULK PRECOZ-84. Late Blight resistant breeding stock.

PI 602477. *Solanum tuberosum* L.

Cultivar. "LBR-2"; CIP 386209.10; Q 36058. Pedigree - 380479.15 (I-967 x LT XY BULK)/ (BULK PRECOZ/84). Late Blight resistant breeding stock.

PI 602478. *Solanum tuberosum* L.

Cultivar. "LBR-32"; CIP 387002.11; Q 36059. Pedigree - 381378.22(378507.833 x PRECOZ BULK) / 7XY.1. Late Blight resistant breeding stock.

PI 602479. *Solanum tuberosum* L.

Cultivar. "LBR-3"; CIP 387004.13; Q 36060. Pedigree - 381381.20
(378493.915 x PRECOZ BULK) / 7XY.1. Late Blight resistant breeding stock

PI 602480. Solanum tuberosum L.

Cultivar. "LBR-33"; CIP 387004.4; LBr 33; Q 36061. Pedigree - 381381.20
(378493.915 x PRECOZ BULK)/7XY.1. Late Blight resistant breeding stock.

PI 602481. Solanum tuberosum L.

Cultivar. "LBR-34"; CIP 387006.5; LBr 34; Q 36062. Pedigree - 381382.34
(378971.928 x PRECOZ BULK)/7XY.1. Late Blight resistant breeding stock.

PI 602482. Solanum tuberosum L.

Cultivar. "LBR-4"; CIP 387015.12; Q 36063. Pedigree - 382171.26
(380086.3 x MEX BULK)/7XY.1. Late Blight resistant breeding stock.

PI 602483. Solanum tuberosum L.

Cultivar. "LBR-5"; CIP 387015.13; Q 36064. Pedigree - 382171.26
(380036.3 x MEX BULK)/7XY.1. Late Blight resistant breeding stock.

PI 602484. Solanum tuberosum L.

Cultivar. "LBR-37"; CIP 387132.2; Q 36066. Pedigree - (382119.6
(378508.277 x MEX BULK)) / (575049 (ALPHA x IP3.3 x (LEONA x 380-23))).
Late Blight resistant breeding stock.

PI 602485. Solanum tuberosum L.

Cultivar. "LBR-38"; CIP 387136.14; LBr 38; Q 36067. Pedigree - 382121.25
(378508.295 x MEX BULK)/575049. Late Blight resistant breeding stock.

PI 602486. Solanum tuberosum L.

Cultivar. "LBR-39"; CIP 387143.22; Q 36068. Pedigree - 382133.7
(378971.928 x MEX BULK)/ 575049. Late Blight resistant breeding stock.

PI 602487. Solanum tuberosum L.

Cultivar. "LBR-40"; CIP 387164.4; LBr 40; Q 36069. Pedigree - 382171.10
(380086.3 x MEX BULK)/ 575049. Late Blight resistant breeding stock.

PI 602488. Solanum tuberosum L.

Cultivar. "LBR-43"; CIP 387170.9; LBr 43; Q 36070. Pedigree - 382182.10
(380112.3 x PRECOZ BULK) / 575049. Late Blight resistant breeding stock.

PI 602489. Solanum tuberosum L.

Cultivar. "LBR-20"; CIP 387205.5; Q 36071. Pedigree - 381397.16
(378158.721 x MEX BULK) / I-1039. Late Blight resistant breeding stock.

The following were donated by T.E. Carter, USDA, ARS, North Carolina State University, 3127 Ligon Street Box 7631, Raleigh, North Carolina 27695-7631, United States; Ren Shuang Zhang, Liaoning Academy of Agricultural Sciences, Oil Crop Institute, Shenyang, Liaoning, China. Received 06/04/1997.

PI 602490. Glycine max (L.) Merr.

Cultivated. Pureline. "Liao dou 9"; SY 9723002.

PI 602491. Glycine max (L.) Merr.

Cultivated. Pureline. "Liao dou 11"; SY 9723004.

PI 602492. *Glycine max* (L.) Merr.

Cultivated. Pureline. "Liao dou 12"; SY 9723005.

The following were donated by S.M. Lim, USDA, ARS, University of Illinois, Department of Plant Pathology, Urbana, Illinois 61801, United States. Received 06/04/1997.

PI 602493. *Glycine max* (L.) Merr.

Cultivated. Pureline. Duckyou; SY 9724001.

The following were collected by Charles E. Simpson, Texas A&M University, P. O. Box 292, Stephenville, Texas 76401, United States; David E. Williams, USDA, ARS, Natl. Germplasm Resources Laboratory, Building 003, Room 400, BARC-West, Beltsville, Maryland 20705-2350, United States. Received 12/09/1993.

PI 602494. *Arachis hypogaea* var. *fastigiata* (Waldron) Krapov. & W. C. Greg.

Cultivated. US 1506A; Grif 14049. Collected in Argentina. Pedigree - Selection from Grif 7390 (US 1506).

The following were developed by T.L. Archer, Texas Agric. Exp. Sta., Texas A&M University, Rt. 3, Box 219, Lubbock, Texas 79401, United States. Received 02/11/1998.

PI 602495. *Zea mays* L. subsp. *mays*

Breeding. Inbred. TAM-MITel. Pedigree - (NB611 X Arizona 8601) X (NB611 X Ven414). Germplasm line with light green silks, white seeds, and white cob. Flowers approx. 90 days after planting as a line and 77 days as hybrid progeny. Line about 1.8m tall and hybrid progeny with B73 or MO17 slightly taller. Antibiotic resistance to Banks grass mite (*Oligonychus pratensis*) and two-spotted spider-mite (*Tetranychus urticae*). Adapted to temperate, semi-arid high plains region of the U.S.

The following were developed by Lawrence D. Young, USDA, ARS, West Tennessee Experiment Station, 605 Airways Blvd., Jackson, Tennessee 38301, United States; Edgar E. Hartwig, USDA, ARS, Soybean Production Research, P.O. Box 196, Stoneville, Mississippi 38776, United States; Thomas C. Kilen, USDA, ARS, Soybean Production Research, P.O. Box 196, Stoneville, Mississippi 38776, United States. Received 02/17/1998.

PI 602496. *Glycine max* (L.) Merr.

Cultivar. Pureline. "Pace". CV-385. Pedigree - D87-5963 X (Epps X Sharkey F1). Released 1996. High productivity, especially in mid-April plantings, and resistance to stem canker (*Diaporthe phaseolorum*), bacterial pustule (*Xanthomonas campestris*), race 3 of the soybean cyst nematode (*Heterodera glycines*) and soybean mosaic virus. Group V maturity, determinate growth type, white flowers, grey pubescence, tan pod walls, and yellow seeds with buff hila. Seed weight 130 mg. Seed protein and oil, 444 and 209 g kg⁻¹, respectively.

The following were donated by Ruzhen Chang, Chinese Academy of Agricultural Sciences, Institute of Crop Germplasm Resources, Beijing, Beijing, China. Received 06/01/1997.

- PI 602497. *Glycine max* (L.) Merr.**
Cultivated. Pureline. "Ke shan si li jia"; ZDD 0200; SY 9728001.
- PI 602498. *Glycine max* (L.) Merr.**
Cultivated. Pureline. "Xiao jin huang"; ZDD 0451; SY 9728002.
- PI 602499. *Glycine max* (L.) Merr.**
Cultivated. Pureline. "Tie Jia huang"; ZDD 2803; SY 9728003.
- PI 602500. *Glycine max* (L.) Merr.**
Cultivated. Pureline. "Tong shan tian er dan"; ZDD 3916; SY 9728004.
- PI 602501. *Glycine max* (L.) Merr.**
Cultivated. Pureline. "Tong shan tian er dan"; ZDD 3917; SY 9728005.
- PI 602502. *Glycine max* (L.) Merr.**
Cultivated. Pureline. "Xiong yue xiao huang dou"; ZDD 7665; SY 9728006.

The following were collected by Charles E. Simpson, Texas A&M University, P. O. Box 292, Stephenville, Texas 76401, United States; Roy N. Pittman, USDA, ARS, University of Georgia, Plant Genetic Resources Conservation Unit, Griffin, Georgia 30223-1797, United States; David E. Williams, USDA, ARS, Natl. Germplasm Resources Laboratory, Building 003, Room 400, BARC-West, Beltsville, Maryland 20705-2350, United States. Received 12/09/1993.

- PI 602503. *Arachis hypogaea* L.**
Wild. 569; US 1508; Grif 7310. Collected in Brazil.
- PI 602504. *Arachis hypogaea* L.**
Wild. 851; US 1509; Grif 7311. Collected in Brazil.
- PI 602505. *Arachis hypogaea* L.**
Wild. 852; US 1510; Grif 7312. Collected in Brazil.
- PI 602506. *Arachis hypogaea* L.**
Wild. 853; US 1511; Grif 7313. Collected in Brazil.
- PI 602507. *Arachis hypogaea* L.**
Wild. 854; US 1512; Grif 7314. Collected in Brazil.
- PI 602508. *Arachis hypogaea* L.**
Wild. 855; US 1513; Grif 7315. Collected in Brazil.
- PI 602509. *Arachis hypogaea* L.**
Wild. 3146; US 1514; Grif 7316. Collected in Brazil.
- PI 602510. *Arachis hypogaea* L.**
Wild. 3147; US 1515; Grif 7317. Collected in Brazil.

- PI 602511. *Arachis hypogaea* L.
Wild. 267; US 1516; Grif 7318. Collected in Brazil.
- PI 602512. *Arachis hypogaea* L.
Wild. 269; US 1517; Grif 7319. Collected in Brazil.
- PI 602513. *Arachis hypogaea* L.
Wild. 268; US 1518; Grif 7320. Collected in Brazil.
- PI 602514. *Arachis hypogaea* L.
Wild. 341; US 1519; Grif 7321. Collected in Brazil.
- PI 602515. *Arachis hypogaea* L.
Wild. 350; US 1520; Grif 7322. Collected in Brazil.
- PI 602516. *Arachis hypogaea* L.
Wild. 881; US 1523; Grif 7325. Collected in Brazil.
- PI 602517. *Arachis hypogaea* L.
Wild. 882-1; US 1524; Grif 7326. Collected in Brazil.
- PI 602518. *Arachis hypogaea* L.
Wild. 882-3; US 1526A; Grif 7328. Collected in Brazil. Pedigree -
Selection from US 1526.
- PI 602519. *Arachis hypogaea* L.
Wild. 907; US 1527; Grif 7329.
- PI 602520. *Arachis hypogaea* L.
Wild. 1083; US 1528; Grif 7330.
- PI 602521. *Arachis hypogaea* L.
Wild. 1084; US 1529; Grif 7331. Collected in Brazil.
- PI 602522. *Arachis hypogaea* L.
Wild. 429; US 1530; Grif 7332. Collected in Brazil.
- PI 602523. *Arachis hypogaea* L.
Wild. 430; US 1531; Grif 7333. Collected in Brazil.
- PI 602524. *Arachis hypogaea* L.
Wild. 433; US 1532; Grif 7334. Collected in Brazil.
- PI 602525. *Arachis hypogaea* L.
Wild. 436; US 1533; Grif 7335. Collected in Brazil.
- PI 602526. *Arachis hypogaea* L.
Wild. 438; US 1535; Grif 7337. Collected in Brazil.
- PI 602527. *Arachis hypogaea* L.
Wild. 366; US 1537; Grif 7339.
- PI 602528. *Arachis hypogaea* L.
Wild. 138; US 1538; Grif 7340. Collected in Brazil.

- PI 602529. *Arachis hypogaea* L.
Wild. 259; US 1541; Grif 7343. Collected in Brazil.
- PI 602530. *Arachis hypogaea* L.
Wild. 446; US 1542; Grif 7344. Collected in Brazil.
- PI 602531. *Arachis hypogaea* L.
Wild. 359; US 1543; Grif 7345. Collected in Brazil.
- PI 602532. *Arachis hypogaea* L.
Wild. 359A; US 1544; Grif 7346. Collected in Brazil.
- PI 602533. *Arachis hypogaea* L.
Wild. 360; US 1545; Grif 7347. Collected in Brazil.
- PI 602534. *Arachis hypogaea* L.
Wild. 374; US 1546; Grif 7348. Collected in Brazil.
- PI 602535. *Arachis hypogaea* L.
Wild. 375; US 1547; Grif 7349. Collected in Brazil.
- PI 602536. *Arachis hypogaea* L.
Wild. 397; US 1550; Grif 7352. Collected in Brazil.

The following were donated by Charles E. Simpson, Texas A&M University, P. O. Box 292, Stephenville, Texas 76401, United States; Roy N. Pittman, USDA, ARS, University of Georgia, Plant Genetic Resources Conservation Unit, Griffin, Georgia 30223-1797, United States; David E. Williams, USDA, ARS, Natl. Germplasm Resources Laboratory, Building 003, Room 400, BARC-West, Beltsville, Maryland 20705-2350, United States. Received 12/09/1993.

- PI 602537. *Arachis hypogaea* L.
Wild. 430; US 1554; Grif 7356. Collected in Brazil.

The following were collected by Charles E. Simpson, Texas A&M University, P. O. Box 292, Stephenville, Texas 76401, United States; Roy N. Pittman, USDA, ARS, University of Georgia, Plant Genetic Resources Conservation Unit, Griffin, Georgia 30223-1797, United States; David E. Williams, USDA, ARS, Natl. Germplasm Resources Laboratory, Building 003, Room 400, BARC-West, Beltsville, Maryland 20705-2350, United States. Received 12/09/1993.

- PI 602538. *Arachis hypogaea* L.
Wild. 489; US 1560; Grif 7362. Collected in Brazil.
- PI 602539. *Arachis hypogaea* L.
Wild. 625; US 1562; Grif 7364. Collected in Brazil.
- PI 602540. *Arachis hypogaea* L.
Wild. 635; US 1564; Grif 7366. Collected in Brazil.
- PI 602541. *Arachis hypogaea* L.
Wild. 621; US 1573; Grif 7375. Collected in Brazil.

The following were collected by Jose F. M. Valls, EMBRAPA, CENARGEN, SAIN Parque Rural - C.P. 10.2372, CEP 70.770, Brasilia, Federal District 70770, Brazil. Donated by Charles E. Simpson, Texas A&M University, P. O. Box 292, Stephenville, Texas 76401, United States; Roy N. Pittman, USDA, ARS, University of Georgia, Plant Genetic Resources Conservation Unit, Griffin, Georgia 30223-1797, United States; David E. Williams, USDA, ARS, Natl. Germplasm Resources Laboratory, Building 003, Room 400, BARC-West, Beltsville, Maryland 20705-2350, United States. Received 12/09/1993.

PI 602542. *Arachis hypogaea* L.

Wild. 11409; US 1577; Grif 7379. Collected in Brazil.

The following were collected by Charles E. Simpson, Texas A&M University, P. O. Box 292, Stephenville, Texas 76401, United States; David E. Williams, USDA, ARS, Natl. Germplasm Resources Laboratory, Building 003, Room 400, BARC-West, Beltsville, Maryland 20705-2350, United States. Received 12/09/1993.

PI 602543. *Arachis hypogaea* L.

Wild. 1501; US 1501; Grif 7385. Collected in Argentina.

PI 602544. *Arachis hypogaea* L.

Wild. 1505; US 1505; Grif 7389. Collected in Argentina.

PI 602545. *Arachis hypogaea* L. var. *hypogaea*

Cultivated. 1506; US 1506; Grif 7390. Collected in Argentina.

PI 602546. *Arachis hypogaea* L.

Wild. 1507; US 1507; Grif 7392. Collected in Argentina.

The following were developed by L.M. Little, USDA, ARS, Wheat Genetics, Quality, Physiology & Disease Res., Washington State University, Pullman, Washington 99164-6420, United States. Received 01/29/1998.

PI 602547. *Triticum aestivum* L., nom. cons. *subsp. aestivum*

Genetic. Population. 97ARS681; 95ARS481. Pedigree - Tres/5/Ae. juvenalis/6*CHR//9*SK(NDM1)/3/4*Tyee/4/6*Tres. Euplasmic (E) equivalent population to alloplasmic (A) population having *Aegilops juvenalis* cytoplasm with Tres (CI17917, soft white winter-club) the nucleus donor (BC6). Similar phenotypically to Tres for most traits. Based on 5 to 8 tests, E=A for plant height, lodging %, heading date, tiller no., test wt., and bioyield. E>A for kernels/spike, grain yield and harvest index. A>E for kernel wt.

PI 602548. *Triticum aestivum* L., nom. cons. *subsp. aestivum*

Genetic. Population. 97ARS682; 95ARS483. Pedigree - Ae. juvenalis/6*CHR//9*SK(NDM1)/3/4*Tyee/4/7*Tres. Alloplasmic (A) population with *Aegilops juvenalis* as cytoplasm donor and Tres (CI17917, soft white winter-club) the nucleus donor (BC6). Similar phenotypically to Tres for most traits. Based on 5 to 8 tests, A=E for plant height, lodging %, heading date, tiller no., test wt., and bioyield. A<E for

kernels/spike, grain yield and harvest index. A>E for kernel wt.

PI 602549. *Triticum aestivum* L., nom. cons. subsp. *aestivum*

Genetic. Population. 97ARS683; 95ARS486. Pedigree - Tres/5/Ae. *cylindrica*/CHR//10*SK(NDM2)/3/4*Tyee/4/6*Tres. Euplasmic (E) equivalent population to alloplasmic (A) population having *Aegilops cylindrica* cytoplasm with Tres (CI17917, soft white winter-club) the nucleus donor (BC6). Similar phenotypically to Tres for most traits. Based on 5 to 8 tests, E and A similar for all trait comparisons including plant height, lodging %, heading date, grain yield, bioyield, tiller no., kernal/spike, kernal wt., test wt., and harvest index.

PI 602550. *Triticum aestivum* L., nom. cons. subsp. *aestivum*

Genetic. Population. 97ARS684; 95ARS488. Pedigree - Ae. *cylindrica*/CHR//10*SK(NDM2)/3/4*Tyee/4/7*Tres. Alloplasmic (A) population with *Aegilops cylindrica* as cytoplasm donor and Tres (CI17917, soft white winter-club) the nucleus donor of euplasmic (E) population. Similar phenotypically to Tres for most traits. Based on 5 to 8 tests, A and E similar for all trait comparisons including plant height, lodging %, heading date, grain yield, bioyield, tiller no., kernels/spike, kernel weight, test weight, and harvest index.

PI 602551. *Triticum aestivum* L., nom. cons. subsp. *aestivum*

Genetic. Population. 97ARS685; 95ARS489. Pedigree - Tres/5/Ae. *variabilis*/9*CHR//13*SK(NDM3)/3/4*Tyee/4/6*Tres. Euplasmic (E) equivalent population to alloplasmic (A) population having *Aegilops variabilis* cytoplasm with Tres (CI17917, soft white winter-club) the nucleus donor (BC6). Similar phenotypically to Tres for most traits. Based on 5 to 8 tests, E=A for plant height, heading date, lodging %, grain yield, bioyield, kernels/spike and tiller no. E>A for kernel wt. and test wt. E<A for harvest index.

PI 602552. *Triticum aestivum* L., nom. cons. subsp. *aestivum*

Genetic. Population. 97ARS686; 95ARS492. Pedigree - Ae. *variabilis*/9*CHR//13*SK(NDM3)/3/4*Tyee/4/7*Tres. Alloplasmic (A) population with *Aegilops variabilis* as cytoplasm donor and Tres (CI17917, soft white winter-club) the nucleus donor (BC6) of euplasmic (E) population. Similar phenotypically to Tres for most traits. Based on 5 to 8 tests, E=A for plant height, heading date, lodging %, grain yield, bioyield, kernels/spike and tiller no. A<E for kernel wt. and test weight. A>E for harvest index.

PI 602553. *Triticum aestivum* L., nom. cons. subsp. *aestivum*

Genetic. Population. 97ARS687; 95ARS493. Pedigree - Tres/4/Ae. *squarrosa*/19*SK(NDM4)//4*Tyee/3/6*Tres. Euplasmic (E) equivalent population to alloplasmic (A) population having *Aegilops squarrosa* cytoplasm with Tres (CI17917, soft white winter-club) the nucleus donor (BC6). Similar phenotypically to Tres for most traits. Based on 5 to 8 tests, E=A for plant height, heading date, lodging %, harvest index, tiller no. and kernels/spike. E>A for kernel wt., grain yield and bioyield.

PI 602554. *Triticum aestivum* L., nom. cons. subsp. *aestivum*

Genetic. Population. 97ARS688; 95ARS496. Pedigree - Ae. *squarrosa*/19*SK(NDM4)//4*Tyee/3/7*Tres. Alloplasmic (A) population with

Aegilops squarrosa as cytoplasm donor and Tres (CI17917, soft white winter-club) the nucleus donor (BC6) of euplasmic (E) population. Similar phenotypically to Tres for most traits. Based on 5 to 8 tests, A=E for plant height, heading date, lodging %, harvest index, tiller no., and kernels/spike. A<E for kernel wt., test wt., grain yield and bioyield.

PI 602555. *Triticum aestivum* L., nom. cons. subsp. *aestivum*

Genetic. Population. 97ARS689; 95ARS498. Pedigree - Tres/5/Ae. uniaristata/2*T. durum//10*SK(NDM5)/3/4*Tyee/4/6*Tres. Euplasmic (E) equivalent population to alloplasmic (A) population having *Aegilops uniaristata* cytoplasm with Tres (CI17917, soft white winter-club) the nucleus donor (BC6). Similar phenotypically to Tres for most traits. Based on 5 to 8 tests, E=A for plant height, lodging %, heading date, grain yield, bioyield, tiller no., kernels/spike, kernel wt., and test wt. E>A for harvest index.

PI 602556. *Triticum aestivum* L., nom. cons. subsp. *aestivum*

Genetic. Population. 97ARS690; 95ARS500. Pedigree - Ae. uniaristata/2*T. durum//10*SK(NDM5)/3/4*Tyee/4/7*Tres. Alloplasmic (A) population with *Aegilops uniaristata* as cytoplasm donor and Tres (CI17917, soft white winter-club) the nucleus donor (BC6) of euplasmic (E) population. Similar phenotypically to Tres for most traits. Based on 5 to 8 tests, A=E for plant height, lodging %, heading date, grain yield, bioyield, tiller no., kernels/spike, kernel wt., and test wt. A<E for harvest index.

PI 602557. *Triticum aestivum* L., nom. cons. subsp. *aestivum*

Genetic. Population. 97ARS691; 95ARS501. Pedigree - Tres/5/Ae. ventricosa/T. durum//13*SK(NDM6)/3/4*Tyee/4/6*Tres. Euplasmic (E) equivalent population to alloplasmic (A) population having *Aegilops ventricosa* cytoplasm with Tres (CI17917, soft white winter-club) the nucleus donor (BC6). Similar phenotypically to Tres for most traits. Based on 5 to 8 tests, E=A for plant height, lodging %, heading date, grain yield, bioyield, tiller no., kernels/spike, kernel wt., and test wt. E<A for harvest index.

PI 602558. *Triticum aestivum* L., nom. cons. subsp. *aestivum*

Genetic. Population. 97ARS692; 95ARS504. Pedigree - Ae. ventricosa/T. durum//13*SK(NDM6)/3/4*Tyee/4/7*Tres. Alloplasmic (A) population with *Aegilops ventricosa* as cytoplasm donor and Tres (CI17917, soft white winter-club) the nucleus donor (BC6) of euplasmic E population. Similar phenotypically to Tres for most traits. Based on 5 to 8 tests, A=E for plant height, lodging %, heading date, grain yield, bioyield, tiller no., kernels/spike, kernel wt., and test wt. A>E for harvest index.

PI 602559. *Triticum aestivum* L., nom. cons. subsp. *aestivum*

Genetic. Population. 97ARS693; 95ARS508. Pedigree - Tres/5/H. villosa/T. durum//9*SK(NDM7)/3/4*Tyee/4/6*Tres. Euplasmic (E) equivalent population to alloplasmic (A) population having *Haynaldia villosa* cytoplasm with Tres (CI17917, soft white winter-club) the nucleus donor (BC6). Similar phenotypically to Tres for most traits. Based on 5 to 8 tests, E=A for plant height, lodging %, heading date, grain yield, bioyield, tiller no., kernels/spike, and kernel wt. E>A for test wt. E<A for harvest index.

- PI 602560. *Triticum aestivum* L., nom. cons. subsp. *aestivum***
 Genetic. Population. 97ARS694; 95ARS510. Pedigree - H. villosa/T. durum//9*SK(NDM7)//3/4*Tyee/4/7*Tres. Alloplasmic (A) population with Haynaldia villosa as cytoplasm donor and Tres (CI17917, soft white winter-club) the nucleus donor (BC6) of euplasmic (E) population. Similar phenotypically to Tres for most traits. Based on 5 to 8 tests, A=E for plant height, lodging %, heading date, grain yield, bioyield, tiller no., kernels/spike, and kernel wt. A<E for test wt. A>E for harvest index.
- PI 602561. *Triticum aestivum* L., nom. cons. subsp. *aestivum***
 Genetic. Population. 97ARS695; 95ARS511. Pedigree - Tres/4/T. macha/17*SK(NDM8)//4*Tyee/3/6*Tres. Euplasmic (E) equivalent population to alloplasmic (A) population having *Triticum macha*, NDM8 cytoplasm with Tres (CI17917, soft white winter-club) the nucleus donor (BC6). Similar phenotypically to Tres for most traits. Based on 5 to 8 tests, E=A for plant height, lodging %, heading date, grain yield, bioyield, tiller no., kernels/spike, test wt., kernel wt., and harvest index.
- PI 602562. *Triticum aestivum* L., nom. cons. subsp. *aestivum***
 Genetic. Population. 97ARS696; 95ARS513. Pedigree - T. macha/17*SK(NDM8)//4*Tyee/3/7*Tres. Alloplasmic (A) population with *Triticum macha* (NDM8) as cytoplasm donor and Tres (CI17917, soft white winter-club) the nucleus donor (BC6) of euplasmic (E) population. Similar phenotypically to Tres for most traits. Based on 5 to 8 tests, A=E for plant height, lodging %, heading date, grain yield, bioyield, tiller no., kernels/spike, test wt., kernel wt., and harvest index.
- PI 602563. *Triticum aestivum* L., nom. cons. subsp. *aestivum***
 Genetic. Population. 97ARS697; 95ARS516. Pedigree - Tres/4/T. macha/9*SK(NDM9)//4*Tyee/3/6*Tres. Euplasmic (E) equivalent population to alloplasmic (A) population having *Triticum macha*, NDM9 cytoplasm with Tres (CI17917, soft white winter-club), the nucleus donor (BC6). Similar phenotypically to Tres for most traits. Based on 5 to 8 tests, E=A for plant height, heading date, bioyield, tiller no., kernels/spike, test wt., and harvest index. E>A for lodging %. E<A for grain yield and kernel wt.
- PI 602564. *Triticum aestivum* L., nom. cons. subsp. *aestivum***
 Genetic. Population. 97ARS698; 95ARS517. Pedigree - T. macha/9*SK(NDM9)//4*Tyee/3/7*Tres. Alloplasmic (A) population with *Triticum macha* (NDM9) as cytoplasm donor and Tres (CI17917, soft white winter-club) the nucleus donor (BC6) of euplasmic (E) population. Similar phenotypically to Tres for most traits. Based on 5 to 8 tests, A=E for plant height, heading date, bioyield, tiller no., kernels/spike, test wt., and harvest index. A>E for grain yield, kernel wt. A<E for lodging %.
- PI 602565. *Triticum aestivum* L., nom. cons. subsp. *aestivum***
 Genetic. Population. 97ARS699; 95ARS520. Pedigree - Tres/4/T. turgidum/9*SK(NDM10)//4*Tyee/3/6*Tres. Euplasmic (E) equivalent population to alloplasmic (A) population having *Triticum turgidum* cytoplasm with Tres (CI17917, soft white winter-club) the nucleus donor (BC6). Similar phenotypically to Tres for most traits. Based on 5 to 8

tests, E=A for plant height, lodging %, heading date, grain yield, bioyield, tiller no., kernels/spike, kernel wt., and test wt. E<A for harvest index.

PI 602566. *Triticum aestivum* L., nom. cons. subsp. *aestivum*
Genetic. Population. 97ARS700; 95ARS522. Pedigree - T.
turgidum/9*SK(NDM10)//4*Tyee/3/7*Tres. Alloplasmic (A) population with *Triticum turgidum* as cytoplasm donor and Tres (CI17917, soft white winter-club) the nucleus donor (BC6) of euplasmic (E) population. Similar phenotypically to Tres for most traits. Based on 5 to 8 tests, A=E for plant height, lodging %, heading date, grain yield, bioyield, tiller no., kernels/spike, kernel wt., and test wt. A>E for harvest index.

The following were collected by James R. Ballington, North Carolina State University, Department of Horticultural Sciences, Box 7609, Raleigh, North Carolina 27695-7609, United States; J. Scott Cameron, Washington State University, Research & Extension Unit, 1919 NE 78th St., Vancouver, Washington 98665, United States; Arturo Lavin, Instituto de Investigaciones Agropecuarias, Subestacion Experimental Cauquenes, Camino A Parral-KM 3,5, Cauquenes, Chile. Developed by Washington State University, SW Washington Research Unit, 1919 NE 78th St., Vancouver, Washington 98665, United States. Donated by J. Scott Cameron, Washington State University, Research & Extension Unit, 1919 NE 78th St., Vancouver, Washington 98665, United States. Received 02/25/1992.

PI 602567. *Fragaria chiloensis* f. *patagonica* Staudt
Breeding. *F. chiloensis* 2 Puerto Raul Marin Balmac; 2 MAR 1A. Collected 01/1992 in Aisen, Chile. Latitude 43 deg. 46' S. Longitude 72 deg. 55' W. Elevation 0 m. Raul Marin Balmaceda. Pedigree - Collected from the wild in Chile.

PI 602568. *Fragaria chiloensis* (L.) Duchesne
Breeding. *F. chiloensis* 2 Palena 2C Elite #2; 2 PAL 2C. Collected 1992 in Los Lagos, Chile. Latitude 43 deg. 37' S. Longitude 71 deg. 49' W. Elevation 0 m. Rio Palena. Pedigree - Collected from the wild in Chile.

PI 602569. *Fragaria chiloensis* f. *patagonica* Staudt
Breeding. *F. chiloensis* 2 Palena 2A; 2 PAL 2A. Collected 1992 in Los Lagos, Chile. Latitude 43 deg. 37' S. Longitude 71 deg. 49' W. Elevation 0 m. Rio Palena. Pedigree - Collected from the wild in Chile.

PI 602570. *Fragaria chiloensis* f. *patagonica* Staudt
Breeding. *F. chiloensis* 2 Lago Carrera 3B; 2 CAR 3B. Collected 1992 in Aisen, Chile. Latitude 46 deg. 39' S. Longitude 72 deg. 38' W. Elevation 0 m. Lago General Carrera. Pedigree - Collected from the wild in Chile.

PI 602571. *Fragaria chiloensis* f. *patagonica* Staudt
Breeding. *F. chiloensis* 2 La Tapera 4A; 2 TAP 4A. Collected 1992 in Aisen, Chile. Latitude 44 deg. 39' S. Longitude 71 deg. 42' W. Elevation 0 m. La Tapera. Pedigree - Collected from the wild in Chile.

PI 602572. *Fragaria chiloensis* f. *patagonica* Staudt
Breeding. *F. chiloensis* 2 Puerto Raul Marin Balmac; 2 MAR 1B. Collected

1992 in Aisen, Chile. Latitude 43 deg. 46' S. Longitude 72 deg. 55' W. Elevation 0 m. Raul Marin Balmaceda. Pedigree - Collected from the wild in Chile.

PI 602573. *Fragaria chiloensis* f. *patagonica* Staudt

Breeding. *F. chiloensis* 2 Puquenun 1A; 2 PUQ 1A. Collected 1992 in Los Lagos, Chile. Latitude 41 deg. 48' S. Longitude 73 deg. 37' W. Elevation 0 m. Puquenun. Pedigree - Collected from the wild in Chile.

PI 602574. *Fragaria chiloensis* f. *patagonica* Staudt

Breeding. *F. chiloensis* 2 Palena 4A; 2 PAL 4A. Collected 1992 in Los Lagos, Chile. Latitude 43 deg. 37' S. Longitude 71 deg. 49' W. Elevation 0 m. Rio Palena. Pedigree - Collected from the wild in Chile.

PI 602575. *Fragaria chiloensis* f. *patagonica* Staudt

Breeding. *F. chiloensis* 2 La Tapera 1A; 2 TAP 1A. Collected 1992 in Aisen, Chile. Latitude 44 deg. 39' S. Longitude 71 deg. 42' W. Elevation 0 m. La Tapera. Pedigree - Collected from the wild in Chile.

The following were developed by Jerry Sortomme, Santa Barbara City College, Environmental Horticulture, 721 Cliff Dr., Santa Barbara, California 93109-2394, United States. Received 06/19/1992.

PI 602576. *Fragaria vesca* L. subsp. *vesca*

Breeding. "Golden Alpine". Pedigree - Strain isolated from a Thompson & Morgan order in 1986.

The following were collected by Maxine Thompson, National Clonal Germplasm Repository, 33447 Peoria Road, Corvallis, Oregon 97333, United States; Judith Young, Unknown; Gong Deshen, Guizhou Botanical Garden, Liuchongguan, Guiyang, Guizhou 550001, China; Shi Shengde, Guizhou Botanical Garden, Liuchongguan, Guiyang, Guizhou 550001, China; De Sheng Wei, Guizhou Botanical Garden, Liuchongguan, Guiyang, Guizhou 550001, China; Cheng Xiang Wang, Guizhou Botanical Garden, Guizhou Academy of Science, Liuchongguan, Guiyang, Guizhou 550001, China. Donated by Maxine Thompson, National Clonal Germplasm Repository, 33447 Peoria Road, Corvallis, Oregon 97333, United States. Received 07/21/1992.

PI 602577. *Fragaria nilgerrensis* Schltdl. ex J. Gay

Wild. *F. nilgerrensis*. Collected 05/30/1992 in Guizhou, China. Latitude 26 deg. 23' N. Longitude 108 deg. 9' E. Elevation 1550 m. Collected along road in Leigong Mt. Nature Preserve, Leishan County. From 1730 to 2170 m. Pedigree - Collected from the wild in Guizhou, China. Fruit is small and soft. White skin and flesh.

The following were collected by Raymond L. Clark, USDA, ARS, Washington State University, Regional Plant Introduction Station, Pullman, Washington 99164-6402, United States. Received 09/14/1992.

PI 602578. *Fragaria vesca* f. *alba* (Duchesne) Staudt

Cultivated. *F. vesca* subsp. *vesca* forma *alba*. Collected 09/06/1992 in Washington, United States. Olympia. 7 miles NE of US Hwy 101 just off

Steamboat Island Road. Pedigree - Selected from cultivated white strawberry growing in daughter's yard. White fleshed strawberry. Origin is Europe.

The following were developed by Crites-Moscow Growers, Inc., 212 8th, P.O. Box 8912, Moscow, Idaho 83843, United States. Received 02/20/1998.

PI 602579. *Pisum sativum* L.
Cultivar. "BRULE". PVP 9800054.

The following were developed by DEKALB Genetics Corporation, United States. Received 02/20/1998.

PI 602580. *Medicago sativa* L. subsp. *sativa*
Cultivar. "DK121HG". PVP 9800081.

The following were developed by Agriculture & Agri-Food Canada, Cereal Research Centre, Winnipeg, Manitoba, Canada. Received 02/20/1998.

PI 602581. *Triticum aestivum* L., nom. cons. subsp. *aestivum*
Cultivar. "AC MAJESTIC". PVP 9800082.

The following were developed by Sure-Grow Seed, Inc., 7265 Highway 9 South, Centre, Alabama 35960, United States. Received 02/20/1998.

PI 602582. *Glycine max* (L.) Merr.
Cultivar. "SG 567RR". PVP 9800083.

PI 602583. *Glycine max* (L.) Merr.
Cultivar. "SG 597RR". PVP 9800084.

PI 602584. *Glycine max* (L.) Merr.
Cultivar. "SG617RR". PVP 9800085.

The following were developed by Seminis Vegetable Seeds, Inc., Woodland, California, United States. Received 02/20/1998.

PI 602585. *Lactuca sativa* L.
Cultivar. "PAHOKEE". PVP 9800086.

PI 602586. *Lactuca sativa* L.
Cultivar. "GULF STREAM". PVP 9800087.

The following were developed by Genecorp, Inc., United States. Received 02/20/1998.

PI 602587. *Lactuca sativa* L.
Cultivar. "SPANISH BAY". PVP 9800088.

The following were developed by Holden's Foundation Seeds, Inc., United States. Received 02/20/1998.

PI 602588. Zea mays L. subsp. mays
Cultivar. "LH264". PVP 9800090.

PI 602589. Zea mays L. subsp. mays
Cultivar. "LH273". PVP 9800091.

PI 602590. Zea mays L. subsp. mays
Cultivar. "LH284". PVP 9800092.

PI 602591. Zea mays L. subsp. mays
Cultivar. "LH286". PVP 9800093.

The following were developed by Novartis Seeds, Inc., United States. Received 02/20/1998.

PI 602592. Cucurbita pepo L.
Cultivar. "Wee-B-Little". PVP 9800096.

The following were developed by James H. Orf, University of Minnesota, Dept. of Agronomy and Plant Genetics, Minnesota Agr. Exp. Sta., St. Paul, Minnesota 55108, United States; Roxanne Denny, University of Minnesota, Dept of Plant Pathology, 495 Borlaug Hall, 1991 Upper Buford Cir., St. Paul, Minnesota 55108, United States. Received 02/20/1998.

PI 602593. Glycine max (L.) Merr.
Cultivar. Pureline. "MN 1301". CV-397; PVP 9800097. Pedigree - [[[Corsoy x Wayne] x [(Mack x [Wayne x (Clark x Adams)]) x Cutler]] x (Hodgson(4) x [(Corsoy x Wayne) x (Chippewa x Higan)]]] x [Peterson P x 20 x (Hodgson(4) Rps1 x Merit)]. Early Group I (relative maturity 1.3) with white flowers, gray pubescence and brown pods at maturity. Seeds yellow with yellow hila and an intermediate seed coat luster. Indeterminate growth habit and approx. 89 cm tall with a lodging score of about 1.5. Protein and oil content approx. 427 g/kg and 199 g/kg respectively. Seed size approx. 175 mg. Carries the Rps1 gene for resistance to phytophthora.

The following were developed by James H. Orf, University of Minnesota, Dept. of Agronomy and Plant Genetics, Minnesota Agr. Exp. Sta., St. Paul, Minnesota 55108, United States; Theodore C. Helms, North Dakota State University, Crop & Weed Science Department, 333 Walster Hall, Fargo, North Dakota 58105-5051, United States; Roxanne Denny, University of Minnesota, Dept of Plant Pathology, 495 Borlaug Hall, 1991 Upper Buford Cir., St. Paul, Minnesota 55108, United States. Received 02/20/1998.

PI 602594. Glycine max (L.) Merr.
Cultivar. Pureline. "MN 0301". CV-396; PVP 9800098. Pedigree - Maple Donovan x [((Merit x (Harosoy x Norchief) x [Traverse x PI 196163])) x (Merit x Beeson)]. Early Group O (relative maturity 0.3) with purple

flowers, gray pubescence, and brown pods at maturity. Seeds yellow with yellow hila and an intermediate seed coat luster. Indeterminate in growth habit and approx. 79 cm tall with a lodging score of about 1.7. Protein and oil content approx. 410 g/kg and 205 g/kg respectively. Seed size approx. 160 mg. Carries the Rps1 gene for resistance to phytophthora.

The following were developed by Oklahoma Agricultural Experiment Station, Stillwater, Oklahoma, United States. Received 02/20/1998.

PI 602595. *Triticum aestivum* L., nom. cons. subsp. *aestivum*
Cultivar. "2174". PVP 9800099.

The following were developed by Zajac Performance Seeds, 33 Sicomac Road, N. Haledon, New Jersey 07508, United States. Received 02/20/1998.

PI 602596. *Festuca rubra* L. subsp. *rubra*
Cultivar. "TRAPEZE". PVP 9800100.

The following were developed by Gina Rowan, University of Georgia, Miller Plant Science Building Rm. 3111, Athens, Georgia 30602, United States; Dan Phillips, University of Georgia, Department of Plant Pathology, Georgia Experiment Station, Experiment, Georgia 30223, United States; Richard S. Hussey, University of Georgia, College of Agric. and Envirn. Sciences, Department of Plant Pathology, Athens, Georgia 30602-7274, United States; H. Roger Boerma, University of Georgia, Department of Crop & Soil Science, 3111 Plant Sciences Building, Athens, Georgia 30602-7272, United States; E. Dale Wood, University of Georgia, Dept. of Crop & Soil Sciences, Athens, Georgia 30602, United States; S.L. Finnerty, University of Georgia, Dept. of Plant Pathology, Athens, Georgia 30602, United States. Received 02/20/1998.

PI 602597. *Glycine max* (L.) Merr.
Cultivar. "Boggs". CV-403; PVP 9800101.

The following were developed by Virginia Agric. Exp. Station, Richmond, Virginia, United States. Received 02/20/1998.

PI 602598. *Triticum aestivum* L., nom. cons. subsp. *aestivum*
Cultivar. "POCAHONTAS". PVP 9800102.

The following were developed by Pioneer Hi-Bred International, Inc., 6800 Pioneer Pkwy., P.O. Box 316, Johnston, Iowa 50131-0316, United States. Received 02/20/1998.

PI 602599. *Sorghum bicolor* (L.) Moench
Cultivar. "PHBCWNL". PVP 9800110.

PI 602600. *Sorghum bicolor* (L.) Moench
Cultivar. "PHBEPOYJ". PVP 9800111.

The following were developed by Agripro Seeds, Inc., Iowa, United States.
Received 02/20/1998.

PI 602601. *Medicago sativa* L. subsp. *sativa*
Cultivar. "SALADO". PVP 9800112.

The following were developed by Sunderman Breeding, Inc., United States.
Received 02/20/1998.

PI 602602. *Hordeum vulgare* L. subsp. *vulgare*
Cultivar. "SUNSTAR PRIDE". PVP 9800113.

The following were developed by Pioneer Hi-Bred International, Inc., 6800
Pioneer Pkwy., P.O. Box 316, Johnston, Iowa 50131-0316, United States.
Received 02/20/1998.

PI 602603. *Medicago sativa* L. subsp. *sativa*
Cultivar. "5347LH". PVP 9800114.

The following were collected by J.P. Hjerting, Kobenhavns Universitet,
Botanisk Have, Oster Farimagsgade 2B, Copenhagen, Copenhagen DK-1353, Denmark
; E. Petersen, Kleif, Arskag-sstrono, Eyjafjarsysla, Iceland; K. Rahn,
Landbrugets Kartoffelfond, Foraedlingsstationen, Vandel, Vejle, Denmark.
Received 1962.

PI 602604. *Solanum chacoense* Bitter
Wild. HPR 295; TEMP 1. Collected 02/22/1956 in Salta, Argentina.
Latitude 25 deg. 6' 0'' S. Longitude 65 deg. 33' 0'' E. Elevation 1500
m. Chicoana. Between Chicoana and Escoipe, Km 16.5. Plants almost 2 m
tall.

The following were donated by I. K. Simon, Research Institute for Irrigation,
Szarvas, Bekes, Hungary. Received 08/07/1994.

PI 602605. *Oryza sativa* L.
Cultivar. "AGUSITA"; Q 36162. Developed in Hungary.

PI 602606. *Oryza sativa* L.
Breeding. "HB-6-2"; Q 36163. Developed in Hungary.

PI 602607. *Oryza sativa* L.
Breeding. "HB-15-2"; Q 36164. Developed in Hungary.

PI 602608. *Oryza sativa* L.
Breeding. "HC-7-2"; Q 36165. Developed in Hungary.

PI 602609. *Oryza sativa* L.
Breeding. "HC-11-2"; Q 36166. Developed in Hungary.

PI 602610. *Oryza sativa* L.

Cultivar. "KARMINA"; Q 36167. Developed in Hungary.

PI 602611. *Oryza sativa* L.

Cultivar. "M-225"; Q 36168. Developed in Hungary.

PI 602612. *Oryza sativa* L.

Cultivar. "RINGOLA"; Q 36172. Developed in Hungary.

PI 602613. *Oryza sativa* L.

Cultivar. "SANDORA"; Q 36173. Developed in Hungary.

PI 602614. *Oryza sativa* L.

Cultivar. "SZ-6"; Q 36175. Developed in Hungary. Upland.

PI 602615. *Oryza sativa* L.

Cultivar. "SZ-26"; Q 36176. Developed in Hungary. Upland.

PI 602616. *Oryza sativa* L.

Cultivar. "SZ-40"; Q 36177. Developed in Hungary. Upland.

PI 602617. *Oryza sativa* L.

Cultivar. "SZ-44"; Q 36178. Developed in Hungary. Upland.

PI 602618. *Oryza sativa* L.

Cultivar. "SZ-74"; Q 36179. Developed in Hungary. Upland.

PI 602619. *Oryza sativa* L.

Cultivar. "SZ-79"; Q 36180. Developed in Hungary. Upland.

PI 602620. *Oryza sativa* L.

Cultivar. "SZ-86"; Q 36181. Developed in Hungary. Upland.

PI 602621. *Oryza sativa* L.

Cultivar. "SZ-951"; Q 36182. Developed in Hungary. Upland.

PI 602622. *Oryza sativa* L.

Cultivar. "SZ-958"; Q 36183. Developed in Hungary. Upland.

PI 602623. *Oryza sativa* L.

Cultivar. "SZ-978"; Q 36184. Developed in Hungary. Upland.

The following were donated by Fleet N. Lee, University of Arkansas, Rice Research & Extension Center, P.O. Box 351, Stuttgart, Arkansas 72160, United States; Robert H. Dilday, USDA-ARS, Dale Bumpers National Rice Res. Ctr., 2980 Hwy 130 East, Stuttgart, Arkansas 72160, United States. Received 08/07/1994.

PI 602624. *Oryza sativa* L.

Cultivar. "ZHENSHAN-2"; Q 36186. Developed in China.

PI 602625. *Oryza sativa* L.

Cultivar. "MIYANG"; Q 36187. Developed in China.

PI 602626. *Oryza sativa* L.

Cultivar. "MINGHUI"; Q 36188. Developed in China.

PI 602627. *Oryza sativa* L.

Cultivar. "TESHANAI"; Q 36189. Developed in China.

PI 602628. *Oryza sativa* L.

Cultivar. "SHANHUNG"; Q 36190. Developed in China.

PI 602629. *Oryza sativa* L.

Cultivar. "SHANYOU"; Q 36191. Developed in China.

The following were developed by West Africa Rice Development Association, 01 BP 2551, Bouake, Cote D'Ivoire. Donated by M.P. Jones, West Africa Rice Development Association, 01 BP 2551, Bouake, Cote D'Ivoire. Received 05/14/1996.

PI 602630. *Oryza hybrid*

Breeding. WAB450-11-1-2-P1-HB; Q 36192. Pedigree - WAB56-104 (O.sativa)/CG14 (O.glaberrima). High yield grain.

The following were donated by M.P. Jones, West Africa Rice Development Association, 01 BP 2551, Bouake, Cote D'Ivoire. Received 05/14/1996.

PI 602631. *Oryza hybrid*

Breeding. WAB450-4-1-1-P23-1-1; Q 36194. Pedigree - WAB56-104 (O.sativa)/CG14 (O.glaberrima). High yield grain.

The following were developed by West Africa Rice Development Association, 01 BP 2551, Bouake, Cote D'Ivoire. Donated by M.P. Jones, West Africa Rice Development Association, 01 BP 2551, Bouake, Cote D'Ivoire. Received 05/14/1996.

PI 602632. *Oryza hybrid*

Breeding. WAB450-I-B-P-148-2-1; Q 36195. Pedigree - WAB56-104 (O.sativa)/CG14 (O.glaberrima). High yield grain.

PI 602633. *Oryza hybrid*

Breeding. WAB450-I-B-P-23-HB; Q 36197. Pedigree - WAB56-104 (O.sativa)/CG14 (O.glaberrima). High yield grain.

PI 602634. *Oryza hybrid*

Breeding. WAB450-24-2-3-P33-HB; Q 36199. Pedigree - WAB56-104 (O.sativa)/CG14 (O.glaberrima). High yield grain.

PI 602635. *Oryza sativa* L.

Breeding. WAB56-104; Q 36200.

PI 602636. *Oryza sativa* L.

Breeding. WAB56-57; Q 36204. Blast resistant.

PI 602637. *Oryza sativa* L.

Breeding. WAB462-10-3-1; Q 36205. Blast resistant.

PI 602638. *Oryza sativa* L.
Breeding. WAB56-50; Q 36206. Blast resistant.

The following were donated by International Rice Research Institute, P.O. Box 3127, Makati Central Post Office, Makati City, Luzon 1271, Philippines.
Received 05/14/1996.

PI 602639. *Oryza sativa* L.
Breeding. 15810; BG1165-2; 900002; Q 36210. Developed in Sri Lanka.
Site C3C4. Season DS. Nursery Remnant.

PI 602640. *Oryza sativa* L.
Breeding. 17084; BG1219; 901957; Q 36211. Developed in Sri Lanka. Site
C7. Season DS. Nursery Remnant.

PI 602641. *Oryza sativa* L.
Breeding. 18097; BG1639; 922703; Q 36213. Developed in Sri Lanka. Site
UU. Season DS. Nursery Remnant.

PI 602642. *Oryza sativa* L.
Breeding. 17980; BG450; 922700; Q 36214. Developed in Sri Lanka. Site
UU. Season DS. Nursery Remnant.

PI 602643. *Oryza sativa* L.
Breeding. 15808; BG915; 900005; Q 36216. Developed in Sri Lanka. Site
C3C4. Season DS. Nursery Remnant.

PI 602644. *Oryza sativa* L.
Breeding. 15806; BG936; 900040; Q 36217. Developed in Sri Lanka. Site
C3C4. Season DS. Nursery Remnant.

The following were developed by West Africa Rice Development Association, 01 BP 2551, Bouake, Cote D'Ivoire. Donated by International Rice Research Institute, P.O. Box 3127, Makati Central Post Office, Makati City, Luzon 1271, Philippines. Received 05/14/1996.

PI 602645. *Oryza sativa* L.
Cultivar. "BOUAKE 189"; 17284; 950985; Q 36218. Site UB2-UB3-3 Season
DS. Nursery IRBPHN.

The following were donated by International Rice Research Institute, P.O. Box 3127, Makati Central Post Office, Makati City, Luzon 1271, Philippines.
Received 05/14/1996.

PI 602646. *Oryza sativa* L.
Breeding. 15224; BR1257-31-1-1; 950724; Q 36219. Developed in
Bangladesh. Site UB2-UB3-3. Season DS. Nursery IRBPHN.

PI 602647. *Oryza sativa* L.
Breeding. 17413; BR4363-8-11-4-9; 923878; Q 36221. Developed in
Bangladesh. Site UU. Season WS. Nursery Remnant.

- PI 602648. *Oryza sativa* L.**
Breeding. 15195; BR568-15-4-2-2-2; 950989; Q 36222. Developed in Bangladesh. Site UB2-UB3-3. Season DS. Nursery IRBPHN.
- PI 602649. *Oryza sativa* L.**
Breeding. 14575; BR736-20-3-1; 923380; Q 36223. Developed in Bangladesh. Site UA. Season WS. Nursery Remnant.
- PI 602650. *Oryza sativa* L.**
Breeding. 15241; BR802-118-4-2; 890016; Q 36224. Developed in Bangladesh. Site UA. Season DS. Nursery Remnant.
- PI 602651. *Oryza sativa* L.**
Breeding. 17804; CL SELECCION 56; 913501; Q 36226. Developed in Brazil. Site UY4. Season WS. Nursery IIRON.
- PI 602652. *Oryza sativa* L.**
Cultivar. "ECIA 66"; 15766; 900904; Q 36229. Developed in Cuba. Site UA. Season DS. Nursery Remnant.
- PI 602653. *Oryza sativa* L.**
Breeding. 15764; ECIA67-S1-J1-5; 891452; Q 36230. Developed in Cuba. Site C7. Season DS. Nursery Remnant.
- PI 602654. *Oryza sativa* L.**
Breeding. 16349; ECIA76-S89-1; 891458; Q 36231. Developed in Cuba. Site C7. Season DS. Nursery Remnant.

The following were developed by International Rice Research Institute, P.O. Box 3127, Makati Central Post Office, Makati City, Luzon 1271, Philippines. Received 05/14/1996.

- PI 602655. *Oryza sativa* L.**
Breeding. 17214; IR40750-116-3-2-3-2; 913586; Q 36234. Site UY4. Season WS. Nursery Remnant.
- PI 602656. *Oryza sativa* L.**
Breeding. 16808; IR47310-87-2-1-2; 910852; Q 36235. Site UA. Season DS. Nursery Remnant.
- PI 602657. *Oryza sativa* L.**
Breeding. 17193; IR49442-9-1-1-1-3; 951509; Q 36236. Site UB3-4-UB4. Season DS. Nursery IIRON.
- PI 602658. *Oryza sativa* L.**
Breeding. 16231; IR50363-61-1-2-2; 923574; Q 36238. Site UB. Season WS. Nursery Remnant.
- PI 602659. *Oryza sativa* L.**
Breeding. 16228; IR50404-57-2-2-3; 923214; Q 36239. Site UA. Season WS. Nursery Remnant.
- PI 602660. *Oryza sativa* L.**

Breeding. "IR51678-93-2-2-2-1"; 18155; Q 36240. Source 922982. Site UB. Season DS. Nursery Remnant.

The following were developed by West Africa Rice Development Association, 01 BP 2551, Bouake, Cote D'Ivoire. Donated by M.P. Jones, West Africa Rice Development Association, 01 BP 2551, Bouake, Cote D'Ivoire. Received 05/14/1996.

PI 602661. *Oryza sativa* L.
Breeding. WAB 502-13-4-1; Q 36329.

PI 602662. *Oryza sativa* L.
Breeding. WAB 501-11-5-1; Q 36330.

The following were developed by International Rice Research Institute, P.O. Box 3127, Makati Central Post Office, Makati City, Luzon 1271, Philippines. Donated by Robert Zeigler, International Rice Research Institute, P.O. Box 933, Manila, Luzon 1099, Philippines. Received 06/29/1994.

PI 602663. *Oryza sativa* L.
Cultivar. "C101PKT"; BE-7120; Q 35058.

The following were donated by David Spooner, USDA, ARS, Department of Horticulture, 1575 Linden Drive, Madison, Wisconsin 53706-1590, United States. Received 03/07/1995.

PI 602664. *Oryza sativa* L.
Cultivated. 7043; MACHHAPUCHHRE; BE-7430; Q 35633. Collected in Nepal. Latitude 28 deg. 0' N. Longitude 84 deg. 0' E. Dwarf variety.

The following were donated by Inst. for Plant Prod. & Qualification, Research Centre for Agrobotany, Tapioszele, Pest H-2766, Hungary. Received 11/01/1995.

PI 602665. *Oryza sativa* L.
Cultivar. "PALLAGI 9"; 045294; RCAT010885; NSGC 6033; 0300405; I-0011-00535/000; 00498/75; 00142; PI 460605; Q 35805. Developed in Hungary.

PI 602666. *Oryza sativa* L.
Cultivar. "PALLAGI 67"; 045295; RCAT010886; NSGC 6034; 0300406; I-0011-00536/000; 00500/75; 00143; PI 459359; Q 35806. Developed in Hungary.

The following were developed by Lynn M. Gourley, Mississippi State University, Box 9555, Mississippi State, Mississippi 39762, United States. Received 02/11/1998.

PI 602667. *Sorghum bicolor* (L.) Moench
Breeding. Pureline. MP 418; MALE STERILE; AMP 418. Pedigree - (B-Yellow PI*IS 7173C)-5-5-1-1-1. Inbred 1 of 28 (Group 11) with acid-soil

tolerance. Grain sorghum cytoplasmic-genetic male sterile or A-line. Plant color purple, grain with white epicarp and absence of testa, semi-open panicle, exsertion of about 10 cm, and 100 seed weight of 3.29 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis 63 and 57, and plant height 104 and 128 cm, respectively.

PI 602668. *Sorghum bicolor* (L.) Moench

Breeding. Pureline. MP 418; MAINTAINER; BMP 418. Pedigree - (B-Yellow PI*IS 7173C)-5-5-1-1-1. Inbred 1 of 28 (Group 11) with acid soil tolerance. Grain sorghum maintainer or B-line. Plant color purple, grain with white epicarp and absence of a testa, semi-open panicle, exsertion of about 10 cm, and 100 seed weight of 3.29 gm. In June plantings at Plainville, TX and Starkville, MS, days to 50% anthesis 63 and 57, and plant height 104 and 128 cm, respectively.

PI 602669. *Sorghum bicolor* (L.) Moench

Breeding. Pureline. MP 419; MALE STERILE; AMP 419. Pedigree - (B-Yellow PI*IS 7173C)-5-5-1-1-2. Inbred 2 of 28 (Group 11) with acid-soil tolerance. Grain sorghum cytoplasmic-genetic male sterile or A-line. Plant color purple, grain with white epicarp and absence of a testa, semi-open panicle, exsertion of about 12 cm, and 100 seed weight of 3.29 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis 63 and 57, and plant height 101 and 123, respectively.

PI 602670. *Sorghum bicolor* (L.) Moench

Breeding. Pureline. MP 419; MAINTAINER; BMP 419. Pedigree - (B-Yellow PI*IS 7173C)-5-5-1-1-2. Inbred 2 of 28 (Group 11) with acid soil tolerance. Grain sorghum maintainer or B-line. Plant color purple, grain with a white epicarp and absence of a testa, semi-open panicle, exsertion of about 12 cm, and 100 seed weight of 3.29 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis were 63 and 57, and plant height 101 and 123 cm, respectively.

PI 602671. *Sorghum bicolor* (L.) Moench

Breeding. Pureline. MP 420; MALE STERILE; AMP 420. Pedigree - (B-Yellow PI*IS 7173C)-5-6-1-2-2. Inbred 3 of 28 (Group 11) with acid-soil tolerance. Grain sorghum cytoplasmic-genetic male sterile or A-line. Plant color purple, grain with a white epicarp and absence of a testa, open panicle, exsertion of about 20 cm, and 100 seed weight of 2.20 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis 66 and 61, and plant height 91 and 139 cm, respectively.

PI 602672. *Sorghum bicolor* (L.) Moench

Breeding. Pureline. MP 420; MAINTAINER; BMP 420. Pedigree - (B-Yellow PI*IS 7173C)-5-6-1-2-2. Inbred 3 of 28 (Group 11) with acid-soil tolerance. Grain sorghum maintainer or B-line. Plant color purple, grain with a white epicarp and absence of a testa, open panicle, exsertion of about 20 cm and 100 seed weight of 2.20 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis 66 and 61, and plant height 91 and 139 cm, respectively.

PI 602673. *Sorghum bicolor* (L.) Moench

Breeding. Pureline. MP 421; MALE STERILE; AMP 421. Pedigree - (B-Yellow PI*IS 7173C)-6-1-1-2-1. Inbred 4 of 28 (Group 11) with acid-soil tolerance. Grain sorghum cytoplasmic-genetic male sterile or A-line.

Plant color purple, grain with a white epicarp and absence of a testa, semi-open panicle, exsertion of about 10 cm., and 100 seed weight of 2.77 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis 62 and 59, and plant height 84 and 99 cm, respectively.

PI 602674. *Sorghum bicolor* (L.) Moench

Breeding. Pureline. MP 421; MAINTAINER; BMP 421. Pedigree - (B-Yellow PI*IS 7173C)-6-1-1-2-1. Inbred 4 of 28 (Group 11) with acid-soil tolerance. Grain sorghum maintainer or B-line. Plant color purple, grain with a white epicarp and absence of a testa, semi-open panicle, exsertion of about 10 cm and 100 seed weight of 2.77 gm. In June plantings at Plainville, TX and Starkville, MS, days to 50% anthesis 62 and 59, and plant height 84 and 99 cm, respectively.

PI 602675. *Sorghum bicolor* (L.) Moench

Breeding. Pureline. MP 422; MALE STERILE; AMP 422. Pedigree - (B-Yellow PI*IS 7173C)-7-2-1-2-2. Inbred 5 of 28 (Group 11) with acid-soil tolerance. Grain sorghum cytoplasmic-genetic male sterile or A-line. Plant color purple, grain with a white epicarp and absence of a testa, open panicle, exsertion of about 20 cm, and 100 seed weight of 2.07 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis 62 and 56, and plant height 105 and 114 cm, respectively.

PI 602676. *Sorghum bicolor* (L.) Moench

Breeding. Pureline. MP 422; MAINTAINER; BMP 422. Pedigree - (B-Yellow PI*IS 7173C)-7-2-1-2-2. Inbred 5 of 28 (Group 11) with acid-soil tolerance. Grain sorghum maintainer or B-line. Plant color purple, grain with a white epicarp and absence of a testa, open panicle, exsertion of about 20 cm, and 100 seed weight of 2.07 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis 62 and 56, and plant height 105 and 114 cm, respectively.

PI 602677. *Sorghum bicolor* (L.) Moench

Breeding. Pureline. MP 423; MALE STERILE; AMP 423. Pedigree - (B-Yellow PI*IS 7173C)-9-4-1-1-1. Inbred 6 of 28 (Group 11) acid-soil tolerance. Grain sorghum cytoplasmic-genetic male sterile or A-line. Plant color purple, grain with a brown epicarp and a testa, open panicle, exsertion of about 30 cm, and 100 seed weight of 2.45 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis 63 and 62, and plant height 122 and 122 cm, respectively.

PI 602678. *Sorghum bicolor* (L.) Moench

Breeding. Pureline. MP 423; MAINTAINER; BMP 423. Pedigree - (B-Yellow PI*IS 7173C)-9-4-1-1-1. Inbred 6 of 28 (Group 11) with acid-soil tolerance. Grain sorghum maintainer or B-line. Plant color purple, grain with brown epicarp and a testa, open panicle, exsertion of about 30 cm, and 100 seed weight of 2.45 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis 63 and 62 and plant height 122 and 122 cm, respectively.

PI 602679. *Sorghum bicolor* (L.) Moench

Breeding. Pureline. MP 424; MALE STERILE; AMP 424. Pedigree - (B-Yellow PI*IS 7173C)-17-4-2-1-1. Inbred 7 of 28 (Group 11) with acid-soil tolerance. Grain sorghum cytoplasm-genetic male-sterile or A-line. Plant color purple, grain with a brown epicarp and a testa, semi-open panicle,

exsertion of about 10 cm, and 100 seed weight of 2.41 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis 65 and 67, and plant height 88 and 91 cm, respectively.

PI 602680. Sorghum bicolor (L.) Moench

Breeding. Pureline. MP 424; MAINTAINER; BMP 424. Pedigree - (B-Yellow PI*IS 7173C)-17-4-2-1-1. Inbred 7 of 28 (Group 11) with acid-soil tolerance. Grain sorghum maintainer or B-line. Plant color purple, grain with a brown epicarp and a testa, semi-open panicle, exsertion of about 10 cm, and 100 seed weight of 2.41 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis 65 and 67, and plant height 88 and 91 cm, respectively.

PI 602681. Sorghum bicolor (L.) Moench

Breeding. Pureline. MP 425; MALE STERILE; AMP 425. Pedigree - (B-Yellow PI*IS 7173C)-24-5-2-1-1. Inbred 8 of 28 (Group 11) with acid-soil tolerance. Grain sorghum cytoplasmic-genetic male sterile or A-line. Plant color purple, grain with a white epicarp and absence of a testa, open panicle, exsertion of about 0 cm, and 100 seed weight of 2.16 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis 62 and 68, and plant height 85 and 93 cm, respectively.

PI 602682. Sorghum bicolor (L.) Moench

Breeding. Pureline. MP 425; MAINTAINER; BMP 425. Pedigree - (B-Yellow PI*IS 7173C)-24-5-2-1-1. Inbred 8 of 28 (Group 11) with acid-soil tolerance. Grain sorghum maintainer or B-line. Plant color purple, grain with a white epicarp and absence of a testa, open panicle, exsertion of about 0 cm, and 100 seed weight of 2.16 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis 62 and 68, and plant height 85 and 93 cm, respectively.

PI 602683. Sorghum bicolor (L.) Moench

Breeding. Pureline. MP 426; MALE STERILE; AMP 426. Pedigree - (B-Yellow PI*IS 7173C)-26-4-2-1-1. Inbred 9 of 28 (Group 11) with acid-soil tolerance. Grain sorghum cytoplasmic-genetic male sterile or A-line. Plant color purple, grain with a brown epicarp and a testa, open panicle, exsertion of about 15 cm, and 100 seed weight of 2.75 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis were 64 and 68, and plant height 125 and 130 cm, respectively.

PI 602684. Sorghum bicolor (L.) Moench

Breeding. Pureline. MP 426; MAINTAINER; BMP 426. Pedigree - (B-Yellow PI*IS 7173C)-26-4-2-1-1. Inbred 9 of 28 (Group 11) with acid-soil tolerance. Grain sorghum maintainer or B-line. Plant color purple, grain with a brown epicarp and a testa, open panicle, exsertion of about 15 cm, and 100 seed weight of 2.75 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis were 64 and 68, and plant height 125 and 130 cm, respectively.

PI 602685. Sorghum bicolor (L.) Moench

Breeding. Pureline. MP 427; MALE STERILE; AMP 427. Pedigree - (B-Yellow PI*IS 7173C)-36-4-2-2-1. Inbred 10 of 28 (Group 11) with acid-soil tolerance. Grain sorghum cytoplasmic-genetic male sterile of A-line. Plant color purple, grain with a white epicarp and absence of a testa, semi-open panicle, exsertion of about 2 cm, and 100 weight of 2.41 gm.

In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis 64 and 72, and plant height 113 and 120 cm, respectively.

PI 602686. *Sorghum bicolor* (L.) Moench

Breeding. Pureline. MP 427; MAINTAINER; BMP 427. Pedigree - (B-Yellow PI*IS 7173C)-36--4-2-2-1. Inbred 10 of 28 (Group 11) with acid-soil tolerance. Grain sorghum maintainer or B-line. Plant color purple, grain with a white epicarp and absence of a testa, semi-open panicle, exsertion of about 2 cm, and 100 seed weight of 2.41 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis 64 and 72, and plant height 113 and 120 cm, respectively.

PI 602687. *Sorghum bicolor* (L.) Moench

Breeding. Pureline. MP 428; MALE STERILE; AMP 428. Pedigree - (B-Yellow PI*IS 7173C)-45-1-2-1-1. Inbred 11 of 28 (Group 11) with acid-soil tolerance. Grain sorghum cytoplasmic-genetic male sterile or A-line. Plant color purple, grain with a brown epicarp and a testa, open panicle, exsertion of about 20 cm, and 100 seed weight of 1.81 gm. In June plantings at Plainview, TX and Starkville, MS days to 50% anthesis 67 and 61, and plant height 120 and 128 cm, respectively.

PI 602688. *Sorghum bicolor* (L.) Moench

Breeding. Pureline. MP 428; MAINTAINER; BMP 428. Pedigree - (B-Yellow PI*IS 7173C)-45-1-2-1-1. Inbred 11 of 28 (Group 11) with acid-soil tolerance. Grain sorghum maintainer or B-line. Plant color purple, grain with a brown epicarp and a testa, open panicle, exsertion of about 20 cm, and 100 seed weight of 1.81 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis 67 and 61, and plant height 120 and 128 cm, respectively.

PI 602689. *Sorghum bicolor* (L.) Moench

Breeding. Pureline. MP 429; MALE STERILE; AMP 429. Pedigree - (B-Yellow PI*IS 7173C)-45-3-1-1-1. Inbred 12 of 28 (Group 11) with acid-soil tolerance. Grain sorghum cytoplasmic-genetic male sterile or A-line. Plant color purple, grain with a brown epicarp and a testa, open panicle, exsertion of about 10 cm, and 100 seed weight of 2.34 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis 65 and 56, and plant height 105 and 122 cm, respectively.

PI 602690. *Sorghum bicolor* (L.) Moench

Breeding. Pureline. MP 429; MAINTAINER; BMP 429. Pedigree - (B-Yellow PI*IS 7173C)-45-3-1-1-1. Inbred 12 of 28 (Group 11) with acid-soil tolerance. Grain sorghum maintainer or B-line. Plant color purple, grain with a brown epicarp and a testa, open panicle, exsertion of about 10 cm, and 100 seed weight of 2.34 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis 65 and 56, and plant height 105 and 122 cm, respectively.

PI 602691. *Sorghum bicolor* (L.) Moench

Breeding. Pureline. MP 430; MALE STERILE; AMP 430. Pedigree - (B-Yellow PI*IS 7173C)-45-3-2-1-1. Inbred 13 of 28 (Group 11) with acid-soil tolerance. Grain sorghum cytoplasmic-genetic male sterile or A-line. Plant color purple, grain with a brown epicarp and a testa, open panicle, exsertion of about 15 cm, and 100 seed weight of 2.60 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis

64 and 55, and plant height 96 and 101 cm, respectively.

PI 602692. *Sorghum bicolor* (L.) Moench

Breeding. Pureline. MP 430; MAINTAINER; BMP 430. Pedigree - (B-Yellow PI*IS 7173C)-45-3-2-1-1. Inbred 13 of 28 (Group 11) with acid-soil tolerance. Grain sorghum maintainer or B-line. Plant color purple, grain with a brown epicarp and a testa, open panicle, exsertion of about 15 cm, and 100 seed weight of 2.60 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis 64 and 55, and plant height 96 and 101 cm, respectively.

PI 602693. *Sorghum bicolor* (L.) Moench

Breeding. Pureline. MP 431; MALE STERILE; AMP 431. Pedigree - (B-Yellow PI*IS 7173C)-45-3-2-1-2. Inbred 14 of 28 (Group 11) with acid-soil tolerance. Grain sorghum cytoplasmic-genetic male sterile of A-line. Plant color purple, grain with a brown epicarp and a testa, semi-open panicle, exsertion of about 30 cm, and 100 seed weight of 2.38 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis 63 and 56, and plant height 114 and 125 cm, respectively.

PI 602694. *Sorghum bicolor* (L.) Moench

Breeding. Pureline. MP 431; MAINTAINER; BMP 431. Pedigree - (B-Yellow PI*IS 7173C)-45-3-2-1-2. Inbred 14 of 28 (Group 11) with acid-soil tolerance. Grain sorghum maintainer or B-line. Plant color purple, grain with a brown epicarp and a testa, semi-open panicle, exsertion of about 30 cm, and 100 seed weight of 2.38 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis 63 and 56, and plant height 114 and 125 cm, respectively.

PI 602695. *Sorghum bicolor* (L.) Moench

Breeding. Pureline. MP 432; MALE STERILE; AMP 432. Pedigree - (B-Yellow PI*IS 7173C)-45-3-2-2-1. Inbred 15 of 28 (Group 11) with acid-soil tolerance. Grain sorghum cytoplasmic-genetic male sterile or A-line. Plant color purple, grain with a brown epicarp and a testa, open panicle, exsertion of about 25 cm, and 100 seed weight of 2.13 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis 63 and 57, and plant height 120 and 137 cm, respectively.

PI 602696. *Sorghum bicolor* (L.) Moench

Breeding. Pureline. MP 432; MAINTAINER; BMP 432. Pedigree - (B-Yellow PI*IS 7173C)-45-3-2-2-1. Inbred 15 of 28 (Group 11) with acid-soil tolerance. Grain sorghum maintainer or B-line. Plant color purple, grain with a brown epicarp and a testa, open panicle, exsertion of about 25 cm, and 100 seed weight of 2.13 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis 63 and 57 and plant height 120 and 137 cm, respectively.

PI 602697. *Sorghum bicolor* (L.) Moench

Breeding. Pureline. MP 433; MALE STERILE; AMP 433. Pedigree - (B-Yellow PI*IS 7173C)-48-2-2-2-1. Inbred 16 of 28 (Group 11) with acid-soil tolerance. Grain sorghum cytoplasmic-genetic male sterile or A-line. Plant color purple, grain with white epicarp and absence of a testa, semi-open panicle, exsertion of about 10 cm, and 100 seed weight of 3.29 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis 63 and 57, and plant height 131 and 148 cm, respectively.

- PI 602698. *Sorghum bicolor* (L.) Moench**
Breeding. Pureline. MP 433; MAINTAINER; BMP 433. Pedigree - (B-Yellow PI*IS 7173C)-48-2-2-2-1. Inbred 16 of 28 (Group 11) with acid-soil tolerance. Grain sorghum maintainer or B-line. Plant color purple, grain with white epicarp and absence of a testa, open panicle, exsertion of about 25 cm, and 100 seed weight of 1.70 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis 64 and 56, and plant height 131 and 148 cm, respectively.
- PI 602699. *Sorghum bicolor* (L.) Moench**
Breeding. Pureline. MP 434; MALE STERILE; AMP 434. Pedigree - (B-Yellow PI*IS 7173C)-50-3-1-2-1. Inbred 17 of 28 (Group 11) with acid-soil tolerance. Grain sorghum cytoplasmic-genetic male sterile or A-line. Plant color purple, grain with white epicarp and absence of a testa, open panicle, exsertion of about 15 cm, and 100 seed weight of 1.85 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis 65 and 57, and plant height 105 and 128 cm, respectively.
- PI 602700. *Sorghum bicolor* (L.) Moench**
Breeding. Pureline. MP 434; MAINTAINER; BMP 434. Pedigree - (B-Yellow PI*IS 7173C)-50-3-1-2-1. Inbred 17 of 28 (Group 11) with acid-soil tolerance. Grain sorghum maintainer or B-line. Plant color purple, grain with white epicarp and absence of a testa, open panicle, exsertion of about 15 cm, and 100 seed weight of 1.85 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis 65 and 57, and plant height 105 and 128 cm, respectively.
- PI 602701. *Sorghum bicolor* (L.) Moench**
Breeding. Pureline. MP 435; MALE STERILE; AMP 435. Pedigree - (B-Yellow PI*IS 7173C)-52-2-1-2-1. Inbred 18 of 28 (Group 11) with acid-soil tolerance. Grain sorghum cytoplasmic-genetic male sterile or A-line. Plant color purple, grain with white epicarp and absence of a testa, semi-compact panicle, exsertion of about 10 cm, and 100 seed weight of 2.59 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis 62 and 67, and plant height 108 and 111 cm, respectively.
- PI 602702. *Sorghum bicolor* (L.) Moench**
Breeding. Pureline. MP 435; MAINTAINER; BMP 435. Pedigree - (B-Yellow PI*IS 7173C)-52-2-1-2-1. Inbred 18 of 28 with acid-soil tolerance. Grain sorghum maintainer or B-line. Plant color purple, grain with white epicarp and absence of a testa, semi-compact panicle, exsertion of about 10 cm, and 100 seed weight of 2.59 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis 62 and 67, and plant height 108 and 111 cm, respectively.
- PI 602703. *Sorghum bicolor* (L.) Moench**
Breeding. Pureline. MP 436; MALE STERILE; AMP 436. Pedigree - (B-Yellow PI*IS 7173C)-52-2-1-3-2. Inbred 19 of 28 (Group 11) with acid-soil tolerance. Grain sorghum cytoplasmic-genetic male sterile or A-line. Plant color purple, grain with white epicarp and absence of a testa, semi-compact panicle, exsertion of about 5 cm, and 100 seed weight of 2.32 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis 62 and 64, and plant height 98 and 123 cm, respectively.

- PI 602704. *Sorghum bicolor* (L.) Moench**
Breeding. Pureline. MP 436; MAINTAINER; BMP 436. Pedigree - (B-Yellow PI*IS 7173C)-52-2-1-3-2. Inbred 19 of 28 (Group 11) with acid-soil tolerance. Grain sorghum maintainer or B-line. Plant color purple, grain with white epicarp and absence of a testa, semi-compact panicle, exertion of about 5 cm, and 100 seed weight of 2.32 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis 62 and 64, and plant height 98 and 123 cm, respectively.
- PI 602705. *Sorghum bicolor* (L.) Moench**
Breeding. Pureline. MP 437; MALE STERILE; AMP 437. Pedigree - (B-Yellow PI*IS 7173C)-55-2-1-1-1. Inbred 20 of 28 (Group 11) with acid-soil tolerance. Grain sorghum cytoplasmic-genetic male sterile or A-line. Plant color purple, grain with brown epicarp and a testa, open panicle, exertion of about 20 cm, and seed weight of 2.20 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis 65 and 70, and plant height 122 and 123 cm, respectively.
- PI 602706. *Sorghum bicolor* (L.) Moench**
Breeding. Pureline. MP 437; MAINTAINER; BMP 437. Pedigree - (B-Yellow PI*IS 7173C)-55-2-1-1-1. Inbred 20 of 28 (Group 11) with acid-soil tolerance. Grain sorghum maintainer or B-line. Plant color purple, grain with brown epicarp and a testa, open panicle, exertion of about 20 cm, and 100 seed weight of 2.20 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis 65 and 70, and plant height 122 and 123 cm, respectively.
- PI 602707. *Sorghum bicolor* (L.) Moench**
Breeding. Pureline. MP 438; MALE STERILE; AMP 438. Pedigree - (B-Yellow PI*IS 7173C)-55-2-1-1-2. Inbred 21 of 28 (Group 11) with acid-soil tolerance. Grain sorghum cytoplasmic-genetic male sterile or A-line. Plant color purple, grain with brown epicarp and a testa, open panicle, exertion of about 30 cm, and 100 seed weight of 2.19 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis 64 and 68, and plant height 126 and 110 cm, respectively.
- PI 602708. *Sorghum bicolor* (L.) Moench**
Breeding. Pureline. MP 438; MAINTAINER; BMP 438. Pedigree - (B-Yellow PI*IS 7173C)-55-2-1-1-2. Inbred 21 of 28 (Group 11) with acid-soil tolerance. Grain sorghum maintainer or B-line. Plant color purple, grain with brown epicarp and a testa, open panicle, exertion of about 30 cm, and 100 seed weight of 2.19 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis 64 and 68, and plant height 126 and 110 cm, respectively.
- PI 602709. *Sorghum bicolor* (L.) Moench**
Breeding. Pureline. MP 439; MALE STERILE; AMP 439. Pedigree - (Wheatland Derivative*IS 7173C)-7-5-1-2-2. Inbred 22 of 28 (Group 11) with acid-soil tolerance. Grain sorghum cytoplasmic-genetic male sterile or A-line. Plant color purple, grain with red epicarp and absence of a testa, semi-open panicle, exertion of about 12 cm, and 100 seed weight of 2.47 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis 70 and 65, and plant height 101 and 110 cm, respectively.

- PI 602710. *Sorghum bicolor* (L.) Moench**
Breeding. Pureline. MP 439; MAINTAINER; BMP 439. Pedigree - (Wheatland Derivative*IS 7173C)-7-5-1-2-2. Inbred 22 of 28 (Group 11) with acid-soil tolerance. Grain sorghum maintainer or B-line. Plant color purple, grain with a red epicarp and absence of a testa, semi-open panicle, exsertion of about 12 cm, and 100 seed weight of 2.47 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis 70 and 65, and plant height 101 and 110 cm, respectively.
- PI 602711. *Sorghum bicolor* (L.) Moench**
Breeding. Pureline. MP 440; MALE STERILE; AMP 440. Pedigree - (Wheatland Derivative*IS 7173C)-10-6-1-2-1. Inbred 23 of 28 (Group 11) with acid-soil tolerance. Grain sorghum cytoplasmic-genetic male sterile or A-line. Plant color purple, grain with a red epicarp and absence of a testa, open panicle, exsertion of about 35 cm, and 100 seed weight of 2.28 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis 72 and 66, and plant height 130 and 134 cm, respectively.
- PI 602712. *Sorghum bicolor* (L.) Moench**
Breeding. Pureline. MP 440; MAINTAINER; BMP 440. Pedigree - (Wheatland Derivative*IS 7173C)-10-6-1-2-1. Inbred 23 of 28 (Group 11) with acid-soil tolerance. Grain sorghum maintainer or B-line. Plant color purple, grain with a red epicarp and absence of a testa, open panicle, exsertion of about 35 cm, and 100 seed weight of 2.28 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis 72 and 66, and plant height 130 and 134 cm, respectively.
- PI 602713. *Sorghum bicolor* (L.) Moench**
Breeding. Pureline. MP 441; MALE STERILE; AMP 441. Pedigree - (Wheatland Derivative*IS 7173C)-13-5-1-2-1. Inbred 24 of 28 (Group 11) with acid-soil tolerance. Grain sorghum cytoplasmic-genetic male sterile or A-line. Plant color purple, grain with red epicarp and absence of a testa, open panicle, exsertion of about 25 cm, and 100 seed weight of 2.18 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis 70 and 62, and plant height 111 and 131 cm, respectively.
- PI 602714. *Sorghum bicolor* (L.) Moench**
Breeding. Pureline. MP 441; MAINTAINER; BMP 441. Pedigree - (Wheatland Derivative*IS 7173C)-13-5-1-2-1. Inbred 24 of 28 (Group 11) with acid-soil tolerance. Grain sorghum maintainer or B-line. Plant color purple, grain with red epicarp and absence of a testa, open panicle, exsertion of about 25 cm, and 100 seed weight of 2.18 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis 70 and 62, and plant height 111 and 131 cm, respectively.
- PI 602715. *Sorghum bicolor* (L.) Moench**
Breeding. Pureline. MP 442; MALE STERILE; AMP 442. Pedigree - (Wheatland Derivative*IS 7173C)-24-3-2-2-1. Inbred 25 of 28 (Group 11) with acid-soil tolerance. Grain cytoplasmic-genetic male sterile or A-line. Plant color purple, grain with red epicarp and absence of a testa, open panicle, exsertion of about 15 cm, and 100 seed weight of 2.40 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis 69 and 67, and plant height 111 and 125 cm, respectively.
- PI 602716. *Sorghum bicolor* (L.) Moench**

Breeding. Pureline. MP 442; MAINTAINER; BMP 442. Pedigree - (Wheatland Derivative*IS 7173C)-24-3-2-2-1. Inbred 25 of 28 (Group 11) with acid-soil tolerance. Grain sorghum maintainer or B-line. Plant color purple, grain with red epicarp and absence of a testa, open panicle, exsertion of about 15 cm, and 100 seed weight of 2.40 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis 69 and 67, and plant height 111 and 125 cm, respectively.

PI 602717. *Sorghum bicolor* (L.) Moench

Breeding. Pureline. MP 443; MALE STERILE; AMP 443. Pedigree - (Wheatland Derivative*IS 7173C)-25-1-1-1-2. Inbred 26 of 28 (Group 11) with acid-soil tolerance. Grain sorghum cytoplasmic-genetic male sterile or A-line. Plant color purple, grain with red epicarp and absence of a testa, open panicle, exsertion of about 35 cm, and 100 seed weight of 2.15 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis 73 and 64, and plant height 120 and 146 cm, respectively.

PI 602718. *Sorghum bicolor* (L.) Moench

Breeding. Pureline. MP 443; MAINTAINER; BMP 443. Pedigree - (Wheatland Derivative*IS 7173C)-25-1-1-1-2. Inbred 26 of 28 (Group 11) with acid-soil tolerance. Grain sorghum maintainer or B-line. Plant color purple, grain with red epicarp and absence of a testa, open panicle, exsertion of about 35 cm, and 100 seed weight of 2.15 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis 73 and 64, and plant height 120 and 146 cm, respectively.

PI 602719. *Sorghum bicolor* (L.) Moench

Breeding. Pureline. MP 444; MALE STERILE; AMP 444. Pedigree - (Wheatland Derivative*IS 7173C)-27-1-1-2-1. Inbred 27 of 28 (Group 11) with acid-soil tolerance. Grain sorghum cytoplasmic-genetic male sterile or A-line. Plant color purple, grain with red epicarp and absence of a testa, semi-open panicle, exsertion of about 12 cm, and 100 seed weight of 2.05 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis 75 and 70, and plant height 105 and 110 cm, respectively.

PI 602720. *Sorghum bicolor* (L.) Moench

Breeding. Pureline. MP 444; MAINTAINER; BMP 444. Pedigree - (Wheatland Derivative*IS 7173C)-27-1-1-2-1. Inbred 27 of 28 (Group 11) with acid-soil tolerance. Grain sorghum maintainer or B-line. Plant color purple, grain with red epicarp and absence of a testa, semi-open panicle, exsertion of about 12 cm, and 100 seed weight of 2.05 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis 75 and 70, and plant height 105 and 110 cm, respectively.

PI 602721. *Sorghum bicolor* (L.) Moench

Breeding. Pureline. MP 445; MALE STERILE; AMP 445. Pedigree - (Wheatland Derivative*IS 7173C)-29-2-2-1-1. Inbred 28 of 28 (Group 11) with acid-soil tolerance. Grain sorghum cytoplasmic-genetic male sterile or A-line. Plant color purple, grain with white epicarp and absence of a testa, semi-open panicle, exsertion of about 10 cm, and 100 seed weight of 2.01 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis 64 and 58, and plant height 90 and 96 cm, respectively.

PI 602722. *Sorghum bicolor* (L.) Moench

Breeding. Pureline. MP 445; MAINTAINER; BMP 445. Pedigree - (Wheatland Derivative*IS 7173C)-29-2-2-1-1. Inbred 28 of 28 (Group 11) with acid-soil tolerance. Grain sorghum maintainer or B-line. Plant color purple, grain with white epicarp and absence of a testa, semi-open panicle, exsertion of about 10 cm, and 100 seed weight of 2.01 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis 64 and 58, and plant height 90 and 96 cm, respectively.

PI 602723. Sorghum bicolor (L.) Moench

Breeding. Pureline. MP 446; MALE STERILE; AMP 446. Pedigree - [(Wheatland Derivative*bmr 6)BC2-19-7-1-1-1)*((OK11*bmr 12)BC2-7-1-3-1-2)]-5-2-1-2. Inbred 1 of 11 (Group 12) with brown mid-rib. Grain sorghum cytoplasmic-genetic male sterile or A-line. Plant color purple, grain with white epicarp and absence of a testa, semi-open panicle, exsertion of about 8 cm, and 100 seed weight of 2.04 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis 64 and 64, and plant height 94 and 101 cm, respectively.

PI 602724. Sorghum bicolor (L.) Moench

Breeding. Pureline. MP 446; MAINTAINER; BMP 446. Pedigree - [(Wheatland Derivative*bmr 6)BC2-19-7-1-1-1)*((OK 11*bmr 12)BC2-7-1-3-1-2)]-5-2-1-2. Inbred 1 of 11 (Group 12) with brown mid-rib. Grain sorghum maintainer or B-line. Plant color purple, grain with white epicarp and absence of a testa, semi-open panicle, exsertion of about 8 cm, and 100 seed weight of 2.04 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis 64 and 64, and plant height 94 and 101 cm, respectively.

PI 602725. Sorghum bicolor (L.) Moench

Breeding. Pureline. MP 447; MALE STERILE; AMP 447. Pedigree - [(OK 11*bmr 17)BC2-2-1-1-1-1)*((OK 11*bmr 12)BC2-4-1-1-1-1)]-1-2-1-1. Inbred 2 of 11 (Group 12) with brown mid-rib. Grain sorghum cytoplasmic-genetic male sterile or A-line. Plant color purple, grain with white epicarp and absence of a testa, semi-open panicle, exsertion of about 8 cm, and 100 seed weight of 2.28 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis 64 and 62, and plant height 94 and 98 cm, respectively.

PI 602726. Sorghum bicolor (L.) Moench

Breeding. Pureline. MP 447; MAINTAINER; BMP 447. Pedigree - [(OK 11*bmr 17)BC2-2-1-1-1-1)*((OK 11*bmr 12)BC2-4-1-1-1-1)]-1-2-1-1. Inbred 2 of 11 (Group 12) with brown mid-rib. Grain sorghum maintainer or B-line. Plant color purple, grain with white epicarp and absence of a testa, semi-open panicle, exsertion of about 8 cm, and 100 seed weight of 2.28 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis 64 and 62, and plant height 94 and 98 cm, respectively.

PI 602727. Sorghum bicolor (L.) Moench

Breeding. Pureline. MP 448; MALE STERILE; AMP 448. Pedigree - [(OK 11*bmr 17)BC2-2-1-1-1-1)*((OK 11*bmr 12)BC2-4-1-1-1-1)]-1-2-2-1. Inbred 3 of 11 (Group 12) with brown mid-rib. Grain sorghum cytoplasmic-genetic male sterile or A-line. Plant color purple, grain with white epicarp and absence of a testa, semi-open panicle, exsertion of about 8 cm, and 100 seed weight of 2.10 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis 65 and 66, and plant height 107 and 105 cm, respectively.

- PI 602728. *Sorghum bicolor* (L.) Moench**
Breeding. Pureline. MP 448; MAINTAINER; BMP 448. Pedigree - [(OK 11*bmr 17)BC2-2-1-1-1-1]*((OK 11*bmr 12)BC2-4-1-1-1-1]-1-2-2-1. Inbred 3 of 11 (Group 12) with brown mid-rib. Grain sorghum maintainer or B-line. Plant color purple, grain with white epicarp and absence of a testa, semi-open panicle, exsertion of about 8 cm, and 100 seed weight of 2.10 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis 65 and 66, and plant height 107 and 105 cm, respectively.
- PI 602729. *Sorghum bicolor* (L.) Moench**
Breeding. Pureline. MP 449; MALE STERILE; AMP 449. Pedigree - [(OK 11*bmr 17)BC2-2-1-1-1-1]*((OK 11*bmr 12(BC2-4-1-1-1-1])-20-1-1-1. Inbred 4 of 11 (Group 12) with brown mid-rib. Grain sorghum cytoplasmic-genetic male sterile or A-line. Plant color purple, grain with red epicarp and absence of a testa, semi-open panicle, exsertion of about 15 cm, and 100 seed weight of 1.97 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis 65 and 68, and plant height 114 and 131 cm, respectively.
- PI 602730. *Sorghum bicolor* (L.) Moench**
Breeding. Pureline. MP 449; MAINTAINER; BMP 449. Pedigree - [(OK 11*bmr 17)BC2-2-1-1-1-1]*((OK 11*bmr 12)BC2-4-1-1-1-1]-20-1-1-1. Inbred 4 of 11 (Group 12) with brown mid-rib. Grain sorghum maintainer or B-line. Plant color purple, grain with red epicarp and absence of a testa, semi-open panicle, exsertion of about 15 cm, and 100 seed weight of 1.97 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis 65 and 68, and plant height 114 and 131 cm, respectively.
- PI 602731. *Sorghum bicolor* (L.) Moench**
Breeding. Pureline. MP 450; MALE STERILE; AMP 450. Pedigree - [(OK 11*bmr 17)BC2-2-1-1-1-1]*((OK 11*bmr 12)BC2-4-1-1-1-1]-20-1-2-1. Inbred 5 of 11 (Group 12) with brown mid-rib. Grain sorghum cytoplasmic-genetic male sterile or A-line. Plant color purple, grain with red epicarp and absence of a testa, semi-open panicle, exsertion of about 5 cm, and seed weight of 2.08 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis 64 and 66, and plant height 101 and 117 cm, respectively.
- PI 602732. *Sorghum bicolor* (L.) Moench**
Breeding. Pureline. MP 450; MAINTAINER; BMP 450. Pedigree - [(OK 11*bmr 17)BC2-2-1-1-1-1]*((OK 11*bmr 12)BC2-4-1-1-1-1]-20-1-2-1. Inbred 5 of 11 (Group 12) with brown mid-rib. Grain sorghum maintainer or B-line. Plant color purple, grain with red epicarp and absence of a testa, semi-open panicle, exsertion of about 5 cm, and 100 seed weight of 2.08 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis 64 and 66, and plant height 101 and 117 cm, respectively.
- PI 602733. *Sorghum bicolor* (L.) Moench**
Breeding. Pureline. MP 451; MALE STERILE; AMP 451. Pedigree - [(OK 11*bmr 17)BC2-2-1-1-1-1]*((OK 11*bmr 12)BC2-4-1-1-1-1]-20-1-3-1. Inbred 6 of 11 (Group 12) with brown mid-rib. Grain sorghum cytoplasmic-genetic male sterile or A-line. Plant color purple, grain with red epicarp and absence of a testa, open panicle, exsertion of about 12 cm, and 100 seed weight of 1.93 gm. In June plantings at Plainview, TX and Starkville,

MS, days to 50% anthesis 68 and 64, and plant height 108 and 107 cm, respectively.

PI 602734. *Sorghum bicolor* (L.) Moench

Breeding. Pureline. MP 451; MAINTAINER; BMP 451. Pedigree - [(OK 11*bmr 17)BC2-2-1-1-1-1]*((OK 11*bmr 12)BC2-4-1-1-1-1]-20-1-3-1. Inbred 6 of 11 (Group 12) with brown mid-rib. Grain sorghum maintainer or B-line. Plant color purple, grain with red epicarp and absence of a testa, open panicle, exsertion of about 12 cm, and 100 seed weight of 1.93 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis 68 and 64, and plant height 108 and 107 cm, respectively.

PI 602735. *Sorghum bicolor* (L.) Moench

Breeding. Pureline. MP 452; MALE STERILE; AMP 452. Pedigree - [(OK 11*bmr 17)BC2-2-1-1-1-1]*((OK 11*bmr 12)BC2-4-1-1-1-1)-20-1-4-1. Inbred 7 of 11 (Group 12) with brown mid-rib. Grain sorghum cytoplasmic-genetic male sterile or A-line. Plant color purple, grain with red epicarp and absence of a testa, semi-open panicle, exsertion of about 8 cm, and 100 seed weight of 2.44 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis 66 and 66, and plant height 107 and 99 cm, respectively.

PI 602736. *Sorghum bicolor* (L.) Moench

Breeding. Pureline. MP 452; MAINTAINER; BMP 452. Pedigree - [(OK 11*bmr 17)BC2-2-1-1-1-1]*((OK 11*bmr 12)BC2-4-1-1-1-1)-20-1-4-1. Inbred 7 of 11 (Group 12) with brown mid-rib. Grain sorghum maintainer or B-line. Plant color purple, grain with red epicarp and absence of a testa, semi-open panicle, exsertion of about 8 cm, and 100 seed weight of 2.44 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis 66 and 66, and plant height 107 and 99 cm, respectively.

PI 602737. *Sorghum bicolor* (L.) Moench

Breeding. Pureline. MP 453; MALE STERILE; AMP 453. Pedigree - [(B-Yellow PI*bmr 18)BC2-11-2-2-2-1]*((OK 11*bmr 17)BC2-2-1-1-1-1]-6-3-3-1. Inbred 8 of 11 (Group 12) with brown mid-rib. Grain sorghum cytoplasmic-genetic male sterile or A-line. Plant color purple, grain with white epicarp and absence of a testa, open panicle, exsertion of about 5 cm, and 100 seed weight of 1.72 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis 63 and 54, and plant height 84 and 78 cm, respectively.

PI 602738. *Sorghum bicolor* (L.) Moench

Breeding. Pureline. MP 453; MAINTAINER; BMP 453. Pedigree - [(B-Yellow PI*bmr 18)BC2-11-2-2-2-1]*((OK 11*bmr 17)BC2-2-1-1-1-1]-6-3-3-1. Inbred 8 of 11 (Group 12) with brown mid-rib. Grain sorghum maintainer or B-line. Plant color purple, grain with white epicarp and absence of a testa, open panicle, exsertion of about 5 cm, and 100 seed weight of 1.72 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis 63 and 54, and plant height 84 and 78 cm, respectively.

PI 602739. *Sorghum bicolor* (L.) Moench

Breeding. Pureline. MP 454; MALE STERILE; AMP 454. Pedigree - [[[OK 11*bmr 17)BC2-2-1-1-1-1]*((OK 11*bmr 12)BC2-4-1-1-1-1)]*[(OK 11*bmr 2)BC3-1-3-2-2]*((Wheatland Derivative*bmr 6)BC2-19-7-1-1-1)]-7-1-1-1. Inbred 9 of 11 (Group 12) with brown mid-rib. Grain sorghum

cytoplasmic-genetic male sterile or A-line. Plant color purple, grain with white epicarp and absence of a testa, semi-open panicle, exsertion of about 20 cm, and 100 seed weight of 1.12 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis 77 and 82, and plant height 119 and 105 cm, respectively.

PI 602740. Sorghum bicolor (L.) Moench

Breeding. Pureline. MP 454; MAINTAINER; BMP 454. Pedigree - [[(OK 11*bmr 17)BC2-2-1-1-1-1)*((OK 11*bmr 12)BC2-4-1-1-1-1)]*[(OK 11*bmr 2)BC3-1-3-2-2)*((Wheatland Deribcativ*bmr 6)BC2-19-7-1-1-1)]]-7-1-1-1. Inbred 9 of 11 (Group 12) with brown mid-rib. Grain sorghum maintainer or B-line. Plant color purple, grain with white epicarp and absence of a testa, semi-open panicle, exsertion of about 20 cm, and 100 seed weight of 1.12 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis 77 and 82, and plant height 119 and 105 cm, respectively.

PI 602741. Sorghum bicolor (L.) Moench

Breeding. Pureline. MP 455; MALE STERILE; AMP 455. Pedigree - ((Wheatland*bmr 6)*KS 9)-7-1-2-1. Inbred 10 of 11 (Group 12) with brown mid-rib. Grain sorghum cytoplasmic-genetic male sterile or A-line. Plant color tan, grain with white epicarp and absence of a testa, open panicle, exsertion of about 30 cm, and 100 seed weight of 2.28 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis 64 and 60, and plant height 114 and 125 cm, respectively.

PI 602742. Sorghum bicolor (L.) Moench

Breeding. Pureline. MP 455; MAINTAINER; BMP 455. Pedigree - ((Wheatland*bmr 6)*KS 9)-7-1-2-1. Inbred 10 of 11 (Group 12) with brown mid-rib. Grain sorghum maintainer or B-line. Plant color tan, grain with white epicarp and absence of a testa, open panicle, exsertion of about 30 cm, and 100 seed weight of 2.28 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis 64 and 60, and plant height 114 and 125 cm, respectively.

PI 602743. Sorghum bicolor (L.) Moench

Breeding. Pureline. MP 456; MALE STERILE; AMP 456. Pedigree - ((Wheatland*bmr 6)*KS 9)-7-1-2-2. Inbred 11 of 11 (Group 12) with brown mid-rib. Grain sorghum cytoplasmic-genetic male sterile or A-line. Plant color tan, grain with white epicarp and absence of a testa, semi-open panicle, exsertion of about 20 cm, and 100 seed weight of 2.35 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis 63 and 60, and plant height 113 and 117 cm, respectively.

PI 602744. Sorghum bicolor (L.) Moench

Breeding. Pureline. MP 456; MAINTAINER; BMP 456. Pedigree - ((Wheatland*bmr 6)*KS 9)-7-1-2-2. Inbred 11 of 11 (Group 12) with brown mid-rib. Grain sorghum maintainer or B-line. Plant color tan, grain with white epicarp and absence of a testa, semi-open panicle, exsertion of about 20 cm, and 100 seed weight of 2.35 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis 63 and 60, and plant height 113 and 117 cm, respectively.

PI 602745. Sorghum bicolor (L.) Moench

Breeding. Pureline. MP 457; MALE STERILE; AMP 457. Pedigree -

(TX623*Combine Sagrain)-1-3-1-1. Inbred 1 of 18 (Group 13) with bird resistance. Grain sorghum cytoplasmic-genetic male sterile or A-line. Plant color purple, grain with brown epicarp and a testa, semi-open panicle, exsertion of about 8 cm, and 100 seed weight of 1.69 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis 62 and 58, and plant height 85 and 90 cm, respectively.

PI 602746. *Sorghum bicolor* (L.) Moench

Breeding. Pureline. MP 457; MAINTAINER; BMP 457. Pedigree - (TX623*Combine Sagrain)-1-3-1-1. Inbred 1 of 18 (Group 13) with bird resistance. Grain sorghum maintainer or B-line. Plant color purple, grain with brown epicarp and a testa, semi-open panicle, exsertion of about 8 cm, and 100 seed weight of 1.69 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis 62 and 58, and plant height 85 and 90 cm, respectively.

PI 602747. *Sorghum bicolor* (L.) Moench

Breeding. Pureline. MP 458; MALE STERILE; AMP 458. Pedigree - (TX623*Combine Sagrain)-6-1-1-1. Inbred 2 of 18 (Group 13) with bird resistance. Grain sorghum cytoplasmic-genetic male sterile or A-line. Plant color purple, grain with brown epicarp and a testa, semi-open panicle, exsertion of about 10 cm, and 100 seed weight of 1.92 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis 64 and 66, and plant height 88 and 101 cm, respectively.

PI 602748. *Sorghum bicolor* (L.) Moench

Breeding. Pureline. MP 458; MAINTAINER; BMP 458. Pedigree - (TX623*Combine Sagrain)-6-1-1-1. Inbred 2 of 18 (Group 13) with bird resistance. Grain sorghum maintainer or B-line. Plant color purple, grain with brown epicarp and a testa, semi-open panicle, exsertion of about 10 cm, and 100 seed weight of 1.92 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis 64 and 66, and plant height 88 and 101 cm, respectively.

PI 602749. *Sorghum bicolor* (L.) Moench

Breeding. Pureline. MP 459; MALE STERILE; AMP 459. Pedigree - (TX623*Combine Sagrain)-23-1-2-2. Inbred 3 of 18 (Group 13) with bird resistance. Grain sorghum cytoplasmic-genetic male sterile or A-line. Plant color purple, grain with brown epicarp and a testa, semi-compact panicle, exsertion of about 10 cm, and 100 seed weight of 2.35 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis 66 and 68, and plant height 122 and 142 cm, respectively.

PI 602750. *Sorghum bicolor* (L.) Moench

Breeding. Pureline. MP 459; MAINTAINER; BMP 459. Pedigree - (TX623*Combine Sagrain)-23-1-2-2. Inbred 3 of 18 (Group 13) with bird resistance. Grain sorghum maintainer or B-line. Plant color purple, grain with brown epicarp and a testa, semi-compact panicle, exsertion of about 10 cm, and 100 seed weight of 2.35 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis 66 and 68, and plant height 122 and 142 cm, respectively.

PI 602751. *Sorghum bicolor* (L.) Moench

Breeding. Pureline. MP 460; MALE STERILE; AMP 460. Pedigree - (TX623*Combine Sagrain)-35-2-1-1. Inbred 4 of 18 (Group 13) with bird

resistance. Grain sorghum cytoplasmic-genetic male sterile or A-line. Plant color purple, grain with brown epicarp and a testa, semi-open panicle, exertion of about 12 cm, and 100 seed weight of 2.45 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis 62 and 62, and plant height 133 and 169 cm, respectively.

PI 602752. Sorghum bicolor (L.) Moench

Breeding. Pureline. MP 460; MAINTAINER; BMP 460. Pedigree - (TX623*Combine Sagrain)-35-2-1-1. Inbred 4 of 18 (Group 13) with bird resistance. Grain sorghum maintainer or B-line. Plant color purple, grain with brown epicarp and a testa, semi-open panicle, exertion of about 12 cm, and 100 seed weight of 2.45 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis 62 and 62, and plant height 133 and 169 cm, respectively.

PI 602753. Sorghum bicolor (L.) Moench

Breeding. Pureline. MP 461; MALE STERILE; AMP 461. Pedigree - (TX623*Combine Sagrain)-41-2-2-1. Inbred 5 of 18 (Group 13) with bird resistance. Grain sorghum cytoplasmic-genetic male sterile or A-line. Plant color purple, grain with brown epicarp and a testa, open panicle, exertion of about 8 cm, and 100 seed weight of 2.31 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis 61 and 62, and plant height 131 and 163 cm, respectively.

PI 602754. Sorghum bicolor (L.) Moench

Breeding. Pureline. MP 461; MAINTAINER; BMP 461. Pedigree - (TX623*Combine Sagrain)-41-2-2-1. Inbred 5 of 18 (Group 13) with bird resistance. Grain sorghum maintainer or B-line. Plant color purple, grain with brown epicarp and a testa, open panicle, exertion of about 8 cm, and 100 seed weight of 2.31 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis 61 and 62, and plant height 131 and 163 cm, respectively.

PI 602755. Sorghum bicolor (L.) Moench

Breeding. Pureline. MP 462; MALE STERILE; AMP 462. Pedigree - (TX623*Combine Sagrain)-41-2-2-2. Inbred 6 of 18 (Group 13) with bird resistance. Grain sorghum cytoplasmic-genetic male sterile or A-line. Plant color purple, grain with brown epicarp and a testa, open panicle, exertion of about 5 cm, and 100 seed weight of 2.23 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis 61 and 62, and plant height 126 and 169 cm, respectively.

PI 602756. Sorghum bicolor (L.) Moench

Breeding. Pureline. MP 462; MAINTAINER; BMP 462. Pedigree - (TX623*Combine Sagrain)-41-2-2-2. Inbred 6 of 18 (Group 13) with bird resistance. Grain sorghum maintainer or B-line. Plant color purple, grain with brown epicarp and a testa, open panicle, exertion of about 5 cm, and 100 seed weight of 2.23 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis 61 and 62, and plant height 126 and 169 cm, respectively.

PI 602757. Sorghum bicolor (L.) Moench

Breeding. Pureline. MP 463; MALE STERILE; AMP 463. Pedigree - (TX623*Combine Sagrain)-52-1-1-1. Inbred 7 of 18 (Group 13) with bird resistance. Grain sorghum cytoplasmic-genetic male sterile or A-line.

Plant color purple, grain with brown epicarp and a testa, semi-open panicle, exsertion of about 10 cm, and 100 seed weight of 2.34 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis 68 and 63, and plant height 139 and 189 cm, respectively.

PI 602758. *Sorghum bicolor* (L.) Moench

Breeding. Pureline. MP 463; MAINTAINER; BMP 463. Pedigree - (TX623*Combine Sagrain)-52-1-1-1. Inbred 7 or 18 (Group 13) with bird resistance. Grain sorghum maintainer or B-line. Plant color purple, grain with brown epicarp and a testa, semi-open panicle, exsertion of about 10 cm, and 100 seed weight of 2.34 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis 68 and 63, and plant height 139 and 189 cm, respectively.

PI 602759. *Sorghum bicolor* (L.) Moench

Breeding. Pureline. MP 464; MALE STERILE; AMP 464. Pedigree - (TX623*Combine Sagrain)-52-1-1-2. Inbred 8 of 18 (Group 13) with bird resistance. Grain sorghum cytoplasmic-genetic male sterile or A-line. Plant color purple, grain with brown epicarp and a testa, semi-open panicle, exsertion of about 15 cm, and 100 seed weight of 2.44 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis 63 and 68, and plant height 130 and 168 cm, respectively.

PI 602760. *Sorghum bicolor* (L.) Moench

Breeding. Pureline. MP 464; MAINTAINER; BMP 464. Pedigree - (TX623*Combine Sagrain)-52-1-1-2. Inbred 8 of 18 (Group 13) with bird resistance. Grain sorghum maintainer or B-line. Plant color purple, grain with brown epicarp and a testa, semi-open panicle, exsertion of about 15 cm, and 100 seed weight of 2.44 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis 63 and 68, and plant height 130 and 168 cm, respectively.

PI 602761. *Sorghum bicolor* (L.) Moench

Breeding. Pureline. MP 465; MALE STERILE; AMP 465. Pedigree - (TX623*Combine Sagrain)-57-1-1-2. Inbred 9 of 18 (Group 13) with bird resistance. Grain sorghum cytoplasmic-genetic male sterile or A-line. Plant color purple, grain with brown epicarp and a testa, semi-open panicle, exsertion of about 5 cm, and 100 seed weight of 1.99 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis 63 and 70, and plant height 88 and 107 cm, respectively.

PI 602762. *Sorghum bicolor* (L.) Moench

Breeding. Pureline. MP 465; MAINTAINER; BMP 465. Pedigree - (TX623*Combine Sagrain)-57-1-1-2. Inbred 9 of 18 (Group 13) with bird resistance. Grain sorghum maintainer or B-line. Plant color purple, grain with brown epicarp and a testa, semi-open panicle, exsertion of about 5 cm, and 100 seed weight of 1.99 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis 63 and 70, and plant height 88 and 107 cm, respectively.

PI 602763. *Sorghum bicolor* (L.) Moench

Breeding. Pureline. MP 466; MALE STERILE; AMP 466. Pedigree - (TX623*Combine Sagrain)-65-2-1-1. Inbred 10 of 18 (Group 13) with bird resistance. Grain sorghum cytoplasmic-genetic male sterile or A-line. Plant color purple, grain with brown epicarp and a testa, semi-open

panicle, exsertion of about 5 cm, and 100 seed weight of 2.18 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis 68 and 75, and plant height 107 and 125 cm, respectively.

PI 602764. *Sorghum bicolor* (L.) Moench

Breeding. Pureline. MP 466; MAINTAINER; BMP 466. Pedigree - (TX623*Combine Sagrain)-65-2-1-1. Inbred 10 of 18 (Group 13) with bird resistance. Grain sorghum maintainer or B-line. Plant color purple, grain with brown epicarp and a testa, semi-open panicle, exsertion of about 5 cm, and 100 seed weight of 2.18 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis 68 and 75, and plant height 107 and 125 cm, respectively.

PI 602765. *Sorghum bicolor* (L.) Moench

Breeding. Pureline. MP 467; MALE STERILE; AMP 467. Pedigree - (TX623*Combine Sagrain)-65-2-1-2. Inbred 11 of 18 (Group 13) with bird resistance. Grain sorghum cytoplasmic-genetic male sterile or A-line. Plant color purple, grain with brown epicarp and a testa, semi-open panicle, exsertion of about 2 cm, and 100 seed weight of 2.27 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis 69 and 71, and plant height 107 and 123 cm, respectively.

PI 602766. *Sorghum bicolor* (L.) Moench

Breeding. Pureline. MP 467; MAINTAINER; BMP 467. Pedigree - (TX623*Combine Sagrain)-65-2-1-2. Inbred 11 of 18 (Group 13) with bird resistance. Grain sorghum maintainer or B-line. Plant color purple, grain with brown epicarp and a testa, semi-open panicle, exsertion of about 2 cm, and 100 seed weight of 2.27 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis 69 and 71, and plant height 107 and 123 cm, respectively.

PI 602767. *Sorghum bicolor* (L.) Moench

Breeding. Pureline. MP 468; MALE STERILE; AMP 468. Pedigree - (TX623*Combine Sagrain)-72-3-1-1. Inbred 12 of 18 (Group 13) with bird resistance. Grain sorghum cytoplasmic-genetic male sterile or A-line. Plant color purple, grain with brown epicarp and a testa, semi-open panicle, exsertion of about 15 cm, and 100 seed weight of 1.96 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis 62 and 68, and plant height 119 and 146 cm, respectively.

PI 602768. *Sorghum bicolor* (L.) Moench

Breeding. Pureline. MP 468; MAINTAINER; BMP 468. Pedigree - (TX623*Combine Sagrain)-72-3-1-1. Inbred 12 of 18 (Group 13) with bird resistance. Grain sorghum maintainer or B-line. Plant color purple, grain with brown epicarp and a testa, semi-open panicle, exsertion of about 15 cm, and 100 seed weight of 1.96 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis 62 and 68, and plant height 119 and 146 cm, respectively.

PI 602769. *Sorghum bicolor* (L.) Moench

Breeding. Pureline. MP 469; MALE STERILE; AMP 469. Pedigree - (TX623*Combine Sagrain)-72-3-2-1. Inbred 13 of 18 (Group 13) with bird resistance. Grain sorghum cytoplasmic-genetic male sterile or A-line. Plant color purple, grain with brown epicarp and a testa, open panicle, exsertion of about 15 cm, and 100 seed weight of 1.92. In June plantings

at Plainview, TX and Starkville, MS, days to 50% anthesis 69 and 72, and plant height 117 and 171 cm, respectively.

PI 602770. *Sorghum bicolor* (L.) Moench

Breeding. Pureline. MP 469; MAINTAINER; BMP 469. Pedigree - (TX623*Combine Sagrain)-72-3-2-1. Inbred 13 of 18 (Group 13) with bird resistance. Grain sorghum maintainer or B-line. Plant color purple, grain with brown epicarp and a testa, open panicle, exertion of about 15 cm, and 100 seed weight of 1.92 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis 69 and 72, and plant height 117 and 171 cm, respectively.

PI 602771. *Sorghum bicolor* (L.) Moench

Breeding. Pureline. MP 470; MALE STERILE; AMP 470. Pedigree - (TX623*Combine Sagrain)-72-3-2-2. Inbred 14 of 18 (Group 13) with bird resistance. Grain sorghum cytoplasmic-genetic male sterile or A-line. Plant color purple, grain with brown epicarp and a testa, open panicle, exertion of about 8 cm, and 100 seed weight of 1.87 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis 69 and 70, and plant height 131 and 186 cm, respectively.

PI 602772. *Sorghum bicolor* (L.) Moench

Breeding. Pureline. MP 470; MAINTAINER; BMP 470. Pedigree - (TX623*Combine Sagrain)-72-3-2-2. Inbred 14 of 18 (Group 13) with bird resistance. Grain sorghum maintainer or B-line. Plant color purple, grain with brown epicarp and a testa, open panicle, exertion of about 8 cm, and 100 seed weight of 1.87 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis 69 and 70, and plant height 131 and 186, respectively.

PI 602773. *Sorghum bicolor* (L.) Moench

Breeding. Pureline. MP 471; MALE STERILE; AMP 471. Pedigree - (TX623*Combine Sagrain)-78-1-1-2. Inbred 15 of 18 (Group 13) with bird resistance. Grain sorghum cytoplasmic-genetic male sterile or A-line. Plant color purple, grain with brown epicarp and a testa, semi-compact panicle, exertion of about 2 cm, and 100 seed weight of 2.37 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis 71 and 59, and plant height 79 and 93 cm, respectively.

PI 602774. *Sorghum bicolor* (L.) Moench

Breeding. Pureline. MP 471; MAINTAINER; BMP 471. Pedigree - (TX623*Combine Sagrain)-78-1-1-2. Inbred 15 of 18 (Group 13) with bird resistance. Grain sorghum maintainer or B-line. Plant color purple, grain with brown epicarp and a testa, semi-compact panicle, exertion of about 2 cm, and 100 seed weight of 2.37 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis 71 and 59, and plant height 79 and 93 cm, respectively.

PI 602775. *Sorghum bicolor* (L.) Moench

Breeding. Pureline. MP 472; MALE STERILE; AMP 472. Pedigree - (TX623*Combine Sagrain)-78-2-1-1. Inbred 16 of 18 (Group 13) with bird resistance. Grain sorghum cytoplasmic-genetic male sterile or A-line. Plant color purple, grain with brown epicarp and a testa, open panicle, exertion of about 15 cm, and 100 seed weight of 2.28 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis 64

and 61, and plant height 137 and 174 cm, respectively.

PI 602776. *Sorghum bicolor* (L.) Moench

Breeding. Pureline. MP 472; MAINTAINER; BMP 472. Pedigree - (TX623*Combine Sagrain)-78-2-1-1. Inbred 16 of 18 (Group 13) with bird resistance. Grain sorghum maintainer or B-line. Plant color purple, grain with brown epicarp and a testa, open panicle, exsertion of about 15 cm, and 100 seed weight of 2.28 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis 64 and 61, and plant height 137 and 174 cm, respectively.

PI 602777. *Sorghum bicolor* (L.) Moench

Breeding. Pureline. MP 473; MALE STERILE; AMP 473. Pedigree - (TX623*Combine Sagrain)-78-2-1-2. Inbred 17 of 18 (Group 13) with bird resistance. Grain sorghum cytoplasmic-genetic male sterile or A-line. Plant color purple, grain with brown epicarp and a testa, semi-open panicle, exsertion of about 12 cm, and 100 seed weight of 2.51 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis 64 and 65, and plant height 122 and 155 cm, respectively.

PI 602778. *Sorghum bicolor* (L.) Moench

Breeding. Pureline. MP 473; MAINTAINER; BMP 473. Pedigree - (TX623*Combine Sagrain)-78-2-1-2. Inbred 17 of 18 (Group 13) with bird resistance. Grain sorghum maintainer or B-line. Plant color purple, grain with brown epicarp and a testa, semi-open panicle, exsertion of about 12 cm, and 100 seed weight of 2.51 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis 64 and 65, and plant height 122 and 155 cm, respectively.

PI 602779. *Sorghum bicolor* (L.) Moench

Breeding. Pureline. MP 474; MALE STERILE; AMP 474. Pedigree - (TX623*Combine Sagrain)-81-2-2-1. Inbred 18 of 18 (Group 13) with bird resistance. Grain sorghum cytoplasmic-genetic male sterile or A-line. Plant color purple, grain with brown epicarp and a testa, semi-compact panicle, exsertion of about 5 cm, and 100 seed weight of 2.20 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis 71 and 68, and plant heights 116 and 146 cm, respectively.

PI 602780. *Sorghum bicolor* (L.) Moench

Breeding. Pureline. MP 474; MAINTAINER; BMP 474. Pedigree - (TX623*Combine Sagrain)-81-2-2-1. Inbred 18 of 18 (Group 13) with bird resistance. Grain sorghum maintainer or B-line. Plant color purple, grain with brown epicarp and a testa, semi-compact panicle, exsertion of about 5 cm, and 100 seed weight of 2.20 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis 71 and 68, and plant height 116 and 146 cm, respectively.

PI 602781. *Sorghum bicolor* (L.) Moench

Breeding. Pureline. MP 475; MALE STERILE; AMP 475. Pedigree - (Wheatland Derivative*(2219B*CS-3541)-3-1)-6-4-1-2-1. Inbred 1 of 23 (Group 14) with food grain quality. Grain sorghum cytoplasmic-genetic male sterile or A-line. Plant color tan, grain with white epicarp and absence of a testa, semi-open panicle, exsertion of about 8 cm, and 100 seed weight of 2.41 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis 64 and 68, and plant height 99 and 101 cm, respectively.

- PI 602782. *Sorghum bicolor* (L.) Moench**
Breeding. Pureline. MP 475; MAINTAINER; BMP 475. Pedigree - (Wheatland Derivative*(2219B*CS-3541)-3-1)-6-4-1-2-1. Inbred 1 of 23 (Group 14) with food grain quality. Grain sorghum maintainer or B-line. Plant color tan, grain with white epicarp and absence of a testa, semi-open panicle, exsertion of about 8 cm, and 100 seed weight of 2.41 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis were 64 and 68, and plant height 99 and 101 cm, respectively.
- PI 602783. *Sorghum bicolor* (L.) Moench**
Breeding. Pureline. MP 476; MALE STERILE; AMP 476. Pedigree - (Wheatland Derivative*(2219B*CS-3541)-3-1)-6-4-1-2-2. Inbred 2 of 23 (Group 14) with food grain quality. Grain sorghum cytoplasmic-genetic male sterile or A-line. Plant color tan, grain with white epicarp and absence of a testa, semi-open panicle, exsertion of about 8 cm, and 100 seed weight of 2.33 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis 64 and 65, and plant height 101 and 96 cm, respectively.
- PI 602784. *Sorghum bicolor* (L.) Moench**
Breeding. Pureline. MP 476; MAINTAINER; BMP 476. Pedigree - (Wheatland Derivative*(2219B*CS-3541)-3-1)-6-4-1-2-2. Inbred 2 of 23 (Group 14) with food grain quality. Grain sorghum maintainer or B-line. Plant color tan, grain with white epicarp and absence of a testa, semi-open panicle, exsertion of about 8 cm, and 100 seed weight of 2.33 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis 64 and 65, and plant height 101 and 96 cm, respectively.
- PI 602785. *Sorghum bicolor* (L.) Moench**
Breeding. Pureline. MP 477; MALE STERILE; AMP 477. Pedigree - (Wheatland Derivative*(2219B*CS-3541)-3-1)-6-4-2-1-1. Inbred 3 of 23 (Group 14) with food grain quality. Grain sorghum cytoplasmic-genetic male sterile or A-line. Plant color tan, grain with white epicarp and absence of a testa, semi-open panicle, exsertion of about 2 cm, and 100 seed weight of 2.09 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis 62 and 66, and plant height 90 and 93 cm, respectively.
- PI 602786. *Sorghum bicolor* (L.) Moench**
Breeding. Pureline. MP 477; MAINTAINER; BMP 477. Pedigree - (Wheatland Derivative*(2219B*CS-3541)-3-1)-6-4-2-1-1. Inbred 3 of 23 (Group 14) with food grain quality. Grain sorghum maintainer or B-line. Plant color tan, grain with white epicarp and absence of a testa, semi-open panicle, exsertion of about 2 cm, and 100 seed weight of 2.09 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis 62 and 66, and plant height 90 and 93 cm, respectively.
- PI 602787. *Sorghum bicolor* (L.) Moench**
Breeding. Pureline. MP 478; MALE STERILE; AMP 478. Pedigree - (Wheatland Derivative*(2219B*CS-3541)-3-1)-6-4-2-2-1. Inbred 4 of 23 (Group 14) with food grain quality. Grain sorghum cytoplasmic-genetic male sterile or A-line. Plant color tan, grain with white epicarp and absence of a testa, semi-compact panicle, exsertion of about 0 cm, and 100 seed weight of 2.08 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis 66 and 67, and plant height 88 and 75 cm, respectively.

- PI 602788. *Sorghum bicolor* (L.) Moench**
Breeding. Pureline. MP 478; MAINTAINER; BMP 478. Pedigree - (Wheatland Derivative*(2219B*CS-3541)-3-1)-6-4-2-2-1. Inbred 4 of 23 (Group 14) with food grain quality. Grain sorghum maintainer or B-line. Plant color tan, grain with white epicarp and absence of a testa, semi-compact panicle, exsertion of about 0 cm, and 100 seed weight of 2.08 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis 66 and 67, and plant height 88 and 75 cm, respectively.
- PI 602789. *Sorghum bicolor* (L.) Moench**
Breeding. Pureline. MP 479; MALE STERILE; AMP 479. Pedigree - (Wheatland Derivative*(2219B*CS-3541)-3-1)-8-1-2-2-1. Inbred 5 of 23 (Group 14) with food grain quality. Grain sorghum cytoplasmic-genetic male sterile or A-line. Plant color tan, grain with white epicarp and absence of a testa, semi-open panicle, exsertion of about 12 cm, and 100 seed weight of 2.16 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis 61 and 56, and plant height 91 and 96 cm, respectively.
- PI 602790. *Sorghum bicolor* (L.) Moench**
Breeding. Pureline. MP 479; MAINTAINER; BMP 479. Pedigree - (Wheatland Derivative*(2219B*CS-3541)-3-1)-8-1-2-2-1. Inbred 5 of 23 (Group 14) with food grain quality. Grain sorghum maintainer or B-line. Plant color tan, grain with white epicarp and absence of a testa, semi-open panicle, exsertion of about 12 cm, and 100 seed weight of 2.16 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis 61 and 56, and plant height 91 and 96 cm, respectively.
- PI 602791. *Sorghum bicolor* (L.) Moench**
Breeding. Pureline. MP 480; MALE STERILE; AMP 480. Pedigree - (Wheatland Derivative*(2219B*CS-3541)-3-1)-10-1-1-2-1. Inbred 6 of 23 (Group 14) with food grain quality. Grain sorghum cytoplasmic-genetic male sterile or A-line. Plant color tan, grain with white epicarp and absence of a testa, semi-compact panicle, exsertion of about 8 cm, and 100 seed weight of 2.48 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis 64 and 60, and plant height 116 and 137 cm, respectively.
- PI 602792. *Sorghum bicolor* (L.) Moench**
Breeding. Pureline. MP 480; MAINTAINER; BMP 480. Pedigree - (Wheatland Derivative*(2219B*CS-3541)-3-1)-10-1-1-2-1. Inbred 6 of 23 (Group 14) with food grain quality. Grain sorghum maintainer or B-line. Plant color tan, grain with white epicarp and absence of a testa, semi-compact panicle, exsertion of about 8 cm, and 100 seed weight of 2.48 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis 64 and 60, and plant height 116 and 137 cm, respectively.
- PI 602793. *Sorghum bicolor* (L.) Moench**
Breeding. Pureline. MP 481; MALE STERILE; AMP 481. Pedigree - (Wheatland Derivative*(2219B*CS-3541)-3-1)-10-1-1-2-2. Inbred 7 of 23 (Group 14) with food grain quality. Grain sorghum cytoplasmic-genetic male sterile or A-line. Plant color tan, grain with white epicarp and absence of a testa, semi-compact panicle, exsertion of about 8 cm, and 100 seed weight of 3.08 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis 62 and 56, and plant height 116 and 130 cm,

respectively.

PI 602794. *Sorghum bicolor* (L.) Moench

Breeding. Pureline. MP 481; MAINTAINER; BMP 481. Pedigree - (Wheatland Derivative*(2219B*CS-3541)-3-1)-10-1-1-2-2. Inbred 7 of 23 (Group 14) with food grain quality. Grain sorghum maintainer or B-line. Plant color tan, grain with white epicarp and absence of a testa, semi-compact panicle, exsertion of about 8 cm, and 100 seed weight of 3.08 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis 62 and 56, and plant height 116 and 130 cm, respectively.

PI 602795. *Sorghum bicolor* (L.) Moench

Breeding. Pureline. MP 482; MALE STERILE; AMP 482. Pedigree - (Wheatland Derivative*(2219B*CS-3541)-3-1)-10-1-2-1-1. Inbred 8 of 23 (Group 14) with food grain quality. Grain sorghum cytoplasmic-genetic male sterile or A-line. Plant color tan, grain with white epicarp and absence of a testa, semi-open panicle, exsertion of about 5 cm, and 100 seed weight of 3.09 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis 71 and 66, and plant height 120 and 152 cm, respectively.

PI 602796. *Sorghum bicolor* (L.) Moench

Breeding. Pureline. MP 482; MAINTAINER; BMP 482. Pedigree - (Wheatland Derivative*(2219B*CS-3541)-3-1)-10-1-2-1-1. Inbred 8 of 23 (Group 14) with food grain quality. Grain sorghum maintainer or B-line. Plant color tan, grain with white epicarp and absence of a testa, semi-open panicle, exsertion of about 5 cm, and 100 seed weight of 3.09 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis 71 and 66, and plant height 120 and 152 cm, respectively.

PI 602797. *Sorghum bicolor* (L.) Moench

Breeding. Pureline. MP 483; MALE STERILE; AMP 483. Pedigree - (Wheatland Derivative*(2219B*CS-3541)-3-1)-10-1-2-3-2. Inbred 9 of 23 (Group 14) with food grain quality. Grain sorghum cytoplasmic-genetic male sterile or A-line. Plant color tan, grain with white epicarp and absence of a testa, semi-open panicle, exsertion of about 20 cm, and 100 seed weight of 2.99 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis 71 and 72, and plant height 126 and 119 cm, respectively.

PI 602798. *Sorghum bicolor* (L.) Moench

Breeding. Pureline. MP 483; MAINTAINER; BMP 483. Pedigree - (Wheatland Derivative*(2219B*CS-3541)-3-1)-10-1-2-3-2. Inbred 9 of 23 (Group 14) with food grain quality. Grain sorghum maintainer or B-line. Plant color tan, grain with white epicarp and absence of a testa, semi-open panicle, exsertion of about 20 cm, and 100 seed weight of 2.99 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis 71 and 72, and plant height 126 and 119 cm, respectively.

PI 602799. *Sorghum bicolor* (L.) Moench

Breeding. Pureline. MP 484; MALE STERILE; AMP 484. Pedigree - (B-Yellow PI*(2219B*CS-3541)-3-1)-2-3-1-1-1. Inbred 10 of 23 (Group 14) with food grain quality. Grain sorghum cytoplasmic-genetic male sterile or A-line. Plant color tan, grain with white epicarp and absence of a testa, semi-compact panicle, exsertion of about 10 cm, and 100 seed weight of

3.07 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis 70 and 70, and plant height 105 and 133 cm, respectively.

PI 602800. *Sorghum bicolor* (L.) Moench

Breeding. Pureline. MP 484; MAINTAINER; BMP 484. Pedigree - (B-Yellow PI*(2219B*CS-3541)-3-1)-2-3-1-1-1. Inbred 10 of 23 (Group 14) with food grain quality. Grain sorghum maintainer or B-line. Plant color tan, grain with white epicarp and absence of a testa, semi-compact panicle, exsertion of about 10 cm, and 100 seed weight of 3.07 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis 70 and 70, and plant height 105 and 133 cm, respectively.

PI 602801. *Sorghum bicolor* (L.) Moench

Breeding. Pureline. MP 485; MALE STERILE; AMP 485. Pedigree - (B-Yellow PI*(2219B*CS-3541)-3-1)-2-3-1-1-2. Inbred 11 of 23 (Group 14) with food grain quality. Grain sorghum cytoplasmic-genetic male sterile or A-line. Plant color tan, grain with white epicarp and absence of a testa, semi-open panicle, exsertion of about 5 cm, and 100 seed weight of 2.94 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis 65 and 70, and plant height 102 and 123 cm, respectively.

PI 602802. *Sorghum bicolor* (L.) Moench

Breeding. Pureline. MP 485; MAINTAINER; BMP 485. Pedigree - (B-Yellow PI*(2219B*CS-3541)-3-1)-2-3-1-1-2. Inbred 11 of 23 (Group 14) with food grain quality. Grain sorghum maintainer or B-line. Plant color tan, grain with white epicarp and absence of a testa, semi-open panicle, exsertion of about 5 cm, and 100 seed weight of 2.94 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis 65 and 70, and plant height 102 and 123 cm, respectively.

PI 602803. *Sorghum bicolor* (L.) Moench

Breeding. Pureline. MP 486; MALE STERILE; AMP 486. Pedigree - (B-Yellow PI*(2219B*CS-3541)-3-1)-21-1-1-2-1. Inbred 12 of 23 (Group 14) with food grain quality. Grain sorghum cytoplasmic-genetic male sterile or A-line. Plant color tan, grain with white epicarp and absence of a testa, semi-open panicle, exsertion of about 8 cm, and 100 seed weight of 1.97 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis 63 and 68, and plant height 126 and 148 cm, respectively.

PI 602804. *Sorghum bicolor* (L.) Moench

Breeding. Pureline. MP 486; MAINTAINER; BMP 486. Pedigree - (B-Yellow PI*(2219B*CS-3541)-3-1)-21-1-1-2-1. Inbred 12 of 23 (Group 14) with food grain quality. Grain sorghum maintainer or B-line. Plant color tan, grain with white epicarp and absence of a testa, semi-open panicle, exsertion of about 8 cm, and 100 seed weight of 1.97 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis 63 and 68, and plant height 126 and 148 cm, respectively.

PI 602805. *Sorghum bicolor* (L.) Moench

Breeding. Pureline. MP 487; MALE STERILE; AMP 487. Pedigree - (B-Yellow PI*(2219B*CS-3541)-3-1)-21-1-1-2-2. Inbred 13 of 23 (Group 14) with food grain quality. Grain sorghum cytoplasmic-genetic male sterile or A-line. Plant color tan, grain with white epicarp and absence of a testa, semi-open panicle, exsertion of about 10 cm, and 100 seed weight of 2.54 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50%

anthesis 67 and 68, and plant height 123 and 143 cm, respectively.

PI 602806. *Sorghum bicolor* (L.) Moench

Breeding. Pureline. MP 487; MAINTAINER; BMP 487. Pedigree - (B-Yellow PI*(2219B*CS-3541)-3-1)-21-1-1-2-2. Inbred 13 of 23 (Group 14) with food grain quality. Grain sorghum maintainer or B-line. Plant color tan, grain with white epicarp and absence of a testa, semi-open panicle, exertion of about 10 cm, and 100 seed weight of 2.54 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis 67 and 68, and plant height 123 and 143 cm, respectively.

PI 602807. *Sorghum bicolor* (L.) Moench

Breeding. Pureline. MP 488; MALE STERILE; AMP 488. Pedigree - (B-Yellow PI*(2219B*CS-3541)-3-1)-21-2-1-1-1. Inbred 14 of 23 (Group 14) with food grain quality. Grain sorghum cytoplasmic-genetic male sterile or A-line. Plant color tan, grain with white epicarp and absence of a testa, semi-open panicle, exertion of about 15 cm, and 100 seed weight of 2.87 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis 64 and 66, and plant height 131 and 134 cm, respectively.

PI 602808. *Sorghum bicolor* (L.) Moench

Breeding. Pureline. MP 488; MAINTAINER; BMP 488. Pedigree - (B-Yellow PI*(2219B*CS-3541)-3-1)-21-2-1-1-1. Inbred 14 of 23 (Group 14) with food grain quality. Grain sorghum maintainer or B-line. Plant color tan, grain with white epicarp and absence of a testa, semi-open panicle, exertion of about 15 cm, and 100 seed weight of 2.87 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis 64 and 66, and plant height 131 and 134 cm, respectively.

PI 602809. *Sorghum bicolor* (L.) Moench

Breeding. Pureline. MP 489; MALE STERILE; AMP 489. Pedigree - (B-Yellow PI*(2219B*CS-3541)-3-1)-21-2-1-1-2. Inbred 15 of 23 (Group 14) with food grain quality. Grain sorghum cytoplasmic-genetic male sterile or A-line. Plant color tan, grain with white epicarp and absence of a testa, semi-open panicle, exertion of about 8 cm, and 100 seed weight of 2.74 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis 62 and 66, and plant height 130 and 140 cm, respectively.

PI 602810. *Sorghum bicolor* (L.) Moench

Breeding. Pureline. MP 489; MAINTAINER; BMP 489. Pedigree - (B-Yellow PI*(2219B*CS-3541)-3-1)-21-2-1-1-2. Inbred 15 of 23 (Group 14) with food grain quality. Grain sorghum maintainer or B-line. Plant color tan, grain with white epicarp and absence of a testa, semi-open panicle, exertion of about 8 cm, and 100 seed weight of 2.74 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis 62 and 66, and plant height 130 and 140 cm, respectively.

PI 602811. *Sorghum bicolor* (L.) Moench

Breeding. Pureline. MP 490; MALE STERILE; AMP 490. Pedigree - (B-Yellow PI*(2219B*CS-3541)-3-1)-21-2-2-2-2. Inbred 16 of 23 (Group 14) with food grain quality. Grain sorghum cytoplasmic-genetic male sterile or A-line. Plant color tan, grain with white epicarp and absence of a testa, semi-open panicle, exertion of about 0 cm, and 100 seed weight of 2.71 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis 63 and 64, and plant height 111 and 114 cm, respectively.

- PI 602812. *Sorghum bicolor* (L.) Moench**
Breeding. Pureline. MP 490; MAINTAINER; BMP 490. Pedigree - (B-Yellow PI*(2219B*CS-3541)-3-1)-21-2-2-2-2. Inbred 16 of 23 (Group 14) with food grain quality. Grain sorghum maintainer or B-line. Plant color tan, grain with white epicarp and absence of a testa, exsertion of about 0 cm, and 100 seed weight of 2.71 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis 63 and 64, and plant height 111 and 114 cm, respectively.
- PI 602813. *Sorghum bicolor* (L.) Moench**
Breeding. Pureline. MP 491; MALE STERILE; AMP 491. Pedigree - (B-Yellow PI*(2219B*CS-3541)-3-1)-21-3-1-1-1. Inbred 17 of 23 (Group 14) with food grain quality. Grain sorghum cytoplasmic-genetic male sterile or A-line. Plant color tan, grain with white epicarp and absence of a testa, semi-open panicle, exsertion of about 0 cm, and 100 seed weight of 3.22 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis 62 and 61, and plant height 117 and 143 cm, respectively.
- PI 602814. *Sorghum bicolor* (L.) Moench**
Breeding. Pureline. MP 491; MAINTAINER; BMP 491. Pedigree - (B-Yellow PI*(2219B*CS-3541)-3-1)21-3-1-1-1. Inbred 17 of 23 (Group 14) with food grain quality. Grain sorghum maintainer or B-line. Plant color tan, grain with white epicarp and absence of a testa, semi-open panicle, exsertion of about 0 cm, and 100 seed weight of 3.22 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis were 62 and 61, and plant height was 117 and 143 cm, respectively.
- PI 602815. *Sorghum bicolor* (L.) Moench**
Breeding. Pureline. MP 492; MALE STERILE; AMP 492. Pedigree - (B-Yellow PI*(2219B*CS-3541)-3-1)-21-3-2-2-2. Inbred 18 of 23 (Group 14) with food grain quality. Grain sorghum cytoplasmic-generic male sterile or A-line. Plant color tan, grain with white epicarp and absence of a testa, semi-open panicle, exsertion of about 5 cm, and 100 seed weight of 3.35 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis 66 and 56, and plant height 136 and 131 cm, respectively.
- PI 602816. *Sorghum bicolor* (L.) Moench**
Breeding. Pureline. MP 492; MAINTAINER; BMP 492. Pedigree - (B-Yellow PI*(2219B*CS-3541)-3-1)-21-3-2-2-2. Inbred 18 of 23 (Group 14) with food grain quality. Grain sorghum maintainer or B-line. Plant color tan, grain with white epicarp and absence of a testa, semi-open panicle, exsertion of about 5 cm, and 100 seed weight of 3.35 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis 66 and 56, and plant height 136 and 131 cm, respectively.
- PI 602817. *Sorghum bicolor* (L.) Moench**
Breeding. Pureline. MP 493; MALE STERILE; AMP 493. Pedigree - (TX623*Combine Sagrain)-1-3-1-2. Inbred 19 of 23 (Group 14) with food grain quality. Grain sorghum cytoplasmic-genetic male sterile or A-line. Plant color purple, grain with white epicarp and absence of a testa, semi-open panicle, exsertion of about 8 cm, and 100 seed weight of 1.77 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis 61 and 65, and plant height 93 and 88 cm, respectively.

- PI 602818. *Sorghum bicolor* (L.) Moench**
Breeding. Pureline. MP 493; MAINTAINER; BMP 493. Pedigree - (TX623*Combine Sagrain)-1-3-1-2. Inbred 19 of 23 (Group 14) with food grain quality. Grain sorghum maintainer or B-line. Plant color purple, grain with white epicarp and absence of a testa, semi-open panicle, exsertion of about 8 cm, and 100 seed weight of 1.77 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis 61 and 65, and plant height 93 and 88 cm, respectively.
- PI 602819. *Sorghum bicolor* (L.) Moench**
Breeding. Pureline. MP 494; MALE STERILE; AMP 494. Pedigree - (TX623*Combine Sagrain)-6-1-2-2. Inbred 20 of 23 (Group 14) with food grain quality. Grain sorghum cytoplasmic-genetic male sterile or A-line. Plant color purple, grain with white epicarp and absence of a testa, semi-open panicle, exsertion of about 12 cm, and 100 seed weight of 1.63 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis 62 and 68, and plant height 85 and 96 cm, respectively.
- PI 602820. *Sorghum bicolor* (L.) Moench**
Breeding. Pureline. MP 494; MAINTAINER; BMP 494. Pedigree - (TX623*Combine Sagrain)-6-1-2-2. Inbred 20 of 23 (Group 14) with food grain quality. Grain sorghum maintainer or B-line. Plant color purple, grain with white epicarp and absence of a testa, semi-open panicle, exsertion of about 12 cm, and 100 seed weight of 1.63 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis 62 and 68, and plant height 85 and 96 cm, respectively.
- PI 602821. *Sorghum bicolor* (L.) Moench**
Breeding. Pureline. MP 495; MALE STERILE; AMP 495. Pedigree - (TX623*Combine Sagrain)-21-1-1-2. Inbred 21 of 23 (Group 14) with food grain quality. Grain sorghum cytoplasmic-genetic male sterile or A-line. Plant color purple, grain with white epicarp and absence of a testa, semi-open panicle, exsertion of about 8 cm, and 100 seed weight of 2.31 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis 65 and 72, and plant height 114 and 143 cm, respectively.
- PI 602822. *Sorghum bicolor* (L.) Moench**
Breeding. Pureline. MP 495; MAINTAINER; BMP 495. Pedigree - (TX623*Combine Sagrain)-21-1-1-2. Inbred 21 of 23 (Group 14) with food grain quality. Grain sorghum maintainer or B-line. Plant color purple, grain with white epicarp and absence of a testa, semi-open panicle, exsertion of about 8 cm, and 100 seed weight of 2.31 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis 65 and 72, and plant height 114 and 143 cm, respectively.
- PI 602823. *Sorghum bicolor* (L.) Moench**
Breeding. Pureline. MP 496; MALE STERILE; AMP 496. Pedigree - (TX623*Combine Sagrain)-38-1-1-1. Inbred 22 of 23 (Group 14) with food grain quality. Grain sorghum cytoplasmic-genetic male sterile or A-line. Plant color purple, grain with white epicarp and absence of a testa, open panicle, exsertion of about 20 cm, and 100 seed weight of 1.81 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis 66 and 66, and plant height 122 and 148 cm, respectively.
- PI 602824. *Sorghum bicolor* (L.) Moench**

Breeding. Pureline. MP 496; MAINTAINER; BMP 496. Pedigree - (TX623*Combine Sagrain)-38-1-1-1. Inbred 22 of 23 (Group 14) with food grain quality. Grain sorghum maintainer or B-line. Plant color purple, grain with white epicarp and absence of a testa, open panicle, exertion of about 20 cm, and 100 seed weight of 1.81 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis 66 and 66, and plant height 122 and 148 cm, respectively.

PI 602825. Sorghum bicolor (L.) Moench

Breeding. Pureline. MP 497; MALE STERILE; AMP 497. Pedigree - (TX623*Combine Sagrain)-81-2-2-2. Inbred 23 of 23 (Group 14) with food grain quality. Grain sorghum cytoplasmic-genetic male sterile or A-line. Plant color purple, grain with white epicarp and absence of a testa, semi-compact panicle, exertion of about 10 cm, and 100 seed weight of 2.12 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis 74 and 71, and plant height 111 and 117 cm, respectively.

PI 602826. Sorghum bicolor (L.) Moench

Breeding. Pureline. MP 497; MAINTAINER; BMP 497. Pedigree - (TX623*Combine Sagrain)-81-2-2-2. Inbred 23 of 23 (Group 14) with food grain quality. Grain sorghum maintainer or B-line. Plant color purple, grain with white epicarp and absence of a testa, semi-compact panicle, exertion of about 10 cm, and 100 seed weight of 2.12 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis 74 and 71, and plant height 111 and 117 cm, respectively.

PI 602827. Sorghum bicolor (L.) Moench

Breeding. Pureline. MP 498; MALE STERILE; AMP 498. Pedigree - (TPC B (D)-45-1-Bk*(B-Yellow PI*4Dw Ck 60 Bloomless))-1-1-2-2. Inbred 1 of 17 (Group 15) with sorghum midge-tolerance. Grain sorghum cytoplasmic-genetic male sterile or A-line. Plant color purple, grain with red epicarp and absence of a testa, semi-compact panicle, exertion of about 5 cm, and 100 seed weight of 2.33 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis 61 and 56, and plant height 91 and 94 cm, respectively.

PI 602828. Sorghum bicolor (L.) Moench

Breeding. Pureline. MP 498; MAINTAINER; BMP 498. Pedigree - (TPC B (D)-45-1-Bk*(B-Yellow PI*4Dw CK 60 Bloomless))-1-1-2-2. Inbred 1 of 17 (Group 15) with sorghum midge-tolerance. Grain sorghum maintainer or B-line. Plant color purple, grain with red epicarp and absence of a testa, semi-compact panicle, exertion of about 5 cm, and 100 seed weight of 2.33 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis 61 and 56, and plant height 91 and 94 cm, respectively.

PI 602829. Sorghum bicolor (L.) Moench

Breeding. Pureline. MP 499; MALE STERILE; AMP 499. Pedigree - (TPC B (D)-45-1-Bk*(B-Yellow PI*4Dw Ck 60 Bloomless))-13-1-2-1. Inbred 2 of 17 (Group 15) with sorghum midge-tolerance. Grain sorghum cytoplasmic-genetic male sterile or A-line. Plant color purple, grain with red epicarp and absence of a testa, semi-compact panicle, exertion of about 5 cm, and 100 seed weight of 3.04 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis 66 and 66, and plant height 93 and 91 cm, respectively.

- PI 602830. *Sorghum bicolor* (L.) Moench**
Breeding. Pureline. MP 499; MAINTAINER; BMP 499. Pedigree - (TPC B (D)-45-1-Bk*(B-Yellow PI*4Dw CK 60 Bloomless))-13-1-2-1. Inbred 2 of 17 (Group 15) with sorghum midge-tolerance. Grain sorghum maintainer or B-line. Plant color purple, grain with red epicarp and absence of a testa, semi-compact panicle, exsertion of about 5 cm, and 100 seed weight of 3.04 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis 66 and 66, and plant height 93 and 91 cm, respectively.
- PI 602831. *Sorghum bicolor* (L.) Moench**
Breeding. Pureline. MP 500; MALE STERILE; AMP 500. Pedigree - (TPC B (D)-45-1-Bk*(B-Yellow PI*4Dw CK 60 Bloomless))-13-1-2-2. Inbred 3 of 17 (Group 15) with sorghum midge-tolerance. Grain sorghum cytoplasmic-genetic male sterile or A-line. Plant color purple, grain with red epicarp and absence of a testa, semi-compact panicle, exsertion of about 2 cm, and 100 seed weight of 2.71 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis 66 and 68, and plant height 90 and 85 cm, respectively.
- PI 602832. *Sorghum bicolor* (L.) Moench**
Breeding. Pureline. MP 500; MAINTAINER; BMP 500. Pedigree - (TPC B (D)-45-1-Bk*(B-Yellow PI*4Dw CK 60 Bloomless))-13-1-2-2. Inbred 3 of 17 (Group 15) with sorghum midge-tolerance. Grain sorghum maintainer or B-line. Plant color purple, grain with red epicarp and absence of a testa, semi-compact panicle, exsertion of about 2 cm, and 100 seed weight of 2.71 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis 66 and 68, and plant height 90 and 85 cm, respectively.
- PI 602833. *Sorghum bicolor* (L.) Moench**
Breeding. Pureline. MP 501; MALE STERILE; AMP 501. Pedigree - (TPC B (D)-45-1-Bk*(B-Yellow PI*4Dw CK 60 Bloomless))-16-2-1-1. Inbred 4 of 17 (Group 15) with sorghum midge-tolerance. Grain sorghum cytoplasmic-genetic male sterile or A-line. Plant color purple, grain with red epicarp and absence of a testa, semi-compact panicle, exsertion of about 5 cm, and 100 seed weight of 3.34 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis 62 and 59, and plant height 90 and 101 cm, respectively.
- PI 602834. *Sorghum bicolor* (L.) Moench**
Breeding. Pureline. MP 501; MAINTAINER; BMP 501. Pedigree - (TCP B (D)-45-1-Bk*(B-Yellow PI*4Dw CK 60 Bloomless))-16-2-1-1. Inbred 4 of 17 (Group 15) with sorghum midge-tolerance. Grain sorghum maintainer or B-line. Plant color purple, grain with red epicarp and absence of a testa, semi-compact panicle, exsertion of about 5 cm, and 100 seed weight of 3.34 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis 62 and 59, and plant height 90 and 101 cm, respectively.
- PI 602835. *Sorghum bicolor* (L.) Moench**
Breeding. Pureline. MP 502; MALE STERILE; AMP 502. Pedigree - (TPC B (D)-45-1-Bk*(B-Yellow PI*4Dw CK 60 Bloomless))-16-2-1-2. Inbred 5 of 17 (Group 15) with sorghum midge-tolerance. Grain sorghum

cytoplasmic-genetic male sterile or A-line. Plant color purple, grain with red epicarp and absence of a testa, semi-compact panicle, exertion of about 2 cm, and 100 seed weight of 3.39 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis 63 and 60, and plant height 84 and 87 cm, respectively.

PI 602836. Sorghum bicolor (L.) Moench

Breeding. Pureline. MP 502; MAINTAINER; BMP 502. Pedigree - (TPC B (D)-45-1-Bk*(B-Yellow PI*4Dw CK 60 Bloomless))-16-2-1-2. Inbred 5 of 17 (Group 15) with sorghum midge-tolerance. Grain sorghum maintainer or B-line. Plant color purple, grain with red epicarp and absence of a testa, semi-compact panicle, exertion of about 2 cm, and 100 seed weight of 3.39 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis 63 and 60, and plant height 84 and 87 cm, respectively.

PI 602837. Sorghum bicolor (L.) Moench

Breeding. Pureline. MP 503; MALE STERILE; AMP 503. Pedigree - (TPC B (D)-45-1-Bk*(B-Yellow PI*4Dw CK 60 Bloomless))-16-2-2-2. Inbred 6 of 17 (Group 15) with sorghum midge-tolerance. Grain sorghum cytoplasmic-genetic male sterile or A-line. Plant color purple, grain with red epicarp and absence of a testa, semi-compact panicle, exertion of about 5 cm, and 100 seed weight of 2.27 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis 64 and 55, and plant height 87 and 87 cm, respectively.

PI 602838. Sorghum bicolor (L.) Moench

Breeding. Pureline. MP 503; MAINTAINER; BMP 503. Pedigree - (TPC B (D)-45-1-Bk*(B-Yellow PI*4Dw CK 60 Bloomless))-16-2-2-2. Inbred 6 of 17 (Group 15) with sorghum midge-tolerance. Grain sorghum maintainer or B-line. Plant color purple, grain with red epicarp and absence of a testa, semi-compact panicle, exertion of about 5 cm, and 100 seed weight of 2.27 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis 64 and 55, and plant height 87 and 87 cm, respectively.

PI 602839. Sorghum bicolor (L.) Moench

Breeding. Pureline. MP 504; MALE STERILE; AMP 504. Pedigree - (TPC B (D)-45-1-Bk*(B-Yellow PI*4Dw CK 60 Bloomless))-21-1-1-2. Inbred 7 of 17 (Group 15) with sorghum midge-tolerance. Grain sorghum cytoplasmic-genetic male sterile or A-line. Plant color purple, grain with red epicarp and absence of a testa, semi-compact panicle, exertion of about 2 cm, and 100 seed weight of 2.73 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis 66 and 55, and plant height 88 and 108 cm, respectively.

PI 602840. Sorghum bicolor (L.) Moench

Breeding. Pureline. MP 504; MAINTAINER; BMP 504. Pedigree - (TPC B (D)-45-1-Bk*(B-Yellow PI*4Dw CK 60 Bloomless))-21-1-1-2. Inbred 7 of 17 (Group 15) with sorghum midge-tolerance. Grain sorghum maintainer or B-line. Plant color purple, grain with red epicarp and absence of a testa, semi-compact panicle, exertion of about 2 cm, and 100 seed weight of 2.73 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis 66 and 55, and plant height 88 and 108 cm, respectively.

PI 602841. *Sorghum bicolor* (L.) Moench
Breeding. Pureline. MP 505; MALE STERILE; AMP 505. Pedigree - (TPC B (D)-45-1-Bk*(B-Yellow PI*4Dw CK 60 Bloomless))-21-1-2-1. Inbred 8 of 17 (Group 15) with sorghum midge-tolerance. Grain sorghum cytoplasmic-genetic male sterile or A-line. Plant color purple, grain with red epicarp and absence of a testa, semi-compact panicle, exertion of about 8 cm, and 100 seed weight of 3.04 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis 63 and 62, and plant height 93 and 96 cm, respectively.

PI 602842. *Sorghum bicolor* (L.) Moench
Breeding. Pureline. MP 505; MAINTAINER; BMP 505. Pedigree - (TPC B (D)-45-1-Bk*(B-Yellow PI*4Dw CK 60 Bloomless))-21-1-2-1. Inbred 8 of 17 (Group 15) with sorghum midge-tolerance. Grain sorghum maintainer or B-line. Plant color purple, grain with red epicarp and absence of a testa, semi-compact panicle, exertion of about 8 cm, and 100 seed weight of 3.04 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis 63 and 62, and plant height was 93 and 96 cm, respectively.

PI 602843. *Sorghum bicolor* (L.) Moench
Breeding. Pureline. MP 506; MALE STERILE; AMP 506. Pedigree - (TPC B (D)-45-1-Bk*(B-Yellow PI*4Dw CK 60 Bloomless))-21-1-2-2. Inbred 9 of 17 (Group 15) with sorghum midge-tolerance. Grain sorghum cytoplasmic-genetic male sterile or A-line. Plant color purple, grain with red epicarp and absence of a testa, semi-compact panicle, exertion of about 2 cm, and 100 seed weight of 3.09 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis 64 and 64, and plant height 91 and 101 cm, respectively.

PI 602844. *Sorghum bicolor* (L.) Moench
Breeding. Pureline. MP 506; MAINTAINER; BMP 506. Pedigree - (TPC B (D)-45-1-Bk*(B-Yellow PI*4Dw CK 60 Bloomless))-21-1-2-2. Inbred 9 of 17 (Group 15) with sorghum midge-tolerance. Grain sorghum maintainer or B-line. Plant color purple, grain with red epicarp and absence of a testa, semi-compact panicle, exertion of about 2 cm, and 100 seed weight of 3.09 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis 64 and 64, and plant height 91 and 101 cm, respectively.

PI 602845. *Sorghum bicolor* (L.) Moench
Breeding. Pureline. MP 507; MALE STERILE; AMP 507. Pedigree - (TPC B (D)-45-1-Bk*(B-Yellow PI*4Dw CK 60 Bloomless))-25-1-1-1. Inbred 10 of 17 (Group 15) with sorghum midge-tolerance. Grain sorghum cytoplasmic-genetic male sterile or A-line. Plant color purple, grain with white epicarp and absence of a testa, semi-compact panicle, exertion of about 8 cm, and 100 seed weight of 2.33 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis 66 and 66, and plant height 88 and 99 cm, respectively.

PI 602846. *Sorghum bicolor* (L.) Moench
Breeding. Pureline. MP 507; MAINTAINER; BMP 507. Pedigree - (TPC B (D)-45-1-Bk*(B-Yellow PI*4Dw CK 60 Bloomless))-25-1-1-1. Inbred 10 of 17 (Group 15) with sorghum midge-tolerance. Grain sorghum maintainer or

B-line. Plant color purple, grain with white epicarp and absence of a testa, semi-compact panicle, exsertion of about 8 cm, and 100 seed weight of 2.33 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis 66 and 66, and plant height 88 and 99 cm, respectively.

PI 602847. *Sorghum bicolor* (L.) Moench

Breeding. Pureline. MP 508; MALE STERILE; AMP 508. Pedigree - (TPC B (D)-45-1-Bk*(B-Yellow PI*4Dw CK 60 Bloomless))-27-1-2-2. Inbred 11 of 17 (Group 15) with sorghum midge-tolerance. Grain sorghum cytoplasmic-genetic male sterile or A-line. Plant color purple, grain with red epicarp and absence of a testa, semi-compact panicle, exsertion of about 5 cm, and 100 seed weight of 1.62 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis 65 and 68, and plant height 81 and 85 cm, respectively.

PI 602848. *Sorghum bicolor* (L.) Moench

Breeding. Pureline. MP 508; MAINTAINER; BMP 508. Pedigree - (TPC B (D)-45-1-Bk*(B-Yellow PI*4Dw CK 60 Bloomless))-27-1-2-2. Inbred 11 of 17 (Group 15) with sorghum midge-tolerance. Grain sorghum maintainer or B-line. Plant color purple, grain with red epicarp and absence of a testa, semi-compact panicle, exsertion of about 5 cm, and 100 seed weight of 1.62 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis 65 and 68, and plant height 81 and 85 cm, respectively.

PI 602849. *Sorghum bicolor* (L.) Moench

Breeding. Pureline. MP 509; MALE STERILE; AMP 509. Pedigree - (TPC B (D)-45-1-Bk*(B-Yellow PI*4Dw CK 60 Bloomless))-27-2-1-1. Inbred 12 of 17 (Group 15) with sorghum midge-tolerance. Grain sorghum cytoplasmic-genetic male sterile or A-line. Plant color purple, grain with red epicarp and absence of a testa, semi-compact panicle, exsertion of about 0 cm, and 100 seed weight of 2.60 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis 62 and 60, and plant height 94 and 114 cm, respectively.

PI 602850. *Sorghum bicolor* (L.) Moench

Breeding. Pureline. MP 509; MAINTAINER; BMP 509. Pedigree - (TPC B (D)-45-1-Bk*(B-Yellow PI*4Dw CK 60 Bloomless))-27-2-1-1. Inbred 12 of 17 (Group 15) with sorghum midge-tolerance. Grain sorghum maintainer or B-line. Plant color purple, grain with red epicarp and absence of a testa, semi-compact panicle, exsertion of about 0 cm, and 100 seed weight of 2.60 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis 62 and 60, and plant height 94 and 114 cm, respectively.

PI 602851. *Sorghum bicolor* (L.) Moench

Breeding. Pureline. MP 510; MALE STERILE; AMP 510. Pedigree - (TPC B (D)-45-1-Bk*(B-Yellow PI*4Dw CK 60 Bloomless))-27-2-1-2. Inbred 13 of 17 (Group 15) with sorghum midge-tolerance. Grain sorghum cytoplasmic-genetic male sterile or A-line. Plant color purple, grain with red epicarp and absence of a testa, semi-compact panicle, exsertion of about 8 cm, and 100 seed weight of 2.50 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis 66 and 65, and plant height 101 and 120 cm, respectively.

- PI 602852. *Sorghum bicolor* (L.) Moench**
Breeding. Pureline. MP 510; MAINTAINER; BMP 510. Pedigree - (TPC B (D)-45-1-Bk*(B-Yellow PI*4Dw CK 60 Bloomless))-27-2-1-2. Inbred 13 of 17 (Group 15) with sorghum midge-tolerance. Grain sorghum maintainer or B-line. Plant color purple, grain with red epicarp and absence of a testa, semi-compact panicle, exertion of about 8 cm, and 100 seed weight of 2.50 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis 66 and 65, and plant height 101 and 120 cm, respectively.
- PI 602853. *Sorghum bicolor* (L.) Moench**
Breeding. Pureline. MP 511; MALE STERILE; AMP 511. Pedigree - (TPC B (D)-45-1-Bk*(B-Yellow PI*4Dw CK 60 Bloomless))-27-2-2-2. Inbred 14 of 17 (Group 15) with sorghum midge-tolerance. Grain sorghum cytoplasmic-genetic male sterile or A-line. Plant color purple, grain with red epicarp and absence of a testa, semi-compact panicle, exertion of about 0 cm, and 100 seed weight of 2.07 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis 65 and 60, and plant height 87 and 94 cm, respectively.
- PI 602854. *Sorghum bicolor* (L.) Moench**
Breeding. Pureline. MP 511; MAINTAINER; BMP 511. Pedigree - (TPC B (D)-45-1-Bk*(B-Yellow PI*4Dw CK 60 Bloomless))-27-2-2-2. Inbred 14 of 17 (Group 15) with sorghum midge-tolerance. Grain sorghum maintainer or B-line. Plant color purple, grain with red epicarp and absence of a testa, semi-compact panicle, exertion of about 0 cm, and 100 seed weight of 2.07 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis 65 and 60, and plant height 87 and 94 cm, respectively.
- PI 602855. *Sorghum bicolor* (L.) Moench**
Breeding. Pureline. MP 512; MALE STERILE; AMP 5112. Pedigree - (TPC B (D)-45-1-Bk*(OK 11 Red Bloomless-BC3))-25-1-1-1. Inbred 15 of 17 (Group 15) with sorghum midge-tolerance. Grain sorghum cytoplasmic-genetic male sterile or A-line. Plant color purple, grain with red epicarp and absence of a testa, semi-compact panicle, exertion of about 5 cm, and 100 seed weight of 2.53 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis 66 and 54, and plant height 88 and 102 cm, respectively.
- PI 602856. *Sorghum bicolor* (L.) Moench**
Breeding. Pureline. MP 512; MAINTAINER; BMP 512. Pedigree - (TPC B (D)-45-1-Bk*(OK 11 Red Bloomless-BC3))-25-1-1-1. Inbred 15 of 17 (Group 15) with sorghum midge-tolerance. Grain sorghum maintainer or B-line. Plant color purple, grain with red epicarp and absence of a testa, semi-compact panicle, exertion of about 5 cm, and 100 seed count of 2.53 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis 66 and 54, and plant height 88 and 102 cm, respectively.
- PI 602857. *Sorghum bicolor* (L.) Moench**
Breeding. Pureline. MP 513; MALE STERILE; AMP 513. Pedigree - (TPC B (D)-45-1-Bk*(OK 11 Red Bloomless-BC3))-25-1-1-2. Inbred 16 of 17 (Group 15) with sorghum midge-tolerance. Grain sorghum cytoplasmic-genetic male sterile or A-line. Plant color purple, grain with red epicarp and

absence of a testa, semi-compact panicle, exertion of about 0 cm, and 100 seed count of 2.59 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis 69 and 55, and plant height 78 and 102 cm, respectively.

PI 602858. *Sorghum bicolor* (L.) Moench

Breeding. Pureline. MP 513; MAINTAINER; BMP 513. Pedigree - (TPC B (D)-45-1-Bk*(OK 11 Red Bloomless-BC3))-25-1-1-2. Inbred 16 of 17 (Group 15) with sorghum midge-tolerance. Grain sorghum maintainer or B-line. Plant color purple, grain with red epicarp and absence of a testa, semi-compact panicle, exertion of about 0 cm, and 100 seed weight of 2.59 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis 69 and 55, and plant height 78 and 102 cm, respectively.

PI 602859. *Sorghum bicolor* (L.) Moench

Breeding. Pureline. MP 514; MALE STERILE; AMP 514. Pedigree - (TPC B (D)-45-1-Bk*(OK 11 Red Bloomless-BC3))-26-1-2-1. Inbred 17 of 17 (Group 15) with sorghum midge-tolerance. Grain sorghum cytoplasmic-genetic male sterile or A-line. Plant color purple, grain with red epicarp and absence of a testa, semi-compact panicle, exertion of about 5 cm, and 100 seed weight of 2.36 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis 68 and 52, and plant height 79 and 102 cm, respectively.

PI 602860. *Sorghum bicolor* (L.) Moench

Breeding. Pureline. MP 514; MAINTAINER; BMP 514. Pedigree - (TPC B (D)-45-1-Bk*(OK 11 Red Bloomless-BC3))-26-1-2-1. Inbred 17 of 17 (Group 15) with sorghum midge-tolerance. Grain sorghum maintainer or B-line. Plant color purple, grain with red epicarp and absence of a testa, semi-compact panicle, exertion of about 5 cm, and 100 seed weight of 2.36 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis 68 and 52, and plant height 79 and 102 cm, respectively.

The following were developed by Warren E. Kronstad, Oregon State University, Dept. of Crop and Soil Science, Corvallis, Oregon 97331, United States. Received 11/21/1997.

PI 602861. *Triticum aestivum* L., nom. cons. subsp. *aestivum*

Cultivar. Pureline. "WEATHERFORD"; OR898120; NSGC 6524. Pedigree - Malcolm/3/VPM 1/Moisson 951//Hill/4/VPM 1/Moisson 951//2*Hill. Soft white winter wheat.

Unknown source. Received 06/25/1997.

PI 602862. *Saccharum spontaneum* L.

Wild. IJ 76-112.

Unknown source. Received 06/25/1997.

PI 602863. *Saccharum spontaneum* L.

Wild. IJ 76-122.

Unknown source. Received 03/09/1998.

PI 602864. *Saccharum spontaneum* L.
Wild. IJ 76-121.

Unknown source. Received 06/25/1997.

PI 602865. *Saccharum spontaneum* L.
Wild. NG 77-164.

Unknown source. Received 05/28/1997.

PI 602866. *Saccharum spontaneum* L.
Wild. PCAV 84-01.

Unknown source. Received 03/09/1998.

PI 602867. *Saccharum spontaneum* L.
Wild. PTAR843.

Unknown source. Received 03/09/1998.

PI 602868. *Saccharum spontaneum* L.
Wild. SpontIra.

Unknown source. Received 03/09/1998.

PI 602869. *Saccharum spontaneum* L.
Wild. THA826.

Unknown source. Received 03/09/1998.

PI 602870. *Saccharum spontaneum* L.
Wild. Thailand.

Unknown source. Received 07/06/1939.

PI 602871. *Saccharum spontaneum* L.
Wild. CANE 9896; Uganda. Collected in Taiwan.

Unknown source. Received 07/06/1939.

PI 602872. *Saccharum spontaneum* L.
Wild. CANE 9220; US 4515. Collected in Turkistan.

Unknown source. Received 07/06/1939.

PI 602873. *Saccharum spontaneum* L.
Wild. CANE 9223; US 4617. Collected in Uganda.

Unknown source. Received 05/28/1997.

PI 602874. *Saccharum spontaneum* L.
Wild. US 78-511.

The following were donated by P.Y.P. Tai, USDA-ARS, Sugarcane Field Station, Star Route Box 8, Canal Point, Florida 33438, United States. Received 08/11/1993.

PI 602875. *Saccharum spontaneum* L.
Cultivar. "YUNNAN"; S11276; Q 32052. Collected in Guangxi, China.

Unknown source. Received 07/06/1939.

PI 602876. *Saccharum spontaneum* L.
Wild. CANE 6137; IS 76-128.

Unknown source. Received 03/09/1998.

PI 602877. *Saccharum spontaneum* L.
Wild. Spont17.

Unknown source. Received 03/09/1998.

PI 602878. *Saccharum spontaneum* L.
Wild. IK 76-112.

Unknown source. Received 03/09/1998.

PI 602879. *Saccharum spontaneum* L.
Wild. US 4512.

Unknown source. Received 03/09/1998.

PI 602880. *Saccharum spontaneum* L.
Wild. IND 81-2.

Unknown source. Received 03/09/1998.

PI 602881. *Saccharum spontaneum* L.
Wild. Spont2.

Unknown source. Received 03/09/1998.

PI 602882. *Saccharum spontaneum* L.
Wild. SpontPak.

Unknown source. Received 03/09/1998.

PI 602883. *Saccharum spontaneum* L.
Wild. SES19.

Unknown source. Received 07/29/1997.

PI 602884. *Saccharum spontaneum* L.
Wild. IJ 76-167.

Unknown source. Received 03/09/1998.

PI 602885. *Saccharum spontaneum* L.
Wild. Moentai.

Unknown source. Received 03/09/1998.

PI 602886. *Saccharum spontaneum* L.
Wild. NG 77-176.

Unknown source. Received 03/09/1998.

PI 602887. *Saccharum spontaneum* L.
Wild. NG 77-213A.

Unknown source. Received 03/09/1998.

PI 602888. *Saccharum spontaneum* L.
Wild. Okinaw13.

Unknown source. Received 03/09/1998.

PI 602889. *Saccharum spontaneum* L.
Wild. Okinaw2.

Unknown source. Received 03/09/1998.

PI 602890. *Saccharum spontaneum* L.
Wild. Spont10.

Unknown source. Received 03/09/1998.

PI 602891. *Saccharum spontaneum* L.
Wild. Spont22.

Unknown source. Received 07/06/1939.

PI 602892. *Saccharum spontaneum* L.
Wild. CANE 9219; US 4513. Collected in Turkistan.

Unknown source. Received 05/28/1997.

PI 602893. *Saccharum spontaneum* L.
Wild. US 57-0086-002.

Unknown source. Received 03/09/1998.

PI 602894. *Saccharum spontaneum* L.
Wild. US 6044.

Unknown source. Received 03/09/1998.

PI 602895. *Saccharum spontaneum* L.
Wild. Spont37.

The following were developed by Berlin D. Nelson, North Dakota State University, Dept. of Plant Pathology, P.O. Box 5012, Fargo, North Dakota 58105-5012, United States; Theodore C. Helms, North Dakota State University, Crop & Weed Science Department, 333 Walster Hall, Fargo, North Dakota 58105-5051, United States. Received 02/24/1998.

PI 602896. *Glycine max* (L.) Merr.
Cultivar. Pureline. "Daksoy"; ND91-2735. CV-391; PVP 9800161. Pedigree - Sigco KG20*M81-18. Released 02/20/1998. Flowers purple, gray pubescence, brown pods, yellow seed coat with yellow hila and dull seed coat. Matures one day earlier than Jim and has high seed coat peroxidase and intermediate growth habit. Maturity Group 00. No major resistance to *Phytophthora sojae*. Released for its high yield and early maturity.

PI 602897. *Glycine max* (L.) Merr.
Cultivar. Pureline. "Jim"; ND91-2721. CV-392; PVP 9800160. Pedigree - Sigco KG20*M81-18. Released 02/20/1998. Flowers purple, gray pubescence, brown pods, dull seed coat, yellow seeds with yellow hila, high seed coat peroxidase and indeterminate growth habit. Maturity Group 00 and generally adapted as a full-season cultivar from 47 deg. to 48 deg. N, lat. No major gene resistance to *Phytophthora sojae*. Released for its high yield and early maturity.

The following were donated by V. Meyer, Delta Branch Exp. Station,

Stoneville, Mississippi 38776, United States; Lynn M. Gourley, Mississippi State University, Box 9555, Mississippi State, Mississippi 39762, United States. Received 1989.

PI 602898. *Sorghum bicolor* (L.) Moench

Breeding. Pureline. MP 11; MALE STERILE; AMP 11. Pedigree - (OK 11*BMR 2)BC3-1-2-1-2. Grain sorghum cytoplasmic-genetic male sterile or A-line inbred with common characteristic of brown-midrib. Plant color purple, grain with white epicarp and absence of a testa, semi-open panicle, exertion of about 25 cm, and 100 seed weight of 2.19 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis 68 and 64, and plant height 108 and 99 cm, respectively.

PI 602899. *Sorghum bicolor* (L.) Moench

Breeding. Pureline. MP 11; MAINTAINER; BMP 11. Pedigree - (OK 11*BMR 2)BC3-1-2-1-2. Grain sorghum maintainer or B-line inbred common characteristic of brown-midrib. Plant color purple, grain with a white epicarp and absence of a testa, semi-open panicle, exertion of about 25 cm, and 100 seed weight of 2.19 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis 68 and 64, and plant height 108 and 99 cm, respectively.

PI 602900. *Sorghum bicolor* (L.) Moench

Breeding. Pureline. MP 12; MALE STERILE; AMP 12. Pedigree - (OK 11*BMR 2)BC3-1-3-2-2. Grain sorghum cytoplasmic-genetic male sterile or A-line inbred with common characteristic of brown-midrib. Plant color purple, grain with a white epicarp and absence of a testa, semi-open panicle, exertion of about 25 cm, and 100 seed weight of 1.89 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis 70 and 67, and plant height 108 and 105 cm, respectively.

PI 602901. *Sorghum bicolor* (L.) Moench

Breeding. Pureline. MP 12; MAINTAINER; BMP 12. Pedigree - (OK 11*BMR 2)BC3-1-3-2-2. Grain sorghum maintainer or B-line with common characteristic of brown-midrib. Plant color purple, grain with a white epicarp and absence of a testa, semi-open panicle, exertion of about 25 cm, and 100 seed weight of 1.89 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis 70 and 67, and plant height 108 and 105 cm, respectively.

PI 602902. *Sorghum bicolor* (L.) Moench

Breeding. Pureline. MP 13; MALE STERILE; AMP 13. Pedigree - (OK 11*BMR 6)BC3-5-1-1-2. Grain sorghum cytoplasmic-genetic male sterile or A-line inbred with common characteristic of brown-midrib. Plant color purple, grain with a white epicarp and absence of a testa, semi-open panicle, exertion of about 10 cm, and 100 seed weight of 1.41 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis 64 and 66, and plant height 95 and 81 cm, respectively.

PI 602903. *Sorghum bicolor* (L.) Moench

Breeding. Pureline. MP 13; MAINTAINER; BMP 13. Pedigree - (OK 11*BMR 6)BC3-5-1-1-2. Grain sorghum maintainer or B-line inbred with common characteristic of brown-midrib. Plant color purple, grain with a white epicarp and absence of a testa, semi-open panicle, exertion of about 10 cm, and 100 seed weight of 1.41 gm. In June plantings at Plainview, TX

and Starkville, MS, days to 50% anthesis 64 and 66, and plant height 95 and 81 cm, respectively.

PI 602904. *Sorghum bicolor* (L.) Moench

Breeding. Pureline. MP 14; MALE STERILE; AMP 14. Pedigree - (Wheatland Derivative*BMR 6)BC2-19-7-1-1-1. Grain sorghum cytoplasmic-genetic male sterile or A-line inbred with common characteristic of brown- midrib. Plant color purple, grain with a white epicarp and absence of a testa, semi-open panicle, exsertion of about 8 cm, and 100 seed weight of 2.24 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis 68 and 66, and plant height 92 and 101 cm, respectively.

PI 602905. *Sorghum bicolor* (L.) Moench

Breeding. Pureline. MP 14; MAINTAINER; BMP 14. Pedigree - (Wheatland Derviative*BMR 6)BC2-19-7-1-1-1. Grain sorghum maintainer or B-line inbred with common characteristic of brown-midrib. Plant color purple, grain with a white epicarp and absence of a testa, semi-open panicle, exsertion of about 8 cm, and 100 seed weight of 2.24 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis 68 and 66, and plant height 92 and 101 cm, respectively.

PI 602906. *Sorghum bicolor* (L.) Moench

Breeding. Pureline. MP 15; MALE STERILE; AMP 15. Pedigree - (Wheatland Derivative*BMR 6)BC3-20-2-1-2-2. Grain sorghum cytoplasmic-genetic male sterile or A-line inbred with common characteristic of brown-midrib. Plant color purple, grain with a red epicarp and absence of a testa, semi-open panicle, exsertion of about 5 cm, and 100 seed weight of 1.87 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis 68 and 70, and plant height 88 and 90 cm, respectively.

PI 602907. *Sorghum bicolor* (L.) Moench

Breeding. Pureline. MP 15; MAINTAINER; BMP 15. Pedigree - (Wheatland Derivative*BMR 6)BC3-20-2-1-2-2. Grain sorghum maintainer or B-line inbred with common characteristic of brown-midrib. Plant color purple, grain with a red epicarp and absence of a testa, semi-open panicle, exsertion of about 5 cm, and 100 seed weight of 1.87 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis 68 and 70, and plant height 88 and 90 cm, respectively.

PI 602908. *Sorghum bicolor* (L.) Moench

Breeding. Pureline. MP 16; MALE STERILE; AMP 16. Pedigree - (OK 11*BMR 17)BC2-2-1-1-1-1. Grain sorghum cytoplasmic-genetic male sterile or A-line inbred with common characteristic of brown-midrib. Plant color purple, grain with a white epicarp and absence of a testa, semi-open panicle, exsertion of about 3 cm, and 100 seed weight of 1.63 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis 64 and 60, and plant height 92 and 93 cm, respectively.

PI 602909. *Sorghum bicolor* (L.) Moench

Breeding. Pureline. MP 16; MAINTAINER; BMP 16. Pedigree - (OK 11*BMR 17)BC2-2-1-1-1-1. Grain sorghum maintainer or B-line inbred with common characteristic of brown-midrib. Plant color purple, grain with a white epicarp and absence of a testa, semi-open panicle, exsertion of about 3 cm, and 100 seed weight of 1.63 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis 64 and 60, and plant height 92

and 93 cm, respectively.

PI 602910. *Sorghum bicolor* (L.) Moench

Breeding. Pureline. MP 17; MALE STERILE; AMP 17. Pedigree - (OK 11*BMR 17)BC2-22-1-2-1-1. Grain sorghum cytoplasmic-genetic male sterile or A-line inbred with common characteristic of brown-midrib. Plant color purple, grain with a white epicarp and absence of a testa, semi-open panicle, exsertion of about 10 cm, and 100 seed weight of 2.18 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis 72 and 66, and plant height 102 and 110 cm, respectively.

PI 602911. *Sorghum bicolor* (L.) Moench

Breeding. Pureline. MP 17; MAINTAINER; BMP 17. Pedigree - (OK 11*BMR 17)BC2-22-1-2-1-1. Grain sorghum maintainer or B-line inbred with common characteristic of brown-midrib.

PI 602912. *Sorghum bicolor* (L.) Moench

Breeding. Pureline. MP 18; MALE STERILE; AMP 18. Pedigree - (OK 11*BMR 12)BC2-4-1-1-1-1. Grain sorghum cytoplasmic-genetic male sterile or A-line inbred with common characteristic of brown-midrib. Plant color purple, grain with red epicarp and absence of a testa, semi-open panicle, exsertion of about 15 cm, and 100 seed weight of 1.73 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis 72 and 64, and plant height 95 and 95 cm, respectively.

PI 602913. *Sorghum bicolor* (L.) Moench

Breeding. Pureline. MP 18; MAINTAINER; BMP 18. Pedigree - (OK 11*BMR 12)BC2-4-1-1-1-1. Grain sorghum maintainer or B-line inbred with common characteristic of brown-midrib. Plant color purple, grain with a red epicarp and absence of a testa, semi-open panicle, exsertion of about 15 cm, and 100 seed weight of 1.73 gm. In June plantings in Plainview, TX and Starkville, MS, days to 50% anthesis 72 and 64, and plant height 95 and 95 cm, respectively.

PI 602914. *Sorghum bicolor* (L.) Moench

Breeding. Pureline. MP 19; MALE STERILE; AMP 19. Pedigree - (OK 11*BMR 12)BC2-7-1-3-1-2. Grain sorghum cytoplasmic-genetic male sterile or A-line inbred with common characteristic of brown-midrib. Plant color purple, grain with a white epicarp and absence of a testa, open panicle, exsertion of about 15 cm, and 100 seed weight of 1.50 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis 72 and 64, and plant height 117 and 122 cm, respectively.

PI 602915. *Sorghum bicolor* (L.) Moench

Breeding. Pureline. MP 19; MAINTAINER; BMP 19. Pedigree - (OK 11*BMR 12)BC2-7-1-3-1-2. Grain sorghum maintainer or B-line inbred with common characteristic of brown-midrib. Plant color purple, grain with a white epicarp and absence of a testa, open panicle, exsertion of about 15 cm, and 100 seed weight of 1.50 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis 72 and 64, and plant height 117 and 122 cm, respectively.

PI 602916. *Sorghum bicolor* (L.) Moench

Breeding. Pureline. MP 20; MALE STERILE; AMP 20. Pedigree - (B-Yellow PI*BMR 12)BC2-10-2-2-2-2. Grain sorghum cytoplasmic-genetic male sterile

or A-line inbred with common characteristic of brown-midrib. Plant color purple, grain with a white epicarp and absence of a testa, semi-open panicle, exsertion of about 13 cm, and 100 seed weight of 1.63 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis 60 and 57, and plant height 111 and 124 cm, respectively.

PI 602917. *Sorghum bicolor* (L.) Moench

Breeding. Pureline. MP 20; MAINTAINER; BMP 20. Pedigree - (B-Yellow PI*BMR 12)BC2-10-2-2-2-2. Grain sorghum maintainer or B-line inbred with common characteristic of brown-midrib. Plant color purple, grain with a white epicarp and absence of a testa, semi-open panicle, exsertion of about 13 cm, and 100 seed weight of 1.63 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis 60 and 57, and plant height 111 and 124 cm, respectively.

PI 602918. *Sorghum bicolor* (L.) Moench

Breeding. Pureline. MP 21; MALE STERILE; AMP 21. Pedigree - (B-Yellow PI*BMR 18)BC2-11-2-2-2-1. Grain sorghum cytoplasmic-genetic male sterile or A-line inbred with common characteristic of brown-midrib. Plant color purple, grain with red epicarp and absence of a testa, semi-open panicle, exsertion of about 15 cm, and 100 seed weight of 1.70 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis 69 and 60, and plant height 107 and 113 cm, respectively.

PI 602919. *Sorghum bicolor* (L.) Moench

Breeding. Pureline. MP 21; MAINTAINER; BMP 21. Pedigree - (B-Yellow PI*BMR 18)BC2-11-2-2-2-1. Grain sorghum maintainer or B-line inbred with common characteristic of brown-midrib. Plant color purple, grain with a red epicarp and absence of a testa, semi-open panicle, exsertion of about 15 cm, and 100 seed weight of 1.70 gm. In June plantings at Plainveiw, TX and Starkville, MS, days to 50% anthesis 69 and 60, and plant height 107 and 113 cm, respectively.

The following were donated by Lynn M. Gourley, Mississippi State University, Box 9555, Mississippi State, Mississippi 39762, United States. Received 03/04/1998.

PI 602920. *Sorghum bicolor* (L.) Moench

Breeding. Pureline. MP 23; MALE STERILE; AMP 23. Pedigree - IS 7173C. Grain sorghum cytoplasmic-genetic male-sterile or A-line inbred with common characteristic of acid-soil tolerance. Plant color purple, grain with a white epicarp and absence of a testa, open panicle, exsertion of about 10 cm, and 100 seed weight of 1.35 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis 68 and 59, and plant height 119 and 119 cm, respectively.

PI 602921. *Sorghum bicolor* (L.) Moench

Breeding. Pureline. MP 23; MAINTAINER; BMP 23. Pedigree - IS 7173C. Grain sorghum maintainer or B-line inbred with common characteristic of acid-soil tolerance. Plant color purple, grain with a white epicarp and absence of a testa, open panicle, exsertion of about 10 cm, and 100 seed weight of 1.35 gm. In June plantings at Plainview, TX and Starkville, MS, days to 50% anthesis 68 and 59, and plant height 119 and 119 cm, respectively.

The following were developed by Jay Goodwin, National Clonal Germplasm Repository, 33447 Peoria Road, Corvallis, Oregon 97333, United States. Received 12/08/1992.

PI 602922. *Fragaria x ananassa* Duchesne
Breeding. Sitka D x Radiance. Pedigree - Seed from seedlings from Sitka D. x Radiance seed increase of CFRA 62.000. (This accession was part of the PL,SD 'breakout' - 1992).

The following were donated by C.T. Kennedy, Kenbrook Ranch, California Rare Fruit Growers, 1315 33rd Avenue, San Francisco, California 94122, United States. Received 12/11/1992.

PI 602923. *Fragaria vesca* L.
Cultivar. "Alexandria"; "Alexandria (*F. vesca*)". Collected in Unknown. Pedigree - Original seed clone of Alpine. Seed regenerated from CFRA 478 (Alexandria). Origin is Europe.

The following were developed by Jay Goodwin, National Clonal Germplasm Repository, 33447 Peoria Road, Corvallis, Oregon 97333, United States. Received 06/04/1993.

PI 602924. *Fragaria vesca* L.
Breeding. *F. vesca*. Collected in Unknown. Pedigree - Seeds collected from Corvallis' FRA 1187, no crossing.

The following were donated by James McFerson, USDA, ARS, Cornell University, Plant Genetic Resources Unit, Geneva, New York 14456, United States. Received 08/13/1993.

PI 602925. *Fragaria x ananassa* Duchesne
Cultivated. Gorham Everbearing open pollinated. Developed in United States. Pedigree - Open-pollinated composite of "Gorham Everbearing" from 1964 - 1970. Composite includes packets of seed collected from 1964 to 1970. Reference G-12475.

The following were developed by Hester Kronenberg, UNKNOWN. Donated by James McFerson, USDA, ARS, Cornell University, Plant Genetic Resources Unit, Geneva, New York 14456, United States. Received 08/13/1993.

PI 602926. *Fragaria x ananassa* Duchesne
Cultivar. IVT 56-17 open pollinated. Pedigree - Open-pollinated composite of "IVT 56-17" (Juspa x US4143). Reference G-12533.

PI 602927. *Fragaria x ananassa* Duchesne
Cultivar. IVT 56-20 open pollinated. Pedigree - Open-pollinated composite of "IVT 56-20" (Sparkle x Juspa). Reference G-12535.

PI 602928. *Fragaria x ananassa* Duchesne

Cultivar. IVT 56-11. Pedigree - Open-pollinated composite of "IVT 56-11" (Juspa x US3763) collected from 1965 to 1970. Reference G-12532.

PI 602929. *Fragaria x ananassa* Duchesne

Cultivar. IVT 56-19 open pollinated. Pedigree - Open-pollinated composite of "IVT 56-19" (Juspa x Sparkle) in 1965 and 1966. Reference G-12534.

The following were developed by R.O.K. Von Sengbrusch, Max Planck Institut, Kulturepflanzenzuchtung, Hamburg-Volksdorf, Germany. Donated by James McFerson, USDA, ARS, Cornell University, Plant Genetic Resources Unit, Geneva, New York 14456, United States. Received 08/13/1993.

PI 602930. *Fragaria x ananassa* Duchesne

Cultivar. Senga Sengana open pollinated. Pedigree - Open-pollinated composite of "Senga Sengana" Markee x Sieger collected between 1963-1970 at the Regional Plant Introduction Station in Geneva, New York. Reference PI 264680. Composite includes packet of original seed.

The following were collected by Joseph Postman, USDA, ARS, National Plant Germplasm Repository, 33447 Peoria Road, Corvallis, Oregon 97333-2521, United States. Received 07/13/1994.

PI 602931. *Fragaria vesca* L.

Wild. *F. vesca*; Wood Strawberry. Collected 07/08/1994 in Piedmont, Italy . Latitude 44 deg. 48' N. Longitude 7 deg. 5' E. Elevation 1200 m. Hillside above the home of Aldo Charbonier in the town of Bobbio Pellice, 55 km SW of Torino, W of the town of Torre Pellice. Rich clay-loam, understory beneath Chestnut forest, steep rocky hillside. Pedigree - Open-pollinated seed collected from the wild in Italy.

The following were collected by Bruce Bartlett, USDA, ARS, National Germplasm Repository, 33447 Peoria Road, Corvallis, Oregon 97333-2521, United States. Received 06/29/1994.

PI 602932. *Fragaria chiloensis* subsp. *pacifica* Staudt

Wild. *F. chiloensis* subsp. *pacifica*. Collected 06/29/1994 in Oregon, United States. Latitude 43 deg. 52' N. Longitude 124 deg. 15' W. Elevation 2 m. Siltcoos State Park (Oregon Dunes National Rec Area). Leeward side of dunes and along access road. Near parking lot Lane County, Dunes City area (approx 10 miles S of Florence). Found on leeward side of coastal sand dunes on foot trails, disturbed ground and near bases of other vegetation. Other vegetation includes dune grass, legumes, low growing pines. Pedigree - collected from the wild in Oregon. Found ripe fruit especially along disturbed roadside around logs placed for sand stabilization purposes. Less fruit, herbivory (rabbits) found along roadside. Good location for seed.

The following were collected by Joey Ratliff, 635 SW 15th, Corvallis, Oregon 97333, United States. Received 07/12/1994.

PI 602933. *Fragaria virginiana* subsp. *platypetala* (Rydb.) Staudt
Wild. *F. virginiana* subsp. *platypetala*. Collected 07/12/1994 in Oregon,
United States. Latitude 44 deg. 36' N. Longitude 123 deg. 15' W.
Elevation 76 m. In the small town of Blodgett, Benton County, Oregon.
Yard landscape. Pedigree - collected from the wild in Oregon.

The following were collected by Bruce Bartlett, USDA, ARS, National Germplasm
Repository, 33447 Peoria Road, Corvallis, Oregon 97333-2521, United States.
Received 04/24/1995.

PI 602934. *Fragaria chiloensis* (L.) Duchesne
Cultivated. *F. chiloensis*. Collected 08/01/1994 in Oregon, United States
. Pedigree - Seed produced from "Selfed" cross CFRA 368.002. Selfed
cross from CFRA 368.002.

PI 602935. *Fragaria virginiana* subsp. *platypetala* (Rydb.) Staudt
Wild. *F. virginiana* subsp. *platypetala*. Collected 06/11/1994 in Oregon,
United States. Latitude 44 deg. 36' N. Longitude 123 deg. 15' W.
Elevation 100 m. Whispering Winds Girl Scout Camp, 23111 Burgett Creek
Rd, King Valley, Benton County, Oregon. Large open meadow. Strawberry
plants quite common throughout meadow. Other vegetation includes
grasses, daisies, etc. Pedigree - collected from the wild in Oregon.

The following were collected by Chad Finn, USDA, ARS, NW Center for Small
Fruits Research, 3420 NW Orchard Street, Corvallis, Oregon 97339, United
States; James Luby, University of Minnesota, Department of Horticultural
Science, 342 Alderman Hall, St. Paul, Minnesota 55108, United States; Rick
Harrison, University of Minnesota, Department of Horticultural Science, 1970
Folwell Avenue, St. Paul, Minnesota 55108-6007, United States. Donated by
Chad Finn, USDA, ARS, NW Center for Small Fruits Research, 3420 NW Orchard
Street, Corvallis, Oregon 97339, United States. Received 03/01/1995.

PI 602936. *Fragaria virginiana* Duchesne
Wild. LIG-13; *F. virginiana*; CFRA 1466. Collected 08/10/1993 in
Washington, United States. Latitude 48 deg. 30' N. Longitude 121 deg.
20' W. Elevation 900 m. Mt. Baker-Snoqualmie National Forest. Continuing
along FR 1130. T38N R8E Sec 24. Whatcom County. Clear cut area.
Pedigree - collected from the wild in Washington.

PI 602937. *Fragaria virginiana* Duchesne
Wild. LIG-24; *F. virginiana*; CFRA 1467. Collected 08/13/1993 in
Washington, United States. Latitude 47 deg. 40' N. Longitude 121 deg.
15' W. Elevation 740 m. Mt. Baker-Snoqualmie National Forest.
Collections made on FR 6099 approx 1.6 km from US 2 near Stevens Pass.
T26N R13E Sec 28. King County. Moist, coastal forest area. Pedigree -
collected from the wild in Washington.

PI 602938. *Fragaria virginiana* Duchesne
Wild. LIG-36; *F. virginiana*; CFRA 1468. Collected 08/16/1993 in
Washington, United States. Latitude 46 deg. 30' N. Longitude 121 deg.
30' W. Elevation 1420 m. Gifford Pinchot National Forest. From US 12,
just west of White Pass, north on FR 1284, at and near end of FR 1284.
T13N R11E Sec 4 and Sec 9. Lewis County. Collection along road and down

steep clearcut. Pedigree - collected from the wild in Washington.

PI 602939. *Fragaria virginiana* Duchesne

Wild. LIG-39; *F. virginiana*; CFRA 1469. Collected 08/18/1993 in Washington, United States. Latitude 45 deg. 50' N. Longitude 122 deg. 15' W. Elevation 1280 m. Gifford Pinchot National Forest. FR 93 to FR 9039 to FR 30 to FR 580 south towards Mt. St. Helens Viewpoint. T7N R8E Sec 22. Skamania County. Pedigree - collected from the wild in Washington.

PI 602940. *Fragaria virginiana* Duchesne

Wild. LIG-40; *F. virginiana*; CFRA 1470. Collected 08/18/1993 in Washington, United States. Latitude 45 deg. 50' N. Longitude 122 deg. W. Elevation 1205 m. Gifford Pinchot National Forest. FR 30 at bog/pond. T7N R8E Sec 14. Skamania County. Open area. Especially abundant in rings around conifers. Associated w/ *V. caespitosum*, *V. uliginosum*. *Spirea* spp. *Pinus monticola*, *Tsuga mertensiana*, *Thuja* ssp. Pedigree - collected from the wild in Washington.

The following were collected by Catherine Wright, Alaska Plant Materials Ctr., HCO2, Box 7440, Palmer, Alaska 99645, United States; Kim Hummer, USDA, ARS, National Clonal Germplasm Repository, 33447 Peoria Road, Corvallis, Oregon 97333-2521, United States. Donated by Kim Hummer, USDA, ARS, National Clonal Germplasm Repository, 33447 Peoria Road, Corvallis, Oregon 97333-2521, United States. Received 08/08/1996.

PI 602941. *Fragaria x ananassa* Duchesne

Cultivated. KHCW 96-25-01; CFRA 1492. Collected 08/04/1996 in Alaska, United States. Latitude 59 deg. 39' 0'' N. Longitude 151 deg. 33' 0'' W. Elevation 35 m. 3 miles north of Homer, Bay View Inn, on bank behind cabins. Open slope facing southwest. Pedigree - Selection of cultivated Sitka strawberries suspected to be planted 40 years ago - possibly Sitka hybrid. USDA Sponsored plant collecting expedition, 1996.

The following were collected by Chad Finn, USDA, ARS, NW Center for Small Fruits Research, 3420 NW Orchard Street, Corvallis, Oregon 97339, United States; Maxine Thompson, National Clonal Germplasm Repository, 33447 Peoria Road, Corvallis, Oregon 97333, United States; Joseph Postman, USDA, ARS, National Plant Germplasm Repository, 33447 Peoria Road, Corvallis, Oregon 97333-2521, United States; Sheng Ke Xi, The Chinese Academy of Forestry, Beijing, Beijing, China; Qinghua Zhang, Institute of Forest Ecology and Environment, Chinese Academy of Forestry, Wan Shou Shan, Beijing, Beijing 100091, China. Donated by Maxine Thompson, National Clonal Germplasm Repository, 33447 Peoria Road, Corvallis, Oregon 97333, United States. Received 10/24/1996.

PI 602942. *Fragaria orientalis* Losinsk.

Wild. *F. orientalis*; 96058; CFRA 1612. Collected 08/02/1996 in Jilin, China. Latitude 42 deg. 0' N. Longitude 128 deg. 0' E. Elevation 1769 m. Along roadside in Changbaishan Nature Preserve in Changbai Mountains. Pedigree - collected from the wild in Jilin, China.

The following were developed by North Carolina Agricultural Research Service, North Carolina, United States. Received 03/17/1998.

PI 602943. *Nicotiana tabacum* L.

Cultivar. "NC 466-3-6". PVP 9800115.

The following were developed by New Zealand Pastoral Agriculture Research Institute Ltd, New Zealand. Received 03/17/1998.

PI 602944. *Trifolium repens* L.

Cultivar. "TILLMAN II". PVP 9800116.

The following were developed by Coastal Seeds, Inc., United States. Received 03/17/1998.

PI 602945. *Lactuca sativa* L.

Cultivar. "GLADIATOR". PVP 9800119.

PI 602946. *Lactuca sativa* L.

Cultivar. "MEDALLION". PVP 9800120.

The following were developed by Seminis Vegetable Seeds, Inc., Woodland, California, United States. Received 03/17/1998.

PI 602947. *Pisum sativum* L.

Cultivar. 8500017. PVP 9800121.

The following were developed by C. R. Funk, Rutgers University, Cook College, Dept. of Soils and Crops, New Brunswick, New Jersey 08903, United States; W. Meyer, Pure Seed Testing, Inc., P.O. Box 449, Hubbard, Oregon 97032, United States; C.A. Rose-Fricker, Pure Seed Testing, Inc., 3057 G Street, Hubbard, Oregon 97032, United States; Pure Seed Testing, Inc., P.O. Box 449, Hubbard, Oregon 97032, United States; Melodee L. Fraser, PureSeed Testing, Inc., P.O. Box 176, 606 Main Street, Rolesville, North Carolina 27571, United States. Donated by Melodee L. Fraser, PureSeed Testing, Inc., P.O. Box 176, 606 Main Street, Rolesville, North Carolina 27571, United States. Received 03/17/1998.

PI 602948. *Festuca arundinacea* Schreb.

Cultivar. Population. "CORONADO GOLD"; PST-5RT. CV-70; PVP 9800122.
Pedigree - Twenty-one tall fescue plants, selected for brown patch tolerance in North Carolina, were topcrossed onto Coronado tall fescue. Two successive cycles of phenotypic recurrent selection were conducted on the maternal progenies. Dark green, low-growing turf-type tall fescue that exhibits good brown patch (*Rhizoctonia solani*) tolerance. Shows better summer turf performance than Coronado in North Carolina. Good tolerance to gray leaf spot (*Pyricularia grisea*).

The following were developed by C. R. Funk, Rutgers University, Cook College, Dept. of Soils and Crops, New Brunswick, New Jersey 08903, United States; Melodee L. Fraser, PureSeed Testing, Inc., P.O. Box 176, 606 Main Street,

Rolesville, North Carolina 27571, United States; Crystal A. Fricker, Pure Seed Testing, Inc., P.O. Box 449, Hubbard, Oregon 97032, United States; W.A. Meyer, Rutgers University, Cook College, Plant Sciences Dept., P.O. Box 231, New Brunswick, New Jersey 08903, United States. Received 03/17/1998.

PI 602949. Festuca arundinacea Schreb.

Cultivar. Population. "WOLFPACK"; PST-R5TK. CV-67; PVP 9800123. Pedigree - The parents were selected for excellent turf performance and brown patch tolerance in turf trials in Rolesville, NC or Adelphia, NJ. Exhibits high level of tolerance to brown patch disease (*Rhizoctonia solani*), heat tolerance, and good summer turf performance.

The following were developed by Kansas Agricultural Experiment Station, Fort Hays Branch Sta., Hays, Kansas 67601, United States. Received 03/17/1998.

PI 602950. Glycine max (L.) Merr.

Cultivar. "KS4997". PVP 9800124.

The following were developed by Harris Moran Seed Company, P.O. Box 4938, Modesto, California 95352-4938, United States. Received 03/17/1998.

PI 602951. Ocimum basilicum L.

Cultivar. "SANREMO". PVP 9800125.

PI 602952. Ocimum basilicum L.

Cultivar. "PESTO". PVP 9800126.

The following were developed by NDSU Research Foundation, North Dakota, United States. Received 03/17/1998.

PI 602953. Zea mays L. subsp. mays

Cultivar. "ND284". PVP 9800127.

PI 602954. Zea mays L. subsp. mays

Cultivar. "ND285". PVP 9800128.

PI 602955. Zea mays L. subsp. mays

Cultivar. "ND286". PVP 9800129.

PI 602956. Zea mays L. subsp. mays

Cultivar. "ND287". PVP 9800130.

PI 602957. Zea mays L. subsp. mays

Cultivar. "ND288". PVP 9800131.

PI 602958. Zea mays L. subsp. mays

Cultivar. "ND289". PVP 9800132.

The following were developed by United Grain Growers Ltd., Box 03, Semans, Saskatchewan, Canada. Received 03/17/1998.

PI 602959. *Linum usitatissimum* L.
Cultivar. "989". PVP 9800133.

The following were developed by Novartis Seeds, Inc., United States. Received 03/17/1998.

PI 602960. *Triticum aestivum* L., nom. cons. subsp. *aestivum*
Cultivar. "COKER 9704". PVP 9800134. Soft red winter wheat.

The following were developed by Cascade International Seed Company, 8483 W. Stayton Rd., Aumsville, Oregon 97325, United States. Received 03/17/1998.

PI 602961. *Poa pratensis* L.
Cultivar. "JEFFERSON". PVP 9800135.

The following were developed by Hornbeck Seed Company, Inc., United States. Received 03/17/1998.

PI 602962. *Glycine max* (L.) Merr.
Cultivar. "HBK 6600". PVP 9800138.

The following were developed by Delta and Pine Land Company, Scott, Mississippi, United States. Received 03/17/1998.

PI 602963. *Glycine max* (L.) Merr.
Cultivar. "DP 4750 RR". PVP 9800139.

PI 602964. *Glycine max* (L.) Merr.
Cultivar. "DP 4969 RR". PVP 9800140.

PI 602965. *Glycine max* (L.) Merr.
Cultivar. "DP 5354". PVP 9800141.

PI 602966. *Glycine max* (L.) Merr.
Cultivar. "DP 4344 RR". PVP 9800142.

The following were developed by Pioneer Hi-Bred International, Inc., 6800 Pioneer Pkwy., P.O. Box 316, Johnston, Iowa 50131-0316, United States. Received 03/17/1998.

PI 602967. *Medicago sativa* L. subsp. *sativa*
Cultivar. "53Q60". PVP 9800143.

The following were developed by Frederic L. Kolb, University of Illinois, Department of Agronomy, W-203 Turner Hall, Urbana, Illinois 61801-4798, United States; Charles M. Brown, University of Illinois, Department of Agronomy, 1102 South Goodwin Avenue, Urbana, Illinois 61801, United States; Leslie L. Domier, USDA-ARS, N-235 Turner Hall, University of Illinois, Urbana, Illinois 61801, United States; N.J. Smith, University of Illinois,

Dept. of Crop Sciences, 1102 S. Goodwin Avenue, Urbana, Illinois 61801, United States. Received 03/17/1998.

PI 602968. *Avena sativa* L.

Cultivar. Pureline. "BLAZE"; IL89-1730. CV-354; PVP 9800144. Pedigree - IL83-7646 (P722661-2-3-2/IL75-5665(Coker 227/Clintford//Portal)/Newdak. Released 1997. Midseason spring oat with high yield potential combined with good test weight, tan kernels, and barley yellow dwarf virus tolerance. Moderately resistant to crown rust (*Puccinia coronata*) but may be susceptible to some races of crown rust. Susceptible to loose smut (*Ustilago avenae*). Lemmas tan and glabrous. Most seed fluoresce in ultraviolet light; however, 0.5% nonfluorescent seeds are allowed. Awns absent. Up to 0.5% variants, predominately taller plants, are allowed.

The following were developed by Board of Trustees of the University of Illinois, Urbana, Illinois 61801, United States. Received 03/17/1998.

PI 602969. *Triticum aestivum* L., nom. cons. subsp. *aestivum*

Cultivar. "IL90-7514". PVP 9800145.

The following were developed by New Mexico State University Agricultural Experiment Station, Las Cruces, New Mexico 88003, United States. Received 03/17/1998.

PI 602970. *Capsicum annuum* L.

Cultivar. "NUMEX PRIMAVERA". PVP 9800147.

The following were developed by Agripro Seeds, Inc., Iowa, United States. Received 03/17/1998.

PI 602971. *Gossypium hirsutum* L.

Cultivar. "AP 6101". PVP 9800148.

PI 602972. *Gossypium hirsutum* L.

Cultivar. "AP 4103". PVP 9800149.

PI 602973. *Gossypium hirsutum* L.

Cultivar. "AP 6102". PVP 9800150.

The following were developed by Finelawn Research, Inc., United States. Received 03/17/1998.

PI 602974. *Lolium perenne* L.

Cultivar. "STALLION SUPREME". PVP 9800151.

The following were developed by Hornbeck Seed Company, Inc., United States. Received 03/17/1998.

PI 602975. *Glycine max* (L.) Merr.

Cultivar. "HBK 5990". PVP 9800152.

The following were developed by Oregon State University, Oregon Agriculture Experiment Station, Corvallis, Oregon 97331, United States. Received 03/17/1998.

PI 602976. *Triticum turgidum* subsp. *durum* (Desf.) Husn.
Cultivar. Pureline. "CONNIE"; OR3920036. PVP 9800153. Pedigree - 7-5/Valgerardo//Edmore/3/Topaz. Released 1998. Winter durum wheat.

The following were developed by Jacklin Seed Company, 5300 West Riverbend Avenue, Post Falls, Idaho 83854-9499, United States. Received 03/17/1998.

PI 602977. *Lolium perenne* L.
Cultivar. "MONTEREY". PVP 9800154.

The following were developed by C. R. Funk, Rutgers University, Cook College, Dept. of Soils and Crops, New Brunswick, New Jersey 08903, United States; W. Meyer, Pure Seed Testing, Inc., P.O. Box 449, Hubbard, Oregon 97032, United States; C.A. Rose-Fricker, Pure Seed Testing, Inc., 3057 G Street, Hubbard, Oregon 97032, United States; Melodee L. Fraser, PureSeed Testing, Inc., P.O. Box 176, 606 Main Street, Rolesville, North Carolina 27571, United States; Pure Seed Testing, Inc., 29975 S. Barlow Road, Canby, Oregon 97013, United States. Donated by Melodee L. Fraser, PureSeed Testing, Inc., P.O. Box 176, 606 Main Street, Rolesville, North Carolina 27571, United States. Received 03/17/1998.

PI 602978. *Festuca arundinacea* Schreb.
Cultivar. Population. "BANDANA"; PST-R5AE. CV-69; PVP 9800155. Pedigree - Synthetic cultivar developed as part of a breeding program to improve brown patch tolerance. Parents selected for excellent turf performance and brown patch tolerance in turf trails at Rolesville, NC or Adelphia, NJ. Summer turf performance good. Heat tolerance good and high level of tolerance to brown patch disease.

The following were developed by D.S. Murty, Int. Crops Res. Inst. for the Semi-Arid Tropics, No. 30, ICRISAT Phase 1 Colony, Patancheru P.O., Andhra Pradesh 500 009, India. Received 03/17/1998.

PI 602979 QUAR. *Sorghum bicolor* (L.) Moench
Breeding. Inbred. ICSB 38; MAINTAINER. PL-256. Pedigree - [(BTx 623 x MR 862) B-Bulk]-5-1-3-5. Three gene dwarf fertile and maintains sterility (A, CMS) of ICSA 38. Photoinsensitive and flowers in 68-75 days. Plant height 110-140 cm, color tan. Leaves semi-erect and white midrib. Stem 15-22 mm thick and has insipid juice. Panicles very well exerted, elliptical and loose with slightly drooping primary branches. Glumes free threshing, light red. Pedicellate spikelets generally persistent. Grains oval, creamy white, medium hard endosperm, thin pericarp and no tannins.

PI 602980 QUAR. *Sorghum bicolor* (L.) Moench
Breeding. Inbred. ICSB 39; MAINTAINER. PL-257. Pedigree - [(BTx 623 x MR

862)B-Bulk]-5-1-3-3. Three gene dwarf fertile and maintains sterility (A, CMS) of ICSA 39. Photoinsensitive and flowers in 68-75 days. Plant height 110-114 cm, color tan. Leaves nearly horizontal with white midrib. Stem 15-22 mm thick with insipid juice. Panicles semi-compact and cylindrical. Glumes free threshing, light red. Pedicellate spikelets fall off or shed at maturity. Grains oval, creamy white, medium hard endosperm, thin pericarp no tannins.

PI 602981 QUAR. *Sorghum bicolor* (L.) Moench

Breeding. Inbred. ICSR 101; MR 906. PL-259. Pedigree - [(SC108-3 x CS 3541) 64-3 x 1807 B]-5-3. Plant height 140-180 cm, color tan, flowers in 65-72 days. Leaves semi-erect with white midrib. Panicles well exerted, semi-compact and 25-30 cm long. Glumes tough, yellowish brown and free threshing. Awns absent and pedicellate spikelets are not persistent. Grains white, medium-hard endosperm, thin pericarp and no tannins.

The following were developed by R. Kenga, Institute of Agronomic Research, Agronomic Research Center, B.P. 33, Maroua, Cameroon; D.S. Murty, Int. Crops Res. Inst. for the Semi-Arid Tropics, No. 30, ICRISAT Phase 1 Colony, Patancheru P.O., Andhra Pradesh 500 009, India; O.P. Dangi, Institute of Agronomic Research, BP 33, Maroua, Cameroon; N.G.P. Rao, Int. Crops Res. Inst. for the Semi-Arid Tropics, ICRISAT/OAU/SAFGRAD, Institute for Agronomic Research, Samaru, Nigeria. Received 03/17/1998.

PI 602982 QUAR. *Sorghum bicolor* (L.) Moench

Cultivar. Pureline. "S-35"; M 91019. CV-135. Pedigree - [(SPV 35 x E 35-1) CS 3541]-S 35. Non-photosensitive and self-pollinated. Flowers in 55-65 days and matures in 90-105 days. Plant color tan, height 155-205 cm. Panicles well exerted, semi-compact, 24-28 cm long. Grains cream colored caudatum type with hard endosperm and thin pericarp. Restorer to A-1 cms.

The following were developed by D.S. Murty, Int. Crops Res. Inst. for the Semi-Arid Tropics, No. 30, ICRISAT Phase 1 Colony, Patancheru P.O., Andhra Pradesh 500 009, India. Received 03/17/1998.

PI 602983 QUAR. *Sorghum bicolor* (L.) Moench

Breeding. Inbred. ICSV 247; M 24619. PL-258. Pedigree - (E 36 x CS 3541)-3-15-1-2-2. Photoinsensitive and matures in 100-110 days. Plant height 160-200 cm, color tan and can tiller fairly. Stems juicy, slightly sweet and non-lodging. Leaves semi-erect with white midrib. Panicles 28-30 cm long, semi-loose, elliptic, and exert a long peduncle. Glumes light red, awnless florets and pedicellate spikelets generally persistent. Grains cream colored caudatum type, hard endosperm, thin pericarp and no tannins.

The following were developed by Kevin Weiks, P.O. Box 89, Littlerock, Washington 98556, United States. Donated by Robert Thornton Thornton, Washington State University, 137A Johnson Hall, Pullman, Washington 99164-5912, United States. Received 03/11/1998.

PI 602984. *Phaseolus vulgaris* L.

Cultivated. W6 20582. Seed were grown for 3 generations in developer's family.

The following were donated by S.P. Singh, International Center for Tropical Agriculture, Apdo. Aereo 6713, Cali, Valle, Colombia; Phillip Miklas, USDA, ARS, Irrigated Agric. Research & Extension Ctr., 24106 North Bunn Road, Prosser, Washington 99350-9687, United States. Received 02/27/1998.

PI 602985. Phaseolus vulgaris L.
Genetic. BRB 190; W6 20583.

PI 602986. Phaseolus vulgaris L.
Genetic. BRB 195; W6 20584.

PI 602987. Phaseolus vulgaris L.
Genetic. IVT 7214; G 11270; W6 20585.

The following were donated by Phillip Miklas, USDA, ARS, Irrigated Agric. Research & Extension Ctr., 24106 North Bunn Road, Prosser, Washington 99350-9687, United States. Received 02/27/1998.

PI 602988. Phaseolus vulgaris L.
Genetic. USLK-2; W6 20586.

The following were developed by D.S. Murty, Int. Crops Res. Inst. for the Semi-Arid Tropics, No. 30, ICRISAT Phase 1 Colony, Patancheru P.O., Andhra Pradesh 500 009, India. Received 03/19/1998.

PI 602989 QUAR. Sorghum bicolor (L.) Moench
Breeding. Pureline. ICSA 38; MALE STERILE; PL-256cmsA1. PL-256cms.
Pedigree - [(BTx 623 x MR 862) B-Bulk]-5-1-3-5. Male-sterile of ICSB 38 (PI 602979).

PI 602990 QUAR. Sorghum bicolor (L.) Moench
Breeding. Pureline. ICSA 39; MALE STERILE; PL-257cmsA1. PL-257cms.
Pedigree - [(BTx 623 x MR 862)B-Bulk]-5-1-3-3. Male-sterile of ICSB 39 (PI 602980).

The following were donated by Ruzhen Chang, Chinese Academy of Agricultural Sciences, Institute of Crop Germplasm Resources, Beijing, Beijing, China. Received 02/01/1998.

PI 602991. Glycine max (L.) Merr.
Cultivated. Pureline. ZDD 3013; SY 9802001.

PI 602992. Glycine max (L.) Merr.
Cultivated. Pureline. ZDD 3297; SY 9802002.

PI 602993. Glycine max (L.) Merr.
Cultivated. Pureline. ZDD 3947; SY 9802003.

PI 602994. *Glycine max* (L.) Merr.

Cultivated. Pureline. ZDD 5470; SY 9802004.

The following were developed by Jeff Thompson, University of Illinois, Department of Agronomy, AE-116 Turner Hall, Urbana, Illinois 61801, United States; John Thompson, USDA-ARS, U.S. Plant, Soil and Nutrition Lab, Tower Road, Ithaca, New York 14853, United States; Randall Nelson, USDA, ARS, National Soybean Research Laboratory, 1101 West Peabody Drive, Urbana, Illinois 61801, United States; Paul J. Amdor, USDA-ARS Soybean Germplasm Collection, 1101 W. Peabody Dr., Urbana, Illinois 61801, United States. Donated by Randall Nelson, USDA, ARS, National Soybean Research Laboratory, 1101 West Peabody Drive, Urbana, Illinois 61801, United States. Received 09/09/1997.

PI 602995. *Glycine max* (L.) Merr.

Breeding. Pureline. LG90-2550; SY 9805001. GP-186. Pedigree - LG82-8224 x LG82-8195. Maturity group III with semi-determinate stems (presumably Dt2Dt2). Flowers purple, tawny pubescence, tan pods, shiny yellow seed coats, and black hila. Resistant to race 7 of *P. sojae* and has low level of iron chlorosis in high pH soils. Yields 16% more than Lawrence, the adapted parent, and 6 days earlier and 31 cm shorter than Lawrence.

PI 602996. *Glycine max* (L.) Merr.

Breeding. Pureline. LG91-7350R; SY 9805002. GP-187. Pedigree - F10 reselection from LG91-7350. LG91-7350 is an F6 line from BSR 101 x LG82-8379. Maturity group IV with indeterminate stems. Flowers purple, tawny pubescence, brown pods, yellow seed coats with intermediate luster, and black hila. Resistant to races 1, 3, 7, and 10 of *P. sojae*. Averaged 98% of the yield of the check cultivar.

The following were developed by Glenn W. Burton, USDA, ARS, Forage & Turf Research, Georgia Coastal Plain Experiment Station, Tifton, Georgia 31793, United States; Phil L. Bruckner, Montana State University, Department of Plant Science, Leon Johnson Hall, Bozeman, Montana 59717-0312, United States; Ron D. Barnett, University of Florida, North Florida Res. & Ed. Center, R.#3, Box 4370, Quincy, Florida 32351, United States; Jerry W. Johnson, University of Georgia, Department of Crop and Soil Sciences, 1109 Experiment Street, Griffin, Georgia 30223-1797, United States; R.N. Gates, USDA, ARS, Coastal Plain Exp. Sta., Tifton, Georgia 31793, United States; G.M. Hill, University of Georgia, Dept. of Animal Science, Coastal Plain Exp. Station, Tifton, Georgia 31793, United States; O. Myers, Jr., Southern Illinois University, Dept. of Plant, Soil, and General Agriculture, Carbondale, Illinois 62901-4415, United States. Received 03/06/1998.

PI 602997. *Secale cereale* L. subsp. *cereale*

Cultivar. Population. "WRENS 96"; WRC 7. CV-17. Pedigree - Derived by recurrent phenotypic selection for 7 cycles using Wren Abruzzi as the original base population. Released 1996. High yielding, early maturing for the Coastal Plain region of the Southeast U.S. Matures an average 4 days later and is 2 cm taller than Wrens Abruzzi. Averages 18% higher in grain yield than Wrens Abruzzi under severe epidemics of leaf rust. Spring-type with early upright growth habit.

The following were developed by Peggy Thaxton, Texas A&M University, Dept. of Soil and Crop Science, College Station, Texas 77843, United States; Kamal M. El-Zik, Texas A&M University, Department of Soil & Crop Sciences, College Station, Texas 77843, United States. Received 03/20/1998.

PI 602998. *Gossypium hirsutum* L.

Breeding. Pureline. CAHUGARPIH-1-88. GP-672. Pedigree - CAHUGS-1-84 / Pora Inta (ARPIH-2-84), a line from Argentina. Glanded, normal leaf, normal bract, nectaried, very pubescent line with the B2B3B7 genes for bacterial blight resistance and displays a standability similar to Tamcot Sphinx. Later maturing than the Tamcot cultivars and has excellent fiber quality. Fiber strength is 40.2 kN m kg⁻¹ stronger than Tamcot CAB-CS and 28.4 kN m kg⁻¹ stronger than Tamcot HQ95. Fiber uniformity and fineness (micronaire) are significantly greater than Tamcot CAB-CS and Tamcot HQ95.

PI 602999. *Gossypium hirsutum* L.

Breeding. Pureline. CD3HHARCIH-1-88. GP-673. Pedigree - CDP37HH-1-1-85 (a selection from Tamcot CD3H) / Chaco Inta (ARCI-1-84), a line from Argentina. Glanded, normal leaf, normal bract, nectaried, and pubescent line. Has the B2B3B6B7 genes for bacterial blight resistance, and fiber strength averages 296.3 kN m kg⁻¹. Improved levels for resistance to *Phymatotrichum* root rot and to the fusarium wilt root-knot nematode complex in addition to standability. Later maturing than the Tamcot cultivars, and is an excellent source for high fiber quality. Fiber is 0.5 mm longer than Tamcot CAB-CS and Tamcot HQ95, and is stronger: 48 kN m kg⁻¹ than Tamcot CAB-CS, 35.3 kN m kg⁻¹ than Tamcot HQ95, and 15.7 kN m kg⁻¹ than Tamcot Sphinx.

PI 603000. *Gossypium hirsutum* L.

Breeding. Pureline. CD3HCAUGH-2-88. GP-674. Pedigree - CDP37HH-1-1-85 (Tamcot CD3H) / CAHUGS-1-84. Glanded, normal leaf, normal bract, nectaried, and pubescent line. Has the B2B3B6B7 genes for bacterial blight resistance. Lint yield similar to Tamcot HQ95, and fiber quality traits similar to Tamcot CAB-CS and Tamcot HQ95. Very early maturing, 11.2% earlier than Tamcot CAB-CS and Tamcot Sphinx.

PI 603001. *Gossypium hirsutum* L.

Breeding. Pureline. CD3HCHULBH-1-88. GP-675. Pedigree - Tamcot CD3H / CHUL2BS-1-85. Glanded, normal leaf, normal bract, nectaried, and pubescent line. Has the B2B3B6B7 genes for bacterial blight resistance and improved levels for resistance to root pathogens causing *Phymatotrichum* root rot, *Verticillium* wilt, and fusarium wilt root-knot nematode complex. Fiber strength averages 266.8 kN m kg⁻¹. Lint yield and earliness similar to those of Tamcot HQ95.

PI 603002. *Gossypium hirsutum* L.

Breeding. Pureline. CABD3CABCH-1-89. GP-676. Pedigree - CABUCD3H-1-86 (later released as Tamcot HQ95) / Tamcot CAB-CS. Glanded, normal leaf, normal bract, nectaried, and pubescent line. Has the B2B3B6B7 genes for bacterial blight resistance and an average fiber strength of 274.7 kN m kg⁻¹. Lint yield similar to Tamcot cultivars, is early, and has a stronger fiber than Tamcot CAB-CS and Tamcot HQ95.

- PI 603003. *Gossypium hirsutum* L.**
Breeding. Pureline. CD3HCABCUH-1-89. GP-677. Pedigree - CDP37HH-1-1-85 / CABCHUH-1-86. Glanded, normal leaf, normal bract, nectaried, and pubescent line. Improved levels of resistance to *Phymatotrichum* root rot and *Verticillium* wilt, and has the B2B3B6B7 genes for bacterial blight resistance. Lint yield similar to Tamcot HQ95, but later in maturity than Tamcot HQ95. Longer fiber than the Tamcot cultivars.
- PI 603004. *Gossypium hirsutum* L.**
Breeding. Pureline. LBBCDBOAKH-1-90. GP-678. Pedigree - LBBCD3H-1-87 (MAR-5 release) / BOUAKE 86-87 EH2G, a selection from a line from Central Africa. Glanded, normal leaf, normal bract, nectaried, and a very pubescent line. Has the B2B3B6B7 genes for bacterial blight resistance. High yield potential and fiber quality. Fiber length averages 29.2 mm, and fiber strength averages 273.7 kN m kg⁻¹. Later in maturity than Tamcot CAB-CS and Tamcot HQ95.
- PI 603005. *Gossypium hirsutum* L.**
Breeding. Pureline. CAHUGLBBCS-1-88. GP-679. Pedigree - CAHUGS-1-84 / LBBCABCHUS-1-87 (MAR-5 release). Glanded, normal leaf, normal bract, nectaried, glabrous plant type with the B2B3B7 genes for bacterial blight resistance. Higher levels of resistance to the fusarium-root-knot nematode complex with an average of 7.8% plants with wilt symptoms compared to 26.5% for Tamcot CAB-CS. Yield potential similar to Tamcot HQ95 and is earlier in maturity than Tamcot CB-CS and Tamcot Sphinx. Fiber elongation is significantly higher than the Tamcot cultivars.
- PI 603006. *Gossypium hirsutum* L.**
Breeding. Pureline. LBBCC4HUGS-1-89. GP-680. Pedigree - LBBCHUS-2-85 / C4HUGBES-1-85. Glanded, normal leaf, normal bract, nectaried, glabrous plant type with the B2B3B7 genes for bacterial blight resistance, and a high level of resistance to *Verticillium* wilt. Significantly earlier than Tamcot CAB-CS and Tamcot Sphinx, and yield potential is similar to Tamcot HQ95. Improved fiber quality with an average length of 28.2 mm and strength of 263.9 kN m kg⁻¹.
- PI 603007. *Gossypium hirsutum* L.**
Breeding. Pureline. CABD3SHP3S-1-90. GP-681. Pedigree - CABUCD3H-1-86 (Tamcot HQ95) / Shepherd 83-725 (a line developed by R.L. Shepherd, USDA-ARS, MS). Glanded, normal leaf, normal bract, nectaried, glabrous plant type and has the B2B3B6B7 genes for bacterial blight resistance. Later maturing than Tamcot CAB-CS and Tamcot HQ95 and is similar in maturity to Tamcot Sphinx. Fiber 1.3 mm longer and 22.6 kN m kg⁻¹ stronger than Tamcot CAB-CS.
- PI 603008. *Gossypium hirsutum* L.**
Breeding. Pureline. BLCABPD86S-1-90. GP-682. Pedigree - BLLCABS-3-86 (MAR-5 release) / a sel. from PD6186 (a line developed by T.W. Culp et.al., USDA-ARS, Florence, SC). Glanded, normal leaf, normal bract, nectaried, glabrous plant type, and improved levels of resistance to *Phymatotrichum* root rot and *Verticillium* wilt, and the B2B3B7 genes for bacterial blight resistance. High yielding ability similar to Tamcot HQ95 and Tamcot Sphinx. Similar fiber length, uniformity, and strength to that of Tamcot CAB-CS and Tamcot HQ95. Fiber fineness (micronaire) similar to Tamcot Sphinx.

PI 603009. *Gossypium hirsutum* L.

Breeding. Pureline. MAR5PD208S-4-90. GP-683. Pedigree - Selection from PD6208 (a line developed by T.W. Culp et. al., USDA-ARS, Florence, SC), that has been screened and evaluated using MAR procedures for two cycles. Glanded, normal leaf, normal bract, nectaried, glabrous plant type, and has been screened and evaluated using MAR procedures for two cycles. Resistant to the U.S. races of the bacterial blight pathogen. High yielding ability, and maturity similar to the other Tamcot cultivars. Fiber length significantly longer (0.03 to 0.04 mm) than the comparison cultivars.

The following were developed by Charles N. Bollich, USDA-ARS, Rice Research, RT. 7, Box 999, Beaumont, Texas 77706, United States; Marco A. Marchetti, USDA-ARS, Rice Research Station, Texas A&M Experiment Station, Beaumont, Texas 77713, United States; Bill D. Webb, USDA, ARS, Texas A&M Univ. Agric. Res. and Ext. Center, Rt. 7, Box 999, Beaumont, Texas 77713-8530, United States; Anna Myers McClung, USDA, ARS, Rice Research Unit, 1509 Aggie Drive, Beaumont, Texas 77713, United States. Received 03/23/1998.

PI 603010. *Oryza sativa* L.

Cultivar. Pureline. "MADISON"; RU9403166. CV-110. Pedigree - Lemont/Katy. Semi-drawf long-grain rice with improved resistance to blast (*Pyricularia grisea*) and sheath blight (*Rhizoctonia solani*). Maturity about 2-4 days later than Lemont. Leaf blast ratings highly like parent Katy. DNA markers indicate carries the Pi-ta2 blast resistance gene like Katy. Sheath blight ratings have been more resistant than Lemont. Conventional U.S. long grain cooking quality, 21% apparent amylose content, and an intermediate gelatinization temperature.

The following were donated by Walter N. Koelz, USDA-BPI, Horticultural Crops Research Branch, Plant Introduction Section, Beltsville, Maryland 20705-2350, United States. Received 02/26/1998.

PI 603011. *Brassica juncea* (L.) Czern.

Cultivated. Ames 24520; SARSON. Collected 10/1948 in Uttar Pradesh, India.

The following were donated by E. von Boguslawski, Inst. Pflanzenbau u. Pflanzenzuchtung, Justus-Liebig-Hochschuel, Giessne, Germany. Received 02/26/1998.

PI 603012. *Brassica juncea* (L.) Czern.

Cultivated. Ames 24521.

The following were donated by P.F. Knowles, Crops Research Division - USDA-ARS, New Crops Research Branch, Plant Industry Station, Beltsville, Maryland 20705-2350, United States. Received 02/26/1998.

PI 603013. *Brassica juncea* (L.) Czern.

Cultivated. Ames 24522. Collected in Punjab, Pakistan.

The following were donated by H. B. Singh, Division of Plant Introduction, Indian Agricultural Research Institute, New Delhi, Delhi, India. Received 02/26/1998.

PI 603014. Brassica juncea (L.) Czern.
Cultivated. I.B. 289; In. 48068; NU 48068; Ames 24523.

PI 603015. Brassica juncea (L.) Czern.
Cultivated. I.B. 586; In. 48078; NU 48078; Ames 24524.

PI 603016. Brassica juncea (L.) Czern.
Cultivated. I.B. 588; In. 48079; NU 48079; Ames 24525.

The following were donated by Walter N. Koelz, USDA-BPI, Horticultural Crops Research Branch, Plant Introduction Section, Beltsville, Maryland 20705-2350, United States. Received 02/26/1998.

PI 603017. Brassica nigra (L.) W. D. J. Koch
Cultivated. Ames 24526. Collected 12/1948 in Punjab, Pakistan.

The following were donated by W.A. Archer, USDA-ARS, Horticultural Crops Research Branch, Plant Introduction Section, Beltsville, Maryland 20705-2350, United States. Received 02/26/1998.

PI 603018. Brassica nigra (L.) W. D. J. Koch
Cultivated. Ames 24527. Collected 1950 in Shewa, Ethiopia.

PI 603019. Brassica nigra (L.) W. D. J. Koch
Cultivated. Ames 24528. Collected 1950 in Shewa, Ethiopia.

The following were donated by Walter N. Koelz, USDA-BPI, Horticultural Crops Research Branch, Plant Introduction Section, Beltsville, Maryland 20705-2350, United States. Received 02/26/1998.

PI 603020. Brassica rapa L.
Cultivated. 77-1075; Ames 24529. Collected in India.

PI 603021. Brassica rapa L.
Cultivated. Ames 24530. Collected 12/1948 in Punjab, Pakistan.

The following were donated by P.F. Knowles, University of California, Dept. of Agronomy and Range Sciences, Davis, California 98230, United States. Received 02/26/1998.

PI 603022. Brassica rapa L.
Cultivated. Ames 24531; K-503. Collected in Pakistan.

PI 603023. Brassica rapa L.
Cultivated. Ames 24532; K-529. Collected in Pakistan.

- PI 603024. Brassica rapa L.**
Cultivated. Ames 24533; K-569. Collected in Pakistan.
- PI 603025. Brassica rapa L.**
Cultivated. Ames 24534; K-600. Collected in Pakistan.
- PI 603026. Brassica rapa L.**
Cultivated. Ames 24535; K-656. Collected in Pakistan.
- PI 603027. Brassica rapa L.**
Cultivated. Ames 24536; K-657. Collected in Pakistan.
- PI 603028. Brassica rapa L.**
Cultivated. Ames 24537; K-764. Collected in Pakistan.

The following were donated by Robert Kleiman, USDA, ARS, National Center for Agric., Utilization Research, Peoria, Illinois 61604, United States. Received 02/26/1998.

- PI 603029. Brassica rapa L.**
Cultivated. I.B. 1883; NU 60817; 77-1384; Ames 24538. Collected in India

The following were donated by Walter N. Koelz, USDA-BPI, Horticultural Crops Research Branch, Plant Introduction Section, Beltsville, Maryland 20705-2350, United States. Received 02/26/1998.

- PI 603030. Brassica tournefortii Gouan**
Cultivated. Ames 24539; SARSON. Collected 10/1948 in Uttar Pradesh, India.

The following were donated by P.F. Knowles, University of California, Dept. of Agronomy and Range Sciences, Davis, California 98230, United States. Received 02/26/1998.

- PI 603031. Brassica tournefortii Gouan**
Cultivated. 77-1167; Ames 24540; K-563. Collected in Pakistan.
- PI 603032. Eruca sativa Mill.**
Cultivated. Ames 24541; K-514. Collected in Pakistan.
- PI 603033. Eruca sativa Mill.**
Cultivated. Ames 24542; K-853. Collected in Pakistan.

The following were donated by University of Kentucky, Kentucky Agric. Expt Sta., Lexington, Kentucky, United States. Received 1962.

- PI 603034. Trifolium incarnatum L.**
Cultivated. 29-L34-8; KENTUCKY SELECTION.

The following were developed by James R. Steadman, University of Nebraska, Department of Plant Pathology, 406 Plant Science Hall, Lincoln, Nebraska 68583, United States; Kenneth F. Grafton, North Dakota State University, Plant Sciences Department, P.O. Box 5051 SU Station, Fargo, North Dakota 58105-5051, United States; Jim D. Kelly, Michigan State University, Department of Crop & Soil Science, 370 Plant & Soil Sci. Bldg. MSU, East Lansing, Michigan 48824-1325, United States; H.F. Schwartz, Colorado State University, Dept. of Plant Pathology and Weed Science, Fort Collins, Colorado 80523, United States; Phillip Miklas, USDA, ARS, Irrigated Agric. Research & Extension Ctr., 24106 North Bunn Road, Prosser, Washington 99350-9687, United States. Received 03/25/1998.

PI 603035. Phaseolus vulgaris L.

Breeding. I9365-3. GP-183. Pedigree - (Florida 6-19/Pc-46). Small red bean with semi-upright growth habit. Resistance to BCMV, rust (*Uromyces appendiculatus*), and *S. sclerotiorum*.

PI 603036. Phaseolus vulgaris L.

Breeding. I9365-5. GP-184. Pedigree - (P. vulgaris / P. coccineus//233B). Small pink bean with semi-upright architecture. Resistance to BCMV, rust (*Uromyces appendiculatus*), and *S. sclerotiorum*.

PI 603037. Phaseolus vulgaris L.

Breeding. I9365-31. GP-185. Pedigree - (Sprite / Pc-46). Small black bean with prostrate growth habit. Resistance to rust (*Uromyces appendiculatus*) and *S. sclerotiorum*.

PI 603038. Phaseolus vulgaris L.

Breeding. 92BG-7. GP-186. Pedigree - Panache/4/wulma//Colorado/P. purpurascens/3/P. lunatus/P. coccineus. Small black bean with semi-upright architecture. Resistance to BCMV, rust (*Uromyces appendiculatus*), and *S. sclerotiorum*.

The following were developed by Edward J. Souza, University of Idaho, Aberdeen Research & Extension Center, P.O. Box AA, Aberdeen, Idaho 83210, United States; J.M. Windes, University of Idaho, Plant, Soils, and Entomological Sci., Aberdeen Research and Extension Ctr., Aberdeen, Idaho 83210, United States; Donald W. Sunderman, USDA-ARS, Univ. of Idaho Research & Extension Center, P.O. Box AA, Aberdeen, Idaho 83210, United States; Katherine O'Brien, University of Idaho, Aberdeen Research & Extension Center, P.O. Box AA, Aberdeen, Idaho 83210, United States. Received 03/17/1998.

PI 603039. Triticum aestivum L., nom. cons. subsp. aestivum

Cultivar. Pureline. "BOUNDARY"; IDO467. CV-864. Pedigree - A76327W-2-3T-5P/A7457W-13-1-1T-2P = Norin 10/Brevor//2*Centana, ID034/3/Centana*2/CI14106/5/II60-155/CI14106//McCal 1/4/Kiowa/UT222a-437-2//Delmar/3/PI476212/MT6619. Released 1997. Hard red winter wheat with prostrate juvenile growth habit, blue green foliage and no waxy bloom. Flag leaves erect, glabrous auricles, green to yellow green in color. Heads dense, clavate, and awnless. Glumes long, medium wide, squared shoulder shape, and acute beak. Chaff color white. Seed ovate shape, rounded cheeks, medium long brush. Seed crease narrow and shallow in depth. Moderately resistant to dwarf bunt with

adult plant resistant to strip rust (*Puccinia striiformis*), but seedling susceptibility to dominant races of stripe rust. Resistant to leaf rust (*P. recondita*) and powdery mildew (*Blumeria graminis*). Moderately tolerant to snow mold, similar to Manning.

PI 603040. *Triticum aestivum* L., nom. cons. subsp. *aestivum*

Cultivar. Pureline. "JEFFERSON"; IDO462. CV-865. Pedigree - A78240S-2/Westbred 906R = IDO230/IDO166//Westbred 906R = Fielder*2//Mengavi/8156/6/Moran/3/III-58-1//Frontana/3*Thatcher/5/Frontana/Kenya 58//Norin 10/Brevor/3/Yaqui 54/4/Twin sib/7/Westbred 906R. Hard red spring wheat. Most similar in appearance to the Northrup-King cultivar Probrand 751. Coleoptile unpigmented, erect juvenile growth. Recurved flag leaf and awned, erect, mid-dense head which is white-chaffed at maturity. 4 cm taller than Probrand 751 and 12 cm shorter than Amidon. Approx. 1 day later in heading than Probrand 751 and 1 day earlier than Amidon. Seed ovate and plump with kernel type similar to Westbred 936 but approx. 3 mg per kernel smaller than Probrand 751. Resistance to strip rust (*Puccinia striiformis*), moderately resistance to the Hessian fly (*Mayetiola destructor*) but moderate susceptibility to leaf rust (*P. recondita*) and susceptibility to the Russian wheat aphid (*Diuraphis noxia*).

The following were developed by Kenneth F. Grafton, North Dakota State University, Plant Sciences Department, P.O. Box 5051 SU Station, Fargo, North Dakota 58105-5051, United States; K.C. Chang, North Dakota State University, Dept. of Food and Nutrition, Fargo, North Dakota 58105, United States; J.R. Venette, North Dakota State University, Dept. of Plant Pathology, Fargo, North Dakota 58105, United States. Received 03/27/1998.

PI 603041. *Phaseolus vulgaris* L.

Cultivar. Pureline. "FRONTIER". CV-162; PVP 9800213. Pedigree - PX-057[83-003-A*2(Fiesta/Black Magic)/4-842//83B229/3/5-383]/Sierra. Full season, high yielding pinto bean adapted to the Northern Great Plains production region. Late maturing (100-108 days after planting) and has erect (ciat type IIb) indeterminate growth habit. Resistant to the prevalent races of bean rust (*Uromyces appendiculatus*) in North Dakota, and carries the recessive *bcl2* allele for resistance to pathogroups I, II, III, and V but susceptible to pathogroups IV, VI, and VII of bean common mosaic virus. Reaction to white mold (*Sclerotinia sclerotiarum*) similar to other commercial pinto cultivars. Canning quality acceptable.

The following were developed by William R. Meredith, USDA, ARS, Cotton Physiology & Genetics, P.O. Box 314, Stoneville, Mississippi 38776, United States. Received 03/13/1998.

PI 603042. *Gossypium hirsutum* L.

Breeding. Pureline. DES 119 N H Ne. GP-684. Pedigree - DES119 / MS65-11S. Normal leaf, hairy, nectaried isoline produced by backcrossing sub-okra leaf, semi-smooth leaf, and the nectariless trait into the cultivar DES119.

PI 603043. *Gossypium hirsutum* L.

Breeding. Pureline. DES 119 N H ne. GP-685. Pedigree - DES119 / MS65-11S. Normal leaf, hairy, nectariless isoline produced by backcrossing sub-okra leaf, semi-smooth leaf, and the nectariless trait into the cultivar DES 119.

PI 603044. *Gossypium hirsutum* L.

Breeding. Pureline. DES 119 N Sm Ne. GP-686. Pedigree - DES119 / MS65-11S. Normal leaf, smooth leaf, nectaried isoline produced by backcrossing sub-okra leaf, semi-smooth leaf, and the nectariless trait into the cultivar DE.

PI 603045. *Gossypium hirsutum* L.

Breeding. Pureline. DES 119 N Sm ne. GP-687. Pedigree - DES119 / MS65-11S. Normal leaf, smooth leaf, nectariless isoline produced by backcrossing sub-okra leaf, semi-smooth leaf, and the nectariless trait into the cultivar DES 119.

PI 603046. *Gossypium hirsutum* L.

Breeding. Pureline. DES 119 S H Ne. GP-688. Pedigree - DES119 / MS65-11S. Sub-okra, hairy, nectaried isoline produced by backcrossing sub-okra leaf, semi-smooth leaf, and the nectariless trait into the cultivar DES 119.

PI 603047. *Gossypium hirsutum* L.

Breeding. Pureline. DES 119 S H ne. GP-689. Pedigree - DES119 / MS65-11S. Sub-okra, hairy, nectariless isoline produced by backcrossing sub-okra leaf, semi-smooth leaf, and the nectariless trait into the cultivar DES 119.

PI 603048. *Gossypium hirsutum* L.

Breeding. Pureline. DES 119 S Sm Ne. GP-690. Pedigree - DES119 / MS65-11S. Sub-okra, smoothleaf, nectaried isoline produced by backcrossing sub-okra leaf, semi-smooth leaf, and the nectariless trait into the cultivar DE.

PI 603049. *Gossypium hirsutum* L.

Breeding. Pureline. DES 119 S Sm ne. GP-691. Pedigree - DES119 / MS65-11S. Sub-okra, smooth leaf, nectariless isoline produced by backcrossing sub-okra leaf, semi-smooth leaf, and the nectariless trait into the cultivar DES 119.

The following were developed by Donald C. Rasmusson, University of Minnesota, Dept. of Agronomy & Plant Genetics, 411 Borlaug Hall, St. Paul, Minnesota 55108, United States; E. Schiefelbein, University of Minnesota, Dept. of Agronomy and Plant Genetics, St. Paul, Minnesota 55108, United States; Roy D. Wilcoxson, University of Minnesota, Dept. of Plant Pathology, St. Paul, Minnesota 55108, United States; Jochum Wiersma, University of Minnesota, Northwest Experiment Station, 108 Agricultural Research Center, Crookston, Minnesota 56716, United States; R. Dill-Macky, University of Minnesota, St. Paul, Minnesota 55108, United States. Received 04/09/1998.

PI 603050. *Hordeum vulgare* L. subsp. *vulgare*

Cultivar. Pureline. "MNBRITE"; MNS85; NSGC 6526. CV-275; PVP 9800183. Pedigree - CI9539/Manker//Cree/3/Morex/4/M33/5/Robust/6/Robust/7/

M69/8/M69. Released 1998. Six-rowed, smooth-awned spring barley. Similar to Robust in height and maturity. Developed in a program to obtain disease-free kernels in a Midwestern malting barley. Intermediate resistance to Fusarium head blight (*Fusarium graminearum*), which is the primary basis for release. Data from inoculated and non-inoculated trials indicate reduces the number of infected kernels by about one-half compared to Robust and Stander. Kernel samples have reduced vomitoxin (DON) compared to Robust and Stander, however experimental results are variable. A secondary reason for release is comparatively bright, disease-free kernels. Possesses the Rpg1 (T) gene for resistance to stem rust (*Puccinia graminis tritici*) and the NDB112 gene for resistance to spot blotch (*Bipolaris sorokiniana*).

The following were collected by John Bamberg, USDA, ARS, Potato Introduction Station, Peninsula Experiment Station, Sturgeon Bay, Wisconsin 54235, United States; Max W. Martin, University of Wisconsin, Potato Introduction Station, 4312 Hwy 42, Sturgeon Bay, Wisconsin 54235, United States; Joseph J. Pavek, USDA, ARS, University of Idaho, Research & Extension Center, Aberdeen, Idaho 83210, United States. Received 09/13/1997.

PI 603051. *Solanum jamesii* Torr.

Wild. BMP 56. Collected 09/13/1997 in Utah, United States. Latitude 37 deg. 46' 41'' N. Longitude 107 deg. 27' 38'' W. Elevation 1708 m. Garfield County. Escalante. In NE corner of Highway 12 and road to Petrified Forest State Park. In shade, under W end of Gambel oak grove in pasture. Hundreds of light green plants 2-8 inches high in localized patches. Few flowers. Few other associated herbs, mostly *Chenopodium fremontii*. Apparently highly grazed.

PI 603052. *Solanum jamesii* Torr.

Wild. BMP 57. Collected 09/13/1997 in Utah, United States. Latitude 37 deg. 46' 56'' N. Longitude 111 deg. 37' 13'' W. Elevation 1708 m. Garfield County. Escalante. In grove of Gambel oaks (perhaps 150 ft diameter) in pasture. Just to the S of 100 ft cliffs. Growing among thick stand of *Chenopodium fremontii* in shade. Hundreds of plants growing in area. Light green, no flowers.

PI 603053. *Solanum jamesii* Torr.

Wild. BMP 58. Collected 09/16/1997 in Utah, United States. Latitude 37 deg. 59' 5'' N. Longitude 109 deg. 31' 4'' W. Elevation 2077 m. San Juan County. Newspaper Rock State Park. About 12 miles by air NW of Monticello, UT. Above roadway 211 about 500 ft E of petroglyphs and just NE of cattle guard. Near big upward-pointed rock. In rocky cliff above roadway. Among rocks under juniper, sage, grasses. Seven plants c. 10 cm.

The following were collected by David G. Holm, San Luis Valley Research Center, 0249 East Road 9 North, Center, Colorado 81125, United States. Received 10/01/1997.

PI 603054. *Solanum jamesii* Torr.

Wild. HOLM 1. Collected 10/01/1997 in Colorado, United States. Latitude 37 deg. 2' 23'' N. Longitude 107 deg. 27' 38'' W. Elevation 1921 m.

Archuleta County. South slope of Mt. Allison, 1500 ft East of "Haystack" 100 ft from road CR 973. In a peach orchard within 6' diameter retaining walls. Irrigated and local topography protects from frost. Said to be an ancient Anasazi habitation.

The following were collected by Paul Whitefield, Chaco Culture National Historical Park, P.O. Box 220, Nageezi, New Mexico 87037, United States. Received 10/30/1997.

PI 603055. *Solanum jamesii* Torr.

Wild. WHIT 1. Collected 10/30/1997 in New Mexico, United States. Latitude 36 deg. 1' 35'' N. Longitude 107 deg. 52' 11'' W. San Juan County. NE of Crownpoint. Chaco Culture National Historical Park. 25-50 meters W of W wall of "Wijiji" greathouse.

PI 603056. *Solanum jamesii* Torr.

Wild. WHIT 2. Collected 10/30/1997 in New Mexico, United States. Latitude 36 deg. 1' 48'' N. Longitude 107 deg. 54' 23'' W. San Juan County. NE of Crownpoint. Chaco Culture National Historical Park. Employee housing area.

PI 603057. *Solanum jamesii* Torr.

Wild. WHIT 3. Collected 10/30/1997 in New Mexico, United States. Latitude 36 deg. 3' 0'' N. Longitude 107 deg. 55' 49'' W. San Juan County. NE of Crownpoint. Chaco Culture National Historical Park. Inside central Kiva at "Hungo Pavi" greathouse.

PI 603058. *Solanum jamesii* Torr.

Wild. WHIT 4. Collected 10/30/1997 in New Mexico, United States. Latitude 36 deg. 3' 17'' N. Longitude 107 deg. 58' 7'' W. San Juan County. NE of Crownpoint. Chaco Culture National Historical Park. 0.5 mile SSW of "Pueblo del Arroyo" greathouse, floor of S Gap canyon near mouth of Chaco Canyon.

The following were developed by David M. Burner, USDA-ARS Sugarcane Research Unit, P.O. Box 470, 800 Little Bayou Black Drive, Houma, Louisiana 70361, United States; William H. White, USDA, ARS, Sugarcane Research Unit, Houma, Louisiana 70361, United States; Benjamin L. Legendre, USDA, ARS, U.S. Sugarcane Field Laboratory, P.O. Box 470, Houma, Louisiana 70361, United States; Jimmie D. Miller, USDA, ARS, Sugarcane Field Station, Star Route Box 8, Canal Point, Florida 33438, United States. Received 04/08/1998.

PI 603059. *Saccharum hybrid*

Breeding. HoCP 92-678. GP-9. Pedigree - CP 85-845 / CP 83-657. Resistance to sugarcane borer (*Diatraea saccharalis* (F)). Growth erect, adaptable to harvesting by whole-stalk mechanical harvesters. Good stalk population and stalk weight (1 kg). Yield of sugar per ha comparable (98%) to those of the leading cultivar in Louisiana, CP 70-321. Resistant to spread of sorghum mosaic virus (Strain H), smut (*Ustilago scitaminea*), and leaf scald (*Xanthomonas albilineans*), in the field.

PI 603060. *Saccharum hybrid*

Breeding. HoCP 93-775. GP-10. Pedigree - CP 86-916 / CP 83-657.

Resistance to sugarcane borer (*Diatraea saccharalis* (F)). Growth erect, adaptable to harvesting by whole-stalk mechanical harvesters. Good stalk population and stalk weight (1 kg). Yield of sugar per ha exceeded (>100%) leading cultivar in Louisiana, CP 70-321. Resistant to the spread of sorghum mosaic (Strain H), smut (*Ustilago scitaminea*), and leaf scald (*Xanthomonas albilineans*), in the field.

PI 603061. Saccharum hybrid

Breeding. HoCp 93-776. GP-11. Pedigree - HoCP 85-845 / CP 84-742. Resistance to sugarcane borer (*Diatraea saccharalis* (F)). Growth erect, adaptable to harvesting by whole-stalk mechanical harvesters. Good stalk population and stalk weight (1 kg). Yield of sugar per ha exceeded (>100%) leading cultivar in Louisiana, CP 70-321. Resistant to the spread of sorghum mosaic (Strain H), smut (*Ustilago scitaminea*), and leaf scald (*Xanthomonas albilineans*), in the field.

PI 603062. Saccharum hybrid

Breeding. US 93-15. GP-12. Pedigree - CP 85-861 / CP 85-834. Resistance to sugarcane borer (*Diatraea saccharalis* (F)). Growth erect, adaptable to harvesting by whole-stalk mechanical harvesters. Good stalk population but stalk weight lower than commercial standards (<1 kg). Yield of sugar per ha lower (=90% than leading cultivar in Louisiana, CP 70-321. Resistant to spread of sorghum mosaic (Strain H), smut (*Ustilago scitaminea*), and leaf scald (*Xanthomonas albilineans*), in the field.

PI 603063. Saccharum hybrid

Breeding. US 93-16. GP-13. Pedigree - LCP 84-222 / CP 85-834. Resistance to sugarcane borer (*Diatraea saccharalis* (F)). Growth erect, adaptable to harvesting by whole-stalk mechanical harvesters. Good stalk population but stalk weight lower than the commercial standards (<1 kg). Yield of sugar per ha lower (=90%) than leading cultivar in Louisiana, CP 70-321. Resistant to the spread of sorghum mosaic (Strain H), smut (*Ustilago scitaminea*), and leaf scald (*Xanthomonas albilineans*), in the field.

PI 603064. Saccharum hybrid

Breeding. US 93-17. GP-14. Pedigree - HoCP 85-845 / CP 84-742. Resistance to sugarcane borer (*Diatraea saccharalis* (F)). Growth erect, adaptable to harvesting by whole-stalk mechanical harvesters. Good stalk population but stalk weight lower than the commercial standards (<1 kg). Yield of sugar per ha lower (=90%) than leading cultivar in Louisiana, CP 70-321. Resistant to spread of sorghum mosaic (Strain H), smut (*Ustilago scitaminea*), and leaf scald (*Xanthomonas albilineans*), in the field.

PI 603065. Saccharum hybrid

Breeding. US 96-1. GP-15. Pedigree - LCP 84-222 / CP 70-321. Resistance to sugarcane borer (*Diatraea saccharalis* (F.)). Growth erect, adaptable to harvesting by whole-stalk mechanical harvesters. Good stalk population and stalk weight ranged from lower than the commercial standards (<1 kg) to greater than the commercial standards (>1 kg). Yield of sugar per ha lower (70 to 90%) than leading cultivar in Louisiana, CP 70-321. Resistant to the spread of sorghum mosaic (Strain H), smut (*Ustilago scitaminea*), and leaf scald (*Xanthomonas albilineans*), in the field.

PI 603066. Saccharum hybrid

Breeding. US 96-2. GP-16. Pedigree - LCP 85-298 / CP 85-834. Resistance to sugarcane borer (*Diatraea saccharalis* (F.)). Growth erect, adaptable to harvesting by whole-stalk mechanical harvesters. Good stalk population and stalk weight ranged from lower than the commercial standards (<1 kg) to greater than the commercial standards (>1 kg). Yield of sugar per ha lower (70 to 90%) than that of leading cultivar in Louisiana, CP 70-321. Resistant to the spread of sorghum mosaic (Strain H), smut (*Ustilago scitaminea*), and leaf scald (*Xanthomonas albilineans*) in the field.

PI 603067. Saccharum hybrid

Breeding. US 96-3. GP-17. Pedigree - CP 86-973 / LCP 82-89. Resistance to sugarcane borer (*Diatraea saccharalis* (F.)). Growth erect, adaptable to harvesting by whole-stalk mechanical harvesters. Good stalk population and stalk weight ranged from lower than the commercial standards (<1 kg) to greater than the commercial standards (>1 kg). Yield of sugar per ha lower (70 to 90%) than leading cultivar in Louisiana, CP 70-321. Resistant to the spread of sorghum mosaic (Strain H), smut (*Ustilago scitaminea*), and leaf scald (*Xanthomonas albilineans*), in the field.

PI 603068. Saccharum hybrid

Breeding. US 96-4. GP-18. Pedigree - CP 86-973 / LCP 82-89. Resistance to sugarcane borer (*Diatraea saccharalis* (F.)). Growth erect, adaptable to harvesting by whole-stalk mechanical harvesters. Good stalk population and stalk weight ranged from lower than the commercial standards (<1 kg) to greater than the commercial standards (>1 kg). Yield of sugar per ha lower (70 to 90%) than leading cultivar in Louisiana, CP 70-321. Resistant to spread of sorghum mosaic (Strain H), smut (*Ustilago scitaminea*), and leaf scald (*Xanthomonas albilineans*), in the field.

PI 603069. Saccharum hybrid

Breeding. US 96-5. GP-19. Pedigree - CP 86-916 / LCP 84-222. Resistance to sugarcane borer (*Diatraea saccharalis* (F.)). Growth erect, adaptable to harvesting by whole-stalk mechanical harvesters. Good stalk population and stalk weight ranged from lower than the commercial standards (<1kg) to greater than the commercial standards (>1 kg). Yield of sugar per ha lower (70 to 90%) than leading cultivar in Louisiana, CP 70-321. Resistant to spread of sorghum mosaic (Strain H0), smut (*Ustilago scitaminea*), and leaf scald (*Xanthomonas albilineans*), in the field.

PI 603070. Saccharum hybrid

Breeding. US 96-6. GP-20. Pedigree - CP 86-916 / LCP 84-222. Resistance to sugarcane borer (*Diatraea saccharalis* (F.)). Growth erect, adaptable to harvesting by whole-stalk mechanical harvesters. Good stalk population and stalk weight ranged from lower than the commercial standards (<1 kg) to greater than the commercial standards (>1 kg). Yield of sugar per ha lower (70 to 90%) than leading cultivar in Louisiana, CP 70-321. Resistant to spread of sorghum mosaic (Strain H), smut (*Ustilago scitaminea*), and leaf scald (*Xanthomonas albilineans*), in the field.

The following were developed by Charles G. Cook, USDA, ARS, Subtrop. Agric. Res. Lab., 2413 E. Highway 83, Weslaco, Texas 78596, United States. Received 04/13/1998.

PI 603071. *Hibiscus cannabinus* L.

Cultivar. Pureline. "DOWLING"; 7N. Pedigree - Everglades 41 / germplasm line 15 (PI 468075). Stalk green, cordate leaves, flower color yellow with petals having red center. Resistance to anthracnose and lodging. Good fiber yield and has improved bast fiber percentage.

PI 603072. *Hibiscus cannabinus* L.

Cultivar. Pureline. "GREGG"; SF192. Pedigree - SF459 / germplasm line 15 (PI 468075). Leaves palmate, flower color yellow with petals having very deep red center. Tolerance to root-knot nematode/soil fungi complex, and resistance to *Cristulariella moricola*. Widely adapted, produces a good fiber yield and has high bast fiber percentage.

The following were developed by Utah State University, Utah Agric. Exp. Sta., Logan, Utah 84322, United States. Received 04/22/1998.

PI 603073. *Hordeum vulgare* L. subsp. *vulgare*

Cultivar. "CENTURY". PVP 9800158.

PI 603074. *Hordeum vulgare* L. subsp. *vulgare*

Cultivar. "STATEHOOD". PVP 9800159.

The following were developed by Delta and Pine Land Company, Scott, Mississippi, United States. Received 04/22/1998.

PI 603075. *Glycine max* (L.) Merr.

Cultivar. "DPX 8S75". PVP 9800162.

PI 603076. *Glycine max* (L.) Merr.

Cultivar. "DPX 8S59". PVP 9800163.

PI 603077. *Glycine max* (L.) Merr.

Cultivar. "DPX 8S56". PVP 9800164.

PI 603078. *Glycine max* (L.) Merr.

Cultivar. "DPX 8S49". PVP 9800165.

The following were developed by California Planting Cotton Seed Distributors, 30597 Jack Ave., Shafter, California 93263, United States. Received 04/22/1998.

PI 603079. *Gossypium hirsutum* L.

Cultivar. "CPCSD ACALA C-144". PVP 9800166.

The following were developed by F & E Enterprises LLC, United States.

Received 04/22/1998.

PI 603080. Zea mays L. subsp. mays
Cultivar. "HC 40". PVP 9800167.

The following were developed by Delta and Pine Land Company, Scott, Mississippi, United States. Received 04/22/1998.

PI 603081. Glycine max (L.) Merr.
Cultivar. "DP 6880 RR". PVP 9800168.

PI 603082. Glycine max (L.) Merr.
Cultivar. "DP 7375 RR". PVP 9800169.

The following were developed by Novartis Seeds, Inc., United States. Received 04/22/1998.

PI 603083. Pisum sativum L.
Cultivar. "RIPON". PVP 9800170.

The following were developed by Pure Seed Testing, Inc., P.O. Box 449, Hubbard, Oregon 97032, United States. Received 04/22/1998.

PI 603084. Poa pratensis L.
Cultivar. "A84-405". PVP 9800171.

The following were developed by Mitsubishi Chemical Corporation, Tokyo, Tokyo, Japan. Received 04/22/1998.

PI 603085. Oryza sativa L.
Cultivar. "HONAMI". PVP 9800172.

PI 603086. Oryza sativa L.
Cultivar. "TSUYAYAK". PVP 9800173.

PI 603087. Oryza sativa L.
Cultivar. "HAYATE". PVP 9800174.

The following were developed by Delta and Pine Land Company, Scott, Mississippi, United States. Received 04/22/1998.

PI 603088. Gossypium hirsutum L.
Cultivar. "PM 2145 RR". PVP 9800175.

The following were developed by Blue Mountain Seeds, Inc., P.O. Box 185, Imbler, Oregon 97841, United States. Received 04/22/1998.

PI 603089. Festuca rubra L.
Cultivar. "FENWAY". PVP 9800176.

The following were developed by Sure-Grow Seed, Inc., 7265 Highway 9 South, Centre, Alabama 35960, United States. Received 04/22/1998.

PI 603090. *Glycine max* (L.) Merr.
Cultivar. "SG 708 RR". PVP 9800177.

PI 603091. *Glycine max* (L.) Merr.
Cultivar. "SG 468 RR". PVP 9800178.

PI 603092. *Glycine max* (L.) Merr.
Cultivar. "SG 678 RR". PVP 9800179.

PI 603093. *Glycine max* (L.) Merr.
Cultivar. "SG 498 RR". PVP 9800180.

The following were developed by Waller Flowerseed Company, P.O. Box 935, 4th and Obispo Streets, Guadalupe, California 93434, United States. Received 04/22/1998.

PI 603094. *Catharanthus roseus* (L.) G. Don
Cultivar. "PACIFICA APRICOT". PVP 9800181.

PI 603095. *Catharanthus roseus* (L.) G. Don
Cultivar. "PROSTRATE LILAC". PVP 9800182.

The following were developed by J.R. Simplot Company, United States. Received 04/22/1998.

PI 603096. *Poa pratensis* L.
Cultivar. "QUANTUM LEAP". PVP 9800184.

PI 603097. *Poa pratensis* L.
Cultivar. "ARCADIA". PVP 9800185.

PI 603098. *Poa pratensis* L.
Cultivar. "ABSOLUTE". PVP 9800186.

PI 603099. *Poa pratensis* L.
Cultivar. "LIBERATOR". PVP 9800188.

The following were developed by Mississippi Agric. & Forestry Exp. Sta., Mississippi State University, Mississippi, United States. Received 04/22/1998.

PI 603100. *Gossypium hirsutum* L.
Cultivar. "DES 607". PVP 9800189.

The following were developed by Svalof Weibull AB, Svalow, Malmohus, Sweden. Received 04/22/1998.

PI 603101. *Pisum sativum* L.
Cultivar. "EXPLORER". PVP 9800190.

The following were donated by The Morton Arboretum, Route 53, Lisle, Illinois 60532, United States. Received 02/19/1990.

PI 603102. *Alnus serrulata* (Aiton) Willd.
Wild. Morton No.5; Ames 12794. Collected in Missouri, United States. Madison County.

The following were collected by Ju. A. Lux; T.M. Latmanizova. Donated by Hortus Botanicus Academiae, Silvotechnicae, St. Petersburg, Leningrad, Russian Federation. Received 02/03/1994.

PI 603103. *Anthemis triumfettii* (L.) DC.
Cultivated. Index Seminum 2153; Ames 21906. Collected 1981 in Russian Federation. Collected in Caucasus, Archyz region.

The following were collected by Universidade do Porto, Instituto de Botanica, Rua do Campo Alegre, 1191, Porto, Porto 4100, Portugal. Received 02/07/1996.

PI 603104. *Antirrhinum graniticum* Rothm.
Wild. Index Seminum 426; Ames 22725. Collected 07/15/1994 in Guarda, Portugal. Latitude 41 deg. 1' 0'' N. Longitude 6 deg. 56' 0'' W. Barca de Alva, Provincia da Beira Alta. UTM 29TPF7344.

PI 603105. *Antirrhinum majus* L.
Wild. Index Seminum 425; Ames 22724. Collected 08/01/1994 in Leiria, Portugal. Latitude 39 deg. 45' 0'' N. Longitude 8 deg. 48' 0'' W. Praia de Pedrogao-Leiria, Provincia da Beira Litoral. UTM 29SNE0419.

The following were donated by The Morton Arboretum, Route 53, Lisle, Illinois 60532, United States. Received 02/19/1990.

PI 603106. *Aronia melanocarpa* (Michx.) Elliott
Wild. Morton No.8; Ames 12796. Collected in Tennessee, United States. Marion County.

The following were donated by USDA, ARS, U.S. National Arboretum, Woody Landscape Plant Germplasm Repository, Glenn Dale, Maryland 20769, United States. Received 09/24/1992.

PI 603107. *Aronia x prunifolia* (Marshall) Rehder
Wild. Ames 19995. Collected in Virginia, United States. Augusta County. George Washington National Forest along Blue Ridge Parkway. Magnolia swamp. Accession separated from Ames 13825 (PI 578096).

The following were donated by Karl Hammer, Inst. fur Pflanzengenetik und

Kulturpflanzenforschung, (IPK), Genebank, Gatersleben, Saxony-Anhalt D-06466, Germany. Received 06/10/1993.

PI 603108. *Calendula arvensis* L.

Wild. CAL 38/88; Ames 21120. Collected in Morocco. Province Sati.

PI 603109. *Calendula arvensis* L.

Wild. CAL 42/88; Ames 21127. Collected in Greece. Latitude 40 deg. 44' 0'' N. Longitude 22 deg. 55' 0'' E. Oraioastron, 13 km northwest of Thessaloniki.

PI 603110. *Calendula eckerleinii* Ohle

Wild. CAL 9/90; Ames 21123. Collected in Morocco. Latitude 32 deg. 0' 0'' N. Longitude 6 deg. 0' 0'' W. High Atlas mountains.

The following were donated by Mandeville & King Company, Rochester, New York, United States. Received 10/31/1968.

PI 603111. *Calendula officinalis* L.

Cultivar. "Orange Baby"; CO-9; NSL 67994. Plants have many more flowers than other *Calendulas*. Flowers golden orange, slightly lighter in color than Orange King. The dwarfness of the strain (1 foot high) makes it excellent for beds and borders, but less desirable for cutting.

The following were developed by W. Atlee Burpee Company, 300 Park Avenue, Warminster, Pennsylvania 18974, United States. Received 06/25/1975.

PI 603112. *Calendula officinalis* L.

Cultivar. "Golden Gem"; CO-12; NSL 90231. PVP 7100079.

PI 603113. *Calendula officinalis* L.

Cultivar. "Orange Gem"; CO-13; NSL 93984. PVP 7400032.

The following were donated by Karl Hammer, Inst. für Pflanzengenetik und Kulturpflanzenforschung, (IPK), Genebank, Gatersleben, Saxony-Anhalt D-06466, Germany. Received 06/10/1993.

PI 603114. *Calendula stellata* Cav.

Wild. CAL 45/88; Ames 21129. Collected in Morocco. Latitude 34 deg. 3' 10'' N. Longitude 4 deg. 58' 58'' W. Near Fes (Fez).

The following were collected by H. Hubatsch, Botanischer Garten, Universität Leipzig, Linnestrasse 1, Leipzig, Saxony D-04103, Germany; Kurt Hubatsch, Botanischer Garten, Universität Leipzig, Linnestrasse 1, Leipzig, Saxony D-04103, Germany. Donated by Botanischer Garten, Universität Leipzig, Linnestrasse 1, Leipzig, Saxony D-04103, Germany. Received 06/17/1991.

PI 603115. *Dianthus carthusianorum* L.

Wild. 313; Ames 15712. Collected in Germany. Latitude 51 deg. 23' 0'' N. Longitude 12 deg. 17' 0'' E. Lutzschena, Sachsen.

The following were collected by Michigan State University, W. J. Beal Botanical Garden, 412 Olds Hall, East Lansing, Michigan 48824-1047, United States. Received 02/24/1989.

PI 603116. *Diervilla lonicera* Mill.

Wild. Index Seminum 603; Ames 10169. Collected in Michigan, United States. Mackinac County. Rocky bluff. Seed received from W.J. Beal Botanical Garden, M.S.U.

The following were collected by Armando De Jesus Machado, Universidade do Porto, Instituto de Botanica, Rua do Campo Alegre, 1191, Porto, Porto 4100, Portugal; Jose Loureiro Martins, Universidade do Porto, Instituto de Botanica, Rua do Campo Alegre, 1191, Porto, Porto 4100, Portugal; Andre Dos Anjos Da Serra, Universidade do Porto, Instituto de Botanica, Rua do Campo Alegre, 1191, Porto, Porto 4100, Portugal. Donated by Goncalo Sampaio, Instituto de Botanica, Universidade Do Porto, 1191 Rua do Campo Alegre, Porto, Porto 4100, Portugal. Received 08/23/1993.

PI 603117. *Lavatera mauritanica* subsp. *davaei* (Cout.) Cout.

Wild. No. 270; Ames 21246. Collected 04/28/1991 in Portugal.

The following were collected by G. Krebs; Hans Kohler, Botanischer Garten, Universitat Leipzig, Linnestrassse 1, Leipzig, Saxony D-04103, Germany; H. Roth, Botanischer Garten, Universitat Leipzig, Linnestrassse 1, Leipzig, Saxony D-04103, Germany. Donated by Botanischer Garten, Universitat Leipzig, Linnestrassse 1, Leipzig, Saxony D-04103, Germany. Received 06/17/1991.

PI 603118. *Malva moschata* L.

Wild. 545; Ames 15722. Collected in Germany. Latitude 51 deg. 18' 0'' N. Longitude 10 deg. 15' 0'' E. Wachstedt, Thuringen.

The following were collected by D.P. Sheehy, Eastern Oregon Agricultural Research Center, Post Office Box E, Union, Oregon 97833, United States; Douglas A. Johnson, USDA, ARS, Forage and Range Research Laboratory, Utah State University, Logan, Utah 84322-6300, United States. Received 08/28/1995.

PI 603119. *Rumex crispus* L.

Wild. E94109; Ames 22622. Collected 09/08/1994 in Mongolia. Latitude 46 deg. 18' 11'' N. Longitude 113 deg. 1' 55'' E. Elevation 899 m. Location is the southern edge of the grass steppe region in Dornod Aimag in eastern Mongolia. Very few herders or livestock in the area. Soils are typical brown soils with high gravel content, thin, and low in fert. Aspect is east, slope of 5%. Ecological Zone: Grass steppe.

The following were collected by Peter Bristol, The Holden Arboretum, 9500 Sperry Road, Kirtland, Ohio 44060-5172, United States; Paul Meyer, The University of Pennsylvania, Morris Arboretum, 9414 Meadowlark Avenue, Philadelphia, Pennsylvania 19118, United States; Kris Bachtell, Morton Arboretum, NACPEC, Route 53, Lisle, Illinois 60532, United States. Donated by Shawn Belt, USDA, ARS, U.S. National Arboretum, National Germplasm

Repository, Glenn Dale, Maryland 20769-9157, United States; Edward J. Garvey, USDA, ARS, National Germplasm Repository, U.S. National Arboretum, Washington, District of Columbia 20002, United States. Received 12/29/1993.

PI 603120. *Sorbaria sorbifolia* (L.) A. Braun

Wild. HLJ 010; 349-93; NA 64161; Ames 21772. Collected 09/08/1993 in Heilongjiang, China. Latitude 45 deg. 20' 0'' N. Longitude 127 deg. 24' 0'' E. Elevation 350 m. Ping Shan. Moist ravine on edge of cutover woodland. Plant height 2m. Flowers white, a few late flowers remaining. Fruit brown capsule. Used for beverages and candies.

The following were donated by Karl Hammer, Inst. fur Pflanzengenetik und Kulturpflanzenforschung, (IPK), Genebank, Gatersleben, Saxony-Anhalt D-06466, Germany. Received 06/10/1993.

PI 603121. *Spergula arvensis* L.

Wild. SPER 79/85; Ames 21168. Collected in Germany. Latitude 51 deg. N. Longitude 11 deg. E. East-Thuringen. Received as *S. arvensis* var. *arvensis*.

PI 603122. *Spergula arvensis* L.

Wild. SPER 7/75; Ames 21169. Collected in N. Rhine-Westphalia, Germany. Latitude 52 deg. 29' 0'' N. Longitude 9 deg. 5' 0'' E. Schlusselfburg/Weser.

PI 603123. *Spergula arvensis* L.

Wild. SPER 77/79; Ames 21170. Collected in Roskilde, Denmark. Latitude 55 deg. 32' 0'' N. Longitude 12 deg. 11' 0'' E. Solrod Beach.

The following were collected by University of Alberta, Devonian Botanic Garden and Field Laboratory, Department of Botany, Edmonton, Alberta T6G 2E1, Canada. Received 04/29/1996.

PI 603124. *Spiraea betulifolia* Pall.

Wild. Index Seminum 345; Ames 22839. Collected 04/1996 in British Columbia, Canada. Latitude 52 deg. 56' N. Longitude 119 deg. 22' W. Elevation 840 m. Fraser River Valley, Tete Jaune Cache, Jackman Flats. Dry *Pinus contorta*/*Pseudotsuga menziesii* forest on sandy soil, lower oroboreal zone.

The following were donated by Shawn Belt, USDA, ARS, U.S. National Arboretum, National Germplasm Repository, Glenn Dale, Maryland 20769-9157, United States ; USDA, ARS, U.S. National Arboretum, Woody Landscape Plant Germplasm Repository, Glenn Dale, Maryland 20769, United States. Received 10/08/1992.

PI 603125. *Spiraea blumei* G. Don

Wild. NEKG 132; NA 61734; Ames 20054. Collected 10/04/1989 in Korea, South. Latitude 37 deg. 3' 50'' N. Longitude 129 deg. 2' 40'' E. Elevation 500 m. Collected from east facing open slope with cut-over talus. Kyongsang Pukto, Rt. 31. Pong-hwa Gun, Korea. Multi-stem shrub, 0.7 to 1m tall. Leaves sparse with no significant color. Fruit brown. Growing with *Juglans*, *Rhus chinensis*, *Corylus*, *Celastrus*, *Securinega*,

Fraxinus, and Acer.

The following were collected by Royal Botanic Garden - Edinburgh, Inverleith Row, Edinburgh, Scotland EH3 5LR, United Kingdom. Donated by USDA, ARS, Plant Introduction Station, 11601 Old Pond Rd, Glenn Dale, Maryland 20769, United States. Received 03/20/1996.

PI 603126. Spiraea fritschiana C. K. Schneid.

Wild. KFBX 36; Ames 22774; NA 62108; Ames 22775. Collected 09/28/1989 in Kangwon, Korea, South. Latitude 38 deg. 4' 0'' N. Longitude 128 deg. 10' 0'' E. Elevation 440 m. Inje borough. Track to Paekdamsa Temple. Sorak-san National Park. Coarse granitic soil. On unstable hillside above river in full sun beyond forest edge.

The following were donated by The Morton Arboretum, Route 53, Lisle, Illinois 60532, United States. Received 02/19/1990.

PI 603127. Symphoricarpos orbiculatus Moench

Wild. Morton No.62; Ames 12801. Collected in Oklahoma, United States. Cleveland County.

The following were donated by Karl Hammer, Inst. fur Pflanzengenetik und Kulturpflanzenforschung, (IPK), Genebank, Gatersleben, Saxony-Anhalt D-06466, Germany. Received 06/10/1993.

PI 603128. Vaccaria hispanica subsp. grandiflora (Ser.) Holub

Wild. VAC 5/82; Ames 21174. Collected in Libya. Latitude 32 deg. 41' 0'' N. Longitude 21 deg. 55' 0'' E. Elevation 830 m. 5 km south of Al Fayidiyah.

The following were collected by Roger Fuentes-Granados, Iowa State University, Plant Introduction Station, G212 Agronomy, Ames, Iowa 50011, United States; William W. Roath, USDA, ARS, Iowa State University, Regional Plant Introduction Station, Ames, Iowa 50011, United States; Mark P. Widrlechner, USDA, ARS, Iowa State University, Regional Plant Introduction Station, Ames, Iowa 50011-1010, United States; Alvaro Campos, Universidad Nacional Autonoma de Mexico, Department of Botany, Mexico City, Federal District, Mexico. Donated by William W. Roath, USDA, ARS, Iowa State University, Regional Plant Introduction Station, Ames, Iowa 50011, United States; Mark P. Widrlechner, USDA, ARS, Iowa State University, Regional Plant Introduction Station, Ames, Iowa 50011-1010, United States; Alvaro Campos, Universidad Nacional Autonoma de Mexico, Department of Botany, Mexico City, Federal District, Mexico. Received 10/19/1993.

PI 603129. Zinnia angustifolia Kunth

Wild. RWCF 54; Ames 21568. Collected 10/12/1993 in Jalisco, Mexico. Latitude 22 deg. 40' N. Longitude 103 deg. 48' W. Elevation 1900 m. Rocky roadside area, gravelly clay soil. Bulk of pop. up along river. Assoc. Acacia, Opuntia, Tagetes, misc. grasses. 11.6 km NE Huejuquilla @ Rancho Viejo. Rays 6-8, yellow center, orange edge, and solid white. Population moderate, sampled ca. 11 plants.

PI 603130. *Zinnia bicolor* (DC.) Hemsl.
Wild. RWCF 50; Ames 21573. Collected 10/11/1993 in Aguascalientes, Mexico. Latitude 21 deg. 40' N. Longitude 102 deg. 13' W. Elevation 2160 m. Grassy, rocky area. Assoc. *Opuntia*, *Acacia*, *Quercus*, *Tagetes* Microwave tower @ Cerro de Los Gallos. Rays 5, yellow with orange spot at base. Population large, sampled 50-75 plants.

PI 603131. *Zinnia haageana* Regel
Wild. RWCF 44; Ames 21576. Collected 10/09/1993 in Guanajuato, Mexico. Latitude 20 deg. 53' N. Longitude 101 deg. 58' W. Elevation 1770 m. Pasture. Assoc. *Dalea*, *Cosmos*, *Tagetes*, *Cuphea wrightii*, misc. grasses. 5.8 km W San Angel. Rays 8, orange center, yellow edge, disks typical. Population large, sampled ca. 50 plants.

The following were donated by Ferry-Morse Seed Company, Inc., P.O. Box 100, Mountain View, California 94042, United States. Received 1962.

PI 603132. *Zinnia haageana* Regel
Cultivar. NSL 15587; TETRA OLD MEXICO. Tetraploid.

PI 603133. *Zinnia violacea* Cav.
Cultivar. NSL 15588; TETRA STATE FAIR. Tetraploid.

The following were donated by W. Atlee Burpee Company, 300 Park Avenue, Warminster, Pennsylvania 18974, United States. Received 1968.

PI 603134. *Zinnia violacea* Cav.
Cultivar. NSL 67958; SENORITA. Giant type.

PI 603135. *Zinnia violacea* Cav.
Cultivar. NSL 68290; BIG TETRA. Tetraploid, dahlia-like flowers 5-6" across, superior doubling with a wide color range.

The following were developed by W. Atlee Burpee Company, 300 Park Avenue, Warminster, Pennsylvania 18974, United States. Received 1976.

PI 603136. *Zinnia violacea* Cav.
Cultivar. "EMPEROR"; NSL 91486. PVP 7100059. Burpeeana giant class.

The following were donated by H.H. Marshall, Agriculture Canada, Ornamentals Section, Morden, Manitoba, Canada. Received 08/10/1993.

PI 603137. *Agastache foeniculum* (Pursh) Kuntze
Wild. G 25456; Ames 21500. Collected in Manitoba, Canada. Latitude 49 deg. 11' 0'' N. Longitude 98 deg. 6' 0'' W. Morden. Native to Canada.

Unknown source. Received 09/28/1987.

PI 603138. *Agastache nepetoides* (L.) Kuntze

Wild. R-W 40; Ames 7912. Collected 09/24/1987 in Illinois, United States . Latitude 38 deg. 35' 0'' N. Longitude 87 deg. 41' 0'' W. Elevation 125 m. Along county road to St. Francisville 0.7 miles east of Route 1, T2N R11W SW 1/4 of NW 1/4 of Section 19, St. Francisville Quad, Lawrence County. Growing in overgrown, weedy ditch along road in association with *Celtis occidentalis*, *Fraxinus pennsylvanica*, *Toxicodendron radicans*, and *Oenothera biennis*.

The following were collected by Mark P. Widrlechner, USDA, ARS, Iowa State University, Regional Plant Introduction Station, Ames, Iowa 50011-1010, United States. Received 10/01/1987.

PI 603139. *Agastache nepetoides* (L.) Kuntze

Wild. Ames 7919. Collected 10/1987 in Iowa, United States. Latitude 42 deg. 7' 30'' N. Longitude 93 deg. 58' 45'' W. Elevation 277 m. Boone & Scenic Valley Railroad right-of-way, Boone, Boone County. Boone West Quad, SW of Fraser, SE 1/4 of SW 1/4 of Section 34, T85N R27W. Railroad right-of-way. 1997 sample is a recollection from 1987 population.

The following were collected by Roger L. Thelen, Michigan State University, W. J. Botanical Garden, 412 Olds Hall, East Lansing, Michigan 48824-1047, United States. Received 04/22/1994.

PI 603140. *Agastache nepetoides* (L.) Kuntze

Wild. Index Seminum 61; Ames 21987. Collected 1993 in Michigan, United States. Latitude 42 deg. 42' N. Longitude 84 deg. 23' W. Ingham County, Legg Park. Collected in disturbed area by RR track by floodplain.

The following were collected by Walter J. Kaiser, USDA, ARS, Washington State University, Regional Plant Introduction Station, Pullman, Washington 99164-6402, United States. Received 10/31/1994.

PI 603141. *Agastache urticifolia* (Benth.) Kuntze

Wild. W6 16297; Ames 22243; Ames 24038. Collected 10/10/1994 in Idaho, United States. Latitude 43 deg. 44' 15'' N. Longitude 114 deg. 39' 25'' W. Elevation 2728 m. Along the banks of Smoky Creek, within 250 meters of Smoky Lake, in the Sawtooth National Forest. Baker Peak Quad, Blaine County. Rocky soil.

The following were donated by Boleslaw Jablonski, Instytut Sadownictwa i Kwiaciarnictwa, ul. Kazimierska nr 2, Pulawy, Lublin 24-100, Poland. Received 03/21/1989.

PI 603142. *Dracocephalum moldavica* L.

Cultivated. Ames 10209.

The following were donated by Uniwersytet Warszawski Ogród, Botaniczny Instytutu Botaniki, Al. Ujazdowskie 4, Warsaw, Warszawa, Poland. Received 03/21/1989.

PI 603143. *Elsholtzia stauntoni* Benth.

Cultivated. Index Seminum 377; Ames 10224. Collected 1987 in Poland.

The following were developed by Hortus Botanicus, Universitatis Posnaniensis, Dabrowskiego 165, Poznan, Poznan 60-594, Poland. Received 07/10/1989.

PI 603144. *Elsholtzia stauntoni* Benth.

Cultivated. Index Seminum 1039; Ames 10598.

The following were collected by Harold Pellett, University of Minnesota, Minnesota Landscape Arboretum, P.O. Box 39, Chanhassen, Minnesota 55317, United States. Received 06/25/1997.

PI 603145. *Origanum vulgare* L.

Wild. MLA 960805; Ames 23831. Collected 1996 in Taldyqorghan, Kazakhstan . Latitude 45 deg. 37' 36'' N. Longitude 80 deg. 55' 25'' E. Elevation 1260 m. Khrebet Dzhungarskiy Alatau (mountains).

The following were donated by N.I. Vavilov All-Russian Scientific Research, Institute of Plant Genetic Resources, 44 Bolshaya Morskaya Street, St. Petersburg, Leningrad 190000, Russian Federation; J.M. Phillips. Received 1992.

PI 603146. *Glycine soja* Siebold & Zucc.

Wild. Pureline. VIR 8926; SY 930014.

The following were donated by K. Hammer, Institut fur Pflanzengenetik und Kulturpflanzenforschung, Genebank, Corrensstrasse 3, Gatersleben, Saxony-Anhalt D-06466, Germany. Received 06/10/1997.

PI 603147. *Glycine max* (L.) Merr.

Cultivated. Pureline. GL 1738 /82; SY 9806001. Collected in Korea, North

PI 603148. *Glycine max* (L.) Merr.

Cultivated. Pureline. "Oh Won No. 1"; GL 1839 /96; SY 9806002. Collected in Korea, North.

PI 603149. *Glycine max* (L.) Merr.

Cultivated. Pureline. GL 2216 /84; SY 9806003. Collected in Korea, North

PI 603150. *Glycine max* (L.) Merr.

Cultivated. Pureline. GL 2607 /96; SY 9806004. Collected in Korea, North

PI 603151. *Glycine max* (L.) Merr.

Cultivated. Pureline. GL 2615 /89; SY 9806005. Collected in Korea, North

PI 603152. *Glycine max* (L.) Merr.

- Cultivated. Pureline. GL 2617 /89; SY 9806006. Collected in Korea, North
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- PI 603153. *Glycine max* (L.) Merr.**
Cultivated. Pureline. GL 2620 /89; SY 9806007. Collected in Korea, North
.
- PI 603154. *Glycine max* (L.) Merr.**
Cultivated. Pureline. GL 2622 /96; SY 9806008. Collected in Korea, North
.
- PI 603155. *Glycine max* (L.) Merr.**
Cultivated. Pureline. GL 2623 /96; SY 9806009. Collected in Korea, North
.
- PI 603156. *Glycine max* (L.) Merr.**
Cultivated. Pureline. GL 2624 /96; SY 9806010. Collected in Korea, North
.
- PI 603157. *Glycine max* (L.) Merr.**
Cultivated. Pureline. GL 2625 /96; SY 9806011. Collected in Korea, North
.
- PI 603158. *Glycine max* (L.) Merr.**
Cultivated. Pureline. GL 2626 /96; SY 9806012. Collected in Korea, North
.
- PI 603159. *Glycine max* (L.) Merr.**
Cultivated. Pureline. GL 2628 /96; SY 9806013. Collected in Korea, North
.
- PI 603160. *Glycine max* (L.) Merr.**
Cultivated. Pureline. GL 2629 /96; SY 9806014. Collected in Korea, North
.
- PI 603161. *Glycine max* (L.) Merr.**
Cultivated. Pureline. GL 2630 /96; SY 9806015. Collected in Korea, North
.
- PI 603162. *Glycine max* (L.) Merr.**
Cultivated. Pureline. GL 2631 /96; SY 9806016. Collected in Korea, North
.
- PI 603163. *Glycine max* (L.) Merr.**
Cultivated. Pureline. GL 2633 /96; SY 9806017. Collected in Korea, North
.
- PI 603164. *Glycine max* (L.) Merr.**
Cultivated. Pureline. GL 2634 /96; SY 9806018. Collected in Korea, North
.
- PI 603165. *Glycine max* (L.) Merr.**
Cultivated. Pureline. GL 2677 /96; SY 9806019. Collected in Korea, North
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- PI 603166. *Glycine max* (L.) Merr.**
Cultivated. Pureline. GL 2678A /96; SY 9806020. Collected in Korea, North.
- PI 603167. *Glycine max* (L.) Merr.**
Cultivated. Pureline. GL 2678B /96; SY 9806021. Collected in Korea, North.
- PI 603168. *Glycine max* (L.) Merr.**
Cultivated. Pureline. GL 2679 /96; SY 9806022. Collected in Korea, North
.
- PI 603169. *Glycine max* (L.) Merr.**
Cultivated. Pureline. GL 2680 /95; SY 9806023. Collected in Korea, North
.
- PI 603170. *Glycine max* (L.) Merr.**
Cultivated. Pureline. GL 2683 /96; SY 9806024. Collected in Korea, North
.
- PI 603171. *Glycine max* (L.) Merr.**
Cultivated. Pureline. GL 2684 /95; SY 9806025. Collected in Korea, North
.
- PI 603172. *Glycine max* (L.) Merr.**
Cultivated. Pureline. GL 2685 /96; SY 9806026. Collected in Korea, North
.
- PI 603173. *Glycine max* (L.) Merr.**
Cultivated. Pureline. GL 2686 /96; SY 9806027. Collected in Korea, North
.
- PI 603174. *Glycine max* (L.) Merr.**
Cultivated. Pureline. GL 2687 /96; SY 9806028. Collected in Korea, North
.
- PI 603175. *Glycine max* (L.) Merr.**
Cultivated. Pureline. GL 2688 /96; SY 9806029. Collected in Korea, North
.
- PI 603176. *Glycine max* (L.) Merr.**
Cultivated. Pureline. GL 2689 /96; SY 9806030. Collected in Korea, North
.

The following were collected by Paul Lang, Natural Products, Inc., 798 Hwy 6, Grinnell, Iowa 50112, United States. Received 04/15/1998.

- PI 603177. *Glycine max* (L.) Merr.**
Cultivated. Pureline. Developed in Thailand. Collected 1996 in Laos.

The following were collected by T. Austin Campbell, USDA, ARS, Building 002, Room 12, BARC West, Beltsville, Maryland 20705, United States. Received 04/15/1998.

PI 603178. **Glycine max** (L.) Merr.
Cultivated. Pureline. 47; SY 9808001. Collected 10/04/1996 in Yunnan,
China.

PI 603179. **Glycine max** (L.) Merr.
Cultivated. Pureline. Collected 10/04/1996 in Yunnan, China.

The following were developed by Reid G. Palmer, USDA, ARS, Iowa State
University, Department of Agronomy, Ames, Iowa 50011, United States. Received
11/18/1996.

PI 603180. **Glycine max** (L.) Merr.
Cultivated. Pureline. A94-671-2; SY 9809001.

PI 603181. **Glycine max** (L.) Merr.
Cultivated. Pureline. A94-672-1; SY 9809002.

PI 603182. **Glycine max** (L.) Merr.
Cultivated. Pureline. A94-683-1; SY 9809003.

PI 603183. **Glycine max** (L.) Merr.
Cultivated. Pureline. A94-719-1; SY 9809004.

PI 603184. **Glycine max** (L.) Merr.
Cultivated. Pureline. X-197; T334; SY 9810001.

PI 603185. **Glycine max** (L.) Merr.
Cultivated. Pureline. X-203; T335; SY 9810002.

PI 603186. **Glycine max** (L.) Merr.
Cultivated. Pureline. X-217; T336; SY 9810003.

PI 603187. **Glycine max** (L.) Merr.
Cultivated. Pureline. X-219; T337; SY 9810004.

PI 603188. **Glycine max** (L.) Merr.
Cultivated. Pureline. X-241; T338; SY 9810005.

PI 603189. **Glycine max** (L.) Merr.
Cultivated. Pureline. X-451; T339; SY 9810006.

PI 603190. **Glycine max** (L.) Merr.
Cultivated. Pureline. M-7-2; T340; SY 9810007.

PI 603191. **Glycine max** (L.) Merr.
Cultivated. Pureline. M-11-4; T341; SY 9810008.

PI 603192. **Glycine max** (L.) Merr.
Cultivated. Pureline. M-11-7; T342; SY 9810009.

PI 603193. **Glycine max** (L.) Merr.
Cultivated. Pureline. M-14-23; T343; SY 9810010.

- PI 603194. Glycine max** (L.) Merr.
Cultivated. Pureline. M-19-3; T344; SY 9810011.
- PI 603195. Glycine max** (L.) Merr.
Cultivated. Pureline. M-20-11; T345; SY 9810012.
- PI 603196. Glycine max** (L.) Merr.
Cultivated. Pureline. CD-9; T346; SY 9810013.
- PI 603197. Glycine max** (L.) Merr.
Cultivated. Pureline. X-193; T347; SY 9810014.
- PI 603198. Glycine max** (L.) Merr.
Cultivated. Pureline. X-194; T348; SY 9810015.
- PI 603199. Glycine max** (L.) Merr.
Cultivated. Pureline. PR-95-649; T349; SY 9810016.
- PI 603200. Glycine max** (L.) Merr.
Cultivated. Pureline. PR-95-650; T350; SY 9810017.
- PI 603201. Glycine max** (L.) Merr.
Cultivated. Pureline. A95-K55; T351; SY 9810018.
- PI 603202. Glycine max** (L.) Merr.
Cultivated. Pureline. A97-162; T352H; SY 9811001.

The following were developed by R.I. Buzzell, Agriculture Canada, Research Branch, Research Station, Harrow, Ontario NOR 1G0, Canada. Received 02/01/1998.

- PI 603203. Glycine max** (L.) Merr.
Cultivated. Pureline. E420BC3; T353; SY 9812001.

The following were developed by Reid G. Palmer, USDA, ARS, Iowa State University, Department of Agronomy, Ames, Iowa 50011, United States. Received 04/09/1998.

- PI 603204. Glycine max** (L.) Merr.
Cultivated. Pureline. A94-JB-124; T354H; SY 9813001.

The following were developed by Jack M. Widholm, University of Illinois, Crop Science Department, 285A ERML, Urbana, Illinois 61801, United States; Mung Van Nguyen, Illinois Seed Foundation, P.O. Box 722, Champaign, Illinois 61820, United States. Received 04/01/1998.

- PI 603205. Glycine max** (L.) Merr.
Cultivated. Pureline. T355; SY 9814001.

The following were developed by H.C. Huang, Agriculture and Agri-Food Canada, Lethbridge Research Center, P.O. Box 3000, Lethbridge, Alberta T1J 4B1,

Canada; J.P. Braun, Agriculture and Agri-Food Canada, Research Centre, P.O. Box 3000, Lethbridge, Alberta T1J 4B1, Canada; H.H. Mundel, Agriculture and Agri-Food Canada, Research Centre, Box 3000, Lethbridge, Alberta T1J 4B1, Canada. Received 04/16/1998.

PI 603206. *Carthamus tinctorius* L.

Breeding. LESAF 414. GP-35. Pedigree - Saffire / Oker. White-seeded line combining good yield potential with early maturity (127 days vs. Saffire 125 days and S-208 133 days). Oil content averages around 35%. Excellent field resistance to soil-borne damping-off (*Pythium ultimum* var. *ultimum*). Moderate to good resistance to head rot (*Sclerotinia sclerotiorum*).

The following were developed by J.P. Braun, Agriculture and Agri-Food Canada, Research Centre, P.O. Box 3000, Lethbridge, Alberta T1J 4B1, Canada; H.H. Mundel, Agriculture and Agri-Food Canada, Research Centre, Box 3000, Lethbridge, Alberta T1J 4B1, Canada. Received 04/16/1998.

PI 603207. *Carthamus tinctorius* L.

Breeding. LESAF 494. GP-33. Pedigree - Saffire-29-114/3/Rinconada//Saffire/Lesaf 34BW. Maturity very early (124-129 days in southern Canada prairies), similar to Saffire, 6-8 days earlier than S-208). Oil high (~42.5%). High oleic acid (73-75%), reduced saturated fatty acids (6.5% vs. 7.8% for Saffire). Achene white. Flower color yellow early bloom to orange post bloom.

PI 603208. *Carthamus tinctorius* L.

Breeding. LESAF 496. GP-34. Pedigree - Saffire-29-114/3/Rinconada//Saffire/Lesaf 34BW. Maturity early (126-132 days in southern Canada prairies), 1-2 days later than Saffire, and 3-6 days earlier than S-208). Oil high (42%). Oleic acid oil (75%), reduced saturated fatty acids (6.3% vs. 7.8% for Saffire, 8.1% for S-208). Achene white. Flower color yellow early bloom to orange post-bloom.

The following were developed by Mildred Zapata, University of Puerto Rico, Crop Protection Dept., Mayaguez, Puerto Rico; James S. Beaver, University of Puerto Rico, Mayaguez Camp, Department of Agronomy & Soils, P. O. Box 9030, Mayaguez, Puerto Rico; Kenneth F. Grafton, North Dakota State University, Plant Sciences Department, P.O. Box 5051 SU Station, Fargo, North Dakota 58105-5051, United States; Phillip Miklas, USDA, ARS, Irrigated Agric. Research & Extension Ctr., 24106 North Bunn Road, Prosser, Washington 99350-9687, United States. Received 04/20/1998.

PI 603209. *Phaseolus vulgaris* L.

Breeding. Pureline. ICB-3. GP-187. Pedigree - Selection from interspecific Population IV (GN#1, Sel 27/Pc-37). Small black bean (20g/100 seeds) with dull seed coat. Resistant to common bacterial blight (*X.c.p.*) and has the I gene for resistance to BCMV, and BCMNV.

PI 603210. *Phaseolus vulgaris* L.

Breeding. Pureline. ICB-6. GP-188. Pedigree - *P. vulgaris*/P. *coccineus*//233B. Honduran small red (25g/100 seeds) bean with shiny seed coat. Resistant to common bacterial blight (*X.c.p.*) and has the I gene

for resistance to BCMV and BCMNV.

PI 603211. Phaseolus vulgaris L.

Breeding. Pureline. ICB-8. GP-189. Pedigree - *P. vulgaris*/p. coccineus//233B. White bean (28g/100 seeds) with brown spot on each side of the hilum. Resistant to common bacterial blight (X.c.p.) and has the I gene for resistance to BCMV, and BCMNV.

PI 603212. Phaseolus vulgaris L.

Breeding. Pureline. ICB-10. GP-190. Pedigree - *P. vulgaris*/P. coccineus//233B. Small black bean (22g/100 seeds) with shiny seed coat. Resistant to common bacterial blight (X.c.p.) and has the I gene for resistance to BCMV, and BCMNV.

The following were developed by R. Moreno Galvez, INIA, Chapingo, Mexico, Mexico; Eduardo Espitia, INIFAP, CIFAP, Experimental Valle De Mexico, Apartado Postal No. 10, KM 38.5 CARR. Mex-VER/VIA Texcoco, Chapingo, Federal District, Mexico; Eduardo Villasenor, INIFAP, CIFAP, Experimental Valle De Mexico, Apartado Postal No. 10, KM 38.5 CARR. Mex-VER/VIA Texcoco, Chapingo, Federal District, Mexico. Received 04/30/1998.

PI 603213 QUAR. Triticum aestivum L., nom. cons. subsp. aestivum

Cultivar. Pureline. "BATAN F96". CV-867. Pedigree - CIANO 67/MFD/MONCHO/3/SERI M82. Semi-dwarf awned, yellowish-white glumed with plant height of 90 cm and 106 days to maturity. Short grain filling period. High yields on less favorable environments and responsive to environmental improvements. Average grain volume weight of 73 kg hL⁻¹, flour yield of 69%, and strong gluten with a loaf volume of 884 cc. Resistant to stem rust (*Puccinia graminis*) and moderately resistant to leaf rust (*Puccinia recondita*).

The following were developed by S. Rajaram, International Maize & Wheat Improvement Center, Wheat Program, Lisboa 27, Mexico City, Federal District 06600, Mexico; Eduardo Espitia, INIFAP, CIFAP, Experimental Valle De Mexico, Apartado Postal No. 10, KM 38.5 CARR. Mex-VER/VIA Texcoco, Chapingo, Federal District, Mexico; Eduardo Villasenor, INIFAP, CIFAP, Experimental Valle De Mexico, Apartado Postal No. 10, KM 38.5 CARR. Mex-VER/VIA Texcoco, Chapingo, Federal District, Mexico; F. Castillo, Colegio de Postgraduados - Montecillo, Genetics Program, Mexico City, Federal District, Mexico; J.D. Molina, Colegio de Postgraduados - Montecillo, Genetics Program, Montecillo, Federal District, Mexico. Received 04/30/1998.

PI 603214 QUAR. Triticum aestivum L., nom. cons. subsp. aestivum

Breeding. Population. PBATM96; Genetic Male Sterile Population. GP-499. Pedigree - AMSP/(Pavon F76, Seri M82, Galvez M87, Temporalera M87, Arandas F90, Batan 96). Semi-dwarf genetic male sterile base population of Mexican spring wheats. Sterility is due to a chromosomal deficiency and behaves as character controlled by a single recessive gene. After three cycles of recurrent selection is considered as a proper population for male sterile facilitated recurrent selection schemes.

The following were developed by Shamrock Seed Company, Inc., United States.

Received 04/30/1998.

PI 603215. Phaseolus vulgaris L.
Cultivar. "BRIGGS". PVP 9800026.

The following were developed by Vilmorin S.A., P.O.B. 8, La Menitre, Beaufort-En-Vallee, Maine-et-Loire 49250, France. Received 04/30/1998.

PI 603216. Phaseolus vulgaris L.
Cultivar. "BANNEROL". PVP 9800094.

PI 603217. Phaseolus vulgaris L.
Cultivar. "POLDER". PVP 9800095.

The following were developed by Paul Gibson, Southern Illinois University, Department of Plant and Soil Science, Carbondale, Illinois 62901-4415, United States; David Lightfoot, Southern Illinois University, Department of Plant and Soil Sciences, Carbondale, Illinois 62901, United States; James Klein, Southern Illinois University, Dept. of Plant and Soil Science, Carbondale, Illinois 62901-4415, United States; Mike E. Schmidt, Southern Illinois University, Department of Plant and Soil Sciences, MC 4415, Carbondale, Illinois 62901-4415, United States; R.J. Suttner, Southern Illinois University, Dept. of Plant, Soil, and General Agriculture, Carbondale, Illinois 62901-4415, United States; O. Myers, Jr., Southern Illinois University, Dept. of Plant, Soil, and General Agriculture, Carbondale, Illinois 62901-4415, United States. Received 04/15/1998.

PI 603218. Glycine max (L.) Merr.
Breeding. Pureline. LS-G96. GP-188. Pedigree - Essex / Forrest. Growth habit determinant, flowers white, pubescence tawny, and pod walls tan. Seedcoats shiny with black hila. Matures 4 days later than Essex and 3 days earlier than Forrest. Lodging score averages 1.2 compared to 2.7 for Forrest. Resistant to soybean sudden death syndrome (*Fusarium solani*) and soybean cyst nematode (*Heterodera glycines*) race 3.

The following were developed by Lloyd May, USDA, ARS, Coastal Plains Soil, Water, and Plant Res., 2200 Pocket Road, Florence, South Carolina 29506-9706, United States. Received 04/27/1998.

PI 603219. Gossypium hirsutum L.
Breeding. Pureline. PD 94042. GP-695. Pedigree - Jimian 8 / PD-3. Full season cotton that combines high yield potential and unique fiber characteristics. Averages 41% lint and significantly outyielded several popular commercial cultivars. Produces fiber with micronaire reading of 4.5 and above. The high micronaire reading reflects fiber maturity rather than coarse fiber. Fiber perimeter about the same as the high fiber quality germplasm PD-3-14. Fiber maturity averages 80% and above, compared with about 75% for PD-3-14.

The following were donated by W. John Raupp, Kansas State University, Wheat Genetic Resources Center, Department of Plant Pathology, Manhattan, Kansas

66506-5502, United States. Received 04/10/1998.

PI 603220. *Aegilops tauschii* Coss.

Wild. AUS 23948; TA 1578; CPI 110606; WX 705; MSU 9434; NSGC 6527.
Collected in Western Asia.

PI 603221. *Aegilops tauschii* Coss.

Wild. AUS 23966; TA 1597; CPI 110624; WX 723; RL 5257; NSGC 6528.
Collected in Western Asia.

PI 603222. *Aegilops tauschii* Coss.

Wild. CPI 110625; TA 1598; RL 5263; AUS 23967; WX 724; Manitoba 2C56;
NSGC 6529. Collected in Former Soviet Union. Resistant to leaf rust.

The following were collected by Kyoto University, Plant Germplasm Institute, Kyoto, Kyoto, Japan. Donated by W. John Raupp, Kansas State University, Wheat Genetic Resources Center, Department of Plant Pathology, Manhattan, Kansas 66506-5502, United States. Received 04/10/1998.

PI 603223. *Aegilops tauschii* Coss.

Wild. KUSE 2136; TA 1600; RL 5288; NSGC 6530. Collected 06/25/1955 in Mazandaran, Iran. Latitude 36 deg. 43' 0'' N. Longitude 53 deg. 34' 0'' E. Behshahr. Source of Sr33.

The following were donated by W. John Raupp, Kansas State University, Wheat Genetic Resources Center, Department of Plant Pathology, Manhattan, Kansas 66506-5502, United States. Received 04/10/1998.

PI 603224. *Aegilops tauschii* Coss.

Wild. WIR 79; TA 1616; AE 192; 01C215023; NSGC 6531. Collected in Dagestan, Russian Federation. Latitude 43 deg. 0' N. Longitude 47 deg. 0' E.

The following were collected by N.I. Vavilov All-Russian Scientific Research, Institute of Plant Genetic Resources, 44 Bolshaya Morskaya Street, St. Petersburg, Leningrad 190000, Russian Federation. Donated by W. John Raupp, Kansas State University, Wheat Genetic Resources Center, Department of Plant Pathology, Manhattan, Kansas 66506-5502, United States. Received 04/10/1998.

PI 603225. *Aegilops tauschii* Coss.

Wild. WIR 431; TA 1617; AE 248; 01C215077; 55547; NSGC 6532. Collected in Balkan, Turkmenistan. Latitude 38 deg. 29' 0'' N. Longitude 56 deg. 18' 0'' E. Elevation 730 m. Kara-Kala region, W of Koppet Dag (Khrehet Kopet Dag) mountains. Along Upper (Atrek) Sumbar River.

The following were collected by D. Zohary, Hebrew University of Jerusalem, Botany Department, Jerusalem, Jerusalem, Israel. Donated by W. John Raupp, Kansas State University, Wheat Genetic Resources Center, Department of Plant Pathology, Manhattan, Kansas 66506-5502, United States. Received 04/10/1998.

PI 603226. *Aegilops tauschii* Coss.

Wild. AE 429; TA 1641; G 1275; 01C215115; Zohary Ae 6622; NSGC 6533.
Collected 07/09/1965 in Mazandaran, Iran. Latitude 36 deg. 35' 0'' N.
Longitude 53 deg. 30' 0'' E. 7 km west of Neka on East coast of Caspian
Sea.

PI 603227. *Aegilops tauschii* Coss.

Wild. CPI 110643; TA 1642; G 1276; 01C215116; AUS 23985; WX 740; NSGC
6534. Collected 07/10/1965 in Mazandaran, Iran. Latitude 36 deg. 52' 0''
N. Longitude 54 deg. 29' 0'' E. 10 km north of Gorgan on east coast of
Caspian Sea.

The following were collected by Kyoto University, Plant Germplasm Institute,
Kyoto, Kyoto, Japan. Donated by W. John Raupp, Kansas State University, Wheat
Genetic Resources Center, Department of Plant Pathology, Manhattan, Kansas
66506-5502, United States. Received 04/10/1998.

PI 603228. *Aegilops tauschii* Coss.

Wild. WX 746; TA 1651; G 3395; CPI 110651; AUS 23993; 01C215129; AE 527;
Kukuck 8424/60; NSGC 6535. Collected 07/07/1955 in Mazandaran, Iran.
Latitude 36 deg. 50' 0'' N. Longitude 54 deg. 29' 0'' E. Gorgan.

The following were collected by N.I. Vavilov All-Russian Scientific Research,
Institute of Plant Genetic Resources, 44 Bolshaya Morskaya Street, St.
Petersburg, Leningrad 190000, Russian Federation. Donated by W. John Raupp,
Kansas State University, Wheat Genetic Resources Center, Department of Plant
Pathology, Manhattan, Kansas 66506-5502, United States. Received 04/10/1998.

PI 603229. *Aegilops tauschii* Coss.

Wild. WX 753; TA 1660; G 3408; CPI 110658; AUS 24000; AE 194; 01C215025;
ICAG 400629; WIR 82; 47106; NSGC 6536. Collected in Azerbaijan. Latitude
40 deg. 30' N. Longitude 47 deg. 0' E.

PI 603230. *Aegilops tauschii* Coss.

Wild. WX 755; TA 1662; G 3410; CPI 110660; AUS 24002; AE 196; 01C215027;
ICAG 400631; WIR 110; 47983; NSGC 6537. Collected in Azerbaijan.
Latitude 40 deg. 30' N. Longitude 47 deg. 0' E. Elevation 160 m. Village
of Ordovadi.

PI 603231. *Aegilops tauschii* Coss.

Wild. WX 757; TA 1665; G 3413; CPI 110662; AUS 24004; AE 199; 01C215030;
ICAG 400633; WIR 120; 47994; NSGC 6538. Collected in Azerbaijan.
Latitude 40 deg. 5' 0'' N. Longitude 49 deg. 24' 0'' E. Elevation 650 m.
Shemakha (Semacha) region, Gobistan.

PI 603232. *Aegilops tauschii* Coss.

Wild. WX 758; TA 1666; G 3414; CPI 110663; AUS 23005; AE 200; 01C215031;
ICAG 400634; WIR 124; 47998; NSGC 6539. Collected in Azerbaijan.
Latitude 40 deg. 38' 0'' N. Longitude 48 deg. 37' 0'' E. Elevation 630
m. Shemakha (Semacha) region, collective farm no. 3.

PI 603233. *Aegilops tauschii* Coss.

Wild. WX 760; TA 1669; G 3417; CPI 110666; AUS 24008; AE 203; 01C215034;
ICAG 400637; WIR 131; 48005; NSGC 6540. Collected in Azerbaijan.

Latitude 40 deg. 5' 0'' N. Longitude 49 deg. 24' 0'' E. Elevation 780 m.
Shemakha (Semacha) region, Geoglyarskaya road.

PI 603234. *Aegilops tauschii* Coss.

Wild. WX 761; TA 1670; G 3418; CPI 110667; AUS 24009; AE 204; 01C215035;
ICAG 400638; WIR 141; 48015; NSGC 6541. Collected in Azerbaijan.
Latitude 40 deg. 59' 0'' N. Longitude 47 deg. 50' 0'' E. Elevation 600
m. Kutkashen region, near Getgashena.

PI 603235. *Aegilops tauschii* Coss.

Wild. WX 762; TA 1671; G 3419; CPI 110668; AUS 24010; WIR 160; 01C215036
; AE 205; 48034; NSGC 6542. Collected in Azerbaijan. Latitude 41 deg.
27' 0'' N. Longitude 48 deg. 27' 0'' E. Elevation 750 m. Kusary region,
village of Chavadsaoo.

PI 603236. *Aegilops tauschii* Coss.

Wild. WX 766; TA 1675; G 3427; CPI 110672; AUS 24014; AE 213; 01C215044;
ICAG 400669; WIR 249; 52496; NSGC 6543. Collected in Turkmenistan.
Latitude 40 deg. 0' N. Longitude 60 deg. 0' E. Elevation 1400 m. In the
Mezetli Sount Khakardakck mountain range.

PI 603237. *Aegilops tauschii* Coss.

Wild. 01C215086; TA 1682; AE 259; WIR 732; NSGC 6544. Collected in
Azerbaijan. Latitude 41 deg. 12' 0'' N. Longitude 47 deg. 10' 0'' E.
Sheki (Seki) region.

PI 603238. *Aegilops tauschii* Coss.

Wild. 01C215087; TA 1683; AE 260; WIR 747; NSGC 6545. Collected in
Azerbaijan. Latitude 40 deg. 59' 0'' N. Longitude 47 deg. 50' 0'' E.
Kutkashen (Kutkasen) region.

PI 603239. *Aegilops tauschii* Coss.

Wild. AE 226; TA 1685; G 3438; 01C215057; ICAG 400655; WIR 315; 48028;
NSGC 6546. Collected in Azerbaijan. Latitude 41 deg. 12' 0'' N.
Longitude 49 deg. 2' 0'' E. Elevation 460 m. Divichi (Davaci) region,
town of Ezmarail.

PI 603240. *Aegilops tauschii* Coss.

Wild. WX 774; TA 1686; G 3440; CPI 110681; AUS 24023; AE 228; 01C215059;
ICAG 400656; WIR 326; 48038; NSGC 6547. Collected in Azerbaijan.
Latitude 40 deg. 38' 0'' N. Longitude 48 deg. 37' 0'' E. Elevation 1200
m. Shemakha (Semacha) region, town of Marevka.

PI 603241. *Aegilops tauschii* Coss.

Wild. WX 775; TA 1687; G 3442; CPI 110682; AUS 24024; AE 230; 01C215061;
ICAG 400657; WIR 335; 48051; NSGC 6548. Collected in Azerbaijan.
Latitude 40 deg. 32' 0'' N. Longitude 48 deg. 55' 0'' E. Elevation 1000
m. Shemakha (Semacha) region, town of Maraza.

PI 603242. *Aegilops tauschii* Coss.

Wild. WX 780; TA 1693; AE 190; CPI 110687; AUS 24029; ICAG 400667;
01C215021; G 3404; WIR 76; 52495; NSGC 6549. Collected in Balkan,
Turkmenistan. Latitude 38 deg. 29' 0'' N. Longitude 56 deg. 18' 0'' E.
Elevation 1200 m. Kara-Kala.

The following were collected by Kyoto University, Plant Germplasm Institute, Kyoto, Kyoto, Japan. Donated by W. John Raupp, Kansas State University, Wheat Genetic Resources Center, Department of Plant Pathology, Manhattan, Kansas 66506-5502, United States. Received 04/10/1998.

PI 603243. *Aegilops tauschii* Coss.

Wild. CPI 110690; TA 1695; G 751; AUS 24032; WX 783; Jenkins 2C99; NSGC 6550. Collected 06/25/1955 in Western Asia.

The following were collected by D. Zohary, Hebrew University of Jerusalem, Botany Department, Jerusalem, Jerusalem, Israel. Donated by W. John Raupp, Kansas State University, Wheat Genetic Resources Center, Department of Plant Pathology, Manhattan, Kansas 66506-5502, United States. Received 04/10/1998.

PI 603244. *Aegilops tauschii* Coss.

Wild. CPI 110698; TA 1706; G 1284; AE 433; AUS 24040; WX 791; NSGC 6551. Collected 07/10/1965 in Mazandaran, Iran. Latitude 36 deg. 50' 0'' N. Longitude 54 deg. 29' 0'' E. Gorgan railway station.

The following were donated by Swedish Seed Association, Svalov, Malmohus, Sweden; W. John Raupp, Kansas State University, Wheat Genetic Resources Center, Department of Plant Pathology, Manhattan, Kansas 66506-5502, United States. Received 04/10/1998.

PI 603245. *Aegilops tauschii* Coss.

Wild. CPI 110699; TA 1707; G 364; AUS 24041; WX 792; NSGC 6552. Collected in Western Asia.

The following were donated by Hortus Botanicus, Leiden, South Holland, Netherlands; W. John Raupp, Kansas State University, Wheat Genetic Resources Center, Department of Plant Pathology, Manhattan, Kansas 66506-5502, United States. Received 04/10/1998.

PI 603246. *Aegilops tauschii* Coss.

Wild. CPI 110702; TA 1712; G 883; AUS 24044; WX 795; NSGC 6553.

The following were collected by D. Zohary, Hebrew University of Jerusalem, Botany Department, Jerusalem, Jerusalem, Israel. Donated by W. John Raupp, Kansas State University, Wheat Genetic Resources Center, Department of Plant Pathology, Manhattan, Kansas 66506-5502, United States. Received 04/10/1998.

PI 603247. *Aegilops peregrina* var. *brachyathera* (Boiss.) Maire & Weiller

Wild. TA 1885; G 634; NSGC 6554. Collected in Central, Israel. Latitude 31 deg. 55' 48'' N. Longitude 34 deg. 45' 24'' E. Central Coastal Plain, 10 km east of Rehovot. elevation between 0 - 304 m (estimated by GIS).

PI 603248. *Aegilops peregrina* (Hack.) Maire & Weiller var. *peregrina*

Wild. TA 1887; G 636; NSGC 6555. Collected 07/10/1959 in Southern, Israel. Latitude 31 deg. 40' 0'' N. Longitude 34 deg. 36' 0'' E. 4 km east of Ashqelon, HaDarom.

The following were collected by Kyoto University, Plant Germplasm Institute, Kyoto, Kyoto, Japan. Donated by W. John Raupp, Kansas State University, Wheat Genetic Resources Center, Department of Plant Pathology, Manhattan, Kansas 66506-5502, United States. Received 04/10/1998.

PI 603249. *Aegilops tauschii* Coss.

Wild. CPI 110713; TA 2375; KU 20-7; AUS 24055; WX 234; NSGC 6556.
Collected 07/03/1955 in Tehran, Iran. Latitude 35 deg. 45' 0'' N.
Longitude 50 deg. 57' 0'' E. 2 km north of Karaj (suburbs of Tehran).
Kihara's translocation line: T1DS-3DS, T1DL-3DL.

PI 603250. *Aegilops tauschii* Coss.

Wild. WX 236; TA 2377; G 963; CPI 110715; AUS 24057; KU 20-9; 01C215114;
AE 428; ICAG 402121; NSGC 6557. Collected 07/19/1955 in Mazandaran, Iran
. Latitude 36 deg. 40' 0'' N. Longitude 53 deg. 35' 0'' E. 5 km west of
Behshahr (Sari-Behshahr).

PI 603251. *Aegilops tauschii* Coss.

Wild. WX 237; TA 2378; G 964; CPI 110716; AUS 24058; KU 20-10; Y220;
ICAG 402122; NSGC 6558. Collected 07/21/1955 in Mazandaran, Iran.
Latitude 37 deg. 29' 0'' N. Longitude 50 deg. 40' 0'' E. 9 km northwest
of Ramsar (Chalus-Rasht).

PI 603252. *Aegilops tauschii* Coss.

Wild. CPI 110821; TA 2486; KU 2113; ICAG 400349; AUS 24163; WX 337; NSGC
6559. Collected 07/28/1955 in West Azerbaijan, Iran. Latitude 36 deg.
44' 0'' N. Longitude 45 deg. 44' E. Suburbs of Mahabad.

PI 603253. *Aegilops tauschii* Coss.

Wild. BEM 1970-7-20-3; TA 2529; KU 2160; CPI 110860; AUS 24202; WX 370;
NSGC 6560. Collected 07/20/1970 in Mazandaran, Iran. Latitude 36 deg.
53' 0'' N. Longitude 50 deg. 41' 0'' E. Ramsar.

PI 603254. *Aegilops tauschii* Coss.

Wild. BEM 1970-7-20-4; TA 2530; KU 2161; CPI 110861; AUS 24203; WX 371;
NSGC 6561. Collected 07/20/1970 in Mazandaran, Iran. Latitude 36 deg.
53' 0'' N. Longitude 50 deg. 41' 0'' E. Ramsar.

PI 603255. *Aegilops tauschii* Coss.

Wild. BEC 1966-7-19-1a; TA 2570; KU 2816; CPI 110898; AUS 24239; WX 989;
NSGC 6562. Collected 07/19/1966 in Armenia. Latitude 40 deg. 11' 0'' N.
Longitude 44 deg. 30' 0'' E. Aragaband (Yerevan - airport).

The following were collected by N.I. Vavilov All-Russian Scientific Research, Institute of Plant Genetic Resources, 44 Bolshaya Morskaya Street, St. Petersburg, Leningrad 190000, Russian Federation. Donated by W. John Raupp, Kansas State University, Wheat Genetic Resources Center, Department of Plant Pathology, Manhattan, Kansas 66506-5502, United States. Received 04/10/1998.

PI 603256. *Aegilops tauschii* Coss.

Wild. WX 754; TA 1661; G 3409; CPI 110659; AUS 24001; AE 195; 01C215026;
ICAG 400630; WIR 108; 47989; NSGC 6563. Collected in Azerbaijan.

Latitude 40 deg. 30' N. Longitude 47 deg. 0' E.

The following were developed by J.R. Simplot Company, United States. Received 05/05/1988.

PI 603257. *Poa pratensis* L.
Cultivar. "TOTAL ECLIPSE". PVP 9800187.

The following were developed by Olvey & Associates, Inc., United States. Received 05/05/1998.

PI 603258. *Gossypium barbadense* L.
Cultivar. "DP WHITE PIMA". PVP 9800191.

PI 603259. *Gossypium barbadense* L.
Cultivar. "DP HTO PIMA". PVP 9800192.

The following were developed by Pure Seed Testing, Inc., 29975 S. Barlow Road, Canby, Oregon 97013, United States. Received 05/05/1998.

PI 603260. *Festuca rubra* L.
Cultivar. "SHADOW II". PVP 9800193.

The following were developed by Progeny Advanced Genetics, Inc., Salinas, California, United States. Received 05/05/1998.

PI 603261. *Lactuca sativa* L.
Cultivar. "AMARAL 2000-97". PVP 9800194.

PI 603262. *Lactuca sativa* L.
Cultivar. "BENCHMARK". PVP 9800195.

PI 603263. *Lactuca sativa* L.
Cultivar. "MYSTIC GL". PVP 9800196.

PI 603264. *Lactuca sativa* L.
Cultivar. "MAXUM". PVP 9800197.

PI 603265. *Lactuca sativa* L.
Cultivar. "COLUMBIA XL". PVP 9800198.

The following were developed by Peter Franck, Germany. Received 05/05/1998.

PI 603266. *Triticum aestivum* L., nom. cons. subsp. *aestivum*
Cultivar. "DANDY". PVP 9800199. Spring type.

The following were developed by South Texas Planting Seed Assn., Inc., Texas, United States. Received 05/05/1998.

PI 603267. *Gossypium hirsutum* L.
Cultivar. "TEXAS 300". PVP 9800200.

PI 603268. *Gossypium hirsutum* L.
Cultivar. "TEXAS 224". PVP 9800201.

The following were developed by Deltapine Seed, A Division of Delta and Pine Land Company, United States. Received 05/05/1998.

PI 603269. *Gossypium hirsutum* L.
Cultivar. "DP 688 B/RR". PVP 9800202. Upland type.

PI 603270. *Gossypium hirsutum* L.
Cultivar. "DP 6100 RR ACALA". PVP 9800203.

PI 603271. *Gossypium hirsutum* L.
Cultivar. "DP 410 B". PVP 9800204. Upland type.

PI 603272. *Gossypium hirsutum* L.
Cultivar. "DP 436 RR". PVP 9800205. Upland type.

PI 603273. *Gossypium hirsutum* L.
Cultivar. "DP 458 B/RR". PVP 9800206. Upland type.

PI 603274. *Gossypium hirsutum* L.
Cultivar. "DP 428 B". PVP 9800207. Upland type.

PI 603275. *Gossypium hirsutum* L.
Cultivar. "DP 655 B/RR". PVP 9800208. Upland type.

PI 603276. *Gossypium hirsutum* L.
Cultivar. "DP 425 RR". PVP 9800209.

The following were developed by Coastal Seeds, Inc., United States. Received 05/05/1998.

PI 603277. *Lactuca sativa* L.
Cultivar. "MARDI GRAS". PVP 9800210.

The following were developed by Mississippi Agric. & Forestry Exp. Sta., Mississippi State University, Mississippi, United States. Received 05/05/1998.

PI 603278. *Oryza sativa* L.
Cultivar. "PRISCILLA"; RU9404036. PVP 9800212.

The following were developed by Cornell Research Foundation, Inc., New York, United States. Received 05/05/1998.

PI 603279. *Cucurbita pepo* L.
Cultivar. "WHITAKER". PVP 9800214. Summer type.

The following were developed by Deltapine Seed, A Division of Delta and Pine Land Company, United States. Received 05/05/1998.

- PI 603280. *Glycine max* (L.) Merr.**
Cultivar. "DPX 8S74 RR"; 95-01385. PVP 9800215.
- PI 603281. *Glycine max* (L.) Merr.**
Cultivar. "DPX 8S64 RR"; 95-17799. PVP 9800216.
- PI 603282. *Glycine max* (L.) Merr.**
Cultivar. "DPX 8S63 RR"; 95-01598. PVP 9800217.
- PI 603283. *Glycine max* (L.) Merr.**
Cultivar. "DPX 8S62 RR"; 95-04337. PVP 9800218.
- PI 603284. *Glycine max* (L.) Merr.**
Cultivar. "DPX 8S61 RR"; 95-02332. PVP 9800219.
- PI 603285. *Glycine max* (L.) Merr.**
Cultivar. "DPX 8S60"; 93-14534. PVP 9800220.

The following were developed by Jerry F. Miller, USDA, ARS, Northern Crop Science Laboratory, P.O. Box 5677, Fargo, North Dakota 58105, United States; Elias M. Elias, North Dakota State University, Department of Plant Sciences, P.O. Box 5051, Fargo, North Dakota 58104-5051, United States; R.W. Stack, North Dakota State University, Plant Pathology Department, Fargo, North Dakota 58105, United States. Received 05/05/1998.

- PI 603286. *Triticum turgidum* subsp. *durum* (Desf.) Husn.**
Cultivar. Pureline. "BELZER". CV-868; PVP 9800221. Pedigree - D7798 / DT367. High yielding, large kernels. Moderate level of resistance to Fusarium head blight (*Fusarium graminearum*), and daylength - sensitive durum wheat. Plants tall and late in maturity. Spikes mid-long, awned, oblong, mid-dense, and erect. Kernels amber color and large-sized (39.0 mg). Very strong gluten and 138 g Kg-1 semolina protein. Low grain volume 740.6 Kgm-3. Resistant to stem rust (*Puccinia graminis*) and leaf rust (*P. recondita*).

The following were developed by Agripro Seeds, Inc., Iowa, United States. Received 05/05/1998.

- PI 603287. *Glycine max* (L.) Merr.**
Cultivar. "AP 727". PVP 9800222.
- PI 603288. *Glycine max* (L.) Merr.**
Cultivar. "AP 572STS". PVP 9800223.

The following were developed by Dwight Tober, USDA, NRCS, Plant Materials Center, PO Box 1458, Bismarck, North Dakota 58508, United States; Arvid Boe, South Dakota State University, Plant Science Department, NPB 244A, Brookings,

South Dakota 57007, United States; J.G. Ross, South Dakota State University, Department of Agronomy, Brookings, South Dakota, United States; Russ Haas, USDA, NRCS, Plant Materials Center, 3308 University Drive, Bismarck, North Dakota 58504-7564, United States. Received 04/30/1998.

PI 603289. *Andropogon gerardii* Vitman

Cultivar. Population. "SUNNYVIEW". CV-11. Pedigree - Source population from native stand in SE South Dakota. Vigorous, leafy, winterhardy, adapted to USDA Plant Hardiness Zone 4 between 42 deg. and 48 deg. latitude and 95 deg. and 100 deg. N longitude. Height may exceed 2.5m. Reaches anthesis about Aug. 10 at Brookings, SD. High percentage of partially to completely hermaphroditic plants. Seed-per-spikelet ratio may exceed 75%. Fifty-caryoples weights are about 85 mg for sessile and 55 mg for pedicellat.

The following were donated by Ruzhen Chang, Chinese Academy of Agricultural Sciences, Institute of Crop Germplasm Resources, Beijing, Beijing, China. Received 05/04/1998.

PI 603290. *Glycine max* (L.) Merr.

Cultivated. Pureline. ZDD18396; SY 9816496.

PI 603291. *Glycine max* (L.) Merr.

Cultivated. Pureline. ZDD00116; SY 9816001.

PI 603292. *Glycine max* (L.) Merr.

Cultivated. Pureline. ZDD00136; SY 9816002.

PI 603293. *Glycine max* (L.) Merr.

Cultivated. Pureline. ZDD00158; SY 9816003.

PI 603294. *Glycine max* (L.) Merr.

Cultivated. Pureline. ZDD00185; SY 9816004.

PI 603295. *Glycine max* (L.) Merr.

Cultivated. Pureline. ZDD00210; SY 9816005.

PI 603296. *Glycine max* (L.) Merr.

Cultivated. Pureline. ZDD00238; SY 9816006.

PI 603297. *Glycine max* (L.) Merr.

Cultivated. Pureline. ZDD00241; SY 9816007.

PI 603298. *Glycine max* (L.) Merr.

Cultivated. Pureline. ZDD00273; SY 9816008.

PI 603299. *Glycine max* (L.) Merr.

Cultivated. Pureline. ZDD00274; SY 9816009.

PI 603300. *Glycine max* (L.) Merr.

Cultivated. Pureline. ZDD00281; SY 9816010.

PI 603301. *Glycine max* (L.) Merr.

Cultivated. Pureline. ZDD06869; SY 9816166.

PI 603302. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD06886; SY 9816167.

PI 603303. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD06899; SY 9816168.

PI 603304. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD06902; SY 9816169.

PI 603305. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD06906; SY 9816170.

PI 603306. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD06911; SY 9816171.

PI 603307. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD06912; SY 9816172.

PI 603308. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD06913; SY 9816173.

PI 603309. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD06920; SY 9816174.

PI 603310. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD06937; SY 9816175.

PI 603311. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD06942; SY 9816176.

PI 603312. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD06944; SY 9816177.

PI 603313. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD06945; SY 9816178.

PI 603314. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD06955; SY 9816179.

PI 603315. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD06969; SY 9816180.

PI 603316. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD06974; SY 9816181.

PI 603317. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD06998; SY 9816182.

PI 603318. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD07000; SY 9816183.

PI 603319. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD07019; SY 9816184.

PI 603320. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD07024; SY 9816185.

PI 603321. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD07036; SY 9816186.

PI 603322. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD07044; SY 9816187.

PI 603323. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD07049; SY 9816188.

PI 603324. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD07054; SY 9816189.

PI 603325. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD07055; SY 9816190.

PI 603326. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD07059; SY 9816191.

PI 603327. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD07062; SY 9816192.

PI 603328. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD07076; SY 9816193.

PI 603329. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD07097; SY 9816194.

PI 603330. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD07098; SY 9816195.

PI 603331. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD07110; SY 9816196.

PI 603332. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD07112; SY 9816197.

PI 603333. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD07128; SY 9816198.

PI 603334. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD07134; SY 9816199.

PI 603335. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD07137; SY 9816200.

PI 603336. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD07155; SY 9816201.

PI 603337. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD07173; SY 9816202.

PI 603338. **Glycine max** (L.) Merr.

Cultivated. Pureline. ZDD07200; SY 9816203.

PI 603339. Glycine max (L.) Merr.
Cultivated. Pureline. ZDD07206; SY 9816204.

PI 603340. Glycine max (L.) Merr.
Cultivated. Pureline. ZDD00379; SY 9816011.

PI 603341. Glycine max (L.) Merr.
Cultivated. Pureline. ZDD00384; SY 9816012.

PI 603342. Glycine max (L.) Merr.
Cultivated. Pureline. ZDD00386; SY 9816013.

PI 603343. Glycine max (L.) Merr.
Cultivated. Pureline. ZDD00390; SY 9816014.

PI 603344. Glycine max (L.) Merr.
Cultivated. Pureline. ZDD00394; SY 9816015.

PI 603345. Glycine max (L.) Merr.
Cultivated. Pureline. ZDD00403; SY 9816016.

PI 603346. Glycine max (L.) Merr.
Cultivated. Pureline. ZDD00415; SY 9816017.

PI 603347. Glycine max (L.) Merr.
Cultivated. Pureline. ZDD00422; SY 9816018.

PI 603348. Glycine max (L.) Merr.
Cultivated. Pureline. ZDD00423; SY 9816019.

PI 603349. Glycine max (L.) Merr.
Cultivated. Pureline. ZDD00432; SY 9816020.

PI 603350. Glycine max (L.) Merr.
Cultivated. Pureline. ZDD00436; SY 9816021.

PI 603351. Glycine max (L.) Merr.
Cultivated. Pureline. ZDD00442; SY 9816022.

PI 603352. Glycine max (L.) Merr.
Cultivated. Pureline. ZDD00451; SY 9816023.

PI 603353. Glycine max (L.) Merr.
Cultivated. Pureline. ZDD00453; SY 9816024.

PI 603354. Glycine max (L.) Merr.
Cultivated. Pureline. ZDD00461; SY 9816025.

PI 603355. Glycine max (L.) Merr.
Cultivated. Pureline. ZDD00463; SY 9816026.

PI 603356. Glycine max (L.) Merr.
Cultivated. Pureline. ZDD00475; SY 9816027.

PI 603357. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD00490; SY 9816028.

PI 603358. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD00504; SY 9816029.

PI 603359. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD00508; SY 9816030.

PI 603360. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD00524; SY 9816031.

PI 603361. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD00538; SY 9816032.

PI 603362. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD00541; SY 9816033.

PI 603363. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD00551; SY 9816034.

PI 603364. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD00570; SY 9816035.

PI 603365. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD00575; SY 9816036.

PI 603366. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD00579; SY 9816037.

PI 603367. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD00611; SY 9816038.

PI 603368. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD00624; SY 9816039.

PI 603369. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD00643; SY 9816040.

PI 603370. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD00648; SY 9816041.

PI 603371. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD00666; SY 9816042.

PI 603372. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD00679; SY 9816043.

PI 603373. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD00698; SY 9816044.

PI 603374. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD00700; SY 9816045.

PI 603375. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD07276; SY 9816205.

PI 603376. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD07293; SY 9816206.

PI 603377. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD07308; SY 9816207.

PI 603378. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD07339; SY 9816208.

PI 603379. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD07353; SY 9816209.

PI 603380. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD07388; SY 9816210.

PI 603381. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD07423; SY 9816211.

PI 603382. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD07438; SY 9816212.

PI 603383. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD17789; SY 9816409.

PI 603384. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD17805; SY 9816410.

PI 603385. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD00758; SY 9816046.

PI 603386. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD00774; SY 9816047.

PI 603387. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD00792; SY 9816048.

PI 603388. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD00795; SY 9816049.

PI 603389. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD00823; SY 9816050.

PI 603390. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD00841; SY 9816051.

PI 603391. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD00867; SY 9816052.

PI 603392. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD00898; SY 9816053.

PI 603393. **Glycine max** (L.) Merr.

Cultivated. Pureline. ZDD00952; SY 9816054.

PI 603394. Glycine max (L.) Merr.
Cultivated. Pureline. ZDD00971; SY 9816055.

PI 603395. Glycine max (L.) Merr.
Cultivated. Pureline. ZDD00988; SY 9816056.

PI 603396. Glycine max (L.) Merr.
Cultivated. Pureline. ZDD00992; SY 9816057.

PI 603397. Glycine max (L.) Merr.
Cultivated. Pureline. ZDD01035; SY 9816058.

PI 603398. Glycine max (L.) Merr.
Cultivated. Pureline. ZDD01064; SY 9816059.

PI 603399. Glycine max (L.) Merr.
Cultivated. Pureline. ZDD01070; SY 9816060.

PI 603400. Glycine max (L.) Merr.
Cultivated. Pureline. ZDD01094; SY 9816061.

PI 603401. Glycine max (L.) Merr.
Cultivated. Pureline. ZDD01149; SY 9816062.

PI 603402. Glycine max (L.) Merr.
Cultivated. Pureline. ZDD01150; SY 9816063.

PI 603403. Glycine max (L.) Merr.
Cultivated. Pureline. ZDD01151; SY 9816064.

PI 603404. Glycine max (L.) Merr.
Cultivated. Pureline. ZDD01187; SY 9816065.

PI 603405. Glycine max (L.) Merr.
Cultivated. Pureline. ZDD01207; SY 9816066.

PI 603406. Glycine max (L.) Merr.
Cultivated. Pureline. ZDD01245; SY 9816067.

PI 603407. Glycine max (L.) Merr.
Cultivated. Pureline. ZDD01250; SY 9816068.

PI 603408. Glycine max (L.) Merr.
Cultivated. Pureline. ZDD01288; SY 9816069.

PI 603409. Glycine max (L.) Merr.
Cultivated. Pureline. ZDD01343; SY 9816070.

PI 603410. Glycine max (L.) Merr.
Cultivated. Pureline. ZDD01367; SY 9816071.

PI 603411. Glycine max (L.) Merr.
Cultivated. Pureline. ZDD01375; SY 9816072.

PI 603412. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD01460; SY 9816073.

PI 603413. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD01489; SY 9816074.

PI 603414. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD07697; SY 9816213.

PI 603415. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD07722; SY 9816214.

PI 603416. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD07785; SY 9816215.

PI 603417. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD18177; SY 9816411.

PI 603418. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD18214; SY 9816412.

PI 603419. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD18261; SY 9816413.

PI 603420. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD01501; SY 9816075.

PI 603421. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD01502; SY 9816076.

PI 603422. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD01503; SY 9816077.

PI 603423. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD07853; SY 9816216.

PI 603424. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD07871; SY 9816217.

PI 603425. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD07876; SY 9816218.

PI 603426. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD07881; SY 9816219.

PI 603427. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD07896; SY 9816220.

PI 603428. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD07950; SY 9816221.

PI 603429. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD07968; SY 9816222.

PI 603430. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD18270; SY 9816414.

PI 603431. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD18272; SY 9816415.

PI 603432. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD18276; SY 9816416.

PI 603433. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD18277; SY 9816417.

PI 603434. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD18281; SY 9816418.

PI 603435. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD18286; SY 9816419.

PI 603436. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD18301; SY 9816420.

PI 603437. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD18305; SY 9816421.

PI 603438. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD18309; SY 9816422.

PI 603439. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD18317; SY 9816423.

PI 603440. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD18319; SY 9816424.

PI 603441. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD18331; SY 9816425.

PI 603442. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD18350; SY 9816426.

PI 603443. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD18353; SY 9816427.

PI 603444. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD18364; SY 9816428.

PI 603445. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD18367; SY 9816429.

PI 603446. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD18377; SY 9816430.

PI 603447. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD18386; SY 9816431.

PI 603448. **Glycine max** (L.) Merr.

Cultivated. Pureline. ZDD02640; SY 9816093.

PI 603449. Glycine max (L.) Merr.
Cultivated. Pureline. ZDD02682; SY 9816094.

PI 603450. Glycine max (L.) Merr.
Cultivated. Pureline. ZDD02720; SY 9816095.

PI 603451. Glycine max (L.) Merr.
Cultivated. Pureline. ZDD02757; SY 9816096.

PI 603452. Glycine max (L.) Merr.
Cultivated. Pureline. ZDD02791; SY 9816097.

PI 603453. Glycine max (L.) Merr.
Cultivated. Pureline. ZDD02906; SY 9816098.

PI 603454. Glycine max (L.) Merr.
Cultivated. Pureline. ZDD19117; SY 9816432.

PI 603455. Glycine max (L.) Merr.
Cultivated. Pureline. ZDD19125; SY 9816433.

PI 603456. Glycine max (L.) Merr.
Cultivated. Pureline. ZDD19127; SY 9816434.

PI 603457. Glycine max (L.) Merr.
Cultivated. Pureline. ZDD19150; SY 9816435.

PI 603458. Glycine max (L.) Merr.
Cultivated. Pureline. ZDD19158; SY 9816436.

PI 603459. Glycine max (L.) Merr.
Cultivated. Pureline. ZDD19170; SY 9816437.

PI 603460. Glycine max (L.) Merr.
Cultivated. Pureline. ZDD19179; SY 9816438.

PI 603461. Glycine max (L.) Merr.
Cultivated. Pureline. ZDD19183; SY 9816439.

PI 603462. Glycine max (L.) Merr.
Cultivated. Pureline. ZDD19191; SY 9816440.

PI 603463. Glycine max (L.) Merr.
Cultivated. Pureline. ZDD19201; SY 9816441.

PI 603464. Glycine max (L.) Merr.
Cultivated. Pureline. ZDD19205; SY 9816442.

PI 603465. Glycine max (L.) Merr.
Cultivated. Pureline. ZDD19213; SY 9816443.

PI 603466. Glycine max (L.) Merr.
Cultivated. Pureline. ZDD19220; SY 9816444.

PI 603467. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD19232; SY 9816445.

PI 603468. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD19234; SY 9816446.

PI 603469. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD19240; SY 9816447.

PI 603470. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD19241; SY 9816448.

PI 603471. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD19243; SY 9816449.

PI 603472. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD19245; SY 9816450.

PI 603473. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD19248; SY 9816451.

PI 603474. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD19250; SY 9816452.

PI 603475. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD19253; SY 9816453.

PI 603476. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD19256; SY 9816454.

PI 603477. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD19258; SY 9816455.

PI 603478. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD19260; SY 9816456.

PI 603479. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD19262; SY 9816457.

PI 603480. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD19267; SY 9816458.

PI 603481. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD19272; SY 9816459.

PI 603482. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD19276; SY 9816460.

PI 603483. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD19277; SY 9816461.

PI 603484. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD19279; SY 9816462.

PI 603485. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD19281; SY 9816463.

PI 603486. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD19285; SY 9816464.

PI 603487. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD19287; SY 9816465.

PI 603488. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD19294; SY 9816466.

PI 603489. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD19300; SY 9816467.

PI 603490. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD19306; SY 9816468.

PI 603491. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD19307; SY 9816469.

PI 603492. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD19313; SY 9816470.

PI 603493. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD19314; SY 9816471.

PI 603494. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD19318; SY 9816472.

PI 603495. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD19320; SY 9816473.

PI 603496. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD19325; SY 9816474.

PI 603497. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD19331; SY 9816475.

PI 603498. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD03607; SY 9816099.

PI 603499. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD03670; SY 9816100.

PI 603500. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD10180; SY 9816256.

PI 603501. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD10222; SY 9816257.

PI 603502. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD10273; SY 9816258.

PI 603503. **Glycine max** (L.) Merr.

Cultivated. Pureline. ZDD10326; SY 9816259.

PI 603504. Glycine max (L.) Merr.
Cultivated. Pureline. ZDD10341; SY 9816260.

PI 603505. Glycine max (L.) Merr.
Cultivated. Pureline. ZDD10371; SY 9816261.

PI 603506. Glycine max (L.) Merr.
Cultivated. Pureline. ZDD10405; SY 9816262.

PI 603507. Glycine max (L.) Merr.
Cultivated. Pureline. ZDD10413; SY 9816263.

PI 603508. Glycine max (L.) Merr.
Cultivated. Pureline. ZDD10429; SY 9816264.

PI 603509. Glycine max (L.) Merr.
Cultivated. Pureline. ZDD10462; SY 9816265.

PI 603510. Glycine max (L.) Merr.
Cultivated. Pureline. ZDD10469; SY 9816266.

PI 603511. Glycine max (L.) Merr.
Cultivated. Pureline. ZDD10481; SY 9816267.

PI 603512. Glycine max (L.) Merr.
Cultivated. Pureline. ZDD10526; SY 9816268.

PI 603513. Glycine max (L.) Merr.
Cultivated. Pureline. ZDD10561; SY 9816269.

PI 603514. Glycine max (L.) Merr.
Cultivated. Pureline. ZDD10571; SY 9816270.

PI 603515. Glycine max (L.) Merr.
Cultivated. Pureline. ZDD10582; SY 9816271.

PI 603516. Glycine max (L.) Merr.
Cultivated. Pureline. ZDD10609; SY 9816272.

PI 603517. Glycine max (L.) Merr.
Cultivated. Pureline. ZDD10630; SY 9816273.

PI 603518. Glycine max (L.) Merr.
Cultivated. Pureline. ZDD10652; SY 9816274.

PI 603519. Glycine max (L.) Merr.
Cultivated. Pureline. ZDD10666; SY 9816275.

PI 603520. Glycine max (L.) Merr.
Cultivated. Pureline. ZDD10669; SY 9816276.

PI 603521. Glycine max (L.) Merr.
Cultivated. Pureline. ZDD10670; SY 9816277.

PI 603522. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD10676; SY 9816278.

PI 603523. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD10686; SY 9816279.

PI 603524. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD10701; SY 9816280.

PI 603525. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD10716; SY 9816281.

PI 603526. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD10727; SY 9816282.

PI 603527. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD10757; SY 9816283.

PI 603528. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD10768; SY 9816284.

PI 603529. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD10777; SY 9816285.

PI 603530. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD10810; SY 9816286.

PI 603531. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD10822; SY 9816287.

PI 603532. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD10837; SY 9816288.

PI 603533. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD10848; SY 9816289.

PI 603534. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD10867; SY 9816290.

PI 603535. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD10877; SY 9816291.

PI 603536. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD10878; SY 9816292.

PI 603537. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD10930; SY 9816293.

PI 603538. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD19458; SY 9816476.

PI 603539. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD19509; SY 9816477.

PI 603540. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD19526; SY 9816478.

PI 603541. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD02012; SY 9816078.

PI 603542. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD02075; SY 9816079.

PI 603543. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD02158; SY 9816080.

PI 603544. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD02176; SY 9816081.

PI 603545. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD02222; SY 9816082.

PI 603546. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD02263; SY 9816083.

PI 603547. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD02290; SY 9816084.

PI 603548. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD02342; SY 9816085.

PI 603549. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD02354; SY 9816086.

PI 603550. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD02392; SY 9816087.

PI 603551. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD02451; SY 9816088.

PI 603552. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD02530; SY 9816089.

PI 603553. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD02533; SY 9816090.

PI 603554. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD02544; SY 9816091.

PI 603555. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD02553; SY 9816092.

PI 603556. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD08563; SY 9816223.

PI 603557. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD08577; SY 9816224.

PI 603558. **Glycine max** (L.) Merr.

Cultivated. Pureline. ZDD08579; SY 9816225.

PI 603559. Glycine max (L.) Merr.
Cultivated. Pureline. ZDD08590; SY 9816226.

PI 603560. Glycine max (L.) Merr.
Cultivated. Pureline. ZDD08599; SY 9816227.

PI 603561. Glycine max (L.) Merr.
Cultivated. Pureline. ZDD08613; SY 9816228.

PI 603562. Glycine max (L.) Merr.
Cultivated. Pureline. ZDD08637; SY 9816229.

PI 603563. Glycine max (L.) Merr.
Cultivated. Pureline. ZDD08647; SY 9816230.

PI 603564. Glycine max (L.) Merr.
Cultivated. Pureline. ZDD08661; SY 9816231.

PI 603565. Glycine max (L.) Merr.
Cultivated. Pureline. ZDD08665; SY 9816232.

PI 603566. Glycine max (L.) Merr.
Cultivated. Pureline. ZDD08676; SY 9816233.

PI 603567. Glycine max (L.) Merr.
Cultivated. Pureline. ZDD08723; SY 9816234.

PI 603568. Glycine max (L.) Merr.
Cultivated. Pureline. ZDD08731; SY 9816235.

PI 603569. Glycine max (L.) Merr.
Cultivated. Pureline. ZDD08833; SY 9816236.

PI 603570. Glycine max (L.) Merr.
Cultivated. Pureline. ZDD08836; SY 9816237.

PI 603571. Glycine max (L.) Merr.
Cultivated. Pureline. ZDD08858; SY 9816238.

PI 603572. Glycine max (L.) Merr.
Cultivated. Pureline. ZDD08868; SY 9816239.

PI 603573. Glycine max (L.) Merr.
Cultivated. Pureline. ZDD08875; SY 9816240.

PI 603574. Glycine max (L.) Merr.
Cultivated. Pureline. ZDD08897; SY 9816241.

PI 603575. Glycine max (L.) Merr.
Cultivated. Pureline. ZDD08905; SY 9816242.

PI 603576. Glycine max (L.) Merr.
Cultivated. Pureline. ZDD08916; SY 9816243.

PI 603577. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD08933; SY 9816244.

PI 603578. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD08948; SY 9816245.

PI 603579. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD08961; SY 9816246.

PI 603580. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD08976; SY 9816247.

PI 603581. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD08982; SY 9816248.

PI 603582. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD09006; SY 9816249.

PI 603583. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD09057; SY 9816250.

PI 603584. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD09095; SY 9816251.

PI 603585. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD09173; SY 9816252.

PI 603586. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD09260; SY 9816253.

PI 603587. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD09501; SY 9816254.

PI 603588. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD09805; SY 9816255.

PI 603589. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD06352; SY 9816155.

PI 603590. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD06354; SY 9816156.

PI 603591. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD06357; SY 9816157.

PI 603592. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD06377; SY 9816158.

PI 603593. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD06379; SY 9816159.

PI 603594. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD06381; SY 9816160.

PI 603595. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD06423; SY 9816161.

PI 603596. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD14097; SY 9816380.

PI 603597. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD14117; SY 9816381.

PI 603598. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD14122; SY 9816382.

PI 603599. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD14129; SY 9816383.

PI 603600. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD14133; SY 9816384.

PI 603601. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD21577; SY 9816489.

PI 603602. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD05496; SY 9816132.

PI 603603. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD05544; SY 9816133.

PI 603604. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD05572; SY 9816134.

PI 603605. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD05628; SY 9816135.

PI 603606. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD05645; SY 9816136.

PI 603607. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD05667; SY 9816137.

PI 603608. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD05739; SY 9816138.

PI 603609. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD05755; SY 9816139.

PI 603610. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD05826; SY 9816140.

PI 603611. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD05848; SY 9816141.

PI 603612. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD11543; SY 9816296.

PI 603613. **Glycine max** (L.) Merr.

Cultivated. Pureline. ZDD11560; SY 9816297.

PI 603614. Glycine max (L.) Merr.
Cultivated. Pureline. ZDD11579; SY 9816298.

PI 603615. Glycine max (L.) Merr.
Cultivated. Pureline. ZDD11583; SY 9816299.

PI 603616. Glycine max (L.) Merr.
Cultivated. Pureline. ZDD11584; SY 9816300.

PI 603617. Glycine max (L.) Merr.
Cultivated. Pureline. ZDD11585; SY 9816301.

PI 603618. Glycine max (L.) Merr.
Cultivated. Pureline. ZDD11652; SY 9816302.

PI 603619. Glycine max (L.) Merr.
Cultivated. Pureline. ZDD11690; SY 9816303.

PI 603620. Glycine max (L.) Merr.
Cultivated. Pureline. ZDD11712; SY 9816304.

PI 603621. Glycine max (L.) Merr.
Cultivated. Pureline. ZDD11743; SY 9816305.

PI 603622. Glycine max (L.) Merr.
Cultivated. Pureline. ZDD11758; SY 9816306.

PI 603623. Glycine max (L.) Merr.
Cultivated. Pureline. ZDD11817; SY 9816307.

PI 603624. Glycine max (L.) Merr.
Cultivated. Pureline. ZDD11851; SY 9816308.

PI 603625. Glycine max (L.) Merr.
Cultivated. Pureline. ZDD11879; SY 9816309.

PI 603626. Glycine max (L.) Merr.
Cultivated. Pureline. ZDD11893; SY 9816310.

PI 603627. Glycine max (L.) Merr.
Cultivated. Pureline. ZDD11897; SY 9816311.

PI 603628. Glycine max (L.) Merr.
Cultivated. Pureline. ZDD11908; SY 9816312.

PI 603629. Glycine max (L.) Merr.
Cultivated. Pureline. ZDD11915; SY 9816313.

PI 603630. Glycine max (L.) Merr.
Cultivated. Pureline. ZDD11929; SY 9816314.

PI 603631. Glycine max (L.) Merr.
Cultivated. Pureline. ZDD11930; SY 9816315.

PI 603632. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD11950; SY 9816316.

PI 603633. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD11953; SY 9816317.

PI 603634. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD11966; SY 9816318.

PI 603635. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD11981; SY 9816319.

PI 603636. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD12024; SY 9816320.

PI 603637. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD12059; SY 9816321.

PI 603638. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD12077; SY 9816322.

PI 603639. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD12091; SY 9816323.

PI 603640. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD12111; SY 9816324.

PI 603641. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD12113; SY 9816325.

PI 603642. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD12127; SY 9816326.

PI 603643. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD12152; SY 9816327.

PI 603644. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD12174; SY 9816328.

PI 603645. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD12190; SY 9816329.

PI 603646. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD12209; SY 9816330.

PI 603647. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD12232; SY 9816331.

PI 603648. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD12238; SY 9816332.

PI 603649. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD12261; SY 9816333.

PI 603650. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD12277; SY 9816334.

PI 603651. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD12280; SY 9816335.

PI 603652. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD12313; SY 9816336.

PI 603653. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD12321; SY 9816337.

PI 603654. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD06518; SY 9816162.

PI 603655. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD06524; SY 9816163.

PI 603656. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD06525; SY 9816164.

PI 603657. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD06533; SY 9816165.

PI 603658. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD14481; SY 9816391.

PI 603659. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD14485; SY 9816392.

PI 603660. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD14496; SY 9816393.

PI 603661. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD14528; SY 9816394.

PI 603662. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD14533; SY 9816395.

PI 603663. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD14552; SY 9816396.

PI 603664. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD14570; SY 9816397.

PI 603665. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD14608; SY 9816398.

PI 603666. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD21943; SY 9816491.

PI 603667. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD22003; SY 9816492.

PI 603668. **Glycine max** (L.) Merr.

Cultivated. Pureline. ZDD22029; SY 9816493.

PI 603669. Glycine max (L.) Merr.
Cultivated. Pureline. ZDD22087; SY 9816494.

PI 603670. Glycine max (L.) Merr.
Cultivated. Pureline. ZDD22120; SY 9816495.

PI 603671. Glycine max (L.) Merr.
Cultivated. Pureline. ZDD03720; SY 9816101.

PI 603672. Glycine max (L.) Merr.
Cultivated. Pureline. ZDD03752; SY 9816102.

PI 603673. Glycine max (L.) Merr.
Cultivated. Pureline. ZDD03766; SY 9816103.

PI 603674. Glycine max (L.) Merr.
Cultivated. Pureline. ZDD03785; SY 9816104.

PI 603675. Glycine max (L.) Merr.
Cultivated. Pureline. ZDD03797; SY 9816105.

PI 603676. Glycine max (L.) Merr.
Cultivated. Pureline. ZDD03817; SY 9816106.

PI 603677. Glycine max (L.) Merr.
Cultivated. Pureline. ZDD03828; SY 9816107.

PI 603678. Glycine max (L.) Merr.
Cultivated. Pureline. ZDD03855; SY 9816108.

PI 603679. Glycine max (L.) Merr.
Cultivated. Pureline. ZDD03863; SY 9816109.

PI 603680. Glycine max (L.) Merr.
Cultivated. Pureline. ZDD03881; SY 9816110.

PI 603681. Glycine max (L.) Merr.
Cultivated. Pureline. ZDD03887; SY 9816111.

PI 603682. Glycine max (L.) Merr.
Cultivated. Pureline. ZDD03915; SY 9816112.

PI 603683. Glycine max (L.) Merr.
Cultivated. Pureline. ZDD03957; SY 9816113.

PI 603684. Glycine max (L.) Merr.
Cultivated. Pureline. ZDD03994; SY 9816114.

PI 603685. Glycine max (L.) Merr.
Cultivated. Pureline. ZDD03998; SY 9816115.

PI 603686. Glycine max (L.) Merr.
Cultivated. Pureline. ZDD04014; SY 9816116.

PI 603687. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD04022; SY 9816117.

PI 603688. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD04036; SY 9816118.

PI 603689. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD04040; SY 9816119.

PI 603690. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD04054; SY 9816120.

PI 603691. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD04120; SY 9816121.

PI 603692. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD04130; SY 9816122.

PI 603693. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD04160; SY 9816123.

PI 603694. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD04178; SY 9816124.

PI 603695. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD04193; SY 9816125.

PI 603696. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD04243; SY 9816126.

PI 603697. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD04332; SY 9816127.

PI 603698. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD04389; SY 9816128.

PI 603699. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD04445; SY 9816129.

PI 603700. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD04609; SY 9816130.

PI 603701. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD04635; SY 9816131.

PI 603702. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD11270; SY 9816294.

PI 603703. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD11313; SY 9816295.

PI 603704. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD14216; SY 9816385.

PI 603705. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD14229; SY 9816386.

PI 603706. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD14232; SY 9816387.

PI 603707. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD14263; SY 9816388.

PI 603708. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD14326; SY 9816389.

PI 603709. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD14416; SY 9816390.

PI 603710. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD21895; SY 9816490.

PI 603711. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD12355; SY 9816338.

PI 603712. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD12379; SY 9816339.

PI 603713. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD12392; SY 9816340.

PI 603714. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD12429; SY 9816341.

PI 603715. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD12531; SY 9816342.

PI 603716. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD12538; SY 9816343.

PI 603717. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD12540; SY 9816344.

PI 603718. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD12554; SY 9816345.

PI 603719. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD12569; SY 9816346.

PI 603720. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD12623; SY 9816347.

PI 603721. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD12765; SY 9816348.

PI 603722. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD12852; SY 9816349.

PI 603723. **Glycine max** (L.) Merr.

Cultivated. Pureline. ZDD13014; SY 9816350.

PI 603724. Glycine max (L.) Merr.
Cultivated. Pureline. ZDD13053; SY 9816351.

PI 603725. Glycine max (L.) Merr.
Cultivated. Pureline. ZDD13114; SY 9816352.

PI 603726. Glycine max (L.) Merr.
Cultivated. Pureline. ZDD13144; SY 9816353.

PI 603727. Glycine max (L.) Merr.
Cultivated. Pureline. ZDD13159; SY 9816354.

PI 603728. Glycine max (L.) Merr.
Cultivated. Pureline. ZDD13173; SY 9816355.

PI 603729. Glycine max (L.) Merr.
Cultivated. Pureline. ZDD13176; SY 9816356.

PI 603730. Glycine max (L.) Merr.
Cultivated. Pureline. ZDD13294; SY 9816357.

PI 603731. Glycine max (L.) Merr.
Cultivated. Pureline. ZDD13346; SY 9816358.

PI 603732. Glycine max (L.) Merr.
Cultivated. Pureline. ZDD13471; SY 9816359.

PI 603733. Glycine max (L.) Merr.
Cultivated. Pureline. ZDD13520; SY 9816360.

PI 603734. Glycine max (L.) Merr.
Cultivated. Pureline. ZDD13567; SY 9816361.

PI 603735. Glycine max (L.) Merr.
Cultivated. Pureline. ZDD13609; SY 9816362.

PI 603736. Glycine max (L.) Merr.
Cultivated. Pureline. ZDD13691; SY 9816363.

PI 603737. Glycine max (L.) Merr.
Cultivated. Pureline. ZDD13707; SY 9816364.

PI 603738. Glycine max (L.) Merr.
Cultivated. Pureline. ZDD13710; SY 9816365.

PI 603739. Glycine max (L.) Merr.
Cultivated. Pureline. ZDD13723; SY 9816366.

PI 603740. Glycine max (L.) Merr.
Cultivated. Pureline. ZDD13753; SY 9816367.

PI 603741. Glycine max (L.) Merr.
Cultivated. Pureline. ZDD13773; SY 9816368.

PI 603742. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD20657; SY 9816479.

PI 603743. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD20672; SY 9816480.

PI 603744. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD20699; SY 9816481.

PI 603745. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD20713; SY 9816482.

PI 603746. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD20831; SY 9816483.

PI 603747. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD20875; SY 9816484.

PI 603748. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD20909; SY 9816485.

PI 603749. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD20936; SY 9816486.

PI 603750. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD20975; SY 9816487.

PI 603751. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD05947; SY 9816142.

PI 603752. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD05950; SY 9816143.

PI 603753. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD05963; SY 9816144.

PI 603754. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD05978; SY 9816145.

PI 603755. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD05982; SY 9816146.

PI 603756. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD05996; SY 9816147.

PI 603757. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD05997; SY 9816148.

PI 603758. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD06002; SY 9816149.

PI 603759. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD06015; SY 9816150.

PI 603760. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD06032; SY 9816151.

PI 603761. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD06182; SY 9816152.

PI 603762. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD06231; SY 9816153.

PI 603763. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD06253; SY 9816154.

PI 603764. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD13843; SY 9816369.

PI 603765. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD13851; SY 9816370.

PI 603766. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD13893; SY 9816371.

PI 603767. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD13928; SY 9816372.

PI 603768. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD13932; SY 9816373.

PI 603769. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD13951; SY 9816374.

PI 603770. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD13978; SY 9816375.

PI 603771. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD13992; SY 9816376.

PI 603772. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD13997; SY 9816377.

PI 603773. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD14043; SY 9816378.

PI 603774. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD14054; SY 9816379.

PI 603775. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD21258; SY 9816488.

PI 603776. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD16747; SY 9816399.

PI 603777. **Glycine max** (L.) Merr.
Cultivated. Pureline. ZDD16749; SY 9816400.

PI 603778. **Glycine max** (L.) Merr.

Cultivated. Pureline. ZDD16792; SY 9816401.

PI 603779. Glycine max (L.) Merr.
Cultivated. Pureline. ZDD16793; SY 9816402.

PI 603780. Glycine max (L.) Merr.
Cultivated. Pureline. ZDD16834; SY 9816403.

PI 603781. Glycine max (L.) Merr.
Cultivated. Pureline. ZDD16835; SY 9816404.

PI 603782. Glycine max (L.) Merr.
Cultivated. Pureline. ZDD16837; SY 9816405.

PI 603783. Glycine max (L.) Merr.
Cultivated. Pureline. ZDD16839; SY 9816406.

PI 603784. Glycine max (L.) Merr.
Cultivated. Pureline. ZDD16840; SY 9816407.

PI 603785. Glycine max (L.) Merr.
Cultivated. Pureline. ZDD16868; SY 9816408.

The following were developed by Randall Nelson, USDA, ARS, National Soybean Research Laboratory, 1101 West Peabody Drive, Urbana, Illinois 61801, United States. Received 10/1996.

PI 603786. Glycine max (L.) Merr.
Cultivated. Pureline. G87-2116; T326; SY 9817001.

PI 603787. Glycine max (L.) Merr.
Cultivated. Pureline. G87-2118; T327; SY 9817002.

The following were developed by DEKALB Genetics Corporation, United States. Received 05/18/1998.

PI 603788. Glycine max (L.) Merr.
Cultivar. "CX402STS". PVP 9800228.

PI 603789. Glycine max (L.) Merr.
Cultivar. "CX277". PVP 9800229.

PI 603790. Glycine max (L.) Merr.
Cultivar. "CX257RR". PVP 9800230.

PI 603791. Glycine max (L.) Merr.
Cultivar. "CX075". PVP 9800231.

PI 603792. Glycine max (L.) Merr.
Cultivar. "CX230". PVP 9800232.

PI 603793. Glycine max (L.) Merr.
Cultivar. "CX253". PVP 9800233.

PI 603794. *Glycine max* (L.) Merr.
Cultivar. "CX202C". PVP 9800234.

PI 603795. *Glycine max* (L.) Merr.
Cultivar. "CX393C". PVP 9800235.

PI 603796. *Glycine max* (L.) Merr.
Cultivar. "CX295". PVP 9800237.

PI 603797. *Glycine max* (L.) Merr.
Cultivar. "CX364C". PVP 9800238.

PI 603798. *Glycine max* (L.) Merr.
Cultivar. "CX105". PVP 9800239.

PI 603799. *Glycine max* (L.) Merr.
Cultivar. "CX419RR". PVP 9800240.

PI 603800. *Glycine max* (L.) Merr.
Cultivar. "CX392RR". PVP 9800241.

PI 603801. *Glycine max* (L.) Merr.
Cultivar. "CX456RR". PVP 9800242.

PI 603802. *Glycine max* (L.) Merr.
Cultivar. "CX496C". PVP 9800243.

The following were developed by Novartis Seeds, Inc., United States. Received 05/18/1998.

PI 603803. *Glycine max* (L.) Merr.
Cultivar. "S22-C3". PVP 9800244.

PI 603804. *Glycine max* (L.) Merr.
Cultivar. "S33-N1". PVP 9800245.

The following were developed by DEKALB Genetics Corporation, United States. Received 05/18/1998.

PI 603805. *Glycine max* (L.) Merr.
Cultivar. "CX160C". PVP 9800246.

PI 603806. *Glycine max* (L.) Merr.
Cultivar. "CX284C". PVP 9800247.

PI 603807. *Glycine max* (L.) Merr.
Cultivar. "CX195". PVP 9800248.

The following were collected by O.W. Norvell, Stanford University, Palo Alto, California, United States. Received 03/31/1998.

PI 603808. *Strophostyles helvula* (L.) Elliott
Wild. Norvell 760; W6 20592. Collected 11/19/1948 in Nayarit, Mexico.
Latitude 21 deg. 20' 0'' N. Longitude 104 deg. 53' 0'' W. Between towns
of Tepic and Compostela.

PI 603809. *Strophostyles helvula* (L.) Elliott
Wild. Norvell 756; W6 20594. Collected 11/19/1948 in Nayarit, Mexico.
Latitude 21 deg. 20' 0'' N. Longitude 104 deg. 53' 0'' W. Between the
towns of Tepic and Compostela.

The following were donated by Ferry-Morse Seed Company, Inc., P.O. Box 100,
Mountain View, California 94042, United States. Received 1961.

PI 603810. *Capsicum annuum* L.
Cultivated. PEPPERONCINI.

The following were donated by USDA, ARS, Tropical Agric. Research Station,
P.O. Box 70, Mayaguez, Puerto Rico. Received 1977.

PI 603811. *Sorghum bicolor* (L.) Moench
Cultivated. PR-3-BR/2509; PR 00003. Pedigree - Derived from PR1BR and
TP4R (Texas population, developed by mixing together seed of 56
different F2's, all with ms3 segregating). Wide range maturity, head,
plant and grain types. Useful to tropical breeders.

The following were donated by Antonio Sotomayor-Rios, USDA, ARS, National
Germplasm Repository, Tropical Agric. Research Station, Mayaguez, Puerto Rico
. Received 1983.

PI 603812. *Sorghum bicolor* (L.) Moench
Cultivated. PR5BR. GP-135. Pedigree - Developed from Millo Blanco and
KOP5BR. Photoperiod insensitive. Varies widely for height, seed color,
panicle type, and maturity. Potential as source both B- lines
(maintainers) and R-lines (restorers).

The following were developed by USDA, ARS, U.S. National Arboretum, Woody
Landscape Plant Germplasm Repository, Glenn Dale, Maryland 20769, United
States. Received 06/03/1998.

PI 603813. *Lagerstroemia hybrid*
Cultivar. NA 62918. Pedigree - *Lagerstroemia indica* x *fauriei*. Miniature
hybrid with dark green fine-textured foliage that turns bronze in the
fall. Flowers bright magenta. Highly tolerant of powdery mildew.

The following were developed by DEKALB Genetics Corporation, United States.
Received 06/05/1998.

PI 603814. *Zea mays* L. subsp. *mays*
Cultivar. "01DHD10". PVP 9800271.

PI 603815. *Zea mays* L. **subsp. mays**
Cultivar. "09DSQ1". PVP 9800272.

PI 603816. *Zea mays* L. **subsp. mays**
Cultivar. "17DHD7". PVP 9800273.

PI 603817. *Zea mays* L. **subsp. mays**
Cultivar. "22HFL19". PVP 9800274.

PI 603818. *Zea mays* L. **subsp. mays**
Cultivar. "70LDL5". PVP 9800275.

PI 603819. *Zea mays* L. **subsp. mays**
Cultivar. "6F9440". PVP 9800276.

PI 603820. *Zea mays* L. **subsp. mays**
Cultivar. "79310J2". PVP 9800277.

PI 603821. *Zea mays* L. **subsp. mays**
Cultivar. "82DHB1". PVP 9800279.

PI 603822. *Zea mays* L. **subsp. mays**
Cultivar. "82DHQ1". PVP 9800280.

PI 603823. *Zea mays* L. **subsp. mays**
Cultivar. "86ISI3". PVP 9800281.

PI 603824. *Zea mays* L. **subsp. mays**
Cultivar. "86ISI6". PVP 9800282.

PI 603825. *Zea mays* L. **subsp. mays**
Cultivar. "87ISC1". PVP 9800283.

PI 603826. *Zea mays* L. **subsp. mays**
Cultivar. "8M222". PVP 9800284.

PI 603827. *Zea mays* L. **subsp. mays**
Cultivar. "90DDD5". PVP 9800285.

PI 603828. *Zea mays* L. **subsp. mays**
Cultivar. "90LCL6". PVP 9800286.

PI 603829. *Zea mays* L. **subsp. mays**
Cultivar. "90LDC1". PVP 9800287.

PI 603830. *Zea mays* L. **subsp. mays**
Cultivar. "90LDC2". PVP 9800288.

PI 603831. *Zea mays* L. **subsp. mays**
Cultivar. "90LDI1". PVP 9800289.

PI 603832. *Zea mays* L. **subsp. mays**
Cultivar. "90QDD1". PVP 9800290.

PI 603833. *Zea mays* L. **subsp. mays**

- Cultivar. "91DHA1". PVP 9800291.
- PI 603834. *Zea mays* L. subsp. *mays***
Cultivar. "91ISI4". PVP 9800293.
- PI 603835. *Zea mays* L. subsp. *mays***
Cultivar. "91ISI6". PVP 9800294.
- PI 603836. *Zea mays* L. subsp. *mays***
Cultivar. "94BSB4". PVP 9800295.
- PI 603837. *Zea mays* L. subsp. *mays***
Cultivar. "94ZZI7". PVP 9800296.
- PI 603838. *Zea mays* L. subsp. *mays***
Cultivar. "9DZD1W". PVP 9800297.
- PI 603839. *Zea mays* L. subsp. *mays***
Cultivar. "9DZD2W". PVP 9800298.
- PI 603840. *Zea mays* L. subsp. *mays***
Cultivar. "GM9215". PVP 9800299.
- PI 603841. *Zea mays* L. subsp. *mays***
Cultivar. "RDBQ2". PVP 9800300.
- PI 603842. *Zea mays* L. subsp. *mays***
Cultivar. "WQDS2". PVP 9800301.

The following were developed by Dale L. Reeves, South Dakota State University, Dept. of Plant Science, Plant Sci. Bldg., Box 2140C, NPB 247, Brookings, South Dakota 57007, United States. Received 06/08/1998.

- PI 603843. *Avena sativa* L.**
Cultivar. Pureline. "RISER"; SD 92125; NSGC 6564. PVP 9900207. Pedigree - Settler/IA 681. Released 1998. Short, very early oat with good straw strength. Grain yellow with a high test weight and high groat percentage (about 75%). Excellent crown rust resistance. Good loose smut resistance. Rated S-MS for BYDV.

The following were collected by Donald Pratt, Iowa State University, Botany Department, 353 Bessey Hall, Ames, Iowa 50011, United States. Received 04/16/1998.

- PI 603844. *Amaranthus rudis* J. D. Sauer**
Wild. Pop 1; Ames 24753. Collected 09/10/1996 in Iowa, United States. Latitude 42 deg. 2' 0'' N. Longitude 93 deg. 40' 0'' W. Elevation 305 m. Ames near intersection of Ontario Street and Scholl Road, Section 32, Franklin Township (T-84 N, R-24 W), Ames West Quad, Story County. Soybean field and corn field row margins.
- PI 603845. *Amaranthus retroflexus* L.**
Wild. Pop 2; Ames 24754. Collected 09/10/1996 in Iowa, United States.

Latitude 42 deg. 2' 0'' N. Longitude 93 deg. 40' 0'' W. Elevation 305 m. Ames near intersection of Ontario Street and Scholl Road, Section 32, Franklin Township (T-84 N, R-24 W), Ames West Quad, Story County. Soybean field and corn field row margins. Enormous bracts and red or green stems.

PI 603846. *Amaranthus rudis* J. D. Sauer

Wild. Pop 3; Ames 24755. Collected 09/12/1996 in Iowa, United States. Latitude 42 deg. 9' 0'' N. Longitude 93 deg. 37' 0'' W. Elevation 302 m. East of Highway 96 on 140th Street (south of Story City), Section 23 or 26, La Fayette Township (T-85 N, R-24 W), Story City Quad, Story County. Corn and soybean fields.

PI 603847. *Amaranthus rudis* J. D. Sauer

Wild. Pop 4; Ames 24756. Collected 09/13/1996 in Iowa, United States. Latitude 42 deg. 4' 0'' N. Longitude 93 deg. 52' 0'' W. Elevation 338 m. Boone near intersection of Division and 14th Streets, Section 20, Des Moines Township (T-84 N, R-26 W), Boone West Quad, Boone County. Soybean field.

PI 603848. *Amaranthus rudis* J. D. Sauer

Wild. Pop 6; Ames 24757. Collected 09/14/1996 in Iowa, United States. Latitude 41 deg. 45' 0'' N. Longitude 92 deg. 40' 0'' W. Elevation 293 m. Approximately 2 miles east of Grinnell on Highway 6 near mile marker 189, north edge of Section 13, Grant Township (T-80 N, R-16 W), Grinnell South Quad, Poweshiek County.

PI 603849. *Amaranthus rudis* J. D. Sauer

Wild. Pop 7; Ames 24758. Collected 09/17/1996 in Iowa, United States. Latitude 42 deg. 0' 30'' N. Longitude 93 deg. 10' 0'' W. Elevation 314 m. West of State Center (east of cemetery) on Highway 30, southwest corner of Section 10, State Center Township (T-83 N, R-20 W), Marshall County. Soybean fields.

PI 603850. *Amaranthus rudis* J. D. Sauer

Wild. Pop 8; Ames 24759. Collected 09/20/1996 in Iowa, United States. Latitude 42 deg. 2' 0'' N. Longitude 93 deg. 57' 30'' W. Elevation 274 m. Approximately 2 miles west of Marshalltown on Highway 30 near mile marker 182, Section 8 or 9, Timber Creek Township (T-83 N, R-18 W), Marshalltown Quad, Marshall County. Wasteground.

PI 603851. *Amaranthus tuberculatus* (Moq.) J. D. Sauer

Wild. Pop 9; Ames 24760. Collected 09/20/1996 in Iowa, United States. Latitude 42 deg. 2' 0'' N. Longitude 93 deg. 57' 30'' W. Elevation 274 m. Approximately 2 miles west of Marshalltown on Highway 30 near mile marker 182, Section 8 or 9, Timber Creek Township (T-83 N, R-18 W), Marshalltown Quad, Marshall County. Wasteground.

PI 603852. *Amaranthus retroflexus* L.

Wild. Pop 10; Ames 24761. Collected 09/20/1996 in Iowa, United States. Latitude 42 deg. 2' 0'' N. Longitude 93 deg. 57' 30'' W. Elevation 274 m. Approximately 2 miles west of Marshalltown on Highway 30 near mile marker 182, Section 8 or 9, Timber Creek Township (T-83 N, R-18 W), Marshalltown Quad, Marshall County. Wasteground.

- PI 603853. *Amaranthus tuberculatus* (Moq.) J. D. Sauer**
 Wild. Pop 11/1; Ames 24762. Collected 09/21/1996 in Iowa, United States.
 Latitude 42 deg. 15' 0'' N. Longitude 93 deg. 37' 0'' W. Elevation 316
 m. 1 mile east of Highway 69 on 370th Street, Section 15, Ellsworth
 Township (T-68 N, R-24 W), Hamilton County. Corn field.
- PI 603854. *Amaranthus rudis* J. D. Sauer**
 Wild. Pop 11/2; Ames 24763. Collected 09/21/1996 in Iowa, United States.
 Latitude 42 deg. 15' 0'' N. Longitude 93 deg. 37' 0'' W. Elevation 316
 m. 2 mile east of Highway 69 on 370th Street, Section 15, Ellsworth
 Township (T-68 N, R-24 W), Hamilton County. Corn field.
- PI 603855. *Amaranthus rudis* J. D. Sauer**
 Wild. Pop 12; Ames 24764. Collected 09/21/1996 in Iowa, United States.
 Latitude 42 deg. 15' 30'' N. Longitude 94 deg. 0' 0'' W. Elevation 293
 m. West bank of Des Moines River Valley north of Highway 175 east of
 Dayton, Section 16, Hardin Township (T-68 N, R-27 W), Stratford Quad,
 Webster County.
- PI 603856. *Amaranthus rudis* J. D. Sauer**
 Wild. Pop 13/1; Ames 24765. Collected 09/21/1996 in Iowa, United States.
 Latitude 42 deg. 4' 0'' N. Longitude 93 deg. 37' 0'' W. Elevation 274 m.
 Sleepy Hollow Boat Access on Skunk River north of Ames, Section 23,
 Franklin township (T-84 N, R-24 W), Ames East Quad, Story County.
- PI 603857. *Amaranthus tuberculatus* (Moq.) J. D. Sauer**
 Wild. Pop 13/2; Ames 24766. Collected 09/21/1996 in Iowa, United States.
 Latitude 42 deg. 4' 0'' N. Longitude 93 deg. 37' 0'' W. Elevation 274 m.
 Sleepy Hollow Boat Access on Skunk River north of Ames, Section 23,
 Franklin township (T-84 N, R-24 W), Ames East Quad, Story County.
- PI 603858. *Amaranthus rudis* J. D. Sauer**
 Wild. Pop 15; Ames 24767. Collected 09/23/1996 in Iowa, United States.
 Latitude 41 deg. 32' 0'' N. Longitude 93 deg. 8' 0'' W. Just off Highway
 163 near mile marker 23, Fair View Township (T-78 N, R-20 W), Prairie
 City Quad, Jasper County. Soybean field margin and roadside.
- PI 603859. *Amaranthus rudis* J. D. Sauer**
 Wild. Pop 16; Ames 24768. Collected 09/23/1996 in Iowa, United States.
 Latitude 41 deg. 18' 0'' N. Longitude 92 deg. 43' 0'' W. About 2 miles
 north of Oskaloosa on Highway 163 near mile marker 55, Section 10,
 Lincoln Township (T-75 N, R-16 W), Oskaloosa Quad, Mahaska County.
 Construction/waste site.
- PI 603860. *Amaranthus tuberculatus* (Moq.) J. D. Sauer**
 Wild. Pop 17/1; Ames 24769. Collected 09/24/1996 in Iowa, United States.
 Latitude 41 deg. 29' 30'' N. Longitude 91 deg. 7' 30'' W. Elevation 158
 m. River Junction Access of Iowa River 1 mile south of Highway 22,
 Section 12, Fremont Township (T-77 N, R-5 W), Riverside Quad, Johnson
 County.
- PI 603861. *Amaranthus rudis* J. D. Sauer**
 Wild. Pop 17/2; Ames 24770. Collected 09/24/1996 in Iowa, United States.
 Latitude 41 deg. 29' 30'' N. Longitude 91 deg. 7' 30'' W. Elevation 158
 m. River Junction Access of Iowa River 1 mile south of Highway 22,

Section 12, Fremont Township (T-77 N, R-5 W), Riverside Quad, Johnson County.

- PI 603862. *Amaranthus tuberculatus*** (Moq.) J. D. Sauer
Wild. Pop 18/1; Ames 24771. Collected 09/24/1996 in Iowa, United States. Latitude 40 deg. 43' 30'' N. Longitude 91 deg. 7' 30'' W. Elevation 137 m. Sullivan Slough River Access of Mississippi River, Section 5, Concordia Township (T-68 N, R-2 W), Lomax Quad, Des Moines County.
- PI 603863. *Amaranthus rudis*** J. D. Sauer
Wild. Pop 18/2; Ames 24772. Collected 09/24/1996 in Iowa, United States. Latitude 40 deg. 43' 30'' N. Longitude 91 deg. 7' 30'' W. Elevation 137 m. Sullivan Slough River Access of Mississippi River, Section 5, Concordia Township (T-68 N, R-2 W), Lomax Quad, Des Moines County.
- PI 603864. *Amaranthus rudis*** J. D. Sauer
Wild. Pop 19; Ames 24773. Collected 09/25/1996 in Illinois, United States. Latitude 40 deg. 57' 0'' N. Longitude 90 deg. 31' 0'' W. Elevation 235 m. Along Highway 164 at junction with road south to Cameron, Section 9, Coldbrook Township (T-11 N, R-1 W), Cameron Quad, Warren County. Soybean fields.
- PI 603865. *Amaranthus tuberculatus*** (Moq.) J. D. Sauer
Wild. Pop 20; Ames 24774. Collected 09/25/1996 in Illinois, United States. Latitude 40 deg. 32' 0'' N. Longitude 89 deg. 46' 0'' W. Elevation 137 m. Along Illinois River 5 miles south of Peoria on Highway 24, Section 25 or 26, (T-7 N, R-6 E), Glassford Quad, Peoria County.
- PI 603866. *Amaranthus rudis*** J. D. Sauer
Wild. Pop 21/1; Ames 24775. Collected 09/26/1996 in Illinois, United States. Latitude 40 deg. 5' 0'' N. Longitude 88 deg. 13' 30'' W. Elevation 221 m. University of Illinois South Farm at headwaters of Embarras River, Section 20, Urbana Township (T-19 N, R-9 E), Urbana Quad, Champaign County.
- PI 603867. *Amaranthus tuberculatus*** (Moq.) J. D. Sauer
Wild. Pop 21/2; Ames 24776. Collected 09/26/1996 in Illinois, United States. Latitude 40 deg. 5' 0'' N. Longitude 88 deg. 13' 30'' W. Elevation 221 m. University of Illinois South Farm at headwaters of Embarras River, Section 20, Urbana Township (T-19 N, R-9 E), Urbana Quad, Champaign County.
- PI 603868. *Amaranthus tuberculatus*** (Moq.) J. D. Sauer
Wild. Pop 22/1; Ames 24777. Collected 09/27/1996 in Illinois, United States. Latitude 40 deg. 59' 30'' N. Longitude 90 deg. 30' 0'' W. Elevation 139 m. On east bank of Illinois River 1 mile south of Beardstown Bridge, Section 21, Beardstown Township (T-18 N, R-12 W), Beardstown Quad, Cass County. Construction site.
- PI 603869. *Amaranthus rudis*** J. D. Sauer
Wild. Pop 22/2; Ames 24778. Collected 09/27/1996 in Illinois, United States. Latitude 40 deg. 59' 30'' N. Longitude 90 deg. 30' 0'' W. Elevation 139 m. On east bank of Illinois River 1 mile south of Beardstown Bridge, Section 21, Beardstown Township (T-18 N, R-12 W), Beardstown Quad, Cass County. Construction site.

- PI 603870. *Amaranthus rudis*** J. D. Sauer
Wild. Pop 23; Ames 24779. Collected 09/27/1996 in Illinois, United States. Latitude 40 deg. 24' 0'' N. Longitude 91 deg. 10' 0'' W. Elevation 210 m. North side of Highway 136, 2 miles west of Carthage, Section 23, Prairie Township (T-5 N, R-7 W), Carthage West Quad, Hancock County. Soybean field.
- PI 603871. *Amaranthus rudis*** J. D. Sauer
Wild. Pop 24; Ames 24780. Collected 09/27/1996 in Illinois, United States. Latitude 40 deg. 4' 30'' N. Longitude 91 deg. 22' 0'' W. Elevation 189 m. Directly north of Ursa on east side of Highway 96, Section 18, (T-1 N, R-8 W), Mendon Quad, Adams County. Soybean field.
- PI 603872. *Amaranthus rudis*** J. D. Sauer
Wild. Pop 25; Ames 24781. Collected 10/01/1996 in Iowa, United States. Latitude 42 deg. 29' 30'' N. Longitude 96 deg. 59' 30'' W. Elevation 396 m. North side of Highway 20 near mile marker 22 on Jewell Avenue, northeast quarter of Section 36, Arlington Township (T-89 N, R-44 W), Correctionville Quad, Woodbury County. Soybean field.
- PI 603873. *Amaranthus rudis*** J. D. Sauer
Wild. Pop 26; Ames 24782. Collected 10/02/1996 in Nebraska, United States. Latitude 40 deg. 40' 30'' N. Longitude 96 deg. 2' 0'' W. Elevation 335 m. 1/4 mile north of Dunbar on Highway 2 on Road 67, northeast quarter of Section 11, (T-8 N, R-12 E), Dunbar Quad, Otoe County. Soybean field and roadside.
- PI 603874. *Amaranthus rudis*** J. D. Sauer
Wild. Pop 27; Ames 24783. Collected 10/02/1996 in Nebraska, United States. Latitude 40 deg. 42' 40'' N. Longitude 96 deg. 35' 30'' W. Elevation 421 m. Bennet Corner Stop on south side of Highway 2 near mile marker 470, northeast quarter of Section 34, (T-9 N, R-8 E), Bennet Quad, Lancaster County. Construction area.
- PI 603875. *Amaranthus rudis*** J. D. Sauer
Wild. Pop 28; Ames 24784. Collected 10/03/1996 in Nebraska, United States. Latitude 41 deg. 23' 0'' N. Longitude 96 deg. 12' 0'' W. Elevation 350 m. 1 mile north of Highway 36 near mile marker 12 on Dutch Hall Road and 180th Street, northeast quarter of Section 5, (T-16 N, R-11 E), Kennard Quad, Douglass County. Soybean field infestation.
- PI 603876. *Amaranthus rudis*** J. D. Sauer
Wild. Pop 29; Ames 24785. Collected 10/03/1996 in Nebraska, United States. Latitude 41 deg. 27' 0'' N. Longitude 96 deg. 47' 0'' W. Elevation 387 m. North bank of Platte River at North Bend, Section 7, (T-17 N, R-6 E), North Bend Quad, Dodge County.
- PI 603877. *Amaranthus rudis*** J. D. Sauer
Wild. Pop 30; Ames 24786. Collected 10/04/1996 in Nebraska, United States. Fillmore County. 1/2 mile east and 1-2 miles north of Highway 81 near mile marker 47. Soybean and sorghum fields.
- PI 603878. *Amaranthus rudis*** J. D. Sauer
Wild. Pop 31; Ames 24787. Collected 10/04/1996 in Nebraska, United

States. Latitude 40 deg. 10' 0'' N. Longitude 97 deg. 35' 30'' W.
Elevation 442 m. Hebron, last turn before Little Blue River, Section 5,
(T-3 N, R-2 W), Hebron Quad, Thayer County. Sandy soil.

PI 603879. *Amaranthus retroflexus* L.

Wild. Pop 32; Ames 24788. Collected 09/29/1997 in Illinois, United States. Latitude 40 deg. 27' 0'' N. Longitude 87 deg. 58' 0'' W. Elevation 234 m. Clarence at the junction of Highways Il 9 and 49, Section 17, Button Township (T-23 N, R-11 E), Rankin Quad, Ford County. Soybean field margin.

PI 603880. *Amaranthus rudis* J. D. Sauer

Wild. Pop 33; Ames 24789. Collected 09/29/1997 in Illinois, United States. Latitude 40 deg. 27' 0'' N. Longitude 87 deg. 58' 0'' W. Elevation 234 m. Clarence at the junction of Highways Il 9 and 49, Section 17, Button Township (T-23 N, R-11 E), Rankin Quad, Ford County. Soybean field margin.

PI 603881. *Amaranthus tuberculatus* (Moq.) J. D. Sauer

Wild. Pop 34; Ames 24790. Collected 09/29/1997 in Indiana, United States . Latitude 39 deg. 7' 0'' N. Longitude 87 deg. 37' 0'' W. Elevation 134 m. Along Highway In 154, 4 miles from Graysville (between Graysville and the Wabash River), Section 21, Turman Township (T-8 N, R-11 W), Meron Quad, Sullivan County. Weedy area by corn field margin.

PI 603882. *Amaranthus rudis* J. D. Sauer

Wild. Pop 35; Ames 24791. Collected 09/30/1997 in Indiana, United States . Latitude 38 deg. 52' 0'' N. Longitude 86 deg. 6' 0'' W. Elevation 165 m. Along Highway In 50 at mile marker 89, 1 mile west of the East Fork White River Bridge, 3 miles west of Brownstown, Section 8, Brownstown Township (T-5 N, R-4 E), Brownstown Quad, Jackson County. Weedy area by corn field.

PI 603883. *Amaranthus rudis* J. D. Sauer

Wild. Pop 36; Ames 24792. Collected 09/30/1997 in Indiana, United States . Latitude 39 deg. 5' 30'' N. Longitude 84 deg. 51' 0'' W. Elevation 165 m. Lawrenceburg on Ohio River banks off Elm Street, Lawrenceburg Township, Lawrenceburg Quad, Dearborn County. Weedy area on river banks.

PI 603884. *Amaranthus tuberculatus* (Moq.) J. D. Sauer

Wild. Pop 37; Ames 24793. Collected 10/01/1997 in Ohio, United States. Latitude 38 deg. 52' 0'' N. Longitude 84 deg. 14' 0'' W. Elevation 140 m. Moscow boat launch on Ohio River, Washington Township, Moscow Quad, Clermont County.

PI 603885. *Amaranthus tuberculatus* (Moq.) J. D. Sauer

Wild. Pop 38; Ames 24794. Collected 10/01/1997 in Ohio, United States. Latitude 38 deg. 40' 0'' N. Longitude 83 deg. 46' 0'' W. Elevation 152 m. Aberdeen boat launch on Ohio River, Huntington Township, Maysville West Quad, Brown County.

PI 603886. *Amaranthus hybridus* L.

Wild. Pop 39; Ames 24795. Collected 10/01/1997 in Ohio, United States. Latitude 38 deg. 39' 0'' N. Longitude 84 deg. 45' 30'' W. Elevation 152 m. Aberdeen, Huntington Township, Maysville West Quad, Brown County.

Garden.

- PI 603887. *Amaranthus tuberculatus* (Moq.) J. D. Sauer**
Wild. Pop 40; Ames 24796. Collected 10/02/1997 in Ohio, United States.
Latitude 39 deg. 3' 0'' N. Longitude 83 deg. 3' 0'' W. Elevation 174 m.
Bridge over the Scioto River in Jasper at junction of Highways OH 32/124
and OH 104, Seal Township, Piketon Quad, Pike County.
- PI 603888. *Amaranthus tuberculatus* (Moq.) J. D. Sauer**
Wild. Pop 41; Ames 24797. Collected 10/02/1997 in Ohio, United States.
Latitude 39 deg. 14' 0'' N. Longitude 83 deg. 14' 0'' W. Elevation 244
m. Boat ramp on the Paint Creek Dam, Paint Township, Bainsbridge Quad,
Highland County.
- PI 603889. *Amaranthus hybridus* L.**
Wild. Pop 42; Ames 24798. Collected 10/03/1997 in Ohio, United States.
Latitude 40 deg. 1' 0'' N. Longitude 84 deg. 20' 0'' W. Elevation 273 m.
Along Horseshoebend Road outside Ludlow Falls, border of Union and
Newton Townships, West Milton Quad, Miami County. Wasteground.
- PI 603890. *Amaranthus tuberculatus* (Moq.) J. D. Sauer**
Wild. Pop 43; Ames 24799. Collected 10/04/1997 in Ohio, United States.
Latitude 41 deg. 31' 0'' N. Longitude 82 deg. 55' 0'' W. Elevation 175
m. Boat access on shore of Lake Erie at Port Clinton, Portage Township,
Port Clinton Quad, Ottawa County.
- PI 603891. *Amaranthus hybridus* L.**
Wild. Pop 44; Ames 24800. Collected 10/04/1997 in Ohio, United States.
Latitude 41 deg. 31' 0'' N. Longitude 82 deg. 55' 0'' W. Elevation 175
m. Boat access on shore of Lake Erie at Port Clinton, Portage Township,
Port Clinton Quad, Ottawa County.
- PI 603892. *Amaranthus tuberculatus* (Moq.) J. D. Sauer**
Wild. Pop 45; Ames 24801. Collected 10/04/1997 in Ohio, United States.
Latitude 41 deg. 25' 0'' N. Longitude 83 deg. 52' 30'' W. Elevation 195
m. Banks of Maumee River at Pleasant Dam, across river from Grand
Rapids, Pleasant Township, Lucas County. River bank.
- PI 603893. *Amaranthus tuberculatus* (Moq.) J. D. Sauer**
Wild. Pop 46; Ames 24802. Collected 10/06/1997 in Indiana, United States
. Latitude 41 deg. 19' 0'' N. Longitude 86 deg. 37' 0'' W. Elevation 207
m. 1/2 mile west of Kankakee River on Highway In 6, Section 15, Union
Township (T-35 N, R-2 W), Hamlet Quad, LaPorte County. Corn field
margin.
- PI 603894. *Amaranthus tuberculatus* (Moq.) J. D. Sauer**
Wild. Pop 47; Ames 24803. Collected 10/06/1997 in Indiana, United States
. Latitude 41 deg. 19' 0'' N. Longitude 86 deg. 45' 0'' W. Elevation 206
m. Fishing and hunting access on Kankakee River off Highway In 8,
Section 10, Prairie Township (T-33 N, R-3 W), Knox West Quad, LaPorte
County.
- PI 603895. *Amaranthus hybridus* L.**
Wild. Pop 48; Ames 24804. Collected 10/06/1997 in Indiana, United States
. Latitude 41 deg. 19' 0'' N. Longitude 86 deg. 45' 0'' W. Elevation 206

m. Fishing and hunting access on Kankakee River off Highway In 8, Section 10, Prairie Township (T-33 N, R-3 W), Knox West Quad, LaPorte County.

The following were developed by Sakata Seed America, Inc., 18095 Serene Drive, Morgan Hill, California 95037, United States. Received 05/29/1998.

PI 603896. *Amaranthus tricolor* L.

Cultivar. "Aurora"; Lot No. 9738; Ames 24580. Nice combination of creamy yellow and dark green foliage in summer. Leaves on top of the plant shows creamy yellow and lower leaves keep its dark green.

PI 603897. *Amaranthus tricolor* L.

Cultivar. "Early Splendor"; Lot No. 6918; Ames 24581. Bright crimson-red on bronze leaves. Color shows at least two weeks earlier with more branches than Molten Fire.

PI 603898. *Amaranthus tricolor* L.

Cultivar. "Illumination"; Lot No. 9905; Ames 24582. An attractive orange-scarlet with yellow center on bronze leaves. Very showy wide leaves.

PI 603899. *Amaranthus tricolor* L.

Cultivar. "Splendens Perfecta"; Lot No. 6394; Ames 24583. Very colorful leaves of rich red yellow and fresh green. Brighter color and has more branches than ordinary Joseph's Coat. Early maturing with staple bicoloring.

The following were developed by Theodore C. Helms, North Dakota State University, Crop & Weed Science Department, 333 Walster Hall, Fargo, North Dakota 58105-5051, United States; K.C. Chang, North Dakota State University, Dept. of Food and Nutrition, Fargo, North Dakota 58105, United States. Received 05/18/1998.

PI 603900. *Glycine max* (L.) Merr.

Cultivar. Pureline. "Norpro"; ND92-1111. CV-395; PVP 9800326. Pedigree - Ozzie x Proto. Developed for the tofu specialty market. High yield for tofu type, high protein, and good lodging resistance. Maturity Group 0.5. Flowers purple, gray pubescence, brown pods at maturity, dull yellow seed coat, yellow hila, and an indeterminate growth habit.

The following were developed by David M. Burner, USDA-ARS Sugarcane Research Unit, P.O. Box 470, 800 Little Bayou Black Drive, Houma, Louisiana 70361, United States. Received 05/29/1998.

PI 603901. *Saccharum hybrid*

Genetic. Dwarf1. GS-1. Pedigree - Callus culture of LCP 83-137 [produced from a cross of CP 72-356 (female parent) x CP 73-343 (male parent)]. Stunted growth and abnormal leaf architecture similar to maize dwarf mutants. Stalks 0.7 m long compared to 1.9 m for the donor plant LCP 83-137. Number of internodes similar to LCP 83-137 but internode length 3.9 and 11.7 cm, respectively. Stalks thicker (2.7 cm diameter) than LCP

83.137 (2.0 cm), and 14 to 29% lower sucrose concentration. Insensitive to reversion with gibberelin-3. When used as female parent in crosses with normal sugarcane, the dwarf trait was transmitted to progeny in a ratio of about 1 dwarf: 2 normal. Vegetatively propagated since 1990 with no reversion to normal phenotype, but three of 271 sexual progeny exhibited partial reversion in that normal and dwarf stalks appeared within the stool. Chromosomal mosaic with $2n = 100$ to 106 .

The following were developed by DEKALB Genetics Corporation, United States. Received 06/15/1998.

- PI 603902. *Zea mays* L. subsp. *mays*
Cultivar. "82IUH1". PVP 9800302.
- PI 603903. *Zea mays* L. subsp. *mays*
Cultivar. "87DIA4". PVP 9800303.
- PI 603904. *Zea mays* L. subsp. *mays*
Cultivar. "8F286". PVP 9800304.
- PI 603905. *Zea mays* L. subsp. *mays*
Cultivar. "90DHQ2". PVP 9800305.
- PI 603906. *Zea mays* L. subsp. *mays*
Cultivar. "MF1113B". PVP 9800306.

The following were donated by Randy Ireson, American Friends Service Committee, 388 Browning Av. SE, Salem, Oregon 97302, United States; Korean Academy of Agricultural Sciences, Pyongyang, Pyongyang, Korea, North. Received 05/22/1998.

- PI 603907. *Glycine max* (L.) Merr.
Cultivated. Pureline. Baksungtae; SY 9820001.
- PI 603908. *Glycine max* (L.) Merr.
Cultivated. Pureline. Baktae; SY 9820002.
- PI 603909. *Glycine max* (L.) Merr.
Cultivated. Pureline. Byol; SY 9820003.
- PI 603910. *Glycine max* (L.) Merr.
Cultivated. Pureline. Cin; SY 9820004.
- PI 603911. *Glycine max* (L.) Merr.
Cultivated. Pureline. Jijori; SY 9820005.
- PI 603912. *Glycine max* (L.) Merr.
Cultivated. Pureline. Kange; SY 9820006.
- PI 603913. *Glycine max* (L.) Merr.
Cultivated. Pureline. No. 1; SY 9820007.
- PI 603914. *Glycine max* (L.) Merr.

Cultivated. Pureline. Samsu; SY 9820008.

PI 603915. *Glycine max* (L.) Merr.
Cultivated. Pureline. Uid; SY 9820009.

PI 603916. *Glycine max* (L.) Merr.
Cultivated. Pureline. Unsan; SY 9820010.

PI 603917. *Glycine max* (L.) Merr.
Cultivated. Pureline. SY 9820011.

The following were developed by A.J. Lukaszewski, University of California, Dept. of Botany & Plant Science, Riverside, California 92521-0124, United States. Received 06/04/1998.

PI 603918. *Triticum aestivum* L., nom. cons. subsp. *aestivum*
Breeding. T7AS-7S#1S-7AS-7AL. Pedigree - Pavon*8//T7AS-7S#1S-7S#1S/ph1b. Two segments from chromosome 7S#1 of *Triticum speltoides* were transferred to chromosome 7A of hexaploid wheat (*T. aestivum*). Chromosome 7S#1 was originally found in bread wheat following irradiation of seed of a hybrid CI15092/T. *speltoides*//Fletcher/3/5*Centruk with fast neutrons. Chromosome 7S#1 was recombined with chromosome 7A in hard white spring cultivar Pavon using the ph1b mutation and Sears' strategy. Three additional backcrosses to Pavone were made and homozygotes selected. This short arm translocation line carries resistance gene Lr47 for leaf rust (*Puccinia recondita*). This gene confers resistance to nine leaf rust races that are virulent on resistance genes Lr1 and Lr10 present in the recurrent variety Pavon. This 7S#1 segment is located 2 to 10 cM from the centromere and is 20 to 30 cM long.

PI 603919. *Triticum aestivum* L., nom. cons. subsp. *aestivum*
Breeding. T7AS-7AL-7S#1L-7AL. Pedigree - Pavon*8//T7AS-7AL-7S#1L/T7AS-7S#1S-7S#1L-7AL. Two segments from chromosome 7S#1 of *Triticum speltoides* were transferred to chromosome 7A of hexaploid wheat (*T. aestivum*). Chromosome 7S#1 was originally found in bread wheat following irradiation of seed of a hybrid CI15092/T. *speltoides*//Fletcher/3/5*Centruk with fast neutrons. Chromosome 7S#1 was recombined with chromosome 7A in hard white spring cultivar Pavon using the ph1b mutation and Sears' strategy. Three additional backcrosses to Pavone were made and homozygotes selected. This long arm translocation line carries gene Gb5 that confers resistance to greenbug (*Schizaphis graminum*) biotypes C, E, I, and K but not to biotypes B, F, G, H. This 7S#1 segment is 40 to 50 cM long and is located 18 to 22 cM from the centromere of chromosome 7AL.

The following were developed by Jerry F. Miller, USDA, ARS, Northern Crop Science Laboratory, P.O. Box 5677, Fargo, North Dakota 58105, United States; B.A. Vick, USDA-ARS, Northern Crop Science Laboratory, Fargo, North Dakota 58105, United States. Received 06/04/1998.

PI 603920. *Helianthus annuus* L.
Genetic. RHA 274 (LP-1). GS-10. Pedigree - RHA 274 (restorer line) with

a 2 g kg⁻¹ ethyl methanesulfonate (EMS) treatment. Selected for low palmitic acid of 47.9 +/- 1.7 g kg⁻¹. In comparison, RHA 274 had a palmitic acid content of 66.7 +/- 4.0 g kg⁻¹.

PI 603921. *Helianthus annuus* L.

Genetic. RHA 274 (LP-2). GS-11. Pedigree - RHA 274 (restorer line) with a 2 g kg⁻¹ nitroso methylurea (NMU) treatment. Selected for low palmitic acid of 46.7 +/- 3.8 g kg⁻¹. In comparison, RHA 274 had a palmitic acid content of 66.7 +/- 4.0 g kg⁻¹.

PI 603922. *Helianthus annuus* L.

Genetic. HA 821 (LP-1). GS-12. Pedigree - HA 821 (female maintainer line) with a 2 g kg⁻¹ ethyl methanesulfonate (EMS) treatment. Selected for low palmitic acid of 41.2 +/- 1.9 g kg⁻¹. In comparison, HA 821 had a palmitic acid content of 57.5 +/- 2.6 g kg⁻¹.

PI 603923. *Helianthus annuus* L.

Genetic. RHA 274 (LS-1). GS-13. Pedigree - RHA 274 (restorer line) with a 1 g kg⁻¹ nitroso methylurea (NMU) treatment. Selected for low stearic acid of 22.2 +/- 2.4 g kg⁻¹. In comparison, RHA 274 had a stearic acid content of 48.1 +/- 4.1 g kg⁻¹.

PI 603924. *Helianthus annuus* L.

Genetic. RHA 274 (LS-2). GS-14. Pedigree - RHA 274 (restorer line) with a 1 g kg⁻¹ nitroso methylurea (NMU) treatment. Selected for low stearic acid of 19.7 +/- 2.8 g kg⁻¹. In comparison, RHA 274 had a stearic acid content of 48.1 +/- 4.1 g kg⁻¹.

PI 603925. *Helianthus annuus* L.

Genetic. HA 821 (LS-1). GS-15. Pedigree - HA 821 (female maintainer line) with a 2 g kg⁻¹ nitroso methylurea (NMU) treatment. Selected for low stearic acid of 41.1 +/- 5.3 g kg⁻¹. In comparison, HA 821 had a stearic acid content of 65.5 +/- 2.0 g kg⁻¹.

PI 603926. *Helianthus annuus* L.

Genetic. HA 382 (LS-1). GS-16. Pedigree - HA 382 (female maintainer line) with a 2 g kg⁻¹ nitroso methylurea (NMU) treatment. Selected for low stearic acid of 35.4 +/- 3.2 g kg⁻¹. In comparison, HA 382 has a stearic acid of 59.5 +/- 2.6 g kg⁻¹.

PI 603927. *Helianthus annuus* L.

Genetic. HA 382 (LS-2). GS-17. Pedigree - HA 382 (female maintainer line) with a 2 g kg⁻¹ nitroso methylurea (NMU) treatment. Selected for low stearic acid of 29.7 +/- 2.0 g kg⁻¹. In comparison, HA 382 had a stearic acid content of 59.5 +/- 2.6 g kg⁻¹.

The following were developed by Jim Starr, Texas A&M University, Dept. of Plant Pathology & Microbiology, Room 120, Peterson Building, College Station, Texas 77843, United States; C. Wayne Smith, Texas A&M University, Department of Soil and Crop Sciences, College Station, Texas 77841, United States.
Received 06/08/1998.

PI 603928. *Gossypium hirsutum* L.

Breeding. Pureline. TAM 2561 RKNR. GP-692. Pedigree - M-240

RNR/86T(2)-12. High level of resistance to Root-knot nematode (*Meloidogyne incognita*). Normal in morphology compared with most upland cotton genotypes having pubescent leaves and stems, cream-colored flowers and pollen. Yields competitively with Paymaster HS-26 when grown on the High Plains of Texas. Slightly shorter fibers than Paymaster HS-26 but is equal to or better in other standard fiber properties.

PI 603929. *Gossypium hirsutum* L.

Breeding. Pureline. TAM 2562 RKNR. GP-693. Pedigree - M-240RNR/86T(2)-12. High level of resistance to Root-knot nematode (*Meloidogyne incognita*). Normal in morphology compared with most upland cotton genotypes, including pubescent leaves and stems, and cream-colored flowers and pollen. Yields competitively with Paymaster HS-26 when grown on the High Plains of Texas. Equal to Paymaster HS-26 in standard fiber quality parameters.

PI 603930. *Gossypium hirsutum* L.

Breeding. Pureline. TAM 2571 RKNR. GP-694. Pedigree - M725 RNR/86T(2)-12. High level of resistance to Root-knot nematode (*Meloidogyne incognita*). Normal in all morphological respects of upland cotton, including pubescent leaves and stems, cream colored flowers and pollen. Yields competitively with Paymaster HS-26 when grown on the High Plains of Texas. Equal to or exceeds Paymaster HS-26 in fiber length, strength, and micronaire.

The following were collected by B.L. Johnson, University of California, Department of Plant Sciences, Riverside, California, United States; A. E. Hall, University of California, Department of Botany & Plant Sciences, Riverside, California 92521, United States. Donated by W. John Raupp, Kansas State University, Wheat Genetic Resources Center, Department of Plant Pathology, Manhattan, Kansas 66506-5502, United States. Received 06/12/1998.

PI 603931. *Aegilops peregrina* var. *brachyathera* (Boiss.) Maire & Weiller
Wild. TA 1889; G 1311; NSGC 6565. Collected 05/18/1966 in Central, Israel. Latitude 31 deg. 52' 12'' N. Longitude 34 deg. 49' 12'' E. 3 km southeast of Rehovot, Hamerkaz. Elevation between 0 - 304 m (estimated by GIS).

The following were developed by David M. Burner, USDA-ARS Sugarcane Research Unit, P.O. Box 470, 800 Little Bayou Black Drive, Houma, Louisiana 70361, United States; William H. White, USDA, ARS, Sugarcane Research Unit, Houma, Louisiana 70361, United States; Benjamin L. Legendre, USDA, ARS, U.S. Sugarcane Field Laboratory, P.O. Box 470, Houma, Louisiana 70361, United States; Jimmie D. Miller, USDA, ARS, Sugarcane Field Station, Star Route Box 8, Canal Point, Florida 33438, United States. Received 06/09/1998.

PI 603932. *Saccharum* hybrid

Genetic. CP 68-413. GS-2. Pedigree - CP 61-39 / CP 44-155. Multiple-bud clone in which 65-85% of nodes showed the phenotype. No reversion to normal phenotype after numerous cycles of vegetative propagation. Greenhouse test showed 85% of buds germinated and produced 2.1 shoots per node. Stalk about 2.1 m tall and 1.50-1.65 kg in weight. Sucrose concentration (106-110 g kg⁻¹) low, but fiber concentration commercially

acceptable (122-129 g kg⁻¹). Produces fewer shoots, millable stalks, stools, and shoots per stool than cultivars. Susceptible to ratoon stunting disease (*Clavibacter xyli*). Flowers about mid-October with negligible pollen. Chromosomes 2n=106.

PI 603933. *Saccharum* hybrid

Genetic. US 84-3065. GS-3. Pedigree - CP 68-413 / CP 76-301. Multiple-bud clone in which 51-56% of nodes showed the phenotype. Stalk 2.02-2.18 m tall weighing 0.79-1.18 kg. Tendency to lodge at the soil surface. Numbers of shoots, millable stalks, stools, and shoots per stool were comparable to cultivars. Sucrose concentration (121-128 g kg⁻¹) and yield of theoretical recoverable sucrose (105 kg Mg⁻¹) were comparable to cultivars, but fiber concentration was higher (134-147 g kg⁻¹). No reversion to normal phenotype after numerous cycles of vegetative propagation. Flowers about mid-October and pollen stainability varied among years. Chromosomes 2n=101.

PI 603934. *Saccharum* hybrid

Genetic. US 89-23. GS-4. Pedigree - MB 84-3065 / US 82-29. Multiple-bud clone in which 96-100% of nodes showed the phenotype. Bud germination 96% and the clone produced 2.6 shoots per node. Produced short (1.68-1.75 m), light-weight (0.60-0.89 kg) stalks with low sucrose (89-93 g kg⁻¹) and high fiber (120-129 g kg⁻¹). Numbers of shoots, stalks, stools, and shoots per stool low. No reversion to normal phenotype after numerous cycles of vegetative propagation. Despite repeated testing, failed to flower under the photoperiod treatment used at Houma, LA.

PI 603935. *Saccharum* hybrid

Genetic. US 90-28. GS-5. Pedigree - CP 85-861 / CP 85-834. Multiple-bud clone in which 81-87% of nodes showed the phenotype. No reversion to normal phenotype with vegetative propagation. Produced about 2.4 shoots per node in the greenhouse. Produced short (1.52-1.60 m), light-weight (0.84-1.15 kg) stalks with low sucrose (88-90 g kg⁻¹) and commercial fiber concentration (108-113 g kg⁻¹). Flowered well, about late-September, under the photoperiod regime applied at Houma, LA. Produces abundant pollen and is self compatible. Chromosomal mosaic with 2n = 103 to 151.

PI 603936. *Saccharum* hybrid

Genetic. US 93-13. GS-6. Pedigree - MB 84-3065 / CP 88-644. Multiple-bud clone in which 21-25% of nodes exhibit the phenotype. No reversion to normal phenotype with vegetative propagation. Bud germination (114%) indicated that clone tended to produce more than one shoot per bud. Equaled or exceeded cultivars in stalk height, producing stalks 2.10-2.20 m tall that weighed 1.02-1.32 kg. Tended to have high fiber concentration (116-121 g kg⁻¹), but sucrose concentration (106-117 g kg⁻¹) low. Equaled cultivars in fiber concentration, stalk weight, and number of shoots, millable stalks, stools, and shoots per stool, but sucrose concentration and yield of theoretical recoverable sucrose (93 kg Mg⁻¹) were lower than cultivars. Failed to flower under the photoperiod treatment used at Houma, LA.

PI 603937. *Saccharum* hybrid

Genetic. US 93-14. GS-7. Pedigree - MB 84-3065 / CP 86-977. Multiple-bud

clone in which 92-99% of nodes showed the phenotype. Typically produced 2.5 shoots per node. Numbers of shoots, millable stalks, stools, and shoots per stool varied among years and tended to be lower than cultivars. Equaled cultivars in stalk height (1.90 m) and stalk weight (1.11-1.54 kg). Sucrose concentration 110-120 g kg⁻¹ and fiber concentration 134-136 g kg⁻¹. Failed to flower under the photoperiod treatment used at Houma, LA. No reversion to normal phenotype with vegetative propagation.

PI 603938. *Saccharum* hybrid

Genetic. US 94-12. GS-8. Pedigree - US 87-17 / LCP 82-89. Gall-forming, multiple-bud phenotype characterized by apparently undifferentiated, callus-like tissue in nodal and internodal regions of the stalk. From 67-90% of nodes were affected. Produced about 4.5 shoots per node, one normal shoot from the main bud, and smaller shoots from other buds. Difficult to determine number of viable buds because of varying bud morphology. Shoot and stalk production in the field varied among years, but tended to be equal or lower than those of cultivars. Stalks 1.90-2.12 m tall. Fiber concentration 107-113 g kg⁻¹, and stalks weighed 1.48-1.55 kg. Sucrose concentration low, 86-100 g kg⁻¹. Flowered about early-October and tended to be a weak pollen producer under the photoperiod regime applied at Houma, LA. No reversion to normal phenotype with vegetative propagation.

The following were developed by G. F. Sprague, University of Illinois, Department of Agronomy, Turner Hall, 1102 South Goodwin Avenue, Urbana, Illinois 61801, United States; Fred Dicke, 1430 Harding, Ames, Iowa 50010, United States; W.D. Guthrie, USDA, ARS, Dept. of Entomology, Iowa State University, Ames, Iowa 50010, United States; W. A. Russell, Iowa State University, Iowa Agric. and Home Econ. Exp. Station, Department of Agronomy, Ames, Iowa 50011, United States; L.H. Penny. Donated by Kendall R. Lamkey, USDA, ARS, Iowa State University, 1555 Agronomy, Ames, Iowa 50011, United States. Received 06/25/1998.

PI 603939. *Zea mays* L. subsp. *mays*

Breeding. Inbred. B42; CSR 127; 93:7029. PL-3. Pedigree - Selected from Iowa Corn Borer Synthetic No. 1. Released 1960. Developed in a research program and evaluated extensively in hybrid combinations. It was released in 1960 because of its potential value in seed production programs and further use in breeding programs. The inbred plant gives a low seed yield and sparse pollen production. It has an intermediate level of resistance to the first brood of the European corn borer, *Ostrinia nubilalis* (Hubner). It contributes high yield to hybrids but does not contribute satisfactory root and stalk strength. Maturity classification is AES700.

The following were developed by Eladio Arnaud Santana, Secretaria de Estado de Agricultura (SEA), Apartado 145, San Juan de la Maguana, Dominican Republic. Received 06/25/1998.

PI 603940. *Phaseolus vulgaris* L.

Cultivar. Pureline. "ANACAONA". Pedigree - (2b-5-1/2 X NEP-2/Black Turtle Soup) X Bon 355. Plant upright indeterminate, type II, 70-75 cm

height under field conditions in the Dominican Republic. Flowers 35-37 days after planting and 85-90 days harvest time. 100 seed weight = 18-20 grams. Seed color white. Tolerant to web blight (*Thanatephorus cucumeris*) strains and to bacterial blight (*Xanthomonas campestris* Pv *Phaseoli*) strains in the Dom. Rep. Susceptible to Bean Golden Mosaic Virus.

PI 603941. *Phaseolus vulgaris* L.

Cultivar. Pureline. "ARROYO LORO NEGRO". Pedigree - H - 270 X XAN - 223. Plant upright indeterminate, type II, 65-70 cm height under field conditions in the Dominican Republic. Flowers 37-40 days after planting and 80-85 days harvest time. 100 seed weight = 18-21 grams. Seed color black. Resistant to web blight (*Thanatephorus cucumeris*) strains and tolerant to bean rust (*Uromyces appendiculatus*) strains in the Dom. Rep. Susceptible to Bean Golden Mosaic Virus.

PI 603942. *Phaseolus vulgaris* L.

Cultivar. Pureline. "CIAS-95". Pedigree - PC-50 X BAT 1274. Plant upright determinate, type I, 55-60 cm height under tropical conditions in the Dominican Republic. Flowers 30-32 days after planting. Flower color white. Harvest time 80 days. 100 seed weight = 43-45 grams. Seed color dark red mottled. Tolerant to common bacterial blight (*Xanthomona campestris* Pv *Phaseoli*) strains in the Dom. Rep. Susceptible to Bean Golden Mosaic Virus.

PI 603943. *Phaseolus vulgaris* L.

Cultivar. Pureline. "JB-178". Pedigree - Jose Beta X C 1308. Plant upright determinate, type I, 50-55 cm height under tropical conditions in the Dominican Republic. Flowers at 30-33 days after planting and 75-80 days harvest time. 100 seed weight = 46-47 grams. Seed color light red mottled. Resistant to bean rust (*Uromyces appendiculatus*) strains in the Dom. Rep. Susceptible to Bean Golden Mosaic Virus.

PI 603944. *Phaseolus vulgaris* L.

Cultivar. Pureline. "PC-50". Pedigree - Single selection within the landrace variety Pompadour Checa (a mixture of varieties). Plant upright determinate, type I, 50-55 cm height under tropical conditions in the Dominican Republic. Flowers 28-30 days after planting and 75-80 days harvest time. 100 seed weight = 40-42 grams. Seed color red mottled. Tolerant to bean rust (*Uromyces appendiculatus*) strains in the Dom. Rep. Susceptible to Bean Golden Mosaic Virus.

PI 603945. *Phaseolus vulgaris* L.

Cultivar. Pureline. "SALADIN-97". Pedigree - PC-50 X BAT 1274. Plant upright determinate, type I, 55-60 cm height under tropical conditions in the Dominican Republic. Flowers 30-32 days after planting and 75-80 days harvest time. 100 seed weight = 42-44 grams. Seed color red mottled. Resistant to rust (*Uromyces appendiculatus*) strains and tolerant to common bacterial blight (*Xanthomonas campestris* Pv *Phaseoli*) strains in the Dom. Rep. Susceptible to Bean Golden Mosaic Virus.

The following were developed by J.A. Reinert, Texas A&M University, Dept. of Soil and Crop Sciences, College Station, Texas 77843-6599, United States; P.F. Colbaugh, Texas A&M University, Texas Agric. Exp. Sta., 17360 Coit Road,

Dallas, Texas 75252, United States; W.E. Knoop, Texas A&M University, Research & Extension Center, 17360 Coit Road, Dallas, Texas 75252, United States; James C. Read, Texas A&M University, Texas Agricultural Experiment Station, Research and Extension Center, Dallas, Texas 75252-6502, United States. Received 06/26/1998.

PI 603946. *Poa arachnifera* Torr.

Cultivar. Apomictic. "REVEILLE"; TXKY 16-1. CV-53; PVP 9800337. Pedigree - 20-11 (PI 3-88) Texas bluegrass (*Poa arachnifera*) X Huntsville Kentucky bluegrass (*P. pratensis*). Heat resistant bluegrass, characteristic of Texas bluegrass, with growth characteristics closely resembling a Kentucky bluegrass. Well adapted to the southern United States, unlike KY bluegrass. Used for commercial and residential lawns and other turf areas where a year-round green grass is desired. Recommended for regions in southern U.S. where KY bluegrass is not adapted due to excessive summer heat. Can be established by using either seed or sod.

The following were developed by Joseph W. Saunders, USDA, ARS, Michigan State University, Sugarbeet, Bean & Cereal Res., East Lansing, Michigan 48823-1325, United States. Received 06/26/1998.

PI 603947. *Beta vulgaris* L.

Breeding. Population. SR95; NSL 372446. Pedigree - Resulted from increase of seed produced on a single plant taken from the population that became SR94. The germplasm traces back approx. to 50% SP85700, 18% L19, 18% Crystal-Maribo 8400051, 7% Crystal-Maribo 8400040, and 7% Logan UT ARS line 46II. Smoothroot germplasm with excellent smoothness and moderate sucrose percentage. Multigerm diploid segregating for red and green hypocotyl. Relatively easy bolting. Male sterility exceeds 20%, suggesting a sterile cytoplasm, and male fertile plants largely but not exclusively self-sterile.

The following were developed by Robert A. Forsberg, University of Wisconsin, Department of Agronomy, 1575 Linden Drive, Madison, Wisconsin 53706, United States; Ronald D. Duerst, University of Wisconsin, Department of Agronomy, 1575 Linden Drive, Madison, Wisconsin 53706, United States; Heidi Kaeppler, University of Wisconsin, Department of Agronomy, 1575 Linden Dr., Madison, Wisconsin 53706, United States. Received 06/29/1998.

PI 603948. *Hordeum vulgare* L. subsp. *vulgare*

Cultivar. Pureline. "KEWAUNEE". CV-270; PVP 9800224. Pedigree - Hazen/M46. Six-row spring barley. Intermediate maturity and plant height with good lodging resistance. Grain yield high, ranking first in Wisconsin statewide trials in 1994, 1995, and 1996. Ranked third for yield in 1995 and fourth in 1996 in the Mississippi Valley Uniform Barley Nursery. Test weight good and intermediate in kernel protein percent. Resistant to stem rust (*Puccinia graminis*) but susceptible to loose smut (*Ustilago tritici*).

The following were developed by Lofts Seed, Inc., United States. Received 06/29/1998.

PI 603949. Festuca arundinacea Schreb.
Cultivar. "Rebel Sentry". PVP 9800227.

The following were developed by Seminis Vegetable Seeds, Inc., Woodland, California, United States. Received 06/29/1998.

PI 603950. Lactuca sativa L.
Cultivar. "Granada". PVP 9800251.

The following were developed by Novartis Seeds, Inc., United States. Received 06/29/1998.

PI 603951. Pisum sativum L.
Cultivar. "HP1203-9-5". PVP 9800252.

The following were developed by South Dakota State University, South Dakota Agricultural Exp. Station, Brookings, South Dakota, United States. Received 06/29/1998.

PI 603952. Triticum aestivum L., nom. cons. **subsp. aestivum**
Cultivar. "Forge". PVP 9800253. Hardened spring wheat.

The following were developed by South Carolina Agricultural Experiment Station, Clemson University, Clemson, South Carolina 29631, United States. Received 06/29/1998.

PI 603953. Glycine max (L.) Merr.
Cultivar. "Motte". PVP 9800254.

The following were developed by Commonwealth Scientific and Industrial Research Organization, Division of Plant Industry, General Post Office Box 1600, Canberra, Austr. Capital Terr. 2601, Australia. Received 06/29/1998.

PI 603954. Gossypium hirsutum L.
Cultivar. "Fiber Max 819". PVP 9800257.

PI 603955. Gossypium hirsutum L.
Cultivar. "Fiber Max 832". PVP 9800258.

PI 603956. Gossypium hirsutum L.
Cultivar. "Fiber Max 989". PVP 9800259.

The following were developed by Novartis Seeds, Inc., United States. Received 06/29/1998.

PI 603957. Glycine max (L.) Merr.
Cultivar. "S05-D5". PVP 9800261.

The following were developed by HybriTech Seed International, Inc., A Unit of Monsanto Company, United States. Received 06/29/1998.

PI 603958. *Triticum aestivum* L., nom. cons. subsp. *aestivum*
Cultivar. "Hondo". PVP 9800262.

The following were developed by HybriTech Seed International, Inc., A Unit of Monsanto Company, Wichita, Kansas, United States. Received 06/29/1998.

PI 603959. *Triticum aestivum* L., nom. cons. subsp. *aestivum*
Cultivar. "Marion". PVP 9800263.

PI 603960. *Triticum aestivum* L., nom. cons. subsp. *aestivum*
Cultivar. "Hagar". PVP 9800264.

PI 603961. *Triticum aestivum* L., nom. cons. subsp. *aestivum*
Cultivar. "Patton". PVP 9800265.

The following were developed by Paragon Seed, Inc., United States. Received 06/30/1998.

PI 603962. *Lactuca sativa* L.
Cultivar. "Hallmark". PVP 9800266.

The following were developed by Pioneer Hi-Bred International, Inc., United States. Received 06/30/1998.

PI 603963. *Helianthus annuus* L.
Cultivar. "RC103M". PVP 9800268.

The following were developed by Proseed, Inc., United States. Received 06/30/1998.

PI 603964. *Pisum sativum* L.
Cultivar. "Atomic". PVP 9800269.

The following were developed by R & D Ag, Inc., United States. Received 06/30/1998.

PI 603965. *Brassica oleracea* L.
Cultivar. "R&D-HTF1". PVP 9800270.

The following were developed by DEKALB Genetics Corporation, United States. Received 06/30/1998.

PI 603966. *Zea mays* L. subsp. *mays*
Cultivar. "91DHD1". PVP 9800292.

The following were developed by Novartis Seeds, Inc., United States. Received 06/30/1998.

PI 603967. Zea mays L. subsp. mays
Cultivar. "NP2029". PVP 9800307.

PI 603968. Zea mays L. subsp. mays
Cultivar. "NP2151". PVP 9800308.

PI 603969. Zea mays L. subsp. mays
Cultivar. "NP2152". PVP 9800309.

The following were developed by Agrisales, Inc.. Received 06/30/1998.

PI 603970. Phaseolus lunatus L.
Cultivar. "Merced". PVP 9800310.

The following were developed by Sharpes International Seeds Ltd., Sleaford, Lincolnshire, United Kingdom. Received 06/30/1998.

PI 603971. Pisum sativum L.
Cultivar. "Balmoral". PVP 9800311.

The following were developed by Pybas Vegetable Seed Co., Inc., United States ; Douglas Peters. Received 06/30/1998.

PI 603972. Lactuca sativa L.
Cultivar. "Red Rage". PVP 9800312.

The following were developed by Planetary Design Corporation. Received 06/30/1998.

PI 603973. Salicornia bigelovii Torr.
Cultivar. "PDX 326". PVP 9800313.

The following were developed by Progeny Advanced Genetics, Inc., Salinas, California, United States. Received 06/30/1998.

PI 603974. Lactuca sativa L.
Cultivar. "Sun Devil". PVP 9800316.

The following were developed by Plant Breeding International Cambridge Ltd., Cambridge, England, United Kingdom. Received 06/30/1998.

PI 603975. Hordeum vulgare L. subsp. vulgare
Cultivar. "Riviera". PVP 9800317.

The following were developed by Novartis Seeds, Inc., United States. Received 06/30/1998.

PI 603976. *Zea mays* L. subsp. *mays*
Cultivar. "NP2031". PVP 9800318.

PI 603977. *Zea mays* L. subsp. *mays*
Cultivar. "NP2115". PVP 9800319.

The following were developed by Pioneer Hi-Bred International, Inc., United States. Received 06/30/1998.

PI 603978. *Zea mays* L. subsp. *mays*
Cultivar. "PH185". PVP 9800320.

PI 603979. *Zea mays* L. subsp. *mays*
Cultivar. "PH1GG". PVP 9800321.

PI 603980. *Zea mays* L. subsp. *mays*
Cultivar. "PH2CB". PVP 9800322.

PI 603981. *Zea mays* L. subsp. *mays*
Cultivar. "PHMJ2". PVP 9800323.

PI 603982. *Sorghum bicolor* (L.) Moench
Cultivar. "PHBRCOBXE". PVP 9800324.

PI 603983. *Sorghum bicolor* (L.) Moench
Cultivar. "PHB74GM". PVP 9800325.

The following were developed by Texas Agricultural Experiment Station, Texas, United States. Received 06/30/1998.

PI 603984. *Agrostis stolonifera* var. *palustris* (Huds.) Farw.
Cultivar. "Century". PVP 9800331.

PI 603985. *Agrostis stolonifera* var. *palustris* (Huds.) Farw.
Cultivar. "Imperial". PVP 9800332.

The following were developed by Thomas Gulya, USDA, ARS, North Dakota State University, Northern Crop Science Laboratory, Fargo, North Dakota 58105, United States; Jerry F. Miller, USDA, ARS, Northern Crop Science Laboratory, P.O. Box 5677, Fargo, North Dakota 58105, United States. Donated by Jerry F. Miller, USDA, ARS, Northern Crop Science Laboratory, P.O. Box 5677, Fargo, North Dakota 58105, United States. Received 06/22/1998.

PI 603986. *Helianthus annuus* L.
Breeding. Inbred. HA 390. GP-222. Pedigree - Selected from the open-pollinated cultivar Armavirskij 50 (Ames 5886) developed in Russia. Maintainer line providing improved tolerance to *Sclerotinia* (*Sclerotinia sclerotiorum*). Susceptible to root lodging under adverse environmental conditions.

- PI 603987. *Helianthus annuus* L.**
Breeding. Inbred. RHA 391. GP-223. Pedigree - Restorer line selected from the open-pollinated cultivar Start (PI 497937) developed in Russia. Restorer line providing improved tolerance to *Sclerotinia* (*Sclerotinia sclerotiorum*). Fertility restoration factors for the PET1 male-sterile cytoplasm and single-flowered heads.
- PI 603988. *Helianthus annuus* L.**
Breeding. Inbred. RHA 392. GP-224. Pedigree - Selected from progeny obtained by self-pollinating the hybrid Select developed in Romania. Restorer line providing improved tolerance to *Sclerotinia* (*Sclerotinia sclerotiorum*). Fertility restoration factors for the PET1 male-sterile cytoplasm and single-flowered heads.
- PI 603989. *Helianthus annuus* L.**
Breeding. Inbred. RHA 408. GP-225. Pedigree - Selected from population Romania R-Line Pop-1. Restorer line providing improved tolerance to *Sclerotinia* (*Sclerotinia sclerotiorum*). Homozygous for resistance to Race 2 downy mildew (*Plasmopara halstedii*), genes for fertility restoration of the PET1 cytoplasmic male sterility, and upper stem branching.
- PI 603990. *Helianthus annuus* L.**
Breeding. Inbred. RHA 409. GP-226. Pedigree - Selected from the population Romania R-Line Recurrent Cycle C2. Restorer line providing improved tolerance to *Sclerotinia* (*Sclerotinia sclerotiorum*). Homozygous for resistance to Race 2 downy mildew (*Plasmopara halstedii*), genes for fertility restoration for the PET1 cytoplasmic male sterility, and upper stem branching.
- PI 603991. *Helianthus annuus* L.**
Breeding. Inbred. HA 410. GP-227. Pedigree - Selected from USDA B-line SCL Recurrent Selection Population, Cycle 2. Maintainer line providing improved tolerance to *Sclerotinia* (*Sclerotinia sclerotiorum*).
- PI 603992. *Helianthus annuus* L.**
Breeding. Inbred. HA 411. GP-228. Pedigree - Selected from USDA B-line SCL Recurrent Selection Population, Cycle 3-1. Maintainer line providing improved tolerance to *Sclerotinia* (*Sclerotinia sclerotiorum*).
- PI 603993. *Helianthus annuus* L.**
Breeding. Inbred. HA 412. GP-229. Pedigree - Selected from the population USDA B/SCL B-3, Cycle 1. Maintainer line providing improved tolerance to *Sclerotinia* (*Sclerotinia sclerotiorum*).

The following were collected by Francis T. Zee, USDA, ARS, National Plant Germplasm Repository, 461 W. Lanikaula Street, Hilo, Hawaii 96720-4094, United States. Developed by University of Hawaii, College of Agriculture and Human Resources, Dept. of Horticulture, Honolulu, Hawaii 96822, United States. Donated by University of Hawaii, CTAHR, Hawaii Agricultural Experiment Station, Kona Research Station, Kealahou, Hawaii 96750, United States. Received 12/04/1989.

PI 603994. *Litchi chinensis* Sonn.

Clone. "KAIMANA"; N89-31. Collected 12/04/1989 in Hawaii, United States.
Pedigree - A chance seedling from Hak Ip.

The following were collected by Francis T. Zee, USDA, ARS, National Plant Germplasm Repository, 461 W. Lanikaula Street, Hilo, Hawaii 96720-4094, United States. Donated by University of Hawaii, CTAHR, Hawaii Agricultural Experiment Station, Kona Research Station, Kealahou, Hawaii 96750, United States. Received 12/04/1989.

PI 603995. *Litchi chinensis* Sonn.

Clone. "POT PO HEUNG"; N89-32. Collected 12/04/1989 in Hawaii, United States.

PI 603996. *Litchi chinensis* Sonn.

Clone. N89-33; NO MAI TSZ. Collected 12/04/1989 in Hawaii, United States

PI 603997. *Litchi chinensis* Sonn.

Clone. "KWA LUK"; Zeng Chen Gua Luk; N89-34. Collected 12/04/1989 in Hawaii, United States.

The following were collected by Francis T. Zee, USDA, ARS, National Plant Germplasm Repository, 461 W. Lanikaula Street, Hilo, Hawaii 96720-4094, United States. Developed by University of Hawaii, College of Agriculture and Human Resources, Dept. of Horticulture, Honolulu, Hawaii 96822, United States. Donated by University of Hawaii, CTAHR, Hawaii Agricultural Experiment Station, Kona Research Station, Kealahou, Hawaii 96750, United States. Received 12/04/1989.

PI 603998. *Litchi chinensis* Sonn.

Clone. "GROFF"; N89-35. Collected 12/04/1989 in Hawaii, United States.
Pedigree - Chance seedling from Hak Ip.

The following were donated by University of Hawaii, CTAHR, Hawaii Agricultural Experiment Station, Kona Research Station, Kealahou, Hawaii 96750, United States. Received 12/04/1989.

PI 603999. *Litchi chinensis* Sonn.

Clone. "TAI SO"; HLIT 7; MAURITIUS; KWAI MI HAWAII; HLIT 6; N89-36.

The following were collected by Francis T. Zee, USDA, ARS, National Plant Germplasm Repository, 461 W. Lanikaula Street, Hilo, Hawaii 96720-4094, United States. Donated by University of Hawaii, CTAHR, Hawaii Agricultural Experiment Station, Kona Research Station, Kealahou, Hawaii 96750, United States. Received 12/04/1989.

PI 604000. *Litchi chinensis* Sonn.

Clone. N89-38; SHUI TUNG HAAK IP. Collected 12/04/1989 in Hawaii, United States.

PI 604001. Litchi chinensis Sonn.
Clone. N89-39; TIM NAGN. Collected 12/04/1989 in Hawaii, United States.

PI 604002. Litchi chinensis Sonn.
Clone. N89-40; BREWSTER. Collected 12/04/1989 in Hawaii, United States.

PI 604003. Litchi chinensis Sonn.
Clone. "HEUNG LAI"; N89-41. Collected 12/04/1989 in Hawaii, United States.

The following were collected by Francis T. Zee, USDA, ARS, National Plant Germplasm Repository, 461 W. Lanikaula Street, Hilo, Hawaii 96720-4094, United States. Donated by Bob Hamilton, Plant It Hawaii, P.O. Box 388, Kurtistown, Hawaii 96760, United States. Received 02/21/1990.

PI 604004. Litchi chinensis Sonn.
Clone. "Kwai Mi Pink"; B-3; Bosworth-3; N90-34. Collected 06/25/1989 in Queensland, Australia. From a northern Queensland nursery.

The following were collected by Francis T. Zee, USDA, ARS, National Plant Germplasm Repository, 461 W. Lanikaula Street, Hilo, Hawaii 96720-4094, United States. Donated by Chung Ruey Yen, Chia Yi Agric. Exp. Sta., 2 Min-Chuan Road, Chia-Yi, Taiwan. Received 06/04/1991.

PI 604005. Litchi chinensis Sonn.
Clone. "Hwai Lai"; N91-48. Collected 05/30/1991 in Taiwan.

PI 604006. Litchi chinensis Sonn.
Clone. N91-112; San Keng. Collected 05/30/1991 in Taiwan.

PI 604007. Litchi chinensis Sonn.
Clone. "Kao Shiung Early"; N91-113. Collected 05/30/1991 in Taiwan.

PI 604008. Litchi chinensis Sonn.
Clone. "Kang Wei"; N91-114. Collected 05/30/1991 in Taiwan.

PI 604009. Litchi chinensis Sonn.
Clone. N91-117; Shang Shu Hwai. Collected 05/30/1991 in Taiwan.

The following were collected by Phillip J. Ito, University of Hawaii, College of Tropical Agriculture, 461 W. Lanikaula Street, Hilo, Hawaii 96720-4094, United States. Received 08/07/1991.

PI 604010. Litchi chinensis Sonn.
Clone. "Yuan Hong"; N91-57. Collected 08/01/1991 in China.

The following were donated by Brian Paxton, P.O. Box 339, Kona, Hawaii 96704, United States. Received 03/16/1992.

PI 604011. Litchi chinensis Sonn.
Clone. "Salathiel"; N92-25.

Unknown source. Received 12/18/1991.

PI 604012. *Litchi chinensis* Sonn.
Cultivar. "CHONG UN HUNG"; HLIT 42; N92-18.

Unknown source. Received 12/18/1991.

PI 604013. *Litchi chinensis* Sonn.
Cultivar. "FI TSZ SIU"; HLIT 43; N92-19.

The following were collected by Brian Paxton, P.O. Box 339, Kona, Hawaii 96704, United States. Received 12/16/1994.

PI 604014. *Litchi chinensis* Sonn.
Cultivar. "Wai Chee"; N95-1. Collected 12/16/1994 in Australia. Ching Check Road. Late variety, originally from China.

The following were donated by M.l. Charuphant Thongtham, Kasetsart University, Department of Horticulture, Royal Project Foundation/Royal Project Building, Bangkok, Phetchabun 10900, Thailand. Received 02/22/1995.

PI 604015. *Litchi chinensis* Sonn.
Cultivar. "Sampaokaew"; N95-11. Collected in Thailand. Latitude 13 deg. 4' 0'' N. Longitude 100 deg. 2' 0'' E. Originally from south west of Bangkok in Samut Songkram province. Tall spreading plant, thick long leaves, temp. for flowering 15-16 degrees c., orange/yellow/red fruit, large thick flesh, small seed, April-May crop.

PI 604016. *Litchi chinensis* Sonn.
Cultivar. "Khom"; N95-12. Flowering temp. 13-15 degrees c., small thin leaves, dark reddish brown skin, medium fruit, thick flesh, small seeds, April-May fruit.

The following were collected by Francis T. Zee, USDA, ARS, National Plant Germplasm Repository, 461 W. Lanikaula Street, Hilo, Hawaii 96720-4094, United States; Phillip J. Ito, University of Hawaii, College of Tropical Agriculture, 461 W. Lanikaula Street, Hilo, Hawaii 96720-4094, United States. Received 05/24/1995.

PI 604017. *Litchi chinensis* Sonn.
Cultivar. "Jakapad"; N95-23. Collected 05/19/1995 in Thailand. Latitude 18 deg. 47' 0'' N. Longitude 98 deg. 59' 0'' E. Fang Horticultural Research Station, Chiang Mai.

PI 604018. *Litchi chinensis* Sonn.
Cultivar. "Chompoo"; #22; N95-26. Collected 05/19/1995 in Thailand. Latitude 18 deg. 47' 0'' N. Longitude 98 deg. 59' 0'' E. Fang Horticultural Research Station, Chiang Mai.

PI 604019. Litchi chinensis Sonn.
Cultivar. "Kalobayan"; N95-28. Collected 05/20/1995 in Thailand.
Latitude 19 deg. 54' 0'' N. Longitude 99 deg. 50' 0'' E. Chiang Rai
Horticultural Experiment Station.

PI 604020. Litchi chinensis Sonn.
Cultivated. "Mae Chan"; N95-29. Collected 05/19/1995 in Thailand.
Latitude 19 deg. 54' 0'' N. Longitude 99 deg. 50' 0'' E. Fang
Horticultural Research Station, Chiang Mai. May be a mutant of Hon Huai
from Chiang Rai region (a local selection).

The following were collected by Phillip J. Ito, University of Hawaii, College
of Tropical Agriculture, 461 W. Lanikaula Street, Hilo, Hawaii 96720-4094,
United States. Received 11/14/1995.

PI 604021. Litchi chinensis Sonn.
Cultivated. "JUN FUON"; HLIT 75; N96-2. Collected in China. Guangxi
Subtropical Agricultural Station.

PI 604022. Litchi chinensis Sonn.
Cultivated. "YOK HO PAU"; HLIT 78; N96-6. Collected in China. Guangxi
Subtropical Agricultural Station.

PI 604023. Litchi chinensis Sonn.
Cultivated. "KAI JU LAI"; HLIT 79; N96-7. Collected in China. Guangxi
Subtropical Agricultural Station.

PI 604024. Litchi chinensis Sonn.
Cultivated. "KWAI MI"; HLIT 80; N96-8. Collected in China. Guangxi
Subtropical Agricultural Station.

PI 604025. Litchi chinensis Sonn.
Cultivated. "SEI LUON GUOR"; HLIT 81; N96-9. Collected in China. Guangxi
Subtropical Agricultural Station.

PI 604026. Litchi chinensis Sonn.
Cultivated. "PAK LARP"; HLIT 83; N96-11. Collected in China. Guangxi
Subtropical Agricultural Station.

PI 604027. Litchi chinensis Sonn.
Cultivated. "NO MAI TSZ"; HLIT 85; N96-13. Collected in China. Guangxi
Subtropical Agricultural Station.

The following were collected by Francis T. Zee, USDA, ARS, National Plant
Germplasm Repository, 461 W. Lanikaula Street, Hilo, Hawaii 96720-4094,
United States. Received 05/20/1997.

PI 604028. Litchi chinensis Sonn.
Cultivated. "SAM YU HUNG"; HLIT 87; N97-42. Collected in Taiwan. Jade
Well village. Near a mango farmer's house.

The following were developed by Hurst, Gunson, Cooper, Taber, Ltd., England,

United Kingdom. Received 1985.

PI 604029. *Pisum sativum* L.
Cultivar. "CONSORT". PVP 8500099.

The following were donated by Lothar Frese, Federal Center for Breeding, Research on Cultivated Plants (BAZ), Gene Bank, Braunschweig, Lower Saxony D-38116, Germany. Received 06/1998.

PI 604030. *Beta corolliflora* Zosimovic ex Buttler
Cultivated. BGRC 17812; IDBBNR 2523; W6 20669. Collected 06/1998 in Kars, Turkey. Latitude 40 deg. 45' 0'' N. Longitude 43 deg. 12' 0'' E. Kars to Arpacay, 2.5 km south Melik Koyu. Beta standard for genetic probes as determined by the Beta CGC.

PI 604031. *Beta vulgaris* subsp. *maritima* (L.) Arcang.
Cultivated. BGRC 54228; IDBBNR 3863; W6 20670. Collected 06/1998 in Ireland. Latitude 51 deg. 57' 0'' N. Longitude 7 deg. 43' 0'' W. Ardmore Bay in district of Ardmore. Beta standard for genetic probes as determined by the Beta CGC.

PI 604032. *Beta patellaris* Moq.
Cultivated. BGRC 57667; IDBBNR 7042; W6 20671. Collected 06/1998 in Almeria, Spain. Latitude 36 deg. 59' 0'' N. Longitude 1 deg. 54' 0'' W. Carboneras, 5 km north of Pla. de Algarobico. Beta standard for genetic probes as determined by the Beta CGC.

The following were developed by J. Paul Murphy, North Carolina State University, Dept. of Crop Science, Box 7629, Raleigh, North Carolina 27695-7629, United States; Steven Leath, USDA, ARS, North Carolina State University, Dept. of Plant Pathology, Raleigh, North Carolina 27695, United States; R.A. Navarro, North Carolina State University, North Carolina Agric. Exp. Station, Dept. of Crop Science, Raleigh, North Carolina 27695-7629, United States; D. Huynh, North Carolina State University, Dept. of Crop Science, Raleigh, North Carolina 27695-7629, United States; Ainong Shi, Washington State University, Dept. of Crop & Soil Science, Johnson Hall, Pullman, Washington 99164-6420, United States. Received 06/29/1998.

PI 604033. *Triticum aestivum* L., nom. cons. subsp. *aestivum*
Breeding. Pureline. NC97BGT7. GP-551. Pedigree - Saluda *3 / TA 2492. Soft red winter wheat adapted to the Southeastern U.S. Resistant to prevalent powdery mildew (*Blumeria graminis*) isolates found in cultivation in North Carolina during the 1995-97 seasons. The source of resistance was the *Aegilops tauschii* accession TA 2492 collected in Iran. BC2 F6-derived line.

PI 604034. *Triticum aestivum* L., nom. cons. subsp. *aestivum*
Breeding. Pureline. NC97BGT8. GP-552. Pedigree - Saluda *3 / TA 2466. Soft red winter wheat adapted to the Southeastern U.S. Resistant to prevalent powdery mildew (*Blumeria graminis*) isolates found in cultivation in North Carolina during the 1995-97 seasons. The source of resistance was the *Aegilops tauschii* accession TA 2466 collected in Iran. BC2 F6-derived line.

The following were developed by J. Paul Murphy, North Carolina State University, Dept. of Crop Science, Box 7629, Raleigh, North Carolina 27695-7629, United States. Received 06/29/1998.

PI 604035. *Triticum aestivum* L., nom. cons. subsp. *aestivum*

Breeding. Pureline. NC97BGTAB9. Pedigree - Saluda *2 // Cando / PI 471735. Soft red winter wheat adapted to the Southeastern U.S. Contains resistance to prevalent powdery mildew (*Blumeria graminis*) isolates found in cultivation in North Carolina during the 1995-97 seasons. The source of resistance was the *Triticum turgidum dicoccoides* accession PI 471735 collected in Israel. F6-derived line.

PI 604036. *Triticum aestivum* L., nom. cons. subsp. *aestivum*

Breeding. Pureline. NC97BGTAB10. Pedigree - Saluda *3 // Ward / PI 471746. Soft red winter wheat adapted to the Southeastern U.S. Contains resistance to prevalent powdery mildew (*Blumeria graminis*) isolates found in cultivation in North Carolina during the 1995-97 seasons. The source of resistance was the *Triticum turgidum dicoccoides* accession PI 471746 collected in Israel. F6-derived line.

The following were collected by Phillip J. Ito, University of Hawaii, College of Tropical Agriculture, 461 W. Lanikaula Street, Hilo, Hawaii 96720-4094, United States. Received 11/14/1995.

PI 604037. *Litchi chinensis* Sonn.

Cultivated. "YOK KI LUN"; HLIT 82; N96-10. Collected in China. Guangxi Subtropical Agricultural Station.

The following were donated by Luis E. Lopez, International Plant Genetic Resources Institute, c/o CIAT, Apto. Aereo 6713, Cali, Valle, Colombia. Received 09/22/1992.

PI 604038. *Solanum flahaultii* Bitter

Wild. CCC 5258; BE-4266; Q 29420. Collected 07/26/1981 in Boyaca, Colombia. Chuta-Parroquita.

The following were collected by David Spooner, USDA, ARS, Department of Horticulture, 1575 Linden Drive, Madison, Wisconsin 53706-1590, United States ; Ronald van den Berg, Wageningen Agricultural University, Department of Plant Taxonomy, General Foulksweg 37, Wageningen, Gelderland 6700 ED, Netherlands; William Garcia Fernandez, PROINPA (Programa de Investigacion de la Papa), IBTA (Instituto de Boliviano Tecnologia Agropecuaria), Calle Man Cesped 923, Cochabamba, Cochabamba, Bolivia; Maria Luisa Ugarte, PROINPA (Programa de Investigacion de la Papa), IBTA (Instituto de Boliviano Tecnologia Agropecuaria), Calle Man Cesped 923, Cochabamba, Cochabamba, Bolivia. Received 07/27/1993.

PI 604039. *Solanum acaule* Bitter subsp. *acaule*

Wild. SFVU 6770; BE-4832; Q 30942. Collected 04/04/1993 in La Paz, Bolivia. Latitude 17 deg. 39' S. Longitude 67 deg. 14' W. Elevation 3800

m. Cercado: Caracollos, at junction of main La Paz-Cochabamba road and road to Oruro. Growing in altiplano near cultivated fields.

PI 604040. *Solanum alandiae* Cardenas

Wild. SFVU 6647; BE-4832; Q 30945. Collected 03/03/1993 in Cochabamba, Bolivia. Latitude 17 deg. 44' S. Longitude 65 deg. 12' W. Elevation 2800 m. Mizque: 4 km S of Tortora on rd to Sucre. Growing on roadside and on adjacent slope, near *S. circaeifolium*.

PI 604041. *Solanum chacoense* Bitter

Wild. SFVU 6701; BE-4832; Q 30967. Collected 03/08/1993 in Chuquisaca, Bolivia. Latitude 19 deg. 14' S. Longitude 64 deg. 26' W. Elevation 2124 m. Tomina: 7 km E of Tomina on road to Padilla, in Comunidad Arquillos. Growing among bushes at edge of pasture.

PI 604042. *Solanum doddsii* Correll

Wild. SFVU 6649; BE-4832; Q 30970. Collected 03/03/1993 in Cochabamba, Bolivia. Latitude 17 deg. 55' S. Longitude 65 deg. 9' W. Elevation 2498 m. Mizque: 10 km N of Chuquillas, 42 km N of Aiquile. Growing in wet valley on steep slope, with *S. alandiae*.

PI 604043. *Solanum sparsipilum* (Bitter) Juz. & Bukasov

Wild. SFVU 6704; BE-4832; Q 30990. Collected 03/13/1993 in Cochabamba, Bolivia. Latitude 17 deg. 18' S. Longitude 66 deg. 17' W. Elevation 2912 m. Quillacollo: 11 km NW of Quillacollo, from junction of road to Cochabamba and road to Independencia. Growing in dry rocky soil.

PI 604044. *Solanum tarijense* Hawkes

Wild. SFVU 6623; BE-4832; Q 31001. Collected 02/25/1993 in Chuquisaca, Bolivia. Latitude 18 deg. 57' S. Longitude 65 deg. 8' W. Elevation 2339 m. Oropeza: 33.5 km N of Sucre (by posted road markers) on rd to Aiquile. Growing in dry stony soil among spiny bushes.

The following were collected by David Spooner, USDA, ARS, Department of Horticulture, 1575 Linden Drive, Madison, Wisconsin 53706-1590, United States ; Ronald van den Berg, Wageningen Agricultural University, Department of Plant Taxonomy, General Foulksweg 37, Wageningen, Gelderland 6700 ED, Netherlands; Vincente Martinez, Instituto de Ciencia y Tecnologia Agricolas (ICTA), km 21.5 Carretera hacia Amatitlan, Barceñas, Villa Nueva, Guatemala, Guatemala; Roel Hoekstra, Center for Plant Breeding and Reproduction Research, Center for Genetic Resources The Netherlands (CGN), Droevendaalsesteeg 1,, Wageningen, Gelderland 6700 AA, Netherlands. Received 12/30/1996.

PI 604045. *Solanum morelliforme* Bitter & Munch

Wild. SMHV 7004; Q 36638. Collected 09/15/1995 in Totonicapan, Guatemala . Latitude 14 deg. 55' 36'' N. Longitude 91 deg. 20' 18'' W. Elevation 2810 m. 6.5 km E of town square of Totonicapan, along road to Santa Cruz del Quiche, ca 100 m E of jct of road to Santa Maria Chiquimula, ca 100 m N of road. Growing on horizontal branch of old pine trees in tree litter.

PI 604046. *Solanum morelliforme* Bitter & Munch

Wild. SMHV 7005; Q 36639. Collected 09/15/1995 in Totonicapan, Guatemala

. Latitude 14 deg. 55' 18'' N. Longitude 91 deg. 19' 54'' W. Elevation 2960 m. 7.3 km E of town square of Totonicapan, 1.9 km from deviation of road to Santa Cruz del Quiche on old road to Los Encuentros. Growing on horizontal branch of old pine trees.

PI 604047. *Solanum agrimonifolium* Rydb.

Wild. SMHV 7006; Q 36640. Collected 09/15/1995 in Totonicapan, Guatemala . Latitude 14 deg. 54' 48'' N. Longitude 91 deg. 19' 6'' W. Elevation 3150 m. 10.2 km E of town square of Totonicapan, 4.8 km from deviation of road to Santa Cruz del Quiche, on old road to Los Encuentros. Growing along roadside in organic soil in shade.

PI 604048. *Solanum clarum* Correll

Wild. SMHV 7007; Q 36641. Collected 09/16/1995 in Huehuetenango, Guatemala. Latitude 15 deg. 28' 30'' N. Longitude 91 deg. 30' 30'' W. Elevation 3370 m. 31 km N of town square of Huehuetenango, on Rt. 9N, above Casario Chiabal, 3.5 km N of road junction to Todos Santos, ca 1 km uphill, W of road. Growing in moss and organic soil, on boulders, among shrubs and Juniper trees.

PI 604049. *Solanum demissum* Lindl.

Wild. SMHV 7008; Q 36642. Collected 09/16/1995 in Huehuetenango, Guatemala. Latitude 15 deg. 33' N. Longitude 91 deg. 31' W. 49 km N of town square of Huehuetenango, road diverting W of 9N to Chanchocat. Growing on open dry hill among herbaceous plants.

PI 604050. *Solanum morelliforme* Bitter & Munch

Wild. SMHV 7009; Q 36643. Collected 09/17/1995 in Huehuetenango, Guatemala. Latitude 15 deg. 46' 0'' N. Longitude 91 deg. 30' 18'' W. Elevation 3050 m. 11.8 km N of town square of Santa Eulalia on road to San Mateo Ixtatan, on Road 9N, 50-250 m W of road. Growing on horizontal branch of old oak trees.

PI 604051. *Solanum bulbocastanum* Dunal

Wild. SMHV 7010; Q 36644. Collected 09/18/1995 in Huehuetenango, Guatemala. Latitude 15 deg. 46' 0'' N. Longitude 91 deg. 30' 18'' W. Elevation 2000 m. Along 9N, at junction of entrance to Huehuetenango, 50-200 m W of road. Growing in clay soil on slope around bushes at bases of trees and on rock faces.

PI 604052. *Solanum clarum* Correll

Wild. SMHV 7011; Q 36645. Collected 09/20/1995 in Totonicapan, Guatemala . Latitude 15 deg. 4' 18'' N. Longitude 91 deg. 33' 30'' W. Elevation 3020 m. 4.1 km E of town square of Calel, on road to the Panamerican Highway which begins at Pte. Pologua. Growing in moss-covered ground about old oak trees, one plant seen in oak tree.

PI 604053. *Solanum morelliforme* Bitter & Munch

Wild. SMHV 7013; Q 36646. Collected 09/20/1995 in Totonicapan, Guatemala . Latitude 15 deg. 3' 48'' N. Longitude 91 deg. 33' 54'' W. Elevation 3010 m. Along old road north on Quezaltenango, going through Buenebaj to Calel, 1 km S of intersection of this road and new road from Calel to Panamerican Highway, ca 5 km S of Calel. Growing on horizontal branch of old oak tree.

- PI 604054. *Solanum clarum* Correll**
Wild. SMHV 7014; Q 36647. Collected 09/20/1995 in Totonicapan, Guatemala. Latitude 15 deg. 3' 48'' N. Longitude 91 deg. 33' 54'' W. Elevation 3010 m. Along old road N of Quezaltenango, going through Buenabaj to Calel, 1 km S of intersection of this road from Calel to Panamerican Highway, ca 5 km S of Calel. Growing in moss-covered ground about old oak trees.
- PI 604055. *Solanum agrimonifolium* Rydb.**
Wild. SMHV 7019; Q 36648. Collected 09/22/1995 in Quezaltenango, Guatemala. Latitude 14 deg. 45' N. Longitude 91 deg. 25' W. Elevation 2900 m. Mpio. Zunil, 2 hour walk E of Fuente de Aguas Termales Georgianas (located 8 km SE off Pan-American Highway from town of Zunil), on W-facing slope of Volcan Zunil. Growing in clearings of dense mature forest, in moist organic soil.
- PI 604056. *Solanum agrimonifolium* Rydb.**
Wild. SMHV 7021; Q 36649. Collected 09/23/1995 in San Marcos, Guatemala. Latitude 14 deg. 56' 48'' N. Longitude 91 deg. 51' 18'' W. Elevation 2340 m. 12.4 km W of town square of San Marcos on road to San Rafael Pie de la Cuesta, on N side of road in valley. Growing in moist organic soil.
- PI 604057. *Solanum agrimonifolium* Rydb.**
Wild. SMHV 7026; Q 36650. Collected 09/24/1995 in San Marcos, Guatemala. Latitude 15 deg. 10' 18'' N. Longitude 91 deg. 56' 48'' W. Elevation 3380 m. 1.0 km NW of town square of Ixchiguan, on road to Tacana, ca 50 m N of road. Growing on slope in opening in mature fir forest among mosses and shrubby *Potentilla*.
- PI 604058. *Solanum clarum* Correll**
Wild. SMHV 7027; Q 36651. Collected 09/24/1995 in San Marcos, Guatemala. Latitude 15 deg. 10' 18'' N. Longitude 91 deg. 56' 48'' W. Elevation 3380 m. 1.0 km NW of town square of Ixchiguan on road to Tacana, ca 50 km N of road. Growing on slope in opening in mature pine forest among mosses and shrubby *Potentilla*.
- PI 604059. *Solanum clarum* Correll**
Wild. SMHV 7028; Q 36652. Collected 09/24/1995 in San Marcos, Guatemala. Latitude 15 deg. 10' 18'' N. Longitude 91 deg. 58' 24'' W. Elevation 3360 m. 7.2 km NW of town square of Ixchiguan, 20 m on S of road. Growing in mature pine forest among shrubs and shrubby *Potentilla*.
- PI 604060. *Solanum clarum* Correll**
Wild. SMHV 7029; Q 36653. Collected 09/25/1995 in San Marcos, Guatemala. Latitude 15 deg. 11' N. Longitude 92 deg. 4' W. Elevation 3260 m. 2.5 hours hike SW of town of Tacana, towards village of San Rafael, at area of village of Chemealon. Growing in mature pine forest in mosses and with shrubby *Potentilla*.
- PI 604061. *Solanum morelliforme* Bitter & Munch**
Wild. SMHV 7030; Q 36654. Collected 09/25/1995 in San Marcos, Guatemala. Latitude 15 deg. 8' N. Longitude 92 deg. 7' W. Elevation 2900 m. 4 hours hike SW of town of Tacana, towards village of San Rafael, on SW slope descending to San Rafael. Growing in organic matter on horizontal branch

of old elm tree.

PI 604062. *Solanum agrimonifolium* Rydb.

Wild. SMHV 7034; Q 36655. Collected 09/26/1995 in San Marcos, Guatemala. Latitude 15 deg. 4' 36'' N. Longitude 91 deg. 52' 48'' W. Elevation 2780 m. On N slope of Volcan Tajumulco, on W-facing valley, a 10 minute hike S into woods from a point 2.5 km W of road from San Marcos to Tacana to town of Tajumulco. Growing in rich organic soil among other herbaceous plants on steep slope of opening in woods.

PI 604063. *Solanum agrimonifolium* Rydb.

Wild. SMHV 7036; Q 36656. Collected 09/28/1995 in Solola, Guatemala. Latitude 14 deg. 51' 30'' N. Longitude 91 deg. 11' 42'' W. Elevation 3000 m. 7.0 km west of the intersection of the road from Nahuala to Guatemala City, and the old road west to Totonicapan, ca 20 m north of road. Growing in stream bank and on steep slope in organic soil.

PI 604064. *Solanum bulbocastanum* Dunal

Wild. SMHV 7040; Q 36657. Collected 10/05/1995 in Baja Verapaz, Guatemala. Latitude 15 deg. 9' 18'' N. Longitude 90 deg. 17' 30'' W. Elevation 1430 m. 8.8 km N from town square of Salama on old road to Coban. Growing in shade of bushes on dry hillside.

PI 604065. *Solanum bulbocastanum* Dunal

Wild. SMHV 7042; Q 36658. Collected 10/05/1995 in Baja Verapaz, Guatemala. Latitude 15 deg. 10' 18'' N. Longitude 90 deg. 17' 42'' W. Elevation 1640 m. 11.5 km N from town square of Salama on old road to Coban, 50 m W on private road past powerline. Growing in shade of trees.

PI 604066. *Solanum bulbocastanum* Dunal

Wild. SMHV 7043; Q 36659. Collected 10/05/1995 in Baja Verapaz, Guatemala. Latitude 15 deg. 12' 54'' N. Longitude 90 deg. 17' 42'' W. Elevation 1420 m. 18.8 km N from town square of Salama on old road to Coban. Growing in rockfall.

PI 604067. *Solanum clarum* Correll

Wild. SMHV 7046; Q 36660. Collected 10/12/1995 in Totonicapan, Guatemala. Latitude 14 deg. 51' 36'' N. Longitude 91 deg. 13' 42'' W. Elevation 3260 m. Along old road from Los Encuentros to Totonicapan, 2 km W from border of Department Solola/Totonicapan. Growing on slope between mosses in mature pine forest in moist organic soil.

PI 604068. *Solanum clarum* Correll

Wild. SMHV 7048; Q 36661. Collected 10/12/1995 in Totonicapan, Guatemala. Latitude 14 deg. 52' 36'' N. Longitude 91 deg. 13' 42'' W. Elevation 3220 m. Along old road from Los Encuentros to Totonicapan, 4 km W of border of Department Solola/Totonicapan. Growing on slope between mosses in mature pine forest in moist organic soil.

PI 604069. *Solanum clarum* Correll

Wild. SMHV 7049; Q 36662. Collected 10/12/1995 in Totonicapan, Guatemala. Latitude 14 deg. 52' 54'' N. Longitude 91 deg. 14' 48'' W. Elevation 3220 m. Along old road from Los Encuentros to Totonicapan, 7.5 km W of border of Department Solola/Totonicapan. Growing on a tree in mature pine forest.

- PI 604070. *Solanum agrimonifolium* Rydb.**
Wild. SMHV 7050; Q 36663. Collected 10/13/1995 in Chimaltenango, Guatemala. Latitude 14 deg. 31' 6'' N. Longitude 90 deg. 53' 6'' W. Elevation 2880 m. On N facing slope of Volcan Acatenango, ca. a one-hour walk above Soledad, 1 km W of record 7051. Growing in recently cleared valley among other herbacious vegetation in moist organic soil.
- PI 604071. *Solanum agrimonifolium* Rydb.**
Wild. SMHV 7051; Q 36664. Collected 10/13/1995 in Chimaltenango, Guatemala. Latitude 14 deg. 31' 36'' N. Longitude 90 deg. 52' 42'' W. Elevation 2840 m. On N facing slope of Vulcan Acatenango, a one-hour walk above Soledad. Growing in recently cleared valley among other herbacious vegetation in moist organic soil.
- PI 604072. *Solanum clarum* Correll**
Wild. SMHV 7055; Q 36665. Collected 10/17/1995 in Totonicapan, Guatemala. Latitude 14 deg. 54' 48'' N. Longitude 91 deg. 19' 6'' W. Elevation 3180 m. 7.3 km E of town square of Totonicapan, 4.8 km from old road to Santa Cruz del Quiche on old road to los Encuentros, ca 200 m uphill (S) of road. Growing among moss in old pine forest.
- PI 604073. *Solanum bulbocastanum* Dunal**
Wild. SMHV 7056; Q 36666. Collected 10/18/1995 in Huehuetenango, Guatemala. Latitude 15 deg. 18' 48'' N. Longitude 91 deg. 31' 6'' W. Elevation 1900 m. 3.1 km NW of the road entrance to Huehuetenango, on Rt. CA1, about 200 m uphill (SW) of road. Growing in a grazed field among spiny bushes.
- PI 604074. *Solanum bulbocastanum* Dunal**
Wild. SMHV 7057; Q 36667. Collected 10/19/1995 in Huehuetenango, Guatemala. Latitude 15 deg. 19' 18'' N. Longitude 91 deg. 32' 54'' W. Elevation 2000 m. 7.3 km NW of entrance to Huehuetenango on Rt. CA 1, about 400 m uphill (SW) of road. Growing in grazed field among spiny bushes and along fence rows.
- PI 604075. *Solanum clarum* Correll**
Wild. SMHV 7059; Q 36668. Collected 10/20/1995 in Huehuetenango, Guatemala. Latitude 15 deg. 27' 36'' N. Longitude 91 deg. 31' 12'' W. Elevation 3280 m. 4.3 km NW of road from Huehuetenango to Santa Eulalia, on road to Todos Santos Cuchumatan, about 100 m N of road. Growing in area of pine woods, under bushes among old pine tree.
- PI 604076. *Solanum agrimonifolium* Rydb.**
Wild. SMHV 7061; Q 36669. Collected 10/23/1995 in Huehuetenango, Guatemala. Latitude 15 deg. 28' 36'' N. Longitude 91 deg. 37' 24'' W. Elevation 2730 m. About 2 km walk N of San Juan Atitan, on footpath to Todos Santos, about 1 km walk S of collection 7062. Growing in wet organic soils by path, in valley by stream.
- PI 604077. *Solanum agrimonifolium* Rydb.**
Wild. SMHV 7062; Q 36670. Collected 10/23/1995 in Huehuetenango, Guatemala. Latitude 15 deg. 28' 42'' N. Longitude 91 deg. 37' 18'' W. Elevation 2830 m. About 3 km walk N of San Juan Atitan, on logging path diverting from main path to Todos Santos at a point about 2 km N of San

Juan Atitan, about 1 km NE of collection 7061 and about 500 m S of collection 7063. Growing in wet organic soils by path, in valley by stream.

PI 604078. *Solanum clarum* Correll

Wild. SMHV 7064; Q 36672. Collected 10/24/1995 in Huehuetenango, Guatemala. Latitude 15 deg. 29' 12'' N. Longitude 91 deg. 30' 24'' W. Elevation 3430 m. From the Huehuetenango a point 4 km N of junction of road to Todos Santos. Growing in moss in organic soil, under juniper trees.

PI 604079. *Solanum clarum* Correll

Wild. SMHV 7065; Q 36673. Collected 10/24/1995 in Huehuetenango, Guatemala. Latitude 15 deg. 29' 24'' N. Longitude 91 deg. 30' 54'' W. Elevation 3500 m. 31 km N of town square of Huehuetenango, on Road 9N, 3.5 km N of road junction to Casario Chiabal, about 2 km uphill, W of road. Growing in in moss in organic soil, under juniper trees.

PI 604080. *Solanum clarum* Correll

Wild. SMHV 7066; Q 36674. Collected 10/24/1995 in Huehuetenango, Guatemala. Latitude 15 deg. 28' 30'' N. Longitude 91 deg. 30' 54'' W. Elevation 3500 m. 31 km N of town square of Huehuetenango, on Rt. 9N, 3.5 km N of road junction to Casario Chiabal, about 2 km uphill, W of road. Growing in moss and organic soil, at edge of cliff, among juniper trees.

PI 604081. *Solanum clarum* Correll

Wild. SMHV 7067; Q 36675. Collected 10/25/1995 in Huehuetenango, Guatemala. Latitude 15 deg. 30' 6'' N. Longitude 91 deg. 27' 30'' W. Elevation 3350 m. 6 km E of Huehuetenango-Soloma Road (9N) on road past Huito to Tuinima, 1 km E of Huito. Growing in shade and in moss, under spreading branches all small juniper tree, in area of mostly logged pine and juniper forest.

PI 604082. *Solanum morelliforme* Bitter & Munch

Wild. SMHV 7069; Q 36676. Collected 10/26/1995 in Huehuetenango, Guatemala. Latitude 15 deg. 43' 54'' N. Longitude 91 deg. 30' 12'' W. Elevation 2930 m. About 9 km W of town square of Santa Eulalia, and 2 km S of junction of road to San Mateo Ixtatan and road to San Sebastian Coatan, walk 500 m up to near top of Cerro Chemalito, on W-facing side, Rt 9N. Growing in moss on horizontal branches of trees.

PI 604083. *Solanum clarum* Correll

Wild. SMHV 7072; Q 36677. Collected 10/26/1995 in Huehuetenango, Guatemala. Latitude 15 deg. 49' 12'' N. Longitude 91 deg. 30' 30'' W. Elevation 3020 m. 24.3 km N of town square of Santa Eulalia, 5.5 km S of town square of San Mateo Ixtatan, on Rt. 9N. Growing on moss-covered ground (one on moss-covered branch in tree),.

PI 604084. *Solanum oxycarpum* Schiede

Wild. SMHV 7073; Q 36678. Collected 10/26/1995 in Huehuetenango, Guatemala. Latitude 15 deg. 49' 12'' N. Longitude 91 deg. 30' 30'' W. Elevation 3020 m. 24.3 km N of town square of Santa Eulalia, 5.5 km S of town square of San Mateo Ixtatan, on Rt 9N. Growing in moist organic soil by stream, in recently cut woods.

PI 604085. *Solanum agrimonifolium* Rydb.
Wild. SMHV 7074; Q 36679. Collected 10/26/1995 in Huehuetenango, Guatemala. Latitude 15 deg. 49' 12'' N. Longitude 91 deg. 30' 30'' W. Elevation 3020 m. 24.3 km N of town square of Santa Eulalia, 5.5 km S of town square of San Mateo Ixtatan, on Rt 9N. Growing in moist organic soil by stream, in recently cut woods.

PI 604086. *Solanum clarum* Correll
Wild. SMHV 7075; Q 36680. Collected 10/27/1995 in Totonicapan, Guatemala. Latitude 14 deg. 54' 24'' N. Longitude 91 deg. 17' 42'' W. Elevation 3150 m. 12.4 km E of Totonicapan, 9.9 E km from deviation of road to Santa Cruz del Quiche on old road to Los Encuentros. Growing in moss on horizontal branches of trees and on ground under big trees.

The following were collected by David Spooner, USDA, ARS, Department of Horticulture, 1575 Linden Drive, Madison, Wisconsin 53706-1590, United States ; Roel Hoekstra, Center for Plant Breeding and Reproduction Research, Center for Genetic Resources The Netherlands (CGN), Droevendaalsesteeg 1,, Wageningen, Gelderland 6700 AA, Netherlands; Braulio Vilchez, Instituto Tecnolosgico de Costa Rica, Departamento de Biologma, P.O. Box 159-7050, Cartago, Cartago, Costa Rica. Received 02/10/1997.

PI 604087. *Solanum longiconicum* Bitter
Wild. SHV 7101; Q 36866. Collected 11/28/1996 in Cartago, Costa Rica. Latitude 9 deg. 40' 12'' N. Longitude 83 deg. 51' 48'' W. Elevation 2500 m. 9.3 km S of Empalme at Km 66 of the Interamerican Highway. Growing along the road.

PI 604088. *Solanum longiconicum* Bitter
Wild. SHV 7103; Q 36867. Collected 11/28/1996 in Cartago, Costa Rica. Latitude 9 deg. 37' 54'' N. Longitude 83 deg. 50' 24'' W. Elevation 2770 m. 13.5 km S of Empalme at the Interamerican Highway. Along the road. Common.

PI 604089. *Solanum longiconicum* Bitter
Wild. SHV 7104; Q 36868. Collected 11/28/1996 in Cartago, Costa Rica. Latitude 9 deg. 36' 24'' N. Longitude 83 deg. 45' 48'' W. Elevation 3020 m. 20.3 km S of Empalme along Interamerican Highway. Along the road.

PI 604090. *Solanum longiconicum* Bitter
Wild. SHV 7105; Q 36869. Collected 11/29/1996 in Heredia, Costa Rica. Latitude 10 deg. 7' 12'' N. Longitude 84 deg. 7' 30'' W. Elevation 2570 m. Volcan Barva, 500 m after entrance of park 100 m NW towards viewpoint. Under a tall tree.

PI 604091. *Solanum longiconicum* Bitter
Wild. SHV 7107; Q 36870. Collected 11/29/1996 in Heredia, Costa Rica. Latitude 10 deg. 8' 0'' N. Longitude 84 deg. 6' 30'' W. Elevation 2780 m. Volcan Barva, above Laguna Barva on the path to Laguna Copey. Aong path in cloud forest.

PI 604092. *Solanum longiconicum* Bitter
Wild. SHV 7108; Q 36871. Collected 11/29/1996 in Heredia, Costa Rica.

Latitude 10 deg. 9' 0'' N. Longitude 84 deg. 6' 0'' W. Elevation 2500 m. Volcan Barva, along path above Laguna Copey. Along path in cloud forest.

PI 604093. *Solanum longiconicum* Bitter

Wild. SHV 7109; Q 36872. Collected 11/30/1996 in Alajuela, Costa Rica. Latitude 10 deg. 19' 0'' N. Longitude 84 deg. 47' 42'' W. Elevation 1830 m. Monteverde Cloud Forest Preserve, division point of provinces A, P and G, top of Cerro Amigos, around television tower (channel 13).

PI 604094. *Solanum longiconicum* Bitter

Wild. SHV 7122; Q 36873. Collected 12/09/1996 in Alajuela, Costa Rica. Latitude 10 deg. 10' 42'' N. Longitude 84 deg. 14' 18'' W. Elevation 2560 m. Volcan Poas, 8.5 km from Poasito, 400 m before large meadow in the Parque nacional. Along the road in humid places.

PI 604095. *Solanum longiconicum* Bitter

Wild. SHV 7123; Q 36874. Collected 12/10/1996 in Heredia, Costa Rica. Latitude 10 deg. 5' 6'' N. Longitude 84 deg. 4' 24'' W. Elevation 2200 m. Parque Nacional Braulio Carillo sector Cerro Chompipes, 6.3 km N of San Rafael, along recently cleared path to the top for new road. In wet cloud forest.

The following were collected by J.G. Hawkes, University of Birmingham, Department of Botony, Edgbasion, Birmingham, England B15 2TT, United Kingdom. Donated by Roel Hoekstra, Center for Plant Breeding and Reproduction Research, Center for Genetic Resources The Netherlands (CGN), Droevendaalsesteeg 1,, Wageningen, Gelderland 6700 AA, Netherlands. Received 02/10/1997.

PI 604096. *Solanum iopetalum* (Bitter) Hawkes

Wild. HAW 320; BGRC 8102; Q 36876. Collected in Mexico.

PI 604097. *Solanum iopetalum* (Bitter) Hawkes

Wild. HAW 318; BGRC 8103; Q 36877. Collected in Mexico.

The following were collected by Carlos M. Ochoa, International Potato Center, Apartado 5969, Lima, Lima, Peru. Donated by Zosimo Huaman, International Potato Center, Apartado 1558, Av. La Universidad No. 795, Lima 12, Lima, Peru ; Oscar A. Hidalgo, International Potato Center, Apartado 5969, Lima, Lima, Peru. Received 03/24/1997.

PI 604098. *Solanum iopetalum* (Bitter) Hawkes

Wild. OCH 14208; CIP 761928; Q 36982. Collected in Mexico.

PI 604099. *Solanum iopetalum* (Bitter) Hawkes

Wild. OCH 14221; CIP 761935; Q 36983. Collected in Mexico.

The following were developed by James Klein, Southern Illinois University, Dept. of Plant and Soil Science, Carbondale, Illinois 62901-4415, United States; Mike E. Schmidt, Southern Illinois University, Department of Plant and Soil Sciences, MC 4415, Carbondale, Illinois 62901-4415, United States; R.J. Suttner, Southern Illinois University, Dept. of Plant, Soil, and General

Agriculture, Carbondale, Illinois 62901-4415, United States; O. Myers, Jr., Southern Illinois University, Dept. of Plant, Soil, and General Agriculture, Carbondale, Illinois 62901-4415, United States. Received 07/02/1998.

PI 604100. *Glycine max* (L.) Merr.

Cultivar. Pureline. "LS90-1920". CV-394. Pedigree - Essex x Fayette. Relative maturity 4.9. Growth habit determinate, flowers purple, tawny pubescence, and tan pod walls. Plant height averages 84 cm. Lodging score averages 1.8. Seedcoats shiny yellow with brown hila. Seed size approx. 133 mg seed-1. Seed composition averages 423 g kg-1 protein and 207 g kg-1 oil on a dry weight basis. Resistant to soybean cyst nematode (*Heterodera glycines*) race 3, soybean sudden death syndrome (*Fusarium solani*), stem canker (*Diaporthe phaseolorum*) and frogeye leafspot (*Cercospora sojina*).

The following were developed by F. Kiehn, Agriculture and Agri-Food Canada, Research Centre, Unit 100 - 101 Route 100, Morden, Manitoba R6M 1Y5, Canada; H.C. Huang, Agriculture and Agri-Food Canada, Lethbridge Research Center, P.O. Box 3000, Lethbridge, Alberta T1J 4B1, Canada; H.H. Mundel, Agriculture and Agri-Food Canada, Research Centre, Box 3000, Lethbridge, Alberta T1J 4B1, Canada; G. Saindon, Agriculture and Agri-Food Canada, Potato Research Station, P.O. Box 20280, Fredericton, New Brunswick E3B 4Z7, Canada. Received 07/02/1998.

PI 604101. *Phaseolus vulgaris* L.

Cultivar. "AC ALBERTA PINK"; L94C274. CV-160. Pedigree - ISB473/4/NW63/3/Swan Valley/2/Redcloud/Kentwood. Pink dry bean with high yield and large seed (at 14% moisture averaging 31.2 g 100 seed-1 over eight irrigated sites). Maturing in 100 d (compared to 102 for Viva) with type II b, indeterminate growth habit and few vines. Suitable for wide-row and undercutting production systems. Susceptible to white mold (*Sclerotinia sclerotiorum*), common blight (*Xanthomonas campestris* pv. *phaseoli*), halo blight (*Pseudomonas syringae* pv. *phaseolicola*), and root rot (*Fusarium oxysporum*, *Phythium ultimum*, and *Rhizoctonia solani*).

PI 604102. *Phaseolus vulgaris* L.

Cultivar. "AC EARLIRED"; L94D186. CV-161. Pedigree - Ember / 5217 from line L94D186. Small red dry bean maintaining yield of check and with seed weight (over 11 irrigated sites, at 14% moisture) of 32.2 g 100 seed-1. Early maturing (100 d compared to 105 d for NW63 in ten irrigated trials) with type II a, indeterminate growth habit, and no vines. Suitable for wide-row (standard) production system. Susceptible to white mold (*Sclerotinia sclerotiorum*), common blight (*Xanthomonas campestris* pv. *phaseoli*), and halo blight (*Pseudomonas syringae* pv. *phaseolicola*). Susceptible to root rot (*Fusarium oxysporum* and *Phythium ultimum*) but is moderately resistant to *Rhizoctonia solani*.

The following were collected by J. Manisterski, Tel Aviv University, Liberman Germplasm Bank, Institute for Cereal Crops Improvement, Ramat Aviv, Tel Aviv, Israel. Donated by Yehoshua Anikster, Tel Aviv University, Institute for Cereal Crops Improvement, Ramat-Aviv, Tel Aviv 69978, Israel. Received 02/05/1993.

- PI 604103. *Aegilops longissima* Schweinf. & Muschl.
Wild. AEG-263-17A. Collected 1984 in Israel. Latitude 31 deg. 50' N.
Longitude 34 deg. 44' E. Elevation 50 m. Shedema, Central Coastal Plain.
- PI 604104. *Aegilops longissima* Schweinf. & Muschl.
Wild. AEG-270-26. Collected 1984 in Israel. Latitude 31 deg. 50' N.
Longitude 34 deg. 44' E. Elevation 50 m. Shedema, Central Coastal Plain.
- PI 604105. *Aegilops longissima* Schweinf. & Muschl.
Wild. AEG-271-27. Collected 1984 in Israel. Latitude 31 deg. 50' N.
Longitude 34 deg. 44' E. Elevation 50 m. Shedema, Central Coastal Plain.
- PI 604106. *Aegilops longissima* Schweinf. & Muschl.
Wild. AEG-272-28. Collected 1984 in Israel. Latitude 31 deg. 50' N.
Longitude 34 deg. 44' E. Elevation 50 m. Shedema, Central Coastal Plain.
- PI 604107. *Aegilops longissima* Schweinf. & Muschl.
Wild. AEG-273-29. Collected 1984 in Israel. Latitude 31 deg. 50' N.
Longitude 34 deg. 44' E. Elevation 50 m. Shedema, Central Coastal Plain.
- PI 604108. *Aegilops longissima* Schweinf. & Muschl.
Wild. AEG-274-30. Collected 1984 in Israel. Latitude 31 deg. 50' N.
Longitude 34 deg. 44' E. Elevation 50 m. Shedema, Central Coastal Plain.
- PI 604109. *Aegilops longissima* Schweinf. & Muschl.
Wild. AEG-277-33. Collected 1984 in Israel. Latitude 31 deg. 50' N.
Longitude 34 deg. 44' E. Elevation 50 m. Shedema, Central Coastal Plain.
- PI 604110. *Aegilops longissima* Schweinf. & Muschl.
Wild. AEG-280-37. Collected 1984 in Israel. Latitude 31 deg. 50' N.
Longitude 34 deg. 44' E. Elevation 50 m. Shedema, Central Coastal Plain.
- PI 604111. *Aegilops longissima* Schweinf. & Muschl.
Wild. AEG-281-40. Collected 1984 in Israel. Latitude 31 deg. 50' N.
Longitude 34 deg. 44' E. Elevation 50 m. Shedema, Central Coastal Plain.
- PI 604112. *Aegilops longissima* Schweinf. & Muschl.
Wild. AEG-284-44. Collected 1984 in Israel. Latitude 31 deg. 50' N.
Longitude 34 deg. 44' E. Elevation 50 m. Shedema, Central Coastal Plain.
- PI 604113. *Aegilops longissima* Schweinf. & Muschl.
Wild. AEG-286-46. Collected 1984 in Israel. Latitude 31 deg. 50' N.
Longitude 34 deg. 44' E. Elevation 50 m. Shedema, Central Coastal Plain.
- PI 604114. *Aegilops longissima* Schweinf. & Muschl.
Wild. AEG-287-47. Collected 1984 in Israel. Latitude 31 deg. 50' N.
Longitude 34 deg. 44' E. Elevation 50 m. Shedema, Central Coastal Plain.
- PI 604115. *Aegilops longissima* Schweinf. & Muschl.
Wild. AEG-288-48. Collected 1984 in Israel. Latitude 31 deg. 50' N.
Longitude 34 deg. 44' E. Elevation 50 m. Shedema, Central Coastal Plain.
- PI 604116. *Aegilops longissima* Schweinf. & Muschl.
Wild. AEG-289-49. Collected 1984 in Israel. Latitude 31 deg. 50' N.
Longitude 34 deg. 44' E. Elevation 50 m. Shedema, Central Coastal Plain.

- PI 604117. **Aegilops longissima** Schweinf. & Muschl.
Wild. AEG-290-50. Collected 1984 in Israel. Latitude 31 deg. 50' N.
Longitude 34 deg. 44' E. Elevation 50 m. Shedema, Central Coastal Plain.
- PI 604118. **Aegilops longissima** Schweinf. & Muschl.
Wild. AEG-291-51. Collected 1984 in Israel. Latitude 31 deg. 50' N.
Longitude 34 deg. 44' E. Elevation 50 m. Shedema, Central Coastal Plain.
- PI 604119. **Aegilops longissima** Schweinf. & Muschl.
Wild. AEG-293-54. Collected 1984 in Israel. Latitude 31 deg. 50' N.
Longitude 34 deg. 44' E. Elevation 50 m. Shedema, Central Coastal Plain.
- PI 604120. **Aegilops longissima** Schweinf. & Muschl.
Wild. AEG-294-1. Collected 1984 in Israel. Latitude 32 deg. 19' N.
Longitude 34 deg. 54' E. Elevation 50 m. Beit-Lid, Central Coastal Plain
.
- PI 604121. **Aegilops longissima** Schweinf. & Muschl.
Wild. AEG-295-2. Collected 1984 in Israel. Latitude 32 deg. 19' N.
Longitude 34 deg. 54' E. Elevation 50 m. Beit-Lid, Central Coastal Plain
.
- PI 604122. **Aegilops longissima** Schweinf. & Muschl.
Wild. AEG-298-5. Collected 1984 in Israel. Latitude 32 deg. 19' N.
Longitude 34 deg. 54' E. Elevation 50 m. Beit-Lid, Central Coastal Plain
.
- PI 604123. **Aegilops longissima** Schweinf. & Muschl.
Wild. AEG-301-8. Collected 1984 in Israel. Latitude 32 deg. 19' N.
Longitude 34 deg. 54' E. Elevation 50 m. Beit-Lid, Central Coastal Plain
.
- PI 604124. **Aegilops longissima** Schweinf. & Muschl.
Wild. AEG-302-9. Collected 1984 in Israel. Latitude 32 deg. 19' N.
Longitude 34 deg. 54' E. Elevation 50 m. Beit-Lid, Central Coastal Plain
.
- PI 604125. **Aegilops longissima** Schweinf. & Muschl.
Wild. AEG-303-10. Collected 1984 in Israel. Latitude 32 deg. 19' N.
Longitude 34 deg. 54' E. Elevation 50 m. Beit-Lid, Central Coastal Plain
.
- PI 604126. **Aegilops longissima** Schweinf. & Muschl.
Wild. AEG-620-2. Collected 05/23/1985 in Israel. Latitude 31 deg. 51' N.
Longitude 34 deg. 48' E. Elevation 70 m. Rehovot (Bilu Junc. A), Central
Coastal Plain.
- PI 604127. **Aegilops longissima** Schweinf. & Muschl.
Wild. AEG-621-3. Collected 05/23/1985 in Israel. Latitude 31 deg. 51' N.
Longitude 34 deg. 48' E. Elevation 70 m. Rehovot (Bilu Junc. A), Central
Coastal Plain.
- PI 604128. **Aegilops longissima** Schweinf. & Muschl.
Wild. AEG-622-4. Collected 05/23/1985 in Israel. Latitude 31 deg. 51' N.

Longitude 34 deg. 48' E. Elevation 70 m. Rehovot (Bilu Junc. A), Central Coastal Plain.

PI 604129. *Aegilops longissima* Schweinf. & Muschl.

Wild. AEG-624-6. Collected 05/23/1985 in Israel. Latitude 31 deg. 51' N. Longitude 34 deg. 48' E. Elevation 70 m. Rehovot (Bilu Junc. A), Central Coastal Plain.

PI 604130. *Aegilops longissima* Schweinf. & Muschl.

Wild. AEG-625-7. Collected 05/23/1985 in Israel. Latitude 31 deg. 51' N. Longitude 34 deg. 48' E. Elevation 70 m. Rehovot (Bilu Junc. A), Central Coastal Plain.

PI 604131. *Aegilops longissima* Schweinf. & Muschl.

Wild. AEG-627-9. Collected 05/23/1985 in Israel. Latitude 31 deg. 51' N. Longitude 34 deg. 48' E. Elevation 70 m. Rehovot (Bilu Junc. A), Central Coastal Plain.

PI 604132. *Aegilops longissima* Schweinf. & Muschl.

Wild. AEG-628-10. Collected 05/23/1985 in Israel. Latitude 31 deg. 51' N. Longitude 34 deg. 48' E. Elevation 70 m. Rehovot (Bilu Junc. A), Central Coastal Plain.

PI 604133. *Aegilops longissima* Schweinf. & Muschl.

Wild. AEG-629-11. Collected 05/23/1985 in Israel. Latitude 31 deg. 51' N. Longitude 34 deg. 48' E. Elevation 70 m. Rehovot (Bilu Junc. A), Central Coastal Plain.

PI 604134. *Aegilops longissima* Schweinf. & Muschl.

Wild. AEG-630-12. Collected 05/23/1985 in Israel. Latitude 31 deg. 51' N. Longitude 34 deg. 48' E. Elevation 70 m. Rehovot (Bilu Junc. A), Central Coastal Plain.

PI 604135. *Aegilops longissima* Schweinf. & Muschl.

Wild. AEG-631-13. Collected 05/23/1985 in Israel. Latitude 31 deg. 51' N. Longitude 34 deg. 48' E. Elevation 70 m. Rehovot (Bilu Junc. A), Central Coastal Plain.

PI 604136. *Aegilops longissima* Schweinf. & Muschl.

Wild. AEG-634-16. Collected 05/23/1985 in Israel. Latitude 31 deg. 51' N. Longitude 34 deg. 48' E. Elevation 70 m. Rehovot (Bilu Junc. A), Central Coastal Plain.

PI 604137. *Aegilops longissima* Schweinf. & Muschl.

Wild. AEG-635-17. Collected 05/23/1985 in Israel. Latitude 31 deg. 51' N. Longitude 34 deg. 48' E. Elevation 70 m. Rehovot (Bilu Junc. A), Central Coastal Plain.

PI 604138. *Aegilops longissima* Schweinf. & Muschl.

Wild. AEG-636-18. Collected 05/23/1985 in Israel. Latitude 31 deg. 51' N. Longitude 34 deg. 48' E. Elevation 70 m. Rehovot (Bilu Junc. A), Central Coastal Plain.

PI 604139. *Aegilops longissima* Schweinf. & Muschl.

Wild. AEG-637-19. Collected 05/23/1985 in Israel. Latitude 31 deg. 51'

N. Longitude 34 deg. 48' E. Elevation 70 m. Rehovot (Bilu Junc. A),
Central Coastal Plain.

- PI 604140. *Aegilops longissima*** Schweinf. & Muschl.
Wild. AEG-639-21. Collected 05/23/1985 in Israel. Latitude 31 deg. 51'
N. Longitude 34 deg. 48' E. Elevation 70 m. Rehovot (Bilu Junc. A),
Central Coastal Plain.
- PI 604141. *Aegilops longissima*** Schweinf. & Muschl.
Wild. AEG-641-23. Collected 05/23/1985 in Israel. Latitude 31 deg. 51'
N. Longitude 34 deg. 48' E. Elevation 70 m. Rehovot (Bilu Junc. A),
Central Coastal Plain.
- PI 604142. *Aegilops longissima*** Schweinf. & Muschl.
Wild. AEG-642-24. Collected 05/23/1985 in Israel. Latitude 31 deg. 51'
N. Longitude 34 deg. 48' E. Elevation 70 m. Rehovot (Bilu Junc. A),
Central Coastal Plain.
- PI 604143. *Aegilops longissima*** Schweinf. & Muschl.
Wild. AEG-644-26. Collected 05/23/1985 in Israel. Latitude 31 deg. 51'
N. Longitude 34 deg. 48' E. Elevation 70 m. Rehovot (Bilu Junc. A),
Central Coastal Plain.
- PI 604144. *Aegilops longissima*** Schweinf. & Muschl.
Wild. AEG-645-27. Collected 05/23/1985 in Israel. Latitude 31 deg. 51'
N. Longitude 34 deg. 48' E. Elevation 70 m. Rehovot (Bilu Junc. A),
Central Coastal Plain.
- PI 604145. *Aegilops peregrina*** (Hack.) Maire & Weiller
Wild. AEG-304-1. Collected 06/03/1983 in Israel. Latitude 32 deg. 19' N.
Longitude 34 deg. 54' E. Elevation 50 m. Beit-Lid, Central Coastal Plain
.
- PI 604146. *Aegilops peregrina*** (Hack.) Maire & Weiller
Wild. AEG-414-2. Collected 06/03/1983 in Israel. Latitude 32 deg. 37' N.
Longitude 35 deg. 5' E. Elevation 150 m. En-haEmeq, Plateau of Menashe.
- PI 604147. *Aegilops peregrina*** (Hack.) Maire & Weiller
Wild. AEG-415-3. Collected 06/03/1983 in Israel. Latitude 32 deg. 37' N.
Longitude 35 deg. 5' E. Elevation 150 m. En-haEmeq, Plateau of Menashe.
- PI 604148. *Aegilops peregrina*** (Hack.) Maire & Weiller
Wild. AEG-416-4. Collected 06/03/1983 in Israel. Latitude 32 deg. 37' N.
Longitude 35 deg. 5' E. Elevation 150 m. En-haEmeq, Plateau of Menashe.
- PI 604149. *Aegilops peregrina*** (Hack.) Maire & Weiller
Wild. AEG-417-5. Collected 06/03/1983 in Israel. Latitude 32 deg. 37' N.
Longitude 35 deg. 5' E. Elevation 150 m. En-haEmeq, Plateau of Menashe.
- PI 604150. *Aegilops peregrina*** (Hack.) Maire & Weiller
Wild. AEG-813-2. Collected 05/31/1985 in Israel. Latitude 32 deg. 46' N.
Longitude 35 deg. 1' E. Elevation 230 m. Haifa (Technion), Mt. Carmel.

The following were collected by G. Irit, Israel. Donated by Yehoshua

Anikster, Tel Aviv University, Institute for Cereal Crops Improvement, Ramat-Aviv, Tel Aviv 69978, Israel. Received 02/05/1993.

PI 604151. *Aegilops peregrina* (Hack.) Maire & Weiller
Wild. AEG-902-10. Collected 06/16/1985 in Israel. Latitude 32 deg. 59'
N. Longitude 35 deg. 42' E. Elevation 300 m. Uper Zavitan, Golan Heights

PI 604152. *Aegilops peregrina* (Hack.) Maire & Weiller
Wild. AEG-904-12. Collected 06/16/1985 in Israel. Latitude 32 deg. 59'
N. Longitude 35 deg. 42' E. Elevation 300 m. Uper Zavitan, Golan Heights

PI 604153. *Aegilops peregrina* (Hack.) Maire & Weiller
Wild. AEG-906-14. Collected 06/16/1985 in Israel. Latitude 32 deg. 59'
N. Longitude 35 deg. 42' E. Elevation 300 m. Uper Zavitan, Golan Heights

PI 604154. *Aegilops peregrina* (Hack.) Maire & Weiller
Wild. AEG-907-15. Collected 06/16/1985 in Israel. Latitude 32 deg. 59'
N. Longitude 35 deg. 42' E. Elevation 300 m. Uper Zavitan, Golan Heights

The following were collected by J. Manisterski, Tel Aviv University, Liberman Germplasm Bank, Institute for Cereal Crops Improvement, Ramat Aviv, Tel Aviv, Israel. Donated by Yehoshua Anikster, Tel Aviv University, Institute for Cereal Crops Improvement, Ramat-Aviv, Tel Aviv 69978, Israel. Received 02/05/1993.

PI 604155. *Aegilops peregrina* (Hack.) Maire & Weiller
Wild. AEG-908-1. Collected 05/13/1986 in Israel. Latitude 33 deg. 4'
50'' N. Longitude 35 deg. 31' 1'' E. Elevation 500 m. Dishon, Eastern
Upper Galilee.

PI 604156. *Aegilops peregrina* (Hack.) Maire & Weiller
Wild. AEG-962-1. Collected 05/13/1986 in Israel. Latitude 33 deg. 1' N.
Longitude 35 deg. 25' E. Elevation 730 m. Jish (Gush-Halav), Upper
Galilee.

PI 604157. *Aegilops peregrina* (Hack.) Maire & Weiller
Wild. AEG-964-3. Collected 05/13/1986 in Israel. Latitude 33 deg. 1' N.
Longitude 35 deg. 25' E. Elevation 730 m. Jish (Gush-Halav), Upper
Galilee.

PI 604158. *Aegilops peregrina* (Hack.) Maire & Weiller
Wild. AEG-965-4. Collected 05/13/1986 in Israel. Latitude 33 deg. 1' N.
Longitude 35 deg. 25' E. Elevation 730 m. Jish (Gush-Halav), Upper
Galilee.

PI 604159. *Aegilops peregrina* (Hack.) Maire & Weiller
Wild. AEG-966-5. Collected 05/13/1986 in Israel. Latitude 33 deg. 1' N.
Longitude 35 deg. 25' E. Elevation 730 m. Jish (Gush-Halav), Upper
Galilee.

- PI 604160. *Aegilops peregrina*** (Hack.) Maire & Weiller
Wild. AEG-967-6. Collected 05/13/1986 in Israel. Latitude 33 deg. 1' N.
Longitude 35 deg. 25' E. Elevation 730 m. Jish (Gush-Halav), Upper
Galilee.
- PI 604161. *Aegilops peregrina*** (Hack.) Maire & Weiller
Wild. AEG-968-7. Collected 05/13/1986 in Israel. Latitude 33 deg. 1' N.
Longitude 35 deg. 25' E. Elevation 730 m. Jish (Gush-Halav), Upper
Galilee.
- PI 604162. *Aegilops peregrina*** (Hack.) Maire & Weiller
Wild. AEG-970-9. Collected 05/13/1986 in Israel. Latitude 33 deg. 1' N.
Longitude 35 deg. 25' E. Elevation 730 m. Jish (Gush-Halav), Upper
Galilee.
- PI 604163. *Aegilops peregrina*** (Hack.) Maire & Weiller
Wild. AEG-972-11. Collected 05/13/1986 in Israel. Latitude 33 deg. 1' N.
Longitude 35 deg. 25' E. Elevation 730 m. Jish (Gush-Halav), Upper
Galilee.
- PI 604164. *Aegilops peregrina*** (Hack.) Maire & Weiller
Wild. AEG-977-16. Collected 05/13/1986 in Israel. Latitude 33 deg. 1' N.
Longitude 35 deg. 25' E. Elevation 730 m. Jish (Gush-Halav), Upper
Galilee.
- PI 604165. *Aegilops peregrina*** (Hack.) Maire & Weiller
Wild. AEG-978-17. Collected 05/13/1986 in Israel. Latitude 33 deg. 1' N.
Longitude 35 deg. 25' E. Elevation 730 m. Jish (Gush-Halav), Upper
Galilee.
- PI 604166. *Aegilops peregrina*** (Hack.) Maire & Weiller
Wild. AEG-979-18. Collected 05/13/1986 in Israel. Latitude 33 deg. 1' N.
Longitude 35 deg. 25' E. Elevation 730 m. Jish (Gush-Halav), Upper
Galilee.
- PI 604167. *Aegilops peregrina*** (Hack.) Maire & Weiller
Wild. AEG-980-19. Collected 05/13/1986 in Israel. Latitude 33 deg. 1' N.
Longitude 35 deg. 25' E. Elevation 730 m. Jish (Gush-Halav), Upper
Galilee.
- PI 604168. *Aegilops peregrina*** (Hack.) Maire & Weiller
Wild. AEG-1199-2. Collected 05/06/1986 in Israel. Latitude 32 deg. 30'
N. Longitude 35 deg. 7' E. Elevation 160 m. Nahal-Tut, Central Coastal
Plain.
- PI 604169. *Aegilops peregrina*** (Hack.) Maire & Weiller
Wild. AEG-1200-3. Collected 05/06/1986 in Israel. Latitude 32 deg. 30'
N. Longitude 35 deg. 7' E. Elevation 160 m. Nahal-Tut, Central Coastal
Plain.
- PI 604170. *Aegilops peregrina*** (Hack.) Maire & Weiller
Wild. AEG-1507-1. Collected 05/25/1986 in Israel. Latitude 31 deg. 32'
N. Longitude 34 deg. 35' E. Elevation 75 m. Nir'am (Reserve), Southern
Coastal Plain.

- PI 604171. *Aegilops peregrina* (Hack.) Maire & Weiller
Wild. AEG-1636-1. Collected 06/02/1986 in Israel. Latitude 31 deg. 21'
N. Longitude 35 deg. 7' E. Elevation 850 m. Yattir Forest, Judean
Mountains.
- PI 604172. *Aegilops peregrina* (Hack.) Maire & Weiller
Wild. AEG-1923-1. Collected 05/25/1986 in Israel. Latitude 31 deg. 36'
N. Longitude 34 deg. 36' E. Elevation 50 m. Gevar'am, Southern Coastal
Plain.
- PI 604173. *Aegilops peregrina* (Hack.) Maire & Weiller
Wild. AEG-1929-6. Collected 05/26/1986 in Israel. Latitude 31 deg. 40'
N. Longitude 34 deg. 38' E. Elevation 80 m. Berekhya, Southern Coastal
Plain.
- PI 604174. *Aegilops peregrina* (Hack.) Maire & Weiller
Wild. AEG-1930-7. Collected 05/26/1986 in Israel. Latitude 31 deg. 40'
N. Longitude 34 deg. 38' E. Elevation 80 m. Berekhya, Southern Coastal
Plain.
- PI 604175. *Aegilops peregrina* (Hack.) Maire & Weiller
Wild. AEG-1931-8. Collected 05/26/1986 in Israel. Latitude 31 deg. 40'
N. Longitude 34 deg. 38' E. Elevation 80 m. Berekhya, Southern Coastal
Plain.
- PI 604176. *Aegilops peregrina* (Hack.) Maire & Weiller
Wild. AEG-1932-9. Collected 05/26/1986 in Israel. Latitude 31 deg. 40'
N. Longitude 34 deg. 38' E. Elevation 80 m. Berekhya, Southern Coastal
Plain.
- PI 604177. *Aegilops peregrina* (Hack.) Maire & Weiller
Wild. AEG-1933-10. Collected 05/26/1986 in Israel. Latitude 31 deg. 40'
N. Longitude 34 deg. 38' E. Elevation 80 m. Berekhya, Southern Coastal
Plain.
- PI 604178. *Aegilops peregrina* (Hack.) Maire & Weiller
Wild. AEG-1934-11. Collected 05/26/1986 in Israel. Latitude 31 deg. 40'
N. Longitude 34 deg. 38' E. Elevation 80 m. Berekhya, Southern Coastal
Plain.
- PI 604179. *Aegilops peregrina* (Hack.) Maire & Weiller
Wild. AEG-1936-13. Collected 05/26/1986 in Israel. Latitude 31 deg. 40'
N. Longitude 34 deg. 38' E. Elevation 80 m. Berekhya, Southern Coastal
Plain.
- PI 604180. *Aegilops peregrina* (Hack.) Maire & Weiller
Wild. AEG-1938-15. Collected 05/26/1986 in Israel. Latitude 31 deg. 40'
N. Longitude 34 deg. 38' E. Elevation 80 m. Berekhya, Southern Coastal
Plain.
- PI 604181. *Aegilops peregrina* (Hack.) Maire & Weiller
Wild. AEG-1939-16. Collected 05/26/1986 in Israel. Latitude 31 deg. 40'
N. Longitude 34 deg. 38' E. Elevation 80 m. Berekhya, Southern Coastal
Plain.

- PI 604182. *Aegilops peregrina*** (Hack.) Maire & Weiller
Wild. AEG-1940-17. Collected 05/26/1986 in Israel. Latitude 31 deg. 40'
N. Longitude 34 deg. 38' E. Elevation 80 m. Berekhya, Southern Coastal
Plain.
- PI 604183. *Aegilops peregrina*** (Hack.) Maire & Weiller
Wild. AEG-1942-19. Collected 05/26/1986 in Israel. Latitude 31 deg. 40'
N. Longitude 34 deg. 38' E. Elevation 80 m. Berekhya, Southern Coastal
Plain.
- PI 604184. *Aegilops peregrina*** (Hack.) Maire & Weiller
Wild. AEG-1944-21. Collected 05/26/1986 in Israel. Latitude 31 deg. 40'
N. Longitude 34 deg. 38' E. Elevation 80 m. Berekhya, Southern Coastal
Plain.
- PI 604185. *Aegilops peregrina*** (Hack.) Maire & Weiller
Wild. AEG-1945-22. Collected 05/26/1986 in Israel. Latitude 31 deg. 40'
N. Longitude 34 deg. 38' E. Elevation 80 m. Berekhya, Southern Coastal
Plain.
- PI 604186. *Aegilops peregrina*** (Hack.) Maire & Weiller
Wild. AEG-1946-23. Collected 05/26/1986 in Israel. Latitude 31 deg. 40'
N. Longitude 34 deg. 38' E. Elevation 80 m. Berekhya, Southern Coastal
Plain.
- PI 604187. *Aegilops peregrina*** (Hack.) Maire & Weiller
Wild. AEG-1947-24. Collected 05/26/1986 in Israel. Latitude 31 deg. 40'
N. Longitude 34 deg. 38' E. Elevation 80 m. Berekhya, Southern Coastal
Plain.
- PI 604188. *Aegilops peregrina*** (Hack.) Maire & Weiller
Wild. AEG-1949-26. Collected 05/26/1986 in Israel. Latitude 31 deg. 40'
N. Longitude 34 deg. 38' E. Elevation 80 m. Berekhya, Southern Coastal
Plain.
- PI 604189. *Aegilops peregrina*** (Hack.) Maire & Weiller
Wild. AEG-1950-27. Collected 05/26/1986 in Israel. Latitude 31 deg. 40'
N. Longitude 34 deg. 38' E. Elevation 80 m. Berekhya, Southern Coastal
Plain.
- PI 604190. *Aegilops peregrina*** (Hack.) Maire & Weiller
Wild. AEG-1951-28. Collected 05/26/1986 in Israel. Latitude 31 deg. 40'
N. Longitude 34 deg. 38' E. Elevation 80 m. Berekhya, Southern Coastal
Plain.
- PI 604191. *Aegilops peregrina*** (Hack.) Maire & Weiller
Wild. AEG-1953-30. Collected 05/26/1986 in Israel. Latitude 31 deg. 40'
N. Longitude 34 deg. 38' E. Elevation 80 m. Berekhya, Southern Coastal
Plain.
- PI 604192. *Aegilops peregrina*** (Hack.) Maire & Weiller
Wild. AEG-1955-1. Collected 06/14/1986 in Israel. Latitude 31 deg. 51'
N. Longitude 34 deg. 48' E. Elevation 70 m. Givat-Berener, Central
Coastal Plain.

PI 604193. *Aegilops peregrina* (Hack.) Maire & Weiller
Wild. AEG-2016-4. Collected 06/03/1983 in Israel. Latitude 32 deg. 26'
N. Longitude 34 deg. 55' E. Elevation 25 m. Hedera, Central Coastal
Plain.

The following were developed by Boreal Plant Breeding, Myllytie 10,
Jokioinen, Hame FIN-31600, Finland. Donated by Marketta Saastamoinen, Boreal
Plant Breeding, Myllytie 10, Jokioinen, Hame FIN-31600, Finland. Received
05/05/1997.

PI 604194. *Avena sativa* L.
Cultivar. Pureline. "SISKO"; NSGC 6422.

PI 604195. *Avena sativa* L.
Cultivar. Pureline. "VELI"; NSGC 6423.

The following were collected by H. Hauptli, University of California,
Department of Agronomy and Range Science, Davis, California 95616, United
States. Developed by David Brenner, Iowa State University, Regional Plant
Introduction Station, Room G208, Agronomy Building, Ames, Iowa 50011, United
States. Received 10/1984.

PI 604196. *Amaranthus asplundii* Thell.
Wild. Separation from PI 511745; Ames 12990. Collected 07/25/1979 in
Ecuador. Latitude 1 deg. 40' 0'' S. Longitude 78 deg. 38' 0'' W.
Elevation 2750 m. Riobamba municipal market. Pedigree - Three plants
were segregated from PI 511745 in 1989 to start this accession. This
segregation was done in Ames, Iowa, by David Brenner because of mixed
species in the original accession. Separated from a grow-out of PI
511745. It could have been from weed seeds that came with the greenhouse
soil, but most likely the seeds came with an original sample from
Ecuador.

The following were developed by Victor Maddox, Mississippi State University,
Plant and Soil Sciences, 117 Dorman Hall, Mississippi State, Mississippi
39759, United States; H. Wayne Philley, Mississippi State University, Dept.
of Plant & Soil Sciences, Box 9555, Mississippi State, Mississippi 39762,
United States; J.M. Goatley, Jr., Mississippi State University, Dept. of
Plant and Soil Sciences, Mississippi State, Mississippi 39762, United States;
Jeff V. Krans, Mississippi State University, Department of Plant & Soil
Sciences, Box 9555, Mississippi State, Mississippi 39762, United States.
Received 07/13/1998.

PI 604197. *Cynodon x magennisii* Hurcombe
Cultivar. "MS-SUPREME"; MSB-40. CV-36. Pedigree - Single clone selected
from a Tifgreen bermudagrass golf green. Improved turf-type bermudagrass
recommended for golf putting greens. Short narrow leaf blades, short
internodes, and prostrate growth habit allows dense high-quality putting
surface that can withstand continuous mowing at 3.2mm height. Sterile
triploid that produces very few inflorescence and must be propagated
vegetatively.

The following were developed by Carol Wilkinson, Virginia Polytechnic Institute, & State University, Southern Piedmont Agric. Exp. Station, Blackstone, Virginia 23824, United States; C.S. Johnson, Virginia Polytechnic Institute, & State University, Southern Piedmont Agric. Res. & Ext. Center, Blacksburg, Virginia 23824, United States; T.D. Reed, Virginia Polytechnic Institute, & State University, Southern Piedmont Agric. Res. & Ext. Center, Blacksburg, Virginia 23824, United States. Received 07/13/1998.

PI 604198. *Nicotiana tabacum* L.

Cultivar. Pureline. "VA 355". CV-115. Pedigree - VA 309/VA 312//DF 300. Average yield 2270 kg/ha with an average grade index of 63. About 58 cm tall, produces an average of 12 harvested leaves when topped, flowers about 59 d after transplanting, and has less than one ground sucker per 18 plant plot. Average leaf length and width of both the middle and top leaf 78 and 37 cm, respectively. Average nicotine concentration 5.59%. Based on disease incidence, 61% greater level of resistance to race 0 black shank and more resistant to race 1 black shank than VA 309.

PI 604199. *Nicotiana tabacum* L.

Cultivar. Pureline. "VA 359". CV-116. Pedigree - Lizard Tail Turtle Foot/VA 309. Average yield 2502 kg/ha with an average grade index of 70. About 62cm tall, produces 13 harvestable leaves when topped, flowers about 60 d after transplanting, and has less than one ground sucker per 18 plant plot. Average leaf length and width of both middle and top leaf 78 and 39 cm, respectively. Average nicotine concentration 6.10%. Based on disease incidence, 56% greater level of resistance to race 0 black shank and comparable level of resistance to race 1 black shank compared to VA 309.

The following were collected by Raul Castillo, Instituto Nacional de Investigaciones Agropecuarias, Departamento de Recursos, Fitogeneticos, Estacion Experimental, Quito, Pichincha, Ecuador; David Spooner, USDA, ARS, Department of Horticulture, 1575 Linden Drive, Madison, Wisconsin 53706-1590, United States; Luis E. Lopez, International Plant Genetic Resources Institute, c/o CIAT, Apto. Aereo 6713, Cali, Valle, Colombia. Received 01/24/1992.

PI 604200. *Solanum tuquerrense* Hawkes

Wild. SCLp 5103; BE-3810; Q 28917. Collected 05/25/1991 in Carchi, Ecuador. Latitude 0 deg. 42' 0'' N. Longitude 77 deg. 43' 0'' W. Elevation 3260 m. Tulcan. Along dirt road at hacienda San Joaquin, about 3.5 km north (by air) of north end of Julio Andrade. Roadside, among bushes. Previously received as Q28463. Also as tubers in Q28920.

The following were collected by David Spooner, USDA, ARS, Department of Horticulture, 1575 Linden Drive, Madison, Wisconsin 53706-1590, United States ; G. Rivero; R. Varela; Raul Palencia, Fondo Nacional de Investigaciones Agropecuarias (FONAIAP), Estacion Experimental Merida, Merida, Merida, Venezuela; Alvaro Vargas, Fondo Nacional de Investigaciones Agropecuarias (FONAIAP), Estacion Experimental Tachira, Bramon, Tachira 5029, Venezuela. Received 09/22/1992.

PI 604201. *Solanum colombianum* Dunal

Wild. SVRPV 6322; BE-4266; Q 29306. Collected 09/02/1992 in Merida, Venezuela. Latitude 8 deg. 47' 0'' N. Longitude 70 deg. 48' 0'' W. Elevation 3480 m. 50-200m south of south end of Laguna Negra, 5.5 km ESE (by air) from road junction in Apartaderos. Growing in thin covering of moss on rocks on adjacent soil, 100-300 m south of Laguna Negra.

PI 604202. *Solanum paramoense* Bitter

Wild. SVRPV 6329; BE-4266; Q 29308. Collected 09/07/1992 in Merida, Venezuela. Latitude 8 deg. 45' 0'' N. Longitude 70 deg. 52' 0'' W. Elevation 3500 m. Growing on SW side of Quebrada Saisay, about 200 m from middle of valley floor, about 3 km SW (by air) from main road in San Rafael. Growing in organic soil among rocks and shrubs.

The following were collected by David Spooner, USDA, ARS, Department of Horticulture, 1575 Linden Drive, Madison, Wisconsin 53706-1590, United States ; Ronald van den Berg, Wageningen Agricultural University, Department of Plant Taxonomy, General Foulksweg 37, Wageningen, Gelderland 6700 ED, Netherlands; William Garcia Fernandez, PROINPA (Programa de Investigacion de la Papa), IBTA (Instituto de Boliviano Tecnologia Agropecuaria), Calle Man Cespced 923, Cochabamba, Cochabamba, Bolivia; Maria Luisa Ugarte, PROINPA (Programa de Investigacion de la Papa), IBTA (Instituto de Boliviano Tecnologia Agropecuaria), Calle Man Cespced 923, Cochabamba, Cochabamba, Bolivia. Received 04/21/1993.

PI 604203. *Solanum tuberosum* subsp. *andigena* Hawkes

Wild. SFCVU 6746; BE-4652; Q 30489. Collected 03/24/1993 in La Paz, Bolivia. Latitude 15 deg. 32' 50'' S. Longitude 69 deg. 1' 23'' W. Elevation 3585 m. Camacho. From about 20 km N of Escoma, go east at Cruce de Kariquina about 7 km to Canchi Tamampayu. Growing in backyard garden.

The following were donated by Gino Aguirre, PROINPA, Programa de Investigacion de la Papa, Casilla 405, Cochabamba, Cochabamba, Bolivia. Received 07/27/1993.

PI 604204. *Solanum stenotomum* Juz. & Bukasov

Cultivar. "JAL'KA MARI"; BOT 2784; BE-4832; Q 30924.

PI 604205. *Solanum x ajanhuiri* Juz. & Bukasov

Cultivar. "AJAHUIRILLA"; BOT 2914; BE-4832; Q 30927.

PI 604206. *Solanum x curtilobum* Juz. & Bukasov

Cultivar. "S/N"; BOT 2513; BE-4832; Q 30932.

PI 604207. *Solanum x curtilobum* Juz. & Bukasov

Cultivar. "CHIAR CHOQUE PITU"; BOT 2827; BE-4832; Q 30933.

PI 604208. *Solanum x curtilobum* Juz. & Bukasov

Cultivar. "JANKO CHOQUE PITU"; BOT 2910; BE-4832; Q 30934.

The following were collected by Aaron Rodriguez-Contreras, Universidad de

Guadalajara, Instituto de Botanica, Las Agujas, Nextipac, Zapopan, Jalisco CP 45110, Mexico. Received 09/14/1993.

PI 604209. *Solanum x sambucinum* Rydb.

Wild. ROD 2565; BE-4893; Q 32561. Collected 08/23/1993 in Guanajuato, Mexico. Latitude 21 deg. 23' 0'' N. Longitude 100 deg. 41' 0'' W. Elevation 2060 m. La Purisima, municipality of San Diego de la Union, road from Queretaro city to San Luis Potosi. Mesquite-grassland. Growing along cornfield.

The following were donated by Nelson Estrada-Ramos, PROINPA, Casilla Postal 4285, Cochabamba, Cochabamba, Bolivia. Received 03/11/1994.

PI 604210. *Solanum* sp.

Cultivar. "380026.5"; BE-6048; Q 32910.

PI 604211. *Solanum* sp.

Cultivar. "82-222-1"; BE-6048; Q 32918.

The following were donated by L.T. Colon, CPRO-DLO, Droevendaalsesteeg 1, Wageningen, Gelderland 6708 PB, Netherlands. Received 11/09/1995.

PI 604212. *Solanum berthaultii* Hawkes

Breeding. BER 39; Q 35904.

The following were donated by Oscar A. Hidalgo, International Potato Center, Apartado 5969, Lima, Lima, Peru. Received 03/05/1996.

PI 604213. *Solanum tuberosum* L.

Cultivar. "LBR-6"; CIP 387231.7; Q 36024. Pedigree - 382133.7(378971.928 x MEX BULK)/I-1039. Late Blight resistant breeding stock.

The following were donated by M.S. Ramanna, Agricultural University, P.O.B. 386 / 6700 AJ, Lawickse Allee 166, Wageningen, Gelderland, Netherlands. Received 10/28/1996.

PI 604214. *Solanum tuberosum* L.

Cultivar. CE10; Q 36553. Pedigree - Ds-1/Ds-1. Produces more than 50% 2n pollen, female sterile.

PI 604215. *Solanum tuberosum* L.

Cultivar. EC398; Q 36563. Pedigree - Ds-1/DS-1.

Unknown source. Received 12/10/1997.

PI 604216. *Solanum* sp.

Cultivar. DG D8 168; Q 37385.

Unknown source. Received 12/10/1997.

PI 604217. *Solanum* sp.

Cultivar. DG91-32; Q 37386.

The following were developed by Edwin T. Bingham, University of Wisconsin, Dept. of Agronomy, 453 Moore Hall, Madison, Wisconsin 53706, United States. Received 07/17/1998.

PI 604218. *Medicago sativa* L. subsp. *sativa*

Breeding. Population. CADL 98. GP-335. Pedigree - Contains germplasm from Agate, Columbia 2000, Iroquois, Magnum, Pioneer 532, Perry, Saranac, Vernal, WL-225, and Wisconsin experimentals. Cultivated alfalfa at the diploid level ($2n=2x=16$) developed from cultivated tetraploids by haploidy. In general, leaves, stems, pollen, and seeds smaller than those of tetraploids. Useful in genetic, cytogenetic, and physiological research, but is not expected to be a competitive cultivated form.

The following were developed by Rollin G. Sears, Kansas State University, Department of Agronomy, Throckmorton Hall, Manhattan, Kansas 66506-5501, United States; T.S. Cox, USDA, ARS, Plant Science and Entomology Research, Department of Agronomy, Manhattan, Kansas 66506-5501, United States; Bikram S. Gill, Kansas State University, Wheat Genetic Resources Center, Department of Plant Pathology, Manhattan, Kansas 66506, United States; T. Hussien, Kansas State University, Dept. of Plant Pathology, Manhattan, Kansas 66506, United States; Gina L. Brown-Guedira, USDA, ARS, Kansas State University, Agronomy Department, Manhattan, Kansas 66506-5502, United States; R.L. Bowden, Kansas State University, Department of Plant Pathology, Manhattan, Kansas 66506-5502, United States. Received 07/17/1998.

PI 604219. *Triticum aestivum* L., nom. cons. subsp. *aestivum*

Breeding. Pureline. KS96WGRC34. GP-553. Pedigree - TAM 107/TA 749//Wrangler. Leaf rust resistance conditioned by a single, dominant gene from TA 749. The gene is located on chromosome 5A and segregates independently of all other known genes transferred from *T. monococcum* to hexaploid wheat. Similar to Wrangler in height, days to heading, and overall phenotype, but has the T1A1-1RS translocation carried by TAM 107.

The following were developed by Rollin G. Sears, Kansas State University, Department of Agronomy, Throckmorton Hall, Manhattan, Kansas 66506-5501, United States; T.S. Cox, USDA, ARS, Plant Science and Entomology Research, Department of Agronomy, Manhattan, Kansas 66506-5501, United States; Bikram S. Gill, Kansas State University, Wheat Genetic Resources Center, Department of Plant Pathology, Manhattan, Kansas 66506, United States; Gina L. Brown-Guedira, USDA, ARS, Kansas State University, Agronomy Department, Manhattan, Kansas 66506-5502, United States. Received 07/17/1998.

PI 604220. *Triticum aestivum* L., nom. cons. subsp. *aestivum*

Breeding. Pureline. KS96WGRC35. GP-554. Pedigree - Wrangler *3/TA 28. Leaf rust-resistance conditioned by a single, partially dominant gene from the *T. timopheevii* parent T 28. Except for leaf rust resistance, phenotypically similar to its recurrent wheat parent.

PI 604221. *Triticum aestivum* L., nom. cons. subsp. *aestivum*

Breeding. Pureline. KS96WGRC36. GP-555. Pedigree - TAM 107*4/TA 870. Leaf rust resistance conditioned by a single, partially dominant gene from the *T. timopheevii* parent. Except for leaf rust resistance, phenotypically similar to recurrent parent.

The following were developed by Rollin G. Sears, Kansas State University, Department of Agronomy, Throckmorton Hall, Manhattan, Kansas 66506-5501, United States; Steven Leath, USDA, ARS, North Carolina State University, Dept. of Plant Pathology, Raleigh, North Carolina 27695, United States; T.S. Cox, USDA, ARS, Plant Science and Entomology Research, Department of Agronomy, Manhattan, Kansas 66506-5501, United States; Bikram S. Gill, Kansas State University, Wheat Genetic Resources Center, Department of Plant Pathology, Manhattan, Kansas 66506, United States; Gina L. Brown-Guedira, USDA, ARS, Kansas State University, Agronomy Department, Manhattan, Kansas 66506-5502, United States. Received 07/17/1998.

PI 604222. *Triticum aestivum* L., nom. cons. subsp. *aestivum*

Breeding. Pureline. KS96WGRC37. GP-556. Pedigree - Arlin*3/TA 895. Powdery mildew-resistant hard white winter wheat. Similar to Arlin in height, days to heading, kernel color, and overall phenotype.

The following were developed by Rollin G. Sears, Kansas State University, Department of Agronomy, Throckmorton Hall, Manhattan, Kansas 66506-5501, United States; T.S. Cox, USDA, ARS, Plant Science and Entomology Research, Department of Agronomy, Manhattan, Kansas 66506-5501, United States; Bikram S. Gill, Kansas State University, Wheat Genetic Resources Center, Department of Plant Pathology, Manhattan, Kansas 66506, United States; W.W. Bockus, Kansas State University, Department of Plant Pathology, Manhattan, Kansas 66506, United States; Gina L. Brown-Guedira, USDA, ARS, Kansas State University, Agronomy Department, Manhattan, Kansas 66506-5502, United States. Received 07/17/1998.

PI 604223. *Triticum aestivum* L., nom. cons. subsp. *aestivum*

Breeding. Pureline. KS96WGRC38. GP-557. Pedigree - KS90WGRC10*3/TA 895. Tan spot resistant hard red winter wheat. Carries the Lr41 gene for resistance to leaf rust. Similar to TAM 197 in height, days to heading, and overall phenotype. Segregates for red and white chaff color.

PI 604224. *Triticum aestivum* L., nom. cons. subsp. *aestivum*

Breeding. Pureline. KS96WGRC39. GP-558. Pedigree - TAM 107*3/TA 2460. Resistance to leaf rust (Lr41) and tan spot.

The following were developed by Tom L. Harvey, Kansas State University, Fort Hays Branch Ag. Experiment Station, 1232 240th Avenue, Hays, Kansas 67601-9228, United States; Rollin G. Sears, Kansas State University, Department of Agronomy, Throckmorton Hall, Manhattan, Kansas 66506-5501, United States; Steven Leath, USDA, ARS, North Carolina State University, Dept. of Plant Pathology, Raleigh, North Carolina 27695, United States; T.S. Cox, USDA, ARS, Plant Science and Entomology Research, Department of Agronomy, Manhattan, Kansas 66506-5501, United States; W.W. Bockus, Kansas

State University, Department of Plant Pathology, Manhattan, Kansas 66506, United States; Gina L. Brown-Guedira, USDA, ARS, Kansas State University, Agronomy Department, Manhattan, Kansas 66506-5502, United States. Received 07/17/1998.

PI 604225. *Triticum aestivum* L., nom. cons. subsp. *aestivum*

Breeding. Pureline. KS96WGRC40. GP-559. Pedigree - KS93U69*2/TA 2397. Hard red winter wheat. Resistant to wheat curl mite, *Stagonospora* and *Septoria* leaf blotches (*Stagonospora nodorum* and *Septoria tritici*, respectively). Carries the gene Lr41 for resistance to leaf rust (*Puccinia recondita*) Similar to TAM 107 in days heading, plant height, and general phenotype.

The following were developed by Mark Ubersax, Michigan State University, 135 Food Science Building, East Lansing, Michigan 48824-1224, United States; George L. Hosfield, USDA, ARS, Michigan State University, Department of Crop & Soil Science, East Lansing, Michigan 48824-1325, United States; Jim D. Kelly, Michigan State University, Department of Crop & Soil Science, 370 Plant & Soil Sci. Bldg. MSU, East Lansing, Michigan 48824-1325, United States; Gregory M. Varner, Dry Edible Bean Research, Advisory Board, 3066 S. Thomas Road, Saginaw, Michigan 48603, United States; J. Taylor, Michigan State University, Dept. of Crop and Soil Sci., East Lansing, Michigan 48824, United States. Received 07/21/1998.

PI 604226. *Phaseolus vulgaris* L.

Cultivar. Pureline. "KODIAK"; P94207. CV-156. Pedigree - P90557 (pinto breeding line from MSU) / G91213 (great northern breeding line from MSU). Upright type-II, indeterminate growth habit averaging 48 cm in height combined with moderate resistance to lodging. Mid-season variety maturity 94 d after planting and 2 d later than Aztec. Resistant to rust, bean common mosaic virus, to which Aztec is susceptible. Equivalent to Aztec in tolerance to white mold, but is susceptible to Michigan isolates of common blight. Outyielded Aztec by 11% over four years at 18 locations in Michigan. Seed flat, averaging 42 g/100 seed and is similar to Aztec in size, shape, color and canning quality.

PI 604227. *Phaseolus vulgaris* L.

Cultivar. Pureline. "CHINOOK 2000"; K94601. CV-157. Pedigree - Anthracnose resistant selection within the commercial light Red Kidney bean cultivar Chinook. Determinate bush with plants averaging 54 cms in height, and equivalent to Chinook in lodging resistance and flower color. Full-season variety maturing 99 d after planting and 3 d earlier than Chinook. Outyielded Chinook by 5% over four years at 16 locations in Michigan. Resistant to rust, bean common mosaic virus and to all known North American races of anthracnose, similar to Isles. Equivalent to Chinook in tolerance to Michigan isolates of halo blight, and common blight, but is susceptible to Michigan root rot isolates. Exhibits acceptable canning quality equivalent to Chinook.

PI 604228. *Phaseolus vulgaris* L.

Cultivar. Pureline. "MATTERHORN"; G93414. CV-159. Pedigree - Alpine (commercial great northern bean) / X90012 (breeding line from MSU). Upright type-II, indeterminate growth habit averaging 45 cm in height combined with excellent resistance to lodging. Early to mid-season

variety maturing 90 d after planting and 3 d earlier than Alpine. Resistant to rust, bean common mosaic virus, to which Alpine is susceptible. Equivalent to Alpine in tolerance to white mold, but is susceptible to Michigan isolates of common blight. Outyielded Alpine by 5% over five years at 26 locations in Michigan. Seed round, averaging 36 g/100 seed and is similar to Alpine in size, shape, color and canning quality.

PI 604229. Phaseolus vulgaris L.

Cultivar. Pureline. "BELUGA"; K90902. CV-158. Pedigree - BEA (Italian Borlotto bean) / Lassen (white kidney bean). Determinate bush with plants averaging 52 cms in height, and equivalent to Montcalm in lodging resistance and flower color. Full-season variety maturing 105 d after planting and 1 d earlier than Montcalm. Outyielded Montcalm by 5% over seven years at 24 locations in Michigan. Resistant to rust, bean common mosaic virus and races 73 of anthracnose, similar to Montcalm. Equivalent to Chinook in tolerance to Michigan isolates of halo blight, and common blight, but is susceptible to Michigan root rot isolates. Exhibited superior canning quality for a large white kidney bean.

The following were developed by A. Duda & Sons, Inc., United States. Received 08/05/1998.

PI 604230. Apium graveolens L.

Cultivar. "GENE'S GEM 12". PVP 9800117.

The following were developed by University of Georgia Research Foundation, Inc., Georgia, United States. Received 08/05/1998.

PI 604231. Triticum aestivum L., nom. cons. subsp. aestivum

Cultivar. "518W". PVP 9800327.

The following were developed by Paragon Seed, Inc., United States. Received 08/05/1998.

PI 604232. Lactuca sativa L.

Cultivar. "BEACON". PVP 9800328.

The following were developed by Adolph Coors Company, Coors Brewing Co., United States. Received 08/05/1998.

PI 604233. Hordeum vulgare L. subsp. vulgare

Cultivar. "MORAVIAN 22". PVP 9800329.

The following were developed by Novartis Seeds, Inc., United States. Received 08/05/1998.

PI 604234. Zea mays L. subsp. mays

Cultivar. "NP2066". PVP 9800330.

The following were developed by Pioneer Hi-Bred International, Inc., United States. Received 08/05/1998.

PI 604235. *Medicago sativa* L. subsp. *sativa*
Cultivar. "57Q77". PVP 9800333.

PI 604236. *Medicago sativa* L. subsp. *sativa*
Cultivar. "58N57". PVP 9800334.

The following were developed by Cargill, Inc., Minneapolis, Minnesota 55440, United States. Received 08/05/1998.

PI 604237. *Brassica napus* L.
Cultivar. "IMC 104". PVP 9800335.

PI 604238. *Brassica napus* L.
Cultivar. "IMC 105". PVP 9800336.

The following were developed by Texas Agricultural Experiment Station, Texas, United States. Received 08/05/1998.

PI 604239. *Avena sativa* L.
Cultivar. "TAMO 397". PVP 9800340.

The following were developed by Pioneer Hi-Bred International, Inc., United States. Received 08/05/1998.

PI 604240. *Medicago sativa* L. subsp. *sativa*
Cultivar. "53V08". PVP 9800341.

The following were developed by Enza Zaden De Enkhuizer Zaadhandel B.V., Enkhuizen, North Holland, Netherlands. Received 08/05/1998.

PI 604241. *Lactuca sativa* L.
Cultivar. "ULTEGRA". PVP 9800342.

The following were developed by Pioneer Hi-Bred International, Inc., United States. Received 08/05/1998.

PI 604242. *Medicago sativa* L. subsp. *sativa*
Cultivar. "54Q53". PVP 9800343.

The following were developed by HAZERA Quality Seeds, Brurim, D.N. Shikmim 79837, Israel; Agriculture Research Organization, Volcani Center, P.O. Box 6, Bet Dagan, Israel. Received 08/05/1998.

PI 604243. *Capsicum annuum* L.
Cultivar. "EL CHARRO". PVP 9800344.

The following were developed by Zajac Performance Seeds, 33 Sicomac Road, N. Haledon, New Jersey 07508, United States. Received 08/05/1998.

PI 604244. *Lolium perenne* L.

Cultivar. "PANTHER". PVP 9800345.

The following were developed by W. David Worrall, Texas A&M University, Research & Extension Center, P.O. Box 1658, Vernon, Texas 76385, United States. Received 08/05/1998.

PI 604245. *Triticum aestivum* L., nom. cons. subsp. *aestivum*

Cultivar. Pureline. "LOCKETT"; TX91V4511. PVP 9800346. Pedigree - TX86V1540 / TX78V2430-4. Semidwarf hard red winter wheat with awnletted spikes and tan color. Spikes middense, tapering and inclined. Glumes have oblique shoulders, acute beaks and are relatively long and of medium width. Seed elliptical with a rounded cheek, short non-colored brush and a crease width less than 60% of the kernel.

The following were developed by Leonard S. Dunavin, University of Florida, Institute of Food & Agricultural Science, Route 3, Box 575, Jay, Florida 32565-9524, United States; R. L. Stanley, University of Florida, North Florida Research Center, Route 3, Box 4370, Quincy, Florida 32351, United States; Paul Mislevy, University of Florida, Agricultural Research & Education Center, 3401 Experiment Station, Ona, Florida 33865-9706, United States; Glenn W. Burton, USDA, ARS, Forage & Turf Research, Georgia Coastal Plain Experiment Station, Tifton, Georgia 31793, United States; Walter Judd, University of Florida, Univ. of Florida Botany Dept., Miami, Florida 33158, United States; Ron M. Sonoda, Indian River Research & Education Center, Ft. Pierce, Florida 34945, United States; O.C. Ruelke, University of Florida, Gainesville, Florida 32611, United States; W.F. Brown, University of Florida, Range Cattle Res. and Educ. Ctr., Ona, Florida 33865, United States; Tom Kucharek, University of Florida, Plant Pathology Dept., 1453 Fifield Hall, Gainesville, Florida 32611-0680, United States; Rob Kalmbacher, University of Florida, Range Cattle Station, 3401 Experimental Station, Ona, Florida 33865, United States. Donated by Paul Mislevy, University of Florida, Agricultural Research & Education Center, 3401 Experiment Station, Ona, Florida 33865-9706, United States. Received 08/03/1998.

PI 604246. *Cynodon* sp.

Cultivar. "FLORAKIRK". CV-37. Pedigree - Tifton 44 / Callie. Stolonerous, tufted perennial grass with erect, fine, stems, and weakly rhizomous. Stems branched and leafy, 0.5 to 2.4 mm in diameter, and reach heights of 38 to 44 cm. Ligules consist of a membrane 0.15 to 0.5 mm long, with fringed hairs 0.1 to 0.4 mm long. Leaf blades 2.5 to 25 cm long, 1.4 to 5.5 mm wide, flat, soft, and succulent. Inflorescence composed of 3 to 6 (occasionally 8) purplish-red spike-like branches, 4.2 to 8.8 cm long and arranged in a short at apex of stem. Few if any seeds produced, and is entirely vegetative.

The following were collected by David Brenner, Iowa State University,

Regional Plant Introduction Station, Room G208, Agronomy Building, Ames, Iowa 50011, United States. Received 11/01/1989.

PI 604247. *Amaranthus rudis* J. D. Sauer

Wild. Population. DB 8923; Ames 10817. Collected 10/08/1989 in Iowa, United States. Latitude 42 deg. 3' N. Longitude 93 deg. 34' W. Elevation 292 m. Margins of seasonally wet areas. Jim Ketelsen Greenwing Marsh, Storey County Parks, near Ames, in Storey County. Plants 1 to 2 meters tall, standing dry at collection time, dioecious. Sample size 10.

The following were developed by Richard Percy, USDA, ARS, Maricopa Agricultural Research Ctr., 37860 W. Smith-Enke Rd., Maricopa, Arizona 85339, United States. Received 07/27/1998.

PI 604248. *Gossypium barbadense* L.

Breeding. Pureline. P42; 7001-84-1-2. Pedigree - 5925-40-4-1-5-2 / 6404-68-2-4.

PI 604249. *Gossypium barbadense* L.

Breeding. Pureline. P44; 7106-525-504-501. Pedigree - 6402-83-1-5 / 6404-15-1-2.

PI 604250. *Gossypium barbadense* L.

Breeding. Pureline. P46; 7202-146-7-1. Pedigree - 6503-33-3-1 / 6614-91-11.

PI 604251. *Gossypium barbadense* L.

Breeding. Pureline. E-16; E1-5782-822-7-6-1-5. Pedigree - Derived from El Paso Hybrid-B gene pool created through a series of crosses involving Pima S-1, Pima 1-71, Tanguis, Ashmounti, Giza 12, Coastland and the G. hirsutum Strain C-1.

PI 604252. *Gossypium barbadense* L.

Breeding. Pureline. P48; 7212-508-501-504. Pedigree - 6614-91-11 / 6413-507-501-501.

PI 604253. *Gossypium barbadense* L.

Breeding. Pureline. P50; E1-4799-88-4-3-1-1. Pedigree - Derived from El Paso Hybrid-B gene pool created through a series of crosses involving Pima S-1, Pima 1-71, Tanguis, Ashmounti, Giza 12, Coastland, and the G. hirsutum Strain C-1.

PI 604254. *Gossypium barbadense* L.

Breeding. Pureline. 80-108; 7202-146-12-7. Pedigree - 6503-33-3-1 / 6614-91-11.

PI 604255. *Gossypium barbadense* L.

Breeding. Pureline. 80-109; 7202-149-5-2. Pedigree - 6503-33-3-1 / 6614-91-11.

PI 604256. *Gossypium barbadense* L.

Breeding. Pureline. 80-131; 7202-4-5-2. Pedigree - 6503-33-3-1 / 6614-91-11.

- PI 604257. *Gossypium barbadense* L.
Breeding. Pureline. 80-132; 7202-29-7-6. Pedigree - 6503-33-3-1 /
6614-91-11.
- PI 604258. *Gossypium barbadense* L.
Breeding. Pureline. 80-133; 7202-28-8-1. Pedigree - 6503-33-3-1 /
6614-91-11.
- PI 604259. *Gossypium barbadense* L.
Breeding. Pureline. 80-134; 7202-146-2-3. Pedigree - 6503-33-3-1 /
6614-91-11.
- PI 604260. *Gossypium barbadense* L.
Breeding. Pureline. 80-135; 7206-21-2-2. Pedigree - 6503-33-3-1 /
6614-91-11.
- PI 604261. *Gossypium barbadense* L.
Breeding. Pureline. 80-136; 7206-21-8-1. Pedigree - 6503-33-3-1 /
6614-91-11.
- PI 604262. *Gossypium barbadense* L.
Breeding. Pureline. 80-137; 6301-5-4-1. Pedigree - 6612-4-1-5-15B /
6404-68-2-9.
- PI 604263. *Gossypium barbadense* L.
Breeding. Pureline. 80-140; 6306-16-3-3. Pedigree - 6404-68-2-9 /
6508-39-1-16.
- PI 604264. *Gossypium barbadense* L.
Breeding. Pureline. 80-141; 7306-18-4-1. Pedigree - 6404-68-2-9 /
6508-39-1-16.
- PI 604265. *Gossypium barbadense* L.
Breeding. Pureline. 80-142; 7306-21-2-2. Pedigree - 6404-68-2-9 /
6508-39-1-16.
- PI 604266. *Gossypium barbadense* L.
Breeding. Pureline. 80-143; 7306-77-4-5. Pedigree - 6404-68-2-9 /
6508-39-1-16.
- PI 604267. *Gossypium barbadense* L.
Breeding. Pureline. 80-144; 7306-97-7-4. Pedigree - 6404-68-2-9 /
6508-39-1-16.
- PI 604268. *Gossypium barbadense* L.
Breeding. Pureline. 80-145; 7308-15-4-2. Pedigree - 6404-68-2-9 /
6420-502-505-503.
- PI 604269. *Gossypium barbadense* L.
Breeding. Pureline. 80-301; 7203-529-501-501. Pedigree - 6503-33-3-1 /
6405-519-505-502.
- PI 604270. *Gossypium barbadense* L.
Breeding. Pureline. 80-303; 7212-508-501-504. Pedigree - 6614-91-11 /
6413-507-501-501.

- PI 604271. *Gossypium barbadense* L.**
Breeding. Pureline. 80-305; El-5782-746-1-5-32. Pedigree - Derived from El Paso Hybrid-B gene pool created through a series of crosses involving Pima S-1, Pima 1-71, Tanguis, Ashmounti, Giza 12, Coastland, and the G. hirsutum Strain C-1.
- PI 604272. *Gossypium barbadense* L.**
Breeding. Pureline. 80-308; El-5782-822-7-6-1-17. Pedigree - Derived from El Paso Hybrid-B gene pool created through a series of crosses involving Pima S-1, Pima 1-71, Tanguis, Ashmounti, Giza 12, Coastland, and the G. hirsutum Strain C-1.
- PI 604273. *Gossypium barbadense* L.**
Breeding. Pureline. 80-332; El-7659-2-8-5-10-1-1-1-3. Pedigree - Derived from El Paso Hybrid-B gene pool created through a series of crosses involving Pima S-1, Pima 1-71, Tanguis, Ashmounti, Giza 12, Coastland, and the G. hirsutum Strain C-1.
- PI 604274. *Gossypium barbadense* L.**
Breeding. Pureline. 80-334; El-7659-2-8-5-10-1-6-1-2. Pedigree - Derived from El Paso Hybrid-B gene pool created through a series of crosses involving Pima S-1, Pima 1-71, Tanguis, Ashmounti, Giza 12, Coastland, and the G. hirsutum Strain C-1.
- PI 604275. *Gossypium barbadense* L.**
Breeding. Pureline. 80-336; El-7659-2-8-5-10-1-11-2. Pedigree - Derived from El Paso Hybrid-B gene pool created through a series of crosses involving Pima S-1, Pima 1-71, Tanguis, Ashmounti, Giza 12, Coastland, and the G. hirsutum Strain C-1.
- PI 604276. *Gossypium barbadense* L.**
Breeding. Pureline. 80-337; El-7659-2-8-5-10-2-2-10. Pedigree - Derived from El Paso Hybrid-B gene pool created through a series of crosses involving Pima S-1, Pima 1-71, Tanguis, Ashmounti, Giza 12, Coastland, and the G. hirsutum Strain C-1.
- PI 604277. *Gossypium barbadense* L.**
Breeding. Pureline. 80-338; 67030-7-1-1-1-8. Pedigree - E1077-63-2458-4 / E1097-63-2219-3.
- PI 604278. *Gossypium barbadense* L.**
Breeding. Pureline. P43; 7101-213-1-4. Pedigree - 6007-27-2-3-6-3 / 6402-83-1-5.
- PI 604279. *Gossypium barbadense* L.**
Breeding. Pureline. P47; 7211-509-502-503. Pedigree - 6614-91-11 / 6408-517-501-502.
- PI 604280. *Gossypium barbadense* L.**
Breeding. Pureline. P49; El-5782-746-1-5-32. Pedigree - Derived from El Paso Hybrid-B gene pool created through a series of crosses involving Pima S-1, Pima 1-71, Tanguis, Ashmounti, Giza 12, Coastland, and the G. hirsutum Strain C-1.

- PI 604281. *Gossypium barbadense* L.**
Breeding. Pureline. P55; 7306-555-502-504. Pedigree - 6404-68-2-9 /
6508-39-1-16.
- PI 604282. *Gossypium barbadense* L.**
Breeding. Pureline. P56; E1-5097-21-6-2-2-1-3-7. Pedigree - Derived from
El Paso Hybrid-B gene pool created through a series of crosses involving
Pima S-1, Pima 1-71, Tanguis, Ashmounti, Giza 12, Coastland, and the G.
hirstum Strain C-1.
- PI 604283. *Gossypium barbadense* L.**
Breeding. Pureline. 81-103; 7401-87-2-3. Pedigree - 6404-15-1-2 /
6604-15-1-2.
- PI 604284. *Gossypium barbadense* L.**
Breeding. Pureline. 81-104; 7401-87-3-2. Pedigree - 6404-15-1-2 /
6604-70-5-9.
- PI 604285. *Gossypium barbadense* L.**
Breeding. Pureline. 81-105; 7402-18-1-2. Pedigree - 6404-15-1-2 /
6605-63-1-12.
- PI 604286. *Gossypium barbadense* L.**
Breeding. Pureline. 81-106; 7402-18-8-2. Pedigree - 6404-15-1-2 /
6605-63-1-12.
- PI 604287. *Gossypium barbadense* L.**
Breeding. Pureline. 81-107; 7402-126-1-1. Pedigree - 6404-15-1-2 /
6605-63-1-12.
- PI 604288. *Gossypium barbadense* L.**
Breeding. Pureline. 81-108; 7402-126-8-5. Pedigree - 6604-15-1-2 /
6605-63-1-12.
- PI 604289. *Gossypium barbadense* L.**
Breeding. Pureline. 81-111; 7406-11-5-7. Pedigree - 6604-70-5-9 /
6605-63-1-12.
- PI 604290. *Gossypium barbadense* L.**
Breeding. Pureline. 81-112; 7406-11-6-1. Pedigree - 6604-70-5-9 /
6605-63-1-12.
- PI 604291. *Gossypium barbadense* L.**
Breeding. Pureline. 81-113; 7406-11-8-1. Pedigree - 6604-70-5-9 /
6605-63-1-12.
- PI 604292. *Gossypium barbadense* L.**
Breeding. Pureline. 81-115; 7406-19-11-2. Pedigree - 6604-70-5-9 /
6605-63-1-12.
- PI 604293. *Gossypium barbadense* L.**
Breeding. Pureline. 81-116; 7406-19-11-8. Pedigree - 6604-70-5-9 /
6605-63-1-12.
- PI 604294. *Gossypium barbadense* L.**

- Breeding. Pureline. 81-119; 7406-90-8-1. Pedigree - 6604-70-5-9 / 6605-63-1-12.
- PI 604295. *Gossypium barbadense* L.**
Breeding. Pureline. 81-120; 7406-109-7-6. Pedigree - 6604-70-5-9 / 6605-63-1-12.
- PI 604296. *Gossypium barbadense* L.**
Breeding. Pureline. 81-121; 7406-127-7-6. Pedigree - 6604-70-5-9 / 6605-63-1-12.
- PI 604297. *Gossypium barbadense* L.**
Breeding. Pureline. 81-122; 7406-133-1-7. Pedigree - 6604-70-5-9 / 6605-63-1-12.
- PI 604298. *Gossypium barbadense* L.**
Breeding. Pureline. 81-132; 7202-4-5-2. Pedigree - 6503-33-3-1 / 6614-91-11.
- PI 604299. *Gossypium barbadense* L.**
Breeding. Pureline. 81-134; 7202-29-8-1. Pedigree - 6503-33-3-1 / 6614-91-11.
- PI 604300. *Gossypium barbadense* L.**
Breeding. Pureline. 81-136; 7306-18-4-1. Pedigree - 6404-68-2-9 / 6508-39-1-16.
- PI 604301. *Gossypium barbadense* L.**
Breeding. Pureline. 81-301; 7212-519-503-503. Pedigree - 6614-91-11 / 6413-507-501-501.
- PI 604302. *Gossypium barbadense* L.**
Breeding. Pureline. 81-302; 7301-539-502-501. Pedigree - 6112-4-1-5-1 SB / 6404-68-2-9.
- PI 604303. *Gossypium barbadense* L.**
Breeding. Pureline. 81-303; 7301-539-502-503. Pedigree - 6112-4-1-5-1 SB / 6404-68-2-9.
- PI 604304. *Gossypium barbadense* L.**
Breeding. Pureline. 81-304; 7404-539-505-504. Pedigree - 6112-4-1-5-1 SB / 6404-68-2-9.
- PI 604305. *Gossypium barbadense* L.**
Breeding. Pureline. 81-306; 7404-531-506-506. Pedigree - 6404-15-1-2 / 6613-567-503-501-501.
- PI 604306. *Gossypium barbadense* L.**
Breeding. Pureline. 81-307; 7407-513-502-501. Pedigree - 6604-70-5-9 / 6602-509-502-504.
- PI 604307. *Gossypium barbadense* L.**
Breeding. Pureline. 81-308; 7407-513-502-504. Pedigree - 6604-70-5-9 / 6602-509-502-504.

- PI 604308. *Gossypium barbadense* L.**
Breeding. Pureline. 81-311; El-5782-822-7-2-2-31. Pedigree - Derived from El Paso Hybrid-B gene pool created through a series of crosses involving Pima S-1, Pima 1-71, Tanguis, Ashmounti, Giza 12, Coastland, and the *G. hirsutum* Strain C-1.
- PI 604309. *Gossypium barbadense* L.**
Breeding. Pureline. 81-312; El-5782-822-7-6-1-2. Pedigree - Derived from El Paso Hybrid-B gene pool created through a series of crosses involving Pima-S-1, Pima 1-71, Tanguis, Ashmounti, Giza 12, Coastland, and the *G. hirsutum* Strain C-1.
- PI 604310. *Gossypium barbadense* L.**
Breeding. Pureline. P52; 7202-86-3-2. Pedigree - 6503-33-3-1 / 6614-91-11.
- PI 604311. *Gossypium barbadense* L.**
Breeding. Pureline. P54; 7302-126-1-5. Pedigree - 6112-4-1-5-1 SB / 6508-39-1-16.
- PI 604312. *Gossypium barbadense* L.**
Breeding. Pureline. P60; 7404-531-506-506. Pedigree - 6404-15-1-2- / 6613-567-503-501-501.
- PI 604313. *Gossypium barbadense* L.**
Breeding. Pureline. P61; El-5782-822-7-2-2-8. Pedigree - Derived from El Paso Hybrid-B gene pool created through a series of crosses involving Pima S-1, Pima 1-71, Tanguis, Ashmounti, Giza 12, Coastland, and the *G. hirsutum* Strain C-1.
- PI 604314. *Gossypium barbadense* L.**
Breeding. Pureline. 81-102; 7202-50-2-7-3. Pedigree - 6503-33-3-1 / 6614-91-11.
- PI 604315. *Gossypium barbadense* L.**
Breeding. Pureline. 81-123; 7410-13-4-5. Pedigree - 6605-63-1-12 / 6602-509-502-504.
- PI 604316. *Gossypium barbadense* L.**
Breeding. Pureline. 81-130; 7202-72-12-2. Pedigree - 6503-33-3-1 / 6614-91-11.
- PI 604317. *Gossypium barbadense* L.**
Breeding. Pureline. 81-131; 7202-86-3-5. Pedigree - 6503-33-3-1 / 6614-91-11.
- PI 604318. *Gossypium barbadense* L.**
Breeding. Pureline. 81-133; 7202-29-7-6. Pedigree - 6503-33-3-1 / 6614-91-11.
- PI 604319. *Gossypium barbadense* L.**
Breeding. Pureline. 81-201; 7406-128-8-7. Pedigree - 6604-70-5-9 / 6605-63-1-2.
- PI 604320. *Gossypium barbadense* L.**

- Breeding. Pureline. 81-205; 7503-58-1-1. Pedigree - 6404-68-2-9 / 6614-91-1-1.
- PI 604321. *Gossypium barbadense* L.**
Breeding. Pureline. 81-206; 7503-58-2-3. Pedigree - 6404-68-2-9 / 6614-91-1-1.
- PI 604322. *Gossypium barbadense* L.**
Breeding. Pureline. 81-207; 7507-3-5-3. Pedigree - 6605-4-6-1 / 6614-91-1-1.
- PI 604323. *Gossypium barbadense* L.**
Breeding. Pureline. 81-209; 7510-39-6-6. Pedigree - 6612-70-3-4 / 6614-91-1-1.
- PI 604324. *Gossypium barbadense* L.**
Breeding. Pureline. 81-231; 7406-19-11-3. Pedigree - 6604-70-5-9- / 6605-63-1-12.
- PI 604325. *Gossypium barbadense* L.**
Breeding. Pureline. 81-234; 7406-132-6-7. Pedigree - 6604-70-5-9 / 6605-63-1-12.
- PI 604326. *Gossypium barbadense* L.**
Breeding. Pureline. 81-236; 7406-143-5-2. Pedigree - 6604-70-5-9 / 6605-63-1-12.
- PI 604327. *Gossypium barbadense* L.**
Breeding. Pureline. 81-242; 7501-157-2-3. Pedigree - 6404-68-2-9 / 6605-4-6-1.
- PI 604328. *Gossypium barbadense* L.**
Breeding. Pureline. 81-246; 7507-6-1-4. Pedigree - 6605-4-6-1 / 6614-91-1-1.
- PI 604329. *Gossypium barbadense* L.**
Breeding. Pureline. 81-250; 7507-81-5-7. Pedigree - 6605-4-6-1 / 6614-91-1-1.
- PI 604330. *Gossypium barbadense* L.**
Breeding. Pureline. 81-264; 7501-160-1-2-12. Pedigree - 6404-68-2-9 / 6605-4-6-1.
- PI 604331. *Gossypium barbadense* L.**
Breeding. Pureline. 81-266; 7503-58-1-3. Pedigree - 6404-68-2-9 / 6614-91-1-1.
- PI 604332. *Gossypium barbadense* L.**
Breeding. Pureline. 81-302; 7301-539-502-501. Pedigree - 6112-4-1-5-1 SB / 6404-68-2-9.
- PI 604333. *Gossypium barbadense* L.**
Breeding. Pureline. 81-405; 7407-506-501-506-501. Pedigree - 6604-70-5-9 / 6602-509-502-504.

- PI 604334. *Gossypium barbadense* L.**
Breeding. Pureline. 81-408; 7411-508-502-502-504. Pedigree -
6605-63-1-12 / 6613-567-503-501.
- PI 604335. *Gossypium barbadense* L.**
Breeding. Pureline. 81-410; 7412-504-507-501-503. Pedigree - 6605-63-1-2
/ 6704-526-503.
- PI 604336. *Gossypium barbadense* L.**
Breeding. Pureline. 81-435; 7508-509-502-502. Pedigree - 6605-4-6-1 /
6405-519-503-501-501.
- PI 604337. *Gossypium barbadense* L.**
Breeding. Pureline. 81-439; El-5775-267-2-6-1-2-5-2-3. Pedigree -
Derived from El Paso Hybrid-B gene pool created through a series of
crosses involving Pima S-1, Pima 1-71, Tanguis, Ashmounti, Giza 12,
Coastland, and the *G. hirsutum* Strain C-1.
- PI 604338. *Gossypium barbadense* L.**
Breeding. Pureline. 81-442; El-5782-822-8-1-3-7-2-3-4. Pedigree -
Derived from El Paso Hybrid-B gene pool created through a series of
crosses involving Pima S-1, Pima 1-71, Tanguis, Ashmounti, Giza 12,
Coastland, and the *G. hirsutum* Strain C-1.
- PI 604339. *Gossypium barbadense* L.**
Breeding. Pureline. 81-110; 7406-1-2-9. Pedigree - 6604-70-5-9 /
6605-63-1-12.
- PI 604340. *Gossypium barbadense* L.**
Breeding. Pureline. 81-118; 7406-85-2-4. Pedigree - 6604-70-5-9 /
6605-63-1-12.
- PI 604341. *Gossypium barbadense* L.**
Breeding. Pureline. 81-233; 7406-83-2-1. Pedigree - 6604-70-5-9 /
6605-63-1-12.
- PI 604342. *Gossypium barbadense* L.**
Breeding. Pureline. 81-249; 7507-81-4-5. Pedigree - 6605-4-6-1 /
6614-9-1-1.
- PI 604343. *Gossypium barbadense* L.**
Breeding. Pureline. 81-272; 7507-81-5-3. Pedigree - 6605-4-6-1 /
6614-91-1-1.
- PI 604344. *Gossypium barbadense* L.**
Breeding. Pureline. 81-273; 7507-81-6-9. Pedigree - 6605-4-6-1 /
6614-91-1-1.
- PI 604345. *Gossypium barbadense* L.**
Breeding. Pureline. 82-201; 7501-38-6-8. Pedigree - 6404-68-2-9 /
6605-4-6-1.
- PI 604346. *Gossypium barbadense* L.**
Breeding. Pureline. 82-203; 7506-20-6-61. Pedigree - 6605-4-6-1 /
6612-70-3-4.

- PI 604347. *Gossypium barbadense* L.
Breeding. Pureline. 82-209; 7603-8-4-9. Pedigree - 6614-91-3-4 /
6909-529-503-504.
- PI 604348. *Gossypium barbadense* L.
Breeding. Pureline. 82-210; 7603-24-8-3. Pedigree - 6614-91-3-4 /
6909-529-503-504.
- PI 604349. *Gossypium barbadense* L.
Breeding. Pureline. 81-214; 7604-25-3-5. Pedigree - 6614-91-3-4 /
7116-101-2 comp.
- PI 604350. *Gossypium barbadense* L.
Breeding. Pureline. P59; 7406-109-7-4. Pedigree - 6604-70-5-9 /
6605-63-1-12.
- PI 604351. *Gossypium barbadense* L.
Breeding. Pureline. P63; 7406-85-2-4. Pedigree - 6604-70-5-9 /
6605-63-1-12.
- PI 604352. *Gossypium barbadense* L.
Breeding. Pureline. 81-135; 7301-5-4-1. Pedigree - 6112-4-1-5-1 SB /
6404-68-2-9.
- PI 604353. *Gossypium barbadense* L.
Breeding. Pureline. 81-244; 7503-58-1-2. Pedigree - 6404-68-2-9 /
6614-91-1-1.
- PI 604354. *Gossypium barbadense* L.
Breeding. Pureline. 82-216; 7607-4-7-3. Pedigree - 6802-15-10-1 /
6909-529-503-504.
- PI 604355. *Gossypium barbadense* L.
Breeding. Pureline. P58; 7202-50-5-7-1. Pedigree - 6503-33-3-1 /
6614-91-11.
- PI 604356. *Gossypium barbadense* L.
Breeding. Pureline. 83-106; 7702-61-7-4. Pedigree - 6614-91-9-3 /
7008-96-7-4.
- PI 604357. *Gossypium barbadense* L.
Breeding. Pureline. 83-132; 7703-10-11-2. Pedigree - 6614-91-9-3 /
7116-101-2-1 comp.
- PI 604358. *Gossypium barbadense* L.
Breeding. Pureline. 84-056; 7801-20-1-3. Pedigree - 6508-39-1-16 /
6614-91-9-3.
- PI 604359. *Gossypium barbadense* L.
Breeding. Pureline. 84-178; 7802-57-5-6. Pedigree - 6508-39-1-16 /
6807-26-10-3.
- PI 604360. *Gossypium barbadense* L.
Breeding. Pureline. 84-182; 7802-72-1-4. Pedigree - 6508-39-1-16 /

6807-26-10-3.

PI 604361. *Gossypium barbadense* L.

Breeding. Pureline. P64; 7701-5-2-4. Pedigree - 6614-91-9-3 /
7001-54-1-2.

PI 604362. *Gossypium barbadense* L.

Breeding. Pureline. 84-233; 7802-150-3-6. Pedigree - 6508-39-1-16 /
6807-26-10-3.

PI 604363. *Gossypium barbadense* L.

Breeding. Pureline. 85-052; 7802-142-7-5. Pedigree - 6508-39-1-16 /
6807-26-10-3.

PI 604364. *Gossypium barbadense* L.

Breeding. Pureline. 85-054; 7802-150-3-7. Pedigree - 6508-39-1-16 /
6507-26-10-3.

PI 604365. *Gossypium barbadense* L.

Breeding. Pureline. 85-068; 7901-13-1-4. Pedigree - 7201-120-4-3 /
7202-86-6-2.

PI 604366. *Gossypium barbadense* L.

Breeding. Pureline. 85-071; 7901-13-2-1. Pedigree - 7201-120-4-3 /
7202-86-6-2.

PI 604367. *Gossypium barbadense* L.

Breeding. Pureline. 85-087; 7901-13-6-12. Pedigree - 7201-120-4-3 /
7202-86-6-2.

PI 604368. *Gossypium barbadense* L.

Breeding. Pureline. 85-132; 7901-29-5-8. Pedigree - 7201-120-4-3 /
7202-86-6-2.

PI 604369. *Gossypium barbadense* L.

Breeding. Pureline. 85-185; 7901-72-1-3. Pedigree - 7201-120-4-3 /
7202-86-6-2.

PI 604370. *Gossypium barbadense* L.

Breeding. Pureline. 85-203; 7901-93-10-4. Pedigree - 7201-120-4-3 /
7202-86-6-2.

PI 604371. *Gossypium barbadense* L.

Breeding. Pureline. 85-270; 7901-117-7-4. Pedigree - 7201-120-4-3 /
7202-86-6-2.

PI 604372. *Gossypium barbadense* L.

Breeding. Pureline. 85-357; 7910-34-12-2. Pedigree - 7203-48-3-3 /
7101-213-1-4.

PI 604373. *Gossypium barbadense* L.

Breeding. Pureline. 85-364; 7912-19-3-4. Pedigree - 7203-19-3-4 /
7116-101-2-4-3.

PI 604374. *Gossypium barbadense* L.

- Breeding. Pureline. 86-179; 8003-7-2-6. Pedigree - 7202-4-5-2 / 7406-1-2-1.
- PI 604375. *Gossypium barbadense* L.**
Breeding. Pureline. 86-190; 8004-48-2-6. Pedigree - 7202-4-5-2 / 7211-509-502-503.
- PI 604376. *Gossypium barbadense* L.**
Breeding. Pureline. 86-199; 8004-48-6-10. Pedigree - 7202-4-5-2 / 7211-509-502-503.
- PI 604377. *Gossypium barbadense* L.**
Breeding. Pureline. 86-237; 8005-54-1-5. Pedigree - 7202-4-5-2 / 7211-509-502-504.
- PI 604378. *Gossypium barbadense* L.**
Breeding. Pureline. 86-252; 8005-54-6-1. Pedigree - 7202-4-5-2 / 7211-509-502-504.
- PI 604379. *Gossypium barbadense* L.**
Breeding. Pureline. 86-281; 8006-48-6-4. Pedigree - 7301-5-4-1 / 7306-21-2-2.
- PI 604380. *Gossypium barbadense* L.**
Breeding. Pureline. 86-328; 8008-12-4-3. Pedigree - 7301-5-4-1 / 7211-509-502-503.
- PI 604381. *Gossypium barbadense* L.**
Breeding. Pureline. 86-334; 8009-47-5-8. Pedigree - 7301-5-4-1 / 7211-508-501-504.
- PI 604382. *Gossypium barbadense* L.**
Breeding. Pureline. 86-357; 8014-65-6-9. Pedigree - 7406-1-2-1 / 7211-508-501-504.
- PI 604383. *Gossypium barbadense* L.**
Breeding. Pureline. P65; 7702-61-8-1. Pedigree - 6614-91-9-3 / 7008-96-7-4.
- PI 604384. *Gossypium barbadense* L.**
Breeding. Pureline. P68; 7802-72-1-4. Pedigree - 6508-39-1-16 / 6807-26-10-3.
- PI 604385. *Gossypium barbadense* L.**
Breeding. Pureline. 86-293; 8006-49-8-3. Pedigree - 7301-5-4-1 / 7306-21-2-2.
- PI 604386. *Gossypium barbadense* L.**
Breeding. Pureline. 86-303; 8006-49-9-4. Pedigree - 7301-5-4-1 / 7306-21-2-2.
- PI 604387. *Gossypium barbadense* L.**
Breeding. Pureline. 86-330; 8009-30-5-4. Pedigree - 7301-5-4-1 / 7212-508-501-504.

- PI 604388. *Gossypium barbadense* L.
Breeding. Pureline. 86-343; 8014-12-7-3. Pedigree - 7406-1-2-1 /
7212-508-501-504.
- PI 604389. *Gossypium barbadense* L.
Breeding. Pureline. 87-79; 8102-13-1-5. Pedigree - 6614-91-1-1 /
7301-5-4-5.
- PI 604390. *Gossypium barbadense* L.
Breeding. Pureline. 87-107; 8104-9-1-18. Pedigree - 6614-91-1-1 /
7402-126-1-1.
- PI 604391. *Gossypium barbadense* L.
Breeding. Pureline. 87-110; 8104-9-2-3. Pedigree - 6614-91-1-1 /
7402-126-1-1.
- PI 604392. *Gossypium barbadense* L.
Breeding. Pureline. 87-112; 8104-9-2-6. Pedigree - 6614-91-1-1 /
7402-126-1-1.
- PI 604393. *Gossypium barbadense* L.
Breeding. Pureline. 87-114; 8104-9-2-8. Pedigree - 6614-91-1-1 /
7402-126-1-1.
- PI 604394. *Gossypium barbadense* L.
Breeding. Pureline. 87-130; 8104-34-7-4. Pedigree - 6614-91-1-1- /
7402-126-1-1.
- PI 604395. *Gossypium barbadense* L.
Breeding. Pureline. 87-131; 8104-34-7-6. Pedigree - 6614-91-1-1 /
7402-126-1-1.
- PI 604396. *Gossypium barbadense* L.
Breeding. Pureline. 88-233; 8206-3-8-8. Pedigree - 7202-72-11-10 /
7301-5-4-5.
- PI 604397. *Gossypium barbadense* L.
Breeding. Pureline. 88-244; 8206-18-8-2. Pedigree - 7202-72-11-10 /
7301-5-4-5.
- PI 604398. *Gossypium barbadense* L.
Breeding. Pureline. 88-246; 8206-18-8-3. Pedigree - 7202-72-11-10 /
7301-5-4-5.
- PI 604399. *Gossypium barbadense* L.
Breeding. Pureline. 88-300; 8211-46-3-6. Pedigree - 7301-5-4-5 /
7507-81-5-7.
- PI 604400. *Gossypium barbadense* L.
Breeding. Pureline. 88-324; 8216-9-3-12. Pedigree - 7404-531-506-506 /
7202-50-5-7-1.
- PI 604401. *Gossypium barbadense* L.
Breeding. Pureline. 88-330; 8216-9-8-2. Pedigree - 7404-531-506-506 /
7202-50-7-1.

- PI 604402. *Gossypium barbadense* L.
Breeding. Pureline. 88-339; 8219-4-5-1. Pedigree - 7404-531-506-506 /
7406-109-7-6.
- PI 604403. *Gossypium barbadense* L.
Breeding. Pureline. P67; 7702-61-7-4. Pedigree - 6614-91-9-3 /
7008-96-7-4.
- PI 604404. *Gossypium barbadense* L.
Breeding. Pureline. 88-170; 8206-123-2-5. Pedigree - 7202-72-11-10 /
7301-5-4-5.
- PI 604405. *Gossypium barbadense* L.
Breeding. Pureline. 88-220; 8206-3-2-7. Pedigree - 7202-72-11-10 /
7301-5-4-5.
- PI 604406. *Gossypium barbadense* L.
Breeding. Pureline. 88-313; 8216-9-2-6. Pedigree - 7404-531-506-506 /
7202/50-5-7-1.
- PI 604407. *Gossypium barbadense* L.
Breeding. Pureline. 89-122; 8305-6-3-2. Pedigree - 7201-46-3-4 /
7607-4-7-3.
- PI 604408. *Gossypium barbadense* L.
Breeding. Pureline. 89-160; 8305-101-5-4. Pedigree - 7201-46-3-4 /
7607-4-7-3.
- PI 604409. *Gossypium barbadense* L.
Breeding. Pureline. 89-198; 8306-15-6-4. Pedigree - 7501-38-6-8 /
7503-58-1-2.
- PI 604410. *Gossypium barbadense* L.
Breeding. Pureline. 89-256; 8306-81-5-4. Pedigree - 7501-38-6-8 /
7503-58-1-2.
- PI 604411. *Gossypium barbadense* L.
Breeding. Pureline. 89-278; 8306-97-2-3. Pedigree - 7501-38-6-8 /
7503-58-1-2.
- PI 604412. *Gossypium barbadense* L.
Breeding. Pureline. 89-296; 8306-129-10-10. Pedigree - 7501-38-6-8 /
7503-58-1-2.
- PI 604413. *Gossypium barbadense* L.
Breeding. Pureline. 89-343; 8309-9-3-8. Pedigree - 7501-38-6-8 /
7607-4-7-3.
- PI 604414. *Gossypium barbadense* L.
Breeding. Pureline. 89-370; 8309-22-8-7. Pedigree - 7501-38-6-8 /
7607-4-7-3.
- PI 604415. *Gossypium barbadense* L.
Breeding. Pureline. 89-394; 8312-13-1-1. Pedigree - 7503-58-1-2 /

7607-4-7-3.

PI 604416. *Gossypium barbadense* L.

Breeding. Pureline. 89-405; 8312-76-9-4. Pedigree - 7503-58-1-2 /
7607-4-7-3.

PI 604417. *Gossypium barbadense* L.

Breeding. Pureline. 89-408; 8312-76-10-4. Pedigree - 7503-58-1-2 /
7607-4-7-3.

PI 604418. *Gossypium barbadense* L.

Breeding. Pureline. 88-255; 8206-18-9-6. Pedigree - 7202-72-11-10 /
7301-5-4-5.

PI 604419. *Gossypium barbadense* L.

Breeding. Pureline. 88-314; 8216-9-2-7. Pedigree - 7404-531-506-506 /
7202-50-5-7-1.

PI 604420. *Gossypium barbadense* L.

Breeding. Pureline. 89-175; 8306-4-2-2. Pedigree - 7501-38-6-8 /
7503-58-1-2.

PI 604421. *Gossypium barbadense* L.

Breeding. Pureline. 90-110; 8403-1-6-6. Pedigree - 7202-50-2-7-3 /
7701-5-2-4.

PI 604422. *Gossypium barbadense* L.

Breeding. Pureline. 90-136; 8404-36-3-5. Pedigree - 7202-50-2-7-3 /
7702-61-7-4.

PI 604423. *Gossypium barbadense* L.

Breeding. Pureline. 90-146; 8404-36-14-3. Pedigree - 7202-50-2-7-3 /
7702-61-7-4.

PI 604424. *Gossypium barbadense* L.

Breeding. Pureline. 90-152; 8404-41-8-6. Pedigree - 7202-50-2-7-3 /
7702-61-7-4.

PI 604425. *Gossypium barbadense* L.

Breeding. Pureline. 90-156; 8404-41-8-10. Pedigree - 7202-50-2-7-3 /
7702-61-7-4.

PI 604426. *Gossypium barbadense* L.

Breeding. Pureline. 90-160; 8405-30-7-1. Pedigree - 7202-50-2-7-3 /
7716-117-4-5.

PI 604427. *Gossypium barbadense* L.

Breeding. Pureline. 90-169; 8411-27-2-8. Pedigree - 7506-20-1-6 /
7702-61-7-4.

PI 604428. *Gossypium barbadense* L.

Breeding. Pureline. 90-181; 8414-48-4-1. Pedigree - 7701-5-2-4 /
7716-117-4-5.

PI 604429. *Gossypium barbadense* L.

- Breeding. Pureline. 90-187; 8414-48-4-14. Pedigree - 7701-5-2-4 / 7716-117-4-5.
- PI 604430. *Gossypium barbadense* L.**
Breeding. Pureline. 90-190; 8414-48-6-4. Pedigree - 7701-5-2-4 / 7716-117-4-5.
- PI 604431. *Gossypium barbadense* L.**
Breeding. Pureline. 90-193; 8414-48-6-7. Pedigree - 7701-5-2-4 / 7716-117-4-5.
- PI 604432. *Gossypium barbadense* L.**
Breeding. Pureline. 90-195; 8414-48-6-9. Pedigree - 7701-5-2-4 / 7716-117-4-5.
- PI 604433. *Gossypium barbadense* L.**
Breeding. Pureline. 90-208; 8415-43-7-13. Pedigree - 7702-61-7-4 / 7716-117-4-5.
- PI 604434. *Gossypium barbadense* L.**
Breeding. Pureline. 89-156; 8305-101-3-8. Pedigree - 7201-46-3-4 / 7607-4-7-3.
- PI 604435. *Gossypium barbadense* L.**
Breeding. Pureline. 90-148; 8404-36-14-8. Pedigree - 7202-50-2-7-3 / 7702-61-7-4.
- PI 604436. *Gossypium barbadense* L.**
Breeding. Pureline. 90-150; 8404-36-14-10. Pedigree - 7202-50-2-7-3 / 7702-61-7-4.
- PI 604437. *Gossypium barbadense* L.**
Breeding. Pureline. 90-161; 8405-30-7-4. Pedigree - 7202-50-2-7-3 / 7716-117-4-5.
- PI 604438. *Gossypium barbadense* L.**
Breeding. Pureline. 90-189; 8414-48-6-3. Pedigree - 7701-5-2-4 / 7716-117-4-5.
- PI 604439. *Gossypium barbadense* L.**
Breeding. Pureline. 90-199; 8415-16-9-4. Pedigree - 7702-61-7-4 / 7716-117-4-5.
- PI 604440. *Gossypium barbadense* L.**
Breeding. Pureline. 91-82; 8501-4-3-1. Pedigree - 7701-5-2-4 / 7702-61-8-1.
- PI 604441. *Gossypium barbadense* L.**
Breeding. Pureline. 91-119; 8502-25-9-4. Pedigree - 7701-5-2-4 / 7802-72-1-9.
- PI 604442. *Gossypium barbadense* L.**
Breeding. Pureline. 91-155; 8502-26-8-7. Pedigree - 7701-5-2-4 / 7802-72-1-9.

- PI 604443. *Gossypium barbadense* L.
Breeding. Pureline. 91-166; 8504-5-1-3. Pedigree - 7701-5-2-4 /
7901-29-1-4.
- PI 604444. *Gossypium barbadense* L.
Breeding. Pureline. 91-189; 8505-6-3-6. Pedigree - 7701-5-2-4 /
7910-34-12-2.
- PI 604445. *Gossypium barbadense* L.
Breeding. Pureline. 91-217; 8505-13-7-9. Pedigree - 7701-5-2-4
/7910-34-12-2.
- PI 604446. *Gossypium barbadense* L.
Breeding. Pureline. 91-226; 8505-32-1-4. Pedigree - 7701-5-2-4 /
7910-34-12-2.
- PI 604447. *Gossypium barbadense* L.
Breeding. Pureline. 91-293; 8509-65-8-10. Pedigree - 7702-61-8-1 /
7910-34-12-2.
- PI 604448. *Gossypium barbadense* L.
Breeding. Pureline. 91-294; 8509-65-8-12. Pedigree - 7702-61-8-1 /
67910-34-12-2.
- PI 604449. *Gossypium barbadense* L.
Breeding. Pureline. 91-355; 8512-119-2-5. Pedigree - 7701-5-2-4 /
7910-34-12-2.
- PI 604450. *Gossypium barbadense* L.
Breeding. Pureline. 91-209; 8505-11-1-7. Pedigree - 7701-5-2-4 /
7910-34-12-2.
- PI 604451. *Gossypium barbadense* L.
Breeding. Pureline. 91-229; 8505-37-1-1. Pedigree - 7701-5-2-4 /
7910-34-12-2.
- PI 604452. *Gossypium barbadense* L.
Breeding. Pureline. 91-310; 8511-4-10-10. Pedigree - 7802-72-1-9 /
7901-29-1-4.
- PI 604453. *Gossypium barbadense* L.
Breeding. Pureline. 91-311; 8511-4-10-12. Pedigree - 7802-72-1-9 /
7901-29-1-4.
- PI 604454. *Gossypium barbadense* L.
Breeding. Pureline. 91-313; 8511-9-2-8. Pedigree - 7802-72-1-9 /
7901-29-1-4.
- PI 604455. *Gossypium barbadense* L.
Breeding. Pureline. 91-353; 8512-95-8-5. Pedigree - 7802-72-1-9 /
7910-34-12-2.
- PI 604456. *Gossypium barbadense* L.
Breeding. Pureline. E14; E1-5782-746-2-9-4. Pedigree - Derived from E1
Paso Hybrid-B gene pool created through a series of crosses involving

Pima S-1, Pima 1-71, Tanguis, Ashmounti, Giza 12, Coastland, and the G. hirsutum Strain C-1.

PI 604457. *Gossypium barbadense* L.

Breeding. Pureline. 80-302; 7211-509-502-503. Pedigree - 6614-91-11 / 6408-517-501-502.

PI 604458. *Gossypium barbadense* L.

Breeding. Pureline. 81-114; 7406-19-3-6. Pedigree - 6604-70-5-9 / 6605-506-63-1-12.

PI 604459. *Gossypium barbadense* L.

Breeding. Pureline. 81-411; 7412-527-505-501-501. Pedigree - 6605-63-1-12 / 6704-506-503.

PI 604460. *Gossypium barbadense* L.

Breeding. Pureline. 81-269; 7507-6-7-4. Pedigree - 6605-4-6-1 / 6612-70-3-4.

The following were donated by Seeds of Change, P.O. Box 15700, Sante Fe, New Mexico 87506, United States; Frances Hoffman. Received 03/11/1996.

PI 604461. *Amaranthus hypochondriacus* L.

Cultivar. "Elephant Head"; 104; Ames 22769. Collected in Germany. Alan Kapuler of Peace Seeds, was given seeds and provided them to Seeds of Change. Ornamental variety with a maroon-purple flower that has a large, elephant trunk shaped inflorescence. The inflorescence is very dense, and the arms of the inflorescence are determinate.

The following were developed by Constatinos Josephides, Ministry of Agriculture & Natural Resources, Agricultural Research Institute, P.O. Box 2016, Nicosia, Cyprus. Received 08/12/1998.

PI 604462 QUAR. *Triticum turgidum* subsp. *durum* (Desf.) Husn.

Cultivar. Pureline. "MACEDONIA". Pedigree - KIA*2 / VIC. Spring, early, semi-dwarf, high yielding. Combining strong gluten and high yellow pigment content under mediterranean conditions. Plants resistant to lodging with culms, glumes and awns usually white. Excellent milling, spaghetti and bread processing characteristics. Enchanted root rot resistance compared to all other previously released durum wheat cultivars in Cyprus.

The following were developed by R.L. Cooper, USDA-ARS, Ohio State University, 1680 Madison, Wooster, Ohio 44691-4096, United States; R.B. Hammond, Ohio Res. and Development Center, Ohio State University, Dept. of Entomology, Wooster, Ohio 44691, United States. Received 08/03/1998.

PI 604463. *Glycine max* (L.) Merr.

Breeding. Pureline. HC95-24MB. GP-271. Pedigree - Hobbit 87 x HC83-123-9. Group III maturity, insect resistant, determinate semidwarf (dt1e1). Higher level of insect resistance and improved agronomic characteristics than previously released insect resistant germplasm.

Flowers white, tawny pubescence, tan pods and dull yellow seeds with black hilum. Multi-race resistance to *Phytophthora* root rot (Rps1k gene).

PI 604464. *Glycine max* (L.) Merr.

Breeding. Pureline. HC95-15MB. GP-272. Pedigree - Hobbit 87 x HC83-123-9. Group IV maturity, insect resistant, determinate semidwarf (dt1e1). Higher level of insect resistance and improved agronomic characteristics over previously released insect resistant germplasm. Flowers purple, tawny pubescence, tan pods and dull yellow seeds with black hilum. Multi-race resistance to *Phytophthora* root rot (Rps1k).

The following were collected by William J. Kenworthy, University of Maryland, Department of Agronomy, H.J. Patterson Hall, College Park, Maryland 20742, United States; A.D.H. Brown, CSIRO, Division of Plant Industry, G.P.O. Box 1600, Canberra, Austr. Capital Terr. 2601, Australia; J. Grace, CSIRO, Division of Plant Industry, GPO Box 1600, Canberra, Austr. Capital Terr. 2601, Australia; M.J. Doyle, CSIRO, Canberra, Austr. Capital Terr., Australia. Donated by A.D.H. Brown, CSIRO, Division of Plant Industry, G.P.O. Box 1600, Canberra, Austr. Capital Terr. 2601, Australia. Received 09/01/1998.

PI 604465. *Glycine clandestina* J. C. Wendl.

Wild. GBDK 828/1; G 2168; IL 0981. Collected 08/21/1985 in Queensland, Australia. Latitude 26 deg. 8' 0'' S. Longitude 152 deg. 32' 0'' E. Elevation 80 m. Eaglenest lookout, Brooyar Forest Drive, 5 km from entrance.

PI 604466. *Glycine clandestina* J. C. Wendl.

Wild. GBDK 696/P11; G 2299; IL 0989. Collected 08/18/1985 in Queensland, Australia. Latitude 26 deg. 25' 0'' S. Longitude 147 deg. 8' 0'' E. Elevation 450 m. 2.4 km east of Morven towards Mitchell.

The following were collected by A.D.H. Brown, CSIRO, Division of Plant Industry, G.P.O. Box 1600, Canberra, Austr. Capital Terr. 2601, Australia; J. Grace, CSIRO, Division of Plant Industry, GPO Box 1600, Canberra, Austr. Capital Terr. 2601, Australia; J. Grant, CSIRO, Canberra, Austr. Capital Terr., Australia. Donated by A.D.H. Brown, CSIRO, Division of Plant Industry, G.P.O. Box 1600, Canberra, Austr. Capital Terr. 2601, Australia. Received 09/01/1998.

PI 604467. *Glycine clandestina* J. C. Wendl.

Wild. GBG 908; G 2361; IL 0994. Collected 10/25/1985 in South Australia, Australia. Latitude 32 deg. 4' 0'' S. Longitude 138 deg. 7' 0'' E. Elevation 180 m. Willochra Creek, 11 km from Buckaringa turnoff.

PI 604468. *Glycine clandestina* J. C. Wendl.

Wild. GBG 937; G 2387; IL 1020. Collected 10/30/1985 in South Australia, Australia. Latitude 32 deg. 40' 0'' S. Longitude 137 deg. 7' 0'' E. Elevation 220 m. Corunna South Hill, 6 km north of Iron Knob.

PI 604469. *Glycine clandestina* J. C. Wendl.

Wild. GBG 939; G 2389; ILNO 1022. Collected 10/31/1985 in South Australia, Australia. Latitude 32 deg. 50' 0'' S. Longitude 138 deg. 4'

0'' E. Elevation 250 m. Black Range lookout, 56 km southeast of Port Augusta. Path to Mount Cavern.

PI 604470. *Glycine clandestina* J. C. Wendl.

Wild. GBG 940; G 2390; ILNO 1023. Collected 10/31/1985 in South Australia, Australia. Latitude 32 deg. 59' 0'' S. Longitude 138 deg. 6' 0'' E. Elevation 200 m. Port Germein Gorge, 10.8 km east of Port Germein.

The following were collected by William J. Kenworthy, University of Maryland, Department of Agronomy, H.J. Patterson Hall, College Park, Maryland 20742, United States; A.D.H. Brown, CSIRO, Division of Plant Industry, G.P.O. Box 1600, Canberra, Austr. Capital Terr. 2601, Australia; J. Grace, CSIRO, Division of Plant Industry, GPO Box 1600, Canberra, Austr. Capital Terr. 2601, Australia; M.J. Doyle, CSIRO, Canberra, Austr. Capital Terr., Australia. Donated by A.D.H. Brown, CSIRO, Division of Plant Industry, G.P.O. Box 1600, Canberra, Austr. Capital Terr. 2601, Australia. Received 09/01/1998.

PI 604471. *Glycine cyrtoloba* Tindale

Wild. GBDK 837/1; G 2104; ILNO 1032. Collected 08/22/1985 in Queensland, Australia. Latitude 26 deg. 40' 0'' S. Longitude 153 deg. 7' 0'' E. Elevation 5 m. Mooloolaba beach.

The following were collected by I.B. Staples, Department of Primary Industry, Marceba, Queensland, Australia. Donated by A.D.H. Brown, CSIRO, Division of Plant Industry, G.P.O. Box 1600, Canberra, Austr. Capital Terr. 2601, Australia. Received 09/01/1998.

PI 604472. *Glycine curvata* Tindale

Wild. 080574/8; G 1399; IL 1306; CANB348787. Collected 05/08/1974 in Queensland, Australia. Latitude 17 deg. 26' 0'' S. Longitude 145 deg. 13' 0'' E. Elevation 800 m. Herberton-Petford Road, 1.9 km east of Irvinebank on creek flats.

The following were collected by B. Barlow, CSIRO, Canberra, Austr. Capital Terr., Australia. Donated by A.D.H. Brown, CSIRO, Division of Plant Industry, G.P.O. Box 1600, Canberra, Austr. Capital Terr. 2601, Australia. Received 09/01/1998.

PI 604473. *Glycine tomentella* Hayata

Wild. BAB 3873; G 2039; IL 1330; CANB369072. Collected 06/29/1985 in Queensland, Australia. Latitude 10 deg. 42' 0'' S. Longitude 142 deg. 32' 0'' E. Elevation 20 m. 1 km southwest of Cape York.

PI 604474. *Glycine tomentella* Hayata

Wild. BAB 3874; G 2040; IL 1331; CANB369071. Collected 06/29/1985 in Queensland, Australia. Latitude 10 deg. 43' 0'' S. Longitude 142 deg. 31' 0'' E. Elevation 20 m. 2.5 km south of Wilderness Lodge, Cape York.

PI 604475. *Glycine tomentella* Hayata

Wild. BAB 3922; G 2041; IL 1332; CANB256579. Collected 07/07/1985 in Queensland, Australia. Latitude 14 deg. 59' 0'' S. Longitude 145 deg.

21' E. Elevation 100 m. Four Beach between Cape Flattery and mouth of the McIvor River, near Cape York.

The following were collected by J. B. Hacker, CSIRO, Cunningham Laboratory, 306 Carmody Road, St. Lucia, Queensland 4067, Australia. Donated by A.D.H. Brown, CSIRO, Division of Plant Industry, G.P.O. Box 1600, Canberra, Austr. Capital Terr. 2601, Australia. Received 09/01/1998.

PI 604476. *Glycine tomentella* Hayata

Wild. 435; G 2476; IL 1333; CANB408439. Collected in Queensland, Australia. Latitude 13 deg. 27' 0'' S. Longitude 142 deg. 57' 0'' E. Elevation 100 m. Archer River, Coen-Weipa Road, near Coen.

The following were collected by P.A. Fryxell, USDA-ARS, Texas A&M University, Department of Soil & Crop Science, College Station, Texas, United States; James M. Stewart, University of Arkansas, College of Agriculture, Department of Agronomy, Fayetteville, Arkansas 72701, United States; L. Craven, CSIRO, Division of Plant Industry, General Post Office Box 1600, Canberra, Austr. Capital Terr. 2601, Australia. Donated by A.D.H. Brown, CSIRO, Division of Plant Industry, G.P.O. Box 1600, Canberra, Austr. Capital Terr. 2601, Australia. Received 09/01/1998.

PI 604477. *Glycine tomentella* Hayata

Wild. CFS 4554; G 2051; IL 1335; CANB375960. Collected 05/29/1985 in Western Australia, Australia. Latitude 17 deg. 50' 0'' S. Longitude 122 deg. 16' 0'' E. Elevation 40 m. 16 km north of Broome, towards Beagle Bay.

PI 604478. *Glycine tomentella* Hayata

Wild. CFS 4620; G 2054; IL 1338; CANB375965. Collected 06/04/1985 in Western Australia, Australia. Latitude 17 deg. 10' 0'' S. Longitude 125 deg. 18' 0'' E. Elevation 600 m. 2 km ESE of Mt. Bell, 191 km from Great North Highway on Gibb River Road.

The following were collected by P.K. Latz, CSIRO, Canberra, Austr. Capital Terr., Australia. Donated by A.D.H. Brown, CSIRO, Division of Plant Industry, G.P.O. Box 1600, Canberra, Austr. Capital Terr. 2601, Australia. Received 09/01/1998.

PI 604479. *Glycine tomentella* Hayata

Wild. 6961; G 2401; IL 1341; CANB272586. Collected 05/07/1977 in Northern Territory, Australia. Latitude 21 deg. 10' 0'' S. Longitude 135 deg. 28' 0'' E. Elevation 350 m. Elkedra Station, Davenport Ranges.

The following were collected by J. Grace, CSIRO, Division of Plant Industry, GPO Box 1600, Canberra, Austr. Capital Terr. 2601, Australia; L. Craven, CSIRO, Division of Plant Industry, General Post Office Box 1600, Canberra, Austr. Capital Terr. 2601, Australia; G. Second, CSIRO, Canberra, Austr. Capital Terr., Australia. Donated by A.D.H. Brown, CSIRO, Division of Plant Industry, G.P.O. Box 1600, Canberra, Austr. Capital Terr. 2601, Australia. Received 09/01/1998.

PI 604480. *Glycine tomentella* Hayata

Wild. 01008; G 2570; IL 1343; CANB389241; ID#0278. Collected 05/10/1987 in Northern Territory, Australia. Latitude 16 deg. 8' 0'' S. Longitude 133 deg. 30' 0'' E. Elevation 200 m. 20.8 km from Stewart Highway at Daly Waters to Borroloola.

PI 604481. *Glycine tomentella* Hayata

Wild. 01018; G 2575; IL 1344; CANB408437. Collected 05/12/1987 in Northern Territory, Australia. Latitude 16 deg. 31' 0'' S. Longitude 137 deg. 26' 0'' E. Elevation 100 m. 150.9 km east of Borroloola, near Calvert Hills.

The following were collected by J. Grant, CSIRO, Canberra, Austr. Capital Terr., Australia. Donated by A.D.H. Brown, CSIRO, Division of Plant Industry, G.P.O. Box 1600, Canberra, Austr. Capital Terr. 2601, Australia. Received 09/01/1998.

PI 604482. *Glycine tomentella* Hayata

Wild. 01212; G 2583; IL 1348; CANB452363. Collected 06/06/1987 in Western Australia, Australia. Latitude 17 deg. 58' 0'' S. Longitude 122 deg. 14' 0'' E. Elevation 30 m. Broome, Japanese Historic Cemetery.

PI 604483. *Glycine tomentella* Hayata

Wild. 01215; G 2585; IL 1349. Collected 06/10/1987 in Western Australia, Australia. Latitude 14 deg. 25' 0'' S. Longitude 126 deg. 37' 0'' E. Elevation 40 m. King Edward River, near campsite.

PI 604484. *Glycine tomentella* Hayata

Wild. 01218; G 2586; IL 1350. Collected 06/12/1987 in Western Australia, Australia. Latitude 14 deg. 49' 0'' S. Longitude 125 deg. 41' 0'' E. Elevation 170 m. 14.5 km from turnoff to Mitchell Falls, near Mitchell Plateau.

PI 604485. *Glycine tomentella* Hayata

Wild. 01232; G 2587; IL 1351; CANB452383. Collected 06/15/1987 in Western Australia, Australia. Latitude 16 deg. 3' 0'' S. Longitude 126 deg. 29' 0'' E. Elevation 390 m. 54 km south of Drysdale Station.

The following were collected by R. Pullen, CSIRO, Division of Plant Industry, Plant Introd. and Seed Exchange Unit, Canberra, Austr. Capital Terr., Australia. Donated by A.D.H. Brown, CSIRO, Division of Plant Industry, G.P.O. Box 1600, Canberra, Austr. Capital Terr. 2601, Australia. Received 09/01/1998.

PI 604486. *Glycine tomentella* Hayata

Wild. ID#10767; G 2643; IL 1353; CANB261731. Collected 04/17/1977 in Western Australia, Australia. Latitude 17 deg. 26' S. Longitude 128 deg. 48' 0'' E. Elevation 150 m. 30 km west of Ord River Station, on track to Eaglehawk Bore.

PI 604487. *Glycine tomentella* Hayata

Wild. ID#11163; G 2721; IL 1357; CANB384170. Collected 04/22/1988 in

Northern Territory, Australia. Latitude 13 deg. 52' 0'' S. Longitude 131 deg. 11' 0'' E. Elevation 40 m. Daly River, south of Douglas River Agricultural Research Station.

The following were collected by A.D.H. Brown, CSIRO, Division of Plant Industry, G.P.O. Box 1600, Canberra, Austr. Capital Terr. 2601, Australia; J. Grace, CSIRO, Division of Plant Industry, GPO Box 1600, Canberra, Austr. Capital Terr. 2601, Australia; Theodore Hymowitz, University Illinois, Department of Crop Sciences, 1102 South Goodwin Avenue, Urbana, Illinois 61801, United States. Donated by A.D.H. Brown, CSIRO, Division of Plant Industry, G.P.O. Box 1600, Canberra, Austr. Capital Terr. 2601, Australia. Received 09/01/1998.

PI 604488. *Glycine tomentella* Hayata

Wild. GBH0444/1; G 2072; IL 1359. Collected 07/29/1983 in Queensland, Australia. Latitude 17 deg. 41' 0'' S. Longitude 145 deg. 7' 0'' E. Elevation 685 m. Return Creek Bridge, Mount Garnet.

The following were collected by K. Walsh, CSIRO - Canberra, Division of Plant Industry, General Post Office Box 1600, Canberra, Austr. Capital Terr. 2601, Australia. Donated by A.D.H. Brown, CSIRO, Division of Plant Industry, G.P.O. Box 1600, Canberra, Austr. Capital Terr. 2601, Australia. Received 09/01/1998.

PI 604489. *Glycine tomentella* Hayata

Wild. CQ3105; G 2566; ID#ACC586; IL 1360; CANB452354. Collected 07/07/1985 in Northern Territory, Australia. Latitude 14 deg. 23' S. Longitude 132 deg. 25' 0'' E. Elevation 210 m. Katharine Gorge Road, Katharine.

The following were collected by J. Grace, CSIRO, Division of Plant Industry, GPO Box 1600, Canberra, Austr. Capital Terr. 2601, Australia; L. Craven, CSIRO, Division of Plant Industry, General Post Office Box 1600, Canberra, Austr. Capital Terr. 2601, Australia; G. Second, CSIRO, Canberra, Austr. Capital Terr., Australia. Donated by A.D.H. Brown, CSIRO, Division of Plant Industry, G.P.O. Box 1600, Canberra, Austr. Capital Terr. 2601, Australia. Received 09/01/1998.

PI 604490. *Glycine tomentella* Hayata

Wild. GCS 01005; G 2567; IL 1361; CANB452380. Collected 05/08/1987 in Northern Territory, Australia. Latitude 14 deg. 5' 0'' S. Longitude 131 deg. 57' 0'' E. Elevation 250 m. Fergusson River, near Katherine.

PI 604491. *Glycine tomentella* Hayata

Wild. GCS 01012; G 2571; IL 1362; CANB389245. Collected 05/11/1987 in Northern Territory, Australia. Latitude 16 deg. 16' 0'' S. Longitude 136 deg. 5' 0'' E. Elevation 50 m. Caranbirrini Waterhole, 24 km southwest of Borroloola.

PI 604492. *Glycine tomentella* Hayata

Wild. GCS 01013; G 2572; IL 1363; ID#0283; CANB389246. Collected 05/11/1987 in Northern Territory, Australia. Latitude 16 deg. 3' 0'' S.

Longitude 136 deg. 19' 0'' E. Elevation 50 m. 2.5 km from Rocky Creek, north of Borroloola.

PI 604493. *Glycine tomentella* Hayata

Wild. GCS 01016; G 2574; IL 1364; CANB408463. Collected 05/12/1987 in Northern Territory, Australia. Latitude 16 deg. 13' 0'' S. Longitude 136 deg. 53' 0'' E. Elevation 24 m. Foelsche River, 69.2 km east of Borroloola.

The following were collected by J. Grant, CSIRO, Canberra, Austr. Capital Terr., Australia. Donated by A.D.H. Brown, CSIRO, Division of Plant Industry, G.P.O. Box 1600, Canberra, Austr. Capital Terr. 2601, Australia. Received 09/01/1998.

PI 604494. *Glycine tomentella* Hayata

Wild. 01013; G 2584; IL 1368; ID#JEG 005; CANB389255. Collected 06/10/1987 in Western Australia, Australia. Latitude 14 deg. 25' 0'' S. Longitude 126 deg. 37' 0'' E. Elevation 40 m. King Edward River, near campsite.

The following were collected by D. Keith, CSIRO - Canberra, Division of Plant Industry, General Post Office Box 1600, Canberra, Austr. Capital Terr. 2601, Australia; B. Pellew, CSIRO - Canberra, Division of Plant Industry, General Post Office Box 1600, Canberra, Austr. Capital Terr. 2601, Australia. Donated by A.D.H. Brown, CSIRO, Division of Plant Industry, G.P.O. Box 1600, Canberra, Austr. Capital Terr. 2601, Australia. Received 09/01/1998.

PI 604495. *Glycine tomentella* Hayata

Wild. 0200; G 2788; IL 1369. Collected 06/26/1986 in Northern Territory, Australia. Latitude 12 deg. 10' 0'' S. Longitude 136 deg. 46' 0'' E. Elevation 10 m. North of Rainbow Beach, Gove, behind sand dune.

The following were donated by Keith R. W. Hammett, Dep. of Scientific & Industrial Res., Department of Scientific and Industrial, Private Bag, Mount Albert Res. Centre, Auckland, North Island, New Zealand. Received 09/04/1991.

PI 604496. *Lathyrus chrysanthus* Boiss.

Cultivated. IFLA 884; 0771; W6 9048. Collected in Syria.

The following were donated by R.P.S. Pundir, Int. Crops Res. Inst. for the Semi-Arid Tropics, Genetic Resources Program, Patancheru, Andhra Pradesh 502 324, India. Received 01/19/1993.

PI 604497. *Cicer nuristanicum* Kitam.

Wild. 3003(1); ICCW 99; W6 11190. Collected in Pakistan. Latitude 36 deg. 1' 0'' N. Longitude 71 deg. 39' 0'' E. Mogh, Chitral dt.

The following were collected by Nigel Maxted, Univ. of Southampton - Dept. of Biology, Med. & Biological Science Building, Bassett Crescent East, Southampton, England S09 3TU, United Kingdom. Donated by L.J.G. van der

Maesen, Landwirtschaftliche Universitat, Gen. Foukesweg 37, P.O.B. 8010, Wageningen, Gelderland 6700 ED, Netherlands. Received 04/06/1993.

PI 604498. *Cicer acanthophyllum* Boriss.

Wild. 8298; 918298; W6 11515. Collected in Uzbekistan. Latitude 39 deg. 47' N. Longitude 67 deg. 53' E. Elevation 1200 m. Near settlement Nanka. Around village houses, village, and streamside. Pasture and wasteland, scrubs and small trees, no rocks, flat aspect 0-3%, groundcover 80%, soil depth 20-40cm, free draining. Associated with grasses, *Rubus* and mixed shrubs.

The following were collected by Walter J. Kaiser, USDA, ARS, Washington State University, Regional Plant Introduction Station, Pullman, Washington 99164-6402, United States. Received 07/01/1987.

PI 604499. *Lupinus polyphyllus* Lindl.

Cultivated. 870601-90; no. 39; WKS 166; W6 12000. Collected 06/01/1987 in Cordoba, Spain.

The following were donated by Conny B. Asmussen, Royal Botanic Gardens, Jodrell Laboratory, Kew, Richmond, Surrey, England TW9 3DS, United Kingdom. Received 06/23/1995.

PI 604500. *Lathyrus davidii* Hance

Cultivated. LAT 21/82; W6 17152. Collected 1995 in Germany. Latitude 51 deg. 49' 0'' N. Longitude 11 deg. 17' 0'' E. Obtained from botanical garden in Gatersleben.

PI 604501. *Lathyrus japonicus* Willd.

Cultivated. W6 17153. Collected 1995 in Denmark. Latitude 57 deg. 11' 0'' N. Longitude 10 deg. E. Ajstrup.

The following were collected by Holden Arboretum, Mentor, Ohio 44060, United States. Donated by Conny B. Asmussen, Royal Botanic Gardens, Jodrell Laboratory, Kew, Richmond, Surrey, England TW9 3DS, United Kingdom. Received 06/23/1995.

PI 604502. *Lathyrus japonicus* Willd.

Cultivated. W6 17154. Collected 1993 in Ohio, United States. Lake County.

The following were collected by Botanic Garden, Gatersleben, Germany. Donated by Conny B. Asmussen, Royal Botanic Gardens, Jodrell Laboratory, Kew, Richmond, Surrey, England TW9 3DS, United Kingdom. Received 06/23/1995.

PI 604503. *Lathyrus sylvestris* L.

Cultivated. LAT 4/87; W6 17157. Collected 1995 in Germany.

The following were donated by Barbara Bentley, State University of New York, Department of Ecology and Evolution, Stony Brook, New York 11794, United

States; Bodega Marine Lab., Sonoma County, California, United States.
Received 1995.

PI 604504. *Lupinus variicolor* Steud.
Wild. W6 17259.

The following were donated by W. Atlee Burpee Company, 300 Park Avenue,
Warminster, Pennsylvania 18974, United States. Received 1961.

PI 604505. *Cucurbita moschata* (Duchesne ex Lam.) Duchesne ex Poir.
Cultivar. KENTUCKY FIELD. Info. from Asgrow cat. No. 19 (1957) -- (NSSL
application shows notation of "obsolete"). Length in inches - 10-18.
Dia. in inches - 13. 120 days. Widely used for canning and suitable for
stock feed. Fruits variable in shape, but usually deeper than they are
wide, tapered at ends, 10-15 lb. Rind smooth, dull orange-yellow,
distinctly sutured, thin, hard. Flesh thick, coarse, deep yellow, sweet.

PI 604506. *Cucurbita moschata* (Duchesne ex Lam.) Duchesne ex Poir.
Cultivar. CHEESE, LARGE. Info. from Corneli cat. No. 14 -- 110 days.
Uses - Home, market and canning. Derives name from the cheese box shape
of fruits. Fruit 7" deep, 15 inches in dia., sometimes larger. Weigh 12
to 15 lbs. Very flat shape, slightly grooved. Shell hard. Skin deep
yellow. Flesh fairly thick, of fine quality and flavor. Orange-yellow.

The following were donated by Dorothea Ziegler, Bundesanstalt fur
Zuchtungsforchung, an Kulturpflanzen (BAZ)- Genebank, Bundesallee 50,
Braunschweig, Lower Saxony D-38116, Germany. Received 06/1998.

PI 604507. *Beta vulgaris* subsp. *maritima* (L.) Arcang.
Wild. IDBBNR 1469; B0415; W6 20753. Collected in United Kingdom.
Latitude 50 deg. 8' N. Longitude 5 deg. 28' 0'' W. Marazion, Cornwall.

PI 604508. *Beta vulgaris* subsp. *maritima* (L.) Arcang.
Wild. IDBBNR 2193; 32373; W6 20754. Collected in Peloponnese, Greece.
Scarpeti.

PI 604509. *Beta vulgaris* subsp. *maritima* (L.) Arcang.
Wild. IDBBNR 2207; 28926; W6 20755. Collected in Sicily, Italy. Latitude
37 deg. 59' 0'' N. Longitude 13 deg. 39' 0'' E. Trabia Beach.

PI 604510. *Beta vulgaris* subsp. *maritima* (L.) Arcang.
Wild. IDBBNR 2218; 28937; W6 20756. Collected in Sicily, Italy. Latitude
38 deg. 13' 0'' N. Longitude 15 deg. 14' 0'' E. Milazzo, close to
station.

PI 604511. *Beta vulgaris* subsp. *maritima* (L.) Arcang.
Wild. IDBBNR 2649; 54832; W6 20757. Collected in Nord, France.

PI 604512. *Beta vulgaris* subsp. *maritima* (L.) Arcang.
Wild. IDBBNR 2670; 32388; W6 20758. Collected in Peloponnese, Greece.
Latitude 37 deg. 13' 0'' N. Longitude 21 deg. 36' 0'' E. Agrilos.

PI 604513. *Beta vulgaris* subsp. *maritima* (L.) Arcang.

Wild. IDBBNR 3054; 10178; W6 20759. Collected in Greece. Latitude 39 deg. 47' 26" N. Longitude 19 deg. 42' 27" E. Sidhari, Kefalonia.

PI 604514. *Beta vulgaris* subsp. *maritima* (L.) Arcang.

Wild. IDBBNR 3092; 32399; W6 20760. Collected in Peloponnese, Greece. Latitude 37 deg. 56' 0" N. Longitude 22 deg. 56' 0" E. Korinthos.

PI 604515. *Beta vulgaris* subsp. *maritima* (L.) Arcang.

Wild. IDBBNR 3294; 36478; W6 20761. Collected in Peloponnese, Greece. Latitude 36 deg. 51' 0" N. Longitude 22 deg. 40' 0" E. 6 km southwest of Skala.

PI 604516. *Beta vulgaris* subsp. *maritima* (L.) Arcang.

Wild. "Seskla"; IDBBNR 3339; 36523; W6 20762. Collected in Greece. Latitude 37 deg. 46' 0" N. Longitude 26 deg. 58' 0" E. Ireon, Samos.

PI 604517. *Beta vulgaris* subsp. *maritima* (L.) Arcang.

Wild. IDBBNR 3350; 36534; W6 20763. Collected in Greece. Latitude 38 deg. 25' 0" N. Longitude 26 deg. E. Vrontadhos, Chios.

PI 604518. *Beta vulgaris* subsp. *maritima* (L.) Arcang.

Wild. IDBBNR 3356; 36540; W6 20764. Collected in Greece. Latitude 39 deg. 6' 0" N. Longitude 26 deg. 33' 0" E. Mitilini, S. Kidonio, Lesbos

PI 604519. *Beta vulgaris* subsp. *maritima* (L.) Arcang.

Wild. IDBBNR 3390; 45505; W6 20765. Collected in Sicily, Italy. Latitude 38 deg. 7' 0" N. Longitude 15 deg. 3' 0" E. Oliveri.

PI 604520. *Beta vulgaris* subsp. *maritima* (L.) Arcang.

Wild. IDBBNR 3628; Acelga Palo Verde; 49711; W6 20766. Collected in Alicante, Spain. Latitude 38 deg. 43' 0" N. Longitude 0 deg. 3' 0" E. Benisa, 2 km south.

PI 604521. *Beta vulgaris* subsp. *maritima* (L.) Arcang.

Wild. IDBBNR 3705; 49847; W6 20767.

PI 604522. *Beta vulgaris* subsp. *maritima* (L.) Arcang.

Wild. IDBBNR 3739; 51432; W6 20768. Collected in Greece. Latitude 38 deg. 23' 0" N. Longitude 22 deg. 23' 0" E. Galaxidhion, Fokis.

PI 604523. *Beta vulgaris* subsp. *maritima* (L.) Arcang.

Wild. IDBBNR 3742; 51435; W6 20769. Collected in Greece. Latitude 38 deg. 55' 0" N. Longitude 20 deg. 53' 0" E. Vonitsa Beach, Aetoloakarn.

PI 604524. *Beta vulgaris* subsp. *maritima* (L.) Arcang.

Wild. IDBBNR 3851; 54842; W6 20770. Collected in Lisboa, Portugal. Latitude 38 deg. 42' 0" N. Longitude 9 deg. 25' 0" W. Cascais, Boca do Inferno, 2 km northwest Fr. Oeiras.

PI 604525. *Beta vulgaris* subsp. *maritima* (L.) Arcang.

Wild. IDBBNR 5935; 54750; W6 20771. Collected in Spain. Latitude 39 deg. 37' 0" N. Longitude 3 deg. 22' 0" E. 3 km east of Cala Bona, Majorca.

PI 604526. *Beta vulgaris* subsp. *maritima* (L.) Arcang.

Wild. IDBBNR 6069; 54760; W6 20772. Collected in Madeira Islands, Portugal. Latitude 32 deg. 38' 0'' N. Longitude 16 deg. 58' 0'' W. Camara de Lobos to Funchal, 3 km.

PI 604527. *Beta vulgaris* subsp. *maritima* (L.) Arcang.

Wild. IDBBNR 6072; 54763; W6 20773. Collected in Balearic Islands, Spain. Latitude 38 deg. 45' 0'' N. Longitude 1 deg. 30' 0'' E. Cala d'es pujols, Formentera.

PI 604528. *Beta vulgaris* subsp. *maritima* (L.) Arcang.

Wild. IDBBNR 6085; 54776; W6 20774. Collected in Baleares, Spain. Latitude 39 deg. 34' 0'' N. Longitude 0 deg. 3' 0'' E. Manacor, Porto Cristo, Mallorca.

PI 604529. *Beta vulgaris* subsp. *maritima* (L.) Arcang.

Wild. IDBBNR 6096; 54787; W6 20775. Collected in Baleares, Spain. Latitude 39 deg. 53' 0'' N. Longitude 3 deg. 1' 0'' E. Pollensa, la Roca de Llenaire, Mallorca.

PI 604530. *Beta vulgaris* subsp. *maritima* (L.) Arcang.

Wild. IDBBNR 6106; 54797; W6 20776. Collected in Charente-Maritime, France. Latitude 45 deg. 44' 0'' N. Longitude 1 deg. 6' 0'' W. Les Grande Roches, 5 km, Rd Etaules.

PI 604531. *Beta vulgaris* subsp. *maritima* (L.) Arcang.

Wild. IDBBNR 6108; 54799; W6 20777. Collected in Charente-Maritime, France. Latitude 45 deg. 48' 0'' N. Longitude 1 deg. 10' 0'' W. Ronce-les Bains, Pnte aux Herbes, Beach.

PI 604532. *Beta vulgaris* subsp. *maritima* (L.) Arcang.

Wild. IDBBNR 6115; 54806; W6 20778. Collected in Morbihan, France. Pointe de Penlan.

PI 604533. *Beta vulgaris* subsp. *maritima* (L.) Arcang.

Wild. IDBBNR 6117; 54808; W6 20779. Collected in Finistere, France. Latitude 48 deg. 40' N. Longitude 4 deg. 12' 0'' W. Pors-Meur Plouescat.

PI 604534. *Beta vulgaris* subsp. *maritima* (L.) Arcang.

Wild. IDBBNR 6522; 56654; W6 20780. Collected in Netherlands. Latitude 51 deg. 35' 0'' N. Longitude 3 deg. 45' 0'' E. Wissenkerke, Noord Beveland.

PI 604535. *Beta vulgaris* subsp. *maritima* (L.) Arcang.

Wild. IDBBNR 6952; 56771; W6 20781. Collected in Yugoslavia. Secovce, Istria.

PI 604536. *Beta vulgaris* subsp. *maritima* (L.) Arcang.

Wild. IDBBNR 6956; 56775; W6 20782. Collected in Murcia, Spain. Latitude 38 deg. 11' 0'' N. Longitude 0 deg. 33' 0'' W. Santa Pola.

PI 604537. *Beta vulgaris* subsp. *maritima* (L.) Arcang.

Wild. IDBBNR 7069; 57703; W6 20783. Collected in Portugal. Latitude 39 deg. 21' 0'' N. Longitude 9 deg. 9' 0'' W. Fos do Arelho, building north side bay, Obidos.

- PI 604538. *Beta vulgaris* subsp. *maritima* (L.) Arcang.
Wild. IDBBNR 7071; 57705; W6 20784. Collected in Portugal. Latitude 38 deg. 26' 0'' N. Longitude 9 deg. 6' 0'' W. Sesimbra, Sesimbramar block 2, Sesimbra.
- PI 604539. *Beta vulgaris* subsp. *maritima* (L.) Arcang.
Wild. IDBBNR 7079; 57713; W6 20785. Collected in Portugal. Latitude 36 deg. 59' 0'' N. Longitude 8 deg. 56' 0'' W. Ponta de Sagres, Vila do Bospo.
- PI 604540. *Beta vulgaris* subsp. *maritima* (L.) Arcang.
Wild. IDBBNR 7088; 57722; W6 20786. Collected in Huelva, Spain. Latitude 37 deg. 16' 0'' N. Longitude 7 deg. 10' 0'' W. Lepe to Cartaya, 0.5 km behind bridge.
- PI 604541. *Beta vulgaris* subsp. *maritima* (L.) Arcang.
Wild. IDBBNR 7101; 57735; W6 20787. Collected in Aveiro, Portugal. Latitude 40 deg. 38' 0'' N. Longitude 8 deg. 39' 0'' W. Aveiro, saline, road to Gafhana Nazare.
- PI 604542. *Beta vulgaris* subsp. *maritima* (L.) Arcang.
Wild. IDBBNR 7103; 57737; W6 20788. Collected in Morbihan, France. Kerhilio Beach.
- PI 604543. *Beta vulgaris* subsp. *maritima* (L.) Arcang.
Wild. IDBBNR 7104; 57738; W6 20789. Collected in Morbihan, France. Latitude 47 deg. 18' 0'' N. Longitude 2 deg. 26' 0'' W. Saille, saline, Kervalet to Pradel, west.
- PI 604544. *Beta vulgaris* subsp. *maritima* (L.) Arcang.
Wild. IDBBNR 7105; 57739; W6 20790. Collected in Morbihan, France. Latitude 47 deg. 30' 0'' N. Longitude 3 deg. 8' 0'' W. Manemeur, northwards, Peninsula Quiberon.
- PI 604545. *Beta vulgaris* subsp. *maritima* (L.) Arcang.
Wild. IDBBNR 7124; 58219; W6 20791. Collected in Cyprus. Latitude 34 deg. 40' 0'' N. Longitude 32 deg. 38' 0'' E. Petra Tou Romiou, Paphos.
- PI 604546. *Beta vulgaris* var. *macrocarpa* (Guss.) Moq.
Wild. IDBBNR 7139; 58234; W6 20792. Collected in Santa Cruz Tenerife, Spain. Latitude 28 deg. 22' 0'' N. Longitude 16 deg. 50' 0'' W. Buena Vista, outskirts.
- PI 604547. *Beta vulgaris* subsp. *maritima* (L.) Arcang.
Wild. IDBBNR 9172; 62760; W6 20793. Collected in Germany. Latitude 54 deg. 9' 0'' N. Longitude 7 deg. 52' 0'' E. Helgoland, southwest coast.
- PI 604548. *Beta vulgaris* subsp. *maritima* (L.) Arcang.
Wild. IDBBNR 9452; 63327; W6 20794. Collected in Italy. Latitude 43 deg. 25' 0'' N. Longitude 11 deg. E. Fosso d'Arno, estuary/road S 224, Toscana.
- PI 604549. *Beta vulgaris* subsp. *maritima* (L.) Arcang.
Wild. IDBBNR 9462; 63342; W6 20795. Collected in Italy. Latitude 42 deg. N. Longitude 12 deg. 30' 0'' E. Torrimipetra to Focene, at airport,

Lazio.

- PI 604550. *Beta vulgaris* subsp. *maritima* (L.) Arcang.**
Wild. IDBBNR 9463; 63343; W6 20796. Collected in Italy. Latitude 42 deg. N. Longitude 12 deg. 30' 0'' E. Tor S. Lorenzo, Lazio.
- PI 604551. *Beta vulgaris* subsp. *maritima* (L.) Arcang.**
Wild. IDBBNR 9479; 63416; W6 20797. Collected in Veneto, Italy. Latitude 45 deg. 13' 0'' N. Longitude 12 deg. 17' 0'' E. Chioggia to Conche, west of road.
- PI 604552. *Beta vulgaris* subsp. *maritima* (L.) Arcang.**
Wild. IDBBNR 9480; 63419; W6 20798. Collected in Friuli-Venezia, Italy. Latitude 45 deg. 40' 0'' N. Longitude 13 deg. 23' 0'' E. Grado.
- PI 604553. *Beta vulgaris* subsp. *maritima* (L.) Arcang.**
Wild. IDBBNR 10024; BC028; W6 20799. Collected in China.

The following were developed by Alfred Haunold, USDA, ARS, Oregon State University, Department of Crop Sciences, Corvallis, Oregon 97333, United States; J.A. Henning, USDA, ARS, Oregon State University, Crop Science Building, Corvallis, Oregon 97331, United States. Donated by John A. Henning, USDA ARS NFSPRC, Oregon State University, Crop Science Department, Corvallis, Oregon 97331, United States. Received 09/04/1998.

- PI 604554. *Humulus lupulus* L.**
Cultivar. Pureline. "Santiam"; USDA 21664; CHUM 999. CV-25. Pedigree - USDA 61021 x USDA 21618M. Triploid Tettnanger-type with high yield potential and excellent aroma characteristics. Alpha acid content ranges from 5-8% with beta acids less at 5-7%. Cohumulone content averaged 22% while average essential oil content was 1.4ml/100g tissue. Average essential oil contents were as follows: myrcene = 33%, humulene = 24%, caryophyllene = 7%, and farnesene = 15%. Approx. 2% of essential oil is made up of Selinine one component tentatively associated with resistance to powdery mildew (*Sphaerotheca macularis* var. *humuli*). Tolerant to downy mildew (*Pseudoperonospora humuli*) and resistant to the race of powdery mildew present in Oregon. No other pest resistance information is available at this time.

The following were collected by Cristina Mapes-Sanchez, Universidad Nacional Autonoma de Mexico, Jardin Botanico/Instituto de Biologia, Apartado Postal 70-614, Mexico City, Federal District 04510, Mexico. Received 10/02/1995.

- PI 604555. *Amaranthus cruentus* L.**
Landrace. Mapes 818; Ames 22652. Collected 10/25/1991 in Morelos, Mexico . Latitude 18 deg. 48' 0'' N. Longitude 98 deg. 47' 0'' W. Elevation 1540 m. Amilcingo, Municipality of Temoac. Inflorescence color mixture of red, green, and orange.
- PI 604556. *Amaranthus cruentus* L.**
Landrace. Mapes 819; Ames 22653. Collected 10/25/1991 in Morelos, Mexico . Latitude 18 deg. 45' 0'' N. Longitude 98 deg. 46' 0'' W. Elevation 1595 m. Huazulco, Municipal of Temoac. Compared to Temoac, a higher

altitude and colder area. This accession from Huazulco has a less spiny inflorescence.

PI 604557. *Amaranthus palmeri* S. Watson
Landrace. Mapes 820; Ames 22654. Collected 10/25/1991 in Puebla, Mexico. Latitude 18 deg. 46' 0'' N. Longitude 98 deg. 33' 0'' W. Elevation 1610 m. Tapetlahuaya around Huaquechula.

PI 604558. *Amaranthus cruentus* L.
Landrace. Mapes 821; Ames 22655. Collected 10/25/1991 in Puebla, Mexico. Latitude 19 deg. 26' 0'' N. Longitude 98 deg. 6' 0'' W. Elevation 1625 m. Santiago Tetla, Municipal of Huaquechula. District of Atlixco.

PI 604559. *Amaranthus hypochondriacus* L.
Landrace. Mapes 822; Ames 22656. Collected 10/26/1991 in Tlaxcala, Mexico. Latitude 19 deg. 30' 0'' N. Longitude 98 deg. 50' 0'' W. Elevation 2270 m. San Miguel del Milagro, Municipal of Nativitas. Plant 3.5 meters tall and red. Local people prefer red plants of this type because the green plants. Lodge.

PI 604560. *Amaranthus hypochondriacus* L.
Landrace. Mapes 823; Ames 22657. Collected 10/26/1991 in Tlaxcala, Mexico. Latitude 19 deg. 30' 0'' N. Longitude 98 deg. 50' 0'' W. Elevation 2235 m. San Miguel del Milagro, Municipal of Nativitas. Sandy soil. Collected in a Zea mays field. Plant 3 meters tall. Seeds white. Varieties at lower altitudes more red.

PI 604561. *Amaranthus hypochondriacus* L.
Landrace. Mapes 824; Ames 22658. Collected 10/26/1991 in Tlaxcala, Mexico. Latitude 19 deg. 30' 0'' N. Longitude 98 deg. 50' 0'' W. Elevation 2235 m. San Miguel del Milagro, Municipal of Nativitas. The milpa of Leopoldo Tellez. Sandy soil. Collected in a Zea mays field. Seeds selected from Mapes 823 and another plant. Fragile variety.

PI 604562. *Amaranthus hypochondriacus* L.
Landrace. Mapes 825; Ames 22659. Collected 10/26/1991 in Tlaxcala, Mexico. Latitude 19 deg. 30' 0'' N. Longitude 98 deg. 50' 0'' W. Elevation 2245 m. San Miguel del Milagro, Municipal of Nativitas. Shallow-yellow-sandy soil.

PI 604563. *Amaranthus hybrid*
Landrace. Mapes 826; quintonil; Ames 22660. Collected 11/27/1991 in Puebla, Mexico. Latitude 20 deg. 0' 30'' N. Longitude 97 deg. 56' 20'' W. Elevation 1900 m. Xoxonacatla, Municipal of Zacatlan. Clay soil. Collected in a Zea mays field. Pedigree - *Amaranthus powellii* is one of the parents. The red leaf markings would be unusual for *Amaranthus powellii*. People eat the tender new leaves in March.

PI 604564. *Amaranthus powellii* S. Watson
Landrace. Mapes 827; quintonil; Ames 22661. Collected 11/26/1991 in Puebla, Mexico. Latitude 20 deg. 0' 30'' N. Longitude 92 deg. 56' 20'' W. Elevation 1900 m. Xoxonacatla, Municipal of Zacatlan. Clay soil. Collected in a Zea mays field.

PI 604565. *Amaranthus hybrid*

Landrace. Mapes 828; quintonil; Ames 22662. Collected 11/27/1991 in Puebla, Mexico. Latitude 20 deg. 1' N. Longitude 97 deg. 54' W. Elevation 1645 m. Tlaltempa, behind the [shed] of Cuaticopa, Municipal of Zacatlan. Clay soil. Collected in a corn field. Pedigree - *Amaranthus powellii* is one of the parents. Plant 2 meters tall, very red. People eat the leaves in soup.

PI 604566. *Amaranthus* hybrid

Landrace. Mapes 829; quintonil; Ames 22663. Collected 11/28/1991 in Puebla, Mexico. Latitude 20 deg. 0' 5'' N. Longitude 97 deg. 43' 0'' W. Elevation 700 m. Zapotitlan de Mendez, Municipal of Zapotitlan. Rocky with gravel soil. Collected in coffee plant field. Pedigree - *Amaranthus hybridus* may be one of the parents. Plant 60-70 cm tall with red inflorescence.

PI 604567. *Amaranthus* hybrid

Landrace. Mapes 830; quintonil; Ames 22667. Collected 11/28/1991 in Puebla, Mexico. Latitude 20 deg. N. Longitude 97 deg. 38' 30'' W. Elevation 685 m. Camino a Tuxtla, past the bridge on the Zempoala River, Municipal of Zapotitlan. Collected in coffee plant field. Pedigree - *Amaranthus hybridus* is one of the parents. Inflorescence red. Leaves green, short bracts.

PI 604568. *Amaranthus hybridus* L.

Landrace. Mapes 831; Ames 22668. Collected 11/28/1991 in Puebla, Mexico. Latitude 19 deg. 58' N. Longitude 97 deg. 37' 40'' W. Elevation 710 m. Mapilco, Municipal of Xochitlan. Collected in coffee plant field. Plant green. Seeds black.

PI 604569. *Amaranthus hypochondriacus* L.

Landrace. Mapes 832; quintonil; Ames 22669. Collected 11/28/1991 in Puebla, Mexico. Latitude 19 deg. 58' N. Longitude 97 deg. 37' 40'' W. Elevation 880 m. Xaltipan, Municipal of Xochitlan. Clay soil. Collected in a home garden. Inflorescence red. Leaves green.

PI 604570. *Amaranthus hybridus* L.

Landrace. Mapes 833; quintonil; Ames 22671. Collected 11/28/1991 in Puebla, Mexico. Latitude 19 deg. 58' N. Longitude 97 deg. 37' 40'' W. Elevation 1595 m. Xochitlan, Municipal of Xochitlan. Collected in a home garden, growing with *Zea mays* and *Tagetes*. Plant 3 meters tall. Brown 'disease' on stem.

PI 604571. *Amaranthus* hybrid

Landrace. Mapes 834; quintonil; Ames 22672. Collected 11/28/1991 in Puebla, Mexico. Latitude 19 deg. 58' N. Longitude 97 deg. 37' 40'' W. Elevation 1595 m. Xochitlan, Municipal of Xochitlan. Pedigree - One of the parents could be *Amaranthus hybridus*. Inflorescence red.

PI 604572. *Amaranthus hypochondriacus* L.

Landrace. Mapes 835; Ames 22673. Collected 11/28/1991 in Puebla, Mexico. Latitude 20 deg. 1' N. Longitude 97 deg. 54' W. Elevation 1595 m. Xoxonacatla, Municipal of Zacatlan. Clay soil. On steep slope. Plant 3 meters tall, stem green with red stripes. Seeds black, and a red inflorescence.

- PI 604573. *Amaranthus hypochondriacus* L.**
Landrace. Mapes 838; Ames 22674. Collected 11/29/1991 in Puebla, Mexico. Latitude 19 deg. 52' 50'' N. Longitude 97 deg. 26' 40'' W. Elevation 1735 m. Hueyapan, Municipal of Hueyapan. Growing in a milpa with garbaje. Plant 1.5 meters tall, big bracts. Seeds black. Stem red.
- PI 604574. *Amaranthus hybridus* L.**
Landrace. Mapes 839; Ames 22675. Collected 11/29/1991 in Puebla, Mexico. Latitude 19 deg. 52' 50'' N. Longitude 97 deg. 26' 40'' W. Elevation 1735 m. Hueyapan, Municipal of Hueyapan. Growing in a milpa with garbaje. Inflorescence red.
- PI 604575. *Amaranthus hypochondriacus* L.**
Landrace. Mapes 840; Ames 22676. Collected 11/29/1991 in Puebla, Mexico. Latitude 19 deg. 52' 50'' N. Longitude 97 deg. 26' 40'' W. Elevation 1735 m. Hueyapan, Municipal of Hueyapan. Associated with "quintonil" *Amaranthus*, *Zea mays*, *Persea americana*, and *Musa*.
- PI 604576. *Amaranthus hypochondriacus* L.**
Landrace. Mapes 841; quintonil; Ames 22677. Collected 11/29/1991 in Puebla, Mexico. Latitude 19 deg. 52' 50'' N. Longitude 97 deg. 26' 40'' W. Elevation 1735 m. Hueyapan, Municipal of Hueyapan. With ornamental plants. Inflorescence and leaves red. Stem striped green with red.
- PI 604577. *Amaranthus hypochondriacus* L.**
Landrace. Mapes 847; quintonil; meco; rayadito; Ames 22678. Collected 05/14/1992 in Puebla, Mexico. Latitude 19 deg. 55' N. Longitude 97 deg. 38' W. Elevation 1500 m. Huahuaxtla, Municipal of Xochitlan. Found in a home garden, associated with *Zea mays*, *Vicia faba*, *Curcubita pepo*, *Curcubita ficifolia*, *Rumex*, and *Zantedeschia aethiopica*. One of the most preferred vegetable types in the Sierra Norte of Puebla. Also used as turkey fodder. The leaf blades have double "V" markings.
- PI 604578. *Amaranthus hypochondriacus* L.**
Landrace. Mapes 856; quintonil verde; Ames 22679. Collected 10/22/1992 in Puebla, Mexico. Latitude 19 deg. 51' 30'' N. Longitude 97 deg. 36' W. Elevation 1870 m. Comaltepec, Municipal of Zacapoaxtla. On ando soil. Associated with *Capsicum pubescens*, *Artemisia*, *Zea mays*, *Ruta chalapensis* and *Phaseolus*.
- PI 604579. *Amaranthus hypochondriacus* L.**
Landrace. Mapes 857; quintonil; Ames 22680. Collected 10/22/1992 in Puebla, Mexico. Latitude 19 deg. 51' 30'' N. Longitude 97 deg. 36' W. Elevation 1870 m. Comaltepec, Municipal of Zacapoaxtla. On ando soil.
- PI 604580. *Amaranthus hypochondriacus* L.**
Landrace. Mapes 858; quintonil; Ames 22681. Collected 10/22/1992 in Puebla, Mexico. Latitude 19 deg. 51' 30'' N. Longitude 97 deg. 36' W. Elevation 1870 m. Comaltepec, Municipal of Zacapoaxtla. On ando soil.
- PI 604581. *Amaranthus hypochondriacus* L.**
Landrace. Mapes 860; chichiquelit; Ames 22682. Collected 10/22/1992 in Puebla, Mexico. Latitude 19 deg. 55' N. Longitude 97 deg. 38' W. Elevation 1660 m. Camino a Huahuaxtla, Municipal of Xochitlan.

- PI 604582. *Amaranthus hybridus* L.**
Landrace. Mapes 861; iztaquelit; Ames 22683. Collected 10/22/1992 in Puebla, Mexico. Latitude 19 deg. 55' N. Longitude 97 deg. 38' W. Elevation 1660 m. Camino a Huahuaxtla, Municipal of Xochitlan.
- PI 604583. *Amaranthus hypochondriacus* L.**
Landrace. Mapes 862; Ames 22684. Collected 11/28/1992 in Puebla, Mexico. Latitude 19 deg. 55' N. Longitude 97 deg. 38' W. Elevation 1660 m. Huahuaxtla, Municipal of Xochitlan. Associated with *Zea mays*.
- PI 604584. *Amaranthus hypochondriacus* L.**
Landrace. Mapes 863; Ames 22685. Collected 11/28/1992 in Puebla, Mexico. Latitude 19 deg. 55' N. Longitude 97 deg. 38' W. Elevation 1660 m. Huahuaxtla, Municipal of Xochitlan. Associated with *Zea mays*.
- PI 604585. *Amaranthus hypochondriacus* L.**
Landrace. Mapes 864; Ames 22686. Collected 11/28/1992 in Puebla, Mexico. Latitude 19 deg. 55' N. Longitude 97 deg. 38' W. Elevation 1660 m. Huahuaxtla, Municipal of Xochitlan. Bought at a private home.
- PI 604586. *Amaranthus hypochondriacus* L.**
Landrace. Mapes 865; Ames 22687. Collected 11/28/1992 in Puebla, Mexico. Latitude 19 deg. 52' 0'' N. Longitude 99 deg. 4' 0'' W. Elevation 1500 m. Cerro La Mesa, Talchichico around Jilotzingo, Municipal of Zacatlan.
- PI 604587. *Amaranthus hypochondriacus* L.**
Landrace. Mapes 866; Ames 22688. Collected 12/28/1992 in Puebla, Mexico. Latitude 19 deg. 55' N. Longitude 97 deg. 38' W. Elevation 1560 m. Jilotzingo, Municipal of Zacatlan. This variety is used like green 'lettuce'.
- PI 604588. *Amaranthus hypochondriacus* L.**
Landrace. Mapes 867; Ames 22689. Collected 12/29/1992 in Puebla, Mexico. Latitude 20 deg. 0' 30'' N. Longitude 97 deg. 56' 20'' W. Elevation 1900 m. Xoxonacatla, Municipal of Zacatlan.
- PI 604589. *Amaranthus hypochondriacus* L.**
Landrace. Mapes 868; quintonil; Ames 22690. Collected 12/29/1992 in Puebla, Mexico. Latitude 19 deg. 55' N. Longitude 97 deg. 38' W. Elevation 1500 m. Huahuaxtla, Municipal of Huahuaxtla. This variety is used like green 'lettuce'.
- PI 604590. *Amaranthus hybridus* L.**
Landrace. Mapes 876; chichiquelit rojo; quintonil rojo; Ames 22691. Collected 04/14/1993 in Puebla, Mexico. Latitude 19 deg. 55' N. Longitude 97 deg. 38' W. Elevation 1600 m. Huahuaxtla, at the beginning of the path to Ocotepc de Cardenas, Municipal of Xochitlan. Seeds black. Used to make atole during the "santa" week.
- PI 604591. *Amaranthus hypochondriacus* L.**
Landrace. Mapes 877; quintonil rojo; Ames 22692. Collected 08/13/1993 in Puebla, Mexico. Latitude 19 deg. 36' N. Longitude 97 deg. 36' W. Elevation 1890 m. Comaltepec, Municipal of Zacapoaxtla. Calcareo soils. Associated with *Prunus persica*, *Phaseolus*, *Prunus domestica*, *Prunus serotina*, and *Persea americana*. Plant red.

- PI 604592. *Amaranthus hypochondriacus* L.**
 Landrace. Mapes 887; Ames 22693. Collected 08/13/1993 in Puebla, Mexico. Latitude 20 deg. 0' 30'' N. Longitude 97 deg. 56' 20'' W. Elevation 1850 m. 11.5 km. on the intermountain road of Zacatlan to Zacapoaxtla, Municipal of Zacatlan. Growing among stalks after Zea mays is harvested. Associated with Phaseolus, Cucurbita ficifolia, Tagetes, and Lopezia. Plant very red, with some striped green leaves. Plant 2 meters tall.
- PI 604593. *Amaranthus hypochondriacus* L.**
 Landrace. Mapes 888; Ames 22694. Collected 11/15/1993 in Puebla, Mexico. Latitude 20 deg. 0' 30'' N. Longitude 97 deg. 56' 20'' W. Elevation 1850 m. 11.5 km. on the intermountain road of Zacatlan to Zacapoaxtla, Municipal of Zacatlan. Collected in a Zea mays field. Plant 2 meters tall with grooved stem.
- PI 604594. *Amaranthus hypochondriacus* L.**
 Landrace. Mapes 889; Ames 22695. Collected 11/15/1993 in Puebla, Mexico. Latitude 20 deg. 1' 0'' N. Longitude 97 deg. 54' W. Elevation 1850 m. Jilotzingo, Municipal of Zacatlan. Growing among stalks after Zea mays is harvested. Associated with Phaseolus, Sechim edule, Pteridium, Lopezia, Tagetes, Persea americana, Prunus domestica, Annona cherimola, Citrus aurantiifolia, Alnus, Yucca aloifolia, and Clethera. Inflorescence very red.
- PI 604595. *Amaranthus hypochondriacus* L.**
 Landrace. Mapes 891; Ames 22696. Collected 11/18/1993 in Puebla, Mexico. Latitude 20 deg. 0' 5'' N. Longitude 97 deg. 43' W. Elevation 1450 m. District of Chonchamon, Almoloni Hueyapan, Municipal of Hueyapan. Collected in a Zea mays field. Associated with Cucurbita pepo, Cucurbita ficifolia, Phaseolus, Prunus persica, Prunus domestica, Persea americana, Hydrangea macrophylla, and Sechium edule. Plant very red. Seeds black.
- PI 604596. *Amaranthus hypochondriacus* L.**
 Landrace. Mapes 892; Ames 22697. Collected 11/18/1993 in Puebla, Mexico. Latitude 20 deg. 0' 5'' N. Longitude 97 deg. 43' W. Elevation 1450 m. Almoloni, Hueyapan, Municipal of Hueyapan. Collected in a Zea mays field, associated with Punica granatum and Phaseolus.
- PI 604597. *Amaranthus hypochondriacus* L.**
 Landrace. Mapes 893; quintonil; Ames 22698. Collected 11/18/1993 in Puebla, Mexico. Latitude 20 deg. 0' 5'' N. Longitude 97 deg. 43' W. Elevation 1450 m. Ahuatzalan, Buenavista. Hueyapan, Municipal of Hueyapan. Collected in a home garden.
- PI 604598. *Amaranthus hypochondriacus* L.**
 Landrace. Mapes 896; Ames 22699. Collected 11/18/1993 in Puebla, Mexico. Latitude 19 deg. 57' 30'' N. Longitude 97 deg. 36' 10'' W. Elevation 1500 m. Highway to Nauzontla, Municipal of Nauzontla. Growing among stalks after Zea mays is harvested. Plant very red. Seeds black.
- PI 604599. *Amaranthus hypochondriacus* L.**
 Landrace. Mapes 898; Ames 22700. Collected 12/27/1993 in Puebla, Mexico.

Latitude 19 deg. 57' 30'' N. Longitude 97 deg. 36' 10'' W. Elevation 1700 m. Xoxonacatla, Municipal of Zacatlan. Collected in a Zea mays field, associated with Phaseolus and Cucurbita ficifolia. Inflorescence red. Seeds black. No leaves.

The following were developed by Steven J. Knapp, Oregon State University, Department of Crop & Soil Science, Crop Science Building, 451C, Corvallis, Oregon 97331-3002, United States; J.M. Crane, Oregon State University, Dept. of Crop and Soil Science, Crop Science Bldg, Rm. 107, Corvallis, Oregon 97331, United States. Donated by Steven J. Knapp, Oregon State University, Department of Crop & Soil Science, Crop Science Building, 451C, Corvallis, Oregon 97331-3002, United States. Received 09/1998.

PI 604600. *Limnanthes alba* Hartw. ex Benth.

Cultivar. Population. "KNOWLES"; OSU-EXP-OMF69; W6 20874. Pedigree - Developed from one cycle of recurrent half-sib family selection for increased seed yield and oil content in the OMF58 population. OMF58 was developed by intermating 4 wild *L. alba* populations (UC-305, 308, 312 & 322) with Mermaid and Floral. Done in 2 stages. UC-305, 308, 312 and 322 were intermated under field cages in 1987 to create the UC-Bulk population. UC-Bulk was intermated with Mermaid & Floral in an isolated field in 1990-91 to create OMF58. Fatty acid profile similar to that of Floral and *L. alba* ssp. *alba* per se. Strong upright growth and can be machine harvested.

The following were collected by Cristina Mapes-Sanchez, Universidad Nacional Autonoma de Mexico, Jardin Botanico/Instituto de Biologia, Apartado Postal 70-614, Mexico City, Federal District 04510, Mexico. Received 10/02/1995.

PI 604601. *Amaranthus hypochondriacus* L.

Landrace. Mapes 899; Ames 22702. Collected 12/27/1993 in Puebla, Mexico. Latitude 20 deg. 0' 30'' N. Longitude 97 deg. 56' 20'' W. Elevation 1700 m. Xoxonacatla, Municipal of Zacatlan. Collected in a Zea mays field, associated with Phaseolus and Cucurbita ficifolia. Inflorescence red. Leaves green.

PI 604602. *Amaranthus hybridus* L.

Landrace. Basurto 1614; quintonil blanco; Ames 22703. Collected 06/27/1994 in Puebla, Mexico. Latitude 20 deg. 14' 0'' N. Longitude 98 deg. 7' 0'' W. Elevation 1750 m. Naupan, Municipal of Naupan. In a home garden. Grows two or three meters tall. Seeds black.

The following were developed by R.S. Sadasivaiah, Agriculture & Agri-Food Canada, Research Station, P.O. Box 3000, Main, Lethbridge, Alberta T1J 4B1, Canada. Received 08/25/1998.

PI 604603. *Triticum aestivum* L., nom. cons. subsp. *aestivum*

Cultivar. Pureline. "AC NANDA"; SWS-179. Pedigree - Owens/SWS-15//3*Fielder, and a re-selection of the cultivar Bliss. Late maturing, semi-dwarf soft white spring wheat with resistance to lodging and shattering. Resistant to common bunt (*Tilletia laevis* and *T. caries*) and black point (*Alternaria alternata*). Adult-plant resistance to stripe

rust (*Puccinia striiformis*). Moderate resistance to powdery mildew (*Erysiphe graminis*). Has high amylograph peak viscosity, a quality trait desired in some niche markets. Good milling and end-use quality suitable for cookie, cake and pastry products.

PI 604604. *Triticum aestivum* L., nom. cons. subsp. *aestivum*

Cultivar. Pureline. "AC PHIL"; SWS-89. Pedigree - PT303/Dirkwin//Kenya 321/Fieldwin. Early maturing, semi-dwarf soft white spring wheat with resistance to lodging and shattering. Resistant to stripe rust (*Puccinia striiformis*). Moderate resistance to common root rot (*Cochliobolus sativus*). Better black point resistance (*Alternaria alternata*) than Fielder and AC Reed. Good milling and end-use quality suitable for cookie, cake and pastry products.

The following were developed by Nora E. D'Croz-Mason, University of Nebraska, Department of Agronomy, Maize Breeding Project, Lincoln, Nebraska 68583-0915, United States. Received 03/16/1998.

PI 604605. *Zea mays* L. subsp. *mays*

Breeding. Inbred. "N522". Pedigree - Selected from Nebraska B and Nebraska S Synthetics, NB and NS. S5 inbred line, kernels yellow, cobs red. Initial parental lines from Group 2 inbreds N516 to N527 with PL 254-263, PI590465-594074 (Crop Sci. 1997 37:1404-1405). Selected for improved rates of germination and improved seedling growth and vigor under suboptimal temperatures. Cold tolerance based on responses in growth chamber to 14 and 10 hr period of light and dark with respective temperatures of 11.1 and 4.4 C, with early generation selection being based on testcross performance in yield trials. Emergence index, 16.5 days, seedling dry wt, 1.51 g. percentage of emergence 92.4%, 79 days to pollen shed, 202 and 78.3 cm plant and ear height, 153 gKg-1 grain moisture, 2.32 Mg ha-1.

PI 604606. *Zea mays* L. subsp. *mays*

Breeding. Inbred. "N527". Pedigree - Selected from Nebraska B and Nebraska S Synthetics, NB and NS. S5 inbred line, kernels yellow, cobs red. Parental lines coming from Group 2 inbreds N516 to N527 with PL 254-263, PI590465-594074 (Crop Sci. 1997 37:1404-1405). Selected for improved rates of germination and improved seedling growth and vigor under suboptimal temperatures. Cold tolerance based on responses in growth chamber to 14 and 10 hr period of light and dark with respective temperatures of 11.1 and 4.4 C, early generation selection based on testcross performance in yield trials. Emergence index of 16.5 days, seedling dry wt of 1.51 g, percentage of emergence 92.4%, 79 days to pollen shed, 202 and 78.3 cm plant and ear height, 153 g Kg-1 grain moisture, 2.32 Mg ha-1.

The following were developed by Charlie L. Rife, Kansas State University, Department of Agronomy, 2004 Throckmorton Plant Science Center, Manhattan, Kansas 66506-5501, United States. Received 08/14/1998.

PI 604607. *Brassica napus* L.

Cultivar. Pureline. "PLAINSMAN". Pedigree - WRER12/Bienvenu. Has shown significant improvement in winter hardiness for Great Plains conditions.

Winter survival averaged 75.8% compared to 69.7% for Bridger and 69.1% for Ceres. Seed has 1 g kg⁻¹ erucic acid and 13 mmol g⁻¹ glucosinolate. Yield has averaged 1585 kg ha⁻¹, (87% of Ceres). Flowers 1 d earlier (111.9 d), and 1.4% lower moisture than Ceres. Plant height 118 cm. Oil content 369 g kg⁻¹, test weights 597 kg m⁻³; about average. Vernalization requirement 9- to 10-weeks at 5 deg. C. Blackleg response similar to Falcon.

The following were developed by Harry C. Minor, University of Missouri-Columbia, Department of Agronomy, 214 Waters Hall, Columbia, Missouri 65211, United States; Charlie L. Rife, Kansas State University, Department of Agronomy, 2004 Throckmorton Plant Science Center, Manhattan, Kansas 66506-5501, United States; Dick L. Auld, Texas Tech University, Department of Plant and Soil Sciences, P.O. Box 4122, Lubbock, Texas 79409-2122, United States; David D. Baltensperger, University of Nebraska, Panhandle Res. & Ext. Center, 4502 Avenue I, Scottsbluff, Nebraska 69361-4939, United States; Duane L. Johnson, Colorado State University, Department of Soil and Crop Sciences, PC 117, Fort Collins, Colorado 80523, United States; W.F. Heer, Kansas State University, Kansas Agric. Exp. Station, Department of Agronomy, Manhattan, Kansas, United States; H.D. Sunderman, Northwest Res.-Ext. Center, Kansas State Univ., Hutchinson, Kansas 67501, United States; D. Bordovsky, Texas A&M University, Ag. Res.-Ext. Ctr., Vernon, Texas 76384, United States. Donated by Charlie L. Rife, Kansas State University, Department of Agronomy, 2004 Throckmorton Plant Science Center, Manhattan, Kansas 66506-5501, United States. Received 08/14/1998.

PI 604608. *Brassica napus* L.

Breeding. Pureline. "KS1701". GP-6. Pedigree - WRER17/Bienvenu. Released 1998. Significant improvement in winter hardiness for Great Plains conditions. Survival averaged 75.2% (69.7% for Bridger, 69.1% for Ceres). Seed 1 g kg⁻¹ erucic acid, 9.8 mmol g⁻¹ glucosinolate. Yield avg. 1449 kg ha⁻¹ (79% of Ceres). Flowers 2 d earlier (110.8 d), 1.5% lower moisture than Ceres. Plant height, 108 cm, oil content, 367 g kg⁻¹, similar to Falcon. Test weights average (592 kg m⁻³). Rosette extremely prostrate, growing point near soil surface when other lines have exhibited fall stem elongation. Vernalization requirement 8-9 weeks at 5 deg. C. Blackleg response similar to Falcon.

The following were developed by James R. Ballington, North Carolina State University, Department of Horticultural Sciences, Box 7609, Raleigh, North Carolina 27695-7609, United States. Received 07/11/1991.

PI 604609. *Rubus innominatus* S. Moore

Breeding. Collected 06/18/1991 in Jiangxi, China. Pedigree - Open pollinated from seedling selections of Chinese seedlot. Fruit collected from seedlings with early-ripening fruit.

PI 604610. *Rubus innominatus* S. Moore

Breeding. Collected 07/02/1991 in Jiangxi, China. Pedigree - Open pollinated from seedling selections of Chinese seedlot.

PI 604611. *Rubus hirsutus* Thunb.

Breeding. Kusa-ichigo. Collected 1991 in Jiangsu, China. Pedigree -

Open pollinated from seedling selections of Chinese seedlot.

PI 604612. *Rubus hirsutus* Thunb.

Breeding. Kusa-ichigo. Collected 1991 in Anhui, China. Pedigree - Open pollinated from seedling selections of Chinese seedlot.

PI 604613. *Rubus hirsutus* Thunb.

Breeding. Kusa-ichigo. Collected 1991 in Zhejiang, China. Pedigree - Open pollinated from seedling selections of Chinese seedlot.

PI 604614. *Rubus corchorifolius* L. f.

Breeding. Collected 1991 in Sichuan, China. Pedigree - Open pollinated from seedling selections of Chinese seedlot.

The following were collected by Joseph Postman, USDA, ARS, National Plant Germplasm Repository, 33447 Peoria Road, Corvallis, Oregon 97333-2521, United States. Received 05/22/1992.

PI 604615. *Rubus spectabilis* Pursh

Wild. Salmonberry. Collected 05/22/1992 in Washington, United States. Latitude 47 deg. 4' N. Longitude 122 deg. 40' W. Along roadside at Solo Point, Puget Sound. Pedigree - Collected from the wild in Washington. Collection of fruit from a population with mostly salmon- orange fruit, few plants with red fruits. Large & abundant.

The following were developed by Nanjing Botanical Garden, Mem. Sun Yat-Sen, Nanjing, Jiangsu, China. Received 11/02/1992.

PI 604616. *Rubus setchuenensis* Bureau & Franch.

Wild. Collected 09/14/1992 in Guizhou, China. Latitude 27 deg. 42' 0'' N. Longitude 106 deg. 55' 0'' E. Elevation 1255 m. Zunyi County. Pedigree - Collected from the wild in China. Fruit black.

PI 604617. *Rubus setchuenensis* Bureau & Franch.

Wild. Collected 09/15/1992 in Guizhou, China. Latitude 28 deg. 8' 0'' N. Longitude 106 deg. 49' 0'' E. Elevation 1420 m. Tongzi County. Pedigree - Collected from the wild in China. Fruit black.

PI 604618. *Rubus* sp.

Wild. Collected 09/1992 in Sichuan, China. Latitude 28 deg. 10' 0'' N. Longitude 105 deg. 24' 0'' E. Elevation 1100 m. Xuyong County. Pedigree - Collected from the wild in China. Fruit black.

PI 604619. *Rubus niveus* Thunb.

Wild. Collected 09/26/1992 in Guizhou, China. Latitude 26 deg. 34' 0'' N. Longitude 104 deg. 52' 0'' E. Elevation 1730 m. Shuicheng County. Pedigree - Collected from the wild in China. Fruit black.

PI 604620. *Rubus lambertianus* Ser.

Wild. Collected 09/27/1992 in Guizhou, China. Latitude 26 deg. 34' 0'' N. Longitude 104 deg. 52' 0'' E. Elevation 1820 m. Shuicheng County. Pedigree - Collected from the wild in China. Fruit orange.

PI 604621. *Rubus tephrodes* Hance

Wild. Collected 10/02/1992 in Guizhou, China. Latitude 26 deg. 42' 0'' N. Longitude 107 deg. 33' 0'' E. Fuquan County. Pedigree - Collected from the wild in China. Fruit black.

The following were collected by T. Iwatsubo. Donated by Naohiro Naruhashi, Toyama University, Department of Biology, Faculty of Science, Gofuku, Toyama 930, Japan. Received 02/11/1993.

PI 604622. *Rubus sieboldii* Blume

Wild. Collected 05/10/1992 in Japan. Latitude 30 deg. N. Longitude 130 deg. E. Kagoshima-ken, Kumage-gun, Minamitane-cho, Nishino. Pedigree - Collected in the wild in Japan.

The following were developed by Derek Peacock, USDA/ARS/NCGR-Corvallis, 33447 Peoria Rd, Corvallis, Oregon 97333-2521, United States. Received 08/31/1993.

PI 604623. *Rubus idaeus* L.

Cultivar. Pedigree - Open-pollinated seed from 'Amber' (Taylor x Cuthbert) RUB777. Fruit from plant large, amber, sweet. Reference CRUB 777.

The following were collected by Bruce Bartlett, USDA, ARS, National Germplasm Repository, 33447 Peoria Road, Corvallis, Oregon 97333-2521, United States. Received 08/28/1995.

PI 604624. *Rubus laciniatus* Willd.

Wild. Collected 08/22/1995 in Washington, United States. Latitude 47 deg. 50' N. Longitude 121 deg. 52' W. Elevation 100 m. Near Sultan, Snohomish county, Washington. Along side of gravel road near public campsite. Within 5-10 ft of established gravel road in public campsite. Other vegetation: Salal, Douglas Fir, Western Red Cedar, *Vaccinium* ssp., (huckleberry), other *Rubus* ssp. Pedigree - selection of *R. laciniatus*.

The following were collected by Chad Finn, USDA, ARS, NW Center for Small Fruits Research, 3420 NW Orchard Street, Corvallis, Oregon 97339, United States; James Luby, University of Minnesota, Department of Horticultural Science, 342 Alderman Hall, St. Paul, Minnesota 55108, United States; Rick Harrison, University of Minnesota, Department of Horticultural Science, 1970 Folwell Avenue, St. Paul, Minnesota 55108-6007, United States. Donated by Chad Finn, USDA, ARS, NW Center for Small Fruits Research, 3420 NW Orchard Street, Corvallis, Oregon 97339, United States. Received 03/01/1995.

PI 604625. *Rubus leucodermis* Douglas ex Torr. & A. Gray

Wild. LIG-1; CRUB 1827. Collected 08/08/1993 in Washington, United States. Latitude 47 deg. 45' 56'' N. Longitude 122 deg. 56' 40'' W. Elevation 457 m. Olympic National Forest. 3.2 km west/southwest of US 101 on FR 2620 (Rd just south of Rainbow NFS Campground). Jefferson County. T26N R2W SE 1/4 Sec 4 and NW 1/4 Sec 9. Moist coastal forest. Pedigree - collected from the wild.

The following were collected by Chad Finn, USDA, ARS, NW Center for Small Fruits Research, 3420 NW Orchard Street, Corvallis, Oregon 97339, United States; Rick Harrison, University of Minnesota, Department of Horticultural Science, 1970 Folwell Avenue, St. Paul, Minnesota 55108-6007, United States. Donated by Chad Finn, USDA, ARS, NW Center for Small Fruits Research, 3420 NW Orchard Street, Corvallis, Oregon 97339, United States. Received 03/01/1995.

PI 604626. *Rubus leucodermis* Douglas ex Torr. & A. Gray
Wild. LIG-3; CRUB 1828. Collected 08/08/1993 in Washington, United States. Latitude 47 deg. 54' 54'' N. Longitude 123 deg. 2' 8'' W. Elevation 762 m. Olympic National Forest. US 101 to Lord's Lake Loop Road, travel northwest along FR 28. T28N R3W Sec 14 and Sec 15. Jefferson County. Moist coastal forest. Lots of light along road and adjacent to clear cut. Pedigree - collected from the wild.

The following were collected by Chad Finn, USDA, ARS, NW Center for Small Fruits Research, 3420 NW Orchard Street, Corvallis, Oregon 97339, United States; James Luby, University of Minnesota, Department of Horticultural Science, 342 Alderman Hall, St. Paul, Minnesota 55108, United States; Rick Harrison, University of Minnesota, Department of Horticultural Science, 1970 Folwell Avenue, St. Paul, Minnesota 55108-6007, United States. Donated by Chad Finn, USDA, ARS, NW Center for Small Fruits Research, 3420 NW Orchard Street, Corvallis, Oregon 97339, United States. Received 03/01/1995.

PI 604627. *Rubus leucodermis* Douglas ex Torr. & A. Gray
Wild. LIG-12; CRUB 1831. Collected 08/10/1993 in Washington, United States. Latitude 48 deg. 30' N. Longitude 121 deg. 20' W. Elevation 610 m. Mt. Baker-Snoqualmie National Forest. In vicinity of Baker Lake. WA 20 to FR 11 then approx 5.5 km north on FR 1130, 0.16 km past bridge over Boulder Creek. T38N R9E Sec 19. Whatcom County. Vegetation tended to be thick. Some parts of site in shaded road area where trees grew over road but tended to be well lit. Moist area. Typical coastal forest. Pedigree - collected from the wild.

PI 604628. *Rubus leucodermis* Douglas ex Torr. & A. Gray
Wild. LIG-15; CRUB 1832. Collected 08/11/1993 in Washington, United States. Latitude 48 deg. 30' N. Longitude 121 deg. 20' W. Elevation 305 m. Mt. Baker-Snoqualmie National Forest. Approx. 3.2 km north on FR 1130 from FR 11. T38N R9E Sec 30 and Sec 31. Whatcom County. Wet forest with lower light levels. Typical coastal forest. Pedigree - collected from the wild.

PI 604629. *Rubus leucodermis* Douglas ex Torr. & A. Gray
Wild. LIG-17; CRUB 1833. Collected 08/11/1993 in Washington, United States. Latitude 48 deg. 30' N. Longitude 121 deg. W. Elevation 472 m. Mt. Baker-Snoqualmie National Forest. From WA 20 take Cascade River Road west to Marblemount. Skagit County. Coastal forest. Fairly low light and high moisture area. Pedigree - collected from the wild.

PI 604630. *Rubus leucodermis* Douglas ex Torr. & A. Gray
Wild. LIG-19; CRUB 1834. Collected 08/12/1993 in Washington, United States. Latitude 48 deg. 30' N. Longitude 120 deg. 30' W. Okanogan National Forest. In area of bridge over Early Winters Creek along access

road (FR 5310300) Klipchuck NFS Campground off WA 20. T36N R19E Sec 29. Okanogan County. Typical stream environment. Moist. Pedigree - collected from the wild.

- PI 604631. *Rubus leucodermis*** Douglas ex Torr. & A. Gray
Wild. LIG-21; CRUB 1835. Collected 08/12/1993 in Washington, United States. Latitude 48 deg. 30' N. Longitude 120 deg. 30' W. Elevation 1020 m. Okanogan National Forest. FR 52 then west on FR 5225 approx 1.6 km. T36N R20E Sec 20 and Sec 19. Okanogan County. Very dry. Overgrazed. Pedigree - collected from the wild.
- PI 604632. *Rubus leucodermis*** Douglas ex Torr. & A. Gray
Wild. LIG-29; CRUB 1836. Collected 08/14/1993 in Washington, United States. Latitude 47 deg. 50' N. Longitude 120 deg. 50' W. Elevation 900 m. Wenatchee National Forest. From FR 6500, southwest on FR 6700. T27N R15E Sec 21, 16, 15. Chelan County. Moist forest type; however, soil at this site seemed to be dry. Associated w/ *Pseudotsuga menziesii*, *Abies* spp., *Tsuga heterophylla*, *Thuja plicata*. Pedigree - collected from the wild.
- PI 604633. *Rubus leucodermis*** Douglas ex Torr. & A. Gray
Wild. LIG-31; CRUB 1837. Collected 08/14/1993 in Washington, United States. Latitude 47 deg. 50' N. Longitude 120 deg. 45' W. Elevation 1065 m. Wenatchee National Forest. Just before Phelps Creek NFS Campground take FR 6211 to trailhead on ridge. T30N R16E Sec 27. Chelan County. Poorly lit forest. Associated w/ *Pinus contorta*, *Pseudotsuga menziesii*, *Abies* spp. Pedigree - collected from the wild.
- PI 604634. *Rubus leucodermis*** Douglas ex Torr. & A. Gray
Wild. LIG-37; CRUB 1838. Collected 08/16/1993 in Washington, United States. Latitude 46 deg. 5' N. Longitude 122 deg. 15' W. Elevation 535 m. Gifford Pinchot National Forest. East on FR 93 to FR 9303 then north on FR 9303 along Clear Creek. T3N R7E Sec 32. Skamania County. Dark, moist creek valley. Collected along road which was very overgrown and shady. Associated w/ *Alnus* spp. Pedigree - collected from the wild.
- PI 604635. *Rubus leucodermis*** Douglas ex Torr. & A. Gray
Wild. LIG-38; CRUB 1839. Collected 08/16/1993 in Washington, United States. Latitude 46 deg. 5' N. Longitude 122 deg. 15' W. Elevation 460 m. Gifford Pinchot National Forest. Collection began at bridge over Clear Creek and ran south along FR 93. T7N R7E Sec 6. Coastal type forest. Collected along road which had been mowed fairly thick forest away from road. Pedigree - collected from the wild.
- PI 604636. *Rubus ursinus*** Cham. & Schltldl.
Wild. LIG-1; CRUB 1840. Collected 08/08/1993 in Washington, United States. Latitude 47 deg. 45' 56'' N. Longitude 122 deg. 56' 40'' W. Elevation 457 m. Olympic National Forest. 3.2 km west/southwest of US 101 on FR 2620 (just south of Rainbow NFS Campground). T26N R2W SE 1/4 Sec 4 and NW 1/4 Sec 9. Jefferson County. Moist coastal forest. Associated w/ *F. vesca*, *R. spectabilis*, *R. parvifolius*, *Alnus* spp., *Tsuga heterophylla*. Pedigree - collected from the wild in Washington.
- PI 604637. *Rubus ursinus*** Cham. & Schltldl.
Wild. LIG-12; CRUB 1849. Collected 08/10/1993 in Washington, United

States. Latitude 48 deg. 30' N. Longitude 121 deg. 20' W. Elevation 610 m. Mt. Baker-Snoqualmie National Forest. In vicinity of Baker Lake. WA 20 to FR 11 then approx 5.5 km north on FR 1130, 0.16 km past bridge over Boulder Creek. T38N R9E Sec 19. Whatcom County. Vegetation tended to be thick. Some parts of site in shaded road area where trees grew over road but tended to be well lit. Moist area. Typical coastal forest. Pedigree - collected from the wild in Washington.

PI 604638. *Rubus ursinus* Cham. & Schltdl.

Wild. LIG-15; CRUB 1850. Collected 08/11/1993 in Washington, United States. Latitude 48 deg. 30' N. Longitude 121 deg. 20' W. Elevation 305 m. Mt. Baker-Snoqualmie National Forest. Approx. 3.2 km north on FR 1130 from FR 11. T38N R9E Sec 30 and Sec 31. Whatcom County. Wet forest with lower light levels. Typical coastal forest. Pedigree - collected from the wild in Washington.

PI 604639. *Rubus ursinus* Cham. & Schltdl.

Wild. LIG-29; CRUB 1853. Collected 08/14/1993 in Washington, United States. Latitude 47 deg. 50' N. Longitude 120 deg. 50' W. Elevation 900 m. Wenatchee National Forest. From FR 6500, southwest on FR 6700. T27N R15E Sec 21, 16, 15. Chelan County. Moist forest type; however, soil at this site seemed to be dry. Associated w/ *Pseudotsuga menziesii*, *Abies* spp., *Tsuga heterophylla*, *Thuja plicata*. Pedigree - collected from the wild in Washington.

PI 604640. *Rubus ursinus* Cham. & Schltdl.

Wild. LIG-31; CRUB 1855. Collected 08/14/1993 in Washington, United States. Latitude 47 deg. 50' N. Longitude 120 deg. 45' W. Elevation 1065 m. Wenatchee National Forest. Just before Phelps Creek NFS Campground take FR 6211 to trailhead on ridge. T30N R16E Sec 27. Chelan County. Poorly lit forest. Associated w/ *Pinus contorta*, *Pseudotsuga menziesii*, *Abies* ssp. Pedigree - collected from the wild in Washington.

PI 604641. *Rubus ursinus* Cham. & Schltdl.

Wild. LIG-33; CRUB 1857. Collected 08/15/1993 in Washington, United States. Latitude 46 deg. 30' N. Longitude 121 deg. 40' W. Elevation 930 m. Gifford Pinchot National Forest. FR 5260. T14N R8E Sec 13. Washington County. Old clear cut. In more open areas, especially around old tree stumps, *R. ursinus* growing well. Associated w/ *Alnus* ssp. Pedigree - collected from the wild in Washington.

PI 604642. *Rubus ursinus* Cham. & Schltdl.

Wild. LIG-38; CRUB 1858. Collected 08/16/1993 in Washington, United States. Latitude 46 deg. 5' N. Longitude 122 deg. 15' W. Elevation 460 m. Gifford Pinchot National Forest. Collection began at bridge over Clear Creek and ran south along FR 93. T7N R7E Sec 6. Coastal type forest. Collected along road which had been mowed fairly thick forest away from road. Pedigree - collected from the wild in Washington.

The following were collected by Raymond L. Clark, USDA, ARS, Washington State University, Regional Plant Introduction Station, Pullman, Washington 99164-6402, United States. Received 10/03/1996.

PI 604643. *Rubus idaeus* L.

Wild. CRUB 1904. Collected 09/27/1996 in Washington, United States. Latitude 48 deg. 12' N. Longitude 120 deg. 25' W. Elevation 1615 m. Cub Lake, Chelan county, Washington, United States. Growing on south facing slope of large granitic boulders. Plants in habitat: gooseberry, Epilobium, thimbleberry, Douglas fir. This raspberry competes very well in this boulder field. Pedigree - Open pollinated *Rubus idaeus* collected from the wild. Seeds collected from at least 25 plants in a population of several hundred plants. Plants up to 76 cm tall, berries nearly 1 cm long (smaller than observed in 1995) probably due to drier conditions in 1996 an early frost and snow storm about 9/15/1996.

The following were collected by Fred J. Muehlbauer, USDA, ARS, Washington State University, Grain Legume Genetics & Phys. Res. Unit, Pullman, Washington 99164-6434, United States; Edward J. Garvey, USDA, ARS, Natl. Germplasm Resources Laboratory, Room 409, Building 003, BARC-West, Beltsville, Maryland 20705-2350, United States; Lufti Xhuveli, Agricultural University of Tirana, Dept. of Agronomy, Rr. "Myslym Shyri", Tirana, Albania. Donated by Edward J. Garvey, USDA, ARS, Natl. Germplasm Resources Laboratory, Room 409, Building 003, BARC-West, Beltsville, Maryland 20705-2350, United States. Received 10/01/1996.

PI 604644. *Rubus* sp.

Wild. Al 005; CRUB 1905. Collected 08/24/1996 in Albania. Latitude 40 deg. 57' 4'' N. Longitude 19 deg. 41' 4'' E. Elevation 60 m. Ditch along road going to field plots of Wheat Institute, Lavdi Deshmorie, Lushnje. Pedigree - collected from the wild. Shrub 1 m, deciduous. Leaves compound, dull green on top, lighter green bottom, undersides highly pubescent, margin serrate. Flowers in terminal spikes, 25-30cm long, pink petals. Fruits many, glossy red, and highly flavorful.

The following were developed by Busch Agricultural Resources, Inc., 3515 East County Road 52, Fort Collins, Colorado 80524, United States. Received 08/21/1998.

PI 604645. *Hordeum vulgare* L. subsp. *vulgare*

Cultivar. "6B93-2978". PVP 9800267.

The following were developed by Commonwealth Scientific and Industrial Research Organization, Division of Plant Industry, General Post Office Box 1600, Canberra, Austr. Capital Terr. 2601, Australia. Received 08/21/1998.

PI 604646. *Gossypium hirsutum* L.

Cultivar. "FIBER MAX 963". PVP 9800226.

The following were developed by Maria Jesus Pascual-Villalobos, CIDA, Estacion Sericicola, La Alberca, Murcia 30150, Spain. Received 09/15/1998.

PI 604647. *Euphorbia lagascae* Spreng.

Breeding. idm24. GP-23. Pedigree - Bulk of 4 lines selected from the M24 indehiscent plant selected in M2 generation. Indehiscent capsules at ripening.

- PI 604648. *Euphorbia lagascae* Spreng.**
Breeding. idm76. GP-24. Pedigree - Bulk of 7 lines selected from the M76 indehiscent plant selected in M3 generation. Indehiscent capsules at ripening.
- PI 604649. *Euphorbia lagascae* Spreng.**
Breeding. idm77. GP-25. Pedigree - Bulk of 12 lines selected from the M77 indehiscent plant selected in M3 generation. Indehiscent capsules at ripening.
- PI 604650. *Euphorbia lagascae* Spreng.**
Genetic. mcp. GS-1. Pedigree - Bulk of 17 lines selected from single multicarpellate mutant plants selected in M2 generations after one or two mutagenic treatments. Plants with a mixture of three, four and five seeded capsules.
- PI 604651. *Euphorbia lagascae* Spreng.**
Genetic. idmcp. GS-4. Pedigree - Bulk of seven F2 plants and three M7 plants having both characters: indehiscence and multicarpellate. Indehiscent capsules at ripening. Plants with a mixture of three, four and five seeded capsules.
- PI 604652. *Euphorbia lagascae* Spreng.**
Genetic. mob. GS-2. Pedigree - Bulk of 2 lines selected from a mob-headed mutant plant selected in M2 generation. Plants with five to nine branches at the end of the main stem and a high proportion of five seeded capsules.
- PI 604653. *Euphorbia lagascae* Spreng.**
Genetic. idmob. GS-5. Pedigree - Bulk of ten indehiscent and mob-headed plants selected in an F2 from a cross. Indehiscent capsules at ripening. Plants with five to nine branches at the end of the main stem and a high proportion of five seeded capsules.
- PI 604654. *Euphorbia lagascae* Spreng.**
Genetic. vir. GS-3. Pedigree - Seed multiplication of a viridis plant selected in an M2 generation after 2 mutagenic treatments. Viridis plants with a pale green color and grey seeds.
- PI 604655. *Euphorbia lagascae* Spreng.**
Genetic. idvir. GS-6. Pedigree - Bulk of eight indehiscent and viridis plants selected in a F2 from a cross. Indehiscent capsules at ripening. Viridis plants with a pale green color and grey seeds.
- PI 604656. *Euphorbia lagascae* Spreng.**
Genetic. idmcpvir. GS-7. Pedigree - F2 plant combining the characters indehiscence, viridis and multicarpellate. Indehiscent capsules at ripening. Plants with a mixture of three, four and five seeded capsules. Viridis plants with a pale green color and grey seeds.

The following were developed by R.M. Opondo, Kenya Agricultural Research Institute, National Fibre Research Ctr., Kibos, P.O. Box 1490, Kisumu, Nyanza, Kenya; T.O. Okiyo, Kenya Agricultural Research Institute, National

Fibre Research Ctr., Kibos, P.O. Box 1490, Kisumu, Kenya; R.S. Pathak, East African Seed Company, P.O. Box 45125, Nairobi, Kenya; G.A. Ombakho, Kenya Agricultural Research Institute, National Fibre Research Ctr., Kibos, P.O. Box 1490, Kisumu, Kenya. Received 09/16/1998.

PI 604657 QUAR. *Gossypium hirsutum* L.

Breeding. Pureline. A540. GP-696. Pedigree - UKA59/240 / HARNA(73)44. Height to 111 cm. Matures 131 days after emergence. Leaves and stem pubescent. Seed-cotton weight per boll 5.2g, lint 39.2%, seed-coat fuzz graded 5.6 on a visual grading scale of 1 to 8. Staple length 2.84 cm, fiber strength 215 kN m kg⁻¹, micronaire units 4.1. Major pests in Kenya: *Helicoverpa armigera*, *Dysdercus* spp., *Earias* spp., *Tetranychus* spp., *Bemisia tabacii*, *Lygus* spp., *Pectinophora gossypiella*. Resistant to *Xanthomonas campestris* pv. *malvacearum* and *Empoasca*.

PI 604658 QUAR. *Gossypium hirsutum* L.

Breeding. Pureline. B803. GP-697. Pedigree - UKA59/240 / HARNA(73)44. Height to 107 cm. Matures 132 days after emergence. Leaves and stem pubescent. Seed-cotton weight per boll 4.6g, lint 38.0%, seed-coat fuzz graded 6.6 on visual grading scale of 1 to 8. Staple length 2.69 cm, fiber strength 195 kN m kg⁻¹, micronaire units 3.9. Major pests in Kenya: *Helicoverpa armigera*, *Dysdercus* spp., *Earias* spp., *Tetranychus* spp., *Bemisia tabacii*, *Lygus* spp., *Pectinophora gossypiella*. Resistant to *Xanthomonas campestris* pv. *malvacearum* and *Empoasca* spp.

PI 604659 QUAR. *Gossypium hirsutum* L.

Breeding. Pureline. D883. GP-698. Pedigree - UKA59/240 / HARNA(73)44. Height to 109 cm. Matures 130 days after emergence. Leaves and stems pubescent. Seed-cotton weight per boll 5.1 g, lint 36.8%, seed-coat fuzz graded 6.6 on a visual grading scale of 1 to 8. Staple length 2.62 cm, fiber strength 200 kN m kg⁻¹, micronaire units 3.9. Major pests in Kenya: *Helicoverpa armigera*, *Dysdercus* spp., *Earias* spp., *Tetranychus* spp., *Bemisia tabacii*, *Lygus* spp., *Pectinophora gossypiella*. Resistant to *Xanthomonas campestris* pv. *malvacearum* and *Empoasca* spp.

PI 604660 QUAR. *Gossypium hirsutum* L.

Breeding. Pureline. E790. GP-699. Pedigree - BPA75 / UK68. Height to 119 cm. Matures 132 days after emergence. Leaves and stem pubescent. Seed-cotton weight per boll 5.6 g, lint 40.7%, seed-coat fuzz graded 5.2 on a visual grading of 1 to 8. Staple length 2.54 cm, fibre strength 193 kN m kg⁻¹, micronaire units 4.9. Major pests in Kenya: *Helicoverpa armigera*, *Dysdercus* spp., *Earias* spp., *Tetranychus* spp., *Bemisia tabacii*, *Lygus* spp., *Pectinophora gossypiella*. Resistant to *Xanthomonas campestris* pv. *malvacearum* and *Empoasca* spp.

PI 604661 QUAR. *Gossypium hirsutum* L.

Breeding. Pureline. F962. GP-700. Pedigree - BPA75 / UK68. Height to 113 cm tall. Matures 132 days after emergence. Leaves and stems pubescent. Seed-cotton weight per boll 5.4 g, lint 41.1%, seed-coat fuzz graded 5.6 on a visual grading scale of 1 to 8. Staple length 2.54 cm, fiber strength 190 kN m kg⁻¹, micronaire units 5.5. Major pests in Kenya: *Helicoverpa armigera*, *Dysdercus* spp., *Earias* spp., *Tetranychus* spp., *Bemisia tabacii*, *Lygus* spp., *Pectinophora gossypiella*. Resistant to *Xanthomonas campestris* pv. *malvacearum* and *Empoasca*.

PI 604662 QUAR. *Gossypium hirsutum* L.

Breeding. Pureline. H314. GP-701. Pedigree - BPA75 / UK68. Height to 118 cm tall. Matures 130 days after emergence. Leaves and stems pubescent. Seed-cotton weight per boll 5.3g, lint 40.4%, seed-coat fuzz graded 5.4 on a visual grading scale of 1 to 8. Staple length 2.54 cm, fiber strength, 198 kN m kg⁻¹, micronaire units 5.7. Major pests in Kenya: *Helicoverpa armigera*, *Dysdercus* spp., *Earias* spp., *Tetranychus* spp., *Bemisia tabacii*, *Lygus* spp., *Pectinophora gossypiella*. Resistant to *Xanthomonas campestris* pv. *malvacearum* and *Empoasca* spp.

PI 604663 QUAR. *Gossypium hirsutum* L.

Breeding. Pureline. P799. GP-702. Pedigree - BPA75 / REBA B50. Height to 110 cm tall. Matures 129 days after emergence. Leaves and stems pubescent. Seed-cotton weight per boll 5.6g, lint 37.9%, seed-coat fuzz graded 6.6 on a visual grading scale of 1 to 8. Staple length 2.62 cm, fiber strength 231 kN m kg⁻¹, micronaire units 5.0. Major pests in Kenya: *Helicoverpa armigera*, *Dysdercus* spp., *Earias* spp., *Tetranychus* spp., *Bemisia tabacii*; *Lygus* spp., *Pectinophora gossypiella*. Resistant to *Xanthomonas campestris* pv. *malvacearum* and *Empoasca* spp.

PI 604664 QUAR. *Gossypium hirsutum* L.

Breeding. Pureline. R64. GP-703. Pedigree - BPA75 / REBA B50. Height to 114 cm tall. Matures 134 days after emergence. Leaves and stem pubescent. Seed-cotton weight per boll 5.8 g, lint 38.5%, seed-coat fuzz graded 5.6 on a visual grading scale of 1 to 8. Staple length 2.62 cm, fiber strength 210 kN m kg⁻¹, micronaire units 5.0. Major pests in Kenya: *Helicoverpa armigera*, *Dysdercus* spp., *Earias* spp., *Tetranychus* spp., *Bemisia tabacii*, *Lygus* spp., *Pectinophora gossypiella*. Resistant to *Xanthomonas campestris* pv. *malvacearum* and *Empoasca* spp.

PI 604665 QUAR. *Gossypium hirsutum* L.

Breeding. Pureline. S212. GP-704. Pedigree - BPA75 / REBA B50. Height to 110 cm tall. Matures 132 days after emergence. Leaves and stem pubescent. Seed-cotton weight per boll 5.5 g, lint 39.2%, seed-coat fuzz graded 5.8 on a visual grading scale of 1 to 8. Staple length 2.62 cm, fiber strength 230 kN m kg⁻¹, micronaire units 4.2. Major pests in Kenya *Helicoverpa armigera*, *Dysdercus* spp., *Earias* spp., *Tetranychus* spp., *Bemisia tabacii*, *Lygus* spp., *Pectinophora gossypiella*. Resistant to *Xanthomonas campestris* pv. *malvacearum* and *Empoasca* spp.

The following were developed by Rodale Research Center, Rodale Press, Box 323, RD 1, Kutztown, Pennsylvania 19530, United States. Received 03/19/1981.

PI 604666. *Amaranthus cruentus* L.

Breeding. "R 127"; RRC 1027; RRC 79S-127; Ames 2244. Collected 03/19/1981 in Mexico. Pedigree - Separation from RRC 77S-362. Most plants have bright orange colored inflorescences. Seeds white and leaves green. The RRC class type is Mexican.

The following were donated by Salvio Torres-Cardona, USDA, ARS, Tropical Agric. Res. Stn., Mayaguez, Puerto Rico. Received 08/09/1990.

PI 604667. *Sorghum bicolor* (L.) Moench

Landrace. IS 8609; E 62. Collected in Uganda. Race Caudatum. Grain color chalky white, partly corneous endosperm, purple glume, semi-compact oval head, white midrib color.

The following were donated by Rodale Research Center, Rodale Press, Box 323, RD 1, Kutztown, Pennsylvania 19530, United States; Taiwan Seed Service, Shin-Shieh, Taichung, Taiwan. Received 02/20/1981.

PI 604668. *Amaranthus tricolor* L.

Cultivar. RRC 240; RRC 78S-240; Tiger Leaf; Ames 2152. Cultivated vegetable with black seeds and variegated foliage. Flowers green.

PI 604669. *Amaranthus tricolor* L.

Cultivar. RRC 241; RRC 78S-241; White Leaf; Ames 2153. Cultivated vegetable with black seeds, and green foliage, and flowers.

PI 604670. *Amaranthus tricolor* L.

Cultivar. RRC 242; RRC 78S-242; Red Leaf; Ames 2154. Cultivated vegetable with leaf markings similar to the tiger leaf type. Seeds black, foliage variegated, flowers green, and plants uniform.

The following were collected by Donald Penner, Michigan State University, Department of Crop and Soil Science, East Lansing, Michigan 48824, United States. Donated by G. J. Weidemann, University of Arkansas, Department of Plant Pathology, 217 Plant Science Building, Fayetteville, Arkansas 72701, United States. Received 10/15/1990.

PI 604671. *Amaranthus powellii* S. Watson

Wild. Ames 14356. Collected 10/1990 in Washington, United States. Triazine (herbicide) susceptible amaranth, documented in an article by E. Patric Fuerst, Charles J. Arntzen, Klas Pfister, and Donald Penner (Weed Science. 1986 34:344-353).

PI 604672. *Amaranthus hybridus* L.

Wild. Ames 14357. Collected 10/1990 in Washington, United States. Triazine (herbicide) resistant amaranth, documented in an article by E. Patric Fuerst, Charles J. Artzen, Klas Pfister and Donald Penner (Weed Science. 1986 34:344-353). The resistance was confirmed in the lab of Dr. G.W. Weidemann, at the University of Arkansas.

The following were collected by Chester L. Foy, Virginia Polytechnical Institute and State University, Department of Plant Pathology, Physiology, and Weed Science, Blacksburg, Virginia 24061, United States. Donated by G. J. Weidemann, University of Arkansas, Department of Plant Pathology, 217 Plant Science Building, Fayetteville, Arkansas 72701, United States. Received 10/15/1990.

PI 604673. *Amaranthus hybridus* L.

Wild. Ames 14358. Collected 07/1985 in Virginia, United States. Triazine (herbicide) resistant amaranth, documented in an article by William K. Vencill and Chester L. Foy (Weed Science. 1988 36:497-499). The resistance was confirmed in the lab of Dr. G.J. Weidemann, at the

University of Arkansas.

The following were developed by Stephen A. Harrison, Louisiana State University, Department of Agronomy, 221 Sturgis Hall, Baton Rouge, Louisiana 70803-2110, United States; H.J. Mascagni, Louisiana State University, Louisiana Agric. Exp. Station, Baton Rouge, Louisiana 70803-2110, United States; S.H. Moore, Louisiana State University, Louisiana Agric. Exp. Station, Dept. of Agronomy, Baton Rouge, Louisiana 70803-2110, United States. Received 09/08/1998.

PI 604674. *Avena sativa* L.

Cultivar. Pureline. "SECRETARIAT LA 495". CV-355. Pedigree - Coker 84-15*2/4/Blizzard/3/Coker 79-21//Coker 234/CI9139. Winter oat with semi-upright winter growth habit and intermediate winterhardiness. Mean yield of 3670 kg ha⁻¹ across 15 locations in the 1996 UWOYN compared to 3605 kg ha⁻¹ for Chapman and mean for 22 lines of 3494 kg ha⁻¹. Average height 90cm, 4 cm shorter than the test mean. Leaves dark green and approx. 16 mm wide with hairy leaf sheaths and erect carriage. Panicles semi-open and medium sized, averaging 9 cm long with 20.5 branches. Stems medium diameter and yellow at maturity. Seed small and yellow. Resistant to the prevalent stem rust race (NA-27 TLB) and to NA-30(TSL) and NA-5(DBL) but susceptible to NA-28(TLD) and moderately susceptible to NA-55(TJQ). Moderately resistant to most races of crown rust.

The following were collected by Kenneth H. Quesenberry, University of Florida, Inst. of Food and Agricultural Sciences, Department of Agronomy, Gainesville, Florida 32611-0500, United States; Gary A. Pederson, USDA, ARS, Waste Management and Forage, Research Unit, Mississippi State, Mississippi 39762-5367, United States. Received 11/29/1993.

PI 604675. *Trifolium medium* L.

Uncertain. 93-45. Collected 04/08/1993 in Bulgaria. Latitude 41 deg. 59' N. Longitude 23 deg. 31' E. Elevation 1050 m. 7 km northwest of Belica, Bulgaria. In woods behind monument, oak scrub, mountain side, Ph 5.80, 47% sand, 40% silt, 13% clay, loam. Population distribution occasionally seen. Early maturity, all seed heads were dry.

PI 604676. *Trifolium medium* L.

Uncertain. 93-79. Collected 07/08/1993 in Bulgaria. Latitude 41 deg. 39' N. Longitude 23 deg. 24' E. Elevation 1480 m. Turetska Checkva tourist hut, Bulgaria. Road banks under pine forest, mountainous along stream, Ph 6.84, 93% sand, 7% silt, 0% clay, sand. Population distribution frequently seen. Large plants with prominent leaf marks and pubescent stems.

The following were donated by Norman L. Taylor, University of Kentucky, Department of Agronomy, N-122 Agric. Sci. Bldg.-N, Lexington, Kentucky 40546-0019, United States. Received 11/19/1992.

PI 604677. *Trifolium alpestre* L.

Wild. KY 29-S-71-30.

PI 604678. *Trifolium patulum* Tausch
Wild. KY 29-S-221-2.

The following were collected by Norman L. Taylor, University of Kentucky, Department of Agronomy, N-122 Agric. Sci. Bldg.-N, Lexington, Kentucky 40546-0019, United States; Kenneth H. Quesenberry, University of Florida, Inst. of Food and Agricultural Sciences, Department of Agronomy, Gainesville, Florida 32611-0500, United States; Jake Ruygt, 3549 Willis Drive, Napa, California 94558, United States. Received 01/01/1996.

PI 604679. *Trifolium wormskioldii* Lehm.

Wild. Population. C-60; Cow Clover; W6 17542. Collected 07/01/1994 in California, United States. Latitude 38 deg. 12' 38'' N. Longitude 122 deg. 0' 0'' W. Elevation 1 m. Access to site via Lawler Ranch Estates, State Hwy 12 located 3.4 km East of Suisun City and 0.6 km North of Hill Slough, California. Physical site: tidal brackish marsh; Slope: flat; Soil: Juice Muck; Stoniness: none; Drainage(1-well to 4-poor): 4; Associated Species: Mixture of *Salicornia virginica*, *Juncus mexicanus*, *Jaumsa carnosa* and *Distichlis spicata*. Flower color rose and white. Habit spreading perennial. Relative Abundance frequent. This genotype is adapted to saline soil in additio.

The following were collected by Kenneth H. Quesenberry, University of Florida, Inst. of Food and Agricultural Sciences, Department of Agronomy, Gainesville, Florida 32611-0500, United States; Warren M. Williams, Agriculture Research, Grasslands Research Centre, Fritzherbert West, Private Bags 11008, Palmerston North, North Island, New Zealand. Received 01/01/1996.

PI 604680. *Trifolium wormskioldii* Lehm.

Wild. Population. OR-5; Sand Clover; W6 17546. Collected 07/30/1994 in Oregon, United States. Latitude 44 deg. 14' 0'' N. Longitude 124 deg. 6' 0'' W. Bob Creek Wayside (Gwynn Knoll), near steep rock shoreline northwest of parking lot. Rocky cliff outcrop, volcanic rock shoreline. Exposure open. Slope 41-60%. Aspect south to southwest. Soil loam. Stoniness rocky. Drainage(1-well, 4-poor): 1. pH: 6.1. Flower color purple. Habit rhizomatous. Population distribution scattered over 400 sq meters. Relative Abundance frequent. Very different site from others.

PI 604681. *Trifolium wormskioldii* Lehm.

Wild. Population. OR-4; Sand Clover; W6 17545. Collected 07/30/1994 in Oregon, United States. Carl G. Washburn State Park, 1.6 km South of Roosevelt Beach, along dunes at parking lot. Sand dunes. Exposure open. Slope 0-5%. Soil Sand. Stoniness none. Drainage(1-well, 4-poor): 1. pH: 5.7. Associated species: open, no other species. Flower color purple, one light-tipped variant. Population distribution scattered over 100 sq meters. Relative Abundance occasional.

The following were collected by Norman L. Taylor, University of Kentucky, Department of Agronomy, N-122 Agric. Sci. Bldg.-N, Lexington, Kentucky 40546-0019, United States; Kenneth H. Quesenberry, University of Florida, Inst. of Food and Agricultural Sciences, Department of Agronomy, Gainesville, Florida 32611-0500, United States; Warren M. Williams, Agriculture Research,

Grasslands Research Centre, Fritzherbert West, Private Bags 11008, Palmerston North, North Island, New Zealand. Received 01/01/1996.

PI 604682. *Trifolium plumosum* Douglas ex Hook.

Wild. Population. OR-18; S-252-1; W6 17553. Collected 08/09/1994 in Oregon, United States. Latitude 45 deg. 12' 35'' N. Longitude 118 deg. 30' 7'' W. Elevation 1260 m. Located 41.6 km West of La Grande, Hilgard Exit, Starkey Forest Service Headquarters Road, 1.6 km from headquarters, Union county, Oregon. Physical Site: rocky; Exposure: open; Slope: 1 degree; Aspect: South; Soil: Loam; Stoniness: very; Drainage(1-well, 4-poor): 1; pH: 6.1; Associated Species: Scattered short pine, turf grasses. Flower color cream or pale purple. Habit upright. Population distribution scattered over wide area. Relative abundance frequent. Tuberous rooted.

The following were collected by Kenneth H. Quesenberry, University of Florida, Inst. of Food and Agricultural Sciences, Department of Agronomy, Gainesville, Florida 32611-0500, United States; Warren M. Williams, Agriculture Research, Grasslands Research Centre, Fritzherbert West, Private Bags 11008, Palmerston North, North Island, New Zealand. Received 01/01/1996.

PI 604683. *Trifolium wormskioldii* Lehm.

Wild. Population. OR-1; Sand Clover; W6 17543. Collected 07/30/1994 in Oregon, United States. Latitude 43 deg. 58' 0'' N. Longitude 124 deg. 5' 0'' W. Elevation 0 m. 6 km West of Florence along side of road. 200 m from beach. Sand dunes. Exposure open. Slope 0-5%. Soil sand. Stoniness none. pH 5.8. Only in open area by roadside, no trees. Flower Color: purple with pink tips; Habit: rhizomatous; Relative Abundance: abundant.

The following were collected by Nigel Maxted, Univ. of Southampton - Dept. of Biology, Med. & Biological Science Building, Bassett Crecent East, Southampton, England S09 3TU, United Kingdom; Calvin R. Sperling, USDA, ARS, Natl. Germplasm Resources Laboratory, Room 402, Building 003, BARC-West, Beltsville, Maryland 20705-2350, United States. Received 10/09/1991.

PI 604684. *Trifolium repens* L.

Uncertain. 1, 8102; "ZIGZAG CLOVER". Collected in Unknown.

The following were collected by Robert J. Metzger, USDA, ARS, Oregon State University, Dept. of Crop Science, Corvallis, Oregon 97331, United States. Received 09/05/1989.

PI 604685. *Trifolium repens* L.

Wild. 86PK1325-0; W6 704. Collected in North-West Frontier, Pakistan. Latitude 36 deg. 27' N. Longitude 73 deg. 25' E. Elevation 2260 m. Near Barkuluti, 10 km from Yasin toward Darkot, North-West Frontier, Pakistan. Slope in hilly, undulating, irrigated but not transplanted area of medium stones, good drainage, wild, fodder area near wheat field.

The following were collected by Kenneth H. Quesenberry, University of

Florida, Inst. of Food and Agricultural Sciences, Department of Agronomy, Gainesville, Florida 32611-0500, United States; G. Ray Smith, Texas A&M University, Research & Extension Center, P.O. Box E, Overton, Texas 75684, United States. Received 05/10/1993.

PI 604686. *Trifolium alpestre* L.

Wild. 90-71. Collected 07/19/1990 in Khaskovo, Bulgaria. Latitude 41 deg. 40' N. Longitude 26 deg. 0' E. Elevation 350 m. 2 km SE of Dubovec on road from Ivaylovgrad to Malk Gradiste, Khaskovo, Bulgaria. Cracking clay, edge of oak scrub, rolling hills but flat area. Population distribution occasionally seen. Only one nice large plant. An unusual site. Near the road were annuals *T. echinatum*, *T. diffusum*, *T. vesiculom*, but within 20 meters along edge of wooded area [were] perennials [of *T.*] *alpestre*, *heldreichianum*, and *ochroleucum*.

PI 604687. *Trifolium alpestre* L.

Wild. 90-41. Collected 07/18/1990 in Khaskovo, Bulgaria. Latitude 41 deg. 25' N. Longitude 25 deg. 30' E. Elevation 550 m. 10 km South of Momchilgrad on road to Ivaylovgrad, Khaskovo, Bulgaria. Rocky slope, roadside, mixed forbes, slope. Population distribution occasionally seen.

PI 604688. *Trifolium alpestre* L.

Wild. 90-14. Collected 07/16/1990 in Plovdiv, Bulgaria. Latitude 41 deg. 55' N. Longitude 24 deg. 50' E. Elevation 1000 m. 9-10 km south of Asenovgrad, Plovdiv. Rocky thin soil, mixed shrubs, mountainous, 5-10% slope. Population distribution occasionally seen. 50m higher and 200m distant from Sample #90-10.

PI 604689. *Trifolium repens* L.

Wild. 90-08. Collected 07/16/1990 in Plovdiv, Bulgaria. Latitude 41 deg. 55' N. Longitude 24 deg. 50' E. Elevation 1000 m. 9-10 km south of Asenovgrad, Plovdiv. Rocky thin soil, mixed shrubs, mountainous, 5-10% slope. Population distribution occasionally seen along roadside.

The following were collected by Kenneth H. Quesenberry, University of Florida, Inst. of Food and Agricultural Sciences, Department of Agronomy, Gainesville, Florida 32611-0500, United States; Gary A. Pederson, USDA, ARS, Waste Management and Forage, Research Unit, Mississippi State, Mississippi 39762-5367, United States. Received 11/29/1993.

PI 604690. *Trifolium medium* L.

Uncertain. 93-107. Collected 11/08/1993 in Sofia, Bulgaria. Latitude 42 deg. 38' N. Longitude 23 deg. 14' E. Elevation 1380 m. Near Hotel Kopitoto on Mt. Vitosha overlooking Sophia, Sofia, Bulgaria. Open meadow with grasses, mountainous, Ph 5.80, 67% sand, 23% silt, 10% clay, sandy loam. Population distribution frequently seen.

PI 604691. *Trifolium ochroleucum* Huds.

Wild. 93-91. Collected 09/08/1993 in Sofia, Bulgaria. Latitude 42 deg. 14' N. Longitude 22 deg. 39' E. Elevation 1260 m. 5-8 km northwest of Boboshevo, Sofia, Bulgaria. Edge of forest along roadbank, mountainous, Ph 6.08, 50% sand, 27% silt, 23% clay, sandy clay loam-loam. Population distribution occasionally seen. Long peduncle, large seeds.

PI 604692. *Trifolium pannonicum* Jacq.

Wild. 93-105. Collected 11/08/1993 in Sofia, Bulgaria. Latitude 42 deg. 38' N. Longitude 23 deg. 14' E. Elevation 1380 m. Near Hotel Kopitoto on Mt. Vitoshka overlooking Sophia, Sofia, Bulgaria. Open meadow with grasses, mountainous, Ph 5.8, 67% sand, 23% silt, 10% clay, sandy loam. Population distribution occasionally seen. Seeds abundant, small.

The following were collected by Alexander Afonin, Vavilov Institute of Plant Industry, 42 Bolshaya Morskaya Street, St. Petersburg, Leningrad 190000, Russian Federation; Nicolay Portinier, Kamorov Institute of Botany, St. Petersburg, Leningrad, Russian Federation; Nicolay Khitrov, Dokvchaev Soil Institute, Pygevsky, per., 7., Moscow, Moscow 109017, Russian Federation. Received 01/1996.

PI 604693. *Trifolium pratense* L.

Wild. 0199; W6 18334. Collected 07/29/1995 in Russian Federation. Latitude 43 deg. 42' 56'' N. Longitude 43 deg. 30' 41'' E. Elevation 427 m. Province Nal'Chir (Kabardin-Balkarskaya Republic), 1 km west of Balsan. Past logged, now roadway. Slope 0-5%, aspect SW. Light open. Soil loam with gravel, pH 7.5. Seasonally dry, roadside ditch. Vegetation closed, evergreen tall grass. Surrounding vegetation open deciduous forest with closed lower layers. Dominant tree species *Fagus* sp., and *Quercus* sp. Dominant shrub species *Origanum* sp. Population distribution patchy, abundance occasional. Growth habit erect. Flower red. Extensive regional climate data available in spreadsheet format or image maps in raster format suitable for GIS analysis. Contact Dr. Stephanie L. Greene (sgreene@ars-grin.gov).

PI 604694. *Trifolium repens* L.

Wild. M157; W6 18413. Collected 08/23/1995 in Russian Federation. Latitude 43 deg. 33' 5'' N. Longitude 39 deg. 54' 30'' E. Elevation 220 m. Province Sochi, 10 km north of Khosta at Krasnar Vove village. pH 7.5. Samples taken in orchard that was heavily grazed. Sampling terminated after soil pH determined to be basic. Parent rock was schist with some limestone. Vegetation closed, evergreen broad-leafed herb vegetation. Surrounding vegetation open deciduous forest with closed lower layers. Dominant tree species *Carpinus* sp., *Quercus* sp. Dominant shrub species *Lauracerasus* sp. Dominant herb/grass species *Trifolium* sp., Bermuda grass. Population abundance frequent. Growth habit prostrate. Flower white. Extensive regional climate data available in spreadsheet format or image maps in raster format suitable for GIS analysis. Contact Dr. Stephanie L. Greene (sgreene@ars-grin.gov).

PI 604695. *Trifolium pratense* L.

Wild. VIR D105; W6 18550. Collected 08/12/1995 in Russian Federation. Latitude 44 deg. 24' 35'' N. Longitude 39 deg. 39' 35'' E. Elevation 300 m. Southwest of Maykop, 2 km. north of Neffyanaya. Past logged, now grazed. Slope 0-5%, aspect N. 1/4 shade. Soil clay with some gravel, pH 5.1-5.5. Seasonally dry, mid slope. Vegetation closed, evergreen tall grass. Surrounding vegetation open deciduous forest with closed lower layers. Dominant tree species Hornbeam-Oak. Dominant shrub species *Carpinus* sp., *Q. petraea*. Extensive regional climate data available in spreadsheet format or image maps in raster format suitable for GIS

analysis. Contact Dr. Stephanie L. Greene (sgreene@ars-grin.gov).

PI 604696. *Trifolium pratense* L.

Wild. M166; W6 18422. Collected 08/23/1995 in Russian Federation. Latitude 43 deg. 52' 58'' N. Longitude 39 deg. 22' 18'' E. Elevation 440 m. Tea's plantation near Ismailovka. Cultivated near road. 1/4 shade (tea shrubs). Soil loam, pH 4.6-6.3. Moist. Vegetation closed, tea shrubs, grasses, clovers (*T. bonnanii*, *T. pratense*, *T. repens*). Population distribution patchy. Growth habit erect. Flower red. Extensive regional climate data available in spreadsheet format or image maps in raster format suitable for GIS analysis. Contact Dr. Stephanie L. Greene (sgreene@ars-grin.gov).

PI 604697. *Trifolium pratense* L.

Wild. 0078; W6 18466. Collected 09/05/1995 in Russian Federation. Latitude 44 deg. 5' 4'' N. Longitude 40 deg. 50' 38'' E. Elevation 640 m. Province Maykop/Labrinsk, 10 km southeast of Psebay. Past and current grazing. Slope 6-10%, aspect SW. Light open. Soil clay rock derived, pH 5.2. Moist to seasonally dry, lower slope, stream terrace. Vegetation closed, evergreen broad-leafed herb vegetation. Acid soil type rhizobium collected. Surrounding vegetation open deciduous forest with closed lower layers. Dominant tree species *Quercus robur*, *Quercus* sp., *Fagus* o., *Carpinus* c. Dominant shrub species *Laurocerasus officinalis*, *Crataegus* sp., *Rosa* sp., *Ribes* sp. Dominant herb/grass species *Lotus* c., *Achillea* sp., *Trifolium* sp., wild strawberry, *Geranium* sp., *Phleum* p., other grasses. Population distribution patchy, abundance occasional. Growth habit erect. Flower red. Extensive regional climate data available in spreadsheet format or image maps in raster format suitable for GIS analysis. Contact Dr. Stephanie L. Greene (sgreene@ars-grin.gov).

PI 604698. *Trifolium pratense* L.

Wild. 0044; W6 18454. Collected 09/03/1995 in Russian Federation. Latitude 44 deg. 12' 29'' N. Longitude 40 deg. 15' 10'' E. Elevation 550 m. Province Maykop, 5 km southeast of Dakhovskaya. Past logged, now roadway. Slope 0-5%, aspect SE. Light open. Soil loam upper to 25 cm, clay 25 cm, pH 5.9-5.3 with depth, parent rock colluvial clays. Seasonally dry, mid slope. Vegetation closed, evergreen tall grass and broad-leafed herb vegetation. Surrounding vegetation evergreen open forest with closed lower layers. Dominant tree species *Quercus* sp., *Carpinus* c. Dominant shrub species *Rosa* sp. Dominant herb/grass species *Daucus* c., *Trifolium* sp., *Achillea* sp., *Geranium* sp., *Brachypodium* p., *Festuca* sp., *Calamagrostis* sp., *Agrostis* sp., *Phleum* p. Population distribution uniform, abundance frequent. Growth habit erect. Flower red. Extensive regional climate data available in spreadsheet format or image maps in raster format suitable for GIS analysis. Contact Dr. Stephanie L. Greene (sgreene@ars-grin.gov).

PI 604699. *Trifolium pratense* L.

Wild. 0041; W6 18451. Collected 09/01/1995 in Russian Federation. Latitude 44 deg. 9' 28'' N. Longitude 40 deg. 1' 50'' E. Elevation 1250 m. Province Maykop, 15 km southwest of Dakhovskaya. Past logged, now grazed. Slope 0-5%, aspect N. Light 1/4 shade. Soil loam, pH neutral. Moist to seasonally dry, lower slope. Vegetation closed, evergreen broad-leafed herb vegetation. Surrounding veg. open deciduous forest with closed

lower layers. Dominant tree species *Acer* sp. Dominant shrub species *Laurocerasus officinalis*, *Rosa* sp. Dominant herb/grass species *Geranium sanguineum*, *Clinopodium vulgare*, *Betonica macrantha*, *Brachypodium pinnatum*, *Calamagrostis*, *Phleum montanum*. Population distribution uniform, abundance frequent. Growth habit erect. Flower red. Extensive regional climate data available in spreadsheet format or image maps in raster format suitable for GIS analysis. Contact Dr. Stephanie L. Greene (sgreene@ars-grin.gov).

PI 604700. *Trifolium ambiguum* M. Bieb.

Wild. 0032; W6 18446. Collected 09/01/1995 in Russian Federation. Latitude 44 deg. 9' 28'' N. Longitude 40 deg. 1' 50'' E. Elevation 1250 m. Province Maykop, 15 km southwest of Dakhovskaya. Past logged, now grazed. Slope 0-5%, aspect N. Light 1/4 shade. Soil loam, pH neutral. Moist to seasonally dry, lower slope. Vegetation closed, evergreen broad-leafed herb vegetation. Surrounding veg. open deciduous forest with closed lower layers. Dominant tree species *Acer* sp. Dominant shrub species *Laurocerasus officinalis*, *Rosa* sp. Dominant herb/grass species *Geranium sanguineum*, *Clinopodium vulgare*, *Betonica macrantha*, *Brachypodium pinnatum*, *Calamagrostis*, *Phleum montanum*. Population distribution patchy, abundance occasional. Growth habit prostrate. Flower rose-pink. Extensive regional climate data available in spreadsheet format or image maps in raster format suitable for GIS analysis. Contact Dr. Stephanie L. Greene (sgreene@ars-grin.gov).

PI 604701. *Trifolium medium* L.

Wild. 0031; W6 18445. Collected 09/01/1995 in Russian Federation. Latitude 44 deg. 9' 28'' N. Longitude 40 deg. 1' 50'' E. Elevation 1250 m. Province Maykop, 15 km southwest of Dakhovskaya. Past logged, now grazed. Slope 0-5%, aspect N. Light 1/4 shade. Soil loam, pH neutral. Moist to seasonally dry, lower slope. Vegetation closed, evergreen broad-leafed herb vegetation. Surrounding veg. open deciduous forest with closed lower layers. Dominant tree species *Acer* sp. Dominant shrub species *Laurocerasus officinalis*, *Rosa* sp. Dominant herb/grass species *Geranium sanguineum*, *Clinopodium vulgare*, *Betonica macrantha*, *Brachypodium pinnatum*, *Calamagrostis*, *Phleum montanum*. Population distribution patchy, abundance occasional. Growth habit prostrate, flowers erect. Flower red-purple. Extensive regional climate data available in spreadsheet format or image maps in raster format suitable for GIS analysis. Contact Dr. Stephanie L. Greene (sgreene@ars-grin.gov).

PI 604702. *Trifolium badium* Schreb.

Wild. 0020; W6 18441. Collected 08/30/1995 in Russian Federation. Latitude 44 deg. 3' 30'' N. Longitude 40 deg. 1' 14'' E. Elevation 1800 m. Province Maykop, 32 km. southwest of Dakhovskaya. Past logged, now grazed. Slope 6-10%, aspect S. Light open. Soil loam to clay. Moist to seasonally dry, upper to mid slope. Vegetation closed, evergreen broad-leafed herb vegetation. Surrounding vegetation evergreen open forest with closed lower layers. Dominant tree species Birch, *Betula* sp., *Pinus* sp., *Acer* sp., *Fagus* sp. Dominant shrub species *Juniperus* sp. Dominant herb/grass species *Achemilla* sp., *Plantago* sp., *Festuca* v., *Deschampsia* c., *Phleum* a. Population distribution patchy, abundance occasional. Growth habit erect. Flower cream-yellow. Extensive regional climate data available in spreadsheet format or image maps in raster format suitable for GIS analysis. Contact Dr. Stephanie L. Greene

(sgreene@ars.grin.gov).

PI 604703. *Trifolium ambiguum* M. Bieb.

Wild. 0019; W6 18440. Collected 08/30/1995 in Russian Federation. Latitude 44 deg. 3' 30'' N. Longitude 40 deg. 1' 14'' E. Elevation 1800 m. Province Maykop, 32 km. southwest of Dakhovskaya. Past logged, now grazed. Slope 6-10%, aspect S. Light open. Soil loam to clay. Moist to seasonally dry, upper to mid slope. Vegetation closed, evergreen broad-leafed herb vegetation. Surrounding vegetation evergreen open forest with closed lower layers. Dominant tree species Birch, *Betula* sp., *Pinus* sp., *Acer* sp., *Fagus* sp. Dominant shrub species *Juniperus* sp. Dominant herb/grass species *Achemilla* sp., *Plantago* sp., *Festuca* v., *Deschampsia* c., *Phleum* a. Population distribution uniform, abundance frequent. Growth habit prostrate. Flower pink-white. Extensive regional climate data available in spreadsheet format or image maps in raster format suitable for GIS analysis. Contact Dr. Stephanie L. Greene (sgreene@ars-grin.gov).

PI 604704. *Trifolium pratense* L.

Wild. 0010; W6 18435. Collected 08/30/1995 in Russian Federation. Latitude 44 deg. 3' 49'' N. Longitude 40 deg. 1' 5'' E. Elevation 1850 m. Province Maykop, 30 km southwest of Dakhovskaya. Past logged, now grazed and roadway. Slope 6-10%, aspect S. Light 1/4 shade. Soil loam, limestone derived. Moist to seasonally dry, ridgetop, rock outcrop. Vegetation closed, open evergreen and deciduous forest with closed lower layers. Surrounding vegetation evergreen broad-leafed herb vegetation. Dominant tree species Caucasus Beech, spruce-fir, *Pinus* s. Dominant shrub species *Juniperus* o. Dominant herb/grass species *Calamagrostis caucasica*, *Lolium*, *Plantago* sp., *Trifolium*, *Cirsium* sp., *Thistle* sp., *Rumex* sp. Population distribution uniform, abundance frequent. Growth habit erect. Flower red. Extensive regional climate data available in spreadsheet format or image maps in raster format suitable for GIS analysis. Contact Dr. Stephanie L. Greene (sgreene@ars-grin.gov).

PI 604705. *Trifolium repens* L.

Wild. 0052; W6 18427. Collected 08/30/1995 in Russian Federation. Latitude 43 deg. 56' 52'' N. Longitude 40 deg. 12' 31'' E. Elevation 1900 m. Abago mountain. Natural meadows. Light open. Soil stony loam, pH 3.6-5.7. Moist. Vegetation closed, grasses, *Dactylis glomerata*, *Agrostis* sp., *Poa* sp., legumes, clovers, *T. canescens*, *T. repens*. Population distribution patchy, abundance occasional. Growth habit prostrate. Flower white. Extensive regional climate data available in spreadsheet format or image maps in raster format suitable for GIS analysis. Contact Dr. Stephanie L. Greene (sgreene@ars-grin.gov).

PI 604706. *Trifolium pratense* L.

Wild. M132; W6 18392. Collected in Russian Federation. Latitude 44 deg. 32' 17'' N. Longitude 38 deg. 20' 46'' E. Elevation 420 m. Province Novorossiysk, 6 km north of Michaelouski-Perival. Past logged, now roadway. Slope 6-10%, aspect S. Light 1/4 shade. Soil clay, parent rock limestone, pH basic. Seasonally dry, mid slope. Vegetation closed evergreen broad-leafed herb vegetation. Surrounding vegetation open deciduous forest with closed lower layers. Dominant tree species *Quercus* sp. Dominant shrub species *Caprinus* sp., *Quercus* sp., *Ribes*, *Dorycnium intermedium*. Dominant herb/grass species *Trifolium* sp., *Dactylis*

glomerata, *Daucus carota*. Population abundance frequent. Growth habit erect. Flower red. Extensive regional climate data available in spreadsheet format or image maps in raster format suitable for GIS analysis. Contact Dr. Stephanie L. Greene (sgreene@ars-grin.gov).

PI 604707. *Trifolium repens* L.

Wild. VIR D83; W6 18591. Collected 08/10/1995 in Russian Federation. Latitude 44 deg. 23' 56'' N. Longitude 40 deg. 0' 35'' E. Elevation 360 m. Nearest s. Kurdzhipskaya. Roadside. 3/4 shade. Soil loam, pH 6.7-6.8. Moist. Vegetation closed. Grasses and clovers *T. repens*, *T. caucasicum*. Extensive regional climate data available in spreadsheet format or image maps in raster format suitable for GIS analysis. Contact Dr. Stephanie L. Greene (sgreene@ars-grin.gov).

PI 604708. *Trifolium repens* L.

Wild. VIR D22; W6 18575. Collected 07/18/1995 in Russian Federation. Latitude 44 deg. 25' 52'' N. Longitude 40 deg. 8' 37'' E. Elevation 518 m. 20 km. south of Maykop, village Shahan. Area grazed. Slope 0-5%, aspect NE. Open. Soil loam, clay, parent rock colluvial clays, pH 5.5-6.0. Seasonally dry, upper slope. Vegetation closed, evergreen short grass. Surrounding vegetation open deciduous forest with closed lower layers. Dominant tree species Hornbeam-Beech. Dominant shrub species *Laurocerasus* o., *Rhododendron* sp. Dominant herb/grass species broadleaved herb, *Festuca drymeia*. Extensive regional climate data available in spreadsheet format or image maps in raster format suitable for GIS analysis. Contact Dr. Stephanie L. Greene (sgreene@ars-grin.gov).

PI 604709. *Trifolium pratense* L.

Wild. 0210; W6 18344. Collected 07/30/1995 in Russian Federation. Latitude 44 deg. 44' 10'' N. Longitude 40 deg. 50' 40'' E. Elevation 244 m. Province Armavir/Maykop, 1 km north of Chamlykskaya, valley of Chemlink. Past logged, now roadway. Slope 0-5%, aspect SW. Light open. Soil sand with gravel, pH 7.5. Seasonally dry, roadside. Vegetation closed, evergreen tall grass. Surrounding vegetation open deciduous forest with closed lower layers. Dominant tree species *Quercus* sp., *Q. robur*. Dominant shrub species *Carpinus* sp., *Prunus* sp. Population distribution patchy, abundance occasional. Growth habit erect. Flower red. Extensive regional climate data available in spreadsheet format or image maps in raster format suitable for GIS analysis. Contact Dr. Stephanie L. Greene (sgreene@ars-grin.gov).

PI 604710. *Trifolium pratense* L.

Wild. M116; W6 18383. Collected in Russian Federation. Latitude 44 deg. 40' 57'' N. Longitude 37 deg. 57' 8'' E. Elevation 380 m. Province Novorossiysk, 3 km north of Kabardinka. Past logged, now grazed. Slope 11-40%, aspect SW. Light open. Soil clay, parent rock platey limestones, pH 7.5-8.0. Seasonally dry, lower to upper slope. Vegetation closed, open deciduous forest with closed lower layers. Surrounding vegetation closed, seasonal tall grass. Dominant tree species *Quercus* sp. Dominant shrub species *Carpinus* sp., *Quercus* sp. Dominant herb/grass species *Achillea* sp., *Festuca* sp., *Agropyron cristatum*, *Phleom* sp., *Salvia* sp., *Sanguisorba minor*, *Plantago* sp. Population abundance frequent. Growth habit erect. Flower red. Extensive regional climate data available in spreadsheet format or image maps in raster format suitable for GIS

analysis. Contact Dr. Stephanie L. Greene (sgreene@ars-grin.gov).

PI 604711. *Trifolium medium* L.

Wild. M113; W6 18381. Collected in Russian Federation. Latitude 44 deg. 40' 57'' N. Longitude 37 deg. 57' 8'' E. Elevation 380 m. Province Novorossiysk, 3 km north of Kabardinka. Past logged, now grazed. Slope 11-40%, aspect SW. Light open. Soil clay, parent rock platey limestones, pH 7.5-8.0. Seasonally dry, lower to upper slope. Vegetation closed, open deciduous forest with closed lower layers. Surrounding vegetation seasonal tall grass. Dominant tree species *Quercus* sp. Dominant shrub species *Carpinus* sp., *Quercus* sp. Dominant herb/grass species *Achillea* sp., *Festuca* sp., *Agropyron cristatum*, *Phleom* sp., *Salvia* sp., *Sanguisorba minor*, *Plantago* sp. Population distribution patchy. Growth habit erect, spreading. Flower white-cream-lavender. Extensive regional climate data available in spreadsheet format or image maps in raster format suitable for GIS analysis. Contact Dr. Stephanie L. Greene (sgreene@ars-grin.gov).

PI 604712. *Trifolium pratense* L.

Wild. 0221; W6 18352. Collected 08/05/1995 in Russian Federation. Latitude 44 deg. 25' 54'' N. Longitude 40 deg. 13' 53'' E. Elevation 518 m. Province Maykop, south of Maykop, 1 km north of Abadzekhskaya. Past logged, now grazed, mowed hay. Slope 11-40%, aspect S. Light open, Soil clay, limestone, pH 7.8. Seasonally dry, upper slope, end of terrace, near stream, edge of field. Vegetation closed, evergreen broad-leafed herb vegetation. Surrounding vegetation open deciduous forest with closed lower layers. Dominant tree species Hornbeam-Oak. Dominant shrub species *Carpinus* sp., *Q. petraea*. Dominant herb/grass species legumes, *Festuca pratensis*. Population distribution patchy, abundance frequent. Growth habit erect. Flower red. Extensive regional climate data available in spreadsheet format or image maps in raster format suitable for GIS analysis. Contact Dr. Stephanie L. Greene (sgreene@ars-grin.gov).

PI 604713. *Trifolium pratense* L.

Wild. 0216; W6 18349. Collected 08/03/1995 in Russian Federation. Latitude 44 deg. 22' 15'' N. Longitude 40 deg. 22' 52'' E. Elevation 549 m. Southeast of Maykop, 2 km. southeast of Novosvobodnaya. Past logged, now grazed. Slope 0-5 to 6-10%, aspect SW. Light open. Soil clay, 3.8-4.5. Moist to seasonally dry, upper slope. Vegetation closed, evergreen broad-leafed herb vegetation. Surrounding vegetation open deciduous forest with closed lower layers. Dominant shrub species *Carpinus* sp., *Q. petraea*. Dominant herb/grass species legume, *Trifolium*, *Lotus*, *Festuca pratensis*. Population distribution patchy, abundance occasional. Growth habit erect. Flower red. Extensive regional climate data available in spreadsheet format or image maps in raster format suitable for GIS analysis. Contact Dr. Stephanie L. Greene (sgreene@ars-grin.gov).

PI 604714. *Trifolium repens* L.

Wild. 0200; W6 18335. Collected 07/29/1995 in Russian Federation. Latitude 43 deg. 42' 56'' N. Longitude 43 deg. 30' 41'' E. Elevation 427 m. Province Nal'Chir (Kabardin-Balkarskaya Republic), 1 km west of Balsan. Past logged, now roadway. Slope 0-5%, aspect SW. Light open. Soil loam with gravel, pH 7.5. Seasonally dry, roadside ditch.

Vegetation closed, evergreen tall grass. Surrounding vegetation open deciduous forest with closed lower layers. Dominant tree species *Fagus* sp., and *Quercus* sp. Dominant shrub species *Origanum* sp. Population distribution patchy, abundance frequent. Growth habit prostrate. Flower white. Extensive regional climate data available in spreadsheet format or image maps in raster format suitable for GIS analysis. Contact Dr. Stephanie L. Greene (sgreene@ars-grin.gov).

PI 604715. *Trifolium pratense* L.

Wild. 0184; W6 18325. Collected 07/23/1995 in Russian Federation. Latitude 44 deg. 17' 50'' N. Longitude 41 deg. 14' 50'' E. Elevation 914 m. Province Maykop, 3 km north of Podgorna. Slope 0-5%, aspect S. Light open. Soil clay, pH 5.6-5.8, gravel layer between clay layers. Vegetation closed, evergreen short grass. Surrounding veg. open deciduous forest with closed lower layers. Dominant tree species *Quercus* sp., *Q. robur*. Dominant shrub species *Carpinus* c., *Q. petraea*. Population distribution patchy, abundance occasional. Growth habit erect. Flower red. Extensive regional climate data available in spreadsheet format or image maps in raster format suitable for GIS analysis. Contact Dr. Stephanie L. Greene (sgreene@ars-grin.gov).

PI 604716. *Trifolium pratense* L.

Wild. 0165; W6 18314. Collected 12/07/1995 in Russian Federation. Latitude 44 deg. 52' 30'' N. Longitude 37 deg. 33' 0'' E. Elevation 120 m. Province Anapa/Novorossiysk. 2 km east of Podbidam. Past and current grazing. Slope 11-40%, aspect N. Open light. Soil clay with gravel, parent material colluvial of limestones, pH 7.3. Seasonally dry, mid slope. Vegetation closed, seasonal short grass. Surrounding vegetation open deciduous forest with closed lower layers. Dominant tree species *Quercus* sp. Dominant shrub species *Carpinus* sp., *Quercus* sp. Dominant herb/grass species broadleaves, *Daucus carotta*, *Festuca* sp. Population distribution patchy, abundance occasional. Growth habit erect. Flower red. Extensive regional climate data available in spreadsheet format or image maps in raster format suitable for GIS analysis. Contact Dr. Stephanie L. Greene (sgreene@ars-grin.gov).

The following were collected by E.H. Todd. Received 11/07/1991.

PI 604717. *Trifolium lupinaster* L.

Wild. DJ 3853. Collected in Russian Federation.

PI 604718. *Trifolium lupinaster* L.

Wild. DJ 3853. Collected in Russian Federation.

The following were collected by Alexander Afonin, Vavilov Institute of Plant Industry, 42 Bolshaya Morskaya Street, St. Petersburg, Leningrad 190000, Russian Federation; Nicolay Portinier, Kamorov Institute of Botany, St. Petersburg, Leningrad, Russian Federation; Nicolay Khitrov, Dokvchaev Soil Institute, Pygevsky, per., 7., Moscow, Moscow 109017, Russian Federation. Received 01/1996.

PI 604719. *Trifolium pratense* L.

Wild. D43; W6 18581. Collected in Russian Federation. Latitude 44 deg.

25' 7'' N. Longitude 41 deg. 25' 53'' E. Elevation 608 m. Province Maykop, 5 km west of Otradnaya. Past logged, now settlement, rock quarry. Slope 0-5%, aspect S. Light open. Soil conglomerate with clay between, pH 7.8. Seasonally dry, ridgetop. Vegetation closed, evergreen broad-leafed herb vegetation. Surrounding vegetation open deciduous forest with closed lower layers. Dominant tree species *Quercus robur*, *Quercus* sp. Dominant shrub species *Carpinus* c., *Q. petraea*. Dominant herb/grass species *Trifolium* sp. Extensive regional climate data available in spreadsheet format or image maps in raster format suitable for GIS analysis. Contact Dr. Stephanie L. Greene (sgreene@ars-grin.gov).

PI 604720. *Trifolium ambiguum* M. Bieb.

Wild. 0004; W6 18425. Collected 08/30/1995 in Russian Federation. Latitude 44 deg. 5' 30'' N. Longitude 40 deg. 0' 56'' E. Elevation 1650 m. Province Maykop, 25 km southwest of Dakhovskaya. Past logged, now grazed and roadway. Slope 6-10%, aspect S. Light open. Soil loam. Moist, mid slope. Vegetation closed, evergreen broad-leafed herb vegetation. Surrounding veg. open evergreen and deciduous forest with closed lower layers. Dominant tree species *Fagus* sp., Beech, *Carpinus* sp., *Abies* sp., *Picea* sp. Dominant shrub species *Laurocerasus officinalis*, *Rhododendron*. Dominant herb/grass species *Trifolium* sp., *Plantago* sp., *Deschampsia cespitosa*, *Alchemilla* sp., *Cirsium obvallarum*, *Rumex conferitus*, *Cephalaria gigantea*. Population abundance frequent. Growth habit prostrate. Flower rose. Extensive regional climate data available in spreadsheet format or image maps in raster format suitable for GIS analysis. Contact Dr. Stephanie L. Greene (sgreene@ars-grin.gov).

PI 604721. *Trifolium repens* L.

Wild. M164; W6 18420. Collected 08/23/1995 in Russian Federation. Latitude 43 deg. 37' 36'' N. Longitude 39 deg. 48' 13'' E. Elevation 250 m. Province Souchi, 3-4 km north of Ismyolfka. Past logged, now grazed and cultivated. Slope 11-40%, aspect S. Light open. Soil yellow clay, pH basic. Seasonally dry, mid slope. Vegetation closed, evergreen broad-leafed herb vegetation. Surrounding vegetation open deciduous forest with closed lower layers. Dominant tree species *Castanea* sp., *Carpinus* sp., *Quercus* sp. Dominant shrub species *Laurocerasus* sp., *Ribes* sp. Dominant herb/grass species *Trifolium* sp., annual grasses. Open degraded slope, 15% cover. Population distribution patchy. Growth habit prostrate. Flower white. Extensive regional climate data available in spreadsheet format or image maps in raster format suitable for GIS analysis. Contact Dr. Stephanie L. Greene (sgreene@ars-grin.gov).

PI 604722. *Trifolium repens* L.

Wild. M155; W6 18411. Collected 08/23/1995 in Russian Federation. Latitude 43 deg. 45' 20'' N. Longitude 39 deg. 41' 41'' E. Elevation 230 m. Province Souchi, 10 km north of Dagomys. Past logged, now grazed, roadway. Slope 11-40%, aspect S. Light open. Soil clay, limestones, calcareous soils, pH 7.8. Moist, mid slope. Vegetation closed, open deciduous forest with closed lower layers. Surrounding vegetation evergreen broad-leafed herb vegetation. Dominant tree species *Quercus* sp., *Carpinus* sp. Dominant shrub species *Laurocerasus* sp., *Ribes* sp. Dominant herb/grass species *Trifolium* sp., *Bermuda*, *Aster* sp. types. Population abundance frequent. Growth habit prostrate. Flower white. Extensive regional climate data available in spreadsheet format or image

maps in raster format suitable for GIS analysis. Contact Dr. Stephanie L. Greene (sgreene@ars-grin.gov).

PI 604723. *Trifolium pratense* L.

Wild. M145; W6 18403. Collected 08/22/1995 in Russian Federation. Latitude 43 deg. 50' 54'' N. Longitude 39 deg. 24' 32'' E. Elevation 15 m. Province Lazarevskoye-Souchi, 10 km east of Soloniki. Past logged, now grazed. Slope 11-40%, aspect S. Light open. Soil clay, parent rock limestones, pH 7.4-7.5. Seasonally dry, lower to mid slope. Vegetation closed, evergreen broad-leafed herb vegetation. Surrounding vegetation open deciduous forest with closed lower layers. Dominant tree species *Quercus* sp., *Carpinus* sp. Dominant shrub species *Laurocerasus* sp., *Ribes* sp. Dominant herb/grass species *Trifolium* sp., *Festuca pratensis*, *Agrimonia eupatoria*, *Vicia* sp., *Dorycnium intermedium*, *Senecio* sp., *Origanum regata*, *Coronilla varia*, *Geranium* sp., *Inula britannia*, *Daucus carota*, *Plantago* sp. Population abundance frequent. Growth habit erect. Flower red. Extensive regional climate data available in spreadsheet format or image maps in raster format suitable for GIS analysis. Contact Dr. Stephanie L. Greene (sgreene@ars-grin.gov).

PI 604724. *Trifolium repens* L.

Wild. M149; W6 18406. Collected in Dagestan, Russian Federation. Latitude 43 deg. 43' 20'' N. Longitude 39 deg. 40' 19'' E. Elevation 90 m. Province Dagomys-Babuk (Sochi), 2 km north of Volafka, along river. Past logged, now settlement. Slope 6-10%, aspect E, SE. Light 1/4 shade. Soil clay, parent rock clays, schists, pH 4.5-4.6. Seasonally dry, upper slope. Vegetation closed, evergreen broad-leafed herb vegetation. Surrounding vegetation open deciduous forest with closed lower layers. Dominant tree species *Quercus* sp., *Carpinus* sp. Dominant shrub species *Laurocerasus* sp. Dominant herb/grass species ferns, *Trifolium* sp., *Lotus corniculatus*, Alien sorghum, Johnson Grass. Population abundance frequent. Growth habit prostrate. Flower white. Extensive regional climate data available in spreadsheet format or image maps in raster format suitable for GIS analysis. Contact Dr. Stephanie L. Greene (sgreene@ars-grin.gov).

PI 604725. *Trifolium medium* L.

Wild. 108; W6 18491. Collected 09/08/1995 in Karelia, Russian Federation. Latitude 43 deg. 26' 28'' N. Longitude 41 deg. 42' 21'' E. Elevation 2200 m. Province Teberda, Karachayevo-Cherkesskaya Republic, 6 km west of Teberda. Area deferred. Slope 11-40%, aspect E. Light open. Soil loam with gravel. Moist, mid slope, meadow. Vegetation closed, evergreen tall grass and broad-leafed herb vegetation. Surrounding vegetation open evergreen and deciduous forest with closed lower layers. Dominant tree species *Betula* sp., *Pinus* sp. Dominant shrub species *Rhododendron* sp., *Juniperus* sp. Dominant herbgrass species *Trifolium* sp., *Alchemilla* sp., *Festuca* sp., *Dactylis* g. Population distribution patchy, abundance occasional. Growth habit semi-erect. Flower purple. Extensive regional climate data available in spreadsheet format or image maps in raster format suitable for GIS analysis. Contact Dr. Stephanie L. Greene (sgreene@ars-grin.gov).

PI 604726. *Trifolium ambiguum* M. Bieb.

Wild. 0140; W6 18500. Collected 09/07/1995 in Karelia, Russian Federation. Latitude 43 deg. 29' 32'' N. Longitude 41 deg. 41' 39'' E.

Elevation 2700 m. Province Teberda, Karachayevo-Cherkesskaya Republic, 10 km northwest of Teberda. Past logged, now grazed. Slope 41-60%, aspect SW. Light open. Soil loam, shallow, granitic rock. Seasonally dry, ridgetop, upper slope, alpine/sub-alpine. Vegetation closed, evergreen short grass. Surrounding vegetation evergreen open forest with closed lower layers. Dominant tree species *Pinus* sp. on south slope, *Picea o.* and *Abies n.* on north slope. Dominant shrub species *Juniperus oblonga*, some *Rosa* sp. Dominant herb/grass species *Achillea* sp., *Festuca varia* ssp. *chaculata*, *Helitrochicum agarium*, *Deschampsia* sp. Population distribution patchy, abundance frequent. Growth habit prostrate. Flower white-pink. Extensive regional climate data available in spreadsheet format or image maps in raster format suitable for GIS analysis. Contact Dr. Stephanie L. Greene (sgreene@ars-grin.gov).

PI 604727. *Trifolium badium* Schreb.

Wild. 112; W6 18496. Collected 09/09/1995 in Karelia, Russian Federation. Latitude 43 deg. 15' 15'' N. Longitude 41 deg. 49' 43'' E. Elevation 2050 m. Province Teberda, Karachayevo-Cherkesskaya Republic, 30 km southeast of Teberda near Klukhor Pass to Georgia. Past grazed, now roadway. Slope 6-10%, aspect SW. Light 1/4 shade. Soil loam. Seasonally dry, upper slope, rock outcrop. Vegetation closed, open evergreen and deciduous forest with closed lower layers. Surrounding vegetation evergreen tall grass and broad-leafed herb vegetation. Dominant tree species *Pinus* sp., *Abies* sp., *Picea* sp., *Betula* sp. Dominant shrub species *Juniperus* sp., *Rhododendron* sp. Dominant herb/grass species *Achillea* sp., *Alchemilla* sp., *Trifolium* sp., *Vicia* sp., *Lotus* c., *Hedysarum* h., *Agrostis* sp., *Calamagrostis* sp., *Phleum* p., *Dactylis* g., *Festuca* sp., *Deschampsia* c. Population patchy, abundance frequent. Growth habit erect. Flower yellow. Extensive regional climate data available in spreadsheet format or image maps in raster format suitable for GIS analysis. Contact Dr. Stephanie L. Greene (sgreene@ars-grin.gov).

PI 604728. *Trifolium pratense* L.

Wild. 0133; W6 18492. Collected 09/07/1995 in Karelia, Russian Federation. Latitude 43 deg. 28' 28'' N. Longitude 41 deg. 40' 54'' E. Elevation 1800 m. Province Teberda, Karachayevo-Cherkesskaya Republic, 8 km west of Teberda. Past logged, now grazed. Slope 41-60%, aspect S. Light 3/4 shade to shaded. Soil loam, granitic derived. Seasonally dry, lower to mid slope. Vegetation closed, evergreen open forest with closed lower layers. Surrounding vegetation same. Dominant tree species *Pinus syl.*, *hamata* on south slope, *Abies n.*, *Picea o.* on north slope. Dominant shrub species *Juniperus oblonga*, *Rosa* sp., *Ribes* sp. Dominant herb/grass species *Achillea* sp., *Trifolium* sp., *Coronilla* sp., *Lotus* c., *Deschampsia* c., *Festuca* sp., *Agrostis* sp., *Calamagrostis* sp. Population distribution patchy, abundance occasional. Growth habit erect. Flower red. Extensive regional climate data available in spreadsheet format or image maps in raster format suitable for GIS analysis. Contact Dr. Stephanie L. Greene (sgreene@ars-grin.gov).

PI 604729. *Trifolium medium* L.

Wild. 0132; W6 18490. Collected 09/07/1995 in Karelia, Russian Federation. Latitude 43 deg. 28' 28'' N. Longitude 41 deg. 40' 54'' E. Elevation 1800 m. Province Teberda, Karachayevo-Cherkesskaya Republic, 8 km west of Teberda. Past logged, now grazed. Slope 41-60%, aspect S.

Light 3/4 shade to shaded. Soil loam, granitic derived. Seasonally dry, lower to mid slope. Vegetation closed, evergreen open forest with closed lower layers. Surrounding vegetation same. Dominant tree species *Pinus syl.*, *hamata* on south slope, *Abies n.*, *Picea o.* on north slope. Dominant shrub species *Juniperus oblonga*, *Rosa sp.*, *Ribes sp.* Dominant herb/grass species *Achillea sp.*, *Trifolium sp.*, *Coronilla sp.*, *Lotus c.*, *Deschampsia c.*, *Festuca sp.*, *Agrostis sp.*, *Calamagrostis sp.* Population distribution patchy, abundance frequent. Growth habit semi-prostrate. Flower purple. Extensive regional climate data available in spreadsheet format or image maps in raster format suitable for GIS analysis. Contact Dr. Stephanie L. Greene (sgreene@ars-grin.gov).

PI 604730. *Trifolium ambiguum* M. Bieb.

Wild. 106; W6 18487. Collected 09/07/1995 in Karelia, Russian Federation . Latitude 43 deg. 26' 25'' N. Longitude 41 deg. 41' 50'' E. Elevation 2100 m. Province Teberda, Karachayevo-Cherkesskaya Republic, 7 km west of Teberda. Area deferred. Slope 11-40%, aspect S. Light open. Soil loam with gravel, pH upper 5.7, lower 5.1. Moist, mid slope. Vegetation closed, evergreen tall grass and broad-leafed herb vegetation. Surrounding vegetation open deciduous forest with closed lower layers. Dominant tree species *Betula sp.* Dominant shrub species *Rhododendron sp.*, *Juniperus sp.* Dominant herb/grass species *Trifolium sp.*, *Alchemilla sp.*, *Festuca sp.*, *Deschampsia sp.* Population distribution patchy, abundance occasional. Growth habit prostrate. Flower white-pink. Extensive regional climate data available in spreadsheet format or image maps in raster format suitable for GIS analysis. Contact Dr. Stephanie L. Greene (sgreene@ars-grin.gov).

PI 604731. *Trifolium ambiguum* M. Bieb.

Wild. 0128; W6 18484. Collected 09/07/1995 in Karelia, Russian Federation. Latitude 43 deg. 28' 28'' N. Longitude 41 deg. 40' 54'' E. Elevation 1800 m. Province Teberda, Karachayevo-Cherkesskaya Republic, 8 km west of Teberda. Past logged, now grazed. Slope 41-60%, aspect S. Light 3/4 shade to shaded. Soil loam, granitic derived. Seasonally dry, lower to mid slope. Vegetation closed, evergreen open forest with closed lower layers. Surrounding vegetation same. Dominant tree species *Pinus syl.*, *hamata* on south slope, *Abies n.*, *Picea o.* on north slope. Dominant shrub species *Juniperus oblonga*, *Rosa sp.*, *Ribes sp.* Dominant herb/grass species *Achillea sp.*, *Trifolium sp.*, *Coronilla sp.*, *Lotus c.*, *Deschampsia c.*, *Festuca sp.*, *Agrostis sp.*, *Calamagrostis sp.* Population distribution patchy, abundance frequent. Growth habit prostrate. Flower white-pink. Extensive regional climate data available in spreadsheet format or image maps in raster format suitable for GIS analysis. Contact Dr. Stephanie L. Greene (sgreene@ars-grin.gov).

PI 604732. *Trifolium badium* Schreb.

Wild. 124; W6 18480. Collected 09/07/1995 in Karelia, Russian Federation . Latitude 43 deg. 27' 30'' N. Longitude 41 deg. 40' 0'' E. Elevation 2300 m. Province Teberda, Karachayevo-Cherkesskaya Republic, 8 km west of Teberda. Past and current grazing. Slope 0-5%, aspect S. Light 3/4 shade. Soil gravel, pH acid. Seasonally dry, stream terrace. Vegetation closed, open evergreen and deciduous forest with closed lower layers. Surrounding vegetation evergreen tall grass and broad-leafed herb vegetation. Dominant tree species *Betula sp.* Dominant shrub species *Rhododendron sp.*, *Juniperus sp.* Dominant herb/grass species *Heracleum*

sp., *Festuca* sp., *Deschampsia* sp. Population distribution patchy, abundance occasional. Growth habit erect. Flower yellow. Extensive regional climate data available in spreadsheet format or image maps in raster format suitable for GIS analysis. Contact Dr. Stephanie L. Greene (sgreene@ars-grin.gov).

PI 604733. *Trifolium medium* L.

Wild. 0231; W6 18359. Collected 08/10/1995 in Krasnodar, Russian Federation. Latitude 44 deg. 47' 37'' N. Longitude 38 deg. 33' 28'' E. Elevation 210 m. Province Krasnodar, southwest of Krasnodar, village Azovskaya. Past cultivated, now grazed. Slope 0-5%, aspect W. Light open. Soil loam, clay, pH 5.0-5.6. Seasonally dry, mid slope. Vegetation closed, seasonal broad-leafed herb vegetation. Surrounding veg. open deciduous forest with closed lower layers. Dominant tree species *Fagus* sp. and *Quercus* sp. Dominant shrub species *Ribes* sp., *Prunus* sp., *Caprinus* sp., *Crataegus* sp. Population distribution patchy, abundance occasional. Growth habit prostrate. Extensive regional climate data available in spreadsheet format or image maps in raster format suitable for GIS analysis. Contact Dr. Stephanie L. Greene (sgreene@ars-grin.gov).

PI 604734. *Trifolium pratense* L.

Wild. 0228; W6 18357. Collected 08/16/1995 in Krasnodar, Russian Federation. Latitude 44 deg. 47' 37'' N. Longitude 38 deg. 33' 28'' E. Elevation 210 m. Province Krasnodar, southwest of Krasnodar, village Azovskaya. Past cultivated, now grazed. Slope 0-5%, aspect W. Light open. Soil loam, clay, pH 4.8. Seasonally dry, mid slope. Vegetation closed, seasonal broad-leafed herb vegetation. Surrounding veg. open deciduous forest with closed lower layers. Dominant tree species *Fagus* sp. and *Quercus* sp. Dominant shrub species *Ribes* sp., *Prunus* sp., *Caprinus* sp., *Crataegus* sp. Population distribution patchy, abundance occasional. Growth habit erect. Flower purple/red. Extensive regional climate data available in spreadsheet format or image maps in raster format suitable for GIS analysis. Contact Dr. Stephanie L. Greene (sgreene@ars-grin.gov).

PI 604735. *Trifolium pratense* L.

Wild. W6 18537. Collected 09/28/1995 in Krasnodar, Russian Federation. Krasnodarskiy kray, nearest village is Krasnaia Polyana. Slope 11-40%, aspect E. Open. Moist, mid slope. Vegetation closed, seasonal tall grass. Dominant herb/grass species *Heracleum ponticum*, *Inula* h., *Brachypodium sylvaticum*, *Calystegia sylvatica*, *Cirsium caput-medusae*, *Geranium gracile*. Population distribution uniform, abundance occasional. Growth habit spreading. Extensive regional climate data available in spreadsheet format or image maps in raster format suitable for GIS analysis. Contact Dr. Stephanie L. Greene (sgreene@ars-grin.gov).

PI 604736. *Trifolium pratense* L.

Wild. W6 18528. Collected 09/22/1995 in Krasnodar, Russian Federation. Krasnodarskiy kray, plateau Lagonaki. Now grazed. Slope 0-6%. Open. Moist, plateau. Vegetation closed, seasonal short grass. Dominant herb/grass species *Brachypodium pinnatum*, *Bromopsis riparia*, *Festuca rupicola*, *Koeleria cristata*, *Geranium saguineum*, *Plantago lanceolata*. Population distribution uniform, abundance occasional. Growth habit

spreading. Extensive regional climate data available in spreadsheet format or image maps in raster format suitable for GIS analysis. Contact Dr. Stephanie L. Greene (sgreene@ars-grin.gov).

PI 604737. *Trifolium pratense* L.

Wild. W6 18521. Collected 09/19/1995 in Krasnodar, Russian Federation. Krasnodarskiy kray, nearest village is Mimly. Now cut/grazed. Slope 0-5%. Open. Moist, ridgetop (watershed). Vegetation closed, seasonal short grass. Dominant herb/grass species *Deschampsia caespitosa*, *Molinia caerulea*, *Plantago lanceolata*, *Lotus corniculatus*. Population distribution uniform, abundance occasional. Growth habit spreading. Extensive regional climate data available in spreadsheet format or image maps in raster format suitable for GIS analysis. Contact Dr. Stephanie L. Greene (sgreene@ars-grin.gov).

PI 604738. *Trifolium pratense* L.

Wild. W6 18517. Collected 09/19/1995 in Krasnodar, Russian Federation. Krasnodarskiy kray, nearest village is Zazulin. Now cut/grazed. Slope 0-5%. Open. Moist, ridgetop (watershed). Vegetation closed, seasonal broad-leafed herb vegetation. Dominant herb/grass species *Prunella vulgaris*, *Plantago lanceolata*, *Daucus carota*, *Fillipendula vulgaris*, *Leontodon caucasicus*, *Molinia caerulea*, *Dorycnium herbaceum*. Population distribution uniform, abundance occasional. Growth habit spreading. Extensive regional climate data available in spreadsheet format or image maps in raster format suitable for GIS analysis. Contact Dr. Stephanie L. Greene (sgreene@ars-grin.gov).

PI 604739. *Trifolium pratense* L.

Wild. D2; W6 18573. Collected in Krasnodar, Russian Federation. Latitude 44 deg. 47' 0'' N. Longitude 38 deg. 34' 0'' E. Elevation 190 m. Province Krasnodar, 5 km south of Il'skaya, southwest of Krasnodar. Grazed, Slope 0-10%, aspect NE. Light open. Soil sand, loam, pH 4.6-5.3. Seasonally dry, upper slope. Vegetation closed, seasonal broad-leafed herb vegetation. Surrounding vegetation open deciduous forest with closed lower layers. Dominant tree species *Quercus* sp. Dominant shrub species *Ribes* sp., *Prunus* sp., *Caprinus* sp., *Crataegus* sp. Dominant herb/grass species *Daucus carota*, *Potentilla* sp., *Festuca pratensis*, *Medicago falcata*, *Lotus* c., *Dorycnium intermedium*, *Dorycnium graceum*. Extensive regional climate data available in spreadsheet format or image maps in raster format suitable for GIS analysis. Contact Dr. Stephanie L. Greene (sgreene@ars-grin.gov).

PI 604740. *Trifolium pratense* L.

Wild. 0233; W6 18361. Collected 08/17/1995 in Krasnoyarsk, Russian Federation. Latitude 44 deg. 54' 39'' N. Longitude 37 deg. 57' 45'' E. Elevation 70 m. Province Krymsk, between Krasnodar and Novorossiysk, west of Krymsk. Past and current grazing. Slope 6-40%, aspect NE. Light open. Soil calcareous loams/sands, clay, pH 7.6-7.9. Seasonally dry, lower to mid slope, active slope movement. Vegetation closed, seasonal broad-leafed herb vegetation. Surrounding vegetation open deciduous forest with closed lower layers. Dominant tree species *Quercus robur*, *Quercus* sp. Dominant shrub species *Ribes* sp. Dominant herb/grass species broadleaves, *Trifolium*s, *Lotus corniculatus*, Bermuda grass, *Bothriochloa ischaemum*, *Senecio grandidentatus*, *Tussilago farfara*, *Coronilla varia*, *Xanthium strumarium*, *Daucus carota*, *Convolvulus arvensis*, *Achillea*

millefolium. Population distribution uniform, abundance frequent. Growth habit erect. Flower red. Extensive regional climate data available in spreadsheet format or image maps in raster format suitable for GIS analysis. Contact Dr. Stephanie L. Greene (sgreene@ars-grin.gov).

PI 604741. *Trifolium pratense* L.

Wild. 0087; W6 18470. Collected 09/06/1995 in Chelyabinsk, Russian Federation. Latitude 43 deg. 43' 8'' N. Longitude 41 deg. 35' 46'' E. Elevation 1190 m. Province Cherkessk-Karachayeysk Republic (Karachayevo-Cherkesskaya Republic), 8 km south of Marvkha. Fields used for hay, no grazing. Slope 6-10%, aspect SW. Light open. Soil colluvial clays, rock clay schists, pH 5.0-5.3. Moist to seasonally dry, ridgetop, upper slope. Vegetation closed, evergreen broad-leafed herb vegetation. Surrounding vegetation open deciduous forest with closed lower layers. Dominant shrub species *Rhododendron* sp., *Rosa* sp., *Ribes* sp. Dominant herb/grass species *Trifolium* sp., *Lotus* c., *Achillea* sp., Dandelion, *Deschampsia* c., *Phleum* p., *Dactylis* g., *Agrostis* sp., *Calamagrostis* sp. Population distribution uniform, abundant. Growth habit erect. Flower red. Extensive regional climate data available in spreadsheet format or image maps in raster format suitable for GIS analysis. Contact Dr. Stephanie L. Greene (sgreene@ars-grin.gov).

PI 604742. *Trifolium medium* L.

Wild. 0095; W6 18475. Collected 09/06/1995 in Chelyabinsk, Russian Federation. Latitude 43 deg. 43' 8'' N. Longitude 41 deg. 35' 46'' E. Elevation 1190 m. Province Cherkessk-Karachayeysk Republic (Karachayevo-Cherkesskaya Republic), 8 km south of Marvkha. Fields used for hay, no grazing. Slope 6-10%, aspect SW. Light open. Soil colluvial clays, rock clay schists, pH 5.0-5.3. Moist to seasonally dry, ridgetop, upper slope. Vegetation closed, evergreen broad-leafed herb vegetation. Surrounding vegetation open deciduous forest with closed lower layers. Dominant shrub species *Rhododendron* sp., *Rosa* sp., *Ribes* sp. Dominant herb/grass species *Trifolium* sp., *Lotus* c., *Achillea* sp., Dandelion, *Deschampsia* c., *Phleum* p., *Dactylis* g., *Agrostis* sp., *Calamagrostis* sp. Population distribution patchy, abundance frequent. Growth habit semi-prostrate. Flower purple. Extensive regional climate data available in spreadsheet format or image maps in raster format suitable for GIS analysis. Contact Dr. Stephanie L. Greene (sgreene@ars-grin.gov).

PI 604743. *Trifolium ambiguum* M. Bieb.

Wild. 0094; W6 18474. Collected 09/06/1995 in Chelyabinsk, Russian Federation. Latitude 43 deg. 43' 8'' N. Longitude 41 deg. 35' 46'' E. Elevation 1190 m. Province Cherkessk-Karachayeysk Republic (Karachayevo-Cherkesskaya Republic), 8 km south of Marvkha. Fields used for hay, no grazing. Slope 6-10%, aspect SW. Light open. Soil colluvial clays, rock clay schists, pH 5.0-5.3. Moist to seasonally dry, ridgetop, upper slope. Vegetation closed, evergreen broad-leafed herb vegetation. Surrounding vegetation open deciduous forest with closed lower layers. Dominant shrub species *Rhododendron* sp., *Rosa* sp., *Ribes* sp. Dominant herb/grass species *Trifolium* sp., *Lotus* c., *Achillea* sp., Dandelion, *Deschampsia* c., *Phleum* p., *Dactylis* g., *Agrostis* sp., *Calamagrostis* sp. Population distribution patchy, abundance occasional. Growth habit prostrate. Flower white. Extensive regional climate data available in spreadsheet format or image maps in raster format suitable for GIS analysis. Contact Dr. Stephanie L. Greene (sgreene@ars-grin.gov).

PI 604744. *Trifolium repens* L.

Wild. 0196; W6 18333. Collected 07/27/1995 in Chelyabinsk, Russian Federation. Latitude 44 deg. 4' 25'' N. Longitude 42 deg. 21' 24'' E. Elevation 823 m. 5 km. south of Bekesheyskaya. Past logged, now grazed. Slope 11-40%, aspect E. Light open. Soil loam, pH 7.8-8.0. Seasonally dry, mid slope, high terrace. Vegetation closed, seasonal tall and short grass. Surrounding veg. open deciduous forest with closed lower layers. Dominant shrub species *Carpinus* c., *Q. petraea*. Dominant herb/grass species *Carix* sp., *Bothriochloa* i., *Festuca* sp., *Koeleria* sp. Population distribution patchy, abundance occasional. Growth habit prostrate. Flower white. Extensive regional climate data available in spreadsheet format or image maps in raster format suitable for GIS analysis. Contact Dr. Stephanie L. Greene (sgreene@ars-grin.gov).

PI 604745. *Trifolium repens* L.

Wild. A144; W6 18564. Collected 09/04/1995 in Russian Federation. Latitude 44 deg. 37' 7'' N. Longitude 40 deg. 29' 24'' E. Elevation 340 m. 1 km. east of Yeroslavskaya, 30+ km. east of Maykop. Area grazed. Slope 11-40%, aspect S. Light open. Soil clay, pH basic. Seasonally dry, lower slope. Vegetation closed, seasonal tall grass. Surrounding vegetation open deciduous forest with closed lower layers. Dominant tree species *Crataegus* sp., *Quercus* sp., *Monogyna*, *Pentagyna*. Dominant shrub species *Rosa* sp., *Prunus* sp. Dominant herb/grass species *Achillea* sp., *Daucus* c., thistle, bindweed, chichory, *Bothriochloa* i., *Cynodon* d. Population distribution patchy, abundance rare. Growth habit prostrate. Flower white. Extensive regional climate data available in spreadsheet format or image maps in raster format suitable for GIS analysis. Contact Dr. Stephanie L. Greene (sgreene@ars-grin.gov).

PI 604746. *Trifolium repens* L.

Wild. 0188; W6 18328. Collected 07/24/1995 in Russian Federation. Latitude 44 deg. 25' 7'' N. Longitude 41 deg. 25' 53'' E. Elevation 610 m. Province Maykop, 5 km west of Otradnaya. Past logged, now settlement. Slope 0-5%, aspect S. Light open. Soil conglomerate w/ clay between, pH 7.8. Seasonally dry, ridge top. Vegetation closed, evergreen broad-leaved herb vegetation. Surrounding veg. open decid. forest with closed lower layers. Dominant tree species *Quercus* sp., *Q. robur*. Dominant shrub species *Carpinus* c., *Q. petraea*. Dominant herb/grass species *Trifolium* sp. Population distribution uniform, abundant. Growth habit prostrate. Flower white. Extensive regional climate data available in spreadsheet format or image maps in raster format suitable for GIS analysis. Contact Dr. Stephanie L. Greene (sgreene@ars-grin.gov).

PI 604747. *Trifolium repens* L.

Wild. D65; W6 18586. Collected 07/29/1995 in Russian Federation. Latitude 43 deg. 27' 37'' N. Longitude 43 deg. 0' 38'' E. Elevation 975 m. Province Nal'Chir/Prokhladnyy, Kabardin-Balkarskaya Republic, 5 km southwest of Bylym. Past logged, now grazed. Slope 0-5%, aspect SE. Light open. Soil sand, loam, gravel, pH 8.4-8.7. Seasonally dry, man made terraces. Vegetation closed, evergreen tall grass. Surrounding veg. open deciduous forest with closed lower layers. Dominant shrub species *Origanum* sp. Extensive regional climate data available in spreadsheet format or image maps in raster format suitable for GIS analysis. Contact Dr. Stephanie L. Greene (sgreene@ars-grin.gov).

PI 604748. *Trifolium repens* L.

Wild. 118; W6 18501. Collected 09/09/1995 in Karelia, Russian Federation . Latitude 43 deg. 15' 8'' N. Longitude 41 deg. 50' 26'' E. Elevation 2250 m. Province Teberda, Karachayevo-Cherkesskaya Republic, 31 km southeast of Teberda near Klukhor Pass to Georgia. Along road from site 106 to 107. Past grazed, now roadway. Slope 6-10%, aspect SW. Light open. Soil loam, pH acid. Moist to seasonally dry, upper slope, rock outcrop. Vegetation closed, evergreen tall grass and broad-leafed herb vegetation. Surrounding vegetation evergreen open forest with closed lower layers. Dominant shrub species *Juniperus* sp., *Rhododendron* sp. Dominant herb/grass species *Alchemilla* sp, *Achillea* sp., *Gadalia* sp., *Trifolium* sp., *Hedysarum* h., *Daucus* c., Thistles, *Agrostis* sp., *Calamagrostis* sp., *Deschampsia* c. Population distribution patchy, abundance occasional. Growth habit prostrate. Flower white. Extensive regional climate data available in spreadsheet format or image maps in raster format suitable for GIS analysis. Contact Dr. Stephanie L. Greene (sgreene@ars-grin.gov).

PI 604749. *Trifolium ambiguum* M. Bieb.

Wild. A145; W6 18565. Collected 09/04/1995 in Russian Federation. Latitude 44 deg. 28' 49'' N. Longitude 40 deg. 48' 53'' E. Elevation 360 m. Province Maykop/Labinsk, 5 km south of Vladimirskaia. Grazed, cut hay. Slope 11-40%, aspect SW. Light open. Soil clay, pH 7.7. Moist, lower slope, landslide, unstable site, springs, boggy zones. Vegetation closed, seasonal tall grass. Surrounding veg. open deciduous forest with closed lower layers. Dominant tree species *Crataegus* sp., *Quercus* sp., Hornbeam-Oak. Dominant shrub species *Sambucus* sp., *Rosa* sp., *Prunus* sp. Dominant herb/grass species *Achillea* sp., *Daucus* c., *Medicago* f., *Bothriochloa* i., *Erytregia* sp. Population distribution patchy, abundance rare. Growth habit prostrate. Flower white. Extensive regional climate data available in spreadsheet format or image maps in raster format suitable for GIS analysis. Contact Dr. Stephanie L. Greene (sgreene@ars-grin.gov).

PI 604750. *Trifolium pratense* L.

Wild. 0202; W6 18337. Collected 07/29/1995 in Russian Federation. Latitude 43 deg. 35' 42'' N. Longitude 43 deg. 12' 48'' E. Elevation 900 m. Province Prokhladnyy/Nal'Chir (Kabardin-Balkarskaya Republic), 20 km southwest of Baksanges. Past logged, now grazed. Slope 11-40%, aspect SE. Light open. Soil sand, pH 7.1-7.5. Seasonally dry, cliff, mid slope. Vegetation closed, evergreen tall grass. Surrounding vegetation open deciduous forest with closed lower layers. Dominant shrub species *Origanum* sp. Population distribution patchy, abundance occasional. Growth habit erect. Flower red. Extensive regional climate data available in spreadsheet format or image maps in raster format suitable for GIS analysis. Contact Dr. Stephanie L. Greene (sgreene@ars-grin.gov).

PI 604751. *Trifolium pratense* L.

Wild. 0005; W6 18428. Collected 09/01/1995 in Russian Federation. Latitude 44 deg. 5' 30'' N. Longitude 40 deg. 0' 56'' E. Elevation 1650 m. Province Maykop, 25 km southwest of Dakhovskaya. Past logged, now grazed and roadway. Slope 6-10%, aspect S. Light open. Soil loam. Moist, mid slope. Vegetation closed, evergreen broad-leafed herb vegetation.

Surrounding veg. open evergreen and deciduous forest with closed lower layers. Dominant tree species *Fagus* sp., Beech, *Caprinus* sp., *Abies* sp., *Picea* sp. Dominant shrub species *Laurocerasus officinalis*, *Rhododendron*. Dominant herb/grass species *Trifolium* sp., *Plantago* sp., *Deschampsia cespitosa*, *Alchemilla* sp., *Cirsium obvallatum*, *Rumex conferitus*, *Cephalaria gigantea*. Population abundance frequent. Growth habit erect. Flower red. Extensive regional climate data available in spreadsheet format or image maps in raster format suitable for GIS analysis. Contact Dr. Stephanie L. Greene (sgreene@ars-grin.gov).

PI 604752. *Trifolium ambiguum* M. Bieb.

Wild. 119; W6 18503. Collected 09/09/1995 in Karelia, Russian Federation. Latitude 43 deg. 15' 8" N. Longitude 41 deg. 50' 26" E. Elevation 2250 m. Province Teberda, Karachayev-Cherkesskaya Republic, 31 km southeast of Teberda near Klukhor Pass to Georgia. Along road from site 106 to 107. Past grazed, now roadway. Slope 6-10%, aspect SW. Light open. Soil loam, pH acid. Moist to seasonally dry, upper slope, rock outcrop. Vegetation closed, evergreen tall grass and broad-leafed herb vegetation. Surrounding vegetation evergreen open forest with closed lower layers. Dominant shrub species *Juniperus* sp., *Rhododendron* sp. Dominant herb/grass species *Alchemilla* sp., *Achillea* sp., *Gadalia* sp., *Trifolium* sp., *Hedysarum* h., *Daucus* c., Thistles, *Agrostis* sp., *Calamagrostis* sp., *Deschampsia* c. Population distribution patchy, abundance frequent. Growth habit prostrate. Flower white-pink. Extensive regional climate data available in spreadsheet format or image maps in raster format suitable for GIS analysis. Contact Dr. Stephanie L. Greene (sgreene@ars-grin.gov).

PI 604753. *Trifolium pratense* L.

Wild. W6 18540. Collected 09/30/1995 in Krasnodar, Russian Federation. Krasnodarskiy kray, nearest village is Krasnaia Polyana. Now grazed. Slope 11-40%, aspect S. Open. Moist, mid slope. Vegetation closed, seasonal short grass. Dominant herb/grass species *Brachypodium sylvaticum*, *Dactylis glomerata*, *Cirsium* sp., *Geranium* sp. Population distribution uniform, abundance occasional. Growth habit spreading. Extensive regional climate data available in spreadsheet format or image maps in raster format suitable for GIS analysis. Contact Dr. Stephanie L. Greene (sgreene@ars-grin.gov).

PI 604754. *Trifolium medium* L.

Wild. M125; W6 18388. Collected 08/21/1995 in Russian Federation. Latitude 44 deg. 33' 30" N. Longitude 38 deg. 21' 48" E. Elevation 690 m. Province Novorossiysk, 10 km north of Michaelovski-Perival. Past logged, now grazed. Slope 0-5%, aspect NW. Light open. Soil clay, limestone/slate, shales, sandstones, pH 5.6-7.5. Seasonally dry, ridgetop, upper slope. Vegetation closed, evergreen broad-leafed herb vegetation. Surrounding vegetation open deciduous forest with closed lower layers. Dominant tree species *Quercus* sp. Dominant shrub species *Caprinus* sp., *Quercus* sp., *Ribes* sp. Dominant herb/grass species *Trifolium* sp., *Festuca pratensis*, *Poa* sp., *Potentilla* sp., *Medicago falcata*, *Onobrychis* sp., *Aster* sp., *Dactylis glomerata*, *Geranium* sp. Population distribution patchy. Growth habit erect. Flower red-purple. Extensive regional climate data available in spreadsheet format or image maps in raster format suitable for GIS analysis. Contact Dr. Stephanie L. Greene (sgreene@ars-grin.gov).

PI 604755. *Trifolium badium* Schreb.

Wild. 0057; W6 18434. Collected 08/31/1995 in Russian Federation. Latitude 43 deg. 54' 30'' N. Longitude 40 deg. 16' 0'' E. Elevation 1880 m. Province Maykop, 21 km southeast of Goozeripl'. Past grazed, now deferred. Slope 6-10%, aspect SE. Light 1/4 shade. Soil loam with gravel, pH 4.2-4.0. Moist, upper slope. Vegetation closed, open deciduous forest with closed lower layers. Surrounding vegetation evergreen tall grass. Dominant tree species *Betula* sp. Dominant shrub species *Laurocerasus* sp., *Rhododendron* sp. Dominant herb/grass species meadow transition *Heracleum* sp., *Festuca* sp., *Calamagrostis* sp. Population distribution patchy, abundance occasional. Growth habit erect. Flower yellow. Extensive regional climate data available in spreadsheet format or image maps in raster format suitable for GIS analysis. Contact Dr. Stephanie L. Greene (sgreene@ars-grin.gov).

PI 604756. *Trifolium ambiguum* M. Bieb.

Wild. A29; W6 18577. Collected 07/19/1995 in Russian Federation. Latitude 44 deg. 23' 49'' N. Longitude 40 deg. 33' 58'' E. Elevation 701 m. Province Maykop, 1 km. south of Benokova. Area grazed. Slope 0-5%, aspect W. Light open. Soil loam, clay, pH 5.5. Seasonally dry, mid slope. Surrounding vegetation open deciduous forest with closed lower layers. Dominant tree species Hornbeam-Oak. Doiminant shrub species *Carpinus* c., *Q. petraea*. Dominant herb/grass species *Asperula* sp., *Festuca* d. Population distribution patchy, abundance occasional. Growth habit prostrate. Extensive regional climate data available in spreadsheet format or image maps in raster format suitable for GIS analysis. Contact Dr. Stephanie L. Greene (sgreene@ars-grin.gov).

PI 604757. *Trifolium ambiguum* M. Bieb.

Wild. A67; W6 18587. Collected 07/30/1995 in Russian Federation. Latitude 44 deg. 26' 38'' N. Longitude 42 deg. 52' 39'' E. Elevation 335 m. Province Pyatigorsk, Kabardin-Balkarskaya Republic, 3 km southwest of Nagutskoye. Past logged, now grazed. Slope 0-5%, aspect S. Light open. Soil tertiary clays, pH neutral-slight basic. Seasonally dry, upper slope. Vegetation closed, evergreen tall grass. Surrounding veg. open deciduous forest with closed lower layers. Dominant tree species *Quercus robur*. Dominant shrub species *Caragana* sp., *Cerasus* sp. Dominant herb/grass species *Trifolium* sp., *Brachypodium* p., *Festuca* sp., *Stipa* sp. Population distribution patchy, abundance frequent. Growth habit prostrate. Extensive regional climate data available in spreadsheet format or image maps in raster format suitable for GIS analysis. Contact Dr. Stephanie L. Greene (sgreene@ars-grin.gov).

PI 604758. *Trifolium pratense* L.

Wild. 113; W6 18494. Collected 09/09/1995 in Karelia, Russian Federation . Latitude 43 deg. 15' 15'' N. Longitude 41 deg. 49' 43'' E. Elevation 2050 m. Province Teberda, Karachayevo-Cherkesskaya Republic, 30 km southeast of Teberda near Klukhor Pass to Georgia. Past grazed, now roadway. Slope 6-10%, aspect SW. Light 1/4 shade. Soil loam. Seasonally dry, upper slope, rock outcrop. Vegetation closed, open evergreen and deciduous forest with closed lower layers. Surrounding vegetation evergreen tall grass and broad-leafed herb vegetation. Dominant tree species *Pinus* sp., *Abies* sp., *Picea* sp., *Betula* sp. Dominant shrub species *Juniperus* sp., *Rhododendron* sp. Dominant herb/grass species

Achillea sp., *Alchemilla* sp., *Trifolium* sp., *Vicia* sp., *Lotus* c., *Hedysarum* h., *Agrostis* sp., *Calamagrostis* sp., *Phleum* p., *Dactylis* g., *Festuca* sp., *Deschampsia* c. Population distribution patchy, abundance occasional. Growth habit erect. Flower red. Extensive regional climate data available in spreadsheet format or image maps in raster format suitable for GIS analysis. Contact Dr. Stephanie L. Greene (sgreene@ars-grin.gov).

PI 604759. *Trifolium pratense* L.

Wild. W6 18535. Collected 09/24/1995 in Krasnodar, Russian Federation. Krasnodarskiy kray, nearest village is Krasnly, Dagestan. Now cut/grazed. Slope 0-6%. Open. Moist, ravine. Vegetation closed, seasonal short grass and broad-leafed herb vegetation. Dominant herb/grass species *Deschampsia* c., *Inula* h., *Plantago lanceolata*, *Leontodon caucasicum*, *Agrimonia eupatoria*. Population distribution uniform, abundance occasional. Growth habit spreading. Extensive regional climate data available in spreadsheet format or image maps in raster format suitable for GIS analysis. Contact Dr. Stephanie L. Greene (sgreene@ars-grin.gov).

PI 604760. *Trifolium repens* L.

Wild. M144a; W6 18402. Collected 08/22/1995 in Russian Federation. Latitude 43 deg. 52' 0'' N. Longitude 39 deg. 22' 0'' E. Elevation 5 m. Province Lazarevskoye-Sochi, south on river floodplain near Soloniki. Past logged, now roadway. Slope 0-5%, aspect S. Light open. Soil clay, parent rock limestone, pH basic. Moist, floodplain. Vegetation closed, open deciduous forest with closed lower layers. Surrounding vegetation evergreen tall grass. Dominant tree species *Quercus* sp., *Caprinus* sp. Dominant shrub species *Laurocerasus* sp. Dominant herb/grass species white clover, Bermuda grass, *Galega officinalis*. Population distribution patchy, abundance rare. Growth habit prostrate. Flower white. Extensive regional climate data available in spreadsheet format or image maps in raster format suitable for GIS analysis. Contact Dr. Stephanie L. Greene (sgreene@ars-grin.gov).

PI 604761. *Trifolium repens* L.

Wild. M146; W6 18404. Collected 08/22/1995 in Russian Federation. Latitude 43 deg. 50' 54'' N. Longitude 39 deg. 24' 32'' E. Elevation 15 m. Province Lazarevskoye-Souchi, 10 km east of Soloniki. Past logged, now grazed. Slope 11-40%, aspect S. Light open. Soil clay, parent rock limestone, pH 7.4-7.5. Seasonally dry, lower to mid slope. Vegetation closed, evergreen broad-leafed herb vegetation. Surrounding vegetation open deciduous forest with closed lower layers. Dominant tree species *Quercus* sp., *Carpinus* sp. Dominant shrub species *Laurocerasus* sp., *Ribes* sp. Dominant herb/grass species *Trifolium* sp., *Festuca pratensis*, *Agrimonia eupatoria*, *Vicia* sp., *Dorycnium intermedium*, *Senecio* sp., *Origionium regata*, *Coronilla varia*, *Geranium* sp., *Inula britannia*, *Daucus carota*, *Plantago* sp. Population abundance frequent. Growth habit prostrate. Flower white. Extensive regional climate data available in spreadsheet format or image maps in raster format suitable for GIS analysis. Contact Dr. Stephanie L. Greene (sgreene@ars-grin.gov).

PI 604762. *Trifolium medium* L.

Wild. 0058; W6 18436. Collected 09/01/1995 in Russian Federation. Latitude 43 deg. 58' 30'' N. Longitude 40 deg. 10' 18'' E. Elevation

1180 m. Province Maykop, 4 km southeast of Goozeripl'. Past logged, now roadway. Slope 0-5%, aspect SW. Light 3/4 shade. Soil loam, pH acid. Moist, ridgetop. Vegetation closed, open deciduous forest with closed lower layers. Surrounding vegetation evergreen tall grass. Dominant tree species *Abies* sp., *Fagus* sp., *Betula* sp. Dominant shrub species *Laurocerasus* sp., *Rhododendron* sp. Dominant herb/grass species weedy transition meadow to forest species. Population distribution patchy, abundance rare. Growth habit prostrate. Flower purple. Extensive regional climate data available in spreadsheet format or image maps in raster format suitable for GIS analysis. Contact Dr. Stephanie L. Greene (sgreene@ars-grin.gov).

PI 604763. *Trifolium repens* L.

Wild. 0215; W6 18348. Collected 08/03/1995 in Russian Federation. Latitude 44 deg. 22' 15'' N. Longitude 40 deg. 22' 52'' E. Elevation 549 m. Southeast of Maykop, 2 km. southeast of Novosvobodnaya. Past logged, now grazed. Slope 0-5 to 6-10%, aspect SW. Light open. Soil clay, pH 3.8-4.5. Moist to seasonally dry, upper slope. Vegetation closed, evergreen broad-leafed herb vegetation. Surrounding vegetation open deciduous forest with closed lower layers. Dominant shrub species *Carpinus* sp., *Q. petraea*. Dominant herb/grass species legume, *Trifolium*, *Lotus*, *Festuca pratensis*. Population distribution uniform, abundant. Growth habit prostrate. Flower white. Extensive regional climate data available in spreadsheet format or image maps in raster format suitable for GIS analysis. Contact Dr. Stephanie L. Greene (sgreene@ars-grin.gov).

PI 604764. *Trifolium repens* L.

Wild. M144; W6 18401. Collected 08/22/1995 in Russian Federation. Latitude 43 deg. 52' 0'' N. Longitude 39 deg. 22' 0'' E. Elevation 5 m. Province Lazarevskoye-Sochi, south on river floodplain near Soloniki. Past logged, now roadway. Slope 0-5%, aspect S. Light open. Soil clay, parent rock limestone, pH basic. Moist, floodplain. Vegetation closed, open deciduous forest with closed lower layers. Surrounding vegetation evergreen tall grass. Dominant tree species *Quercus* sp., *Caprinus* sp. Dominant shrub species *Laurocerasus* sp. Dominant herb/grass species white clover, Bermuda grass, *Galega officinalis*. Population abundance frequent. Growth habit prostrate. Flower white. Extensive regional climate data available in spreadsheet format or image maps in raster format suitable for GIS analysis. Contact Dr. Stephanie L. Greene (sgreene@ars-grin.gov).

PI 604765. *Trifolium ambiguum* M. Bieb.

Wild. 0097; W6 18477. Collected 09/06/1995 in Karelia, Russian Federation. Latitude 43 deg. 51' 30'' N. Longitude 41 deg. 54' 7'' E. Elevation 790 m. Province Karachayevo-Cherkesskaya Republic, 1 km northwest of Ordzhanikedeviskiy. Past and current grazing. Lower slope 6-10%, upper slope 41-60%, aspect SE. Light open. Soil sandy loam, sanstone rock outcrop, pH upper 5.8, lower 6.3-6.4. Seasonally dry, lower slope, rock outcrop. Vegetation closed, seasonal tall grass. Surrounding vegetation open deciduous forest with closed lower layers. Dominant tree species Beech, Oak, *Fagus* o., *Quercus* sp. Dominant shrub species *Artemisia* sp., *Rosa* sp. Dominant herb/grass species *Achillea* sp., *Medicago* sp., *Bothriochloa* i., *Festuca* v. Population distribution patchy, abundance occasinal. Growth habit prostrate. Flower white.

Extensive regional climate data available in spreadsheet format or image maps in raster format suitable for GIS analysis. Contact Dr. Stephanie L. Greene (sgreene@ars-grin.gov).

PI 604766. *Trifolium pratense* L.

Wild. W6 18568. Collected 09/20/1995 in Krasnodar, Russian Federation. Krasnodarskiy kray, nearest village is Temnolesskaya. Now logged. Slope 6-10%. 1/4 shade. Moist, mid slope. Vegetation closed, primary deciduous forest, scrub with scattered trees. Dominant tree species *Carpinus betulus*, *Quercus robur*, *Castanea vulgaris*. Dominant shrub species *Rosa* sp., *Corylus avellana*, *Salix caprea*. Dominant herb/grass species *Calamagrostis* sp., *Doricinium graecum*, *Trifolium medium*. Population distribution uniform, abundance rare. Growth habit spreading. Extensive regional climate data available in spreadsheet format or image maps in raster format suitable for GIS analysis. Contact Dr. Stephanie L. Greene (sgreene@ars-grin.gov).

PI 604767. *Trifolium badium* Schreb.

Wild. 107; W6 18489. Collected 09/08/1995 in Karelia, Russian Federation. Latitude 43 deg. 26' 27'' N. Longitude 41 deg. 41' 55'' E. Elevation 2200 m. Province Teberda, Karachayevo-Cherkesskaya Republic, 6.5 km west of Teberda. Area deferred. Slope 11-40%, aspect E. Light open. Soil loam with gravel. Moist, gravel bar, along stream bank, little soil formation. Vegetation closed, evergreen tall grass and broad-leafed herb vegetation. Surrounding vegetation open deciduous forest with closed lower layers. Dominant tree species *Betula* sp. Dominant shrub species *Rhododendron* sp., *Juniperus* sp. Dominant herb/grass species *Alchemilla* sp., *Geranium* sp., *Festuca* sp., *Deschampsia* sp. Population distribution patchy, abundance occasional. Growth habit erect. Flower yellow. Extensive regional climate data available in spreadsheet format or image maps in raster format suitable for GIS analysis. Contact Dr. Stephanie L. Greene (sgreene@ars-grin.gov).

PI 604768. *Trifolium repens* L.

Wild. A142; W6 18563. Collected 09/03/1995 in Russian Federation. Latitude 44 deg. 12' 30'' N. Longitude 40 deg. 15' 10'' E. Elevation 550 m. Province Maykop, 5 km southeast of Dakhovskaya. Past logged, now roadway. Slope 0-5%, aspect SE. Light open. Soil clay-loam upper to 25 cm, clay 25 cm, parent rock colluvial clays, pH 5.9-5.3 with depth. Seasonally dry, mid slope. Vegetation closed evergreen broad-leafed herb vegetation. Surrounding vegetation evergreen open forest with closed lower layers. Dominant tree species *Quercus robur*, *Quercus* sp., *Carpinus* c. Dominant shrub species *Rosa* sp. Dominant herb/grass species *Daucus* c., *Trifolium* sp., *Achillea* sp., *Geranium* sp., *Brachypodium* p., *Festuca* sp., *Calamagrostis* sp., *Agrostis* sp., *Phleum* p. Population distribution patchy, abundance occasional. Growth habit prostrate. Flower white. Extensive regional climate data available in spreadsheet format or image maps in raster format suitable for GIS analysis. Contact Dr. Stephanie L. Greene (sgreene@ars-grin.gov).

PI 604769. *Trifolium medium* L.

Wild. M151; W6 18408. Collected 08/22/1995 in Russian Federation. Latitude 43 deg. 44' 59'' N. Longitude 39 deg. 41' 1'' E. Elevation 300 m. Province Souchi, 12 km north of Dagomys, to west of site 78. Past logged, now grazed. Slope 11-40%, aspect SE. Light open. Soil clay,

parent rock limestone, schists/shale, pH 5.9-6.0. Filbert orchard. Moist, ridgetop, upper slope. Vegetation closed, open deciduous forest with closed lower layers. Surrounding vegetation evergreen tall grass. Dominant tree species *Quercus* sp., *Quercus robur*, *Carpinus* sp. Dominant shrub species *Laurocerasus* sp., *Ribes* sp. Dominant herb/grass species *Calamagrostis* sp., grass dominant, ferns, blackberry. Population abundance occasional. Growth habit erect, spreading. Flower purple. Extensive regional climate data available in spreadsheet format or image maps in raster format suitable for GIS analysis. Contact Dr. Stephanie L. Greene (sgreene@ars-grin.gov).

PI 604770. *Trifolium repens* L.

Wild. M162; W6 18418. Collected in Russian Federation. Latitude 43 deg. 37' 8'' N. Longitude 39 deg. 49' 14'' E. Elevation 100 m. Province Souchi, 2 km north of Ismyolfka/Metseska. Past logged, now grazed. Slope 0-5%, aspect S. Light open. Soil clay, limestone, schists on slopes, pH 6.9-7.0. Moist, floodplain. Vegetation closed, evergreen broad-leaved herb vegetation. Surrounding vegetation open deciduous forest with closed lower layers. Dominant tree species *Carpinus* sp., *Quercus* sp. Dominant shrub species *Sambucus* sp., *Ribes* sp., *Lauracerasus* sp. Dominant herb/grass species *Trifolium* sp., Bermuda grass, *Mentha arvensis*. Population abundance frequent. Growth habit prostrate. Flower white. Extensive regional climate data available in spreadsheet format or image maps in raster format suitable for GIS analysis. Contact Dr. Stephanie L. Greene (sgreene@ars-grin.gov).

PI 604771. *Trifolium pratense* L.

Wild. 0061; W6 18456. Collected 09/04/1995 in Russian Federation. Latitude 44 deg. 37' 7'' N. Longitude 40 deg. 29' 24'' E. Elevation 340 m. 1 km. east of Yeroslavskaya, 30+ km. east of Maykop. Area grazed. Slope 11-40%, aspect S. Light open. Soil clay, pH basic. Seasonally dry, lower slope. Vegetation closed, seasonal tall grass. Surrounding vegetation open deciduous forest with closed lower layers. Dominant tree species *Crataegus* sp., *Quercus* sp., *Monogyna*, *Pentagyna*. Dominant shrub species *Rosa* sp., *Prunus* sp. Dominant herb/grass species *Achillea* sp., *Daucus* c., thistle, bindweed, chicory, *Bothriochloa* i., *Cynodon* d. Population distribution patchy, abundance occasional. Growth habit erect. Flower red. Extensive regional climate data available in spreadsheet format or image maps in raster format suitable for GIS analysis. Contact Dr. Stephanie L. Greene (sgreene@ars-grin.gov).

PI 604772. *Trifolium pratense* L.

Wild. W6 18544. Collected 10/03/1995 in Krasnodar, Russian Federation. Krasnodarskiy kray, nearest village is Verhnie Tuby. Slope 6-11%, aspect SW. Open. Moist, upper slope. Vegetation closed, seasonal tall grass. Dominant herb/grass species *Dactylis glomerata*, *Inula helenium*, *Cirsium caput-medusae*, *Geranium* sp., *Brachypodium*. Population distribution uniform (near path), abundance occasional. Growth habit spreading. Extensive regional climate data available in spreadsheet format or image maps in raster format suitable for GIS analysis. Contact Dr. Stephanie L. Greene (sgreene@ars-grin.gov).

PI 604773. *Trifolium pratense* L.

Wild. A132; W6 18562. Collected in Dagestan, Russian Federation. Latitude 43 deg. 43' 20'' N. Longitude 39 deg. 40' 19'' E. Elevation 90

m. Province Dagomys-Babuk (Souchi), 2 km north of Volafka, along river. Past logged, now settlement. Slope 6-10%, aspect E, SE. Light 1/4 shade. Soil clay, parent rock clays, schists, pH 4.5-4.6. Seasonally dry, upper slope. Vegetation closed, evergreen broad-leafed herb vegetation. Surrounding vegetation open deciduous forest with closed lower layers. Dominant tree species *Carpinus* sp., *Quercus* sp. Dominant shrub species *Laurocerasus* sp. Dominant herb/grass species ferns, *Trifolium* sp., *Lotus corniculatus*, Alien sorghum, Johnson grass. Population abundance occasional. Growth habit erect. Flower red. Extensive regional climate data available in spreadsheet format or image maps in raster format suitable for GIS analysis. Contact Dr. Stephanie L. Greene (sgreene@ars-grin.gov).

PI 604774. *Trifolium repens* L.

Wild. M167; W6 18423. Collected 08/23/1995 in Russian Federation. Latitude 43 deg. 52' 58'' N. Longitude 39 deg. 22' 18'' E. Elevation 440 m. Tea's plantation near Ismailovka. Cultivated near road. 1/4 shade (tea shrubs). Soil loam, pH 4.6-6.3. Moist. Vegetation closed, tea shrubs, grasses, clovers (*T. bonnanii*, *T. pratense*, *T. repens*). Population abundance frequent. Growth habit prostrate. Flower white. Extensive regional climate data available in spreadsheet format or image maps in raster format suitable for GIS analysis. Contact Dr. Stephanie L. Greene (sgreene@ars-grin.gov).

The following were developed by North American Plant Breeders, Inc., Ames, Iowa, United States. Received 1976.

PI 604775. *Hordeum vulgare* L. subsp. *vulgare*

Cultivar. "LUD". PVP 7500001.

The following were donated by Nichol's Garden Nursery, 1190 North Pacific Highway, Albany, Oregon 97321-4580, United States. Received 01/22/1997.

PI 604776. *Perilla frutescens* (L.) Britton

Cultivated. "Perilla Green"; "Shisho"; Ames 23591. Green cinnamon scented leaves are used in Japanese and Korean cookery.

The following were donated by Tamotsu Hanaoka, Hokkaido Takushku Jr. College, 14-15 Nishioka 5-14, Toyohira-ku, Sapporo, Hokkaido, Japan. Received 02/09/1990.

PI 604777. *Spinacia oleracea* L.

Cultivar. "Sapporo Ohba"; Ames 12720.

PI 604778. *Spinacia oleracea* L.

Cultivar. "New Asia"; Ames 12721. A standard (non-hybrid) variety.

PI 604779. *Spinacia oleracea* L.

Cultivar. "Supahku"; Ames 12722. The original seed sample was marked "F1". The seeds distributed were grown from the F1 seeds and therefore could segregate.

PI 604780. *Spinacia oleracea* L.

Cultivar. "Yuhparo"; Ames 12723. The original seed sample was marked "F1". The seeds distributed were grown from the F1 seeds and therefore could segregate.

The following were donated by Seeds of Change, P.O. Box 15700, Sante Fe, New Mexico 87506, United States. Received 03/11/1996.

PI 604781. *Chenopodium ambrosioides* L.

Cultivated. 807; Epazote; Ames 22770. Traditional, medicinal, Mexican tea herb said to kill intestinal worms. Also used as a spice for black beans.

The following were donated by Institut fur Pflanzengenetik und Kulturpflanzenforschung, Genebank, Corrensstrasse 3, Gatersleben, Saxony-Anhalt D-06466, Germany. Received 02/05/1997.

PI 604782. *Spinacia oleracea* L.

Cultivated. SPI 12/76; Ames 23653. Collected 1935 in Jowzjan, Afghanistan. Latitude 36 deg. 54' 0'' N. Longitude 66 deg. 16' 0'' E. Hindu Kush, Turkistan. Hilly land.

PI 604783. *Spinacia oleracea* L.

Cultivated. SPI 13/79; Ames 23654. Collected 1935 in Afghanistan.

PI 604784. *Spinacia oleracea* L.

Cultivated. SPI 14/79; Ames 23655. Collected 1935 in Afghanistan.

PI 604785. *Spinacia oleracea* L.

Cultivated. SPI 161/86; Ames 23656. Collected 07/17/1985 in Mongolia. Latitude 48 deg. 1' 0'' N. Longitude 91 deg. 38' 0'' E. Khovd (Dund-Us), center of Hovd Aymag (province). Harvested from a house garden. Seed round.

The following were donated by N.I. Vavilov All-Russian Scientific Research, Institute of Plant Genetic Resources, 44 Bolshaya Morskaya Street, St. Petersburg, Leningrad 190000, Russian Federation; Institut fur Pflanzengenetik und Kulturpflanzenforschung, Genebank, Corrensstrasse 3, Gatersleben, Saxony-Anhalt D-06466, Germany. Received 02/05/1997.

PI 604786. *Spinacia oleracea* L.

Wild. SPI 62/78; VIR 553; K 3967; Ames 23657. Collected in Nepal.

The following were donated by Institut fur Pflanzengenetik und Kulturpflanzenforschung, Genebank, Corrensstrasse 3, Gatersleben, Saxony-Anhalt D-06466, Germany. Received 02/05/1997.

PI 604787. *Spinacia oleracea* L.

Wild. SPI 108/79; Ames 23658. Collected 1935 in Jowzjan, Afghanistan. Latitude 36 deg. 54' 0'' N. Longitude 66 deg. 16' 0'' E. Hindu Kush, Turkistan. Hilly land.

PI 604788. *Spinacia oleracea* L.
Wild. SPI 109/93; Ames 23659. Collected 1935 in Afghanistan.

PI 604789. *Spinacia oleracea* L.
Wild. SPI 110/76; Ames 23660. Collected 1935 in Afghanistan.

PI 604790. *Spinacia oleracea* L.
Wild. SPI 111/80; Ames 23661. Collected 1935 in Afghanistan.

PI 604791. *Spinacia oleracea* L.
Wild. SPI 114/81; Ames 23663. Collected 1935 in Afghanistan.

The following were donated by Institut für Pflanzengenetik und Kulturpflanzenforschung, Genebank, Corrensstrasse 3, Gatersleben, Saxony-Anhalt D-06466, Germany; Universität Potsdam, Botanischer Garden, Maulbeerallee 2, Potsdam, Berlin 14469, Germany. Received 02/05/1997.

PI 604792. *Spinacia turkestanica* Iljin
Cultivated. SPI 155/83; Ames 23665.

The following were developed by Lloyd M. Callahan, University of Tennessee, Dept. of Ornamental Horticulture & Landscape Design, Plant Science Bldg. 259, Knoxville, Tennessee 37996-4500, United States. Received 10/05/1998.

PI 604793. *Eremochloa ophiuroides* (Munro) Hack.
Cultivar. "TennTurf"; A-84. CV-194. Pedigree - Originally found growing in a lawn in Chattanooga, TN that regrew over the lawn from a single sprig surviving the winter of 1955-1956. Uniquely cold hardy and the only proven true cold hardy centipede grass cultivar known and presently available. Evaluated at 120m, 230m, 290m, and over 600m elevations with practically 100% sod survival even at winter temperatures from -17 to -31 deg. C. Diploid (2n=18) lawn type turfgrass well suited to poor soils, a low pH (4.5 to 5.5), and low fertility (only 1 pound N/1,000 sq. ft./year). Although adaptable throughout the southern region of U.S., particularly advantageous for use in the upper south and at higher elevations. Color light green, normal growing height, and has good resistance to disease and insects. Best use is full sun, but will tolerate light shade. Viable seed but is being released only for vegetative plantings to protect the genetic factors contributing to its cold tolerance.

The following were collected by Martinez A. Godinez, DTO y Unids, De Temp. III, Guauhtemoc sur No. 105, Tulancingo, Hidalgo, Mexico. Donated by Rodale Research Center, Rodale Press, Box 323, RD 1, Kutztown, Pennsylvania 19530, United States. Received 04/15/1986.

PI 604794. *Amaranthus hypochondriacus* L.
Uncertain. RRC 1190; Ames 5663. Collected 12/01/1983 in Mexico. Unusual attractive red speckles on the blades. The red speckles are unusual because they are numerous, large, and they persist throughout the life of the plant. Seeds black, flowers red. Flowering is late enough that

seed production is unlikely in Ames, Iowa.

The following were collected by Walter J. Kaiser, USDA, ARS, Washington State University, Regional Plant Introduction Station, Pullman, Washington 99164-6402, United States; Fred J. Muehlbauer, USDA, ARS, Washington State University, Grain Legume Genetics & Phys. Res. Unit, Pullman, Washington 99164-6434, United States; Calvin R. Sperling, USDA, ARS, Natl. Germplasm Resources Laboratory, Room 402, Building 003, BARC-West, Beltsville, Maryland 20705-2350, United States; Z. Kutlu. Donated by Walter J. Kaiser, USDA, ARS, Washington State University, Regional Plant Introduction Station, Pullman, Washington 99164-6402, United States. Received 06/26/1991.

PI 604795. *Melilotus albus* Medik.

Wild. 110689-0202; W6 167; Ames 18070. Collected 06/11/1989 in Siirt, Turkey. Latitude 37 deg. 46' N. Longitude 42 deg. 8' E. Elevation 1100 m. 5 km west of Erüh on Siirt-Erüh road. Northeast facing slope (30-35%), newly reforested, formerly grazed. Loose, rocky limestone soil. In Ames, Iowa, where this accession was grown in 1995, plants were 60 cm tall, and reached the 50% blossom stage on June 23.

The following were collected by R.R. Harwood, Winrock International, Petit Jean Mt., Morrilton, Arkansas 72110, Morrilton, Arkansas, United States. Donated by Rodale Research Center, Rodale Press, Box 323, RD 1, Kutztown, Pennsylvania 19530, United States. Received 02/20/1981.

PI 604796. *Amaranthus hypochondriacus* L.

Cultivated. RRC 147; RRC 78S-147; Ames 2084. Collected 09/01/1977 in Unknown. Has performed well as a vegetable in South Africa. Seeds white, foliage and flowers green, and the RRC class type is NEPAL.

The following were donated by W. C. Gregory, North Carolina State University, Department of Crop Science, Raleigh, North Carolina 27695-7629, United States. Received 10/13/1993.

PI 604797. *Arachis pintoi* Krapov. & W. C. Greg.

W-34-2 gah; Grif 1204.

The following were collected by Jose F. M. Valls, EMBRAPA, CENARGEN, SAIN Parque Rural - C.P. 10.2372, CEP 70.770, Brasilia, Federal District 70770, Brazil; C.M. Pizarro, Ministerio de Agricultura, Santiago, Santiago, Chile; Wantuil L. Werneck, CENARGEN / EMBRAPA, Brasilia, Federal District, Brazil; R.O. Vanni. Donated by Charles E. Simpson, Texas A&M University, P. O. Box 292, Stephenville, Texas 76401, United States; Roy N. Pittman, USDA, ARS, University of Georgia, Plant Genetic Resources Conservation Unit, Griffin, Georgia 30223-1797, United States; David E. Williams, USDA, ARS, Natl. Germplasm Resources Laboratory, Building 003, Room 400, BARC-West, Beltsville, Maryland 20705-2350, United States. Received 12/09/1993.

PI 604798. *Arachis pintoi* Krapov. & W. C. Greg.

13150; Grif 7459. Collected in Brazil.

PI 604799. *Arachis pintoii* Krapov. & W. C. Greg.
13151; Grif 7460. Collected in Brazil.

PI 604800. *Arachis pintoii* Krapov. & W. C. Greg.
13172; Grif 7467. Collected in Brazil.

PI 604801. *Arachis pintoii* Krapov. & W. C. Greg.
13173; Grif 7468. Collected in Brazil.

PI 604802. *Arachis pintoii* Krapov. & W. C. Greg.
13182; Grif 7470. Collected in Brazil.

PI 604803. *Arachis pintoii* Krapov. & W. C. Greg.
13198; Grif 7475. Collected in Brazil.

PI 604804. *Arachis pintoii* Krapov. & W. C. Greg.
13200; Grif 7476. Collected in Brazil.

PI 604805. *Arachis pintoii* Krapov. & W. C. Greg.
13211; Grif 7478. Collected in Brazil.

The following were collected by Charles E. Simpson, Texas A&M University, P. O. Box 292, Stephenville, Texas 76401, United States; Jose F. M. Valls, EMBRAPA, CENARGEN, SAIN Parque Rural - C.P. 10.2372, CEP 70.770, Brasilia, Federal District 70770, Brazil; Roy N. Pittman, USDA, ARS, University of Georgia, Plant Genetic Resources Conservation Unit, Griffin, Georgia 30223-1797, United States; David E. Williams, USDA, ARS, Natl. Germplasm Resources Laboratory, Building 003, Room 400, BARC-West, Beltsville, Maryland 20705-2350, United States; Glocimar P. de Silva, CENARGEN/EMBRAPA, Brasilia, Federal District, Brazil. Donated by Charles E. Simpson, Texas A&M University, P. O. Box 292, Stephenville, Texas 76401, United States; Roy N. Pittman, USDA, ARS, University of Georgia, Plant Genetic Resources Conservation Unit, Griffin, Georgia 30223-1797, United States; David E. Williams, USDA, ARS, Natl. Germplasm Resources Laboratory, Building 003, Room 400, BARC-West, Beltsville, Maryland 20705-2350, United States. Received 12/09/1993.

PI 604806. *Arachis pintoii* Krapov. & W. C. Greg.
13275; Grif 7486. Collected in Brazil.

The following were collected by Charles E. Simpson, Texas A&M University, P. O. Box 292, Stephenville, Texas 76401, United States; Jose F. M. Valls, EMBRAPA, CENARGEN, SAIN Parque Rural - C.P. 10.2372, CEP 70.770, Brasilia, Federal District 70770, Brazil; C.M. Pizarro, Ministerio de Agricultura, Santiago, Santiago, Chile; Roy N. Pittman, USDA, ARS, University of Georgia, Plant Genetic Resources Conservation Unit, Griffin, Georgia 30223-1797, United States; David E. Williams, USDA, ARS, Natl. Germplasm Resources Laboratory, Building 003, Room 400, BARC-West, Beltsville, Maryland 20705-2350, United States; Glocimar P. de Silva, CENARGEN/EMBRAPA, Brasilia, Federal District, Brazil. Donated by Charles E. Simpson, Texas A&M University, P. O. Box 292, Stephenville, Texas 76401, United States; Roy N. Pittman, USDA, ARS, University of Georgia, Plant Genetic Resources Conservation Unit, Griffin, Georgia 30223-1797, United States; David E.

Williams, USDA, ARS, Natl. Germplasm Resources Laboratory, Building 003, Room 400, BARC-West, Beltsville, Maryland 20705-2350, United States. Received 12/09/1993.

PI 604807. *Arachis pintoi* Krapov. & W. C. Greg.
13282; Grif 7487. Collected in Brazil.

PI 604808. *Arachis pintoi* Krapov. & W. C. Greg.
13288; Grif 7489. Collected in Brazil.

PI 604809. *Arachis pintoi* Krapov. & W. C. Greg.
13294; Grif 7491. Collected in Brazil.

PI 604810. *Arachis pintoi* Krapov. & W. C. Greg.
13298; Grif 7493. Collected in Brazil.

PI 604811. *Arachis pintoi* Krapov. & W. C. Greg.
13310; Grif 7497. Collected in Brazil.

PI 604812. *Arachis pintoi* Krapov. & W. C. Greg.
13312; Grif 7498. Collected in Brazil.

PI 604813. *Arachis pintoi* Krapov. & W. C. Greg.
13315; Grif 7499. Collected in Brazil.

The following were donated by Charles E. Simpson, Texas A&M University, P. O. Box 292, Stephenville, Texas 76401, United States; Roy N. Pittman, USDA, ARS, University of Georgia, Plant Genetic Resources Conservation Unit, Griffin, Georgia 30223-1797, United States; David E. Williams, USDA, ARS, Natl. Germplasm Resources Laboratory, Building 003, Room 400, BARC-West, Beltsville, Maryland 20705-2350, United States. Received 12/09/1993.

PI 604814. *Arachis pintoi* Krapov. & W. C. Greg.
17434; Grif 7501. Collected in Brazil.

The following were collected by Wantuil L. Werneck, CENARGEN / EMBRAPA, Brasilia, Federal District, Brazil. Donated by Charles E. Simpson, Texas A&M University, P. O. Box 292, Stephenville, Texas 76401, United States. Received 12/09/1993.

PI 604815. *Arachis pintoi* Krapov. & W. C. Greg.
47; Grif 7508. Collected in Brazil.

The following were collected by Charles E. Simpson, Texas A&M University, P. O. Box 292, Stephenville, Texas 76401, United States; Jose F. M. Valls, EMBRAPA, CENARGEN, SAIN Parque Rural - C.P. 10.2372, CEP 70.770, Brasilia, Federal District 70770, Brazil; Wantuil L. Werneck, CENARGEN / EMBRAPA, Brasilia, Federal District, Brazil. Donated by Charles E. Simpson, Texas A&M University, P. O. Box 292, Stephenville, Texas 76401, United States. Received 12/09/1993.

PI 604816. *Arachis repens* Handro

6673; Grif 7520. Collected in Brazil.

PI 604817. *Arachis pintoii* Krapov. & W. C. Greg.
6741; Grif 7522. Collected in Brazil.

The following were collected by Jose F. M. Valls, EMBRAPA, CENARGEN, SAIN Parque Rural - C.P. 10.2372, CEP 70.770, Brasilia, Federal District 70770, Brazil. Donated by Charles E. Simpson, Texas A&M University, P. O. Box 292, Stephenville, Texas 76401, United States. Received 12/09/1993.

PI 604818. *Arachis pintoii* Krapov. & W. C. Greg.
7529; Grif 7535. Collected in Brazil.

The following were collected by Jose F. M. Valls, EMBRAPA, CENARGEN, SAIN Parque Rural - C.P. 10.2372, CEP 70.770, Brasilia, Federal District 70770, Brazil; V. R. Rao, Int. Crops Res. Inst. for the Semi-Arid Tropics, Patancheru, Andhra Pradesh, India; M.A.N. Gerin; Glocimar P. de Silva, CENARGEN/EMBRAPA, Brasilia, Federal District, Brazil. Donated by Charles E. Simpson, Texas A&M University, P. O. Box 292, Stephenville, Texas 76401, United States. Received 12/09/1993.

PI 604819. *Arachis cryptopotamica* Krapov. & W. C. Greg.
7563; Grif 7545. Collected in Brazil.

PI 604820. *Arachis cryptopotamica* Krapov. & W. C. Greg.
7590; Grif 7554. Collected in Brazil.

PI 604821. *Arachis major* Krapov. & W. C. Greg.
7628; Grif 7566. Collected in Brazil.

PI 604822. *Arachis glabrata* Benth. var. *glabrata*
7641; Grif 7572. Collected in Brazil.

The following were collected by H. Thomas Stalker, North Carolina State University, Department of Crop Science, P. O. Box 7629, Raleigh, North Carolina 27695-7629, United States; Charles E. Simpson, Texas A&M University, P. O. Box 292, Stephenville, Texas 76401, United States; Jose F. M. Valls, EMBRAPA, CENARGEN, SAIN Parque Rural - C.P. 10.2372, CEP 70.770, Brasilia, Federal District 70770, Brazil; Wantuil L. Werneck, CENARGEN / EMBRAPA, Brasilia, Federal District, Brazil; Ignacio Godoy, IAC, Campinas, Sao Paulo, Brazil. Donated by Charles E. Simpson, Texas A&M University, P. O. Box 292, Stephenville, Texas 76401, United States. Received 12/09/1993.

PI 604823. *Arachis burchellii* Krapov. & W. C. Greg.
7868; Grif 7598. Collected in Brazil.

The following were collected by Charles E. Simpson, Texas A&M University, P. O. Box 292, Stephenville, Texas 76401, United States; Jose F. M. Valls, EMBRAPA, CENARGEN, SAIN Parque Rural - C.P. 10.2372, CEP 70.770, Brasilia, Federal District 70770, Brazil; A. Krapovickas, Facultad de Agronomia y Veterinaria, Genetic Gardens, Universidad Nacional del Nordeste, Corrientes,

Corrientes, Argentina; Glocimar P. de Silva, CENARGEN/EMBRAPA, Brasilia, Federal District, Brazil. Donated by Charles E. Simpson, Texas A&M University, P. O. Box 292, Stephenville, Texas 76401, United States. Received 12/09/1993.

PI 604824. *Arachis simpsonii* Krapov. & W. C. Greg.
8900; Grif 7662. Collected in Brazil.

PI 604825. *Arachis subcoriacea* Krapov. & W. C. Greg.
8920; Grif 7665. Collected in Brazil.

PI 604826. *Arachis subcoriacea* Krapov. & W. C. Greg.
8922; Grif 7667. Collected in Brazil.

PI 604827. *Arachis kuhlmannii* Krapov. & W. C. Greg.
8979; Grif 7673. Collected in Brazil.

The following were collected by Jose F. M. Valls, EMBRAPA, CENARGEN, SAIN Parque Rural - C.P. 10.2372, CEP 70.770, Brasilia, Federal District 70770, Brazil; Pott; Bianchetti. Donated by Charles E. Simpson, Texas A&M University, P. O. Box 292, Stephenville, Texas 76401, United States. Received 12/09/1993.

PI 604828. *Arachis appressipila* Krapov. & W. C. Greg.
9077; Grif 7681. Collected in Brazil.

PI 604829. *Arachis diogoi* Hoehne
9147o; Grif 7686. Collected in Brazil.

PI 604830. *Arachis matiensis* Krapov. et al.
9350; Grif 7695. Collected in Brazil.

PI 604831. *Arachis kuhlmannii* Krapov. & W. C. Greg.
9394; Grif 7699. Collected in Brazil.

PI 604832. *Arachis major* Krapov. & W. C. Greg.
9468; Grif 7702. Collected in Brazil.

The following were collected by Charles E. Simpson, Texas A&M University, P. O. Box 292, Stephenville, Texas 76401, United States; Jose F. M. Valls, EMBRAPA, CENARGEN, SAIN Parque Rural - C.P. 10.2372, CEP 70.770, Brasilia, Federal District 70770, Brazil; Wantuil L. Werneck, CENARGEN / EMBRAPA, Brasilia, Federal District, Brazil. Donated by Charles E. Simpson, Texas A&M University, P. O. Box 292, Stephenville, Texas 76401, United States. Received 12/09/1993.

PI 604833. *Arachis kretschmeri* Krapov. & W. C. Greg.
9889; Grif 7709. Collected in Brazil.

The following were donated by Jose F. M. Valls, EMBRAPA, CENARGEN, SAIN Parque Rural - C.P. 10.2372, CEP 70.770, Brasilia, Federal District 70770, Brazil. Received 12/27/1993.

- PI 604834. *Arachis benthamii* Handro
V 7578; BRA-017213; Grif 11971. Section Erectoides.
- PI 604835. *Arachis paraguariensis* Chodat & Hassl.
V 7669; BRA-017582; Grif 11974. Section Erectoides.
- PI 604836. *Arachis paraguariensis* Chodat & Hassl.
V 7671; BRA-017591; Grif 11975. Section Erectoides.
- PI 604837. *Arachis paraguariensis* Chodat & Hassl.
V 7677; BRA-017621; Grif 11976. Section Erectoides.
- PI 604838. *Arachis paraguariensis* Chodat & Hassl. **subsp. paraguariensis**
KCF 11488; BRA-013234; Grif 11978. Section Erectoides.
- PI 604839. *Arachis villosulicarpa* Hoehne
MdW 1022; BRA-022756; Grif 11988. Section Extranervosae.
- PI 604840. *Arachis villosulicarpa* Hoehne
V 8820; BRA-020508; Grif 11992. Section Extranervosae.
- PI 604841. *Arachis oteroi* Krapov. & W. C. Greg.
V 7718; BRA-017817; Grif 11994. Section Erectoides.
- PI 604842. *Arachis major* Krapov. & W. C. Greg.
V 7644; BRA-017540; Grif 11996. Section Erectoides (Aquidauana).
- PI 604843. *Arachis archeri* Krapov. & W. C. Greg.
V 7614; BRA-017396; Grif 11998. Section Erectoides (Campo Grande).
- PI 604844. *Arachis archeri* Krapov. & W. C. Greg.
V 7619; BRA-017426; Grif 11999. Section Erectoides (Campo Grande).
- PI 604845. *Arachis hermannii* Krapov. & W. C. Greg.
V 7555; BRA-017141; Grif 12000. Section Erectoides (Coxim).
- PI 604846. *Arachis hermannii* Krapov. & W. C. Greg.
V 7594; BRA-022811; Grif 12002. Section Erectoides (Coxim).
- PI 604847. *Arachis hermannii* Krapov. & W. C. Greg.
V 10426; BRA-022811; Grif 12003. Section Erectoides (Coxim).
- PI 604848. *Arachis cryptopotamica* Krapov. & W. C. Greg.
V 7574; BRA-017205; Grif 12007. Section Erectoides (Rio Escondido).
- PI 604849. *Arachis cryptopotamica* Krapov. & W. C. Greg.
V 7588; BRA-017256; Grif 12008. Section Erectoides (Rio Escondido).
- PI 604850. *Arachis macedoi* Krapov. & W. C. Greg.
V 7533; BRA-020516; Grif 12013. Section Extranervosae.
- PI 604851. *Arachis macedoi* Krapov. & W. C. Greg.
V 13317; BRA-031011; Grif 12014. Section Extranervosae.

- PI 604852. *Arachis burchellii*** Krapov. & W. C. Greg.
V 7805; BRA-018171; Grif 12018. Section Extranervosae (Araguaina).
- PI 604853. *Arachis burchellii*** Krapov. & W. C. Greg.
V 12618; BRA-030783; Grif 12026. Section Extranervosae (Araguaina).
- PI 604854. *Arachis burchellii*** Krapov. & W. C. Greg.
V 12627; BRA-030791; Grif 12027. Section Extranervosae (Araguaina).
- PI 604855. *Arachis pietrarella*** Krapov. & W. C. Greg.
V 7784 (=V 12517); BRA-018121; Grif 12030. Section Extranervosae (Nobres).

The following were donated by Rigoberto Hidalgo, International Center for Tropical Agriculture, Genetic Resources Unit, Apdo aereo 6713, Cali, Valle, Colombia. Received 05/1993.

- PI 604856. *Arachis pinto*** Krapov. & W. C. Greg.
18746; Grif 12040. Collected 1991 in Colombia.
- PI 604857. *Arachis pinto*** Krapov. & W. C. Greg.
18747; Grif 12041. Collected 1990 in Costa Rica.
- PI 604858. *Arachis pinto*** Krapov. & W. C. Greg.
18748; Grif 12042. Collected 1991 in Colombia.

The following were donated by Renato F A Veiga, Instituto Agronomico, Sistema de Introducao e Quarentena, Caixa Postal 28, Campinas, Sao Paulo 13001, Brazil. Received 11/01/1993.

- PI 604859. *Arachis pinto*** Krapov. & W. C. Greg.
W-34; Grif 12059.

The following were developed by William J. Sando, USDA-BPI, Division of Cereal Crops & Diseases, Washington, District of Columbia, United States. Received 03/01/1998.

- PI 604860. *Triticum* hybrid**
Breeding. Sando Selection 210; NSGC 6571. Pedigree - Arlando/T.timopheevii//Early Blackhull/Hard Federation/Sando A emmer 413 . One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between *Triticum*, *Agropyron* (*Elytrigia*), *Aegilops*, and *Secale*. Spring habit. Free-threshing.
- PI 604861. *Triticum* hybrid**
Breeding. Sando Selection 94; NSGC 6572. Pedigree - Arlando/T.timopheevii//Forward//Hope/Baart. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between *Triticum*, *Agropyron* (*Elytrigia*), *Aegilops*, and *Secale*. Spring habit. Free-threshing.
- PI 604862. *Triticum* hybrid**

Breeding. Sando Selection 683; NSGC 6573. Pedigree - Arlando/T.timopheevii//Hybrid X/Persicum fulginosum P37-1(52). One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 604863. Triticum hybrid

Breeding. Sando Selection 211; NSGC 6574. Pedigree - Asosan T.vulgare/Sando A emmer 413. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 604864. Triticum hybrid

Breeding. Sando Selection 780; NSGC 6575. Pedigree - Asosan//T.vulgare/A. emmer 413) Sac3985(53). One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 604865. Triticum hybrid

Breeding. Sando Selection 567; NSGC 6576. Pedigree - Black Hawk/T.macha/T.timopheevii/Rudy/Trumbull/Fultz Selection/Hungarian. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 604866. Triticum hybrid

Breeding. Sando Selection 222; NSGC 6577. Pedigree - Brb Awn durum P614(49) = Mindum/Ttimopheevii//Mindum/Persicum fulginosum. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 604867. Triticum hybrid

Breeding. Sando Selection 638; NSGC 6578. Pedigree - Fulhio/Yaroslav emmer//Arlando/Pilot. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 604868. Triticum hybrid

Breeding. Sando Selection 637; NSGC 6579. Pedigree - Fulhio/Yaroslav emmer//Leapland/Minhardi. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 604869. Triticum hybrid

Breeding. Sando Selection 624; NSGC 6580. Pedigree - Fulhio/Yaroslav emmer. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 604870. Triticum hybrid

Breeding. Sandø Selection 170; NSGC 6581. Pedigree - Fulhio/Yaroslav emmer//Fulcaster//Oro/Turkey/Florence No. 2. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 604871. Triticum hybrid

Breeding. Sandø Selection 481; NSGC 6582. Pedigree - Fulhio/Yaroslav emmer//Leapland/Minhardi. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 604872. Triticum hybrid

Breeding. Sandø Selection 772; NSGC 6583. Pedigree - K32192 self-2-8-3-4 BrK Br502(56). One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing. Purple seed.

PI 604873. Triticum hybrid

Breeding. Sandø Selection 674; NSGC 6584. Pedigree - Mck Pot13(54) T.vulgare. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing. Blue seed.

PI 604874. Triticum hybrid

Breeding. Sandø Selection 232; NSGC 6585. Pedigree - Michigan Amber/Sandø Awnless emmer 413. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 604875. Triticum hybrid

Breeding. Sandø Selection 740; NSGC 6586. Pedigree - Purdue 7/Mck Sandø43(52)/Taylor RR/Michigan Amber P123-2(53). One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 604876. Triticum hybrid

Breeding. Sandø Selection 294; NSGC 6587. Pedigree - Sandø Awnless emmer 413/T.persicum. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 604877. Triticum hybrid

Breeding. Sandø Selection 556; NSGC 6588. Pedigree - Stewart durum/Emerson A/tip durum Sac 672. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 604878. Triticum hybrid

Breeding. Sando Selection 200; NSGC 6589. Pedigree - T.vulgare flat & sharp keel Sac 193 P112(50). One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 604879. Triticum hybrid

Breeding. Sando Selection 660; NSGC 6590. Pedigree - T.vulgare Lowther 323M(51). One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing. Some blue seed.

PI 604880. Triticum hybrid

Breeding. Sando Selection 218; NSGC 6591. Pedigree - Thatcher/T.vulgare Tay.vol.//Tay.P127(50) =Steintim/Red Wonder & others. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 604881. Triticum hybrid

Breeding. Sando Selection 23; NSGC 6592. Pedigree - Trumbull/Caldwell 256/Khapli emmer. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 604882. Triticum hybrid

Breeding. Sando Selection 129; NSGC 6593. Pedigree - Trumbull/Caldwell 256/Khapli emmer. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 604883. Triticum hybrid

Breeding. Sando Selection 238; NSGC 6594. Pedigree - Trumbull/Caldwell Selection T.vulgare//Khapli emmer. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 604884. X Aegilotriticum sp.

Breeding. Sando Selection 463; NSGC 6595. Pedigree - Aegilops longissima/W.Polish amphidiploid//Webster. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 604885. X Aegilotriticum sp.

Breeding. Sando Selection 464; NSGC 6596. Pedigree - Aegilops longissima/W.Polish amphidiploid//Webster. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 604886. X Aegilotriticum sp.

Breeding. Sando Selection 585; NSGC 6597. Pedigree - Blackhull/Aegilops turcomanica/P.K. durum Ab14(38). One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 604887. X Aegilotriticum sp.

Breeding. Sando Selection 557; NSGC 6598. Pedigree - Fulhio//Aegilops longissima/T.persicum amphidiploid P321(52). One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 604888. X Aegilotriticum sp.

Breeding. Sando Selection 586; NSGC 6599. Pedigree - Harvest Queen/Aegilops turcomanica/P.K. durum Ab14(38). One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 604889. X Aegilotriticum sp.

Breeding. Sando Selection 840; NSGC 6600. Pedigree - Johnson T17(48) Tap Bed//Aegilops ventricosa/T.orientale 40445-1. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 604890. X Aegilotriticum sp.

Breeding. Sando Selection 839; NSGC 6601. Pedigree - Johnson T17(48) Tap Bed//Aegilops ventricosa/Turgidum Alaska amphidiploid Sac169(47). One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 604891. X Elytricum sp.

Breeding. Sando Selection 274; NSGC 6602. Pedigree - Arlando//Rising Sun/Agropyron elongatum//Illini Chief//Chinese/Agropyron elongatum//Federation/Kinney/Prelude//Carala. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 604892. X Elytricum sp.

Breeding. Sando Selection 203; NSGC 6603. Pedigree - Arlando/T.timopheevii//Hope/Baart//Chinese/Agropyron elongatum//Federation/Kinney/Prelude//Carala*2. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 604893. X Elytricum sp.

Breeding. Sando Selection 204; NSGC 6604. Pedigree - Arlando/T.timopheevii//Hybrid

X/Prelude/Sol/Purplestraw//Chinese/Agropyron elongatum//Arlando/Comet.
One of a series of selections (PI 604860 - 605350) derived from
intra-generic and inter-generic crosses between Triticum, Agropyron
(Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 604894. X Elytricum sp.

Breeding. Sando Selection 205; NSGC 6605. Pedigree -
Arlando/T.timopheevii//Hybrid
X/Prelude/Sol/Purplestraw//Chinese/Agropyron elongatum//Arlando/Comet.
One of a series of selections (PI 604860 - 605350) derived from
intra-generic and inter-generic crosses between Triticum, Agropyron
(Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 604895. X Elytricum sp.

Breeding. Sando Selection 287; NSGC 6606. Pedigree -
Bart//T.vulgare/Agropyron elongatum GBH68B(45). One of a series of
selections (PI 604860 - 605350) derived from intra-generic and
inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops,
and Secale. Spring habit. Free-threshing.

PI 604896. X Elytricum sp.

Breeding. Sando Selection 288; NSGC 6607. Pedigree -
Bart//T.vulgare/Agropyron elongatum GBH68B(45). One of a series of
selections (PI 604860 - 605350) derived from intra-generic and
inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops,
and Secale. Spring habit. Free-threshing.

PI 604897. X Elytricum sp.

Breeding. Sando Selection 260; NSGC 6608. Pedigree -
Bart//T.vulgare/Agropyron elongatum Wa.112-6-5B-1. One of a series of
selections (PI 604860 - 605350) derived from intra-generic and
inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops,
and Secale. Spring habit. Free-threshing.

PI 604898. X Elytricum sp.

Breeding. Sando Selection 80; NSGC 6609. Pedigree - bearded T.vulgare
Sac 75(38)//Sol/Agropyron elongatum//Leapland. One of a series of
selections (PI 604860 - 605350) derived from intra-generic and
inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops,
and Secale. Spring habit. Free-threshing.

PI 604899. X Elytricum sp.

Breeding. Sando Selection 752; NSGC 6610. Pedigree -
Blackhawk//T.macha/Agropyron trichophorum//Rudy/Trumbull//Fultz
Selection/Hungarian P166-1(53). One of a series of selections (PI 604860
- 605350) derived from intra-generic and inter-generic crosses between
Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit.
Free-threshing.

PI 604900. X Elytricum sp.

Breeding. Sando Selection 803; NSGC 6611. Pedigree - Carala//Rising
Sun/Agropyron elongatum//Illini Chief/Premier//Carala//Chinese/Agropyron
elongatum//Federation/Kinney/Prelude//Arlando/Pilot P155-2(54). One of a
series of selections (PI 604860 - 605350) derived from intra-generic and
inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops,

and Secale. Spring habit. Free-threshing.

PI 604901. X Elytricum sp.

Breeding. Sando Selection 704; NSGC 6612. Pedigree - Carala//Rising Sun/Agropyron elongatum//Illini Chief/Premier/3/Chinese/Agropyron elongatum//Federation/Kinney/Prelude//Arlando/Pilot P18-2(53). One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 604902. X Elytricum sp.

Breeding. Sando Selection 705; NSGC 6613. Pedigree - Carala//Rising Sun/Agropyron elongatum//Illini Chief/Premier/3/Chinese/Agropyron elongatum//Federation/Kinney/Prelude//Arlando/Pilot P18-5(53). One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 604903. X Elytricum sp.

Breeding. Sando Selection 124; NSGC 6614. Pedigree - Chinese 20(30)/Agropyron elongatum//Arlando/Leapland/Comet//Chinese. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 604904. X Elytricum sp.

Breeding. Sando Selection 127; NSGC 6615. Pedigree - Chinese Cage73B(35)//Chinese/Agropyron elongatum//Federation/Kinney/Prelude. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 604905. X Elytricum sp.

Breeding. Sando Selection 478; NSGC 6616. Pedigree - Chinese Cage73B(35)/T.vulgare Sac78(38)//Sol/Agropyron elongatum//Leapland. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 604906. X Elytricum sp.

Breeding. Sando Selection 312; NSGC 6617. Pedigree - Chinese//Rising Sun/Agropyron elongatum//Illini Chief/Purplestraw/Premier. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 604907. X Elytricum sp.

Breeding. Sando Selection 313; NSGC 6618. Pedigree - Chinese//Rising Sun/Agropyron elongatum//Illini Chief/Purplestraw/Premier. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 604908. X Elytricum sp.

Breeding. Sando Selection 21; NSGC 6619. Pedigree - Chinese/Agropyron

elongatum//Arlando/Leapland. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 604909. X Elytricum sp.

Breeding. Sando Selection 146; NSGC 6620. Pedigree - Chinese/Agropyron elongatum//Arlando/Leapland//Clark Comet. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 604910. X Elytricum sp.

Breeding. Sando Selection 9; NSGC 6621. Pedigree - Chinese/Agropyron elongatum//Arlando/Leapland/Clark Comet 125. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 604911. X Elytricum sp.

Breeding. Sando Selection 402; NSGC 6622. Pedigree - Chinese/Agropyron elongatum//Arlando/Leapland/Clarks Comet. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 604912. X Elytricum sp.

Breeding. Sando Selection 348; NSGC 6623. Pedigree - Chinese/Agropyron elongatum//Arlando/Leapland/Clarks Comet//Carala. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 604913. X Elytricum sp.

Breeding. Sando Selection 349; NSGC 6624. Pedigree - Chinese/Agropyron elongatum//Arlando/Leapland/Clarks Comet//Carala. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 604914. X Elytricum sp.

Breeding. Sando Selection 383; NSGC 6625. Pedigree - Chinese/Agropyron elongatum//Arlando/Leapland/Clarks Comet//Hard Federation. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 604915. X Elytricum sp.

Breeding. Sando Selection 384; NSGC 6626. Pedigree - Chinese/Agropyron elongatum//Arlando/Leapland/Clarks Comet//Hard Federation. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 604916. X Elytricum sp.

Breeding. Sando Selection 379; NSGC 6627. Pedigree - Chinese/Agropyron elongatum//Arlando/Leapland/Clarks Comet/Carala. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 604917. X Elytricum sp.

Breeding. Sando Selection 380; NSGC 6628. Pedigree - Chinese/Agropyron elongatum//Arlando/Leapland/Clarks Comet/Carala. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 604918. X Elytricum sp.

Breeding. Sando Selection 381; NSGC 6629. Pedigree - Chinese/Agropyron elongatum//Arlando/Leapland/Clarks Comet/Carala. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 604919. X Elytricum sp.

Breeding. Sando Selection 382; NSGC 6630. Pedigree - Chinese/Agropyron elongatum//Arlando/Leapland/Clarks Comet/Carala. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 604920. X Elytricum sp.

Breeding. Sando Selection 471; NSGC 6631. Pedigree - Chinese/Agropyron elongatum//Arlando/Leapland/Clarks Comet/Hard Federation. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 604921. X Elytricum sp.

Breeding. Sando Selection 472; NSGC 6632. Pedigree - Chinese/Agropyron elongatum//Arlando/Leapland/Clarks Comet/Hard Federation. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 604922. X Elytricum sp.

Breeding. Sando Selection 473; NSGC 6633. Pedigree - Chinese/Agropyron elongatum//Arlando/Leapland/Clarks Comet/Hard Federation. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 604923. X Elytricum sp.

Breeding. Sando Selection 63; NSGC 6634. Pedigree - Chinese/Agropyron elongatum//Arlando/Leapland/Comet. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Not free-threshing.

PI 604924. X Elytricum sp.

Breeding. Sando Selection 366; NSGC 6635. Pedigree - Chinese/Agropyron elongatum//Arlando/Leapland/Comet. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 604925. X Elytricum sp.

Breeding. Sando Selection 499; NSGC 6636. Pedigree - Chinese/Agropyron elongatum//Arlando/Leapland/Comet. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 604926. X Elytricum sp.

Breeding. Sando Selection 5; NSGC 6637. Pedigree - Chinese/Agropyron elongatum//Arlando/Leapland/Comet 125. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing. Seed mostly blue.

PI 604927. X Elytricum sp.

Breeding. Sando Selection 40; NSGC 6638. Pedigree - Chinese/Agropyron elongatum//Arlando/Leapland/Comet 125. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 604928. X Elytricum sp.

Breeding. Sando Selection 89; NSGC 6639. Pedigree - Chinese/Agropyron elongatum//Arlando/Leapland/Comet 125. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 604929. X Elytricum sp.

Breeding. Sando Selection 778; NSGC 6640. Pedigree - Chinese/Agropyron elongatum//Arlando/Leapland/Comet Sac3963(53). One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 604930. X Elytricum sp.

Breeding. Sando Selection 325; NSGC 6641. Pedigree - Chinese/Agropyron elongatum//Arlando/Leapland/Comet//Carala. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 604931. X Elytricum sp.

Breeding. Sando Selection 326; NSGC 6642. Pedigree - Chinese/Agropyron elongatum//Arlando/Leapland/Comet//Carala. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 604932. X Elytricum sp.

Breeding. Sando Selection 327; NSGC 6643. Pedigree - Chinese/Agropyron elongatum//Arlando/Leapland/Comet//Carala. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 604933. X Elytricum sp.

Breeding. Sando Selection 328; NSGC 6644. Pedigree - Chinese/Agropyron elongatum//Arlando/Leapland/Comet//Carala. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 604934. X Elytricum sp.

Breeding. Sando Selection 215; NSGC 6645. Pedigree - Chinese/Agropyron elongatum//Arlando/Leapland/Comet/Fulhio/T.dicoccon P31(50). One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 604935. X Elytricum sp.

Breeding. Sando Selection 151; NSGC 6646. Pedigree - Chinese/Agropyron elongatum//Cheyenne//Federation/Kinney/Prelude//Forward. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 604936. X Elytricum sp.

Breeding. Sando Selection 265; NSGC 6647. Pedigree - Chinese/Agropyron elongatum//Clark 1018P/Thatcher. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 604937. X Elytricum sp.

Breeding. Sando Selection 266; NSGC 6648. Pedigree - Chinese/Agropyron elongatum//Clark 1018P/Thatcher. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 604938. X Elytricum sp.

Breeding. Sando Selection 415; NSGC 6649. Pedigree - Chinese/Agropyron elongatum//Clark P1018/Volunteer Taylor P527(48). One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing. Some blue seed.

PI 604939. X Elytricum sp.

Breeding. Sando Selection 408; NSGC 6650. Pedigree - Chinese/Agropyron elongatum//Clark P1018/Volunteer Taylor plats #2Bd. T.vulgare. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops,

and Secale. Spring habit. Free-threshing.

PI 604940. X Elytricum sp.

Breeding. Sando Selection 492; NSGC 6651. Pedigree - Chinese/Agropyron elongatum//Clarks 1018P. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 604941. X Elytricum sp.

Breeding. Sando Selection 52; NSGC 6652. Pedigree - Chinese/Agropyron elongatum//Comet/Nebred. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 604942. X Elytricum sp.

Breeding. Sando Selection 367; NSGC 6653. Pedigree - Chinese/Agropyron elongatum//Comet/Red Rock. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 604943. X Elytricum sp.

Breeding. Sando Selection 786; NSGC 6654. Pedigree - Chinese/Agropyron elongatum//Comet/Red Rock//Carala Sac4216(53). One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 604944. X Elytricum sp.

Breeding. Sando Selection 427; NSGC 6655. Pedigree - Chinese/Agropyron elongatum//Comet/Red Rock/Carala. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 604945. X Elytricum sp.

Breeding. Sando Selection 26; NSGC 6656. Pedigree - Chinese/Agropyron elongatum//Federation/Kinney/Prelude. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 604946. X Elytricum sp.

Breeding. Sando Selection 71; NSGC 6657. Pedigree - Chinese/Agropyron elongatum//Federation/Kinney/Prelude. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 604947. X Elytricum sp.

Breeding. Sando Selection 156; NSGC 6658. Pedigree - Chinese/Agropyron elongatum//Federation/Kinney/Prelude. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses

between *Triticum*, *Agropyron* (*Elytrigia*), *Aegilops*, and *Secale*. Spring habit. Free-threshing.

PI 604948. X *Elytricum* sp.

Breeding. Sando Selection 257; NSGC 6659. Pedigree - Chinese/*Agropyron elongatum*//Federation/Kinney/Prelude. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between *Triticum*, *Agropyron* (*Elytrigia*), *Aegilops*, and *Secale*. Spring habit. Free-threshing.

PI 604949. X *Elytricum* sp.

Breeding. Sando Selection 368; NSGC 6660. Pedigree - Chinese/*Agropyron elongatum*//Federation/Kinney/Prelude. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between *Triticum*, *Agropyron* (*Elytrigia*), *Aegilops*, and *Secale*. Spring habit. Free-threshing.

PI 604950. X *Elytricum* sp.

Breeding. Sando Selection 715; NSGC 6661. Pedigree - Chinese/*Agropyron elongatum*//Federation/Kinney/Prelude//Abyssinia CI8156 P28-2(53). One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between *Triticum*, *Agropyron* (*Elytrigia*), *Aegilops*, and *Secale*. Spring habit. Free-threshing.

PI 604951. X *Elytricum* sp.

Breeding. Sando Selection 4; NSGC 6662. Pedigree - Chinese/*Agropyron elongatum*//Federation/Kinney/Prelude//Arlando/Pilot. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between *Triticum*, *Agropyron* (*Elytrigia*), *Aegilops*, and *Secale*. Spring habit. Free-threshing.

PI 604952. X *Elytricum* sp.

Breeding. Sando Selection 6; NSGC 6663. Pedigree - Chinese/*Agropyron elongatum*//Federation/Kinney/Prelude//Arlando/Pilot. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between *Triticum*, *Agropyron* (*Elytrigia*), *Aegilops*, and *Secale*. Spring habit. Free-threshing.

PI 604953. X *Elytricum* sp.

Breeding. Sando Selection 12; NSGC 6664. Pedigree - Chinese/*Agropyron elongatum*//Federation/Kinney/Prelude//Arlando/Pilot. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between *Triticum*, *Agropyron* (*Elytrigia*), *Aegilops*, and *Secale*. Spring habit. Free-threshing.

PI 604954. X *Elytricum* sp.

Breeding. Sando Selection 15; NSGC 6665. Pedigree - Chinese/*Agropyron elongatum*//Federation/Kinney/Prelude//Arlando/Pilot. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between *Triticum*, *Agropyron* (*Elytrigia*), *Aegilops*, and *Secale*. Spring habit. Free-threshing.

PI 604955. X *Elytricum* sp.

Breeding. Sando Selection 47; NSGC 6666. Pedigree - Chinese/*Agropyron elongatum*//Federation/Kinney/Prelude//Arlando/Pilot. One of a series of

selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 604956. X Elytricum sp.

Breeding. Sando Selection 106; NSGC 6667. Pedigree - Chinese/Agropyron elongatum//Federation/Kinney/Prelude//Arlando/Pilot. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 604957. X Elytricum sp.

Breeding. Sando Selection 358; NSGC 6668. Pedigree - Chinese/Agropyron elongatum//Federation/Kinney/Prelude//Arlando/Pilot. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 604958. X Elytricum sp.

Breeding. Sando Selection 359; NSGC 6669. Pedigree - Chinese/Agropyron elongatum//Federation/Kinney/Prelude//Arlando/Pilot. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing. Some blue seed.

PI 604959. X Elytricum sp.

Breeding. Sando Selection 360; NSGC 6670. Pedigree - Chinese/Agropyron elongatum//Federation/Kinney/Prelude//Arlando/Pilot. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 604960. X Elytricum sp.

Breeding. Sando Selection 789; NSGC 6671. Pedigree - Chinese/Agropyron elongatum//Federation/Kinney/Prelude//Arlando/Pilot//Emerson Awnless P13-2(54). One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 604961. X Elytricum sp.

Breeding. Sando Selection 672; NSGC 6672. Pedigree - Chinese/Agropyron elongatum//Federation/Kinney/Prelude//Arlando/Pilot//Redhart. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing. Some blue seed.

PI 604962. X Elytricum sp.

Breeding. Sando Selection 303; NSGC 6673. Pedigree - Chinese/Agropyron elongatum//Federation/Kinney/Prelude//Arlando/Pilot//Redhart 5. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 604963. X Elytricum sp.

Breeding. Sando Selection 139; NSGC 6674. Pedigree - Chinese/Agropyron

elongatum//Federation/Kinney/Prelude//Carala. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 604964. X Elytricum sp.

Breeding. Sando Selection 186; NSGC 6675. Pedigree - Chinese/Agropyron elongatum//Federation/Kinney/Prelude//Carala. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 604965. X Elytricum sp.

Breeding. Sando Selection 240; NSGC 6676. Pedigree - Chinese/Agropyron elongatum//Federation/Kinney/Prelude//Carala. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 604966. X Elytricum sp.

Breeding. Sando Selection 371; NSGC 6677. Pedigree - Chinese/Agropyron elongatum//Federation/Kinney/Prelude//Carala. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 604967. X Elytricum sp.

Breeding. Sando Selection 458; NSGC 6678. Pedigree - Chinese/Agropyron elongatum//Federation/Kinney/Prelude//Carala. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 604968. X Elytricum sp.

Breeding. Sando Selection 617; NSGC 6679. Pedigree - Chinese/Agropyron elongatum//Federation/Kinney/Prelude//Carala. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 604969. X Elytricum sp.

Breeding. Sando Selection 620; NSGC 6680. Pedigree - Chinese/Agropyron elongatum//Federation/Kinney/Prelude//Carala. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 604970. X Elytricum sp.

Breeding. Sando Selection 363; NSGC 6681. Pedigree - Chinese/Agropyron elongatum//Federation/Kinney/Prelude//Carala*2. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 604971. X Elytricum sp.

Breeding. Sando Selection 451; NSGC 6682. Pedigree - Chinese/Agropyron elongatum//Federation/Kinney/Prelude//Carala*2. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 604972. X Elytricum sp.

Breeding. Sando Selection 703; NSGC 6683. Pedigree - Chinese/Agropyron elongatum//Federation/Kinney/Prelude//Carala*2/3/Rising Sun/Agropyron elongatum//Illini Chief/Premier/Carala//Chinese/Agropyron elongatum//Federation/Kinney/Prelude//Arlando/Pilot P17-1(53). One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 604973. X Elytricum sp.

Breeding. Sando Selection 356; NSGC 6684. Pedigree - Chinese/Agropyron elongatum//Federation/Kinney/Prelude//Carala/?. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 604974. X Elytricum sp.

Breeding. Sando Selection 357; NSGC 6685. Pedigree - Chinese/Agropyron elongatum//Federation/Kinney/Prelude//Carala/?. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 604975. X Elytricum sp.

Breeding. Sando Selection 304; NSGC 6686. Pedigree - Chinese/Agropyron elongatum//Federation/Kinney/Prelude//Carala/Carala/Redhart 5. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing. Some blue seed.

PI 604976. X Elytricum sp.

Breeding. Sando Selection 305; NSGC 6687. Pedigree - Chinese/Agropyron elongatum//Federation/Kinney/Prelude//Carala/Carala/Redhart 5. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 604977. X Elytricum sp.

Breeding. Sando Selection 306; NSGC 6688. Pedigree - Chinese/Agropyron elongatum//Federation/Kinney/Prelude//Carala/Carala/Redhart 5. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 604978. X Elytricum sp.

Breeding. Sando Selection 307; NSGC 6689. Pedigree - Chinese/Agropyron elongatum//Federation/Kinney/Prelude//Carala/Carala/Redhart 5. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops,

and Secale. Spring habit. Free-threshing.

PI 604979. X Elytricum sp.

Breeding. Sando Selection 796; NSGC 6690. Pedigree - Chinese/Agropyron elongatum//Federation/Kinney/Prelude//Carala/Pawnee P140-3(54). One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 604980. X Elytricum sp.

Breeding. Sando Selection 90; NSGC 6691. Pedigree - Chinese/Agropyron elongatum//Federation/Kinney/Prelude//Chinese/Agropyron elongatum//Federation/Kinney/Prelude. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 604981. X Elytricum sp.

Breeding. Sando Selection 230; NSGC 6692. Pedigree - Chinese/Agropyron elongatum//Federation/Kinney/Prelude//Chinese/Agropyron elongatum//Federation/Kinney/Prelude. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 604982. X Elytricum sp.

Breeding. Sando Selection 714; NSGC 6693. Pedigree - Chinese/Agropyron elongatum//Federation/Kinney/Prelude//Chinese/Agropyron elongatum//Federation/Kinney/Prelude//Abyssinia CI7914 P26-2(53). One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 604983. X Elytricum sp.

Breeding. Sando Selection 631; NSGC 6694. Pedigree - Chinese/Agropyron elongatum//Federation/Kinney/Prelude//Comet/Hard Federation. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 604984. X Elytricum sp.

Breeding. Sando Selection 632; NSGC 6695. Pedigree - Chinese/Agropyron elongatum//Federation/Kinney/Prelude//Comet/Hard Federation. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 604985. X Elytricum sp.

Breeding. Sando Selection 17; NSGC 6696. Pedigree - Chinese/Agropyron elongatum//Federation/Kinney/Prelude//Forward. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 604986. X Elytricum sp.

Breeding. Sando Selection 37; NSGC 6697. Pedigree - Chinese/Agropyron elongatum//Federation/Kinney/Prelude//Forward. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Not free-threshing.

PI 604987. X Elytricum sp.

Breeding. Sando Selection 116; NSGC 6698. Pedigree - Chinese/Agropyron elongatum//Federation/Kinney/Prelude//Forward. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 604988. X Elytricum sp.

Breeding. Sando Selection 233; NSGC 6699. Pedigree - Chinese/Agropyron elongatum//Federation/Kinney/Prelude//Forward/Redhart 5. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 604989. X Elytricum sp.

Breeding. Sando Selection 234; NSGC 6700. Pedigree - Chinese/Agropyron elongatum//Federation/Kinney/Prelude//Forward/Redhart 5. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 604990. X Elytricum sp.

Breeding. Sando Selection 737; NSGC 6701. Pedigree - Chinese/Agropyron elongatum//Federation/Kinney/Prelude//Forward/Redhart/Lee CI12488 P82-2(53). One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 604991. X Elytricum sp.

Breeding. Sando Selection 48; NSGC 6702. Pedigree - Chinese/Agropyron elongatum//Federation/Kinney/Prelude//Nebred. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 604992. X Elytricum sp.

Breeding. Sando Selection 76; NSGC 6703. Pedigree - Chinese/Agropyron elongatum//Federation/Kinney/Prelude//Nebred. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 604993. X Elytricum sp.

Breeding. Sando Selection 140; NSGC 6704. Pedigree - Chinese/Agropyron elongatum//Federation/Kinney/Prelude//Nebred. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 604994. X Elytricum sp.

Breeding. Sando Selection 84; NSGC 6705. Pedigree - Chinese/Agropyron elongatum//Federation/Kinney/Prelude//Red Rock. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 604995. X Elytricum sp.

Breeding. Sando Selection 143; NSGC 6706. Pedigree - Chinese/Agropyron elongatum//Federation/Kinney/Prelude//Red Rock. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 604996. X Elytricum sp.

Breeding. Sando Selection 465; NSGC 6707. Pedigree - Chinese/Agropyron elongatum//Federation/Kinney/Prelude//Red Rock/Carala. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 604997. X Elytricum sp.

Breeding. Sando Selection 466; NSGC 6708. Pedigree - Chinese/Agropyron elongatum//Federation/Kinney/Prelude//Red Rock/Carala. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 604998. X Elytricum sp.

Breeding. Sando Selection 627; NSGC 6709. Pedigree - Chinese/Agropyron elongatum//Federation/Kinney/Prelude//Red Rock/Carala. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 604999. X Elytricum sp.

Breeding. Sando Selection 630; NSGC 6710. Pedigree - Chinese/Agropyron elongatum//Federation/Kinney/Prelude//Red Rock/Carala. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605000. X Elytricum sp.

Breeding. Sando Selection 126; NSGC 6711. Pedigree - Chinese/Agropyron elongatum//Federation/Kinney/Prelude//Red Rock/Chinese. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605001. X Elytricum sp.

Breeding. Sando Selection 267; NSGC 6712. Pedigree - Chinese/Agropyron elongatum//Federation/Kinney/Prelude//Red Rock/Johnson T17(48)Tap.Bed. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605002. X Elytricum sp.

Breeding. Sando Selection 406; NSGC 6713. Pedigree - Chinese/Agropyron elongatum//Federation/Kinney/Prelude//Red Rock/P86(46) smooth node//Reliance/Mercury. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605003. X Elytricum sp.

Breeding. Sando Selection 262; NSGC 6714. Pedigree - Chinese/Agropyron elongatum//Federation/Kinney/Prelude//Red Rock/Sanford. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605004. X Elytricum sp.

Breeding. Sando Selection 132; NSGC 6715. Pedigree - Chinese/Agropyron elongatum//Federation/Kinney/Prelude//Redhart 5. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605005. X Elytricum sp.

Breeding. Sando Selection 152; NSGC 6716. Pedigree - Chinese/Agropyron elongatum//Federation/Kinney/Prelude//Redhart/Premier. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605006. X Elytricum sp.

Breeding. Sando Selection 270; NSGC 6717. Pedigree - Chinese/Agropyron elongatum//Federation/Kinney/Prelude//Thatcher. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605007. X Elytricum sp.

Breeding. Sando Selection 707; NSGC 6718. Pedigree - Chinese/Agropyron elongatum//Federation/Kinney/Prelude//Thatcher//T.vulgare/Agropyron elongatum Mck6153(51)//T.vulgare R.R.3741(47)//Reliance/Mercury//Chinese/Agropyron elongatum//Arlando/Leapland//Comet/Hard Federation P22-1(53). One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605008. X Elytricum sp.

Breeding. Sando Selection 27; NSGC 6719. Pedigree - Chinese/Agropyron elongatum//Federation/Kinney/Prelude//Yorkwin. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605009. X Elytricum sp.

Breeding. Sando Selection 2; NSGC 6720. Pedigree - Chinese/Agropyron elongatum//Harvest Queen/Purplestraw. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605010. X Elytricum sp.

Breeding. Sando Selection 35; NSGC 6721. Pedigree - Chinese/Agropyron elongatum//Harvest Queen/Purplestraw. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605011. X Elytricum sp.

Breeding. Sando Selection 88; NSGC 6722. Pedigree - Chinese/Agropyron elongatum//Harvest Queen/Purplestraw. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605012. X Elytricum sp.

Breeding. Sando Selection 117; NSGC 6723. Pedigree - Chinese/Agropyron elongatum//Harvest Queen/Purplestraw. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605013. X Elytricum sp.

Breeding. Sando Selection 774; NSGC 6724. Pedigree - Chinese/Agropyron elongatum//Harvest Queen/Purplestraw. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing. Purple seed.

PI 605014. X Elytricum sp.

Breeding. Sando Selection 24; NSGC 6725. Pedigree - Chinese/Agropyron elongatum//Leapland/Arlando. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605015. X Elytricum sp.

Breeding. Sando Selection 824; NSGC 6726. Pedigree - Chinese/Agropyron elongatum//Leapland/Arlando//Fulhio. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605016. X Elytricum sp.

Breeding. Sando Selection 314; NSGC 6727. Pedigree - Chinese/Agropyron elongatum//R.R.209(34) T.vulgare/Comet/Red Rock//Chinese/rye//Chinese. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605017. X Elytricum sp.

Breeding. Sando Selection 316; NSGC 6728. Pedigree - Chinese/Agropyron elongatum//R.R.209(34) T.vulgare/Comet/Red Rock//Chinese/rye//Chinese. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605018. X Elytricum sp.

Breeding. Sando Selection 317; NSGC 6729. Pedigree - Chinese/Agropyron elongatum//R.R.209(34) T.vulgare/Comet/Red Rock//Chinese/rye//Chinese. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605019. X Elytricum sp.

Breeding. Sando Selection 785; NSGC 6730. Pedigree - Chinese/Agropyron elongatum//T.vulgare R.R.209(34)//Comet//Red Rock/Chinese//Chinese/rye Sac4103(53). One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605020. X Elytricum sp.

Breeding. Sando Selection 279; NSGC 6731. Pedigree - Chinese/Sac78(38) T.vulgare//Sol/Agropyron elongatum//Leapland. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605021. X Elytricum sp.

Breeding. Sando Selection 280; NSGC 6732. Pedigree - Chinese/Sac78(38) T.vulgare//Sol/Agropyron elongatum//Leapland. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605022. X Elytricum sp.

Breeding. Sando Selection 128; NSGC 6733. Pedigree - Chinese/T.vulgare Sac 78(38)//Sol/Agropyron elongatum//Leapland. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605023. X Elytricum sp.

Breeding. Sando Selection 636; NSGC 6734. Pedigree - Chinese/T.vulgare Sac78(38)//sol/Agropyron elongatum//Leapland. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605024. X Elytricum sp.

Breeding. Sando Selection 296; NSGC 6735. Pedigree - Dicklow/Agropyron elongatum//Arlando. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605025. X Elytricum sp.

Breeding. Sando Selection 130; NSGC 6736. Pedigree - Emerson Agropyron/Tipdurum Sac672//Chinese/Agropyron elongatum//Federation/Kinney/Prelude//Red Rock. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605026. X Elytricum sp.

Breeding. Sando Selection 284; NSGC 6737. Pedigree - Emerson Awnless/Tp. durum Sac 672//Chinese/Agropyron elongatum//Federation/Kinney/Prelude. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605027. X Elytricum sp.

Breeding. Sando Selection 285; NSGC 6738. Pedigree - Emerson Awnless/Tp. durum Sac 672//Chinese/Agropyron elongatum//Federation/Kinney/Prelude. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605028. X Elytricum sp.

Breeding. Sando Selection 281; NSGC 6739. Pedigree - Federation Ab6(38)//Sol/Agropyron elongatum//Leapland/T.civcerstormum. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605029. X Elytricum sp.

Breeding. Sando Selection 282; NSGC 6740. Pedigree - Federation Ab6(38)//Sol/Agropyron elongatum//Leapland/T.civcerstormum. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605030. X Elytricum sp.

Breeding. Sando Selection 283; NSGC 6741. Pedigree - Federation Ab6(38)//Sol/Agropyron elongatum//Leapland/T.civcerstormum. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605031. X Elytricum sp.

Breeding. Sando Selection 101; NSGC 6742. Pedigree - Federation Ab6(38)B//Sol/Agropyron elongatum L5-10-8-4-4//Leapland. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605032. X Elytricum sp.

Breeding. Sando Selection 125; NSGC 6743. Pedigree - Federation//Sol/Agropyron elongatum//Leapland/T.civcerstormum. One of a series of selections (PI 604860 - 605350) derived from intra-generic and

inter-generic crosses between *Triticum*, *Agropyron* (*Elytrigia*), *Aegilops*, and *Secale*. Spring habit. Free-threshing.

PI 605033. X *Elytricum* sp.

Breeding. Sando Selection 509; NSGC 6744. Pedigree - Frondoso//*T.vulgare*/Agropyron Saskatoon. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between *Triticum*, *Agropyron* (*Elytrigia*), *Aegilops*, and *Secale*. Spring habit. Free-threshing.

PI 605034. X *Elytricum* sp.

Breeding. Sando Selection 418; NSGC 6745. Pedigree - Fronteira/Forward//Rising Sun/Agropyron elongatum//Illini Chief/P.S./Premier. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between *Triticum*, *Agropyron* (*Elytrigia*), *Aegilops*, and *Secale*. Spring habit. Free-threshing.

PI 605035. X *Elytricum* sp.

Breeding. Sando Selection 634; NSGC 6746. Pedigree - GHBl08A-16//Chinese/Agropyron elongatum//Federation/Kinney/Prelude//Red Rock. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between *Triticum*, *Agropyron* (*Elytrigia*), *Aegilops*, and *Secale*. Spring habit. Free-threshing.

PI 605036. X *Elytricum* sp.

Breeding. Sando Selection 138; NSGC 6747. Pedigree - GHB71(45) Chinese/rye//Chinese/Agropyron elongatum//Forward/Carala. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between *Triticum*, *Agropyron* (*Elytrigia*), *Aegilops*, and *Secale*. Spring habit. Free-threshing.

PI 605037. X *Elytricum* sp.

Breeding. Sando Selection 385; NSGC 6748. Pedigree - Hard Federation/*T.vulgare* Sac75(38)//Sol/Agropyron elongatum//Leapland. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between *Triticum*, *Agropyron* (*Elytrigia*), *Aegilops*, and *Secale*. Spring habit. Free-threshing.

PI 605038. X *Elytricum* sp.

Breeding. Sando Selection 386; NSGC 6749. Pedigree - Hard Federation/*T.vulgare* Sac75(38)//Sol/Agropyron elongatum//Leapland. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between *Triticum*, *Agropyron* (*Elytrigia*), *Aegilops*, and *Secale*. Spring habit. Free-threshing.

PI 605039. X *Elytricum* sp.

Breeding. Sando Selection 476; NSGC 6750. Pedigree - Hard Federation/*T.vulgare* Sac75(38)//Sol/Agropyron elongatum//Leapland. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between *Triticum*, *Agropyron* (*Elytrigia*), *Aegilops*, and *Secale*. Spring habit. Free-threshing.

PI 605040. X *Elytricum* sp.

Breeding. Sando Selection 477; NSGC 6751. Pedigree - Hard

Federation/T.vulgare Sac75(38)//Sol/Agropyron elongatum//Leapland. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605041. X Elytricum sp.

Breeding. Sando Selection 571; NSGC 6752. Pedigree - Harvest Queen//Chinese/Agropyron elongatum//Federation/Kinney/Prelude//Arlando/Pilot. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605042. X Elytricum sp.

Breeding. Sando Selection 570; NSGC 6753. Pedigree - Harvest Queen//Chinese/Agropyron elongatum//T.vulgare Clark P1018. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605043. X Elytricum sp.

Breeding. Sando Selection 566; NSGC 6754. Pedigree - Harvest Queen//Chinese/Agropyron elongatum//T.vulgare R.R.209(34)/Comet/Hussar/Leap. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605044. X Elytricum sp.

Breeding. Sando Selection 590; NSGC 6755. Pedigree - Harvest Queen//T.macha/Agropyron trichophorum//Rudy//Trumbull/Fultz/Hungarian. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605045. X Elytricum sp.

Breeding. Sando Selection 755; NSGC 6756. Pedigree - Harvest Queen//T.vulgare Sando/Agropyron elongatum//Valley P186-1(53). One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605046. X Elytricum sp.

Breeding. Sando Selection 577; NSGC 6757. Pedigree - Harvest Queen//T.vulgare/Agropyron elongatum Mck6586VR//T.vulgare/Agropyron elongatum. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605047. X Elytricum sp.

Breeding. Sando Selection 165; NSGC 6758. Pedigree - Hussar/Trumbull//Webster/Purplestraw//Chinese/Agropyron elongatum//Forward/Prairie. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit.

Free-threshing.

PI 605048. X Elytricum sp.

Breeding. Sando Selection 582; NSGC 6759. Pedigree - Kawvales//T.vulgare/Agropyron elongatum//Arlando/T.timopheevii//Hybrid X/Hope. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605049. X Elytricum sp.

Breeding. Sando Selection 583; NSGC 6760. Pedigree - Marquis/Oro/Thorne//Sol/Agropyron elongatum//Leapland. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605050. X Elytricum sp.

Breeding. Sando Selection 742; NSGC 6761. Pedigree - Michigan Amber Mck//T.vulgare/Agropyron elongatum 35 old(50) P127-1(53). One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605051. X Elytricum sp.

Breeding. Sando Selection 587; NSGC 6762. Pedigree - Michigan Amber//Chinese/Agropyron elongatum//Federation/Kinney/Prelude//Arlando/Pilot. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605052. X Elytricum sp.

Breeding. Sando Selection 592; NSGC 6763. Pedigree - Michigan Amber//Chinese/Agropyron elongatum//Federation/Kinney/Prelude//Carala*2. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605053. X Elytricum sp.

Breeding. Sando Selection 747; NSGC 6764. Pedigree - Michigan Amber//Rising Sun/Agropyron elongatum//Illini Chief/Purplestraw//Premier P150-3(53). One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605054. X Elytricum sp.

Breeding. Sando Selection 748; NSGC 6765. Pedigree - Michigan Amber//Rising Sun/Agropyron elongatum//Illini Chief/Purplestraw//Premier P151-1(53). One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605055. X Elytricum sp.

Breeding. Sando Selection 563; NSGC 6766. Pedigree - Michigan Amber//Rising Sun/Agropyron elongatum//Illini Chief/Purplestraw/Premier.

One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605056. X Elytricum sp.

Breeding. Sando Selection 561; NSGC 6767. Pedigree - Michigan Amber//T.vulgare/Agropyron elongatum OB35 old. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605057. X Elytricum sp.

Breeding. Sando Selection 682; NSGC 6768. Pedigree - Mindum durum//T.vulgare/Agropyron elongatum Calif.6068 Suneson green K type fr. Bayles P32-1(52). One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605058. X Elytricum sp.

Breeding. Sando Selection 164; NSGC 6769. Pedigree - Mindum durum/Agropyron trichophorum//Michigan Amber. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605059. X Elytricum sp.

Breeding. Sando Selection 746; NSGC 6770. Pedigree - Nebred//Chinese/Agropyron elongatum//Federation/Kinney/Prelude P145-1(53). One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605060. X Elytricum sp.

Breeding. Sando Selection 511; NSGC 6771. Pedigree - Pawnee//T.vulgare/Agropyron Saskatoon. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605061. X Elytricum sp.

Breeding. Sando Selection 323; NSGC 6772. Pedigree - Redhart 5//Chinese/Agropyron elongatum//Arlando/Leapland/Comet. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605062. X Elytricum sp.

Breeding. Sando Selection 324; NSGC 6773. Pedigree - Redhart 5//Chinese/Agropyron elongatum//Arlando/Leapland/Comet. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605063. X Elytricum sp.

Breeding. Sando Selection 1; NSGC 6774. Pedigree - Redhart
5//Chinese/Agropyron elongatum//Federation/Kinney/Prelude. One of a
series of selections (PI 604860 - 605350) derived from intra-generic and
inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops,
and Secale. Spring habit. Free-threshing.

PI 605064. X Elytricum sp.

Breeding. Sando Selection 13; NSGC 6775. Pedigree - Redhart
5//Chinese/Agropyron elongatum//Federation/Kinney/Prelude. One of a
series of selections (PI 604860 - 605350) derived from intra-generic and
inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops,
and Secale. Spring habit. Free-threshing.

PI 605065. X Elytricum sp.

Breeding. Sando Selection 300; NSGC 6776. Pedigree - Redhart
5//Chinese/Agropyron elongatum//Federation/Kinney/Prelude//Carala. One
of a series of selections (PI 604860 - 605350) derived from
intra-generic and inter-generic crosses between Triticum, Agropyron
(Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605066. X Elytricum sp.

Breeding. Sando Selection 301; NSGC 6777. Pedigree - Redhart
5//Chinese/Agropyron elongatum//Federation/Kinney/Prelude//Carala. One
of a series of selections (PI 604860 - 605350) derived from
intra-generic and inter-generic crosses between Triticum, Agropyron
(Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605067. X Elytricum sp.

Breeding. Sando Selection 392; NSGC 6778. Pedigree - Redhart
5//Chinese/Agropyron elongatum//Federation/Kinney/Prelude//Carala. One
of a series of selections (PI 604860 - 605350) derived from
intra-generic and inter-generic crosses between Triticum, Agropyron
(Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605068. X Elytricum sp.

Breeding. Sando Selection 393; NSGC 6779. Pedigree - Redhart
5//Chinese/Agropyron elongatum//Federation/Kinney/Prelude//Carala. One
of a series of selections (PI 604860 - 605350) derived from
intra-generic and inter-generic crosses between Triticum, Agropyron
(Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605069. X Elytricum sp.

Breeding. Sando Selection 605; NSGC 6780. Pedigree -
Redhart//Chinese/Agropyron elongatum//Federation/Kinney/Prelude//Carala.
One of a series of selections (PI 604860 - 605350) derived from
intra-generic and inter-generic crosses between Triticum, Agropyron
(Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605070. X Elytricum sp.

Breeding. Sando Selection 154; NSGC 6781. Pedigree - Rising
Sun//T.vulgare/Agropyron elongatum Wa.112-6-5B-1. One of a series of
selections (PI 604860 - 605350) derived from intra-generic and
inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops,
and Secale. Spring habit. Free-threshing.

PI 605071. X Elytricum sp.

Breeding. Sando Selection 413; NSGC 6782. Pedigree - Rising Sun/Agropyron elongatum//Carala//Rising Sun/Agropyron elongatum//Illini Chief//P.S./Carala/T-17 Johnson Tap.48. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605072. X Elytricum sp.

Breeding. Sando Selection 414; NSGC 6783. Pedigree - Rising Sun/Agropyron elongatum//Carala//Rising Sun/Agropyron elongatum//Illini Chief//P.S./Carala/T-17 Johnson Tap.48. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605073. X Elytricum sp.

Breeding. Sando Selection 220; NSGC 6784. Pedigree - Rising Sun/Agropyron elongatum//Illini Chief/Carala/Federation Ab6(38)//Sol/Agropyron elongatum//Leapland. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605074. X Elytricum sp.

Breeding. Sando Selection 422; NSGC 6785. Pedigree - Rising Sun/Agropyron elongatum//Illini Chief/P.S./Premier. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605075. X Elytricum sp.

Breeding. Sando Selection 460; NSGC 6786. Pedigree - Rising Sun/Agropyron elongatum//Illini Chief/P.S./Premier. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605076. X Elytricum sp.

Breeding. Sando Selection 656; NSGC 6787. Pedigree - Rising Sun/Agropyron elongatum//Illini Chief/Premier. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing. Some purple seed.

PI 605077. X Elytricum sp.

Breeding. Sando Selection 798; NSGC 6788. Pedigree - Rising Sun/Agropyron elongatum//Illini Chief/Premier P144-1(54). One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605078. X Elytricum sp.

Breeding. Sando Selection 662; NSGC 6789. Pedigree - Rising Sun/Agropyron elongatum//Illini Chief/Premier//Chinese/Agropyron

elongatum//Federation/Kinney/Prelude//Arlando/Pilot. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605079. X Elytricum sp.

Breeding. Sando Selection 536; NSGC 6790. Pedigree - Rising Sun/Agropyron elongatum//Illini Chief/Premier/Pawnee. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605080. X Elytricum sp.

Breeding. Sando Selection 77; NSGC 6791. Pedigree - Rising Sun/Agropyron elongatum//Illini Chief/Purplestraw//Chinese Agropyron elongatum//Federation/Kinney/Prelude//Carala. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605081. X Elytricum sp.

Breeding. Sando Selection 43; NSGC 6792. Pedigree - Rising Sun/Agropyron elongatum//Illini Chief/Purplestraw//Premier. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605082. X Elytricum sp.

Breeding. Sando Selection 694; NSGC 6793. Pedigree - Rising Sun/Agropyron elongatum//Illini Chief/Purplestraw//Premier/Carala P2-5(53). One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605083. X Elytricum sp.

Breeding. Sando Selection 142; NSGC 6794. Pedigree - Rising Sun/Agropyron elongatum//Illini Chief/Purplestraw/Carala. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605084. X Elytricum sp.

Breeding. Sando Selection 362; NSGC 6795. Pedigree - Rising Sun/Agropyron elongatum//Illini Chief/Purplestraw/Carala. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605085. X Elytricum sp.

Breeding. Sando Selection 269; NSGC 6796. Pedigree - Rising Sun/Agropyron elongatum//Illini Chief/Purplestraw/Carala/Fulcaster. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605086. X Elytricum sp.

Breeding. Sando Selection 74; NSGC 6797. Pedigree - Rising Sun/Agropyron elongatum//Illini Chief/Purplestraw/Premier. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605087. X Elytricum sp.

Breeding. Sando Selection 75; NSGC 6798. Pedigree - Rising Sun/Agropyron elongatum//Illini Chief/Purplestraw/Premier. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605088. X Elytricum sp.

Breeding. Sando Selection 82; NSGC 6799. Pedigree - Rising Sun/Agropyron elongatum//Illini Chief/Purplestraw/Premier. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605089. X Elytricum sp.

Breeding. Sando Selection 671; NSGC 6800. Pedigree - Rising Sun/Agropyron elongatum//Illini Chief/Purplestraw/Premier. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605090. X Elytricum sp.

Breeding. Sando Selection 350; NSGC 6801. Pedigree - Rising Sun/Agropyron elongatum//Illini Chief/Purplestraw/Premier/Carala. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605091. X Elytricum sp.

Breeding. Sando Selection 351; NSGC 6802. Pedigree - Rising Sun/Agropyron elongatum//Illini Chief/Purplestraw/Premier/Carala. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605092. X Elytricum sp.

Breeding. Sando Selection 353; NSGC 6803. Pedigree - Rising Sun/Agropyron elongatum//Illini Chief/Purplestraw/Premier/Carala. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605093. X Elytricum sp.

Breeding. Sando Selection 696; NSGC 6804. Pedigree - Rising Sun/Agropyron elongatum//Illini Chief/Purplestraw/Premier/Pawnee Mck P5-2(53). One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605094. X Elytricum sp.

Breeding. Sando Selection 548; NSGC 6805. Pedigree - Sando emmer 413/Agropyron polish//T.vulgare. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605095. X Elytricum sp.

Breeding. Sando Selection 547; NSGC 6806. Pedigree - Sanford//Chinese/Agropyron elongatum//Federation/Kinney/Prelude//Arlando/Pilot. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605096. X Elytricum sp.

Breeding. Sando Selection 812; NSGC 6807. Pedigree - Sanford//P175(52 T.vulgare/Agropyron elongatum Mck7344(51)VR//Sando timopheevii hybrid R.R.3741(47)/Fronodoso. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605097. X Elytricum sp.

Breeding. Sando Selection 720; NSGC 6808. Pedigree - Sanford//T.vulgare/Agropyron elongatum Mck7344(51)VR//Sando timopheevii hybrid/Fronodoso P35-2(53). One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605098. X Elytricum sp.

Breeding. Sando Selection 546; NSGC 6809. Pedigree - Sanford//T.vulgare/Agropyron elongatum Mck7344(54)VR//Sando timopheevii hybrid/Fronodoso. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605099. X Elytricum sp.

Breeding. Sando Selection 11; NSGC 6810. Pedigree - Sol/Agropyron elongatum//Leapland. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605100. X Elytricum sp.

Breeding. Sando Selection 20; NSGC 6811. Pedigree - Sol/Agropyron elongatum//Leapland. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605101. X Elytricum sp.

Breeding. Sando Selection 97; NSGC 6812. Pedigree - Sol/Agropyron elongatum//Leapland. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605102. X Elytricum sp.

Breeding. Sando Selection 199; NSGC 6813. Pedigree - Sol/Agropyron elongatum//Leapland. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605103. X Elytricum sp.

Breeding. Sando Selection 225; NSGC 6814. Pedigree - Sol/Agropyron elongatum//Leapland. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605104. X Elytricum sp.

Breeding. Sando Selection 226; NSGC 6815. Pedigree - Sol/Agropyron elongatum//Leapland. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing. Some blue seed.

PI 605105. X Elytricum sp.

Breeding. Sando Selection 249; NSGC 6816. Pedigree - Sol/Agropyron elongatum//Leapland. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605106. X Elytricum sp.

Breeding. Sando Selection 250; NSGC 6817. Pedigree - Sol/Agropyron elongatum//Leapland. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605107. X Elytricum sp.

Breeding. Sando Selection 484; NSGC 6818. Pedigree - Sol/Agropyron elongatum//Leapland. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605108. X Elytricum sp.

Breeding. Sando Selection 487; NSGC 6819. Pedigree - Sol/Agropyron elongatum//Leapland. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605109. X Elytricum sp.

Breeding. Sando Selection 489; NSGC 6820. Pedigree - Sol/Agropyron elongatum//Leapland. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605110. X Elytricum sp.

Breeding. Sando Selection 497; NSGC 6821. Pedigree - Sol/Agropyron elongatum//Leapland. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605111. X Elytricum sp.

Breeding. Sando Selection 639; NSGC 6822. Pedigree - Sol/Agropyron elongatum//Leapland. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing. Some blue seed.

PI 605112. X Elytricum sp.

Breeding. Sando Selection 837; NSGC 6823. Pedigree - Sol/Agropyron elongatum//Leapland. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605113. X Elytricum sp.

Breeding. Sando Selection 236; NSGC 6824. Pedigree - Sol/Agropyron elongatum//Leapland/Redhart 5. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605114. X Elytricum sp.

Breeding. Sando Selection 161; NSGC 6825. Pedigree - Sol/Agropyron elongatum//Purplestraw. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605115. X Elytricum sp.

Breeding. Sando Selection 277; NSGC 6826. Pedigree - Sol/Agropyron elongatum//Redhart 5. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605116. X Elytricum sp.

Breeding. Sando Selection 278; NSGC 6827. Pedigree - Sol/Agropyron elongatum//Redhart 5. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605117. X Elytricum sp.

Breeding. Sando Selection 189; NSGC 6828. Pedigree - Sol/Agropyron elongatum/Leapland. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605118. X Elytricum sp.

Breeding. Sando Selection 423; NSGC 6829. Pedigree - Steinwedel//Chinese/Agropyron elongatum//Arlando/Leapland/Comet. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605119. X Elytricum sp.

Breeding. Sando Selection 424; NSGC 6830. Pedigree - Steinwedel//Chinese/Agropyron elongatum//Arlando/Leapland/Comet. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605120. X Elytricum sp.

Breeding. Sando Selection 155; NSGC 6831. Pedigree - Steinwedel//T.vulgare/Agropyron elongatum Wa.112-6-5B-1. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605121. X Elytricum sp.

Breeding. Sando Selection 814; NSGC 6832. Pedigree - T.civcerstormum/Agropyron intermedium//Exchange/Lee. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605122. X Elytricum sp.

Breeding. Sando Selection 826; NSGC 6833. Pedigree - T.civcerstormum/Agropyron intermedium//Exchange/Lee. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605123. X Elytricum sp.

Breeding. Sando Selection 493; NSGC 6834. Pedigree - T.civcerstormum/Agropyron intermedium//Yorkwin//Arlando/T.timopheevii//Hope/Baart//Chinese/Agropyron elongatum//Arlando/Leapland/Comet/Hard Federation. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605124. X Elytricum sp.

Breeding. Sando Selection 790; NSGC 6835. Pedigree - T.civcerstormum/Agropyron intermedium//Yorkwin/P271(51)/Harvest Queen

P17-2(54). One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between *Triticum*, *Agropyron* (*Elytrigia*), *Aegilops*, and *Secale*. Spring habit. Free-threshing.

PI 605125. X *Elytricum* sp.

Breeding. Sando Selection 532; NSGC 6836. Pedigree - *T.civcerstormum*/*Agropyron intermedium*//Yorkwin/Sanford. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between *Triticum*, *Agropyron* (*Elytrigia*), *Aegilops*, and *Secale*. Spring habit. Free-threshing.

PI 605126. X *Elytricum* sp.

Breeding. Sando Selection 533; NSGC 6837. Pedigree - *T.civcerstormum*/*Agropyron intermedium*//Yorkwin/Sanford. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between *Triticum*, *Agropyron* (*Elytrigia*), *Aegilops*, and *Secale*. Spring habit. Free-threshing.

PI 605127. X *Elytricum* sp.

Breeding. Sando Selection 361; NSGC 6838. Pedigree - *T.macha*/*Agropyron trichophorum*//Rudy/Carala. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between *Triticum*, *Agropyron* (*Elytrigia*), *Aegilops*, and *Secale*. Spring habit. Free-threshing.

PI 605128. X *Elytricum* sp.

Breeding. Sando Selection 699; NSGC 6839. Pedigree - *T.macha*/*Agropyron trichophorum*//Rudy/Carala/Sanford P13-2(53). One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between *Triticum*, *Agropyron* (*Elytrigia*), *Aegilops*, and *Secale*. Spring habit. Free-threshing.

PI 605129. X *Elytricum* sp.

Breeding. Sando Selection 372; NSGC 6840. Pedigree - *T.macha*/*Agropyron trichophorum*//Rudy/Trumbull/W38 Fultz/Hungarian. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between *Triticum*, *Agropyron* (*Elytrigia*), *Aegilops*, and *Secale*. Spring habit. Free-threshing.

PI 605130. X *Elytricum* sp.

Breeding. Sando Selection 374; NSGC 6841. Pedigree - *T.macha*/*Agropyron trichophorum*//Rudy/Trumbull/W38 Fultz/Hungarian. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between *Triticum*, *Agropyron* (*Elytrigia*), *Aegilops*, and *Secale*. Spring habit. Free-threshing. Blue seed.

PI 605131. X *Elytricum* sp.

Breeding. Sando Selection 376; NSGC 6842. Pedigree - *T.macha*/*Agropyron trichophorum*//Rudy/Trumbull/W38 Fultz/Hungarian. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between *Triticum*, *Agropyron* (*Elytrigia*), *Aegilops*, and *Secale*. Spring habit. Free-threshing.

PI 605132. X *Elytricum* sp.

Breeding. Sando Selection 78; NSGC 6843. Pedigree -

T.sphaerococcum/Agropyron intermedium/Yorkwin LEP 113(47). One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (*Elytrigia*), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605133. X Elytricum sp.

Breeding. Sando Selection 721; NSGC 6844. Pedigree - *T.vulgare* Ab52(38)//Chinese/Agropyron elongatum//Federation/Kinney/Prelude//Arlando/Pilot P36-1(53). One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (*Elytrigia*), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605134. X Elytricum sp.

Breeding. Sando Selection 717; NSGC 6845. Pedigree - *T.vulgare* Ab52(38)/bearded *T.vulgare* Sac75(38)//Sol/Agropyron elongatum//Leapland/Redhart 5 P31-2. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (*Elytrigia*), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605135. X Elytricum sp.

Breeding. Sando Selection 198; NSGC 6846. Pedigree - *T.vulgare* Bd Sac 75(38)//Sol/Agropyron elongatum//Leapland. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (*Elytrigia*), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605136. X Elytricum sp.

Breeding. Sando Selection 239; NSGC 6847. Pedigree - *T.vulgare* Cage 73B(35) OpC//Chinese/Agropyron elongatum//Federation/Kinney/Prelude. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (*Elytrigia*), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605137. X Elytricum sp.

Breeding. Sando Selection 502; NSGC 6848. Pedigree - *T.vulgare* Cage19B(35)/Agropyron elongatum//Leapland/Arlando. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (*Elytrigia*), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605138. X Elytricum sp.

Breeding. Sando Selection 692; NSGC 6849. Pedigree - *T.vulgare* Cage49A(35)//*T.vulgare*/Agropyron elongatum GHB6(45) P129-1(52). One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (*Elytrigia*), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605139. X Elytricum sp.

Breeding. Sando Selection 102; NSGC 6850. Pedigree - *T.vulgare* Sac 75(38)//sol/Agropyron elongatum L5-10-8-4-4//Leapland. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (*Elytrigia*), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605140. X Elytricum sp.

Breeding. Sando Selection 208; NSGC 6851. Pedigree - T.vulgare Sac 75(38)//Sol/Agropyron elongatum//Federation/Kinney/Prelude. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605141. X Elytricum sp.

Breeding. Sando Selection 109; NSGC 6852. Pedigree - T.vulgare Sac 75(38)//Sol/Agropyron elongatum//Leapland. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605142. X Elytricum sp.

Breeding. Sando Selection 110; NSGC 6853. Pedigree - T.vulgare Sac 75(38)//Sol/Agropyron elongatum//Leapland. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605143. X Elytricum sp.

Breeding. Sando Selection 61; NSGC 6854. Pedigree - T.vulgare Sac 75(38)//Sol/Agropyron elongatum//Leapland/Purplestraw. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605144. X Elytricum sp.

Breeding. Sando Selection 81; NSGC 6855. Pedigree - T.vulgare Sac 75(38)//Sol/Agropyron elongatum//Leapland/Purplestraw. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605145. X Elytricum sp.

Breeding. Sando Selection 163; NSGC 6856. Pedigree - T.vulgare Sac 78(38)//Sol/Agropyron elongatum//Leapland. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605146. X Elytricum sp.

Breeding. Sando Selection 224; NSGC 6857. Pedigree - T.vulgare Sac 78(38)//Sol/Agropyron elongatum//Leapland. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605147. X Elytricum sp.

Breeding. Sando Selection 395; NSGC 6858. Pedigree - T.vulgare Sac 75(38)//Sol/Agropyron elongatum//Federation/Kinney/Prelude. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops,

and Secale. Spring habit. Free-threshing.

PI 605148. X Elytricum sp.

Breeding. Sando Selection 396; NSGC 6859. Pedigree - T.vulgare Sac75(38)//Sol/Agropyron elongatum//Federation/Kinney/Prelude. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing. Some blue seed.

PI 605149. X Elytricum sp.

Breeding. Sando Selection 397; NSGC 6860. Pedigree - T.vulgare Sac75(38)//Sol/Agropyron elongatum//Federation/Kinney/Prelude. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605150. X Elytricum sp.

Breeding. Sando Selection 398; NSGC 6861. Pedigree - T.vulgare Sac75(38)//Sol/Agropyron elongatum//Federation/Kinney/Prelude. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605151. X Elytricum sp.

Breeding. Sando Selection 673; NSGC 6862. Pedigree - T.vulgare Sac75(38)//Sol/Agropyron elongatum//Leapland//Chinese/Agropyron elongatum//Federation/Kinney/Prelude. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605152. X Elytricum sp.

Breeding. Sando Selection 354; NSGC 6863. Pedigree - T.vulgare Sac75(38)//Sol/Agropyron elongatum//Leapland/Broad glume P186(46)//Reliance/Mercury. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605153. X Elytricum sp.

Breeding. Sando Selection 355; NSGC 6864. Pedigree - T.vulgare Sac75(38)//Sol/Agropyron elongatum//Leapland/Broad glume P186(46)//Reliance/Mercury. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605154. X Elytricum sp.

Breeding. Sando Selection 449; NSGC 6865. Pedigree - T.vulgare Sac75(38)//Sol/Agropyron elongatum//Leapland/Carala. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605155. X Elytricum sp.

Breeding. Sando Selection 606; NSGC 6866. Pedigree - T.vulgare Sac75(38)//sol/Agropyron elongatum//Leapland/Carala. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605156. X Elytricum sp.

Breeding. Sando Selection 787; NSGC 6867. Pedigree - T.vulgare Sac75(38)//Sol/Agropyron elongatum//Leapland/Carala Sac4238(53). One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605157. X Elytricum sp.

Breeding. Sando Selection 515; NSGC 6868. Pedigree - T.vulgare Sac75(38)//Sol/Agropyron elongatum//Leapland/Harvest Queen. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605158. X Elytricum sp.

Breeding. Sando Selection 399; NSGC 6869. Pedigree - T.vulgare Sac75(38)//Sol/Agropyron elongatum//Leapland/Meister WR56 amp chromosomes/Bober WRP58(47). One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605159. X Elytricum sp.

Breeding. Sando Selection 792; NSGC 6870. Pedigree - T.vulgare Sac75(38)//Sol/Agropyron elongatum//Leapland/Michigan Amber//Harvest Queen P19-3(54). One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605160. X Elytricum sp.

Breeding. Sando Selection 793; NSGC 6871. Pedigree - T.vulgare Sac75(38)//Sol/Agropyron elongatum//Leapland/Michigan Amber//Lee P20-3(54). One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605161. X Elytricum sp.

Breeding. Sando Selection 514; NSGC 6872. Pedigree - T.vulgare Sac75(38)//Sol/Agropyron elongatum//Leapland/Michigan Amber/Purdue 7/T.macha. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605162. X Elytricum sp.

Breeding. Sando Selection 815; NSGC 6873. Pedigree - T.vulgare Sac75(38)//Sol/Agropyron elongatum//Leapland/Michigan Amber/Purdue 7/T.macha. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron

(Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605163. X Elytricum sp.

Breeding. Sando Selection 842; NSGC 6874. Pedigree - T.vulgare Sac75(38)//Sol/Agropyron elongatum//Leapland/Purplestraw. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing. Blue seed.

PI 605164. X Elytricum sp.

Breeding. Sando Selection 404; NSGC 6875. Pedigree - T.vulgare Sac75(38)//Sol/Agropyron elongatum//Leapland/T.vulgare smooth node//Reliance/Mercury. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605165. X Elytricum sp.

Breeding. Sando Selection 329; NSGC 6876. Pedigree - T.vulgare Sac75(38)/Agropyron elongatum//Leapland. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605166. X Elytricum sp.

Breeding. Sando Selection 337; NSGC 6877. Pedigree - T.vulgare Sac75(38)Bd//sol/Agropyron elongatum//Leapland/Redhart 5. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605167. X Elytricum sp.

Breeding. Sando Selection 338; NSGC 6878. Pedigree - T.vulgare Sac75(38)Bd//sol/Agropyron elongatum//Leapland/Redhart 5. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605168. X Elytricum sp.

Breeding. Sando Selection 496; NSGC 6879. Pedigree - T.vulgare Sac78(38)//Sol/Agropyron elongatum//Leapland. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605169. X Elytricum sp.

Breeding. Sando Selection 738; NSGC 6880. Pedigree - T.vulgare Taylor R.R.(52)/T.vulgare Cage73B(35)//Chinese/Agropyron elongatum//Federation/Kinney/Prelude P111-1(53). One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605170. X Elytricum sp.

Breeding. Sando Selection 510; NSGC 6881. Pedigree - T.vulgare Taylor

Y2375//T.vulgare/Agropyron Saskatoon. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605171. X Elytricum sp.

Breeding. Sando Selection 268; NSGC 6882. Pedigree - T.vulgare//Sol/Agropyron elongatum//Leapland. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605172. X Elytricum sp.

Breeding. Sando Selection 50; NSGC 6883. Pedigree - T.vulgare/Agropyron elongatum - 11B OB 1(46)//T.vulgare?. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605173. X Elytricum sp.

Breeding. Sando Selection 86; NSGC 6884. Pedigree - T.vulgare/Agropyron elongatum = Wa109-4(38)-3-10. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605174. X Elytricum sp.

Breeding. Sando Selection 87; NSGC 6885. Pedigree - T.vulgare/Agropyron elongatum = Wa109-4(38)-3-10. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605175. X Elytricum sp.

Breeding. Sando Selection 252; NSGC 6886. Pedigree - T.vulgare/Agropyron elongatum = Wa.113-4-2-10. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605176. X Elytricum sp.

Breeding. Sando Selection 122; NSGC 6887. Pedigree - T.vulgare/Agropyron elongatum = Wa109-4(38)-11-8//T.vulgare?. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605177. X Elytricum sp.

Breeding. Sando Selection 112; NSGC 6888. Pedigree - T.vulgare/Agropyron elongatum = Wa109-4(38)-3-10//T.vulgare?. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605178. X Elytricum sp.

Breeding. Sando Selection 114; NSGC 6889. Pedigree - T.vulgare/Agropyron elongatum =Wa109-4(38)-3-10//T.vulgare?. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605179. X Elytricum sp.

Breeding. Sando Selection 115; NSGC 6890. Pedigree - T.vulgare/Agropyron elongatum =Wa109-4(38)-3-10//T.vulgare?. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605180. X Elytricum sp.

Breeding. Sando Selection 119; NSGC 6891. Pedigree - T.vulgare/Agropyron elongatum =Wa109-4(38)-3-10//T.vulgare?. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605181. X Elytricum sp.

Breeding. Sando Selection 120; NSGC 6892. Pedigree - T.vulgare/Agropyron elongatum =Wa109-4(38)-3-10//T.vulgare?. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605182. X Elytricum sp.

Breeding. Sando Selection 121; NSGC 6893. Pedigree - T.vulgare/Agropyron elongatum =Wa109-4(38)-3-17Bed//T.vulgare?. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605183. X Elytricum sp.

Breeding. Sando Selection 45; NSGC 6894. Pedigree - T.vulgare/Agropyron elongatum -11 B OB 1(46)//T.vulgare?. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605184. X Elytricum sp.

Breeding. Sando Selection 54; NSGC 6895. Pedigree - T.vulgare/Agropyron elongatum -11B OB 1(46)//T.vulgare?. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605185. X Elytricum sp.

Breeding. Sando Selection 36; NSGC 6896. Pedigree - T.vulgare/Agropyron elongatum -16 old OB 1(46)/T.vulgare?. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605186. X Elytricum sp.

Breeding. Sando Selection 93; NSGC 6897. Pedigree - T.vulgare/Agropyron elongatum -2 old(45)//T.vulgare?. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605187. X Elytricum sp.

Breeding. Sando Selection 390; NSGC 6898. Pedigree - T.vulgare/Agropyron elongatum GHB59A//P441(48)=Steinwedel. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605188. X Elytricum sp.

Breeding. Sando Selection 391; NSGC 6899. Pedigree - T.vulgare/Agropyron elongatum GHB59A//P441(48)=Steinwedel. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605189. X Elytricum sp.

Breeding. Sando Selection 716; NSGC 6900. Pedigree - T.vulgare/Agropyron elongatum Mck49-6115(51)//Kenya 338/Abyssinia CI8156 P29-2(53). One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605190. X Elytricum sp.

Breeding. Sando Selection 810; NSGC 6901. Pedigree - T.vulgare/Agropyron elongatum Mck49-6115(51)VR//Kenya 338/Abyssinia CI8156 P166-2(54). One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605191. X Elytricum sp.

Breeding. Sando Selection 818; NSGC 6902. Pedigree - T.vulgare/Agropyron elongatum Mck49-6115(51)VR//Kenya 338/Lee. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605192. X Elytricum sp.

Breeding. Sando Selection 819; NSGC 6903. Pedigree - T.vulgare/Agropyron elongatum Mck49-6115(51)VR//Kenya 338/Lee. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605193. X Elytricum sp.

Breeding. Sando Selection 820; NSGC 6904. Pedigree - T.vulgare/Agropyron elongatum Mck49-6115(51)VR//Kenya 338/Michigan Amber. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605194. X Elytricum sp.

Breeding. Sando Selection 646; NSGC 6905. Pedigree - T.vulgare/Agropyron elongatum Mck49-6115(51)VR//Kenya PI177180. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605195. X Elytricum sp.

Breeding. Sando Selection 647; NSGC 6906. Pedigree - T.vulgare/Agropyron elongatum Mck49-6115(51)VR//Sando timopheevii hybrid R.R.3741(47)//Reliance/Mercury. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing. Purple seed.

PI 605196. X Elytricum sp.

Breeding. Sando Selection 728; NSGC 6907. Pedigree - T.vulgare/Agropyron elongatum Mck49-6115(52)VR//Sando timopheevii hybrid//Reliance/Mercury//Lee P43-1(53). One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605197. X Elytricum sp.

Breeding. Sando Selection 541; NSGC 6908. Pedigree - T.vulgare/Agropyron elongatum Mck6153(51) VR//Frondoso. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605198. X Elytricum sp.

Breeding. Sando Selection 788; NSGC 6909. Pedigree - T.vulgare/Agropyron elongatum Mck6348(50//Sando timopheevii hybrid R.R.3741(47)/Harvest Queen P9-2(54). One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605199. X Elytricum sp.

Breeding. Sando Selection 835; NSGC 6910. Pedigree - T.vulgare/Agropyron elongatum Mck653(51)VR//Arlando/T.timopheevii//Hope/Baart//Chinese/Agropyron elongatum//Arlando/Leapland//Comet/Hard Federation. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605200. X Elytricum sp.

Breeding. Sando Selection 833; NSGC 6911. Pedigree - T.vulgare/Agropyron elongatum Mck7344(51)//Pawnee. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605201. X Elytricum sp.

Breeding. Sando Selection 736; NSGC 6912. Pedigree - T.vulgare/Agropyron elongatum Mck7344(51)//Sando timopheevii hybrid//Reliance/Mercury//Steinwedel/Kenya 338 P68-2(53). One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605202. X Elytricum sp.

Breeding. Sando Selection 644; NSGC 6913. Pedigree - T.vulgare/Agropyron elongatum Mck7344(51)VR//Sando timopheevii hybrid R.R.3741(47)/Fronoso. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605203. X Elytricum sp.

Breeding. Sando Selection 645; NSGC 6914. Pedigree - T.vulgare/Agropyron elongatum Mck7344(51)VR//Sando timopheevii hybrid R.R.3741(47)/Fronoso. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605204. X Elytricum sp.

Breeding. Sando Selection 724; NSGC 6915. Pedigree - T.vulgare/Agropyron elongatum Mck7344(51)VR//Sando timopheevii hybrid R.R.3741(47)/Fronoso P40-1(53). One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605205. X Elytricum sp.

Breeding. Sando Selection 725; NSGC 6916. Pedigree - T.vulgare/Agropyron elongatum Mck7344(51)VR//Sando timopheevii hybrid R.R.3741(47)/Fronoso P40-3(53). One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605206. X Elytricum sp.

Breeding. Sando Selection 806; NSGC 6917. Pedigree - T.vulgare/Agropyron elongatum Mck7344(51)VR//Sando timopheevii hybrid R.R.3741(47)/Fronoso/Kenya CI12882 P162-4(54). One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605207. X Elytricum sp.

Breeding. Sando Selection 807; NSGC 6918. Pedigree - T.vulgare/Agropyron elongatum Mck7344(51)VR//Sando timopheevii hybrid R.R.3741(47)/Fronoso/Kenya PI177167(184) P164-2(54). One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605208. X Elytricum sp.

Breeding. Sando Selection 809; NSGC 6919. Pedigree - T.vulgare/Agropyron elongatum Mck7344(51)VR//Sando timopheevii hybrid

R.R.3741(47)/Fronodoso/Kenya PI177167(184) P165-3(54). One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605209. X Elytricum sp.

Breeding. Sando Selection 832; NSGC 6920. Pedigree - T.vulgare/Agropyron elongatum Mck7344(51)VR//Sando timopheevii hybrid R.R.3741(47)/T.vulgare Sac75(38)//sol/Agropyron elongatum//Leapland/Redhart. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605210. X Elytricum sp.

Breeding. Sando Selection 551; NSGC 6921. Pedigree - T.vulgare/Agropyron elongatum Mck7344(51)VR//Sando timopheevii hybrid//Reliance/Mercury//Steinwedel/Kenya 338. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605211. X Elytricum sp.

Breeding. Sando Selection 552; NSGC 6922. Pedigree - T.vulgare/Agropyron elongatum Mck7344(51)VR//Sando timopheevii hybrid//Reliance/Mercury//Steinwedel/Kenya 338. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605212. X Elytricum sp.

Breeding. Sando Selection 710; NSGC 6923. Pedigree - T.vulgare/Agropyron elongatum Mck7344(51)VR//T.vulgare R.R.3741(47)/Kenya CI12882(RE324) P24-3(53). One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605213. X Elytricum sp.

Breeding. Sando Selection 666; NSGC 6924. Pedigree - T.vulgare/Agropyron elongatum Mck7344(54)VR//etc. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605214. X Elytricum sp.

Breeding. Sando Selection 713; NSGC 6925. Pedigree - T.vulgare/Agropyron elongatum MckWA7344(51)VR//Sando timopheevii hybrid R.R.3741(47)/Kenya PI177167(184) P25-4(53). One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605215. X Elytricum sp.

Breeding. Sando Selection 83; NSGC 6926. Pedigree - T.vulgare/Agropyron elongatum Old 35//T.vulgare?. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between

Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605216. X Elytricum sp.

Breeding. Sando Selection 529; NSGC 6927. Pedigree - T.vulgare/Agropyron elongatum Sando 43-11(51)//Michigan Amber. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605217. X Elytricum sp.

Breeding. Sando Selection 650; NSGC 6928. Pedigree - T.vulgare/Agropyron elongatum Suneson 118c-1-2-2yr//Carala/Sando timopheevii hybrid R.R.3741(47)//Reliance/Mercury. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605218. X Elytricum sp.

Breeding. Sando Selection 182; NSGC 6929. Pedigree - T.vulgare/Agropyron elongatum Suneson 200-P-14//Y2375(46) Ta.LEP86(47). One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605219. X Elytricum sp.

Breeding. Sando Selection 44; NSGC 6930. Pedigree - T.vulgare/Agropyron elongatum Suneson 464-3-1(46). One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605220. X Elytricum sp.

Breeding. Sando Selection 387; NSGC 6931. Pedigree - T.vulgare/Agropyron elongatum Suneson 531W//Arlando. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605221. X Elytricum sp.

Breeding. Sando Selection 389; NSGC 6932. Pedigree - T.vulgare/Agropyron elongatum Suneson 531W//Arlando. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605222. X Elytricum sp.

Breeding. Sando Selection 680; NSGC 6933. Pedigree - T.vulgare/Agropyron elongatum Suneson 700-P-14 3yr//Taylor plotP527(48) T.vulgare P30-3(52). One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605223. X Elytricum sp.

Breeding. Sando Selection 776; NSGC 6934. Pedigree - T.vulgare/Agropyron

elongatum Suneson 700-P-14(46) Br547(56). One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605224. X Elytricum sp.

Breeding. Sando Selection 214; NSGC 6935. Pedigree - T.vulgare/Agropyron elongatum Suneson 700-P-14//Fultz/Hungarian Selection//Arlando/Rising Sun. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605225. X Elytricum sp.

Breeding. Sando Selection 731; NSGC 6936. Pedigree - T.vulgare/Agropyron elongatum Suneson 700-P-14//T.vulgare Taylor 2375/Kenya 338 P55-1(53). One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605226. X Elytricum sp.

Breeding. Sando Selection 378; NSGC 6937. Pedigree - T.vulgare/Agropyron elongatum Suneson 700-P-14//Tay.Y2375(46) T.vulgare. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605227. X Elytricum sp.

Breeding. Sando Selection 777; NSGC 6938. Pedigree - T.vulgare/Agropyron elongatum Suneson 700-P-14//Taylor 2375(46) Br577(56). One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605228. X Elytricum sp.

Breeding. Sando Selection 213; NSGC 6939. Pedigree - T.vulgare/Agropyron elongatum Suneson 700-P-14//Trumbull/Fultz/Hungarian Selection//Arlando/T.timopheevii//Hope/Baart. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605229. X Elytricum sp.

Breeding. Sando Selection 212; NSGC 6940. Pedigree - T.vulgare/Agropyron elongatum Suneson 700-P-14//Trumbull/Fultz/Hungarian Selection/Arlando/Frondoso. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605230. X Elytricum sp.

Breeding. Sando Selection 41; NSGC 6941. Pedigree - T.vulgare/Agropyron elongatum Suneson 700-P-14//Trumbull/Fultz/Hungarian W38. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605231. X Elytricum sp.

Breeding. Sando Selection 79; NSGC 6942. Pedigree - *T.vulgare*/Agropyron elongatum Suneson 700-P-14//Trumbull/Fultz/Hungarian W38. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (*Elytrigia*), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605232. X Elytricum sp.

Breeding. Sando Selection 202; NSGC 6943. Pedigree - *T.vulgare*/Agropyron elongatum Suneson 700-P-14//Trumbull/Fultz/Hungarian W38. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (*Elytrigia*), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605233. X Elytricum sp.

Breeding. Sando Selection 196; NSGC 6944. Pedigree - *T.vulgare*/Agropyron elongatum Suneson fr. Cr198d2,1186-1-2//Carala. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (*Elytrigia*), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605234. X Elytricum sp.

Breeding. Sando Selection 410; NSGC 6945. Pedigree - *T.vulgare*/Agropyron elongatum Suneson T III 10673//Reliance/Mercury. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (*Elytrigia*), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605235. X Elytricum sp.

Breeding. Sando Selection 330; NSGC 6946. Pedigree - *T.vulgare*/Agropyron elongatum Suneson//Carala. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (*Elytrigia*), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605236. X Elytricum sp.

Breeding. Sando Selection 331; NSGC 6947. Pedigree - *T.vulgare*/Agropyron elongatum Suneson//Carala. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (*Elytrigia*), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605237. X Elytricum sp.

Breeding. Sando Selection 428; NSGC 6948. Pedigree - *T.vulgare*/Agropyron elongatum Suneson//Carala. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (*Elytrigia*), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605238. X Elytricum sp.

Breeding. Sando Selection 430; NSGC 6949. Pedigree - *T.vulgare*/Agropyron elongatum Suneson//Carala. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (*Elytrigia*), Aegilops, and Secale. Spring habit.

Free-threshing.

PI 605239. X Elytricum sp.

Breeding. Sando Selection 272; NSGC 6950. Pedigree - T.vulgare/Agropyron elongatum Suneson//Johnson T17(48)Tap.Bed. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605240. X Elytricum sp.

Breeding. Sando Selection 169; NSGC 6951. Pedigree - T.vulgare/Agropyron elongatum Wa.109-4(38)-10-11//T.vulgare?. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605241. X Elytricum sp.

Breeding. Sando Selection 158; NSGC 6952. Pedigree - T.vulgare/Agropyron elongatum Wa.112-6-5B-1//Redhart. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605242. X Elytricum sp.

Breeding. Sando Selection 295; NSGC 6953. Pedigree - T.vulgare/Agropyron elongatum Wa.113-4//Blauweizen HN//Chinese/Agropyron elongatum//Federation/Kinney/Prelude//Carala. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605243. X Elytricum sp.

Breeding. Sando Selection 246; NSGC 6954. Pedigree - T.vulgare/Agropyron elongatum Wa.113-4-1//Chinese/Agropyron elongatum//Federation/Kinney/Prelude//Arlando/Pilot//Emerson Awnless/Tp.durum. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605244. X Elytricum sp.

Breeding. Sando Selection 310; NSGC 6955. Pedigree - T.vulgare/Agropyron elongatum//Baart. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605245. X Elytricum sp.

Breeding. Sando Selection 311; NSGC 6956. Pedigree - T.vulgare/Agropyron elongatum//Baart. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605246. X Elytricum sp.

Breeding. Sando Selection 685; NSGC 6957. Pedigree - T.vulgare/Agropyron

elongatum//Baart P50-1(52). One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing. Blue and purple seed.

PI 605247. X Elytricum sp.

Breeding. Sando Selection 228; NSGC 6958. Pedigree - T.vulgare/Agropyron elongatum//T.vulgare. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605248. X Elytricum sp.

Breeding. Sando Selection 298; NSGC 6959. Pedigree - T.vulgare/Agropyron elongatum//T.vulgare. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605249. X Elytricum sp.

Breeding. Sando Selection 299; NSGC 6960. Pedigree - T.vulgare/Agropyron elongatum//T.vulgare. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605250. X Elytricum sp.

Breeding. Sando Selection 14; NSGC 6961. Pedigree - T.vulgare/Agropyron elongatum/T.vulgare. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605251. X Elytricum sp.

Breeding. Sando Selection 245; NSGC 6962. Pedigree - Thatcher/Rust Resistant P.K.Taylor//Prairie/Clark A1-50-4/Agropyron trichophorum. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605252. X Elytricum sp.

Breeding. Sando Selection 216; NSGC 6963. Pedigree - Thatcher/T.vulgare Tay.vol.//Rising Sun/Agropyron elongatum/Illini Chief/Purplestraw/Premier. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing. Some purple seed.

PI 605253. X Elytricum sp.

Breeding. Sando Selection 217; NSGC 6964. Pedigree - Thatcher/T.vulgare Tay.vol.//T.vulgare/Agropyron elongatum Suneson 700-P-14//Tay T.vulgare Vol. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605254. X Elytricum sp.

Breeding. Sando Selection 506; NSGC 6965. Pedigree - Thorne/3/Nebred//Chinese/Agropyron elongatum//Federation/Kinney/Prelude//Chinese/Agropyron elongatum//Federation/Kinney/Prelude. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605255. X Elytricum sp.

Breeding. Sando Selection 195; NSGC 6966. Pedigree - volunteer T.vulgare stem rust res.//Sol/Agropyron elongatum//Leapland. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605256. X Elytricum sp.

Breeding. Sando Selection 193; NSGC 6967. Pedigree - Wabash/Sando timopheevii = vulgare hybrid P160(48)//T.vulgare/Agropyron elongatum Suneson 500-3-5(46). One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605257. X Elytriticale sp.

Breeding. Sando Selection 243; NSGC 6968. Pedigree - Arlando/T.timopheevii//Prelude/Sol/Purplestraw//Chinese/rye//Chinese/Agropyron elongatum//Forward/Arlando. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605258. X Elytriticale sp.

Breeding. Sando Selection 207; NSGC 6969. Pedigree - Arlando/T.timopheevii//Prelude/Sol/Purplestraw//Chinese/rye//Chinese/Agropyron elongatum//Forward/BrK Ab70(38). One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605259. X Elytriticale sp.

Breeding. Sando Selection 123; NSGC 6970. Pedigree - Chinese Cage73B(35)//Chinese/rye//Chinese/Agropyron elongatum//Forward/BrK Ab70(38). One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605260. X Elytriticale sp.

Breeding. Sando Selection 830; NSGC 6971. Pedigree - Chinese/rye Sac33(51)//Chinese/Agropyron elongatum//Forward. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605261. X Elytriticale sp.

Breeding. Sando Selection 190; NSGC 6972. Pedigree - Chinese/rye//Agropyron elongatum/Forward. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605262. X Elytriticale sp.

Breeding. Sando Selection 173; NSGC 6973. Pedigree - Chinese/rye//Agropyron elongatum/Forward/Prairie. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605263. X Elytriticale sp.

Breeding. Sando Selection 308; NSGC 6974. Pedigree - Chinese/rye//Chinese//Chinese/Agropyron elongatum//Federation/Kinney/Prelude//Carala. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605264. X Elytriticale sp.

Breeding. Sando Selection 309; NSGC 6975. Pedigree - Chinese/rye//Chinese//Chinese/Agropyron elongatum//Federation/Kinney/Prelude//Carala. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605265. X Elytriticale sp.

Breeding. Sando Selection 800; NSGC 6976. Pedigree - Chinese/rye//Chinese//Chinese/Agropyron elongatum//Federation/Kinney/Prelude//Carala P146-2(54). One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605266. X Elytriticale sp.

Breeding. Sando Selection 131; NSGC 6977. Pedigree - Chinese/rye//Chinese//Chinese/rye//Chinese/Agropyron elongatum//Forward/BrK Ab70(38). One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605267. X Elytriticale sp.

Breeding. Sando Selection 421; NSGC 6978. Pedigree - Chinese/rye//Chinese//Chinese/rye//Chinese/Agropyron elongatum//Forward/BrK Ab70(38). One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605268. X Elytriticale sp.

Breeding. Sando Selection 729; NSGC 6979. Pedigree -

Chinese/rye//Chinese//Rising Sun/Agropyron elongatum//Illini Chief/P.S.//Premier/Kenya 338 P53-3(53). One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605269. X Elytriticale sp.

Breeding. Sando Selection 730; NSGC 6980. Pedigree - Chinese/rye//Chinese//Rising Sun/Agropyron elongatum//Illini Chief/P.S.//Premier/Kenya 338 P53-5(53). One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605270. X Elytriticale sp.

Breeding. Sando Selection 734; NSGC 6981. Pedigree - Chinese/rye//Chinese//Rising Sun/Agropyron elongatum//Illini Chief/P.S.//Premier/Lee P64-1(53). One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605271. X Elytriticale sp.

Breeding. Sando Selection 334; NSGC 6982. Pedigree - Chinese/rye//Chinese//Rising Sun/Agropyron elongatum//Illini Chief/Purplestraw/Premier. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605272. X Elytriticale sp.

Breeding. Sando Selection 339; NSGC 6983. Pedigree - Chinese/rye//Chinese//Rising Sun/Agropyron elongatum//Illini Chief/Purplestraw/Premier. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605273. X Elytriticale sp.

Breeding. Sando Selection 340; NSGC 6984. Pedigree - Chinese/rye//Chinese//Rising Sun/Agropyron elongatum//Illini Chief/Purplestraw/Premier. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605274. X Elytriticale sp.

Breeding. Sando Selection 341; NSGC 6985. Pedigree - Chinese/rye//Chinese//Rising Sun/Agropyron elongatum//Illini Chief/Purplestraw/Premier. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605275. X Elytriticale sp.

Breeding. Sando Selection 342; NSGC 6986. Pedigree - Chinese/rye//Chinese//Rising Sun/Agropyron elongatum//Illini Chief/Purplestraw/Premier. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605276. X Elytriticale sp.

Breeding. Sando Selection 343; NSGC 6987. Pedigree - Chinese/rye//Chinese//Rising Sun/Agropyron elongatum//Illini Chief/Purplestraw/Premier. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605277. X Elytriticale sp.

Breeding. Sando Selection 553; NSGC 6988. Pedigree - Chinese/rye//Chinese//Rising Sun/Agropyron elongatum//Illini Chief/Purplestraw/Premier/Lee/Kenya 338. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605278. X Elytriticale sp.

Breeding. Sando Selection 134; NSGC 6989. Pedigree - Chinese/rye//Chinese//T.vulgare/Agropyron elongatum Wa.112-6-5B-1. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing. Some blue seed.

PI 605279. X Elytriticale sp.

Breeding. Sando Selection 289; NSGC 6990. Pedigree - Chinese/rye//Chinese//T.vulgare/Agropyron elongatum Wa.112-6-5B-1. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605280. X Elytriticale sp.

Breeding. Sando Selection 290; NSGC 6991. Pedigree - Chinese/rye//Chinese//T.vulgare/Agropyron elongatum Wa.112-6-5B-1. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605281. X Elytriticale sp.

Breeding. Sando Selection 291; NSGC 6992. Pedigree - Chinese/rye//Chinese//T.vulgare/Agropyron elongatum Wa.112-6-5B-1. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605282. X Elytriticale sp.

Breeding. Sando Selection 42; NSGC 6993. Pedigree - Chinese/rye//Chinese/Agropyron

elongatum//Federation/Kinney/Prelude/Redhart 5. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605283. X Elytriticales sp.

Breeding. Sando Selection 31; NSGC 6994. Pedigree - Chinese/rye//Chinese/Agropyron elongatum//Forward. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605284. X Elytriticales sp.

Breeding. Sando Selection 33; NSGC 6995. Pedigree - Chinese/rye//Chinese/Agropyron elongatum//Forward. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Not free-threshing.

PI 605285. X Elytriticales sp.

Breeding. Sando Selection 92; NSGC 6996. Pedigree - Chinese/rye//Chinese/Agropyron elongatum//Forward. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605286. X Elytriticales sp.

Breeding. Sando Selection 292; NSGC 6997. Pedigree - Chinese/rye//Chinese/Agropyron elongatum//Forward. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605287. X Elytriticales sp.

Breeding. Sando Selection 760; NSGC 6998. Pedigree - Chinese/rye//Chinese/Agropyron elongatum//Forward/Ab70(35)Brk Br81(56). One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing. Some blue seed.

PI 605288. X Elytriticales sp.

Breeding. Sando Selection 275; NSGC 6999. Pedigree - Chinese/rye//Chinese/Agropyron elongatum//Forward/Ab70(38)/White Wonder. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605289. X Elytriticales sp.

Breeding. Sando Selection 779; NSGC 7000. Pedigree - Chinese/rye//Chinese/Agropyron elongatum//Forward/Ab70(38)BrK Sac3965(53). One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

- PI 605290. X Elytriticale sp.**
Breeding. Sando Selection 95; NSGC 7001. Pedigree - Chinese/rye//Chinese/Agropyron elongatum//Forward/Arlando. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.
- PI 605291. X Elytriticale sp.**
Breeding. Sando Selection 491; NSGC 7002. Pedigree - Chinese/rye//Chinese/Agropyron elongatum//Forward/BrK Ab70(38). One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.
- PI 605292. X Elytriticale sp.**
Breeding. Sando Selection 149; NSGC 7003. Pedigree - Chinese/rye//Chinese/Agropyron elongatum//Forward/Hussar/Trumbull/Webster/Purplestraw. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.
- PI 605293. X Elytriticale sp.**
Breeding. Sando Selection 69; NSGC 7004. Pedigree - Chinese/rye//Chinese/Agropyron elongatum//Forward/Johnson T.17(48) Tap Bed. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.
- PI 605294. X Elytriticale sp.**
Breeding. Sando Selection 297; NSGC 7005. Pedigree - Chinese/rye//Chinese/Agropyron elongatum//Forward/Johnson T17(48)Tap.Bed. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.
- PI 605295. X Elytriticale sp.**
Breeding. Sando Selection 261; NSGC 7006. Pedigree - Chinese/rye//Chinese/Agropyron elongatum//Forward/Minhardi//Rising Sun/Agropyron elongatum//Illini Chief/Carala. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.
- PI 605296. X Elytriticale sp.**
Breeding. Sando Selection 108; NSGC 7007. Pedigree - Chinese/rye//Chinese/Agropyron elongatum//Forward/T.vulgare R.R.147(38)/Webster/Purplestraw. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.
- PI 605297. X Elytriticale sp.**
Breeding. Sando Selection 7; NSGC 7008. Pedigree -

Chinese/rye//Chinese/Agropyron elongatum//Rising Sun/Purplestraw/Leap. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605298. X Elytriticales sp.

Breeding. Sando Selection 58; NSGC 7009. Pedigree - Chinese/rye//Chinese/Agropyron elongatum//Rising Sun/Purplestraw/Leapland. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605299. X Elytriticales sp.

Breeding. Sando Selection 98; NSGC 7010. Pedigree - Chinese/rye//Chinese/Agropyron elongatum//Rising Sun/Purplestraw/Leapland. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605300. X Elytriticales sp.

Breeding. Sando Selection 442; NSGC 7011. Pedigree - Chinese/rye//Chinese/R.R.147(38)/Webster/P.S.//Chinese/rye//Chinese/Agropyron elongatum//Forward. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605301. X Elytriticales sp.

Breeding. Sando Selection 444; NSGC 7012. Pedigree - Chinese/rye//Chinese/R.R.147(38)/Webster/P.S.//Chinese/rye//Chinese/Agropyron elongatum//Forward. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605302. X Elytriticales sp.

Breeding. Sando Selection 445; NSGC 7013. Pedigree - Chinese/rye//Chinese/R.R.147(38)/Webster/P.S.//Chinese/rye//Chinese/Agropyron elongatum//Forward. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605303. X Elytriticales sp.

Breeding. Sando Selection 446; NSGC 7014. Pedigree - Chinese/rye//Chinese/R.R.147(38)/Webster/P.S.//Chinese/rye//Chinese/Agropyron elongatum//Forward. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605304. X Elytriticales sp.

Breeding. Sando Selection 34; NSGC 7015. Pedigree -

Chinese/rye//Chinese/rye//Chinese/Agropyron elongatum//Forward/Ab70(38)Br.K. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605305. X Elytriticale sp.

Breeding. Sando Selection 344; NSGC 7016. Pedigree - Chinese/rye//Chinese/Wa.113-4 etc//T.vulgare/Agropyron elongatum//Wa.112-2 etc//T.vulgare/Agropyron elongatum. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605306. X Elytriticale sp.

Breeding. Sando Selection 345; NSGC 7017. Pedigree - Chinese/rye//Chinese/Wa.113-4 etc//T.vulgare/Agropyron elongatum//Wa.112-2 etc//T.vulgare/Agropyron elongatum. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605307. X Elytriticale sp.

Breeding. Sando Selection 347; NSGC 7018. Pedigree - Chinese/rye//Chinese/Wa.113-4 etc//T.vulgare/Agropyron elongatum//Wa.112-2 etc//T.vulgare/Agropyron elongatum. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing. Some blue seed.

PI 605308. X Elytriticale sp.

Breeding. Sando Selection 688; NSGC 7019. Pedigree - Chinese/rye//Leapland/Arlando//Purplestraw/Agropyron elongatum P82-2(52). One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605309. X Elytriticale sp.

Breeding. Sando Selection 409; NSGC 7020. Pedigree - Chinese/rye//P.S./Agropyron elongatum//Leapland/Arlando//Reliance/Mercury. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605310. X Elytriticale sp.

Breeding. Sando Selection 175; NSGC 7021. Pedigree - Chinese/rye//Purplestraw/Agropyron elongatum//Leapland/Arlando. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605311. X Elytriticale sp.

Breeding. Sando Selection 231; NSGC 7022. Pedigree - Chinese/rye//Purplestraw/Agropyron elongatum//Leapland/Arlando. One of a

series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605312. X Elytriticales sp.

Breeding. Sando Selection 607; NSGC 7023. Pedigree - Chinese/rye//Purplestraw/Agropyron elongatum//Leapland/Arlando//Rising Sun/Agropyron elongatum//Illini Chief/Purplestraw/Premier/Carala. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605313. X Elytriticales sp.

Breeding. Sando Selection 184; NSGC 7024. Pedigree - Chinese/rye//Purplestraw/Agropyron elongatum/Leapland/Arlando. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605314. X Elytriticales sp.

Breeding. Sando Selection 431; NSGC 7025. Pedigree - Chinese/rye/Chinese//Rising Sun/Agropyron elongatum//Illini Chief/P.S./Premier. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605315. X Elytriticales sp.

Breeding. Sando Selection 433; NSGC 7026. Pedigree - Chinese/rye/Chinese//Rising Sun/Agropyron elongatum//Illini Chief/P.S./Premier. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605316. X Elytriticales sp.

Breeding. Sando Selection 434; NSGC 7027. Pedigree - Chinese/rye/Chinese//Rising Sun/Agropyron elongatum//Illini Chief/P.S./Premier. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605317. X Elytriticales sp.

Breeding. Sando Selection 441; NSGC 7028. Pedigree - Chinese/rye/Chinese//Rising Sun/Agropyron elongatum//Illini Chief/P.S./Premier. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605318. X Elytriticales sp.

Breeding. Sando Selection 167; NSGC 7029. Pedigree - Husar/Trumbull//Webster/Purplestraw//Chinese/rye//Chinese/Agropyron elongatum//Forward/Prairie. One of a series of selections (PI 604860 -

605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605319. X Elytriticale sp.

Breeding. Sando Selection 168; NSGC 7030. Pedigree - Hussar/Trumbull//Webster/Purplestraw//Chinese/rye//Chinese/Agropyron elongatum//Forward/Prairie. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605320. X Elytriticale sp.

Breeding. Sando Selection 100; NSGC 7031. Pedigree - Hussar/Trumbull//Webster/Purplestraw//Chinese/rye//Chinese/Agropyron elongatum//Forward. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605321. X Elytriticale sp.

Breeding. Sando Selection 148; NSGC 7032. Pedigree - Hussar/Trumbull//Webster/Purplestraw//Chinese/rye//Chinese/Agropyron elongatum//Forward/Prairie. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605322. X Elytriticale sp.

Breeding. Sando Selection 271; NSGC 7033. Pedigree - Hussar/Trumbull//Webster/Purplestraw//Chinese/rye//Chinese/Agropyron elongatum//Forward/T.vulgare. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605323. X Elytriticale sp.

Breeding. Sando Selection 8; NSGC 7034. Pedigree - Hussar/Trumbull//Webster/Purplestraw//Chinese/rye//Chinese/Agropyron elongatum//Forward. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605324. X Elytriticale sp.

Breeding. Sando Selection 10; NSGC 7035. Pedigree - Hussar/Trumbull//Webster/Purplestraw//Chinese/rye//Chinese/Agropyron elongatum//Forward. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605325. X Elytriticale sp.

Breeding. Sando Selection 22; NSGC 7036. Pedigree - Hussar/Trumbull//Webster/Purplestraw//Chinese/rye//Chinese/Agropyron

elongatum//Forward. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605326. X Elytriticales sp.

Breeding. Sando Selection 573; NSGC 7037. Pedigree - Kawvale//Chinese/rye//Chinese/Agropyron elongatum//Forward. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605327. X Elytriticales sp.

Breeding. Sando Selection 756; NSGC 7038. Pedigree - Kawvale//Chinese/rye//Chinese/Agropyron elongatum//Forward. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605328. X Elytriticales sp.

Breeding. Sando Selection 467; NSGC 7039. Pedigree - R.R.147(38) T.vulgare/Webster/P.S.//Chinese/rye//Chinese/Agropyron elongatum//Forward/Carala. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605329. X Elytriticales sp.

Breeding. Sando Selection 469; NSGC 7040. Pedigree - R.R.147(38) T.vulgare/Webster/P.S.//Chinese/rye//Chinese/Agropyron elongatum//Forward/Carala. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605330. X Elytriticales sp.

Breeding. Sando Selection 470; NSGC 7041. Pedigree - R.R.147(38) T.vulgare/Webster/P.S.//Chinese/rye//Chinese/Agropyron elongatum//Forward/Carala. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605331. X Elytriticales sp.

Breeding. Sando Selection 159; NSGC 7042. Pedigree - Redhart 5//Chinese/rye//Chinese/Agropyron elongatum//Lutescens & Hostianum Kan. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing. Some blue seed.

PI 605332. X Elytriticales sp.

Breeding. Sando Selection 764; NSGC 7043. Pedigree - Sando timopheevii hybrid R.R.3741(47)//Chinese/rye//Chinese/Agropyron elongatum//Forward/Arlando Br121(56). One of a series of selections (PI

604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605333. X Elytriticale sp.

Breeding. Sando Selection 831; NSGC 7044. Pedigree - T.civcerstormum/Agropyron intermedium Mck Sando 31(51)VR//T.vulgare/rye//T.vulgare/Agropyron elongatum. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605334. X Elytriticale sp.

Breeding. Sando Selection 816; NSGC 7045. Pedigree - T.civcerstormum/Agropyron intermedium//wheat/rye//HN wheat/Frontana/Michigan Amber. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605335. X Elytriticale sp.

Breeding. Sando Selection 3; NSGC 7046. Pedigree - T.vulgare R.R.147(38)/Webster/Purplestraw//Chinese/rye//Chinese/Agropyron elongatum//Forward. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605336. X Elytriticale sp.

Breeding. Sando Selection 107; NSGC 7047. Pedigree - T.vulgare R.R.147(38)/Webster/Purplestraw//Chinese/rye//Chinese/Agropyron elongatum//Forward. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605337. X Elytriticale sp.

Breeding. Sando Selection 319; NSGC 7048. Pedigree - T.vulgare Sac 75(38)//Sol/Agropyron elongatum//Leapland/Meister wheat-rye amphiploid. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605338. X Elytriticale sp.

Breeding. Sando Selection 320; NSGC 7049. Pedigree - T.vulgare Sac 75(38)//Sol/Agropyron elongatum//Leapland/Meister wheat-rye amphiploid. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605339. X Elytriticale sp.

Breeding. Sando Selection 321; NSGC 7050. Pedigree - T.vulgare Sac 75(38)//Sol/Agropyron elongatum//Leapland/Meister wheat-rye amphiploid. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron

(Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605340. X Elytritricale sp.

Breeding. Sando Selection 322; NSGC 7051. Pedigree - T.vulgare Sac 75(38)//Sol/Agropyron elongatum//Leapland/Meister wheat-rye amphiploid. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605341. X Elytritricale sp.

Breeding. Sando Selection 628; NSGC 7052. Pedigree - T.vulgare/Webster R.R.147(38)//Purplestraw//Chinese/rye//Chinese/Agropyron elongatum//Forward/Carala. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605342. X Elytritricale sp.

Breeding. Sando Selection 629; NSGC 7053. Pedigree - T.vulgare/Webster R.R.147(38)//Purplestraw//Chinese/rye//Chinese/Agropyron elongatum//Forward/Carala. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605343. X Elytritricale sp.

Breeding. Sando Selection 263; NSGC 7054. Pedigree - Webster/Purplestraw R.R.147(38)//Chinese/rye//Chinese/Agropyron elongatum//Forward//Reliance/Mercury. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605344. X Elytritricale sp.

Breeding. Sando Selection 264; NSGC 7055. Pedigree - Webster/Purplestraw R.R.147(38)//Chinese/rye//Chinese/Agropyron elongatum//Forward//Reliance/Mercury. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605345. X Elytritilops sp.

Breeding. Sando Selection 209; NSGC 7056. Pedigree - Arlando/T.timopheevii//Early Blackhull/Hard Federation//T.vulgare/Agropyron elongatum Suneson 700-P14//Aegilops crassa. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605346. X Elytritilops sp.

Breeding. Sando Selection 802; NSGC 7057. Pedigree - Sando timopheevii hybrid r.R.3741(47)//T.vulgare/Agropyron elongatum//Aegilops crassa rufescens/Redhart P148-3(54). One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit.

Free-threshing.

PI 605347. X Elytritolops sp.

Breeding. Sando Selection 538; NSGC 7058. Pedigree - Sando timopheevii hybrid//T.vulgare/Agropyron elongatum Suneson//Aegilops crassa rufescens/Carala. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605348. X Elytritolops sp.

Breeding. Sando Selection 652; NSGC 7059. Pedigree - T.vulgare/Agropyron elongatum Mck49-6025VR//Aegilops ventricosa/T.turgidum 40309 amphidiploid. One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605349. X Triticosecale sp.

Breeding. Sando Selection 242; NSGC 7060. Pedigree - Bledsoe Wheat Rye Amphiploid/H.N. vulgare P542(50). One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

PI 605350. X Triticosecale sp.

Breeding. Sando Selection 761; NSGC 7061. Pedigree - Secale montanum/Secale cereale - Taylor self-fertile P19(41) Br86(56). One of a series of selections (PI 604860 - 605350) derived from intra-generic and inter-generic crosses between Triticum, Agropyron (Elytrigia), Aegilops, and Secale. Spring habit. Free-threshing.

The following were collected by Alexandios Kyrealios, Athens, Greater Athens, Greece. Donated by Rodale Research Center, Rodale Press, Box 323, RD 1, Kutztown, Pennsylvania 19530, United States. Received 04/15/1986.

PI 605351. Amaranthus hybridus L.

Cultivar. RRC 847; Vieta; Ames 5531. Collected 03/01/1982 in Greece. Latitude 37 deg. 59' 0'' N. Longitude 23 deg. 44' 0'' E. Athens. Used as vegetable in Greece. Branching and not lodging. Seeds dark brown, foliage and flowers mostly green, but there are small red speckles on the leaf blades. Stems have red stripes.

The following were collected by F.J. Lawrence. Donated by Rodale Research Center, Rodale Press, Box 323, RD 1, Kutztown, Pennsylvania 19530, United States. Received 04/15/1986.

PI 605352. Amaranthus dubius Mart. ex Thell.

Landrace. RRC 544; Calaloo; Ames 5326. Collected 04/15/1986 in Jamaica. Used as a leafy vegetable in Jamaica. Seeds black, leaves and flowers green.

The following were collected by Gam B. Louie. Donated by Rodale Research

Center, Rodale Press, Box 323, RD 1, Kutztown, Pennsylvania 19530, United States. Received 04/15/1986.

PI 605353. *Amaranthus cruentus* L.

Landrace. RRC 545; Ames 5327. Collected 11/09/1979 in China. Seeds black, leaves rufescent, flowers red. RRC class type is Guatemalan. The general observation at the RRC is, late maturing with some unbranched segregates. Supplier said red plants are much sweeter than green plants. David Brenner in 1998 comments that this is probably a vegetable accession because the seeds are black.

The following were donated by Rodale Research Center, Rodale Press, Box 323, RD 1, Kutztown, Pennsylvania 19530, United States. Received 03/19/1981.

PI 605354. *Amaranthus cruentus* L.

Cultivar. "R 158"; "K 112"; RRC K112; RRC 80S-K112; Ames 2264. Pedigree - A hybrid of RRC-1013 X RRC-27, both parents are *Amaranthus cruentus*. Released 1981. Seeds white, and translucent. Leaves and flowers red. Plants unbranched, dwarf, Mexican grain type, with some Lygus (insect) resistance. The translucent seed type is unusual in cultivars.

The following were developed by W. Erskine, Int. Center for Agricultural Research in the Dry Areas, P.O. Box 5466, Aleppo, Syria; A. Sarker, Int. Center for Agricultural Research in the Dry Areas, P.O. Box 5466, Aleppo, Syria; W. Mian, Bangladesh Agricultural Research Institute, Pulses Research Centre, Joydebpur, Gazipur, Bangladesh; M.S. Hassan, Bangladesh Agricultural Research Institute, Pulses Research Centre, Joydebpur, Gazipur, Bangladesh; N. Debnath, Bangladesh Agricultural Research Institute, Pulses Research Centre, Joydebpur, Gazipur, Bangladesh. Received 10/13/1998.

PI 605355 QUAR. *Lens culinaris* Medik.

Cultivar. Pureline. "BARIMASUR-2"; ILX 113-55; ILL 8007. CV-7. Pedigree - ILL 4353 / ILL 353. Wide adaptability and high yield. Semi-erect, medium-statured with a mean plant height of 40cm. Matures in 110 days in optimum planting condition. Leaves hairy, gray-green with short tendrils. Bright orange cotyledon color, small seeds (average seed mass 1.5g 100 seeds⁻¹) and a light gray testa color without pattern. Seed protein content of 28.3% and dehulled seed requires 15 minutes cooking time with 51.8% solid dispersion. Resistant to rust (*Uromyces viciae-fabae*).

The following were developed by W. Erskine, Int. Center for Agricultural Research in the Dry Areas, P.O. Box 5466, Aleppo, Syria; A. Sarker, Int. Center for Agricultural Research in the Dry Areas, P.O. Box 5466, Aleppo, Syria; M.S. Hassan, Bangladesh Agricultural Research Institute, Pulses Research Centre, Joydebpur, Gazipur, Bangladesh; M.A. Afzal, Bangladesh Agricultural Research Institute, Pulses Research Centre, Joydebpur, Gazipur, Bangladesh; A.N.M.M. Murshed, Bangladesh Agricultural Research Institute, Pulses Research Centre, Joydebpur, Gazipur, Bangladesh. Received 10/13/1998.

PI 605356 QUAR. *Lens culinaris* Medik.

Cultivar. Pureline. "BARIMASUR-4"; ILX 87247; ILL 8006. CV-8. Pedigree - ILL 5888 / FLIP 84-112L (ILL 5782). Good standing ability and high

yield. Erect and medium-statured (40-42 cm). Leaves light green with narrow terminal leaflets. Stem pigmented, flower blue, and pods, leaves and stems turn light straw color at maturity. Most leaflets are shed by 100% pod maturity. Testa has black dots on a reddish-gray background. Cotyledon color orange. Average seed mass of ca 1.7g 100 seeds⁻¹. Averaged over 12 trials, matured in 116 days. Seed protein content of 28.5% and takes about 17 minutes to cook with a solid dispersion of 54%. Kernel content 89.2% but produces 77.6% head dhal by country methods of dehuling. Resistant to lentil rust (*Uromyces viciae-fabae*) and stemphylium blight (*Stemphylium botryosum*). Growth habit erect. Suitable for inter-cropping and mix-cropping.

The following were collected by John Bamberg, USDA, ARS, Potato Introduction Station, Peninsula Experiment Station, Sturgeon Bay, Wisconsin 54235, United States. Received 08/20/1998.

PI 605357. *Solanum jamesii* Torr.

Wild. BAM 59; TEMP 1. Collected 08/12/1992 in New Mexico, United States. Latitude 35 deg. 33' 0'' N. Longitude 105 deg. 41' 16'' W. Elevation 2516 m. San Miguel Co. N of Pecos 3 miles at Lisboa Springs fish hatchery. Site of Bam 51, 1996. At entrance to hatchery and along driveway. Along chainlink fence and under junipers and pines in dark, rich soil among grasses. Hundreds of robust plants, some to 12 inches, some flowering. No berries. Not able to find anywhere else nearby. Collected 13 plants.

PI 605358. *Solanum jamesii* Torr.

Wild. BAM 60; TEMP 2. Collected 08/12/1998 in New Mexico, United States. Latitude 35 deg. 33' 0'' N. Longitude 105 deg. 41' 16'' W. Elevation 2589 m. San Miguel Co. About 2 miles S of Pecos on 63 at Pecos National Historical Park. In parking area and directly N. Near small creek in moist grassy areas and under junipers. Hundreds of plants mostly < 6 inches. Some larger to 10 inches and flowering. No berries. Collected 8 plants. Later collected berries (seeds) as BAM 60-S.

PI 605359. *Solanum jamesii* Torr.

Wild. BAM 61; TEMP 3. Collected 08/13/1998 in New Mexico, United States. Latitude 35 deg. 34' 39'' N. Longitude 105 deg. 18' 58'' W. Elevation 2691 m. San Miguel Co. Near Las Vegas. On 283 W of 25 just past the 6 mile marker. N side of roadside pulloff near crest of hill. NE-facing slope in full sun and among juniper, pinon and scrub oak. Sparse herbs including spiderwart. Dark soil and needle mulch or growing in gravel outcrops. Inconspicuous and scattered except one colony of 100+ plants. 2-10" tall, only a few flowering. Completely dead when revisited Sept. 15.

PI 605360. *Solanum jamesii* Torr.

Wild. BAM 62; TEMP 4. Collected 08/13/1998 in Colorado, United States. Latitude 37 deg. 8' 30'' N. Longitude 104 deg. 39' 33'' W. Elevation 1950 m. Las Animas Co. Near Trinidad. W of Trinidad on 12 ca. 10 miles then N on Burro Canyon Rd 1.3 miles. Under pinon W of road at base of slope. Site of BDM 52, 1996. Under pinon pine among grass. Exactly in same spot as observed in 1996 except plants much more robust and green. Collected 7 plants.

PI 605361. *Solanum jamesii* Torr.

Wild. BAM 63; TEMP 5. Collected 08/15/1998 in New Mexico, United States. Latitude 35 deg. 41' 9'' N. Longitude 105 deg. 57' 44'' W. Elevation 2662 m. Santa Fe Co. Sante Fe. Near residence of Bob Sivinski (144 Cedar Street), endangered plant botanist for USFS. Open lot just W of BS home at W end of Cedar Street. Sandy moist soil under trees. Thousands of dark green robust plants small to mature with flowers and some with nearly mature berries. Collected 12 plants, some with nearly mature berries. BS promised to collect and send more fruits to the genebank later.

PI 605362. *Solanum jamesii* Torr.

Wild. BAM 64; TEMP 6. Collected 08/15/1998 in New Mexico, United States. Latitude 35 deg. 34' 28'' N. Longitude 105 deg. 51' 18'' W. Elevation 2625 m. Santa Fe Co. Canada de los Alamos. On Old Santa Fe Trail Rd toward Canada d.l.A. CR 67 S to Stoney Episcopal Camp and Conference Center. Footpath E of HQ building down to arroyo and N along bottoms on W side of streambed. In dark, moist soil among willow, pine, cottonwood and grasses. Hundreds of plants some with 5 open flower, most < 8 inches tall, no berries. Insect damage. Collected 13 plants. Approx. site of Herbarium record Curtiss 68, 1929. Not found at numerous other nearby sites searched.

PI 605363. *Solanum jamesii* Torr.

Wild. BAM 65; TEMP 7. Collected 08/15/1998 in New Mexico, United States. Latitude 35 deg. 27' 1'' N. Longitude 105 deg. 37' 41'' W. Elevation 2552 m. San Miguel Co. Near Rowe. On frontage road running along S side of 25 to exactly 4 miles E of Rowe. Occasional under pines and junipers in sandy soil. Plants mostly small, scattered, no flowers or berries. Not found at several other stops between this site and Rowe. Collected 13 plants. Exact site of herbarium record Lester, Milliger and Renold 7, 1963.

PI 605364. *Solanum jamesii* Torr.

Wild. BAM 66; TEMP 8. Collected 08/16/1998 in New Mexico, United States. Latitude 35 deg. 13' 56'' N. Longitude 107 deg. 42' 57'' W. Elevation 2662 m. Cibola Co. Near Grants. From Grants N on 547 toward Mt. Taylor, just past 10 mile marker near intersection with road 19A. Near site of BAM 11, 1994. Grassy willow bottoms. About 100 plants mostly < 8 inches and only a few flowering with no berries. Not be found at various other sites searched nearby. Collected 12 plants.

PI 605365. *Solanum jamesii* Torr.

Wild. BAM 67; TEMP 9. Collected 08/16/1998 in New Mexico, United States. Latitude 35 deg. 14' 27'' N. Longitude 107 deg. 41' 22'' W. Elevation 2230 m. Cibola Co. Near Grants. From Grants N on 547 toward Mt. Taylor to just before mile marker 11 at Coal Mine campground. Site of BAM 12, 1994. Under oak scrub in moist sandy soil near campsite 16. Plants few and very small at BAM 12 site under ponderosa. A few dozen other larger plants (to 6 inches) scattered nearby. No flowers or fruit. Collected 8 plants. Difficult to find.

PI 605366. *Solanum jamesii* Torr.

Wild. BAM 68; TEMP 10. Collected 08/17/1998 in New Mexico, United States

. Latitude 34 deg. 56' 57'' N. Longitude 107 deg. 49' 54'' W. Elevation 2443 m. Cibola Co. Near Grants. On 40 E from Grants 7 miles then S on 117 past El Malpais National Monument visitor center to gravel road to Sandstone Bluffs overlook. At 1.2 miles up this road (0.3 miles from overlook) at curve. Sandy juniper scrub desert conditions under trees. Sparsely found under trees. Small with no flowers. Some plants with unusual upper-leaf hairiness. Collected 9 plants.

PI 605367. *Solanum jamesii* Torr.

Wild. BAM 69; TEMP 11. Collected 08/17/1998 in New Mexico, United States . Latitude 34 deg. 33' 52'' N. Longitude 108 deg. 0' 33'' W. Elevation 2698 m. Catron Co. Near Pie Town. On dirt road 41 which goes due S from 117 to Pie Town. At 21 miles N of 60. On SW corner of 41 and a dirt road running W. Under E side of junipers and pines in moist sand and needle mulch. Many thousands of robust plants of all sizes growing in thick continuous stands under each tree. Perhaps most abundant site observed by collectors. A few flowering but no berries. Collected 12 plants.

PI 605368. *Solanum jamesii* Torr.

Wild. BAM 70; TEMP 12. Collected 08/17/1998 in New Mexico, United States . Latitude 34 deg. 4' 36'' N. Longitude 107 deg. 27' 10'' W. Elevation 2552 m. Socorro Co. Near Magdalena. On 60 12.2 mile W of Magdalena at roadside picnic area, N side of road. Exact site of SBV 31, Aug. 13, 1992. Moist sand under junipers and pines and in open grassy areas, pure grave along roadside. Many thousands of plants spread across entire picnic area and to N over fence. Most < 6 inches but some flowering with immature fruit. Collected 18 plants, some with immature berries. Great contrast to the few small plants seen here in 1992.

The following were collected by John Bamberg, USDA, ARS, Potato Introduction Station, Peninsula Experiment Station, Sturgeon Bay, Wisconsin 54235, United States; Max W. Martin, University of Wisconsin, Potato Introduction Station, 4312 Hwy 42, Sturgeon Bay, Wisconsin 54235, United States; Joseph J. Pavek, USDA, ARS, University of Idaho, Research & Extension Center, Aberdeen, Idaho 83210, United States; Charles Fernandez, University of Wisconsin, Potato Introduction Station, 4312 Highway 42, Sturgeon Bay, Wisconsin 54235, United States. Received 09/20/1998.

PI 605369. *Solanum jamesii* Torr.

Wild. BAM 71; TEMP 13. Collected 08/17/1998 in New Mexico, United States . Latitude 34 deg. 47' 24'' N. Longitude 106 deg. 22' 40'' W. Elevation 2807 m. Torrance Co. Near Tajique. From Tajique town 7 miles up gravel road to 4th of July Campground. At gate to campground and around parking area along stream. Very dark, moist soil along grassy streambed with various herbs, sunflower, scattered willow scrub. Thousands of plants, mostly small but some to 16 inches and flowering, no berries. Collected 12 plants.

PI 605370. *Solanum jamesii* Torr.

Wild. BMPF 72; TEMP 14. Collected 09/15/1998 in New Mexico, United States. Latitude 36 deg. 49' 57'' N. Longitude 104 deg. 54' 35'' W. Elevation 2698 m. Colfax Co. Near Raton. About 35 miles W of Raton on 555 to Pittsburgh and Midland's York Canyon coal mine. Between mile

marker 1 and 2 on mine road SE along river. Under pines and junipers on E-facing slope above roadway. Very abundant robust dark green plants. All sizes to about 8 inches. Some flowering but no immature or mature fruit observed. Mature tubers and 22 plants (all tuberlings) collected.

PI 605371. *Solanum jamesii* Torr.

Wild. BMPF 73; TEMP 15. Collected 09/17/1998 in Arizona, United States. Latitude 36 deg. 9' 10'' N. Longitude 109 deg. 26' 7'' W. Elevation 2188 m. Apache Co. Canyon de Chelly National Monument. About 2/3 mile east of Antelope Ruins near intersection of del Muerto and Black Rock canyons. S side of canyon in plowed but fallow sandy field in full sun. Thousands of dark green robust plants of all sizes to about 8 inches. Larger plants flowering, some with mature and immature fruits.

PI 605372. *Solanum jamesii* Torr.

Wild. BMPF 74; TEMP 16. Collected 09/17/1998 in Arizona, United States. Latitude 36 deg. 38' 52'' N. Longitude 110 deg. 26' 13'' W. Elevation 2297 m. Navajo Co Near Kayenta. Near Navajo National Monument and Betatakin ruins. Off 160 on trail from Anasazi Inn (at Tsegi) to private land in Tsegi canyon. In narrow SW/NE canyon along N face of shear sandstone cliff. Orange sand at base of cliff among grass and herbs in protected spots. A few dozen small (to 6 inches) dark green robust plants. Area grazed by sheep. No tubers or berries. Collected 18 plants.

The following were developed by Seed Research of Oregon, Inc., Corvallis, Oregon, United States. Received 10/22/1998.

PI 605373. *Festuca rubra* L.

Cultivar. "SR 5200E". PVP 9800347. Creeping, red, fine.

The following were developed by International Seeds, Inc., P.O. Box 168, Halsey, Oregon 97348, United States. Received 10/22/1998.

PI 605374. *Lolium perenne* L.

Cultivar. "R2". PVP 9800348.

The following were developed by Abbott & Cobb, Inc., United States. Received 10/22/1998.

PI 605375. *Zea mays* L. *subsp. mays*

Cultivar. "AC 33892". PVP 9800349.

The following were developed by Sakata Seed Corporation, Japan. Received 10/22/1998.

PI 605376. *Zinnia* sp.

Cultivar. "PROFUSION WHITE". PVP 9800350. Pedigree - *Zinnia* species cross.

The following were developed by Progeny Advanced Genetics, Inc., Salinas, California, United States. Received 10/22/1998.

PI 605377. *Lactuca sativa* L.
Cultivar. "CRUSADER". PVP 9800351.

PI 605378. *Lactuca sativa* L.
Cultivar. "PRODIGY". PVP 9800352.

The following were developed by Production Services International, Inc., United States. Received 10/22/1998.

PI 605379. *Trifolium pratense* L.
Cultivar. "SOLID". PVP 9800353.

The following were developed by Pioneer Hi-Bred International, Inc., United States. Received 10/22/1998.

PI 605380. *Zea mays* L. subsp. *mays*
Cultivar. "PH21T". PVP 9800354.

PI 605381. *Zea mays* L. subsp. *mays*
Cultivar. "PH1B5". PVP 9800355.

PI 605382. *Zea mays* L. subsp. *mays*
Cultivar. "PH14T". PVP 9800356.

The following were developed by Seed Research of Oregon, Inc., Corvallis, Oregon, United States. Received 10/22/1998.

PI 605383. *Poa pratensis* L.
Cultivar. "SR 2109". PVP 9800357.

The following were developed by Seminis Vegetable Seeds, Inc., Woodland, California, United States. Received 10/22/1998.

PI 605384. *Allium cepa* L.
Cultivar. "PS 290011". PVP 9800358.

The following were developed by Pioneer Hi-Bred International, Inc., United States. Received 10/22/1998.

PI 605385. *Zea mays* L. subsp. *mays*
Cultivar. "PH0JG". PVP 9800362.

PI 605386. *Zea mays* L. subsp. *mays*
Cultivar. "PH1TB". PVP 9800363.

PI 605387. *Zea mays* L. subsp. *mays*
Cultivar. "PH45A". PVP 9800364.

The following were developed by Colorado Wheat Research Foundation, Colorado, United States. Received 10/22/1998.

PI 605388. *Triticum aestivum* L., nom. cons. subsp. *aestivum*
Cultivar. "YUMAR". PVP 9800365.

PI 605389. *Triticum aestivum* L., nom. cons. subsp. *aestivum*
Cultivar. "PROWERS". PVP 9800366.

PI 605390. *Triticum aestivum* L., nom. cons. subsp. *aestivum*
Cultivar. "PRAIRIE RED". PVP 9800367.

The following were developed by Western Plant Breeders, Inc., Phoenix, Arizona, United States. Received 10/22/1998.

PI 605391. *Triticum aestivum* L., nom. cons. subsp. *aestivum*
Cultivar. "SHARPSHOOTER". PVP 9800370.

The following were developed by Novartis Seeds, Inc., United States. Received 10/22/1998.

PI 605392. *Medicago sativa* L. subsp. *sativa*
Cultivar. "GENEVA". PVP 9800371.

PI 605393. *Medicago sativa* L. subsp. *sativa*
Cultivar. "RENO". PVP 9800372.

The following were developed by Progeny Advanced Genetics, Inc., Salinas, California, United States. Received 10/22/1998.

PI 605394. *Lactuca sativa* L.
Cultivar. "DOMINGOS 7/11". PVP 9800373.

The following were developed by Agriculture Research Organization, Volcani Center, P.O. Box 6, Bet Dagan, Israel. Received 10/22/1998.

PI 605395. *Cicer arietinum* L.
Cultivar. "AMIT". PVP 9800374.

The following were developed by Resource Seeds, Inc., United States. Received 10/22/1998.

PI 605396. X *Triticosecale* sp.
Cultivar. "815". PVP 9800375.

The following were developed by Pioneer Hi-Bred International, Inc., United States. Received 10/22/1998.

PI 605397. *Zea mays* L. subsp. *mays*
Cultivar. "PH0V0". PVP 9800383.

PI 605398. *Zea mays* L. subsp. *mays*
Cultivar. "PH12C". PVP 9800384.

PI 605399. *Zea mays* L. subsp. *mays*
Cultivar. "PH1M7". PVP 9800385.

PI 605400. *Zea mays* L. subsp. *mays*
Cultivar. "PH1CA". PVP 9800386.

The following were developed by T.E. Carter, USDA, ARS, North Carolina State University, 3127 Ligon Street Box 7631, Raleigh, North Carolina 27695-7631, United States; Joe W. Burton, USDA-ARS, North Carolina State University, Department of Crop Science, Raleigh, North Carolina 27695-7631, United States; Charles A. Brim, Funk Seeds, Int., Bloomington, Illinois, United States.
Received 07/06/1939.

PI 605401. *Glycine max* (L.) Merr.
Breeding. Pureline. NC-101. GP-77. Pedigree - Developed from Selection Cycle 0 in population IA (cross between D55-4110 and N56-40710). Maturity 27 days. Height 112 cm at maturity. Lodging score 3.0. Flowers purple. Pubescence tawny. Protein 46.8% and oil 16.7%. Yield 2.89 Mg ha-1.

PI 605402. *Glycine max* (L.) Merr.
Breeding. Pureline. NC-102. GP-78. Pedigree - Developed from Selection Cycle 0 in population IA (cross between D55-4110 and N56-4071). Maturity 26 days. Height 26 cm at maturity. Lodging score 3.0. Flowers purple. Pubescence tawny. Protein 46.5% and oil 16.8%. Yield 2.69 Mg ha-1.

PI 605403. *Glycine max* (L.) Merr.
Breeding. Pureline. NC-103. GP-79. Pedigree - Developed from Selection Cycle 0 in population IA (cross between D55-4110 and N56-4071). Maturity 31 days. Height 114 cm at maturity. Lodging score 4.0. Flowers purple. Pubescence gray. Protein 44.9% and oil 17.7%. Yield 2.69 Mg ha-1.

PI 605404. *Glycine max* (L.) Merr.
Breeding. Pureline. NC-104. GP-80. Pedigree - Developed from Selection Cycle 9 in population IA (cross between D55-4110 and N56-4071). Maturity 27 days. Height 27 cm at maturity. Lodging score 4.0. Flowers purple. Pubescence gray. Protein 50.7% and oil 14.6%. Yield 2.22 Mg ha-1.

PI 605405. *Glycine max* (L.) Merr.
Breeding. Pureline. NC-105. GP-81. Pedigree - Developed from Selection Cycle 9 in population IA (cross between D55-4110 and N56-4071). Maturity 27 days. Height 119 cm at maturity. Lodging score 4.0. Flowers purple. Pubescence tawny. Protein 48.7% and oil 16.8%. Yield 2.42 Mg ha-1.

PI 605406. *Glycine max* (L.) Merr.
Breeding. Pureline. NC-106. GP-82. Pedigree - Developed from Selection Cycle 9 in population IA (cross between D55-4110 and N56-4071). Maturity

29 days. Height 119 cm at maturity. Lodging score 4.0. Flowers purple. Pubescence tawny. Protein 50.4% and oil 15.2%. Yield 2.29 Mg ha⁻¹.

PI 605407. *Glycine max* (L.) Merr.

Breeding. Pureline. NC-107. GP-83. Pedigree - Developed from Selection Cycle 0 in population IIA (from the first backcross of 9 unadapted plant introductions with high percent seed protein to the recurrent parent, D49-2491). Maturity 30 days. Height 124 cm at maturity. Lodging score 3.5. Flowers purple. Pubescence tawny. Protein 43.6% and oil 17.7%. Yield 2.42 Mg ha⁻¹.

PI 605408. *Glycine max* (L.) Merr.

Breeding. Pureline. NC-108. GP-84. Pedigree - Developed from Selection Cycle 0 in population IIA (from the first backcross of 9 unadapted plant introductions with high percent seed protein to the recurrent parent, D49-2491). Maturity 34 days. Height 124 cm at maturity. Lodging score 4.0. Flowers purple. Pubescence tawny. Protein 45.9% and oil 17.3%. Yield 2.69 Mg ha⁻¹.

PI 605409. *Glycine max* (L.) Merr.

Breeding. Pureline. NC-109. GP-85. Pedigree - Developed from Selection Cycle 0 in population IIA (from the first backcross of 9 unadapted plant introductions with high percent seed protein to the recurrent parent, D49-2491). Maturity 33 days. Height 107 cm at maturity. Lodging score 3.0. Flowers white. Pubescence gray. Protein 43.4% and oil 18.2%. Yield 2.49 Mg ha⁻¹.

PI 605410. *Glycine max* (L.) Merr.

Breeding. Pureline. NC-110. GP-86. Pedigree - Developed from Selection Cycle 6 in population IIA (from the first backcross of 9 unadapted plant introductions with high percent seed protein to the recurrent parent, D49-2491). Maturity 32 days. Height 142 cm at maturity. Lodging score 4.0. Flowers purple. Pubescence tawny. Protein 47.8% and oil 17.3%. Yield 2.22 Mg ha⁻¹.

PI 605411. *Glycine max* (L.) Merr.

Breeding. Pureline. NC-111. GP-87. Pedigree - Developed from Selection Cycle 6 in population IIA (from the first backcross of 9 unadapted plant introductions with high percent seed protein to the recurrent parent, D49-2491). Maturity 33 days. Height 109 cm at maturity. Lodging score 3.5. Flowers purple. Pubescence tawny. Protein 48.9% and oil 16.1%. Yield 2.28 Mg ha⁻¹.

PI 605412. *Glycine max* (L.) Merr.

Breeding. Pureline. NC-112. GP-88. Pedigree - Developed from Selection Cycle 6 in population IIA (from the first backcross of 9 unadapted plant introductions with high percent seed protein to the recurrent parent, D49-2491). Maturity 31 days. Height 122 cm at maturity. Lodging score 4.0. Flowers white. Pubescence tawny. Protein 50.5% and oil 15.3%. Yield 2.62 Mg ha⁻¹.

The following were developed by Larry G. Campbell, USDA, ARS, Northern Crops Research Laboratory, 1307 North 18th Street, Fargo, North Dakota 58105-5677, United States. Received 10/05/1998.

PI 605413. *Beta vulgaris* L.

Breeding. Population. F1015; NSL 378483. Pedigree - Eight cycles of mass selection from same source population as PI 535818. Multigerm diploid, heterogeneous for many traits including hypocotyl color. All roots have white skin and flesh and characteristic sugarbeet shape. Substantially less sugarbeet root maggot (*Tetanops myopaeformis*) than that of any commercial hybrid tested. Sugar concentration 1.5 to 2 percent less than commercial hybrids with root yields of 75 - 80% of commercial hybrids produced using insecticides.

The following were developed by Institute for Wheat & Sunflower Research, General Toshevo, Tolbukhin, Bulgaria. Donated by Calvin O. Qualset, University of California, Genetic Resources Conservation Program, Division of Agriculture & Nat'l Resources, Davis, California 95616-8602, United States; J.P. Gustafson, University of Manitoba, Dept. of Plant Science, Winnipeg, Manitoba R3T 2N2, Canada. Received 12/01/1992.

PI 605414. X *Triticosecale* sp.

Breeding. T-AD-35-116; NAT0101; 6A1194; NSGC 7062.

PI 605415. X *Triticosecale* sp.

Breeding. T-AD PRIMARY; NAT0103; 6A1196; NSGC 7063. 2n=42.

PI 605416. X *Triticosecale* sp.

Cultivar. Pureline. "PSHERO 16"; NAT0111; 6A1263; NSGC 7064.

The following were developed by Robert J. Metzger, USDA, ARS, Oregon State University, Dept. of Crop Science, Corvallis, Oregon 97331, United States. Donated by Calvin O. Qualset, University of California, Genetic Resources Conservation Program, Division of Agriculture & Nat'l Resources, Davis, California 95616-8602, United States; J.P. Gustafson, University of Manitoba, Dept. of Plant Science, Winnipeg, Manitoba R3T 2N2, Canada. Received 12/01/1992.

PI 605417. X *Triticosecale* sp.

Breeding. H-79; NAT0122; 6A1328; NSGC 7065. Pedigree - Nugaines/Dakold.

The following were developed by T. Wolski, Posnanska Hodowla Rosalin, Dzial-Hodowli w Chorynl, Warsaw, Warszawa, Poland. Donated by Calvin O. Qualset, University of California, Genetic Resources Conservation Program, Division of Agriculture & Nat'l Resources, Davis, California 95616-8602, United States; J.P. Gustafson, University of Manitoba, Dept. of Plant Science, Winnipeg, Manitoba R3T 2N2, Canada. Received 12/01/1992.

PI 605418. X *Triticosecale* sp.

Breeding. CT 138/77; NAT0125; 6A1338; NSGC 7066.

PI 605419. X *Triticosecale* sp.

Breeding. CT 164/77; NAT0126; 6A1339; NSGC 7067.

PI 605420. X *Triticosecale* sp.

Breeding. CT 187/77; NAT0127; 6A1340; NSGC 7068.

PI 605421. X Triticosecale sp.

Breeding. CT 461/77; NAT0128; 6A1341; NSGC 7069.

PI 605422. X Triticosecale sp.

Breeding. CT 464/77; NAT0130; 6A1343; NSGC 7070.

PI 605423. X Triticosecale sp.

Breeding. CT 466/77; NAT0131; 6A1344; NSGC 7071.

PI 605424. X Triticosecale sp.

Breeding. LT 894/77; NAT0136; 6A1349; NSGC 7072.

PI 605425. X Triticosecale sp.

Breeding. LT 1317/77; NAT0137; 6A1350; NSGC 7073.

The following were developed by Robert J. Metzger, USDA, ARS, Oregon State University, Dept. of Crop Science, Corvallis, Oregon 97331, United States. Donated by Calvin O. Qualset, University of California, Genetic Resources Conservation Program, Division of Agriculture & Nat'l Resources, Davis, California 95616-8602, United States; J.P. Gustafson, University of Manitoba, Dept. of Plant Science, Winnipeg, Manitoba R3T 2N2, Canada. Received 12/01/1992.

PI 605426. X Triticosecale sp.

Breeding. M79-8403-1; NAT0194; 6A1453; NSGC 7074. Pedigree - EMS treated 6TA876.

PI 605427. X Triticosecale sp.

Breeding. M79-8403-2; NAT0195; 6A1454; NSGC 7075. Pedigree - EMS treated 6TA876.

PI 605428. X Triticosecale sp.

Breeding. M79-8813-3; NAT0202; 6A1469; NSGC 7076. Pedigree - Alley Cat/6TA876.

The following were developed by B.C. Jenkins, Jenkins Foundation for Research, Salinas, California, United States. Donated by Calvin O. Qualset, University of California, Genetic Resources Conservation Program, Division of Agriculture & Nat'l Resources, Davis, California 95616-8602, United States. Received 12/01/1992.

PI 605429. X Triticosecale sp.

Breeding. NUTRI SEEDS 5-2-1; NAT0315; 6TB5B; NSGC 7077.

PI 605430. X Triticosecale sp.

Breeding. NUTRI SEEDS 239; NAT0316; 6TB5C; NSGC 7078.

PI 605431. X Triticosecale sp.

Breeding. NUTRI SEEDS T-100; NAT0320; 6TB5D; NSGC 7079.

The following were developed by Terral-Norris Seed Company, Inc., United States. Donated by Calvin O. Qualset, University of California, Genetic Resources Conservation Program, Division of Agriculture & Nat'l Resources, Davis, California 95616-8602, United States; B.C. Jenkins, Jenkins Foundation for Research, Salinas, California, United States. Received 12/01/1992.

PI 605432. X Triticosecale sp.

Breeding. TERRELL 20; NAT0322; 6TB5F; NSGC 7080.

PI 605433. X Triticosecale sp.

Breeding. TERRELL 20-16; NAT0323; 6TB5G; NSGC 7081.

The following were donated by Calvin O. Qualset, University of California, Genetic Resources Conservation Program, Division of Agriculture & Nat'l Resources, Davis, California 95616-8602, United States; B.C. Jenkins, Jenkins Foundation for Research, Salinas, California, United States. Received 12/01/1992.

PI 605434. X Triticosecale sp.

Breeding. TERRELLAND 21; NAT0324; 6TB5H; NSGC 7082. Developed in United States.

PI 605435. X Triticosecale sp.

Breeding. TERRELLAND 25; NAT0328; 6TB5L; NSGC 7083. Developed in United States.

The following were developed by Terral-Norris Seed Company, Inc., United States. Donated by Calvin O. Qualset, University of California, Genetic Resources Conservation Program, Division of Agriculture & Nat'l Resources, Davis, California 95616-8602, United States; B.C. Jenkins, Jenkins Foundation for Research, Salinas, California, United States. Received 12/01/1992.

PI 605436. X Triticosecale sp.

Breeding. TERRELLAND 41; NAT0329; 6TB5M; NSGC 7084.

The following were developed by Robert J. Metzger, USDA, ARS, Oregon State University, Dept. of Crop Science, Corvallis, Oregon 97331, United States. Donated by Calvin O. Qualset, University of California, Genetic Resources Conservation Program, Division of Agriculture & Nat'l Resources, Davis, California 95616-8602, United States; B.C. Jenkins, Jenkins Foundation for Research, Salinas, California, United States. Received 12/01/1992.

PI 605437. X Triticosecale sp.

Breeding. M83-5063; NAT0330; 6TB5P; NSGC 7085.

PI 605438. X Triticosecale sp.

Breeding. M83-6105; NAT0335; 6TB5U; NSGC 7086.

PI 605439. X Triticosecale sp.

Breeding. M83-6175; NAT0336; 6TB5V; NSGC 7087.

PI 605440. X Triticosecale sp.

Breeding. M84-462; NAT0338; 6TB5X; NSGC 7088.

PI 605441. X Triticosecale sp.

Breeding. M84-499; NAT0340; 6TB5Z; NSGC 7089.

PI 605442. X Triticosecale sp.

Breeding. M85-6046; NAT0347; 6TB6J; NSGC 7090.

PI 605443. X Triticosecale sp.

Breeding. M83-6085; NAT0351; 6TB6R; NSGC 7091.

PI 605444. X Triticosecale sp.

Breeding. M85-6600; M83-6103; NAT0354; 6TB6T; NSGC 7092.

PI 605445. X Triticosecale sp.

Breeding. M82-267; M84-438; NAT0356; 6TB6U; NSGC 7093.

PI 605446. X Triticosecale sp.

Breeding. M85-6017; M85-6016; NAT0363; 6TB7F; NSGC 7094.

PI 605447. X Triticosecale sp.

Breeding. M85-6799; NAT0367; 6TB7H; NSGC 7095.

PI 605448. X Triticosecale sp.

Breeding. M85-6901; NAT0370; 6TB7L; NSGC 7096.

PI 605449. X Triticosecale sp.

Breeding. M85-6902; NAT0371; 6TB7M; NSGC 7097.

PI 605450. X Triticosecale sp.

Breeding. M85-7002; NAT0372; 6TB7N; NSGC 7098.

The following were developed by B.C. Jenkins, Jenkins Foundation for Research, Salinas, California, United States. Donated by Calvin O. Qualset, University of California, Genetic Resources Conservation Program, Division of Agriculture & Nat'l Resources, Davis, California 95616-8602, United States. Received 12/01/1992.

PI 605451. X Triticosecale sp.

Breeding. 6TA8765; NAT0373; 6TC1G; NSGC 7099.

PI 605452. X Triticosecale sp.

Breeding. NAT0412; 6TA9G; NSGC 7100.

PI 605453. X Triticosecale sp.

Breeding. NAT0415; 6TA9J; NSGC 7101.

PI 605454. X Triticosecale sp.

Breeding. NAT0421; 6TA9M; NSGC 7102.

PI 605455. X Triticosecale sp.

Breeding. NAT0424; 6TA9Q; NSGC 7103.

PI 605456. X Triticosecale sp.

Breeding. NAT0425; 6TA9R; NSGC 7104.

PI 605457. X Triticosecale sp.

Breeding. NAT0427; 6TA9T; NSGC 7105.

PI 605458. X Triticosecale sp.

Breeding. NAT0432; 6TA9X-1; NSGC 7106.

PI 605459. X Triticosecale sp.

Breeding. NAT0433; 6TA9X-2; NSGC 7107.

PI 605460. X Triticosecale sp.

Breeding. NAT0449; 6TB0N-1; NSGC 7108.

PI 605461. X Triticosecale sp.

Breeding. NAT0487; 6TB1P; NSGC 7109.

PI 605462. X Triticosecale sp.

Breeding. NAT0493; 6TB1R; NSGC 7110.

PI 605463. X Triticosecale sp.

Breeding. NAT0494; 6TB1S; NSGC 7111.

PI 605464. X Triticosecale sp.

Breeding. NAT0497; 6TB1U; NSGC 7112.

PI 605465. X Triticosecale sp.

Breeding. NAT0516; 6TB2M; NSGC 7113.

PI 605466. X Triticosecale sp.

Breeding. NAT0522; 6TB2S; NSGC 7114.

PI 605467. X Triticosecale sp.

Breeding. NAT0528; 6TB2X; NSGC 7115.

PI 605468. X Triticosecale sp.

Breeding. NAT0532; 6TB3C; NSGC 7116.

PI 605469. X Triticosecale sp.

Breeding. NAT0535; 6TB3F; NSGC 7117.

PI 605470. X Triticosecale sp.

Breeding. NAT0536; 6TB3G; NSGC 7118.

The following were collected by Edward J. Garvey, USDA, ARS, Natl. Germplasm Resources Laboratory, Room 409, Building 003, BARC-West, Beltsville, Maryland 20705-2350, United States. Received 10/27/1998.

PI 605471 QUAR. *Arachis hypogaea* L.

Wild. 027. Collected 10/1998 in China.

The following were developed by Darrell M. Wesenberg, USDA, ARS, National Small Grains Germplasm, Research Facility, Aberdeen, Idaho 83210, United

States; Idaho Agricultural Experiment Station, Aberdeen, Idaho, United States
. Received 10/30/1998.

PI 605472. *Hordeum vulgare* L. subsp. *vulgare*

Cultivar. Pureline. "GARNET"; 86Ab2317; NSGC 7343. Pedigree -
Harrington/78Ab6871 (Crystal).

PI 605473. *Avena sativa* L.

Cultivar. Pureline. "POWELL"; 83Ab3250; NSGC 7345. Pedigree -
Cayuse/Monida.

PI 605474. *Hordeum vulgare* L. subsp. *vulgare*

Cultivar. Pureline. "BANCROFT"; 78Ab10274; NSGC 7344. Pedigree -
Hector/60Ab1810-53. Good tolerance to barley stripe rust.

The following were developed by Howard F. Harrison, Coker's Pedigreed Seed
Co., P.O. Box 340, Hartsville, South Carolina 29550, United States. Donated
by Northrup, King & Company, 1500 Jackson N.E., Minneapolis, Minnesota 55413,
United States. Received 1991.

PI 605475. *Avena sativa* L.

Breeding. X350-1-B4-1-1; NSGC 7119. Pedigree - Coker 76-30/Coker
76-30*2/Coker 76-29/Coker 716*2/CI6076.

PI 605476. *Avena sativa* L.

Breeding. X361-1-B3-6-1; NSGC 7120. Pedigree - Coker 76-30/Coker
76-30*2/Coker 76-29//Coker 76-30*3/Coker 76-29//Coker 716*2/CI6076.

PI 605477. *Avena sativa* L.

Breeding. X384-1-B3-4-1; NSGC 7121. Pedigree - Coker 76-30/Coker
76-19//Coker 75-28/TAM312.

PI 605478. *Avena sativa* L.

Breeding. X402-1-B5-7; NSGC 7122. Pedigree - Coker 76-19/Coker
75-14/Coker 234/74C70/Coker 76-16/Coker 77-18/CI3031.

PI 605479. *Avena sativa* L.

Breeding. X403-1-B5-1; NSGC 7123. Pedigree - Coker 78-28/Coker
79-26/Coker 820//Coker 76-16//Coker 77-18/CI3031.

PI 605480. *Avena sativa* L.

Breeding. X408-1-B4-1; NSGC 7124. Pedigree - Coker 78-28/Coker
79-26/Coker 234/74C70//Coker 76-16//Coker 77-18/CI3031.

PI 605481. *Avena sativa* L.

Breeding. X352-1-B3-1-1; NSGC 7125. Pedigree - Coker 76-30*2/Coker
716*2/CI6076.

PI 605482. *Avena sativa* L.

Breeding. X386-1-B3-6; NSGC 7126. Pedigree - Coker 76-30//Coker
76-30*2/Coker 76-29//Coker 76-30*3/Coker 76-29//Coker 716*2/CI6076.

PI 605483. *Avena sativa* L.

Breeding. X386-1-B3-6; NSGC 7127. Pedigree - Coker 76-30//Coker

76-30*2/Coker 76-29//Coker 76-30*3/Coker 76-29//Coker 716*2/CI6076.

PI 605484. Avena sativa L.

Breeding. X325-1-B5-2; NSGC 7128. Pedigree - Coker 79-23//Coker 76-19*3/CI9221/NY61139-2-6.

PI 605485. Avena sativa L.

Breeding. X342-1-B-2-2-1-2; NSGC 7129. Pedigree - Coker 75-28/Coker 74-21//Coker 76-16*2/Coker 76-19/CI9221.

PI 605486. Avena sativa L.

Breeding. X345-1-B3-18-1; NSGC 7130. Pedigree - Coker 234/74C70/Coker 76-16//Coker 77-18/CI3031.

PI 605487. Avena sativa L.

Breeding. X290-1-B3-4-2; NSGC 7131. Pedigree - Coker 820/Coker 76-16//Coker 77-18/CI3031.

PI 605488. Avena sativa L.

Breeding. X290-1-B3-4-2; NSGC 7132. Pedigree - Coker 820/Coker 76-16//Coker 77-18/CI3031.

PI 605489. Avena sativa L.

Breeding. X290-1-B3-4-2; NSGC 7133. Pedigree - Coker 820/Coker 76-16//Coker 77-18/CI3031.

PI 605490. Avena sativa L.

Breeding. X299-1-B5-2-1; NSGC 7134. Pedigree - Coker 234/74C70/Coker 76-16//Coker 77-18/CI3031.

PI 605491. Avena sativa L.

Breeding. X299-1-B5-2-1; NSGC 7135. Pedigree - Coker 234/74C70/Coker 76-16//Coker 77-18/CI3031.

PI 605492. Avena sativa L.

Breeding. X299-1-B5-2-1; NSGC 7136. Pedigree - Coker 234/74C70/Coker 76-16//Coker 77-18/CI3031.

PI 605493. Avena sativa L.

Breeding. X305-1-B5-7; NSGC 7137. Pedigree - Coker 820/Coker 76-16//Coker 77-18/CI3031.

PI 605494. Avena sativa L.

Breeding. X397-1-B3-9; NSGC 7138. Pedigree - Coker 78-28/Coker 79-26/Coker 69-26/Coker 70-12/Coker 76-19/Coker 76-16/Coker 77-18/CI3031

PI 605495. Avena sativa L.

Breeding. X311-1-B3-2-1; NSGC 7139. Pedigree - Coker 69-26/Coker 70-12//Coker 76-19/Coker 76-16//Coker 77-18/CI3031.

PI 605496. Avena sativa L.

Breeding. X311-1-B3-2-1; NSGC 7140. Pedigree - Coker 69-26/Coker 70-12//Coker 76-19/Coker 76-16//Coker 77-18/CI3031.

- PI 605497. Avena sativa L.**
Breeding. X397-1-B3-9; NSGC 7141. Pedigree - Coker 78-28/Coker
79-26/Coker 69-26/Coker 70-12/Coker 76-19/Coker 76-16/Coker 77-18/CI3031
.
- PI 605498. Avena sativa L.**
Breeding. X344-1-B5-6-2; NSGC 7142. Pedigree - Coker 69-26/Coker
70-12//Coker 76-19/CAN. MUTANT.
- PI 605499. Avena sativa L.**
Breeding. X344-1-B5-6-2; NSGC 7143. Pedigree - Coker 69-26/Coker
70-12//Coker 76-19/CAN. MUTANT.
- PI 605500. Avena sativa L.**
Breeding. X344-1-B5-6-2; NSGC 7144. Pedigree - Coker 69-26/Coker
70-12//Coker 76-19/CAN. MUTANT.
- PI 605501. Avena sativa L.**
Breeding. X344-1-B5-6-2; NSGC 7145. Pedigree - Coker 69-26/Coker
70-12//Coker 76-19/CAN. MUTANT.
- PI 605502. Avena sativa L.**
Breeding. X348-1-B3-10-1; NSGC 7146. Pedigree - Coker 76-30*2/Coker
76-29/Coker 76-30*3/Coker 76-29/Coker 716*2/CI6076.
- PI 605503. Avena sativa L.**
Breeding. X349-1-B4-2-1; NSGC 7147. Pedigree - Coker 716/Coker
76-30*3/Coker 76-29/Coker 716*2/CI8026.
- PI 605504. Avena sativa L.**
Breeding. X352-1-B3-1-1; NSGC 7148. Pedigree - Coker 76-30*2/Coker
716*2/CI6076.
- PI 605505. Avena sativa L.**
Breeding. X386-1-B5-11; NSGC 7149. Pedigree - Coker 76-30//Coker
76-30*2/Coker 76-29//Coker 76-30*3/Coker 76-29//Coker 716*2/CI6076.
- PI 605506. Avena sativa L.**
Breeding. X386-1-B5-14; NSGC 7150. Pedigree - Coker 76-30//Coker
76-30*2/Coker 76-20//Coker 76-30*3/Coker 76-29//Coker 716*2/CI6076.
- PI 605507. Avena sativa L.**
Breeding. X361-1-B3-4-1; NSGC 7151. Pedigree - Coker 76-30/Coker
76-30*2/Coker 76-29//Coker 76-30*2/Coker 76-29//Coker 716*2/CI6076.
- PI 605508. Avena sativa L.**
Breeding. X361-1-B5-2; NSGC 7152. Pedigree - Coker 76-30/Coker
76-30*2/Coker 76-29//Coker 76-30*2/Coker 76-29//Coker 716*2/CI6076.
- PI 605509. Avena sativa L.**
Breeding. X361-1-B5-4; NSGC 7153. Pedigree - Coker 76-30/Coker
76-30*2/Coker 76-29//Coker 76-30*2/Coker 76-29//Coker 716*2/CI6076.
- PI 605510. Avena sativa L.**
Breeding. X363-1-B5-1; NSGC 7154. Pedigree - Coker 78-28/CI6341/Coker

76-30/Coker 76-30*2/Coker 76-29//Coker 716*2/CI6076.

- PI 605511. Avena sativa L.**
Breeding. X387-1-B5-7; NSGC 7155. Pedigree - Coker 820/Florida 502.
- PI 605512. Avena sativa L.**
Breeding. X384-1-B4-1; NSGC 7156. Pedigree - Coker 76-30/Coker 76-19//Coker 75-28/TAM312.
- PI 605513. Avena sativa L.**
Breeding. X384-1-B4-4; NSGC 7157. Pedigree - Coker 76-30/Coker 76-19//Coker 75-28/TAM312.
- PI 605514. Avena sativa L.**
Breeding. X384-1-B4-5; NSGC 7158. Pedigree - Coker 76-30/Coker 76-19//Coker 75-28/TAM312.
- PI 605515. Avena sativa L.**
Breeding. X392-1-B5-4; NSGC 7159. Pedigree - Coker 76-16//Coker 69-26/Coker 76-12//Coker 75-28/Coker 79-26.
- PI 605516. Avena sativa L.**
Breeding. X392-1-B5-4; NSGC 7160. Pedigree - Coker 76-16//Coker 69-26/Coker 76-12//Coker 75-28/Coker 79-26.
- PI 605517. Avena sativa L.**
Breeding. X383-1-B; NSGC 7161. Pedigree - Coker 76-30*4/Coker 76-29.
- PI 605518. Avena sativa L.**
Breeding. X401-1-B4-4; NSGC 7162. Pedigree - Coker 76-19/Coker 75-14/Coker 76-30*3/Coker 76-29.
- PI 605519. Avena sativa L.**
Breeding. X325-1-B5-4-1; NSGC 7163. Pedigree - Coker 79-23//Coker 76-19*3/CI9221/NY61139-2-6.
- PI 605520. Avena sativa L.**
Breeding. X331-1-B-4-1-1; NSGC 7164. Pedigree - Coker 234/74C70/Coker 76-16*4/CI9221.
- PI 605521. Avena sativa L.**
Breeding. X342-1-B-2-2-1-1; NSGC 7165. Pedigree - Coker 75-28/Coker 74-21/Coker 76-16*2//Coker 76-19/CI9221.
- PI 605522. Avena sativa L.**
Breeding. X269-1-B3-17-2-1-1; NSGC 7166. Pedigree - Coker 76-19*2/CI9221/Coker 81-21.
- PI 605523. Avena sativa L.**
Breeding. X468-1-B-1; NSGC 7167. Pedigree - Coker 84-15/Coker 234//Coker 79-22*2/OMEGA.
- PI 605524. Avena sativa L.**
Breeding. X472-1-B-3; NSGC 7168. Pedigree - Coker 84-15/Coker 81-23/CI8026//Coker 234/OMEGA.

- PI 605525. Avena sativa L.**
Breeding. X216-1-B2-11-B3-1; NSGC 7169. Pedigree - Coker 76-16/Coker 77-23/CI3031.
- PI 605526. Avena sativa L.**
Breeding. X216-1-B2-11-B3-1; NSGC 7170. Pedigree - Coker 76-16/Coker 77-23/CI3031.
- PI 605527. Avena sativa L.**
Breeding. X516-1-B2-4-B3-1; NSGC 7171. Pedigree - Coker 76-16/Coker 77-23/CI3031.
- PI 605528. Avena sativa L.**
Breeding. X311-1-B3-2-1; NSGC 7172. Pedigree - Coker 69-26/Coker 70-12//Coker 76-19/Coker 76-16//Coker 77-18/CI3031.
- PI 605529. Avena sativa L.**
Breeding. X311-1-B3-2-3; NSGC 7173. Pedigree - Coker 69-26/Coker 70-12//Coker 76-19/Coker 76-16//Coker 77-18/CI3031.
- PI 605530. Avena sativa L.**
Breeding. X345-1-B4-15-1; NSGC 7174. Pedigree - Coker 234/74C70/Coker 76-16//Coker 77-18/CI3031.
- PI 605531. Avena sativa L.**
Breeding. X345-1-B4-20-1; NSGC 7175. Pedigree - Coker 234/74C70/Coker 76-16//Coker 77-18/CI3031.
- PI 605532. Avena sativa L.**
Breeding. X345-1-B6-3; NSGC 7176. Pedigree - Coker 234/74C70/Coker 76-16//Coker 77-18/CI3031.
- PI 605533. Avena sativa L.**
Breeding. X290-1-B4-3-1; NSGC 7177. Pedigree - Coker 820/Coker 76-16//Coker 77-18/CI3031.
- PI 605534. Avena sativa L.**
Breeding. X305-1-B3-2-2; NSGC 7178. Pedigree - Coker 820/Coker 76-16//Coker 77-18/CI3031.
- PI 605535. Avena sativa L.**
Breeding. X305-1-B3-2-2-1; NSGC 7179. Pedigree - Coker 820/Coker 76-16//Coker 77-18/CI3031.
- PI 605536. Avena sativa L.**
Breeding. X305-1-B3-2-2-1; NSGC 7180. Pedigree - Coker 820/Coker 76-16//Coker 77-18/CI3031.
- PI 605537. Avena sativa L.**
Breeding. X305-1-B5-2-1; NSGC 7181. Pedigree - Coker 820/Coker 76-16//Coker 77-18/CI3031.
- PI 605538. Avena sativa L.**
Breeding. X305-1-B5-2-1; NSGC 7182. Pedigree - Coker 820/Coker

76-16//Coker 77-18/CI3031.

PI 605539. Avena sativa L.

Breeding. X305-1-B5-1; NSGC 7183. Pedigree - Coker 820/Coker 76-16//Coker 77-18/CI3031.

PI 605540. Avena sativa L.

Breeding. X305-1-B5-1; NSGC 7184. Pedigree - Coker 820/Coker 76-16//Coker 77-18/CI3031.

PI 605541. Avena sativa L.

Breeding. X305-1-B5-1; NSGC 7185. Pedigree - Coker 820/Coker 76-16//Coker 77-18/CI3031.

PI 605542. Avena sativa L.

Breeding. X305-1-B5-15-1; NSGC 7186. Pedigree - Coker 820/Coker 76-16//Coker 77-18/CI3031.

PI 605543. Avena sativa L.

Breeding. X305-1-B5-5-1; NSGC 7187. Pedigree - Coker 820/Coker 76-16//Coker 77-18/CI3031.

PI 605544. Avena sativa L.

Breeding. X397-1-B3-9-1; NSGC 7188. Pedigree - Coker 78-28/Coker 79-26/Coker 69-26/Coker 70-12/Coker 76-19/Coker 76-16/Coker 77-18/CI3031

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PI 605545. Avena sativa L.

Breeding. X397-1-B5-1; NSGC 7189. Pedigree - Coker 78-28/Coker 79-26/Coker 69-26/Coker 70-12/Coker 76-19/Coker 76-16/Coker 77-18/CI3031

.

PI 605546. Avena sativa L.

Breeding. X397-1-B5-1; NSGC 7190. Pedigree - Coker 78-28/Coker 79-26/Coker 69-26/Coker 70-12/Coker 76-19/Coker 76-16/Coker 77-18/CI3031

.

PI 605547. Avena sativa L.

Breeding. X397-1-B5-2; NSGC 7191. Pedigree - Coker 78-28/Coker 79-26/Coker 69-26/Coker 70-12/Coker 76-19/Coker 76-16/Coker 77-18/CI3031

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PI 605548. Avena sativa L.

Breeding. X397-1-B5-2; NSGC 7192. Pedigree - Coker 78-28/Coker 79-26/Coker 69-26/Coker 70-12/Coker 76-19/Coker 76-16/Coker 77-18/CI3031

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PI 605549. Avena sativa L.

Breeding. X397-1-B5-5; NSGC 7193. Pedigree - Coker 78-28/Coker 79-26/Coker 69-26/Coker 70-12/Coker 76-19/Coker 76-16/Coker 77-18/CI3031

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PI 605550. Avena sativa L.

Breeding. X397-1-B5-8; NSGC 7194. Pedigree - Coker 78-28/Coker 79-26/Coker 69-26/Coker 70-12/Coker 76-19/Coker 76-16/Coker 77-18/CI3031

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PI 605551. Avena sativa L.
Breeding. X397-1-B5-8; NSGC 7195. Pedigree - Coker 78-28/Coker
79-26/Coker 69-26/Coker 70-12/Coker 76-19/Coker 76-16/Coker 77-18/CI3031
.
- PI 605552. Avena sativa L.**
Breeding. X397-1-B4-1; NSGC 7196. Pedigree - Coker 78-28/Coker
79-26/Coker 69-26/Coker 70-12/Coker 76-19/Coker 76-16/Coker 77-18/CI3031
.
- PI 605553. Avena sativa L.**
Breeding. X299-1-B3-12-1; NSGC 7197. Pedigree - Coker 234/74C70/Coker
76-16//Coker 77-18/CI3031.
- PI 605554. Avena sativa L.**
Breeding. X299-1-B3-12-1; NSGC 7198. Pedigree - Coker 234/74C70/Coker
76-16//Coker 77-18/CI3031.
- PI 605555. Avena sativa L.**
Breeding. X396-1-B5-1; NSGC 7199. Pedigree - Coker 78-28/Coker
79-26/Coker 234/74C70//Coker 76-16//Coker 77-18/CI3031.
- PI 605556. Avena sativa L.**
Breeding. X402-1-B4-14; NSGC 7200. Pedigree - Coker 76-19/Coker
75-14/Coker 234/74C70//Coker 76-16/CI3031.
- PI 605557. Avena sativa L.**
Breeding. X402-1-B5-6; NSGC 7201. Pedigree - Coker 76-19/Coker
75-14/Coker 234/74C70//Coker 76-16/CI3031.
- PI 605558. Avena sativa L.**
Breeding. X403-1-B5-4; NSGC 7202. Pedigree - Coker 78-28/Coker
79-26/Coker 820//Coker 76-16//Coker 77-18/CI3031.
- PI 605559. Avena sativa L.**
Breeding. X403-1-B4-1; NSGC 7203. Pedigree - Coker 78-28/Coker
79-26/Coker 820//Coker 76-16//Coker 77-18/CI3031.
- PI 605560. Avena sativa L.**
Breeding. X403-1-B4-3; NSGC 7204. Pedigree - Coker 78-28/Coker
79-26/Coker 820//Coker 76-16//Coker 77-18/CI3031.
- PI 605561. Avena sativa L.**
Breeding. X403-1-B3-4; NSGC 7205. Pedigree - Coker 78-28/Coker
79-26/Coker 820//Coker 76-16//Coker 77-18/CI3031.
- PI 605562. Avena sativa L.**
Breeding. X408-1-B3-7; NSGC 7206. Pedigree - Coker 78-28/Coker
79-26/Coker 234/74C70//Coker 76-16//Coker 77-18/CI3031.
- PI 605563. Avena sativa L.**
Breeding. X408-1-B3-7; NSGC 7207. Pedigree - Coker 78-28/Coker
79-26/Coker 234/74C70//Coker 76-16//Coker 77-18/CI3031.

- PI 605564. Avena sativa L.**
Breeding. X408-1-B3-8; NSGC 7208. Pedigree - Coker 78-28/Coker 79-26/Coker 234/74C70//Coker 76-16//Coker 77-18/CI3031.
- PI 605565. Avena sativa L.**
Breeding. X408-1-B4-4; NSGC 7209. Pedigree - Coker 78-28/Coker 79-26/Coker 234/74C70//Coker 76-16//Coker 77-18/CI3031.
- PI 605566. Avena sativa L.**
Breeding. X347-1-B4-1; NSGC 7210. Pedigree - Coker 234/74C70/COMPLEX/AUST,MULTI.
- PI 605567. Avena sativa L.**
Breeding. X383-1-B4-2; NSGC 7211. Pedigree - Coker 76-30*4/Coker 76-29.
- PI 605568. Avena sativa L.**
Breeding. X394-1-B4-1; NSGC 7212. Pedigree - Coker 234/74C70//Coker 79-26/Coker 234/74C70(MULTIFLORENT TYPE).
- PI 605569. Avena sativa L.**
Breeding. X407-1-B3-2; NSGC 7213. Pedigree - Coker 75-28/TAM312//Coker 234/CMB10/Coker 76-30*4/Coker 76-29.
- PI 605570. Avena sativa L.**
Breeding. X407-1-B3-6; NSGC 7214. Pedigree - Coker 75-28/TAM312//Coker 234/CMB10/Coker 76-30*4/Coker 76-29.
- PI 605571. Avena sativa L.**
Breeding. X407-1-B3-8; NSGC 7215. Pedigree - Coker 75-28/TAM312//Coker 234/CMB10/Coker 76-30*4/Coker 76-29.
- PI 605572. Avena sativa L.**
Breeding. X407-1-B3-9; NSGC 7216. Pedigree - Coker 75-28/TAM312//Coker 234/CMB10/Coker 76-30*4/Coker 76-29.
- PI 605573. Avena sativa L.**
Breeding. X432-1-B2-1; NSGC 7217. Pedigree - Coker 76-26/Coker 75-27/Coker 76-29/Coker 76-33/Coker 75-28/WALKEN.
- PI 605574. Avena sativa L.**
Breeding. X407-1-B3-1; NSGC 7218. Pedigree - Coker 75-28/TAM312//Coker 234/CMB10/Coker 76-30*4/Coker 76-29.
- PI 605575. Avena sativa L.**
Breeding. X403-1-B3-7; NSGC 7219. Pedigree - Coker 78-28/Coker 79-26/Coker 76-19/Coker 69-26/Coker 70-12.
- PI 605576. Avena sativa L.**
Breeding. X403-1-B3-7; NSGC 7220. Pedigree - Coker 78-28/Coker 79-26/Coker 76-19/Coker 69-26/Coker 70-12.
- PI 605577. Avena sativa L.**
Breeding. X403-1-B3-7; NSGC 7221. Pedigree - Coker 78-28/Coker 79-26/Coker 76-19/Coker 69-26/Coker 70-12.

- PI 605578. Avena sativa L.**
Breeding. X212-1-B7-2; NSGC 7222. Pedigree - Coker 77-23/Coker 71-19/Coker 69-26/Egdolon 23.
- PI 605579. Avena sativa L.**
Breeding. X383-1-B3-4; NSGC 7223. Pedigree - Coker 76-30*4/Coker 76-29.
- PI 605580. Avena sativa L.**
Breeding. X352-1-B3-1; NSGC 7224. Pedigree - Coker 76-30*2/Coker 716*2/CI6076.
- PI 605581. Avena sativa L.**
Breeding. X476-1-B2; NSGC 7225. Pedigree - Coker 84-15*2/Coker 234/74C70/Coker 76-16/Coker 77-18/CI3031.
- PI 605582. Avena sativa L.**
Breeding. X477-1-B2; NSGC 7226. Pedigree - Coker 84-15/Coker 234/74C70//Coker 79-26//Coker 234/74C70/(MULTIFLORENTS).
- PI 605583. Avena sativa L.**
Breeding. X479-1-B2; NSGC 7227. Pedigree - Coker 76-30*4/Coker 76-29/Coker 84-15.
- PI 605584. Avena sativa L.**
Breeding. X480-1-B2; NSGC 7228. Pedigree - COMPLEX/CI8335/Coker 234/CMB10.
- PI 605585. Avena sativa L.**
Breeding. X482-1-B2; NSGC 7229. Pedigree - Coker 76-30*2/Coker 76-29/Coker 76-30*3/Coker 76-29/Coker 716*2/CI6076.
- PI 605586. Avena sativa L.**
Breeding. X485-1-B2; NSGC 7230. Pedigree - Coker 78-28/Coker 79-26/Coker 76-30*2//Coker 716*2/CI6076.
- PI 605587. Avena sativa L.**
Breeding. X487-1-B2; NSGC 7231. Pedigree - Coker 78-28/Coker 79-26/Coker 234/74C70//Coker 76-16//Coker 77-18/CI3031.
- PI 605588. Avena sativa L.**
Breeding. X483-1-B2; NSGC 7232. Pedigree - Coker 84-15*2/Coker 84-27.
- PI 605589. Avena sativa L.**
Breeding. X484-1-B2; NSGC 7233. Pedigree - Coker 76-30*2/Coker 76-29//Coker 76-30*3/Coker 76-29//Coker 716*2/CI6076/Coker 78-28/Coker 79-26/Coker 69-26/Coker 70-12/Coker 76-19/Coker 76-16//Coker 77-18/CI3031.
- PI 605590. Avena sativa L.**
Breeding. X487-1-B2; NSGC 7234. Pedigree - Coker 78-28/Coker 79-26/Coker 234/74C70//Coker 76-16//Coker 77-18/CI3031.
- PI 605591. Avena sativa L.**
Breeding. X484-1-B; NSGC 7235. Pedigree - Coker 76-30*2/Coker

76-29//Coker 76-30*3/Coker 76-29//Coker 716*2/CI6076/Coker 78-28/Coker
79-26/Coker 69-26/Coker 70-12/Coker 76-19/Coker 76-16//Coker
77-18/CI3031.

PI 605592. *Avena sativa* L.

Breeding. X484-1-B; NSGC 7236. Pedigree - Coker 76-30*2/Coker
76-29//Coker 76-30*3/Coker 76-29//Coker 716*2/CI6076/Coker 78-28/Coker
79-26/Coker 69-26/Coker 70-12/Coker 76-19/Coker 76-16//Coker
77-18/CI3031.

PI 605593. *Avena sativa* L.

Breeding. X486-1-B; NSGC 7237. Pedigree - Walken*2/Coker 76-26//Coker
75-27/Coker 76-29/Coker 76-23/Coker 75-28/CI8336.

PI 605594. *Avena sativa* L.

Breeding. X453-1-B3; NSGC 7238. Pedigree - Coker 84-16:Coker 76-19/Coker
75-14/Citation.

PI 605595. *Avena sativa* L.

Breeding. X453-1-B3; NSGC 7239. Pedigree - Coker 84-16:Coker 76-19/Coker
75-14/Citation.

PI 605596. *Avena sativa* L.

Breeding. X453-1-B3; NSGC 7240. Pedigree - Coker 84-16:Coker 76-19/Coker
75-14/Citation.

PI 605597. *Avena sativa* L.

Breeding. X453-1-B3; NSGC 7241. Pedigree - Coker 84-16:Coker 76-19/Coker
75-14/Citation.

PI 605598. *Avena sativa* L.

Breeding. X453-1-B3; NSGC 7242. Pedigree - Coker 84-16:Coker 76-19/Coker
75-14/Citation.

PI 605599. *Avena sativa* L.

Breeding. X488-1-B2; NSGC 7243. Pedigree - Coker 84-15/Coker
80-26//Coker 76-16*4/CI9221.

PI 605600. *Avena sativa* L.

Breeding. X490-1-B2; NSGC 7244. Pedigree - Citation/Coker 80-26//Coker
76-16*4/CI9221.

PI 605601. *Avena sativa* L.

Breeding. X491-1-B2; NSGC 7245. Pedigree - Coker 84-15/Coker
80-26//Coker 76-16*4/CI9221.

PI 605602. *Avena sativa* L.

Breeding. X492-1-B2; NSGC 7246. Pedigree - Coker 84-15*2/Coker
81-21//Coker 79-22*2/Omega.

PI 605603. *Avena sativa* L.

Breeding. X494-1-B2; NSGC 7247. Pedigree - Coker 85-13/Coker
84-15//Coker 81-21//Coker 79-22*2/Omega.

PI 605604. *Avena sativa* L.

- Breeding. X495-1-B2; NSGC 7248. Pedigree - Coker 84-15*2/Coker 81-21//Coker 79-21//Coker 234/Omega.
- PI 605605. Avena sativa L.**
Breeding. X497-1-B3; NSGC 7249. Pedigree - Coker 85-13/Coker 84-15//Coker 81-23//Coker 80-26//Coker 234/Omega.
- PI 605606. Avena sativa L.**
Breeding. X439-1-B4; NSGC 7250. Pedigree - Coker 227/Coker 84-15.
- PI 605607. Avena sativa L.**
Breeding. X440-1-B4; NSGC 7251. Pedigree - Coker 820/Coker 76-19//Coker 75-27*2//Coker 75-26//Coker 76-23/CI8322.
- PI 605608. Avena sativa L.**
Breeding. X441-1-B4; NSGC 7252. Pedigree - Coker 820/Coker 84-15.
- PI 605609. Avena sativa L.**
Breeding. X445-1-B4; NSGC 7253. Pedigree - Coker 81-21/Coker 75-27*2/Coker 75-28/CI8336.
- PI 605610. Avena sativa L.**
Breeding. X447-1-B4; NSGC 7254. Pedigree - Coker 84-15/Coker 234/74C70//Coker 76-16//Coker 77-18/CI3031.
- PI 605611. Avena sativa L.**
Breeding. X447-1-B4; NSGC 7255. Pedigree - Coker 84-15/Coker 234/74C70//Coker 76-16//Coker 77-18/CI3031.
- PI 605612. Avena sativa L.**
Breeding. X448-1-B4; NSGC 7256. Pedigree - Coker 84-15/Coker 69-26/Coker 70-12//Coker 76-19//CAN MUTANT.
- PI 605613. Avena sativa L.**
Breeding. X448-1-B4; NSGC 7257. Pedigree - Coker 84-15/Coker 69-26/Coker 70-12//Coker 76-19//CAN MUTANT.
- PI 605614. Avena sativa L.**
Breeding. X449-1-B4; NSGC 7258. Pedigree - Coker 84-15/Coker 84-18.
- PI 605615. Avena sativa L.**
Breeding. X451-1-B4; NSGC 7259. Pedigree - Coker 84-15/Coker 84-23.
- PI 605616. Avena sativa L.**
Breeding. X451-1-B4; NSGC 7260. Pedigree - Coker 84-15/Coker 84-23.
- PI 605617. Avena sativa L.**
Breeding. X452-1-B4; NSGC 7261. Pedigree - Coker 84-15/Coker 84-27.
- PI 605618. Avena sativa L.**
Breeding. X452-1-B4; NSGC 7262. Pedigree - Coker 84-15/Coker 84-27.
- PI 605619. Avena sativa L.**
Breeding. X455-1-B4; NSGC 7263. Pedigree - Mesquite II/Coker 84-15.

- PI 605620. *Avena sativa* L.**
Breeding. X458-1-B4; NSGC 7264. Pedigree - Coker 78-28/Coker 834/Coker 76-19/Coker 75-27*2/Coker 75-26/Coker 76-23/CI8322.
- PI 605621. *Avena sativa* L.**
Breeding. X459-1-B4; NSGC 7265. Pedigree - Coker 78-28/Coker 79-26/Coker 76-30/Coker 75-27/Coker 76-29/Coker 76-23/Coker 75-28/CI8335.
- PI 605622. *Avena sativa* L.**
Breeding. X473-1-B5; NSGC 7266. Pedigree - Coker 81-21/Coker 84-15.
- PI 605623. *Avena sativa* L.**
Breeding. X434-1-B5; NSGC 7267. Pedigree - Mesquite II/Coker 76-23/Coker 75-27/Coker 76-29/Coker 76-23/Coker 75-28/CI8336.
- PI 605624. *Avena sativa* L.**
Breeding. X435-1-B5; NSGC 7268. Pedigree - Coker 81-21/Coker 84-15.
- PI 605625. *Avena sativa* L.**
Breeding. X435-1-B5; NSGC 7269. Pedigree - Coker 81-21/Coker 84-15.
- PI 605626. *Avena sativa* L.**
Breeding. X437-1-B5; NSGC 7270. Pedigree - Coker 81-21/Coker 76-30*4/Coker 76-29//Coker 76-30*3/Coker 76-29//IORN14:AH.
- PI 605627. *Avena sativa* L.**
Breeding. X438-1-B5; NSGC 7271. Pedigree - Coker 81-21/Coker 76-30*4/Coker 76-29//WIND.CROSS/IH547.
- PI 605628. *Avena sativa* L.**
Breeding. X438-1-B5; NSGC 7272. Pedigree - Coker 81-21/Coker 76-30*4/Coker 76-29//WIND.CROSS/IH547.
- PI 605629. *Avena sativa* L.**
Breeding. X440-1-B5; NSGC 7273. Pedigree - Coker 820/Coker 76-19//Coker 75-27*2//Coker 75-26//Coker 76-23/CI8322.
- PI 605630. *Avena sativa* L.**
Breeding. X446-1-B5; NSGC 7274. Pedigree - Coker 75-28/TAM312//Coker 234/CMB10//Coker 76-19/Coker 75-14//Coker 234/74C70//Coker 76-16//Coker 77-18/CI3031.
- PI 605631. *Avena sativa* L.**
Breeding. X446-1-B5; NSGC 7275. Pedigree - Coker 75-28/TAM312//Coker 234/CMB10//Coker 76-19/Coker 75-14//Coker 234/74C70//Coker 76-16//Coker 77-18/CI3031.
- PI 605632. *Avena sativa* L.**
Breeding. X446-1-B5; NSGC 7276. Pedigree - Coker 75-28/TAM312//Coker 234/CMB10//Coker 76-19/Coker 75-14//Coker 234/74C70//Coker 76-16//Coker 77-18/CI3031.
- PI 605633. *Avena sativa* L.**
Breeding. X444-1-B5; NSGC 7277. Pedigree - Coker 81-21/Coker 76-30*2/Coker 76-29//Coker 76-30*3/Coker 76-29//Coker 716*2/CI6076.

- PI 605634. *Avena sativa* L.**
Breeding. X444-1-B5; NSGC 7278. Pedigree - Coker 81-21/Coker 76-30*2/Coker 76-29//Coker 76-30*3/Coker 76-29//Coker 716*2/CI6076.
- PI 605635. *Avena sativa* L.**
Breeding. X447-1-B5; NSGC 7279. Pedigree - Coker 84-15/Coker 234/74C70//Coker 76-16//Coker 77-18/CI3031.
- PI 605636. *Avena sativa* L.**
Breeding. X449-1-B5; NSGC 7280. Pedigree - Coker 84-15/Coker 84-18 (SRR)
.
- PI 605637. *Avena sativa* L.**
Breeding. X455-1-B5; NSGC 7281. Pedigree - Mesquite II/Coker 84-15.
- PI 605638. *Avena sativa* L.**
Breeding. X457-1-B5; NSGC 7282. Pedigree - Coker 69-26/Coker 70-12//Coker 76-19/CAN MUTANT/Coker 76-23//Coker 75-27//Coker 76-29//Coker 76-23//Coker 75-28/CI8335.
- PI 605639. *Avena sativa* L.**
Breeding. X457-1-B5; NSGC 7283. Pedigree - Coker 69-26/Coker 70-12//Coker 76-19/CAN MUTANT/Coker 76-23//Coker 75-27//Coker 76-29//Coker 76-23//Coker 75-28/CI8335.
- PI 605640. *Avena sativa* L.**
Breeding. X459-1-B5; NSGC 7284. Pedigree - Coker 78-28/Coker 79-26/Coker 76-30/Coker 75-27/Coker 76-29/Coker 76-23/Coker 75-28/CI8335.
- PI 605641. *Avena sativa* L.**
Breeding. X464-1-B5; NSGC 7285. Pedigree - Coker 76-30*4/Coker 76-29/Coker 76-30*2//Coker 716*2/CI6076.
- PI 605642. *Avena sativa* L.**
Breeding. X464-1-B5; NSGC 7286. Pedigree - Coker 76-30*4/Coker 76-29/Coker 76-30*2//Coker 716*2/CI6076.
- PI 605643. *Avena sativa* L.**
Breeding. X464-1-B5; NSGC 7287. Pedigree - Coker 76-30*4/Coker 76-29/Coker 76-30*2//Coker 716*2/CI6076.
- PI 605644. *Avena sativa* L.**
Breeding. X464-1-B5; NSGC 7288. Pedigree - Coker 76-30*4/Coker 76-29/Coker 76-30*2//Coker 716*2/CI6076.
- PI 605645. *Avena sativa* L.**
Breeding. X466-1-B5; NSGC 7289. Pedigree - Citation/84.
- PI 605646. *Avena sativa* L.**
Breeding. X475-1-B3; NSGC 7290. Pedigree - Coker 84-15/Coker 78-28/Coker 79-26.
- PI 605647. *Avena sativa* L.**
Breeding. X476-1-B3; NSGC 7291. Pedigree - Coker 84-15*2/Coker

234/74C70/Coker 76-16/Coker 77-18/CI3031.

PI 605648. Avena sativa L.

Breeding. X477-1-B3; NSGC 7292. Pedigree - Coker 84-15/Coker 234/74C70//Coker 79-26//Coker 234/74C70/(MULTIFLORENTS).

PI 605649. Avena sativa L.

Breeding. X479-1-B3; NSGC 7293. Pedigree - Coker 76-30*4/Coker 76-29/Coker 84-15.

PI 605650. Avena sativa L.

Breeding. X485-1-B3; NSGC 7294. Pedigree - Coker 78-28/Coker 79-26/Coker 76-30*2//Coker 716*2/CI6076.

PI 605651. Avena sativa L.

Breeding. X487-1-B3; NSGC 7295. Pedigree - Coker 78-28/Coker 79-26/Coker 234/74C70//Coker 76-16//Coker 77-18/CI3031.

PI 605652. Avena sativa L.

Breeding. X478-1-B3; NSGC 7296. Pedigree - Coker 234/CMB10/Coker 84-15.

PI 605653. Avena sativa L.

Breeding. X481-1-B3; NSGC 7297. Pedigree - Coker 84-15*2/Coker 69-26/Coker 70-12//Coker 76-19//CAN MUTANT.

PI 605654. Avena sativa L.

Breeding. X483-1-B3; NSGC 7298. Pedigree - Coker 84-15*2/Coker 84-27.

PI 605655. Avena sativa L.

Breeding. X483-1-B3; NSGC 7299. Pedigree - Coker 84-15*2/Coker 84-27.

PI 605656. Avena sativa L.

Breeding. X484-1-B3; NSGC 7300. Pedigree - Coker 76-30*2/Coker 76-29//Coker 76-30*3/Coker 76-29//Coker 716*2/CI6076/Coker 78-28/Coker 79-26/Coker 69-26/Coker 70-12/Coker 76-19/Coker 76-16//Coker 77-18/CI3031.

PI 605657. Avena sativa L.

Breeding. X486-1-B3; NSGC 7301. Pedigree - Walken*2/Coker 76-26//Coker 75-27/Coker 76-29/Coker 76-23/Coker 75-28/CI8336.

PI 605658. Avena sativa L.

Breeding. X434-1-B4; NSGC 7302. Pedigree - Mesquite II/Coker 76-23/Coker 75-27/Coker 76-29/Coker 76-23/Coker 75-28/CI8336.

PI 605659. Avena sativa L.

Breeding. X434-1-B4; NSGC 7303. Pedigree - Mesquite II/Coker 76-23/Coker 75-27/Coker 76-29/Coker 76-23/Coker 75-28/CI8336.

PI 605660. Avena sativa L.

Breeding. X434-1-B4; NSGC 7304. Pedigree - Mesquite II/Coker 76-23/Coker 75-27/Coker 76-29/Coker 76-23/Coker 75-28/CI8336.

PI 605661. Avena sativa L.

Breeding. X434-1-B4; NSGC 7305. Pedigree - Mesquite II/Coker 76-23/Coker

75-27/Coker 76-29/Coker 76-23/Coker 75-28/CI8336.

PI 605662. Avena sativa L.

Breeding. X437-1-B4; NSGC 7306. Pedigree - Coker 81-21/Coker
76-30*4/Coker 76-29//Coker 76-30*3/Coker 76-29//IORN14:IAH.

PI 605663. Avena sativa L.

Breeding. X440-1-B4; NSGC 7307. Pedigree - Coker 820/Coker 76-19//Coker
75-27*2//Coker 75-26//Coker 76-23/CI8322.

PI 605664. Avena sativa L.

Breeding. X444-1-B4; NSGC 7308. Pedigree - Coker 81-21/Coker
76-30*2/Coker 76-29//Coker 76-30*3/Coker 76-29//Coker716*2/CI6076.

PI 605665. Avena sativa L.

Breeding. X444-1-B4; NSGC 7309. Pedigree - Coker 81-21/Coker
76-30*2/Coker 76-29//Coker 76-30*3/Coker 76-29//Coker 716*2/CI6076.

PI 605666. Avena sativa L.

Breeding. X446-1-B4; NSGC 7310. Pedigree - Coker 75-28/TAM312//Coker
234/CMB10//Coker 76-19/Coker 75-14//Coker 234/74C70//Coker 76-16//Coker
77-18/CI3031.

PI 605667. Avena sativa L.

Breeding. X446-1-B4; NSGC 7311. Pedigree - Coker 75-28/TAM312//Coker
234/CMB10//Coker 76-19/Coker 75-14//Coker 234/74C70//Coker 76-16//Coker
77-18/CI3031.

PI 605668. Avena sativa L.

Breeding. X449-1-B4; NSGC 7312. Pedigree - Coker 84-15/Mesquite II.

PI 605669. Avena sativa L.

Breeding. X450-1-B4; NSGC 7313. Pedigree - Coker 84-15/85 SA-TEX15 (BIG
SD).

PI 605670. Avena sativa L.

Breeding. X450-1-B4; NSGC 7314. Pedigree - Coker 84-15/85 SA-TEX15 (BIG
SD).

PI 605671. Avena sativa L.

Breeding. X452-1-B4; NSGC 7315. Pedigree - Coker 84-15/Coker 69-26/Coker
70-12//Coker 76-19//Coker 76-16//Coker 77-18/CI3031.

PI 605672. Avena sativa L.

Breeding. X452-1-B4; NSGC 7316. Pedigree - Coker 84-15/Coker 69-26/Coker
70-12//Coker 76-19//Coker 76-16//Coker 77-18/CI3031.

PI 605673. Avena sativa L.

Breeding. X453-1-B4; NSGC 7317. Pedigree - Coker 84-16:Coker 76-19/Coker
75-14/Citation.

PI 605674. Avena sativa L.

Breeding. X453-1-B4; NSGC 7318. Pedigree - Coker 84-16:Coker 76-19/Coker
75-14/Citation.

- PI 605675. *Avena sativa* L.**
Breeding. X453-1-B4; NSGC 7319. Pedigree - Coker 84-16:Coker 76-19/Coker 75-14/Citation.
- PI 605676. *Avena sativa* L.**
Breeding. X454-1-B4; NSGC 7320. Pedigree - Coker 84-16:Coker 76-19/Coker 75-14/Coker 76-23//Coker 75-27//Coker 76-29/////.
- PI 605677. *Avena sativa* L.**
Breeding. X454-1-B4; NSGC 7321. Pedigree - Coker 84-16:Coker 76-19/Coker 75-14/Coker 76-23//Coker 75-27//Coker 76-29/////.
- PI 605678. *Avena sativa* L.**
Breeding. X454-1-B4; NSGC 7322. Pedigree - Coker 84-16:Coker 76-19/Coker 75-14/Coker 76-23//Coker 75-27//Coker 76-29/////.
- PI 605679. *Avena sativa* L.**
Breeding. X456-1-B4; NSGC 7323. Pedigree - Coker 76-19*2/CI9221//Coker 81-21/Coker 76-30//Coker 76-30*2/Coker 76-29//Coker 76-30*3/Coker 76-29//Coker 716*2/CI6076.
- PI 605680. *Avena sativa* L.**
Breeding. X437-1-B4; NSGC 7324. Pedigree - Coker 81-21/Coker 76-30*4/Coker 76-29//Coker 76-30*3/Coker 76-29//IORN14:IAH.
- PI 605681. *Avena sativa* L.**
Breeding. X438-1-B4; NSGC 7325. Pedigree - Coker 81-21/Coker 76-30*4/Coker 76-29//WIND.CROSS/IH547.
- PI 605682. *Avena sativa* L.**
Breeding. X440-1-B4; NSGC 7326. Pedigree - Coker 820/Coker 76-19//Coker 75-27*2//Coker 75-26//Coker 76-23/CI8322.
- PI 605683. *Avena sativa* L.**
Breeding. X443-1-B4; NSGC 7327. Pedigree - Coker 81-21/Coker 78-28/Coker 79-26//Coker 69-26/Coker 70-12/Coker 76-19//Coker 76-16//CI7718/CI3031.
- PI 605684. *Avena sativa* L.**
Breeding. X447-1-B5; NSGC 7328. Pedigree - Coker 84-15/Coker 234/74C70//Coker 76-16//Coker 77-18/CI3031.
- PI 605685. *Avena sativa* L.**
Breeding. X456-1-B5; NSGC 7329. Pedigree - Coker 76-19*2/CI9221//Coker 81-21/Coker 76-30//Coker 76-30*2/Coker 76-29//Coker 76-30*3/Coker 76-29//Coker 716*2/CI6076.
- PI 605686. *Avena sativa* L.**
Breeding. X459-1-B5; NSGC 7330. Pedigree - Coker 78-28/Coker 79-26/Coker 76-30/Coker 75-27/Coker 76-29/Coker 76-23/Coker 75-28/CI8335.
- PI 605687. *Avena sativa* L.**
Breeding. X459-1-B5; NSGC 7331. Pedigree - Coker 78-28/Coker 79-26/Coker 76-30/Coker 75-27/Coker 76-29/Coker 76-23/Coker 75-28/CI8335.
- PI 605688. *Avena sativa* L.**

Breeding. X464-1-B5; NSGC 7332. Pedigree - Coker 76-30*4/Coker 76-29/Coker 76-30*2//Coker 716*2/CI6076.

PI 605689. Avena sativa L.

Breeding. X405-1-B5; NSGC 7333. Pedigree - Coker 83-23:Coker 76-19//Coker 69-26/Coker 70-12/Coker 76-19*2//CI9221/Coker 79-23.

PI 605690. Avena sativa L.

Breeding. X405-1-B5; NSGC 7334. Pedigree - Coker 83-23:Coker 76-19//Coker 69-26/Coker 70-12/Coker 76-19*2//CI9221/Coker 79-23.

PI 605691. Avena sativa L.

Breeding. X405-1-B5; NSGC 7335. Pedigree - Coker 83-23:Coker 76-19//Coker 69-26/Coker 70-12/Coker 76-19*2//CI9221/Coker 79-23.

PI 605692. Avena sativa L.

Breeding. X406-1-B5; NSGC 7336. Pedigree - Coker 78-28/Coker 79-26/Coker 234/74C70//Coker 76-16//Coker 77-18/CI3031.

PI 605693. Avena sativa L.

Breeding. X407-1-B5; NSGC 7337. Pedigree - Coker 75-28/TAM312//Coker 234/CMB10/Coker 76-30*4/Coker 76-29.

PI 605694. Avena sativa L.

Breeding. X407-1-B5; NSGC 7338. Pedigree - Coker 75-28/TAM312//Coker 234/CMB10/Coker 76-30*4/Coker 76-29.

PI 605695. Avena sativa L.

Breeding. X408-1-B5; NSGC 7339. Pedigree - Coker 77-23/Coker 79-26/Coker 76-19*2/CI9221/Coker 79-23.

PI 605696. Avena sativa L.

Breeding. X487-1-B3; NSGC 7340. Pedigree - Coker 78-28/Coker 79-26/Coker 234/74C70//Coker 76-16//Coker 77-18/CI3031.

PI 605697. Avena sativa L.

Breeding. X451-1-B3; NSGC 7341. Pedigree - Coker 84-15/Coker 234/74C70//Coker 76-16//Coker 77-18/CI3031.

PI 605698. Avena sativa L.

Breeding. X451-1-B3; NSGC 7342. Pedigree - Coker 84-15/Coker 234/74C70//Coker 76-16//Coker 77-18/CI3031.

The following were developed by Don F. Salmon, Alberta Agriculture, Field Crop Research Centre, 5030-50 Street, Lacombe, Alberta T4L 1W8, Canada; W. Stewart, Alberta Agriculture, Bag Service #47, 5718-56 Avenue, Lacombe, Alberta T0C 1S0, Canada; Robert I. Wolfe, Agriculture and Agri-Food Canada, Field Crop Development Centre, 5030 - 50 Street, Lacombe, Alberta T4L 1W8, Canada; James H. Helm, Alberta Agriculture, Food and Rural Development, Field Crop Development Centre, Lacombe, Alberta T4L 1W8, Canada; Manuel Cortez, Alberta Agriculture, Food and Rural Development, Field Crop Development Centre, Lacombe, Alberta T4L 1W8, Canada; Patricia E. Juskiw, Alberta Agriculture, Field Crop Development Centre, 5030-50 St., Lacombe, Alberta T4L 1W8, Canada. Received 10/13/1998.

PI 605699. *Hordeum vulgare* L. subsp. *vulgare*

Cultivar. Pureline. MAHIGAN; SD 511. CV-276. Pedigree - Celaya//Mesquita/Godiva/3/Trompillo. Six row semidwarf, spring habit feed barley. Semi-smooth awned, strong straws, early maturing, hulled, green coleoptile and intermediate juvenile growth habit. Leaves green, medium wide and medium long with glabrous sheaths and blades. Flag leaf medium green, medium wide and short of upright attitude. Sheath waxy and auricle purple. Spikes moderately dense, tapering, lateral kernels overlap on top one quarter to one half of spike. Kernels short, narrow to medium width with yellow aleurone. Very good combination of high yield, early maturity, excellent straw strength. Good field resistance to scald. Widely adapted to Alberta.

The following were collected by Michigan State University, W. J. Beal Botanical Garden, 412 Olds Hall, East Lansing, Michigan 48824-1047, United States. Donated by Roger L. Thelen, Michigan State University, W. J. Botanical Garden, 412 Olds Hall, East Lansing, Michigan 48824-1047, United States. Received 04/22/1994.

PI 605700. *Chenopodium album* L.

Wild. Chenopo; Ames 21983. Collected 1993 in Michigan, United States. Latitude 42 deg. 43' N. Longitude 84 deg. 29' W. Elevation 256 m. Incinerator Road, Ingham County. Disturbed dumped soil.

The following were donated by C. Livingston, Dept of Botany & Pathology, Colorado State University, Fort Collins, Colorado 80523, United States. Received 1983.

PI 605701. *Chenopodium album* L.

Wild. NSL 179249; PIGWEED.

The following were donated by Hortus Botanicus, Instituti Plantarum Medicinal, Poznan, Poznan, Poland; Institut fur Pflanzengenetik und Kulturpflanzenforschung, Genebank, Corrensstrasse 3, Gatersleben, Saxony-Anhalt D-06466, Germany. Received 06/21/1996.

PI 605702. *Chenopodium botrys* L.

Uncertain. CHEN 27/77; Ames 23107. Plants aromatic, and have leaf blades with deep sinuses (observed by David Brenner, Ames, Iowa 1997).

The following were donated by Institut fur Pflanzengenetik und Kulturpflanzenforschung, Genebank, Corrensstrasse 3, Gatersleben, Saxony-Anhalt D-06466, Germany; Botanic Garden, Aschabad, Former Soviet Union. Received 06/21/1996.

PI 605703. *Chenopodium botrys* L.

Uncertain. CHEN 38/79; Ames 23108. Plants aromatic, and have leaf blades with deep sinuses (observed by David Brenner, Ames, Iowa 1997).

The following were developed by Edwin T. Bingham, University of Wisconsin, Dept. of Agronomy, 453 Moore Hall, Madison, Wisconsin 53706, United States. Received 10/26/1998.

PI 605704. *Medicago sativa* L. subsp. *sativa*

Genetic. Population. WI-MUTABLE 1; c2-m1. Pedigree - 50% Vernal, 25% Saranac, and 25% unknown germplasm. Segregates for mutable allele (c2-m1) at the C2 locus that behaves as a transposable element. About 70% of plants white flowered, 20% mutable with streaks and sectors of purple pigment in otherwise white flower petals, and 5% purple where reversion to purple took place in gametogenesis. Vernal and Saranac in background and fertility and adaptation are similar to these varieties.

The following were developed by DEKALB Genetics Corporation, United States. Received 11/06/1998.

PI 605705. *Zea mays* L. subsp. *mays*

Cultivar. "79314N1". PVP 9800278.

PI 605706. *Glycine max* (L.) Merr.

Cultivar. "CX302c". PVP 9800236.

The following were developed by Randy Ireson, American Friends Service Committee, 388 Browning Av. SE, Salem, Oregon 97302, United States; O. Kyongchol, Korean Academy of Agricultural Sciences, Pyongyang, Pyongyang, Korea, North. Received 11/09/1998.

PI 605707 QUAR. *Zea mays* L. subsp. *mays*

Cultivar. "RONGUJIERIE".

PI 605708 QUAR. *Zea mays* L. subsp. *mays*

Cultivar. "YELLOWJIERIE".

PI 605709 QUAR. *Zea mays* L. subsp. *mays*

Cultivar. "WHITEMACHI".

PI 605710 QUAR. *Zea mays* L. subsp. *mays*

Cultivar. "MULFURE".

PI 605711 QUAR. *Zea mays* L. subsp. *mays*

Cultivar. "YELLOWMACHI".

The following were developed by Anna Myers McClung, USDA, ARS, Rice Research Unit, 1509 Aggie Drive, Beaumont, Texas 77713, United States. Received 11/19/1998.

PI 605712. *Oryza sativa* L.

Cultivar. Pureline. "CADET"; TX 8006; RU9803006. PVP 9900110. Pedigree - Cypress/Panda. Semidwarf, long grain with special process dependent cooking quality. Flowers about two weeks earlier than Cypress. Similar level of resistance to *Pyricularia grisea* as Cypress but is more tolerant to *Rhizoctonia solani* infection. Apparent amylose content 13

percent. Plants straw colored and pubescent. Spikelets straw colored and awnless.

PI 605713. *Oryza sativa* L.

Cultivar. Pureline. "JACINTO"; TX 8029; RU9803029. PVP 9900109. Pedigree - Cypress/Pelde. Semidwarf, long grain with special process dependent cooking quality. Flowers about 3 days earlier than Cypress. More susceptible to *Pyricularia grisea* than Cypress but is more tolerant to infection by *Rhizoctonia solani*. Apparent amylose content 13 percent. Plants straw colored and pubescent. Spikelets dark apiculi and awnless.

The following were developed by Arizona Plant Breeders, Inc., Arizona, United States. Received 11/09/1998.

PI 605714. *Hordeum vulgare* L. subsp. vulgare

Cultivar. "BARETTA". PVP 9900003.

The following were developed by DEKALB Genetics Corporation, United States. Received 11/09/1998.

PI 605715. *Medicago sativa* L. subsp. sativa

Cultivar. "DK134". PVP 9900004.

PI 605716. *Medicago sativa* L. subsp. sativa

Cultivar. "DK124". PVP 9900005.

The following were developed by Progeny Advanced Genetics, Inc., Salinas, California, United States. Received 11/09/1998.

PI 605717. *Lactuca sativa* L.

Cultivar. "TRIBUNE XL". PVP 9900006.

The following were developed by Holden's Foundation Seeds, Inc., United States. Received 11/09/1998.

PI 605718. *Zea mays* L. subsp. mays

Cultivar. "LH261". PVP 9900007.

The following were developed by University of Georgia Research Foundation, Inc., Georgia, United States. Received 11/09/1998.

PI 605719. *Brassica napus* L. var. napus

Cultivar. "FLINT". PVP 9900008.

The following were developed by Holden's Foundation Seeds, Inc., United States. Received 11/09/1998.

PI 605720. *Zea mays* L. subsp. mays

Cultivar. "LH274". PVP 9900009.

PI 605721. Zea mays L. subsp. mays
Cultivar. "LH301". PVP 9900010.

PI 605722. Zea mays L. subsp. mays
Cultivar. "LH302". PVP 9900011.

The following were developed by Pioneer Hi-Bred International, Inc., United States. Received 11/09/1998.

PI 605723. Sorghum bicolor (L.) Moench
Cultivar. "PH005JLE". PVP 9900012.

PI 605724. Sorghum bicolor (L.) Moench
Cultivar. "PH305LBE". PVP 9900013.

PI 605725. Sorghum bicolor (L.) Moench
Cultivar. "PHIGAME". PVP 9900014.

PI 605726. Sorghum bicolor (L.) Moench
Cultivar. "PHWPAYVE". PVP 9900015.

The following were developed by Pure Seed Testing, Inc., P.O. Box 449, Hubbard, Oregon 97032, United States. Received 11/09/1998.

PI 605727. Cynodon dactylon (L.) Pers.
Cultivar. "PANAMA". PVP 9900016.

The following were developed by Cebeco Zaden B.V., Rotterdam, South Holland, Netherlands. Received 11/09/1998.

PI 605728. Pisum sativum L.
Cultivar. "CEBECO 1154". PVP 9900017.

PI 605729. Pisum sativum L.
Cultivar. "TOLEDO". PVP 9900018.

PI 605730. Pisum sativum L.
Cultivar. "SUPRA". PVP 9900019.

The following were developed by Phytogen Seed Company, LLC, United States. Received 11/09/1998.

PI 605731. Gossypium hirsutum L.
Cultivar. "PSC 57 PIMA". PVP 9900020.

The following were developed by Pioneer Hi-Bred International, Inc., United States. Received 11/09/1998.

PI 605732. Zea mays L. subsp. mays

Cultivar. "PHOCD". PVP 9900021.

PI 605733. *Zea mays* L. subsp. *mays*
Cultivar. "PH1W2". PVP 9900022.

PI 605734. *Zea mays* L. subsp. *mays*
Cultivar. "PH3TD". PVP 9900023.

PI 605735. *Zea mays* L. subsp. *mays*
Cultivar. "PH40K". PVP 9900024.

PI 605736. *Zea mays* L. subsp. *mays*
Cultivar. "PH4A8". PVP 9900025.

PI 605737. *Zea mays* L. subsp. *mays*
Cultivar. "PH4AA". PVP 9900026.

The following were collected by Gary Nabhan, Meals for Millions, Freedom from Hunger Foundation, 209 East 16th St. P.O. Box 42622, Tucson, Arizona, United States. Donated by Carolyn Reider, Rodale Research Center, Box 323, R.D. 1, Kutztown, Pennsylvania 19530, United States. Received 06/07/1990.

PI 605738. *Amaranthus fimbriatus* (Torr.) Benth. ex S. Watson
Wild. MFM C06-001; RRC 1135; Ames 15304. Collected 12/01/1982 in Sonora, Mexico. Latitude 31 deg. 45' 0'' N. Longitude 113 deg. 30' 0'' W. Elevation 120 m. Suvuk, Pinacate Desert National Park. Lava-cinder and sand wash, where air temperatures reach 121 F and soil 155 F. Less than 5 inches of rain per year. Quick growing ephemeral with extremely narrow leaves. Tepals white and fimbriate at the edge. Tepals spread from the utricle so that the flower is 4mm wide.

The following were collected by Guillermo Covas, Facultad de Agron. de la Univ. Nacional de La Pampa, Emilio Mitre 31, Santa Rosa, La Pampa 6300, Argentina. Donated by Carolyn Reider, Rodale Research Center, Box 323, R.D. 1, Kutztown, Pennsylvania 19530, United States. Received 06/07/1990.

PI 605739. *Amaranthus standleyanus* Parodi ex Covas
Wild. IGC 50; RRC 1380; Ames 15312. Collected 01/01/1989 in La Pampa, Argentina. Latitude 36 deg. 31' 0'' S. Longitude 64 deg. 1' 0'' W. Elevation 200 m. A decumbent wild plant.

The following were developed by Jerome D. Franckowiak, North Dakota State University, Department of Plant Sciences, P.O. Box 5051, Fargo, North Dakota 58105-5051, United States. Donated by Chia-Tsang Liu, University of Idaho, Ag. Coop. Extension, 1214 Joseph St., Moscow, Idaho 83843, United States; Darrell M. Wesenberg, USDA, ARS, National Small Grains Germplasm, Research Facility, Aberdeen, Idaho 83210, United States. Received 11/09/1998.

PI 605740. *Hordeum vulgare* L. subsp. *vulgare*
Cultivar. Pureline. "CAMAS"; ND9147; NSGC 7348. Pedigree - ND5976/ND7159 = Maris Concord/Klages//ND2679-4/4/Klages/ND1244/3/ND2685/ND1156//Hector . Two-rowed spring barley.

The following were developed by University of Nebraska, Nebraska Agr. Exp. Sta., Lincoln, Nebraska, United States; C.J. Peterson, USDA, ARS, University of Nebraska, Dept. of Agronomy, Lincoln, Nebraska 68583, United States. Received 11/06/1998.

PI 605741. *Triticum aestivum* L., nom. cons. subsp. *aestivum*
Cultivar. Pureline. "NUPLAINS"; N94L205; NSGC 7346. Pedigree - Abilene/KS831872 = Abilene/3/Plainsman V//Newton/Arthur 71. Hard white winter wheat.

PI 605742. *Triticum aestivum* L., nom. cons. subsp. *aestivum*
Cultivar. Pureline. "WESLEY"; N95L158; NSGC 7347. Pedigree - KS831936-3/NE86501 = Sumner sib (Plainsman V/Odesskaya 51)//Colt/Cody. Released 1998. Hard red winter wheat.

The following were collected by Randall Nelson, USDA, ARS, National Soybean Research Laboratory, 1101 West Peabody Drive, Urbana, Illinois 61801, United States; Van Lai Tran, Vegetable and Fruit Research Institute, Deputy Director, Hanoi, Vietnam; Thi An Nguyen, Vegetable and Fruit Research Institute, Hanoi, Vietnam; Minh Thu Nguyen, Vegetable and Fruit Research Institute, Hanoi, Vietnam. Donated by Randall Nelson, USDA, ARS, National Soybean Research Laboratory, 1101 West Peabody Drive, Urbana, Illinois 61801, United States. Received 09/15/1998.

PI 605743. *Glycine max* (L.) Merr.
Cultivated. Pureline. Lo xanh; SY 9827001. Collected 07/18/1998 in Vietnam.

PI 605744. *Glycine max* (L.) Merr.
Cultivated. Pureline. SY 9827002. Collected 07/18/1998 in Vietnam.

PI 605745. *Glycine max* (L.) Merr.
Cultivated. Pureline. Cuc luc ngan; SY 9827005. Collected 07/18/1998 in Vietnam.

PI 605746. *Glycine max* (L.) Merr.
Cultivated. Pureline. "DH4"; SY 9827006. Collected 07/18/1998 in Vietnam

PI 605747. *Glycine max* (L.) Merr.
Cultivated. Pureline. SY 9827007. Collected 07/19/1998 in Vietnam.

PI 605748. *Glycine max* (L.) Merr.
Cultivated. Pureline. SY 9827008. Collected 07/19/1998 in Vietnam.

PI 605749. *Glycine max* (L.) Merr.
Cultivated. Pureline. SY 9827009. Collected 07/19/1998 in Vietnam.

PI 605750. *Glycine max* (L.) Merr.
Cultivated. Pureline. SY 9827010. Collected 07/19/1998 in Vietnam.

PI 605751. *Glycine max* (L.) Merr.

- Cultivated. Pureline. SY 9827011. Collected 07/19/1998 in Vietnam.
- PI 605752. *Glycine max* (L.) Merr.**
Cultivated. Pureline. Cuc luc ngan; SY 9827012. Collected 07/19/1998 in Vietnam.
- PI 605753. *Glycine max* (L.) Merr.**
Cultivated. Pureline. Dong tam; SY 9827013. Collected 07/19/1998 in Vietnam.
- PI 605754. *Glycine max* (L.) Merr.**
Cultivated. Pureline. Bon thang; SY 9827015. Collected 07/19/1998 in Vietnam.
- PI 605755. *Glycine max* (L.) Merr.**
Cultivated. Pureline. Dong hoa; SY 9827016. Collected 07/19/1998 in Vietnam.
- PI 605756. *Glycine max* (L.) Merr.**
Cultivated. Pureline. SY 9827019. Collected 07/19/1998 in Vietnam.
- PI 605757. *Glycine max* (L.) Merr.**
Cultivated. Pureline. SY 9827020. Collected 07/20/1998 in Vietnam.
- PI 605758. *Glycine max* (L.) Merr.**
Cultivated. Pureline. SY 9827021. Collected 07/20/1998 in Vietnam.
- PI 605759. *Glycine max* (L.) Merr.**
Cultivated. Pureline. Diem he; SY 9827022. Collected 07/20/1998 in Vietnam.
- PI 605760. *Glycine max* (L.) Merr.**
Cultivated. Pureline. SY 9827023. Collected 07/20/1998 in Vietnam.
- PI 605761. *Glycine max* (L.) Merr.**
Cultivated. Pureline. SY 9827024. Collected 07/20/1998 in Vietnam.
- PI 605762. *Glycine max* (L.) Merr.**
Cultivated. Pureline. SY 9827025. Collected 07/20/1998 in Vietnam.
- PI 605763. *Glycine max* (L.) Merr.**
Cultivated. Pureline. SY 9827026. Collected 07/20/1998 in Vietnam.
- PI 605764. *Glycine max* (L.) Merr.**
Cultivated. Pureline. SY 9827027. Collected 07/20/1998 in Vietnam.
- PI 605765. *Glycine max* (L.) Merr.**
Cultivated. Pureline. Ninh minh; SY 9827028. Collected 07/20/1998 in Vietnam.
- PI 605766. *Glycine max* (L.) Merr.**
Cultivated. Pureline. SY 9827029. Collected 07/20/1998 in Vietnam.
- PI 605767. *Glycine max* (L.) Merr.**
Cultivated. Pureline. SY 9827030. Collected 07/20/1998 in Vietnam.

- PI 605768. **Glycine max** (L.) Merr.
Cultivated. Pureline. SY 9827031. Collected 07/20/1998 in Vietnam.
- PI 605769. **Glycine max** (L.) Merr.
Cultivated. Pureline. SY 9827032. Collected 07/20/1998 in Vietnam.
- PI 605770. **Glycine max** (L.) Merr.
Cultivated. Pureline. SY 9827033. Collected 07/20/1998 in Vietnam.
- PI 605771. **Glycine max** (L.) Merr.
Cultivated. Pureline. SY 9827034. Collected 07/20/1998 in Vietnam.
- PI 605772. **Glycine max** (L.) Merr.
Cultivated. Pureline. SY 9827035. Collected 07/20/1998 in Vietnam.
- PI 605773. **Glycine max** (L.) Merr.
Cultivated. Pureline. SY 9827036. Collected 07/20/1998 in Vietnam.
- PI 605774. **Glycine max** (L.) Merr.
Cultivated. Pureline. SY 9827037. Collected 07/20/1998 in Vietnam.
- PI 605775. **Glycine max** (L.) Merr.
Cultivated. Pureline. SY 9827038. Collected 07/20/1998 in Vietnam.
- PI 605776. **Glycine max** (L.) Merr.
Cultivated. Pureline. SY 9827039. Collected 07/20/1998 in Vietnam.
- PI 605777. **Glycine max** (L.) Merr.
Cultivated. Pureline. SY 9827040. Collected 07/20/1998 in Vietnam.
- PI 605778. **Glycine max** (L.) Merr.
Cultivated. Pureline. SY 9827041. Collected 07/21/1998 in Vietnam.
- PI 605779. **Glycine max** (L.) Merr.
Cultivated. Pureline. SY 9827042. Collected 07/21/1998 in Vietnam.
- PI 605780. **Glycine max** (L.) Merr.
Cultivated. Pureline. SY 9827043. Collected 07/21/1998 in Vietnam.
- PI 605781. **Glycine max** (L.) Merr.
Cultivated. Pureline. SY 9827044. Collected 07/21/1998 in Vietnam.
- PI 605782. **Glycine max** (L.) Merr.
Cultivated. Pureline. SY 9827045. Collected 07/21/1998 in Vietnam.
- PI 605783. **Glycine max** (L.) Merr.
Cultivated. Pureline. SY 9827046. Collected 07/21/1998 in Vietnam.
- PI 605784. **Glycine max** (L.) Merr.
Cultivated. Pureline. SY 9827047. Collected 07/21/1998 in Vietnam.
- PI 605785. **Glycine max** (L.) Merr.
Cultivated. Pureline. SY 9827048. Collected 07/21/1998 in Vietnam.

- PI 605786. **Glycine max** (L.) Merr.
Cultivated. Pureline. SY 9827049. Collected 07/21/1998 in Vietnam.
- PI 605787. **Glycine max** (L.) Merr.
Cultivated. Pureline. SY 9827050. Collected 07/21/1998 in Vietnam.
- PI 605788. **Glycine max** (L.) Merr.
Cultivated. Pureline. SY 9827051. Collected 07/21/1998 in Vietnam.
- PI 605789. **Glycine max** (L.) Merr.
Cultivated. Pureline. SY 9827052. Collected 07/21/1998 in Vietnam.
- PI 605790. **Glycine max** (L.) Merr.
Cultivated. Pureline. SY 9827054. Collected 07/21/1998 in Vietnam.
- PI 605791. **Glycine max** (L.) Merr.
Cultivated. Pureline. SY 9827055. Collected 07/21/1998 in Vietnam.
- PI 605792. **Glycine max** (L.) Merr.
Cultivated. Pureline. SY 9827056. Collected 07/21/1998 in Vietnam.
- PI 605793. **Glycine max** (L.) Merr.
Cultivated. Pureline. SY 9827057. Collected 07/21/1998 in Vietnam.
- PI 605794. **Glycine max** (L.) Merr.
Cultivated. Pureline. SY 9827058. Collected 07/21/1998 in Vietnam.
- PI 605795. **Glycine max** (L.) Merr.
Cultivated. Pureline. SY 9827059. Collected 07/21/1998 in Vietnam.
- PI 605796. **Glycine max** (L.) Merr.
Cultivated. Pureline. SY 9827060. Collected 07/21/1998 in Vietnam.
- PI 605797. **Glycine max** (L.) Merr.
Cultivated. Pureline. SY 9827061. Collected 07/21/1998 in Vietnam.
- PI 605798. **Glycine max** (L.) Merr.
Cultivated. Pureline. SY 9827062. Collected 07/21/1998 in Vietnam.
- PI 605799. **Glycine max** (L.) Merr.
Cultivated. Pureline. SY 9827063. Collected 07/21/1998 in Vietnam.
- PI 605800. **Glycine max** (L.) Merr.
Cultivated. Pureline. SY 9827064. Collected 07/22/1998 in Vietnam.
- PI 605801. **Glycine max** (L.) Merr.
Cultivated. Pureline. SY 9827065. Collected 07/22/1998 in Vietnam.
- PI 605802. **Glycine max** (L.) Merr.
Cultivated. Pureline. SY 9827066. Collected 07/22/1998 in Vietnam.
- PI 605803. **Glycine max** (L.) Merr.
Cultivated. Pureline. SY 9827067. Collected 07/22/1998 in Vietnam.
- PI 605804. **Glycine max** (L.) Merr.

Cultivated. Pureline. "AK03"; SY 9827068. Collected 07/22/1998 in Vietnam.

PI 605805. *Glycine max* (L.) Merr.

Cultivated. Pureline. Dau tuong mat vang; SY 9827069. Collected 07/22/1998 in Vietnam.

PI 605806. *Glycine max* (L.) Merr.

Cultivated. Pureline. Dau tuong mat vang; SY 9827070. Collected 07/22/1998 in Vietnam.

PI 605807. *Glycine max* (L.) Merr.

Cultivated. Pureline. SY 9827071. Collected 07/22/1998 in Vietnam.

PI 605808. *Glycine max* (L.) Merr.

Cultivated. Pureline. Dau mat cua; SY 9827072. Collected 07/22/1998 in Vietnam.

PI 605809. *Glycine max* (L.) Merr.

Cultivated. Pureline. SY 9827073. Collected 07/22/1998 in Vietnam.

PI 605810. *Glycine max* (L.) Merr.

Cultivated. Pureline. SY 9827074. Collected 07/22/1998 in Vietnam.

PI 605811. *Glycine max* (L.) Merr.

Cultivated. Pureline. SY 9827075. Collected 07/22/1998 in Vietnam.

PI 605812. *Glycine max* (L.) Merr.

Cultivated. Pureline. SY 9827076. Collected 07/22/1998 in Vietnam.

PI 605813. *Glycine max* (L.) Merr.

Cultivated. Pureline. SY 9827077. Collected 07/22/1998 in Vietnam.

PI 605814. *Glycine max* (L.) Merr.

Cultivated. Pureline. SY 9827078. Collected 07/22/1998 in Vietnam.

PI 605815. *Glycine max* (L.) Merr.

Cultivated. Pureline. SY 9827079. Collected 07/22/1998 in Vietnam.

PI 605816. *Glycine max* (L.) Merr.

Cultivated. Pureline. SY 9827080. Collected 07/22/1998 in Vietnam.

PI 605817. *Glycine max* (L.) Merr.

Cultivated. Pureline. SY 9827081. Collected 07/23/1998 in Vietnam.

PI 605818. *Glycine max* (L.) Merr.

Cultivated. Pureline. SY 9827082. Collected 07/23/1998 in Vietnam.

PI 605819. *Glycine max* (L.) Merr.

Cultivated. Pureline. SY 9827083. Collected 07/23/1998 in Vietnam.

PI 605820. *Glycine max* (L.) Merr.

Cultivated. Pureline. SY 9827084. Collected 07/23/1998 in Vietnam.

PI 605821. *Glycine max* (L.) Merr.

- Cultivated. Pureline. SY 9827085. Collected 07/23/1998 in Vietnam.
- PI 605822. *Glycine max* (L.) Merr.**
Cultivated. Pureline. SY 9827086. Collected 07/23/1998 in Vietnam.
- PI 605823. *Glycine max* (L.) Merr.**
Cultivated. Pureline. SY 9827087. Collected 07/23/1998 in Vietnam.
- PI 605824. *Glycine max* (L.) Merr.**
Cultivated. Pureline. SY 9827088. Collected 07/23/1998 in Vietnam.
- PI 605825. *Glycine max* (L.) Merr.**
Cultivated. Pureline. SY 9827089. Collected 07/23/1998 in Vietnam.
- PI 605826. *Glycine max* (L.) Merr.**
Cultivated. Pureline. SY 9827090. Collected 07/23/1998 in Vietnam.
- PI 605827. *Glycine max* (L.) Merr.**
Cultivated. Pureline. SY 9827091. Collected 07/23/1998 in Vietnam.
- PI 605828. *Glycine max* (L.) Merr.**
Cultivated. Pureline. SY 9827093. Collected 07/23/1998 in Vietnam.
- PI 605829. *Glycine max* (L.) Merr.**
Cultivated. Pureline. SY 9827094. Collected 07/23/1998 in Vietnam.
- PI 605830. *Glycine max* (L.) Merr.**
Cultivated. Pureline. SY 9827095. Collected 07/23/1998 in Vietnam.
- PI 605831. *Glycine max* (L.) Merr.**
Cultivated. Pureline. SY 9827096. Collected 07/23/1998 in Vietnam.
- PI 605832. *Glycine max* (L.) Merr.**
Cultivated. Pureline. SY 9827097. Collected 07/23/1998 in Vietnam.
- PI 605833. *Glycine max* (L.) Merr.**
Cultivated. Pureline. SY 9827102. Collected 07/23/1998 in Vietnam.
- PI 605834. *Glycine max* (L.) Merr.**
Cultivated. Pureline. Vang trang kim; SY 9827103. Collected 07/23/1998 in Vietnam.
- PI 605835. *Glycine max* (L.) Merr.**
Cultivated. Pureline. SY 9827104. Collected 07/24/1998 in Vietnam.
- PI 605836. *Glycine max* (L.) Merr.**
Cultivated. Pureline. SY 9827105. Collected 07/24/1998 in Vietnam.
- PI 605837. *Glycine max* (L.) Merr.**
Cultivated. Pureline. Vang si man; SY 9827106. Collected 07/24/1998 in Vietnam.
- PI 605838. *Glycine max* (L.) Merr.**
Cultivated. Pureline. Xanh si man; SY 9827107. Collected 07/24/1998 in Vietnam.

- PI 605839. **Glycine max** (L.) Merr.
Cultivated. Pureline. Xam si man; SY 9827108. Collected 07/24/1998 in Vietnam.
- PI 605840. **Glycine max** (L.) Merr.
Cultivated. Pureline. SY 9827109. Collected 07/24/1998 in Vietnam.
- PI 605841. **Glycine max** (L.) Merr.
Cultivated. Pureline. Dau si man; SY 9827110. Collected 07/24/1998 in Vietnam.
- PI 605842. **Glycine max** (L.) Merr.
Cultivated. Pureline. SY 9827111. Collected 07/24/1998 in Vietnam.
- PI 605843. **Glycine max** (L.) Merr.
Cultivated. Pureline. SY 9827112. Collected 07/24/1998 in Vietnam.
- PI 605844. **Glycine max** (L.) Merr.
Cultivated. Pureline. SY 9827113. Collected 07/24/1998 in Vietnam.
- PI 605845. **Glycine max** (L.) Merr.
Cultivated. Pureline. SY 9827114. Collected 07/24/1998 in Vietnam.
- PI 605846. **Glycine max** (L.) Merr.
Cultivated. Pureline. SY 9827115. Collected 07/24/1998 in Vietnam.
- PI 605847. **Glycine max** (L.) Merr.
Cultivated. Pureline. SY 9827116. Collected 07/24/1998 in Vietnam.
- PI 605848. **Glycine max** (L.) Merr.
Cultivated. Pureline. SY 9827117. Collected 07/24/1998 in Vietnam.
- PI 605849. **Glycine max** (L.) Merr.
Cultivated. Pureline. SY 9827119. Collected 07/24/1998 in Vietnam.
- PI 605850. **Glycine max** (L.) Merr.
Cultivated. Pureline. SY 9827120. Collected 07/25/1998 in Vietnam.
- PI 605851. **Glycine max** (L.) Merr.
Cultivar. Pureline. "DH4"; SY 9827121. Collected 07/25/1998 in Vietnam.
- PI 605852. **Glycine max** (L.) Merr.
Cultivated. Pureline. SY 9827122. Collected 07/25/1998 in Vietnam.
- PI 605853. **Glycine max** (L.) Merr.
Cultivated. Pureline. Do trui; SY 9827123. Collected 07/25/1998 in Vietnam.
- PI 605854. **Glycine max** (L.) Merr.
Cultivated. Pureline. SY 9827124. Collected 07/25/1998 in Vietnam.
- PI 605855. **Glycine max** (L.) Merr.
Cultivated. Pureline. SY 9827125. Collected 07/25/1998 in Vietnam.

- PI 605856. **Glycine max** (L.) Merr.
Cultivated. Pureline. SY 9827126. Collected 07/25/1998 in Vietnam.
- PI 605857. **Glycine max** (L.) Merr.
Cultivated. Pureline. SY 9827128. Collected 07/25/1998 in Vietnam.
- PI 605858. **Glycine max** (L.) Merr.
Cultivated. Pureline. SY 9827129. Collected 07/25/1998 in Vietnam.
- PI 605859. **Glycine max** (L.) Merr.
Cultivated. Pureline. SY 9827130. Collected 07/25/1998 in Vietnam.
- PI 605860. **Glycine max** (L.) Merr.
Cultivated. Pureline. SY 9827131. Collected 07/25/1998 in Vietnam.
- PI 605861. **Glycine max** (L.) Merr.
Cultivated. Pureline. H10; SY 9827132. Collected 07/25/1998 in Vietnam.
- PI 605862. **Glycine max** (L.) Merr.
Cultivated. Pureline. "V74"; SY 9827133. Collected 07/25/1998 in Vietnam
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- PI 605863. **Glycine max** (L.) Merr.
Cultivated. Pureline. SY 9827134. Collected 07/25/1998 in Vietnam.
- PI 605864. **Glycine max** (L.) Merr.
Cultivated. Pureline. SY 9827135. Collected 07/26/1998 in Vietnam.
- PI 605865. **Glycine max** (L.) Merr.
Cultivated. Pureline. SY 9827136. Collected 07/26/1998 in Vietnam.
- PI 605866. **Glycine max** (L.) Merr.
Cultivated. Pureline. SY 9827137. Collected 07/26/1998 in Vietnam.
- PI 605867. **Glycine max** (L.) Merr.
Cultivated. Pureline. SY 9827138. Collected 07/26/1998 in Vietnam.
- PI 605868. **Glycine max** (L.) Merr.
Cultivated. Pureline. SY 9827139. Collected 07/26/1998 in Vietnam.
- PI 605869. **Glycine max** (L.) Merr.
Cultivated. Pureline. SY 9827140. Collected 07/26/1998 in Vietnam.
- PI 605870. **Glycine max** (L.) Merr.
Cultivated. Pureline. SY 9827141. Collected 07/26/1998 in Vietnam.
- PI 605871. **Glycine max** (L.) Merr.
Cultivated. Pureline. SY 9827142. Collected 07/26/1998 in Vietnam.
- PI 605872. **Glycine max** (L.) Merr.
Cultivated. Pureline. SY 9827143. Collected 07/26/1998 in Vietnam.
- PI 605873. **Glycine max** (L.) Merr.
Cultivated. Pureline. Dau ngo; SY 9827145. Collected 07/26/1998 in Vietnam.

- PI 605874. **Glycine max** (L.) Merr.
Cultivated. Pureline. Vang muong khoung; SY 9827146. Collected
07/26/1998 in Vietnam.
- PI 605875. **Glycine max** (L.) Merr.
Cultivated. Pureline. SY 9827018. Collected 07/19/1998 in Vietnam.
- PI 605876. **Glycine max** (L.) Merr.
Cultivated. Pureline. SY 9827148. Collected 07/26/1998 in Vietnam.
- PI 605877. **Glycine max** (L.) Merr.
Cultivated. Pureline. SY 9827149. Collected 07/26/1998 in Vietnam.
- PI 605878. **Glycine max** (L.) Merr.
Cultivated. Pureline. SY 9827151. Collected 07/26/1998 in Vietnam.
- PI 605879. **Glycine max** (L.) Merr.
Cultivated. Pureline. Dau lu; SY 9827152. Collected 07/26/1998 in
Vietnam.
- PI 605880. **Glycine max** (L.) Merr.
Cultivated. Pureline. T72; SY 9827153. Collected 07/26/1998 in Vietnam.
- PI 605881. **Glycine max** (L.) Merr.
Cultivated. Pureline. SY 9827154. Collected 07/26/1998 in Vietnam.
- PI 605882. **Glycine max** (L.) Merr.
Cultivated. Pureline. Dau bon thang; SY 9827155. Collected 07/26/1998 in
Vietnam.
- PI 605883. **Glycine max** (L.) Merr.
Cultivated. Pureline. Dau ba thang; SY 9827156. Collected 07/26/1998 in
Vietnam.
- PI 605884. **Glycine max** (L.) Merr.
Cultivated. Pureline. SY 9827159. Collected 07/27/1998 in Vietnam.
- PI 605885. **Glycine max** (L.) Merr.
Cultivated. Pureline. SY 9827160. Collected 07/27/1998 in Vietnam.
- PI 605886. **Glycine max** (L.) Merr.
Cultivated. Pureline. SY 9827161. Collected 07/27/1998 in Vietnam.
- PI 605887. **Glycine max** (L.) Merr.
Cultivated. Pureline. SY 9827162. Collected 07/27/1998 in Vietnam.
- PI 605888. **Glycine max** (L.) Merr.
Cultivated. Pureline. SY 9827163. Collected 07/27/1998 in Vietnam.
- PI 605889. **Glycine max** (L.) Merr.
Cultivated. Pureline. SY 9827165. Collected 07/29/1998 in Vietnam.
- PI 605890. **Glycine max** (L.) Merr.
Cultivated. Pureline. SY 9827166. Collected 07/29/1998 in Vietnam.

- PI 605891. *Glycine max* (L.) Merr.
Cultivated. Pureline. SY 9827167. Collected 07/29/1998 in Vietnam.
- PI 605892. *Glycine max* (L.) Merr.
Cultivated. Pureline. SY 9827168. Collected 07/29/1998 in Vietnam.
- PI 605893. *Glycine max* (L.) Merr.
Cultivated. Pureline. SY 9827169. Collected 07/29/1998 in Vietnam.
- PI 605894. *Glycine max* (L.) Merr.
Cultivated. Pureline. SY 9827171. Collected 07/29/1998 in Vietnam.
- PI 605895. *Glycine max* (L.) Merr.
Cultivated. Pureline. SY 9827172. Collected 07/29/1998 in Vietnam.
- PI 605896. *Glycine max* (L.) Merr.
Cultivated. Pureline. SY 9827173. Collected 07/29/1998 in Vietnam.
- PI 605897. *Glycine max* (L.) Merr.
Cultivated. Pureline. SY 9827174. Collected 07/29/1998 in Vietnam.
- PI 605898. *Glycine max* (L.) Merr.
Cultivated. Pureline. SY 9827176. Collected 07/29/1998 in Vietnam.
- PI 605899. *Glycine max* (L.) Merr.
Cultivated. Pureline. Dau tuong song ma; SY 9827177. Collected
07/29/1998 in Vietnam.
- PI 605900. *Glycine max* (L.) Merr.
Cultivated. Pureline. SY 9827178. Collected 07/30/1998 in Vietnam.
- PI 605901. *Glycine max* (L.) Merr.
Cultivated. Pureline. SY 9827179. Collected 07/30/1998 in Vietnam.
- PI 605902. *Glycine max* (L.) Merr.
Cultivated. Pureline. SY 9827180. Collected 07/30/1998 in Vietnam.
- PI 605903. *Glycine max* (L.) Merr.
Cultivated. Pureline. "DH4"; SY 9827181. Collected 07/30/1998 in Vietnam
.
- PI 605904. *Glycine max* (L.) Merr.
Cultivated. Pureline. Dau sau thang; SY 9827182. Collected 07/30/1998 in
Vietnam.
- PI 605905. *Glycine max* (L.) Merr.
Cultivated. Pureline. SY 9827183. Collected 07/30/1998 in Vietnam.
- PI 605906. *Glycine max* (L.) Merr.
Cultivated. Pureline. SY 9827185. Collected 07/30/1998 in Vietnam.
- PI 605907. *Glycine max* (L.) Merr.
Cultivated. Pureline. SY 9827186. Collected 07/30/1998 in Vietnam.

PI 605908. *Glycine max* (L.) Merr.

Cultivated. Pureline. SY 9827187. Collected 07/30/1998 in Vietnam.

The following were donated by Randall Nelson, USDA, ARS, National Soybean Research Laboratory, 1101 West Peabody Drive, Urbana, Illinois 61801, United States. Received 10/01/1998.

PI 605909. *Glycine max* (L.) Merr.

Cultivated. Pureline. Dian feng 1; SY 9828001.

The following were developed by Milton E. McDaniel, Texas A&M University, Dept. of Soil & Crops Sciences, College Station, Texas 77843, United States; Mark D. Lazar, Texas A&M University, Research & Extension Center, 6500 Amarillo Blvd. West, Amarillo, Texas 79106, United States; W. David Worrall, Texas A&M University, Research & Extension Center, P.O. Box 1658, Vernon, Texas 76385, United States; David S. Marshall, Texas A&M University, Research & Extension Center, 17360 Coit Road, Dallas, Texas 75252-6599, United States; Lloyd R. Nelson, Texas Agricultural Experiment Station, The Texas A&M University System, Agricultural Research and Extension Center, Overton, Texas 75684-0290, United States; Russell L. Sutton, Texas A&M University, Texas A&M University Res. & Ext. Center, 17360 Coit Road, Dallas, Texas 75252, United States; Lloyd W. Rooney, Texas A&M University, 17360 Coit Road, Dallas, Texas 75252, United States; Allan Fritz, Texas A&M University, Southern Crop Improvement Facility, College Station, Texas 77843-2123, United States. Received 11/12/1998.

PI 605910. *Triticum aestivum* L., nom. cons. subsp. *aestivum*

Cultivar. Pureline. "TAM 302"; TX91D6913; NSGC 7349. CV-870; PVP 9900067 . Pedigree - Probrand 812/Caldwell//TX86D1310(TAM300 sib). Released 1998. Hard red winter wheat adapted to the southern Great Plains of the U.S. Resistance to leaf rust (*Puccinia triticina*). Awned, semidwarf, and white chaff. Plant color at booting green. Flag leaf at booting stage recurved and not twisted. Heads middense, erect, and tapering. At maturity, glumes medium length and width, with rounded shoulders and acuminate beaks. Juvenile plant growth habit semi-erect.

The following were collected by Umesh Srivastava, NBPGR, New Delhi, Delhi, India; James D. McCreight, USDA, ARS, Agricultural Research Station, 1636 E. Alisal Street, Salinas, California 93905, United States; Jack E. Staub, USDA, ARS, University of Wisconsin, Department of Horticulture, Madison, Wisconsin 53706, United States. Donated by James D. McCreight, USDA, ARS, Agricultural Research Station, 1636 E. Alisal Street, Salinas, California 93905, United States. Received 03/04/1993.

PI 605911. *Cucumis sativus* L. var. *sativus*

USM 106; Ames 20530. Collected 10/19/1992 in Rajasthan, India. Collected from farmer during the . Near Maraksar?, in Suratgarh district, Rajasthan state, India. Site:011.

PI 605912. *Cucumis sativus* L.

USM 108; Ames 20531. Collected 10/19/1992 in Rajasthan, India. Collected from farmer during the . Near Maraksar?, in Suratgarh

district,Rajasthan state, India. Site:011.

PI 605913. Cucumis sativus L. var. sativus

USM 119; Ames 20535. Collected 10/20/1992 in Rajasthan, India. Collected from market during the rainy season. Near Suratgargh, in Ganganagar district,Rajasthan state, India. Site:013, subsite:A.

PI 605914. Cucumis sativus L. var. sativus

USM 121; Ames 20536. Collected 10/20/1992 in Rajasthan, India. Collected from market during the rainy season. Near Suratgargh, in Ganganagar district,Rajasthan state, India. Site:013, subsite:A.

PI 605915. Cucumis sativus L. var. sativus

USM 122; Ames 20537. Collected 10/20/1992 in Rajasthan, India. Collected from market during the rainy season. Near Suratgargh, in Ganganagar district,Rajasthan state, India. Site:013, subsite:A.

PI 605916. Cucumis sativus L. var. sativus

USM 123; Ames 20538. Collected 10/20/1992 in Rajasthan, India. Collected from market during the rainy season. Near Suratgargh, in Ganganagar district,Rajasthan state, India. Site:013, subsite:A.

PI 605917. Cucumis sativus L. var. sativus

USM 124; Ames 20539. Collected 10/20/1992 in Rajasthan, India. Collected from market during the rainy season. Near Pilibanga, in Sriganganagar district,Rajasthan state, India. Site:013, subsite:A.

PI 605918. Cucumis sativus L. var. sativus

USM 126; Ames 20540. Collected 10/21/1992 in Rajasthan, India. Collected from not specified during the rainy season. Near Sriganganagar, in Ganganagar district,Rajasthan state, India. Site:013, subsite:B. No record in our book (JES&JDM).

PI 605919. Cucumis sativus L. var. sativus

USM 127; Ames 20541. Collected 10/21/1992 in Rajasthan, India. Collected from not specified during the rainy season. Near Sriganganagar, in Ganganagar district,Rajasthan state, India. Site:013, subsite:B. No record in our book (JES&JDM).

PI 605920. Cucumis sativus L. var. sativus

USM 128; Ames 20542. Collected 10/21/1992 in Rajasthan, India. Collected from not specified during the rainy season. Near Sriganganagar, in Ganganagar district,Rajasthan state, India. Site:013, subsite:B. No record in our book (JES&JDM).

PI 605921. Cucumis sativus L. var. sativus

USM 129; Ames 20543. Collected 10/21/1992 in Rajasthan, India. Collected from not specified during the rainy season. Near Sriganganagar, in Ganganagar district,Rajasthan state, India. Site:013, subsite:B. No record in our book (JES&JDM).

PI 605922. Cucumis sativus L. var. sativus

USM 130; Ames 20544. Collected 10/21/1992 in Rajasthan, India. Collected from not specified during the rainy season. Near Sriganganagar, in Ganganagar district,Rajasthan state, India. Site:013,

subsite:B. No record in our book (JES&JDM).

PI 605923. Cucumis sativus L. var. sativus

Landrace. USM 219; Ames 20633. Collected 10/22/1992 in Rajasthan, India. Collected from not specified during the rainy season. Near Bhopalsar east of Bikaner, Dungargargh-Ratangargh Road (NH-11), in Churu district, Rajasthan state, India. Site:023. LANDRACE = 002?.

PI 605924. Cucumis sativus L. var. sativus

Landrace. USM 250; Ames 20661. Collected 10/23/1992 in Rajasthan, India. Collected from seed dealer, during the rainy season. Near Banas, in Jaipur district, Rajasthan state, India. Site:030. LANDRACE = 007.

PI 605925. Cucumis sativus L. var. sativus

Landrace. USM 252; Ames 20663. Collected 10/23/1992 in Rajasthan, India. Collected from seed dealer during the rainy season. Near Sanganer, in Jaipur district, Rajasthan state, India. Site:030. LANDRACE = 009.

PI 605926. Cucumis sativus L. var. sativus

Landrace. USM 253; Ames 20664. Collected 10/23/1992 in Rajasthan, India. Collected from seed dealer during the rainy season. Near near Tonk, in Tonk district, Rajasthan state, India. Site:030. LANDRACE = 010.

PI 605927. Cucumis sativus L. var. sativus

Landrace. USM 255; Ames 20666. Collected 10/23/1992 in Rajasthan, India. Collected from seed dealer during the rainy season. Near Jaipur, in Jaipur district, Rajasthan state, India. Site:030. LANDRACE = 012.

PI 605928. Cucumis sativus L. var. sativus

USM 256; Ames 20667. Collected 10/23/1992 in Rajasthan, India. Collected from seed dealer during the rainy season. Near Jaipur, in Jaipur district, Rajasthan state, India. Site:030. open-pollinated selection from land race.

PI 605929. Cucumis sativus L. var. sativus

USM 262; Ames 20672. Collected 10/23/1992 in Rajasthan, India. Collected from seed dealer during the rainy season. Near Niwai, in Tonk district, Rajasthan state, India. Site:032. 'Point Set'.

PI 605930. Cucumis sativus L. var. sativus

Landrace. USM 265; Ames 20675. Collected 10/23/1992 in Rajasthan, India. Collected from farm during the rainy season. Near Banthali, in Tonk district, Rajasthan state, India. Site:033. seeds LANDRACE = 014.

PI 605931. Cucumis sativus L. var. sativus

Landrace. USM 266; Ames 20676. Collected 10/23/1992 in Rajasthan, India. Collected from farm during the rainy season. Near Banthali, in Tonk district, Rajasthan state, India. Site:033. fruit LANDRACE = 014.

PI 605932. Cucumis sativus L. var. sativus

Landrace. USM 267; Ames 20677. Collected 10/23/1992 in Rajasthan, India. Collected from farm during the rainy season. Near Banthali, in Tonk district, Rajasthan state, India. Site:033. seeds LANDRACE = 015.

PI 605933. Cucumis sativus L. var. sativus

Landrace. USM 268; Ames 20678. Collected 10/23/1992 in Rajasthan, India. Collected from farm during the rainy season. Near Banthali, in Tonk district, Rajasthan state, India. Site:033. fruit LANDRACE = 016.

PI 605934. Cucumis sativus L. var. sativus

Landrace. USM 269; Ames 20679. Collected 10/24/1992 in Rajasthan, India. Collected from farmer: Udaill Danlatram Kir during the rainy season. Near Kir ka kheda, in Tonk district, Rajasthan state, India. Site:034. rare; local names is 'Ballankakdi'; length 40 cm x 12.5 cm; 1-2 kg; 45 cm within and between rows LANDRACE = 017.

PI 605935. Cucumis sativus L. var. sativus

Landrace. USM 270; Ames 20680. Collected 10/24/1992 in Rajasthan, India. Collected from farmer: Udaill Danlatram Kir during the rainy season. Near Boi ka kheda, in Tonk district, Rajasthan state, India. Site:035. Approx. 30-45 cm (market size 20 cm); smooth skin; faint stripes; grown for generations (approx. 50 yrs.) LANDRACE = 018.

PI 605936. Cucumis sativus L. var. sativus

Landrace. USM 278; Ames 20683. Collected 10/24/1992 in Rajasthan, India. Collected from not specified during the rainy season. Near Jojrokakheda 10 mi. North of Chittargargh, in Tonk district, Rajasthan state, India. Site:036. Jhojaro Ka Kheda; Balon Kakdi LANDRACE = 019.

PI 605937. Cucumis sativus L. var. sativus

USM 280; Ames 20685. Collected 10/24/1992 in Rajasthan, India. Collected from not specified during the rainy season. Near Chittorgarh, in Tonk district, Rajasthan state, India. Site:036. 'Punrei Kihra' local variety from Pune (Central Majahastra), Navalaka Seed Co.

PI 605938. Cucumis sativus L. var. sativus

Landrace. USM 303; Ames 20705. Collected 10/24/1992 in Rajasthan, India. Collected from villager(?) during the rainy season. Near Pindwara, in Sirohi district, Rajasthan state, India. Site:040. LANDRACE = 021.

PI 605939. Cucumis sativus L. var. sativus

Landrace. USM 304; Ames 20706. Collected 10/24/1992 in Rajasthan, India. Collected from villager(?) during the rainy season. Near Pindwara, in Sirohi district, Rajasthan state, India. Site:040. LANDRACE = 022.

PI 605940. Cucumis sativus L. var. sativus

Landrace. USM 305 A; Ames 20707. Collected 10/24/1992 in Rajasthan, India. Collected from villager(?) during the rainy season. Near Pindwara, in Sirohi district, Rajasthan state, India. Site:040. LANDRACE = 023A.

PI 605941. Cucumis sativus L. var. sativus

Landrace. USM 305 B; Ames 20708. Collected 10/19/1992 in Rajasthan, India. Collected from villager(?) during the rainy season. Near Pindwara, in Sirohi district, Rajasthan state, India. Site:040. originally numbered USM 305 & landrace 23 LANDRACE = 023B.

PI 605942. Cucumis sativus L. var. sativus

Landrace. USM 306; Ames 20709. Collected 10/24/1992 in Rajasthan, India. Collected from villager(?) during the rainy season. Near Pindwara, in

Sirohi district,Rajasthan state, India. Site:041. larger than USM 303 through USM 305a LANDRACE = 024A.

PI 605943. Cucumis sativus L. var. sativus

Landrace. USM 307; Ames 20710. Collected 10/25/1992 in Rajasthan, India. Collected from villager(?) during the rainy season. Near Mungthala, Abu Road, in Sirohi district,Rajasthan state, India. Site:042. approx. 40 cm LANDRACE = 024B.

PI 605944. Cucumis sativus L. var. sativus

Landrace. USM 308; Ames 20711. Collected 10/25/1992 in Rajasthan, India. Collected from villager(?) during the rainy season. Near Girwar, in Sirohi district,Rajasthan state, India. Site:043. length approx. 30 cm LANDRACE = 025.

PI 605945. Cucumis sativus L. var. sativus

Landrace. USM 309; Ames 20712. Collected 10/25/1992 in Rajasthan, India. Collected from villager(?) during the rainy season. Near Nichlagarh, in Sirohi district,Rajasthan state, India. Site:044. LANDRACE = 026.

PI 605946. Cucumis sativus L. var. sativus

Landrace. USM 310; Ames 20713. Collected 10/25/1992 in Rajasthan, India. Collected from villager(?) during the rainy season. Near Phongur, in Sirohi district,Rajasthan state, India. Site:044. LANDRACE = 027.

PI 605947. Cucumis sativus L. var. sativus

Landrace. USM 311; Ames 20714. Collected 10/25/1992 in Rajasthan, India. Collected from villager(?) during the rainy season. Near Ghoria, in Sirohi district,Rajasthan state, India. Site:044. LANDRACE = 028.

PI 605948. Cucumis sativus L. var. sativus

USM 312; Ames 20715. Collected 10/25/1992 in Rajasthan, India. Collected from villager(?) during the rainy season. Near Sanar, in Sirohi district,Rajasthan state, India. Site:044.

PI 605949. Cucumis sativus L. var. sativus

Landrace. USM 313; Ames 20716. Collected 10/25/1992 in Rajasthan, India. Collected from villager(?) during the rainy season. Near Minackhapar (near Deldhar), in Sirohi district,Rajasthan state, India. Site:044. LANDRACE = 030.

PI 605950. Cucumis sativus L. var. sativus

Landrace. USM 314; Ames 20717. Collected 10/25/1992 in Rajasthan, India. Collected from villager(?) during the rainy season. Near Deldhar, in Sirohi district,Rajasthan state, India. Site:044. LANDRACE = 031.

PI 605951. Cucumis sativus L. var. sativus

Landrace. USM 315; Ames 20718. Collected 10/25/1992 in Rajasthan, India. Collected from villager(?) during the rainy season. Near Khadat, in Sirohi district,Rajasthan state, India. Site:044. LANDRACE = 032.

PI 605952. Cucumis sativus L. var. sativus

Landrace. USM 316; Ames 20719. Collected 10/25/1992 in Rajasthan, India. Collected from villager(?) during the rainy season. Near Tooka, in Sirohi district,Rajasthan state, India. Site:044. LANDRACE = 033.

- PI 605953. Cucumis sativus L. var. sativus**
Landrace. USM 317; Ames 20720. Collected 10/25/1992 in Rajasthan, India.
Collected from villager(?) during the rainy season. Near Uplagarh, in
Sirohi district, Rajasthan state, India. Site:045. stem end darker
LANDRACE = 034.
- PI 605954. Cucumis sativus L. var. sativus**
Landrace. USM 318; Ames 20721. Collected 10/25/1992 in Rajasthan, India.
Collected from villager(?) during the rainy season. Near Nichlibar, in
Sirohi district, Rajasthan state, India. Site:046. "Balankakdi"
LANDRACE = 035.
- PI 605955. Cucumis sativus L. var. sativus**
Landrace. USM 319; Ames 20722. Collected 10/25/1992 in Rajasthan, India.
Collected from villager(?) during the rainy season. Near Kui Abu, in
Sirohi district, Rajasthan state, India. Site:047. fruits constricted
in upper middle portion LANDRACE = 036.
- PI 605956. Cucumis sativus L. var. sativus**
Landrace. USM 320; Ames 20723. Collected 10/25/1992 in Rajasthan, India.
Collected from villager(?) during the rainy season. Near Khejra, in
Sirohi district, Rajasthan state, India. Site:048. Ganeti Bhils -
tribals LANDRACE = 037.
- PI 605957. Cucumis sativus L. var. sativus**
Landrace. USM 321; Ames 20724. Collected 10/25/1992 in Rajasthan, India.
Collected from villager(?) during the rainy season. Near Nichla Khejra,
in Sirohi district, Rajasthan state, India. Site:049. from Giraria
tribals LANDRACE = 038.
- PI 605958. Cucumis sativus L. var. sativus**
Landrace. USM 322; Ames 20725. Collected 10/25/1992 in Rajasthan, India.
Collected from villager(?) during the rainy season. Near Mataderi, in
Sirohi district, Rajasthan state, India. Site:050. LANDRACE = 039.
- PI 605959. Cucumis sativus L. var. sativus**
Landrace. USM 323; Ames 20726. Collected 10/25/1992 in Rajasthan, India.
Collected from villager(?) during the rainy season. Near Amba Deldhar;
Amba is 1 km from Deldhar and 12 km from Abu Road, in Sirohi
district, Rajasthan state, India. Site:051. LANDRACE = 040.
- PI 605960. Cucumis sativus L. var. sativus**
Landrace. USM 324; Ames 20727. Collected 10/25/1992 in Rajasthan, India.
Collected from villager(?) during the rainy season. Near Ore Deldhar;
Ore is 7 km towards Abu Road - Deldhar - Pindwara Road, in Sirohi
district, Rajasthan state, India. Site:052. Balamkakdi LANDRACE =
041.
- PI 605961. Cucumis sativus L. var. sativus**
Landrace. USM 325; Ames 20728. Collected 10/25/1992 in Rajasthan, India.
Collected from villager(?) during the rainy season. Near Sagna Abu,
Abu Road, in Sirohi district, Rajasthan state, India. Site:053.
Balamkakdi; cylindrical shape LANDRACE = 042.

- PI 605962. Cucumis sativus L. var. sativus**
Landrace. USM 326; Ames 20729. Collected 10/25/1992 in Rajasthan, India. Collected from villager(?) during the rainy season. Near Dotara Abu, Abu - Pindwara Road, in Sirohi district, Rajasthan state, India. Site:054. LANDRACE = 043.
- PI 605963. Cucumis sativus L. var. sativus**
Landrace. USM 327; Ames 20730. Collected 10/25/1992 in Rajasthan, India. Collected from villager(?) during the rainy season. Near Kyari Abu, Abu Road, in Sirohi district, Rajasthan state, India. Site:055. LANDRACE = 044.
- PI 605964. Cucumis sativus L. var. sativus**
Landrace. USM 328; Ames 20731. Collected 10/25/1992 in Rajasthan, India. Collected from villager(?) during the rainy season. Near Denna Abu, near Deldar, Abu Road, in Sirohi district, Rajasthan state, India. Site:056. LANDRACE = 045.
- PI 605965. Cucumis sativus L. var. sativus**
Landrace. USM 329; Ames 20732. Collected 10/25/1992 in Rajasthan, India. Collected from villager(?) during the rainy season. Near Minackhapar Abu, near Deldar, in Sirohi district, Rajasthan state, India. Site:057. LANDRACE = 046.
- PI 605966. Cucumis sativus L. var. sativus**
Landrace. USM 330; Ames 20733. Collected 10/25/1992 in Rajasthan, India. Collected from villager(?) during the rainy season. Near Sanar Abu,, in Sirohi district, Rajasthan state, India. Site:058. VERY IMPORTANT! Fruit is green and "very sweet " (We tasted it!); secondary color is dark green LANDRACE = 047.
- PI 605967. Cucumis sativus L. var. sativus**
Landrace. USM 333; Ames 20735. Collected 10/25/1992 in Rajasthan, India. Collected from villager(?) during the rainy season. Near Bageri, Abu Road, in Sirohi district, Rajasthan state, India Site:061. fruit tapering at one end LANDRACE = 050.
- PI 605968. Cucumis sativus L. var. sativus**
Landrace. USM 334; Ames 20736. Collected 10/25/1992 in Rajasthan, India. Collected from villager(?) during the rainy season. Near Anthra Abu, Abu Road - Mandu route, in Sirohi district, Rajasthan state, India. Site:062. LANDRACE = 051.
- PI 605969. Cucumis sativus L. var. sativus**
Landrace. USM 335; Ames 20737. Collected 10/25/1992 in Rajasthan, India. Collected from villager(?) during the rainy season. Near Mungthala Abu, 8 km from Manpur, Abu Road - Mandu Road, in Sirohi district, Rajasthan state, India. Site:063. RARE MATERIAL; Balankakdi LANDRACE = 052.
- PI 605970. Cucumis sativus L. var. sativus**
Landrace. USM 337; Ames 20739. Collected 10/26/1992 in Rajasthan, India. From villager during rainy season. Kachholi Pindwara, Abu - Pindwara Rd, base of Mt. Abu, 4 km from Sarupigargh, across the Bana & Luni Rivers, in Sirohi dist., Rajasthan st Site:065. with proper water and fertilizer: 20-25 fruits per plant; 60 days LANDRACE = 053.

- PI 605971. Cucumis sativus L. var. sativus**
 Landrace. USM 338; Ames 20740. Collected 10/26/1992 in Rajasthan, India.
 From villager during rainy season. Kachholi Pindwara, Abu - Pindwara
 Rd, base of Mt. Abu, 4 km from Sarupigargh, across the Bana & Luni
 Rivers, in Sirohi dist.,Rajasthan st Site:066. possibly the same as USM
 337 LANDRACE = 054.
- PI 605972. Cucumis sativus L. var. sativus**
 Landrace. USM 339; Ames 20741. Collected 10/26/1992 in Rajasthan, India.
 Collected from market during the rainy season. Near Sirohi, in Sirohi
 district,Rajasthan state, India. Site:067. two fruit LANDRACE =
 055.
- PI 605973. Cucumis sativus L. var. sativus**
 USM 340; Ames 20742. Collected 10/26/1992 in Rajasthan, India.
 Collected from market during the rainy season. Near Sirohi, in Sirohi
 district,Rajasthan state, India. Site:067. open-pollinated selection.
- PI 605974. Cucumis sativus L. var. sativus**
 Landrace. USM 352; Ames 20753. Collected 10/26/1992 in Rajasthan, India.
 Collected from market in Pali during the rainy season. Near Charbhuj
 Sadri, in Pali district,Rajasthan state, Site:069. long fruit
 LANDRACE = 056.
- PI 605975. Cucumis sativus L. var. sativus**
 Landrace. USM 353; Ames 20754. Collected 10/26/1992 in Rajasthan, India.
 Collected from market in Pali during the rainy season. Near Charbhuj
 Sadri, in Pali district,Rajasthan state, Site:069. long fruit
 LANDRACE = 057.
- PI 605976. Cucumis sativus L. var. sativus**
 Landrace. USM 354; Ames 20755. Collected 10/26/1992 in Rajasthan, India.
 Collected from market in Pali during the rainy season. Near Charbhuj
 Sadri, in Pali district,Rajasthan state, Site:069. long fruit
 LANDRACE = 058.
- PI 605977. Cucumis sativus L. var. sativus**
 Landrace. USM 355; Ames 20756. Collected 10/26/1992 in Rajasthan, India.
 Collected from market in Pali during the rainy season. Near Charbhuj
 Sadri, in Pali district,Rajasthan state, Site:069. long fruit
 LANDRACE = 059.
- PI 605978. Cucumis sativus L. var. sativus**
 Landrace. USM 356; Ames 20757. Collected 10/26/1992 in Rajasthan, India.
 Collected from market in Pali during the rainy season. Near Charbhuj
 Sadri, in Pali district,Rajasthan state, Site:069. long fruit
 LANDRACE = 060.
- PI 605979. Cucumis sativus L. var. sativus**
 Landrace. USM 357; Ames 20758. Collected 10/26/1992 in Rajasthan, India.
 Collected from market in Pali during the rainy season. Near Charbhuj
 Sadri, in Pali district,Rajasthan state, Site:069. long fruit
 LANDRACE = 061.

- PI 605980. Cucumis sativus L. var. sativus**
Landrace. USM 358; Ames 20759. Collected 10/26/1992 in Rajasthan, India.
Collected from market in Pali during the rainy season. Near Charbhuj
Sadri, in Pali district,Rajasthan state, Site:069. long fruit
LANDRACE = 062.
- PI 605981. Cucumis sativus L. var. sativus**
Landrace. USM 359; Ames 20760. Collected 10/26/1992 in Rajasthan, India.
Collected from market in Pali during the rainy season. Near Charbhuj
Sadri, in Pali district,Rajasthan state, Site:069. long fruit
LANDRACE = 063A.
- PI 605982. Cucumis sativus L. var. sativus**
Landrace. USM 360; Ames 20761. Collected 10/26/1992 in Rajasthan, India.
Collected from market in Pali during the rainy season. Near Charbhuj
Sadri, in Pali district,Rajasthan state, Site:069. long fruit
LANDRACE = 063B.
- PI 605983. Cucumis sativus L. var. sativus**
Landrace. USM 361; Ames 20762. Collected 10/26/1992 in Rajasthan, India.
Collected from market in Pali during the rainy season. Near Charbhuj
Sadri, in Pali district,Rajasthan state, Site:069. long fruit
LANDRACE = 063C.
- PI 605984. Cucumis sativus L. var. sativus**
Landrace. USM 407; Ames 20805. Collected 10/27/1992 in Madhya Pradesh,
India. Collected from market in Jodhpur during the rainy season. Near
Ratlam, in Ratlam district,Madhya Pradesh state, India Site:071. long
fruit LANDRACE = 072.
- PI 605985. Cucumis sativus L. var. sativus**
Landrace. USM 408; Ames 20806. Collected 10/27/1992 in Madhya Pradesh,
India. Collected from market in Jodhpur during the rainy season. Near
Ratlam, in Ratlam district,Madhya Pradesh state, India Site:071. long
fruit LANDRACE = 073.
- PI 605986. Cucumis sativus L. var. sativus**
Landrace. USM 409; Ames 20807. Collected 10/27/1992 in Madhya Pradesh,
India. Collected from market in Jodhpur during the rainy season. Near
Ratlam, in Ratlam district,Madhya Pradesh state, India Site:071. long
fruit LANDRACE = 074.
- PI 605987. Cucumis sativus L. var. sativus**
Landrace. USM 410; Ames 20808. Collected 10/27/1992 in Madhya Pradesh,
India. Collected from market in Jodhpur during the rainy season. Near
Ratlam, in Ratlam district,Madhya Pradesh state, India Site:071. long
fruit LANDRACE = 075.
- PI 605988. Cucumis sativus L. var. sativus**
Landrace. USM 411; Ames 20809. Collected 10/27/1992 in Rajasthan, India.
Collected from market in Jodhpur during the rainy season. Near Sadri, in
Pali district,Rajasthan state, India. Site:071. long LANDRACE =
076.
- PI 605989. Cucumis sativus L. var. sativus**

Landrace. USM 412; Ames 20810. Collected 10/27/1992 in Rajasthan, India. Collected from market in Jodhpur during the rainy season. Near Sadri, in Pali district, Rajasthan state, India. Site:071. long LANDRACE = 077.

PI 605990. Cucumis sativus L. var. sativus

Landrace. USM 413; Ames 20811. Collected 10/27/1992 in Rajasthan, India. Collected from market in Jodhpur during the rainy season. Near Sadri, in Pali district, Rajasthan state, India. Site:071. long LANDRACE = 078.

PI 605991. Cucumis sativus L. var. sativus

Landrace. USM 414; Ames 20812. Collected 10/27/1992 in Rajasthan, India. Collected from market in Jodhpur during the rainy season. Near Sadri, in Pali district, Rajasthan state, India. Site:071. long LANDRACE = 079.

PI 605992. Cucumis sativus L. var. sativus

Landrace. USM 416; Ames 20814. Collected 10/27/1992 in Rajasthan, India. Collected from market in Jodhpur during the rainy season. Near Sadri, in Pali district, Rajasthan state, India. Site:071. long LANDRACE = 081.

PI 605993. Cucumis sativus L. var. sativus

USM 417; Ames 20815. Collected 10/27/1992 in Rajasthan, India. Collected from market in Jodhpur during the rainy season. Near Charbhujia, in Marwar district, Rajasthan state, India. Site:071. melon?

PI 605994. Cucumis sativus L. var. sativus

USM 418; Ames 20816. Collected 10/27/1992 in Rajasthan, India. Collected from market in Jodhpur during the rainy season. Near Charbhujia, in Marwar district, Rajasthan state, India. Site:071. melon?

PI 605995. Cucumis sativus L. var. sativus

USM 420; Ames 20818. Collected 10/27/1992 in Rajasthan, India. Collected from Bharat Seed Store during the rainy season. Near Jodhpur, in Jodhpur district, Rajasthan state, India. Site:072. seeds produced in Uttar Pradesh.

The following were collected by M. Koppar, Nat. Bureau of Plant Genetic Resources, Germplasm Exploration Div., Indian Council of Ag. Res., New Delhi, Delhi 110 012, India; James D. McCreight, USDA, ARS, Agricultural Research Station, 1636 E. Alisal Street, Salinas, California 93905, United States; Jack E. Staub, USDA, ARS, University of Wisconsin, Department of Horticulture, Madison, Wisconsin 53706, United States. Donated by James D. McCreight, USDA, ARS, Agricultural Research Station, 1636 E. Alisal Street, Salinas, California 93905, United States. Received 03/04/1993.

PI 605996. Cucumis sativus L. var. sativus

Landrace. KSM 436; Ames 20832. Collected 10/30/1992 in Madhya Pradesh, India. Collected from farmer: Mathura P. Khushwah during the rainy season. Near Atrar, in Chhattarpur district, Madhya Pradesh state,

India. Site:074. netted skin at maturity (starts browning & netting from blossom and stem ends) LANDRACE = 082.

PI 605997. Cucumis sativus L. var. sativus

KSM 441; Ames 20835. Collected 10/30/1992 in Madhya Pradesh, India. Collected from seed dealer during the rainy season. Near Chhattarpur, in Chhattarpur district, Madhya Pradesh state, India. Site:075.

PI 605998. Cucumis sativus L. var. sativus

Landrace. KSM 443; Ames 20837. Collected 10/30/1992 in Madhya Pradesh, India. Collected from seed dealer during the rainy season. Near Chhattarpur, in Chhattarpur district, Madhya Pradesh state, India. Site:076. open-pollinated (may be selection from landrace grown in another region and shipped in from Delhi), rainy season, Pahuja Seeds Pvt. Ltd., C-26, Indra Market, Delhi - 110007 LANDRACE = 084.

PI 605999. Cucumis sativus L. var. sativus

KSM 446; Ames 20840. Collected 10/30/1992 in Madhya Pradesh, India. Collected from seed dealer during the rainy season. Near Chhattarpur, in Chhattarpur district, Madhya Pradesh state, India. Site:077. variety 'Jyoti Green Long', Shiv Seeds Corp., Lot No. SSC/A/01, Delhi, open-pollinated variety.

PI 606000. Cucumis sativus L. var. sativus

Landrace. KSM 464; Ames 20857. Collected 10/31/1992 in Madhya Pradesh, India. Collected from farmer: son of the manager hired by Ranjun Gupta, M.D. (see KSM 447 to 463) during the rainy season. Near Akalpur, in Bhopal district, Madhya Pradesh state, India. Site:078. variety 'Kakri' received from the son (who runs the post office) of Dr. Gupta's farm manager; this was reportedly a bad year for cucumber due to shortage of rainfall. LANDRACE = 085.

PI 606001. Cucumis sativus L. var. sativus

Landrace. KSM 465; Ames 20858. Collected 10/31/1992 in Madhya Pradesh, India. Collected from farmer: son of the manager hired by Ranjun Gupta, M.D. (see KSM 447 to 463) during the rainy season. Near Akalpur, in Bhopal district, Madhya Pradesh state, India. Site:078. variety 'Kakri' with long fruit received from the son (who runs the post office) of Dr. Gupta's farm manager; this was reportedly a bad year for cucumber due to shortage of rainfall. LANDRACE = 086.

PI 606002. Cucumis sativus L. var. sativus

Landrace. KSM 466; Ames 20859. Collected 10/31/1992 in Madhya Pradesh, India. Collected from farmer: Madhuseth during the rainy season. Near Mahua Khedi, in Bhopal district, Madhya Pradesh state, India. Site:079. black spines, LD 3.6:1, from 1 or 2 plants LANDRACE = 087.

PI 606003. Cucumis sativus L. var. sativus

Landrace. KSM 472; Ames 20863. Collected 10/31/1992 in Madhya Pradesh, India. Collected from farmer: Sevakdas during the rainy season. Near Tajpura, in Bhopal district, Madhya Pradesh state, Site:080. local name Kira; people sow seeds LANDRACE = 088, TRIBAL RACE = 001.

PI 606004. Cucumis sativus L. var. sativus

Landrace. KSM 473; Ames 20864. Collected 10/31/1992 in Madhya Pradesh,

India. Collected from farmer: Sukhrantajpura during the rainy season. Near Tajpura, in Bhopal district, Madhya Pradesh state, India. Site:080. seeds covered with tumeric powder for protection against insects
LANDRACE = 089, TRIBAL RACE = 002.

PI 606005. Cucumis sativus L. var. sativus

Landrace. KSM 479; Ames 20867. Collected 10/31/1992 in Madhya Pradesh, India. Collected from market during the rainy season. Near Piparia in Hongsharobad district, Madhya Pradesh state, India. Site:081. 3 fruit; same as KSM 480 except from a different farm LANDRACE = 134.

PI 606006. Cucumis sativus L. var. sativus

Landrace. KSM 480; Ames 20868. Collected 10/31/1992 in Madhya Pradesh, India. Collected from market during the rainy season. Near Piparia in Hongsharobad district, Madhya Pradesh state, India. Site:081. Jai Kisan Beej Bhandar LANDRACE = 090.

PI 606007. Cucumis sativus L. var. sativus

KSM 481; Ames 20869. Collected 10/31/1992 in Madhya Pradesh, India. Collected from market during the rainy season. Near Piparia in Hongsharobad district, Madhya Pradesh state, India. Site:081. open-pollinated unnamed, variety; 'Balam Kakri'; Sunil Seed Co., Rath Hawekli, Faizabad, Uttar Pradesh.

PI 606008. Cucumis sativus L. var. sativus

Landrace. KSM 483; Ames 20871. Collected 11/01/1992 in Madhya Pradesh, India. Collected from market during the rainy season. Near Sehore, in Sehore district, Madhya Pradesh state, India. Site:082. fruit 6 x 1.5 inches; spiny; mature fruit netted, larger and brown LANDRACE = 091.

PI 606009. Cucumis sativus L. var. sativus

Landrace. KSM 484; Ames 20872. Collected 11/01/1992 in Madhya Pradesh, India. Collected from seed dealer during the summer. Near Sehore, in Sehore district, Madhya Pradesh state, India. Site:083. fruit approx. 24 inches long; grown widely in area (popular) LANDRACE = 092.

PI 606010. Cucumis sativus L. var. sativus

Landrace. KSM 485; Ames 20873. Collected 11/01/1992 in Madhya Pradesh, India. Collected from seed dealer during the rainy season. Near Sehore, in Sehore district, Madhya Pradesh state, India. Site:083. fruit approx. 24 inches long; grown widely in area (popular) LANDRACE = 093.

PI 606011. Cucumis sativus L. var. sativus

Landrace. KSM 486; Ames 20874. Collected 11/01/1992 in Madhya Pradesh, India. Collected from seed dealer during the rainy season. Near Sehore, in Sehore district, Madhya Pradesh state, India. Site:083. short fruit LANDRACE = 094.

PI 606012. Cucumis sativus L. var. sativus

Landrace. KSM 487; Ames 20875. Collected 11/01/1992 in Madhya Pradesh, India. Collected from seed dealer during the summer. Near Sehore, in Sehore district, Madhya Pradesh state, India. Site:083. short fruit LANDRACE = 095.

PI 606013. Cucumis sativus L. var. sativus

Landrace. KSM 489; Ames 20877. Collected 11/01/1992 in Madhya Pradesh, India. Collected from farmer: Ashokumar Khushwah, during the summer. Near Sarangakhedi, in Sehore district, Madhya Pradesh state, India. Site:084. mature fruits 12 x 2-3 inches; for market, fruit harvested when approx. 8 inches long; local name 'Kira' LANDRACE = 096.

PI 606014. Cucumis sativus L. var. sativus

KSM 490; Ames 20878. Collected 11/01/1992 in Madhya Pradesh, India. Collected from seed dealer during the rainy season. Near Ashtok, in Sehore district, Madhya Pradesh state, India. Site:085. open-pollinated 'Long Green', Vinayak Seeds, Beej Bhandar, Kanpur.

PI 606015. Cucumis sativus L. var. sativus

KSM 491; Ames 20879. Collected 11/01/1992 in Madhya Pradesh, India. Collected from seed dealer during the rainy season. Near Ashtok, in Sehore district, Madhya Pradesh state, India. Site:085. O.P. #1 Pandey Seeds, Beej Bhandar Pvt. Ltd. 202, Arya Kanya College Road, Faizabad.

PI 606016. Cucumis sativus L. var. sativus

KSM 492; Ames 20880. Collected 11/01/1992 in Madhya Pradesh, India. Collected from seed dealer during the rainy season. Near Ashtok, in Sehore district, Madhya Pradesh state, India. Site:085. O.P. #2 Pandey Seeds, Beej Bhandar Pvt. Ltd. 202, Arya Kanya College Road, Faizabad.

PI 606017. Cucumis sativus L. var. sativus

KSM 493; Ames 20881. Collected 11/01/1992 in Madhya Pradesh, India. Collected from seed dealer during the rainy season. Near Ashtok, in Sehore district, Madhya Pradesh state, India. Site:085. O.P. #3 Pandey Seeds, Beej Bhandar Pvt. Ltd. 202, Arya Kanya College Road, Faizabad.

PI 606018. Cucumis sativus L. var. sativus

KSM 494; Ames 20882. Collected 11/01/1992 in Madhya Pradesh, India. Collected from seed dealer during the rainy season. Near Ashtok, in Sehore district, Madhya Pradesh state, India. Site:085. unnamed open-pollinated variety, Kisan Seeds, Faizabad.

PI 606019. Cucumis sativus L.

KSM 497; Ames 20885. Collected 11/01/1992 in Madhya Pradesh, India. Collected from seed dealer during the rainy season. Near Ashtok, in Sehore district, Madhya Pradesh state, India. Site:085. Phoot Kakri; seeds from Kanpur.

PI 606020. Cucumis sativus L. var. sativus

KSM 499; Ames 20887. Collected 11/02/1992 in Madhya Pradesh, India. Collected from seed dealer during the summer. Near Barawah, in West Nimar district, Madhya Pradesh state, India. Site:086, subsite:A. variety 'Kakri'; sown: Oct-Nov, Kisham Seed Corp., Faizabad.

PI 606021. Cucumis sativus L. var. sativus

Landrace. KSM 511; Ames 20898. Collected 11/02/1992 in Madhya Pradesh, India. Collected from farmer: Joginder Singh Khanoja during the rainy season. Near Kothi, in East Nimar Khandawa district, Madhya Pradesh state, India. Site:086, subsite:B. local name 'Balam Kakri'; fruit interior is yellowish-white (outer mesocarp) to green, pink, yellow (inner mesocarp); sweet taste at maturity; fruit approx. 12 inches long

for market; yellow (cream) skin LANDRACE = 097.

PI 606022. Cucumis sativus L. var. sativus

KSM 514; Ames 20901. Collected 11/02/1992 in Madhya Pradesh, India. Collected from seed dealer during the . Near Khandawa, in Khandawa district, Madhya Pradesh state, India. Site:088. open-pollinated variety 'Poona Khira'; Mahalaxmi, Mahendra Hybrid Seeds Co. Pvt. Ltd., A10 Old Midc., Jalna 432203.

PI 606023. Cucumis sativus L. var. sativus

KSM 515; Ames 20902. Collected 11/02/1992 in Madhya Pradesh, India. Collected from seed dealer during the rainy season. Near Khandawa, in Khandawa district, Madhya Pradesh state, India. Site:088. open-pollinated variety 'Barsati', Kheera Barsati (WT 1750); Pahuja Seeds, Pvt. Ltd., C-26 Indra Market, Delhi-110.

PI 606024. Cucumis sativus L. var. sativus

KSM 516; Ames 20903. Collected 11/02/1992 in Madhya Pradesh, India. Collected from seed dealer during the rainy season. Near Khandawa, in Khandawa district, Madhya Pradesh state, India. Site:088. open-pollinated variety "Summer Best"; Pahuja Seeds Pvt. Ltd., C-26 Indra Market, Delhi-110007.

PI 606025. Cucumis sativus L. var. sativus

Landrace. KSM 521; Ames 20906. Collected 11/02/1992 in Madhya Pradesh, India. Collected from farmer: Narayan Gopalji during the rainy season. Near Gopalpura, in East Nimar district, Madhya Pradesh state, India. Site:089. local type; approx. 12 x 3 inches at seed maturity; skin is brown and rough at maturity LANDRACE = 098.

PI 606026. Cucumis sativus L. var. sativus

Landrace. KSM 522; Ames 20907. Collected 11/02/1992 in Madhya Pradesh, India. Collected from farmer: Mangilal Nemaji during the rainy season. Near Gopalpura, in East Nimar district, Madhya Pradesh state, India. Site:089. approx. 6 x 2 inches at seed maturity; white skin LANDRACE = 099.

PI 606027. Cucumis sativus L. var. sativus

Landrace. KSM 527; Ames 20912. Collected 11/03/1992 in Madhya Pradesh, India. Collected from farm during the rainy season. Near Kalapata, in Dhar district, Madhya Pradesh state, India. Site:090. variety 'Balam Khiri'; approx. 13 x 3 inches at maturity, used immature; plant end of June - first week in July, harvest in September; white mostly, green spots (immature), light-yellowish (mature) LANDRACE = 100.

PI 606028. Cucumis sativus L. var. sativus

Landrace. KSM 535; Ames 20919. Collected 11/03/1992 in Madhya Pradesh, India. Collected from farmer: Fathesingh Rathore during the rainy season. Near Golana, 9 km north of Sardarpur, in Dhar district, Madhya Pradesh state, India. Site:091. same as KSM 533 LANDRACE = 102.

PI 606029. Cucumis sativus L. var. sativus

Landrace. KSM 538; Ames 20922. Collected 11/04/1992 in Madhya Pradesh, India. Collected from "farmer": Umraosingh during the rainy season. Near Sodpur, in Dhar district, Madhya Pradesh state, India. Site:092. two

fruit and seeds, 12-18 x 8-10 inches; fruit squared, light green
LANDRACE = 103.

PI 606030. Cucumis sativus L. var. sativus

Landrace. KSM 545; Ames 20925. Collected 11/04/1992 in Madhya Pradesh, India. Collected from "farmer": Umraosingh during the rainy season. Near Sodpur, in Dhar district, Madhya Pradesh state, India. Site:092. seeds
LANDRACE = 104.

PI 606031. Cucumis sativus L. var. sativus

KSM 546; Ames 20926. Collected 11/04/1992 in Madhya Pradesh, India. Collected from seed dealer during the rainy season. Near Nalcha, in Dhar district, Madhya Pradesh state, India. Site:093. open-pollinated variety "Green Long"; Rama Krishan Seeds, 145, Indra Market, Old Subji Mundi, Delhi 110007.

PI 606032. Cucumis sativus L.

KSM 549; Ames 20928. Collected 11/04/1992 in Madhya Pradesh, India. Collected from farmer-teacher: Bharat Singh Choudhari during the rainy season. Near Kagdipura, in Dhar district, Madhya Pradesh state, India. Site:094. Seed mixture with sativus (KSM 550) and Cucurbita pepo (KSM 551); 8 inches long x 6 inches diameter.

PI 606033. Cucumis sativus L. var. sativus

KSM 560; Ames 20937. Collected 11/04/1992 in Madhya Pradesh, India. Collected from seed dealer during the summer. Near Dhamnod, in Dhar district, Madhya Pradesh state, India. Site:095, subsite:B. open-pollinated variety 'Poona Kheera'; sown February, harvest June-July; Pocha Seeds Ltd., Pune 411 040, Delhi 110 033; seeds from Pune.

PI 606034. Cucumis sativus L. var. sativus

KSM 561; Ames 20938. Collected 11/04/1992 in Madhya Pradesh, India. Collected from seed dealer during the rainy season. Near Dhamnod, in Dhar district, Madhya Pradesh state, India. Site:095, subsite:B. local type in Faizabas; sow February-March, harvest May-June; Mangilal Seed Co., Faizabad.

PI 606035. Cucumis sativus L. var. sativus

KSM 569; Ames 20945. Collected 11/04/1992 in Madhya Pradesh, India. Collected from market during the rainy season. Near Manawar in Dhar district, Madhya Pradesh state, India. Site:096. open-pollinated variety 'Long Variety'.

PI 606036. Cucumis sativus L. var. sativus

Landrace. KSM 573; Ames 20949. Collected 11/04/1992 in Madhya Pradesh, India. Collected from farmer: Dala during the rainy season. Near Kuhad, in Dhar district, Madhya Pradesh state, India. Site:098. 10 x 4-6 inches at maturity; green immature; at maturity inside turns yellow and outside becomes pale yellowish-green blocky shape; immature fruit used in salad; mature skin and seeds are removed and fruit eaten fresh
LANDRACE = 107.

PI 606037. Cucumis sativus L. var. sativus

Landrace. KSM 580; Ames 20956. Collected 11/05/1992 in Madhya Pradesh,

India. Collected from Farmer: Kailash during the rainy season. Near Kunda, in Dhar district, Madhya Pradesh state, India. Site:100. 30 x 4 inches; green immature; light green-yellowish mature; used raw and as a vegetable immature and as a fruit mature LANDRACE = 108.

PI 606038. Cucumis sativus L. var. sativus

Landrace. KSM 582; Ames 20958. Collected 11/05/1992 in Madhya Pradesh, India. Collected from not specified during the rainy season. Near Bagri, in Dhar district, Madhya Pradesh state, India. Site:101. LANDRACE = 109.

PI 606039. Cucumis sativus L. var. sativus

Landrace. KSM 588; Ames 20964. Collected 11/05/1992 in Madhya Pradesh, India. Collected from not specified during the rainy season. Near Bagri, in Dhar district, Madhya Pradesh state, India. Site:101. 18 x 6 inches; green immature; yellowish-green mature; salad and vegetable immature; fruit mature LANDRACE = 110.

PI 606040. Cucumis sativus L. var. sativus

KSM 589; Ames 20965. Collected 11/05/1992 in Madhya Pradesh, India. Collected from seed dealer during the rainy season. Near Dhar, in Dhar district, Madhya Pradesh state, India. Site:102. open-pollinated variety 'Super Long Green'; P.N. Verma & Co., Makrandnagar (Kannauj), Uttat Pradesh.

PI 606041. Cucumis sativus L. var. sativus

KSM 592; Ames 20968. Collected 11/05/1992 in Madhya Pradesh, India. Collected from seed dealer during the rainy season. Near Ratlam, in Ratlam district, Madhya Pradesh state, India. Site:103. open-pollinated variety 'Greenlong'; Shira Seeds, Delhi.

PI 606042. Cucumis sativus L. var. sativus

Landrace. KSM 596; Ames 20971. Collected 11/05/1992 in Madhya Pradesh, India. Collected from villager(?) during the rainy season. Near Bidbada, in Ratlam district, Madhya Pradesh state, India. Site:104. Mostly cucumber in a mixture of snapmelon and cucumber seeds; seed quality is not good, many damaged (apparently by insects). LANDRACE = 132.

PI 606043. Cucumis sativus L. var. sativus

Landrace. KSM 605; Ames 20980. Collected 11/06/1992 in Madhya Pradesh, India. Collected from farmer: Gangaram during the summer. Near Rajpur, in Khargon district, Madhya Pradesh state, India. Site:107. immature: 14-16 x 3 inches, green skin; mature: 14-16 x 6 inches, netted brown skin; sow April, harvest June-July; eaten only in immature stage LANDRACE = 111.

PI 606044. Cucumis sativus L. var. sativus

Landrace. KSM 608; Ames 20983. Collected 11/06/1992 in Madhya Pradesh, India. Collected from farmer: Bhart Singh during the rainy season. Near segaon (Barwani, in Khargon district, Madhya Pradesh state, India. Site:108. 8 x 4-6 inches at maturity; immature: green skin; mature: netted and red-brown; used in immature stage for salad and vegetable LANDRACE = 112.

PI 606045. Cucumis sativus L. var. sativus

Landrace. KSM 612; Ames 20985. Collected 11/06/1992 in Madhya Pradesh, India. Collected from farmer: Karan Singh during the rainy season. Near Anjad, 11 km from Pati, southwest of Barwani, in Khargon district, Madhya Pradesh state, India. Site:109. tribal name: 'Bhusat'; 18 x 6-8 inches; immature & mature: white flesh; immature: remove skin and seed for salad; mature: fruit and skin is yellow, somewhat sour in taste; 45 days to fruiting; yellow flowers LANDRACE = 114.

PI 606046. Cucumis sativus L. var. sativus

Landrace. KSM 622; Ames 20994. Collected 11/06/1992 in Madhya Pradesh, India. Collected from farmer: Kaush during the rainy season. Near Kshipra, in Dewas district, Madhya Pradesh state, India. Site:112. 12-15 x 3-3.5 inches; immature: green, salad, usually not as vegetable; mature: dull yellow, not eaten LANDRACE = 116.

PI 606047. Cucumis sativus L. var. sativus

KSM 627; Ames 20999. Collected 11/06/1992 in Madhya Pradesh, India. Collected from seed dealer during the rainy season. Near Dewas, in Dewas district, Madhya Pradesh state, India. Site:114, subsite:A. open-pollinated variety 'Long Green', Vanaspati Beej Bhandar, Station Road, Jaunpur 222001; Lot # V-2.

PI 606048. Cucumis sativus L. var. sativus

KSM 628; Ames 21000. Collected 11/06/1992 in Madhya Pradesh, India. Collected from seed dealer during the rainy season. Near Dewas, in Dewas district, Madhya Pradesh state, India. Site:114, subsite:A. open-pollinated variety 'Poinsetee', Pucha Seeds Pvt. Ltd., Pune 411040, Delhi 110033; Lot # 9027-3.

PI 606049. Cucumis sativus L. var. sativus

Landrace. KSM 645; Ames 21017. Collected 11/06/1992 in Madhya Pradesh, India. Collected from farmer: Puran Singh during the rainy season. Near Londiya, in Dewas district, Madhya Pradesh state, India. Site:115. 18 x 5-6 inches; spineless; immature: green, peeled for salad; mature: red-brown, rough skin LANDRACE = 117.

The following were collected by Umesh Srivastava, NBPGR, New Delhi, Delhi, India; James D. McCreight, USDA, ARS, Agricultural Research Station, 1636 E. Alisal Street, Salinas, California 93905, United States; Jack E. Staub, USDA, ARS, University of Wisconsin, Department of Horticulture, Madison, Wisconsin 53706, United States. Donated by James D. McCreight, USDA, ARS, Agricultural Research Station, 1636 E. Alisal Street, Salinas, California 93905, United States. Received 03/04/1993.

PI 606050. Cucumis sativus L. var. sativus

USM 646; "Barsati Special-Long Green"; Ames 21018. Collected 11/09/1992 in Uttar Pradesh, India. Subzi Mundi, near Dehra Dun, in Dehra Dun District. Purchased from A B Seeds, Ramchandra Bhageluram Maurya (Regd.), Station Road, Janpur 2 Uttar Pradesh during the rainy season.

PI 606051. Cucumis sativus L. var. sativus

USM 648; Ames 21020. Collected 11/09/1992 in Uttar Pradesh, India. Collected from seed dealer in subzi mundi during the rainy season. Near

Dehra Dun, in Dehra Dun district,Uttar Pradesh state, India. Site:116.
no variety name; Gagan Seeds Corp., 73 Indra Market, Delhi 110007.

PI 606052. Cucumis sativus L. var. sativus

USM 649; Ames 21021. Collected 11/09/1992 in Uttar Pradesh, India.
Collected from seed dealer in subzi mundi during the rainy season. Near
Dehra Dun, in Dehra Dun district,Uttar Pradesh state, India. Site:116.
no variety name; Parshad Seeds, Rura - Kanpur 209303, Uttar Pradesh.

PI 606053. Cucumis sativus L. var. sativus

Landrace. USM 650; Ames 21022. Collected 11/09/1992 in Uttar Pradesh,
India. Collected from farmer: Mr. Nawabuddin (leader of village) during
the rainy season. Near Brahmanwala, in Dehra Dun district,Uttar Pradesh
state, India. Site:117. 10 x 2 inches at harvest; immature: dark green,
salad; mature: yellow, 45 cm long x 10 inches in circumference; gr for
20 years LANDRACE = 118.

PI 606054. Cucumis sativus L. var. sativus

Landrace. USM 651; Ames 21023. Collected 11/09/1992 in Uttar Pradesh,
India. Collected from farmer: Hasim Ali during the rainy season. Near
Mehunwala Mafi, in Dehra Dun district,Uttar Pradesh state, India.
Site:118. immature: 20-25 cm x 2.5 inches, salad only; mature: 40 cm x
5 inches in circumference LANDRACE = 119.

PI 606055. Cucumis sativus L. var. sativus

Landrace. USM 652; Ames 21024. Collected 11/09/1992 in Uttar Pradesh,
India. Collected from farmer: Mohammad Hanif during the rainy season.
Near Mehunwala Mafi, in Dehra Dun district,Uttar Pradesh state, India.
Site:118. similar to USM 651 (LR 119); immature: light green; mature:
yellow, 40 cm x 15-20 cm in circumference; 50 kg fruit per vine; grown
sporadically for 20+ years LANDRACE = 120.

PI 606056. Cucumis sativus L. var. sativus

Landrace. USM 653; Ames 21025. Collected 11/09/1992 in Uttar Pradesh,
India. Collected from farmer: Noorhasn during the rainy season. Near
Mehunwala Mafi, in Dehra Dun district,Uttar Pradesh state, India.
Site:118. similar to USM 651 (LR 119) and USM 652 (LR 120) LANDRACE
= 121.

PI 606057. Cucumis sativus L. var. sativus

Landrace. USM 654; Ames 21026. Collected 11/09/1992 in Uttar Pradesh,
India. Collected from market in Mussoorie, farmer: Tara Singh during the
rainy season. Near Bhatta (near Mussoorie), in Dehra Dun district,Uttar
Pradesh state, India. Site:119. 40 cm x 4 inches immature and mature;
orange skin at maturity, smooth; grown for 2+ generations LANDRACE =
122.

PI 606058. Cucumis sativus L. var. sativus

Landrace. USM 655; Ames 21027. Collected 11/09/1992 in Uttar Pradesh,
India. Collected from market in Mussoorie, farmer: Tara Singh during the
rainy season. Near Bhatta (near Mussoorie), in Dehra Dun district,Uttar
Pradesh state, India. Site:119. similar to USM 654 (LR 122);
slicer/pickle type; cracked at maturity; used as salad and i yogurt
LANDRACE = 123.

PI 606059. Cucumis sativus L. var. sativus

Landrace. USM 656; Ames 21028. Collected 11/09/1992 in Uttar Pradesh, India. Collected from market in Mussoorie, farmer: Tara Singh during the rainy season. Near Bhatta (near Mussoorie), in Dehra Dun district, Uttar Pradesh state, India. Site:119. 7 x 3-4 inches; mature: yellow, smooth; slicer/pickle type LANDRACE = 124.

PI 606060. Cucumis sativus L. var. sativus

Landrace. USM 657; Ames 21029. Collected 11/09/1992 in Uttar Pradesh, India. Collected from market in Mussoorie, farmer: Tara Singh during the rainy season. Near Bhatta (near Mussoorie), in Dehra Dun district, Uttar Pradesh state, India. Site:119. 8 x 3-4 inches; mature: orange, rough (netted) skin LANDRACE = 125.

PI 606061. Cucumis sativus L. var. sativus

Landrace. USM 658; Ames 21030. Collected 11/09/1992 in Uttar Pradesh, India. Collected from market in Mussoorie, farmer: Tara Singh during the rainy season. Near Bhatta (near Mussoorie), in Dehra Dun district, Uttar Pradesh state, India. Site:119. 12-18 x 3-5 inches; might be similar to ACME () but predominantly green; light yellow stipple; yellow-green on m LANDRACE = 126.

PI 606062. Cucumis sativus L. var. sativus

Landrace. USM 661; Ames 21032. Collected 11/09/1992 in Uttar Pradesh, India. Collected from market in Mussoorie, farmer: Yusuf during the rainy season. Near Khetwala, 8500 ft (5 km east of Mussoorie), in Dehra Dun district, Uttar Pradesh state, India. Site:121. 8 x 3 inches; orange at maturity LANDRACE = 128.

PI 606063. Cucumis sativus L. var. sativus

Landrace. USM 663; Ames 21034. Collected 11/09/1992 in Uttar Pradesh, India. Collected from in Mussoorie during the rainy season. Near Jabarkhet (4 km east of Mussoorie), in Dehra Dun district, Uttar Pradesh state, India. Site:122. 6 x 3 inches; blocky; mature: orange -yellow; pickle type LANDRACE = 130.

PI 606064. Cucumis sativus L. var. sativus

USM 174; Ames 21471. Collected 10/21/1992 in Rajasthan, India. Collected from field during the rainy season. Near Malsar (20 km before Sardarshahr),, in Churu district, Rajasthan state, India. Site:019. C. sativus component of Ames 20587 C. melo.

The following were collected by M. Koppar, Nat. Bureau of Plant Genetic Resources, Germplasm Exploration Div., Indian Council of Ag. Res., New Delhi, Delhi 110 012, India; James D. McCreight, USDA, ARS, Agricultural Research Station, 1636 E. Alisal Street, Salinas, California 93905, United States; Jack E. Staub, USDA, ARS, University of Wisconsin, Department of Horticulture, Madison, Wisconsin 53706, United States. Donated by James D. McCreight, USDA, ARS, Agricultural Research Station, 1636 E. Alisal Street, Salinas, California 93905, United States. Received 03/04/1993.

PI 606065. Cucumis sativus L. var. sativus

KSM 598; Ames 21473. Collected 11/05/1992 in Madhya Pradesh, India. Collected from villager(?) during the rainy season. Near Bidbada, in

Ratlam district, Madhya Pradesh state, India. Site:104. *C. sativus* component of Ames 20973 *C. melo*.

PI 606066. *Cucumis sativus* L. var. *sativus*

KSM 600; Ames 21474. Collected 11/05/1992 in Madhya Pradesh, India. Collected from villager(?) during the rainy season. Near Bidbada, in Ratlam district, Madhya Pradesh state, India. Site:104. *C. sativus* component of Ames 20975 *C. melo*.

PI 606067. *Cucumis sativus* L. var. *sativus*

KSM 602; Ames 21475. Collected 11/06/1992 in Madhya Pradesh, India. Collected from farm(?) during the rainy season. Near Ranagaon Road, in Ratlam district, Madhya Pradesh state, Site:105. *C. sativus* component of Ames 20977 *C. melo*.

PI 606068. *Cucumis sativus* L. var. *sativus*

KSM 610; Ames 21476. Collected 11/06/1992 in Madhya Pradesh, India. Collected from farmer: Karan Singh during the rainy season. Near Anjad, 11 km from Pati, southwest of Barwani, in Khargon district, Madhya Pradesh state, India. Site:109. *C. sativus* component of Ames 20984 *C. melo*.

The following were donated by Ernest E. Banttari, University of Minnesota, Rosemount Agricultural Exp. Station, Rosemount, Minnesota, United States. Received 03/01/1975.

PI 606069. *Gomphrena globosa* L.

Cultivated. PLANT VIRUS; NSL 89362. Used for virus indexing. In 1997 grown in the field in Ames, Iowa where it was about 100 cm tall, with red-purple flowers.

The following were donated by Richard O. Hampton, USDA, ARS, Oregon State University, Dept. of Botany & Plant Pathology, Corvallis, Oregon 97331, United States. Received 03/01/1977.

PI 606070. *Gomphrena globosa* L.

Cultivated. PLANT VIRUS; NSL 93612. Used for virus indexing. In 1997 grown in the field in Ames, Iowa where it was about 100 cm tall, with red-purple flowers.

The following were developed by Asgrow Seed Company LLC, United States. Received 11/19/1998.

PI 606071. *Glycine max* (L.) Merr.

Cultivar. "AG5401". PVP 9900027.

PI 606072. *Glycine max* (L.) Merr.

Cultivar. "AG3302". PVP 9900028.

PI 606073. *Glycine max* (L.) Merr.

Cultivar. "AG0901". PVP 9900029.

- PI 606074. *Glycine max* (L.) Merr.
Cultivar. "A3204". PVP 9900030.
- PI 606075. *Glycine max* (L.) Merr.
Cultivar. "AG5802". PVP 9900031.
- PI 606076. *Glycine max* (L.) Merr.
Cultivar. "AG2902". PVP 9900032.
- PI 606077. *Glycine max* (L.) Merr.
Cultivar. "A0868". PVP 9900033.
- PI 606078. *Glycine max* (L.) Merr.
Cultivar. "AG3502". PVP 9900034.
- PI 606079. *Glycine max* (L.) Merr.
Cultivar. "A2069". PVP 9900035.
- PI 606080. *Glycine max* (L.) Merr.
Cultivar. "AG2201". PVP 9900036.
- PI 606081. *Glycine max* (L.) Merr.
Cultivar. "AG4602". PVP 9900037.
- PI 606082. *Glycine max* (L.) Merr.
Cultivar. "AG4301". PVP 9900038.
- PI 606083. *Glycine max* (L.) Merr.
Cultivar. "A3469". PVP 9900039.
- PI 606084. *Glycine max* (L.) Merr.
Cultivar. "AG3901". PVP 9900040.

The following were donated by Albert Kassyanenco, N.I. Vavilov Institute, All Russian Scientific Research Institute, of Plant Genetic Resources, St. Petersburg, Leningrad 190000, Russian Federation. Received 11/23/1998.

- PI 606085. *Hibiscus cannabinus* L.
Cultivated. K-11.
- PI 606086. *Hibiscus cannabinus* L.
Cultivated. K-18.
- PI 606087. *Hibiscus cannabinus* L.
Cultivated. K-30.
- PI 606088. *Hibiscus cannabinus* L.
Cultivated. K-36.
- PI 606089. *Hibiscus cannabinus* L.
Cultivated. K-77.
- PI 606090. *Hibiscus cannabinus* L.
Cultivated. K-117.

- PI 606091. *Hibiscus cannabinus* L.
Cultivated. K-194.
- PI 606092. *Hibiscus cannabinus* L.
Cultivated. K-212.
- PI 606093. *Hibiscus cannabinus* L.
Cultivated. K-213.
- PI 606094. *Abelmoschus esculentus* (L.) Moench
Cultivated. K-3.
- PI 606095. *Abelmoschus esculentus* (L.) Moench
Cultivated. K-22.
- PI 606096. *Abelmoschus esculentus* (L.) Moench
Cultivated. K-23.
- PI 606097. *Abelmoschus esculentus* (L.) Moench
Cultivated. K-24.
- PI 606098. *Abelmoschus esculentus* (L.) Moench
Cultivated. K-25.
- PI 606099. *Abelmoschus esculentus* (L.) Moench
Cultivated. K-28.
- PI 606100. *Abutilon* sp.
Cultivated. K-169.
- PI 606101. *Abutilon* sp.
Cultivated. K-210.
- PI 606102. *Abutilon* sp.
Cultivated. K-128.
- PI 606103. *Abutilon* sp.
Cultivated. K-110.
- PI 606104. *Abutilon* sp.
Cultivated. K-100.
- PI 606105. *Abutilon* sp.
Cultivated. K-67.
- PI 606106. *Abutilon* sp.
Cultivated. K-15.
- PI 606107. *Abutilon* sp.
Cultivated. K-246.
- PI 606108. *Beta vulgaris* L.
Cultivated. K-1708; Zumo.

- PI 606109. *Beta vulgaris* L.
Cultivated. K-1941; Dimona.
- PI 606110. *Beta vulgaris* L.
Cultivated. K-1948; Mona.
- PI 606111. *Beta vulgaris* L.
Cultivated. K-3152; Virtus.
- PI 606112. *Beta vulgaris* L.
Cultivated. K-3155; Emma.
- PI 606113. *Beta vulgaris* L.
Cultivated. K-3158; Ritmo.
- PI 606114. *Beta vulgaris* L.
Cultivated. K-3162; Bingo.
- PI 606115. *Beta vulgaris* L.
Cultivated. K-3169; Flamengo.
- PI 606116. *Beta vulgaris* L.
Cultivated. K-3170; Furia.
- PI 606117. *Beta vulgaris* L.
Cultivated. K-3171; Major.
- PI 606118. *Beta vulgaris* L.
Cultivated. K-771; Barres Sludstrup.
- PI 606119. *Beta vulgaris* L.
Cultivated. K-1916; Titan.
- PI 606120. *Beta vulgaris* L.
Cultivated. K-1978; Cranum SWHN.
- PI 606121. *Beta vulgaris* L.
Cultivated. K-2028; Ekkendorfskaja Zeltaja.
- PI 606122. *Beta vulgaris* L.
Cultivated. K-2120; Jubilejanaja Dvusemiannaja.
- PI 606123. *Beta vulgaris* L.
Cultivated. K-2218; Kievskij Tetraploid.
- PI 606124. *Beta vulgaris* L.
Cultivated. K-201; Bordo.
- PI 606125. *Beta vulgaris* L.
Cultivated. K-1934; Special Crosdy.
- PI 606126. *Citrullus* sp.
Cultivated. K-4253.
- PI 606127. *Citrullus* sp.

Cultivated. K-4307.

PI 606128. *Citrullus* sp.
Cultivated. K-4573.

PI 606129. *Citrullus* sp.
Cultivated. K-4670.

PI 606130. *Citrullus* sp.
Cultivated. K-4827.

PI 606131. *Citrullus* sp.
Cultivated. K-4893.

PI 606132. *Citrullus* sp.
Cultivated. K-4894.

PI 606133. *Citrullus* sp.
Cultivated. K-4919.

PI 606134. *Citrullus* sp.
Cultivated. K-4928.

PI 606135. *Citrullus* sp.
Cultivated. K-4992.

PI 606136. *Citrullus* sp.
Cultivated. K-4993.

PI 606137. *Citrullus* sp.
Cultivated. K-4994.

PI 606138. *Citrullus* sp.
Cultivated. K-4996.

PI 606139. *Citrullus* sp.
Cultivated. K-4998.

PI 606140. *Citrullus* sp.
Cultivated. K-5002.

PI 606141. *Citrullus* sp.
Cultivated. K-5092.

PI 606142. *Citrullus* sp.
Cultivated. K-5093.

PI 606143. *Corchorus olitorius* L.
Cultivated. K-9.

PI 606144. *Corchorus olitorius* L.
Cultivated. K-10.

PI 606145. *Corchorus olitorius* L.
Cultivated. K-11.

- PI 606146. *Corchorus olitorius* L.
Cultivated. K-12.
- PI 606147. *Corchorus olitorius* L.
Cultivated. K-13.
- PI 606148. *Corchorus olitorius* L.
Cultivated. K-14.
- PI 606149. *Corchorus olitorius* L.
Cultivated. K-15.
- PI 606150. *Corchorus olitorius* L.
Cultivated. K-16.
- PI 606151. *Corchorus olitorius* L.
Cultivated. K-17.
- PI 606152. *Corchorus olitorius* L.
Cultivated. K-18.
- PI 606153. *Crotalaria* sp.
Cultivated. K-8.
- PI 606154. *Crotalaria* sp.
Cultivated. K-9.
- PI 606155. *Crotalaria* sp.
Cultivated. K-10.
- PI 606156. *Crotalaria* sp.
Cultivated. K-37.
- PI 606157. *Crotalaria* sp.
Cultivated. K-38.
- PI 606158. *Cucurbita pepo* L.
Cultivated. K-4469; Local variety.
- PI 606159. *Cucurbita pepo* L.
Cultivated. K-4515; Jaxor.
- PI 606160. *Cucurbita pepo* L.
Cultivated. K-4555; Green.
- PI 606161. *Cucurbita pepo* L.
Cultivated. K-4565; Ovari Feher.
- PI 606162. *Cucurbita pepo* L.
Cultivated. K-4633; Khutoryanka.
- PI 606163. *Cucurbita maxima* Duchesne ex Lam.
Cultivated. K-3766; Local variety.

- PI 606164. *Cucurbita maxima* Duchesne ex Lam.
Cultivated. K-4034; Khersonskaya.
- PI 606165. *Cucurbita maxima* Duchesne ex Lam.
Cultivated. K-4243; Rilon.
- PI 606166. *Cucurbita maxima* Duchesne ex Lam.
Cultivated. K-4430; Local variety.
- PI 606167. *Cucurbita maxima* Duchesne ex Lam.
Cultivated. K-4449; Troyanda.
- PI 606168. *Cucurbita moschata* (Duchesne ex Lam.) Duchesne ex Poir.
Cultivated. K-4588.
- PI 606169. *Cucurbita moschata* (Duchesne ex Lam.) Duchesne ex Poir.
Cultivated. 4191; Azabatskaya.
- PI 606170. *Cucurbita moschata* (Duchesne ex Lam.) Duchesne ex Poir.
Cultivated. K-4410; Local variety.
- PI 606171. *Cucurbita moschata* (Duchesne ex Lam.) Duchesne ex Poir.
Cultivated. K-4415.
- PI 606172. *Cucurbita moschata* (Duchesne ex Lam.) Duchesne ex Poir.
Cultivated. K-4510; Berkanush.
- PI 606173. *Cucumis melo* L.
Cultivated. K-5351.
- PI 606174. *Cucumis melo* L.
Cultivated. K-5386.
- PI 606175. *Cucumis melo* L.
Cultivated. K-5320.
- PI 606176. *Cucumis melo* L.
Cultivated. K-5428.
- PI 606177. *Cucumis melo* L.
Cultivated. K-6437.
- PI 606178. *Cucumis melo* L.
Cultivated. K-6563.
- PI 606179. *Cucumis melo* L.
Cultivated. K-6679.
- PI 606180. *Cucumis melo* L.
Cultivated. K-6710.
- PI 606181. *Cucumis melo* L.
Cultivated. K-6956.
- PI 606182. *Cucumis melo* L.

Cultivated. K-6961.

PI 606183. *Cucumis sativus* L.
Cultivated. K-1926.

PI 606184. *Cucumis sativus* L.
Cultivated. K-2019.

PI 606185. *Cucumis sativus* L.
Cultivated. K-2288.

PI 606186. *Cucumis sativus* L.
Cultivated. K-2644.

PI 606187. *Cucumis sativus* L.
Cultivated. K-2824.

PI 606188. *Cucumis sativus* L.
Cultivated. K-2999.

PI 606189. *Cucumis sativus* L.
Cultivated. K-3168.

PI 606190. *Cucumis sativus* L.
Cultivated. K-3570.

PI 606191. *Cucumis sativus* L.
Cultivated. K-3571.

PI 606192. *Cucumis sativus* L.
Cultivated. K-3577.

PI 606193. *Helianthus annuus* L.
Cultivated. K-1532.

PI 606194. *Helianthus annuus* L.
Cultivated. K-1544.

PI 606195. *Helianthus annuus* L.
Cultivated. K-2430.

PI 606196. *Helianthus annuus* L.
Cultivated. K-3211.

PI 606197. *Helianthus annuus* L.
Cultivated. K-3212.

PI 606198. *Helianthus annuus* L.
Cultivated. K-2800.

PI 606199. *Helianthus annuus* L.
Cultivated. K-2801.

PI 606200. *Helianthus annuus* L.
Cultivated. K-2805.

- PI 606201. *Helianthus annuus* L.
Cultivated. K-2812.
- PI 606202. *Helianthus annuus* L.
Cultivated. K-2817.
- PI 606203. *Helianthus annuus* L.
Cultivated. K-2821.
- PI 606204. *Helianthus annuus* L.
Cultivated. K-2826.
- PI 606205. *Helianthus annuus* L.
Cultivated. K-2830.
- PI 606206. *Helianthus annuus* L.
Cultivated. K-2833.
- PI 606207. *Helianthus annuus* L.
Cultivated. K-2841.
- PI 606208. *Helianthus annuus* L.
Cultivated. K-2843.
- PI 606209. *Helianthus annuus* L.
Cultivated. K-2844.
- PI 606210. *Helianthus annuus* L.
Cultivated. K-2845.
- PI 606211. *Helianthus annuus* L.
Cultivated. K-2848.
- PI 606212. *Helianthus annuus* L.
Cultivated. K-2852.
- PI 606213. *Linum usitatissimum* L.
Cultivated. K-1172; Malabrigo. Collected 1925 in Argentina.
- PI 606214. *Linum usitatissimum* L.
Cultivated. K-1173; Lineta. Collected 1925 in Argentina.
- PI 606215. *Linum usitatissimum* L.
Cultivated. K-1174; Kino Grueso. Collected 1925 in Argentina.
- PI 606216. *Linum usitatissimum* L.
Cultivated. K-1930; Lino Grande. Collected 1927 in Argentina.
- PI 606217. *Linum usitatissimum* L.
Cultivated. K-2399. Collected 1927 in China.
- PI 606218. *Linum usitatissimum* L.
Cultivated. K-2400. Collected 1927 in China.

- PI 606219. *Linum usitatissimum* L.
Cultivated. K-2796. Collected 1928 in Egypt.
- PI 606220. *Linum usitatissimum* L.
Cultivated. K-2402. Collected 1927 in China.
- PI 606221. *Linum usitatissimum* L.
Cultivated. K-2403. Collected 1927 in China.
- PI 606222. *Linum usitatissimum* L.
Cultivated. K-2404. Collected 1927 in China.
- PI 606223. *Linum usitatissimum* L.
Cultivated. K-2076. Collected 1927 in Cyprus.
- PI 606224. *Linum usitatissimum* L.
Cultivated. K-2077. Collected 1927 in Cyprus.
- PI 606225. *Linum usitatissimum* L.
Cultivated. K-2078. Collected 1927 in Cyprus.
- PI 606226. *Linum usitatissimum* L.
Cultivated. K-2075. Collected 1927 in Greece.
- PI 606227. *Linum usitatissimum* L.
Cultivated. K-1186; Ture 15. Collected 1925 in India.
- PI 606228. *Linum usitatissimum* L.
Cultivated. K-1187; Ture 29. Collected 1925 in India.
- PI 606229. *Linum usitatissimum* L.
Cultivated. K-2861. Collected 1928 in India.
- PI 606230. *Linum usitatissimum* L.
Cultivated. K-1189; Ture 50. Collected 1925 in India.
- PI 606231. *Linum usitatissimum* L.
Cultivated. K-1190; Ture 55. Collected 1925 in India.
- PI 606232. *Linum usitatissimum* L.
Cultivated. K-2068. Collected 1927 in India.
- PI 606233. *Linum usitatissimum* L.
Cultivated. K-2069. Collected 1927 in India.
- PI 606234. *Linum usitatissimum* L.
Cultivated. K-2417. Collected 1927 in India.
- PI 606235. *Linum usitatissimum* L.
Cultivated. K-3086. Collected 1928 in India.
- PI 606236. *Linum usitatissimum* L.
Cultivated. K-900; Sitciliiskii. Collected 1923 in Italy.
- PI 606237. *Linum usitatissimum* L.

Cultivated. K-1103; Alsi. Collected 1924 in Pakistan.

PI 606238. *Linum usitatissimum* L.

Cultivated. K-1906. Collected 1927 in Syria.

PI 606239. *Linum usitatissimum* L.

Cultivated. K-3067. Collected 1928 in Cyprus.

PI 606240. *Linum usitatissimum* L.

Cultivated. K-1936. Collected 1927 in Syria.

PI 606241. *Linum usitatissimum* L.

Cultivated. K-1931; Lin De Tunisi. Collected 1927 in Tunisia.

PI 606242. *Linum usitatissimum* L.

Cultivated. K-1935.

The following were developed by Graham J. Scoles, University of Saskatchewan, Dept. of Crop Science & Plant Ecology, 51 Campus Drive, Saskatoon, Saskatchewan S7N 5A8, Canada; J.M. Zale, Washington State University, Dept. of Crops and Soils, Pullman, Washington 99164-6420, United States. Received 11/16/1998.

PI 606243. *Triticum aestivum* L., nom. cons. *subsp. aestivum*

Breeding. Pureline. "CROCUS". GP-560. Pedigree - Columbus *6/Chinese spring/*Agropyron elongatum*//Tobari. Hard red spring variety derived by backcrossing material carrying the recessive alleles for crossability (*kr1* and *kr2*) to the Canadian hard red spring wheat Columbus. After six cycles of backcrossing, material identical to Columbus phenotypically except for having high crossability with rye and some other species was obtained.

The following were developed by Selgen Ltd., Breeding Station, Uhonice, Central Bohemia, Czech Republic. Donated by Zdenek Stehno, Research Inst. for Crop Production, Wheat Gene Bank, Drnovska 507, Praha, Central Bohemia 161 06, Czech Republic. Received 02/05/1997.

PI 606244. *Triticum aestivum* L., nom. cons. *subsp. aestivum*

Cultivar. Pureline. "ALKA"; NSGC 6438. Pedigree - Hana/Mercia. Released 1995.

The following were developed by Morstar Ltd., Breeding Station, Braniovice, Czech Republic. Donated by Zdenek Stehno, Research Inst. for Crop Production, Wheat Gene Bank, Drnovska 507, Praha, Central Bohemia 161 06, Czech Republic. Received 02/05/1997.

PI 606245. *Triticum aestivum* L., nom. cons. *subsp. aestivum*

Cultivar. Pureline. "BOKA"; NSGC 6439. Pedigree - Viginta/Selekta. Released 1995.

The following were developed by Plant Selekt Ltd., Czech Republic. Donated by

Zdenek Stehno, Research Inst. for Crop Production, Wheat Gene Bank, Drnovska 507, Praha, Central Bohemia 161 06, Czech Republic. Received 02/05/1997.

PI 606246. *Triticum aestivum* L., nom. cons. subsp. *aestivum*

Cultivar. Pureline. "INA"; NSGC 6440. Pedigree - Hana/UH 7//Regina. Released 1995.

The following were developed by Selgen Praha Ltd., Praha, Central Bohemia, Czech Republic. Donated by Zdenek Stehno, Research Inst. for Crop Production, Wheat Gene Bank, Drnovska 507, Praha, Central Bohemia 161 06, Czech Republic. Received 02/05/1997.

PI 606247. *Triticum aestivum* L., nom. cons. subsp. *aestivum*

Cultivar. Pureline. "SAMARA"; NSGC 6441. Pedigree - Regina/CWWWN156. Released 1995.

The following were developed by Kimberly Campbell, Ohio State University, Ohio Agric. Res. and Development Center, Dept. of Horticulture & Crop Science, Wooster, Ohio 44691-4096, United States; Robert W. Gooding, Ohio State University, Ohio Agricultural Research & Development Center, Department of Agronomy, Wooster, Ohio 44691-4096, United States. Received 08/17/1998.

PI 606248. *Triticum aestivum* L., nom. cons. subsp. *aestivum*

Breeding. Pureline. OH 546; NSGC 7350. Pedigree - Pioneer 2551/MD55-286-21. Soft red winter wheat. Awne with lax spike. High yield potential, winter hardy, excellent milling quality, high flour yield, and good test weight.

The following were developed by James S. Beaver, University of Puerto Rico, Mayaguez Camp, Department of Agronomy & Soils, P. O. Box 9030, Mayaguez, Puerto Rico; Phillip Miklas, USDA, ARS, Irrigated Agric. Research & Extension Ctr., 24106 North Bunn Road, Prosser, Washington 99350-9687, United States. Received 10/26/1998.

PI 606249. *Phaseolus vulgaris* L.

Cultivar. Pureline. "MORALES". CV-163. Pedigree - Arroyo Loro / Don Silvio. Dry bean with indeterminate bush, short vine (Type II) growth habit. Mid-season, flowering by 35 days and maturing before 80 days after planting. Commercially acceptable white seed color and seed weight averaging 19g/100 seed. Suitable for production of dry or green-shell beans. Has the recessive *bgm* allele for resistance to bean yellow golden mosaic and the dominant *I* allele for resistance to bean common mosaic virus. Resistant to the bean rust prevalent in Puerto Rico.

The following were developed by James S. Beaver, University of Puerto Rico, Mayaguez Camp, Department of Agronomy & Soils, P. O. Box 9030, Mayaguez, Puerto Rico; Phillip Miklas, USDA, ARS, Irrigated Agric. Research & Extension Ctr., 24106 North Bunn Road, Prosser, Washington 99350-9687, United States; R. Echavez-Badel, University of Puerto Rico, Dept. of Crop Protection, Mayaguez, Puerto Rico. Received 10/26/1998.

PI 606250. Phaseolus vulgaris L.

Cultivar. Pureline. "ROSADA NATIVA". CV-164. Pedigree - DOR 483 / Bel Neb Rust Resistant 1. Dry bean with indeterminate, short vine (Type II) growth habit. Mid-season, flowering at 30 days and maturing at 72 days after planting. Commercially acceptable pink seed color and an average weight of 31g/100 seed. Has the recessive bgm allele for resistance to bean yellow golden mosaic and the dominant I allele for resistance to bean common mosaic virus. Resistant to the bean rust races prevalent in Puerto Rico.

The following were developed by Mildred Zapata, University of Puerto Rico, Crop Protection Dept., Mayaguez, Puerto Rico; James S. Beaver, University of Puerto Rico, Mayaguez Camp, Department of Agronomy & Soils, P. O. Box 9030, Mayaguez, Puerto Rico; Phillip Miklas, USDA, ARS, Irrigated Agric. Research & Extension Ctr., 24106 North Bunn Road, Prosser, Washington 99350-9687, United States. Received 10/26/1998.

PI 606251. Phaseolus vulgaris L.

Breeding. Pureline. PR9443-4. GP-191. Pedigree - T969-2 / DOR 303. Dry bean with erect, indeterminate, short vine (Type II) growth habit. Mid-season, flowering 32 days and maturing 77 days after planting. Light red kidney seed type and seed weight averaging 41g/100 seed. Resistance to bean yellow golden mosaic virus. Resistance of DOR 303, one of the parents, is conferred by the recessive allele bgm-2. Resistant to both common bacterial blight and rust. Has the dominant I allele for resistance to bean common mosaic virus.

Unknown source. Received 10/16/1995.

PI 606252. Ipomoea batatas (L.) Lam.

Cultivar. "Duanyanghong"; ZS 606; BE-7677; Q 35788. High quality. Early maturing.

The following were donated by Oscar A. Hidalgo, International Potato Center, Apartado 5969, Lima, Lima, Peru. Received 04/08/1997.

PI 606253. Ipomoea batatas (L.) Lam.

Cultivar. "TIS 1499"; CIP 440083; Q 37012. Interim Material Transfer Agreement.

The following were donated by Australian Department of Agriculture, Institute of Plant Sciences, Burnley Gardens, Swan Street, Burnley, Victoria 3121, Australia. Received 02/09/1993.

PI 606254. Ipomoea batatas (L.) Lam.

Cultivar. IPS 25; BE-4494; Q 29599.

The following were donated by Oscar A. Hidalgo, International Potato Center, Apartado 5969, Lima, Lima, Peru. Received 04/08/1997.

PI 606255. *Ipomoea batatas* (L.) Lam.
Cultivar. "TIS 1145"; CIP 440058; Q 37001. Interim Material Transfer Agreement.

PI 606256. *Ipomoea batatas* (L.) Lam.
Cultivar. "TIS 9291"; CIP 440076; Q 37008. Interim Material Transfer Agreement.

PI 606257. *Ipomoea batatas* (L.) Lam.
Cultivar. "TIS 8524"; CIP 440074; Q 37006. Interim Material Transfer Agreement.

PI 606258. *Ipomoea batatas* (L.) Lam.
Cultivar. "TIS 9265"; CIP 440075; Q 37007. Interim Material Transfer Agreement.

PI 606259. *Ipomoea batatas* (L.) Lam.
Cultivar. "TIS 8409"; CIP 440072; Q 37005. Interim Material Transfer Agreement.

PI 606260. *Ipomoea batatas* (L.) Lam.
Cultivar. "TIS 83/176"; CIP 440082; Q 37011. Interim Material Transfer Agreement.

PI 606261. *Ipomoea batatas* (L.) Lam.
Cultivar. "TIS 9465"; CIP 440077; Q 37009. Interim Material Transfer Agreement.

PI 606262. *Ipomoea batatas* (L.) Lam.
Cultivar. "TIS 82/395"; CIP 440081; Q 37010. Interim Material Transfer Agreement.

Unknown source. Received 10/16/1995.

PI 606263. *Ipomoea batatas* (L.) Lam.
Cultivar. "Chuanshu 27"; ZS 894; BE-7677; Q 35801. High yield. Resistant to diseases.

The following were donated by Oscar A. Hidalgo, International Potato Center, Apartado 5969, Lima, Lima, Peru. Received 04/08/1997.

PI 606264. *Ipomoea batatas* (L.) Lam.
Cultivar. "MARIA ANGOLA"; CIP 420008; Q 36996. Interim Material Transfer Agreement.

PI 606265. *Ipomoea batatas* (L.) Lam.
Cultivar. "W-228"; CIP 440023; Q 36997. Interim Material Transfer Agreement.

Unknown source. Received 10/16/1995.

PI 606266. *Ipomoea batatas* (L.) Lam.

Cultivar. "Zhenghong 3"; ZS 747; BE-7677; Q 35796. High yield. Resistant to black rot and root rot.

The following were donated by Oscar A. Hidalgo, International Potato Center, Apartado 5969, Lima, Lima, Peru. Received 04/08/1997.

PI 606267. *Ipomoea batatas* (L.) Lam.
Cultivar. "TIS 8504"; CIP 440085; Q 37013. Interim Material Transfer Agreement.

PI 606268. *Ipomoea batatas* (L.) Lam.
Cultivar. CIP 420068; Camote Sal; BE-7191; Q 35210; Helena.

PI 606269. *Ipomoea batatas* (L.) Lam.
Cultivar. "TIS 5081"; CIP 440068; Q 37002. Interim Material Transfer Agreement.

PI 606270. *Ipomoea batatas* (L.) Lam.
Cultivar. "TIS 8266"; CIP 440070; Q 37004. Interim Material Transfer Agreement.

PI 606271. *Ipomoea batatas* (L.) Lam.
Cultivar. "TIS 5125"; CIP 440069; Q 37003. Interim Material Transfer Agreement.

The following were donated by Guillermo Delgado, Universidad Nacional Pedro Ruiz Gallo, 8 De Octubra No. 637, Lambayeque, Lambayeque, Peru. Received 09/05/1985.

PI 606272. *Ipomoea batatas* (L.) Lam. var. *batatas*
Uncertain. C 16679; 141; Q 25754.

Unknown source. Received 10/16/1995.

PI 606273. *Ipomoea batatas* (L.) Lam.
Cultivar. "Xiangnonghuangpi"; ZS 782; BE-7677; Q 35797. Resistant to bacterial wilt. Wide adaptability.

The following were donated by Oscar A. Hidalgo, International Potato Center, Apartado 5969, Lima, Lima, Peru. Received 04/08/1997.

PI 606274. *Ipomoea batatas* (L.) Lam.
Cultivar. "ST87.006"; CIP 1 187001.1; Q 36994. Interim Material Transfer Agreement.

PI 606275. *Ipomoea batatas* (L.) Lam.
Cultivar. "NON DA HONG"; CIP 440030; Q 37000. Interim Material Transfer Agreement.

PI 606276. *Ipomoea batatas* (L.) Lam.
Cultivar. "CEMSA 78-326"; CIP 400005; Q 36995. Interim Material Transfer

Agreement.

PI 606277. *Ipomoea batatas* (L.) Lam.
Cultivar. "TIS 8164"; CIP 440098; Q 36155.

PI 606278. *Ipomoea batatas* (L.) Lam.
Cultivar. "TIS 9101"; CIP 440099; Q 37014. Interim Material Transfer Agreement.

PI 606279. *Ipomoea batatas* (L.) Lam.
Cultivar. "YAN SHU 1"; CIP 440024; Q 36998. Interim Material Transfer Agreement.

Unknown source. Received 10/16/1995.

PI 606280. *Ipomoea batatas* (L.) Lam.
Cultivar. "Guangshu 70-9"; ZS 825; BE-7677; Q 35799. High quality. Resistant to bacterial wilt.

The following were donated by R. Toevs, Mennonite Central Committee, Box 785, Mohammadpur, Dhaka, Bangladesh; Rodale Research Center, Rodale Press, Box 323, RD 1, Kutztown, Pennsylvania 19530, United States. Received 04/15/1986.

PI 606281. *Amaranthus aff. blitum*
Cultivar. "Blood Red"; RRC 682; Lal Shak; Ames 5366. Collected 03/01/1981 in Bangladesh. From the Capital Seed House in Khulna. This taxonomic type is rare in the NPGS collection. It is a cultivated vegetable with black seeds, and dark red-purple leaf.

PI 606282. *Amaranthus aff. blitum*
Landrace. RRC 683; Lal Shak; Ames 5367. Collected 03/01/1981 in Bangladesh. Collected in Maijdi. This taxonomic type is rare in the NPGS collection. It is a cultivated vegetable with black seeds, and red-purple leaves and flowers.

The following were developed by EMBRAPA, Passo Fundo, Rio Grande do Sul, Brazil. Donated by A. Linhares, EMBRAPA, Centro Nacional de Pesquisa de Trigo, Caixa Postal 569, Passo Fundo, Rio Grande do Sul, Brazil. Received 01/07/1993.

PI 606283. *Triticum aestivum* L., nom. cons. subsp. *aestivum*
Cultivar. "BR 32". Pedigree - IAS 60/Indus//IAS 62/3/Alondra sib/4/IAS 59.

PI 606284. *Triticum aestivum* L., nom. cons. subsp. *aestivum*
Cultivar. "IGUACU"; IAC 21. Pedigree - Siete Cerros/Lagoa Vermelha.

PI 606285. *Triticum aestivum* L., nom. cons. subsp. *aestivum*
Cultivar. "PF 859248". Pedigree - Londrina*6/Kavkaz//Londrina*6/Agent/3/Londrina*6/Kavkaz//Londrina*6/Weiher enstephan M1.

The following were developed by R.A. Hare, NSW Agriculture, Agricultural Research Station, RMB 944, Tamworth, New South Wales, Australia. Donated by Michael C. Mackay, Australian Winter Cereals Collection, Private Mail Bag, RMB 944, Tamworth, New South Wales 2340, Australia. Received 07/14/1994.

PI 606286. *Triticum turgidum* subsp. *durum* (Desf.) Husn.
Cultivar. "WOLLAROI"; AUS 25926; 880096; NSGC 5089. Pedigree - TAM1B-17/Kamilaroi sib//Rokel sel./Kamilaroi sib. Released 1993.
Wollaroi is a hard spring semi-dwarf durum cultivar of superior quality. Resistant to the three rusts, Septoria tritic blotch, yellow spot, stinking bunt, flag smut, and black point.

The following were developed by B. Lombard, Sensako Cooperative, Ltd., P.O. Box 556, Agricultural Research Station, Bethlehem, Orange Free State 9700, South Africa. Received 06/06/1994.

PI 606287. *Triticum aestivum* L., nom. cons. subsp. *aestivum*
Cultivar. "ALPHA"; NSGC 5130. Spring feed wheat cultivar with eyespot and Septoria resistance.

The following were developed by C.N.A. de Sousa, EMBRAPA, Caixa Postal 569, Passo Fundo, Rio Grande do Sul, Brazil. Donated by EMBRAPA - CENARGEN, S.A.I.N. - Parque Rural - C.P. 10.2372, Brasilia, Federal District CEP 70.770, Brazil. Received 03/21/1997.

PI 606288. *Triticum aestivum* L., nom. cons. subsp. *aestivum*
Cultivar. Pureline. "EMBRAPA 40"; PF 84316; BRA 160555; NSGC 6484.
Pedigree - PF 7650/NS 18-78//CNT 8/PF 7577. Released 1995.

PI 606289. *Triticum aestivum* L., nom. cons. subsp. *aestivum*
Cultivar. Pureline. "EMBRAPA 49"; PF 90120; BRA 192660; NSGC 6485.
Pedigree - BR 35/PF 83619//PF 858/PF 8550. Released 1996.

PI 606290. *Triticum aestivum* L., nom. cons. subsp. *aestivum*
Cultivar. Pureline. "EMBRAPA 52"; PF 86242; BRA 177890; NSGC 6486.
Pedigree - Hulha Negra/CNT 7//Amigo/CNT 7. Released 1996.

The following were developed by Department of Agriculture, Melbourne, Victoria, Australia. Donated by Michael C. Mackay, Australian Winter Cereals Collection, Private Mail Bag, RMB 944, Tamworth, New South Wales 2340, Australia. Received 02/01/1996.

PI 606291. *Hordeum vulgare* L. subsp. *vulgare*
Cultivar. Pureline. "WARANGA"; AUS 402772; NSGC 6487. Pedigree - Plumage Archer/3/Prior/Lenta//Research/Lenta/4/Clipper.

The following were developed by D.H.B. Sparrow, Waite Agricultural Research Institute, Glen Osmond, South Australia, Australia. Donated by Michael C. Mackay, Australian Winter Cereals Collection, Private Mail Bag, RMB 944, Tamworth, New South Wales 2340, Australia. Received 02/01/1996.

PI 606292. *Hordeum vulgare* L. subsp. *vulgare*

Cultivar. Pureline. "CHEBEC"; WI 2737; AUS 406877; NSGC 6488. Pedigree - Orge Martin/2*Clipper (86)//Schooner.

The following were developed by G.L. Roberts, Agricultural Research Station, N.S.W. Department of Agriculture, Temora, New South Wales, Australia. Donated by Michael C. Mackay, Australian Winter Cereals Collection, Private Mail Bag, RMB 944, Tamworth, New South Wales 2340, Australia. Received 02/01/1996.

PI 606293. *Avena sativa* L.

Cultivar. Pureline. "HAKEA"; MA 3228; AUS 700032; NSGC 6489. Pedigree - Kent/Fulmark//2*Cooba/3/Coolabah.

The following were developed by Andrew R. Barr, South Australia Research and Development Institute, Norfield Research Laboratories, GPO 1671, Adelaide, South Australia, Australia. Donated by Michael C. Mackay, Australian Winter Cereals Collection, Private Mail Bag, RMB 944, Tamworth, New South Wales 2340, Australia. Received 02/01/1996.

PI 606294. *Avena sativa* L.

Cultivar. Pureline. "EURO"; AUS 701720; NSGC 6490. Pedigree - Mortlock/Echidna.

The following were developed by R.J. McLean, Division of Plant Production, Department of Agriculture, Jarrah Road, South Perth, Western Australia, Australia. Donated by Michael C. Mackay, Australian Winter Cereals Collection, Private Mail Bag, RMB 944, Tamworth, New South Wales 2340, Australia. Received 02/01/1996.

PI 606295. *Avena sativa* L.

Cultivar. Pureline. "PALLINUP"; AUS 701647; NSGC 6491. Pedigree - Mortlock/5/(80Q253)M127/Curt//Cortez(81Q-124)/4/IORN-78-45/3/D.Palestine /Swan//M127/Curt.

The following were collected by L. Guarino, International Plant Genetic Resources Institute, Rome, Latium, Italy. Donated by International Plant Genetic Resources Institute, Via delle Sette Chiese 142, Rome, Latium 00145, Italy. Received 11/21/1994.

PI 606296. *Hordeum vulgare* L. subsp. *vulgare*

Landrace. 1071; NSGC 6492. Collected 1988 in Yemen. Latitude 13 deg. 50' 0'' N. Longitude 44 deg. 45' 0'' E. Abyan, Mukeiras.

PI 606297. *Hordeum vulgare* L. subsp. *vulgare*

Landrace. 1073; NSGC 6493. Collected 1988 in Yemen. Latitude 13 deg. 50' 0'' N. Longitude 44 deg. 45' 0'' E. Abyan, Mukeiras.

The following were collected by L. Guarino, International Plant Genetic Resources Institute, Rome, Latium, Italy. Donated by International Board for

Plant Genetic Resources, AGPG, FAO, Via della terme de Caracalla, Rome, Latium 00100, Italy. Received 11/21/1994.

PI 606298. *Hordeum vulgare* L. subsp. *vulgare*

Landrace. 1079; NSGC 6494. Collected 1988 in Yemen. Latitude 13 deg. 50' 0'' N. Longitude 44 deg. 45' 0'' E. Abyan, Mukeiras.

The following were collected by L. Guarino, International Plant Genetic Resources Institute, Rome, Latium, Italy. Donated by International Plant Genetic Resources Institute, Via delle Sette Chiese 142, Rome, Latium 00145, Italy. Received 11/21/1994.

PI 606299. *Hordeum vulgare* L. subsp. *vulgare*

Landrace. 1081; NSGC 6495. Collected 1988 in Yemen. Latitude 13 deg. 50' 0'' N. Longitude 44 deg. 45' 0'' E. Abyan, Mukeiras.

PI 606300. *Hordeum vulgare* L. subsp. *vulgare*

Landrace. 1109; NSGC 6496. Collected 1988 in Yemen. Latitude 15 deg. 22' 0'' N. Longitude 47 deg. E. Shabwa, Bayhan Al Qasab.

PI 606301. *Hordeum vulgare* L. subsp. *vulgare*

Landrace. 1110; NSGC 6497. Collected 1988 in Yemen. Latitude 15 deg. 22' 0'' N. Longitude 47 deg. E. Shabwa, Bayhan Al Qasab.

PI 606302. *Hordeum vulgare* L. subsp. *vulgare*

Landrace. 1255; NSGC 6498. Collected 1988 in Yemen. Latitude 12 deg. 47' 0'' N. Longitude 45 deg. 3' 0'' E. Lahej, Dhamar.

The following were collected by International Plant Genetic Resources Institute, Via delle Sette Chiese 142, Rome, Latium 00145, Italy. Received 11/21/1994.

PI 606303. *Hordeum vulgare* L. subsp. *vulgare*

Landrace. 15004; NSGC 6499. Collected 06/19/1989 in Saudi Arabia. Latitude 17 deg. 31' 0'' N. Longitude 44 deg. 19' 0'' E. Najran, Najran.

PI 606304. *Hordeum vulgare* L. subsp. *vulgare*

Landrace. 15018; NSGC 6500. Collected 06/21/1989 in Saudi Arabia. Latitude 18 deg. 14' 0'' N. Longitude 42 deg. 31' 0'' E. Abha, Aseer. Abha.

PI 606305. *Hordeum vulgare* L. subsp. *vulgare*

Landrace. 15022; NSGC 6501. Collected 06/22/1989 in Saudi Arabia. Latitude 18 deg. 14' 0'' N. Longitude 42 deg. 31' 0'' W. Abha, Aseer. nr Souda, 30km W of Abha.

PI 606306. *Hordeum vulgare* L. subsp. *vulgare*

Landrace. 15042; NSGC 6502. Collected 06/24/1989 in Saudi Arabia. Latitude 18 deg. 14' 0'' N. Longitude 42 deg. 31' 0'' E. Abha, Aseer., 5km N of An-Numas.

PI 606307. *Hordeum vulgare* L. subsp. *vulgare*

Landrace. 15044; NSGC 6503. Collected 06/24/1989 in Saudi Arabia.

Latitude 25 deg. 0' N. Longitude 45 deg. 0' E. Al-Baha, Aseer. An-Naima (Bilad Bulgarn), 55km N of An-Numas.

PI 606308. *Triticum aestivum* L., nom. cons. subsp. *aestivum*

Landrace. 15049; NSGC 6504. Collected 06/25/1989 in Saudi Arabia.
Latitude 25 deg. 0' N. Longitude 45 deg. 0' E. Al-Baha, Aseer. Al-Baha.

PI 606309. *Hordeum vulgare* L. subsp. *vulgare*

Landrace. 15051; NSGC 6505. Collected 06/25/1989 in Saudi Arabia.
Latitude 25 deg. 0' N. Longitude 45 deg. 0' E. Al-Baha, Aseer. Al-Baha.

PI 606310. *Hordeum vulgare* L. subsp. *vulgare*

Landrace. 15064; NSGC 6506. Collected 06/25/1989 in Saudi Arabia.
Latitude 25 deg. 0' N. Longitude 45 deg. 0' E. Al-Baha, Aseer. Wadi Rebaa, 10km N of Al-Baha.

PI 606311. *Hordeum vulgare* L. subsp. *vulgare*

Landrace. 15077; NSGC 6507. Collected 06/26/1989 in Saudi Arabia.
Latitude 21 deg. 16' 0'' N. Longitude 40 deg. 25' 0'' E. Taif, 100km N of Al-Baha, road to Taif.

PI 606312. *Hordeum vulgare* L. subsp. *vulgare*

Landrace. 15083; NSGC 6508. Collected 06/27/1989 in Saudi Arabia.
Latitude 21 deg. 16' 0'' N. Longitude 40 deg. 25' 0'' E. Taif, Al Farah (Shafa), 25km S of Taif.

PI 606313. *Hordeum vulgare* L. subsp. *vulgare*

Landrace. 15084; NSGC 6509. Collected 06/27/1989 in Saudi Arabia.
Latitude 21 deg. 16' 0'' N. Longitude 40 deg. 25' 0'' E. Taif, Al Farah (Shafa), 25km S of Taif.

PI 606314. *Hordeum vulgare* L. subsp. *vulgare*

Landrace. 15086; NSGC 6510. Collected 06/27/1989 in Saudi Arabia.
Latitude 21 deg. 16' 0'' N. Longitude 40 deg. 25' 0'' E. Taif, Al Farah (Shafa), 25km S of Taif.

PI 606315. *Hordeum vulgare* L. subsp. *vulgare*

Landrace. 15088; NSGC 6511. Collected 06/27/1989 in Saudi Arabia.
Latitude 21 deg. 16' 0'' N. Longitude 40 deg. 25' 0'' E. Taif, 20km S of Taif.

The following were developed by J. Buck, Buck S.A., La Dulce, Buenos Aires, Argentina. Donated by Robert J. Metzger, USDA, ARS, Oregon State University, Dept. of Crop Science, Corvallis, Oregon 97331, United States. Received 01/01/1987.

PI 606316. *Triticum aestivum* L., nom. cons. subsp. *aestivum*

Cultivar. Pureline. "BUCK PUCARA"; NSGC 6512. Pedigree - Buck Cimarron/3/Calidad/Tobari 66//Bluebird/Correcaminos. Released 1980.

PI 606317. *Triticum aestivum* L., nom. cons. subsp. *aestivum*

Cultivar. Pureline. "BUCK MAPUCHE"; NSGC 6513. Pedigree - Buck Pangare/3/Rafaela MAG/Buck Pampero//Buck Relen. Released 1984.

The following were collected by T.A. Campbell, USDA-ARS, Germplasm Quality and Enhancement Lab, Building 001, Room 339, Beltsville, Maryland 20705, United States; John D. Berdahl, USDA-ARS, Northern Great Plains Research Lab., P.O. Box 459, Mandan, North Dakota 58554, United States; Douglas A. Johnson, USDA, ARS, Forage and Range Research Laboratory, Utah State University, Logan, Utah 84322-6300, United States; Larry K. Holzworth, USDA-NRCS State Office, Federal Bldg., Room 443, 10 E. Babcock, Bozeman, Montana 59715-4704, United States. Received 10/01/1997.

PI 606318. *Hordeum vulgare* L. subsp. *vulgare*

Cultivated. X97-010; NSGC 6516. Collected 08/05/1997 in Xinjiang, China. Latitude 43 deg. 46' 3'' N. Longitude 80 deg. 56' 0'' E. Elevation 570 m. 8 km S of Chabuchar Sheep Farm, 48 km SW of Yili City.

The following were donated by Judy VanVleet-Mills, Palouse Empire Marketing, Inc., Moscow, Idaho 83843, United States. Received 1995.

PI 606319. *Avena sativa* L.

Cultivated. W6 16666; NSGC 6517. Collected 1995 in China. Latitude 35 deg. 0' N. Longitude 105 deg. 0' E. Probably grown in surrounding provinces of Beijing, Hebei, and Shanxi. These are small samples that are distributed by Chinese exporters for potential sale in the U.S. The seeds were most likely shipped from the port of Tianjin and were probably grown in the surrounding provinces of Beijing, Hebei, and Shanxi.

The following were collected by Leon Reese, 1017 NW 12th Street, Pendleton, Washington 97801, United States. Donated by Walter J. Kaiser, USDA, ARS, Washington State University, Regional Plant Introduction Station, Pullman, Washington 99164-6402, United States. Received 04/28/1995.

PI 606320. *Hordeum vulgare* L. subsp. *vulgare*

Cultivar. "GIUMRY"; W6 16891. Collected 1994 in Armenia. Latitude 40 deg. 30' N. Longitude 45 deg. 0' E. Spring barley. High-yielding variety, used as a forage crop and in brewing. Does not lodge and is resistant to fungus diseases. Variety has been introduced into commercial production.

PI 606321. *Hordeum vulgare* L. subsp. *vulgare*

Cultivated. W6 16892; line 49-7. Collected 1994 in Armenia. Latitude 40 deg. 30' N. Longitude 45 deg. 0' E. Spring barley. High-yielding variety. Introduced into production as a forage crop.

PI 606322. *Triticum aestivum* L., nom. cons. subsp. *aestivum*

Cultivar. "SHIRAK 1"; W6 16899. Collected 1994 in Armenia. Latitude 40 deg. 30' N. Longitude 45 deg. 0' E. Spring wheat. Developed at Giumry Seed Selection Station by transforming Bezostaya-1 winter wheat into a spring wheat. It's of the "Lutescens" variety (type). Wheat ears - prism-looking with a length of 7-9 cm. Grains are red. Stem is straight (erect): 97-101cm. Wheat-heads have many grains. Resistant to fungus diseases. Glass-looking level of grains is 95%. Protein level - 15.4% Gluten - 33%. Mass of 1000 grains is 42-45 g. Volume mass - 815 g/liter.

High bread baking qualities. Dates to maturity - average. Crop-yield at the station is 60-62 c/ha with one irrigation and nitrogen fertilization.

PI 606323. *Triticum aestivum* L., nom. cons. subsp. *aestivum*

Cultivar. "SHIRAK 2"; W6 16900. Collected 1994 in Armenia. Latitude 40 deg. 30' N. Longitude 45 deg. 0' E. Spring wheat. Developed at Giumry Seed Selection Station by means of special selection. Type "Albidum." Wheat heads - prism-looking. Wheat heads are compact. Stem is straight (erect) and 93-100 cm in length. Length of ear is 7-9 cm, and grains are white and big. It's a good groats making variety. It is an early ripening variety. Glass-looking level - 83%. Protein level - 14%. Volume mass - 840 g/liter. Mass of grains: 4.4-4.8 grams. Additional yield of this variety when compared to Shizak-1 is 5-7 c/ha.

The following were collected by Robert L. Stoltz, 339 Heyburn Ave. W., Twin Falls, Idaho 83303, United States. Donated by Walter J. Kaiser, USDA, ARS, Washington State University, Regional Plant Introduction Station, Pullman, Washington 99164-6402, United States. Received 07/07/1995.

PI 606324. *Hordeum vulgare* L. subsp. *vulgare*

W6 17167; NSGC 6523. Collected 03/1995 in Xinjiang, China. Latitude 43 deg. 43' 0'' N. Longitude 87 deg. 38' 0'' E. Collected in a market in Urumqi.

The following were collected by C.R. Sperling, Harvard University Herbaria, 22 Divinity Avenue, Cambridge, Massachusetts, United States. Received 12/03/1992.

PI 606325. *Triticum turgidum* subsp. *dicoccon* (Schrank) Thell.

Cultivated. NSGC 2017. Collected 12/1991 in Sinop, Turkey. Latitude 41 deg. 25' N. Longitude 35 deg. 4' E. Elevation 1000 m. Village of Duragan near Sinop. Grown by Muzeffer Basboga. Slopes and forest areas. Used for animal feed, previously for human consumption.

PI 606326. *Avena sativa* L.

Cultivated. NSGC 7351. Collected 12/1991 in Sinop, Turkey. Latitude 41 deg. 25' 0'' N. Longitude 35 deg. 4' 0'' E. Elevation 1000 m. Village of Duragan near Sinop. Grown by Muzeffer Basboga. Slopes and forest areas. Used for animal feed, previously for human consumption.

PI 606327. *Hordeum vulgare* L. subsp. *vulgare*

Cultivated. NSGC 7352. Collected 12/1991 in Sinop, Turkey. Latitude 41 deg. 25' 0'' N. Longitude 31 deg. 4' 0'' E. Elevation 1000 m. Village of Duragan near Sinop. Grown by Muzeffer Basboga. Slopes and forest areas. Used for animal feed, previously for human consumption.

PI 606328. *Triticum aestivum* L., nom. cons. subsp. *aestivum*

Cultivated. NSGC 7353. Collected 12/1991 in Sinop, Turkey. Latitude 41 deg. 25' 0'' N. Longitude 35 deg. 4' 0'' E. Elevation 1000 m. Village of Duragan near Sinop. Grown by Muzeffer Basboga. Slopes and forest areas. Used for animal feed, previously for human consumption.

The following were developed by Jim Hawk, University of Delaware, Department of Plant and Soil Sciences, 147 Townsend Hall, Newark, Delaware 19717-1303, United States; Teclé Weldekidan, University of Delaware, Department of Plant and Soil Sciences, 147 Townsend Hall, Newark, Delaware 19717-1303, United States. Donated by Jim Hawk, University of Delaware, Department of Plant and Soil Sciences, 147 Townsend Hall, Newark, Delaware 19717-1303, United States. Received 10/09/1998.

PI 606329. *Zea mays* L. subsp. *mays*

Breeding. Inbred. DE1. PL-295. Pedigree - P3140XP3751/98-3-2-2-2-3. Silks 2-3 days later and sheds pollen about 5 days later than Mo17HT, but has rapid grain drydown due to open husks at maturity. Similar to Mo17Ht in plant height, but has higher ear height (88 cm) compared to 78 cm for Mo17Ht. Ears have soft grain texture and 16 kernal rows. Pollen production and anthesis duration excellent. Silks pale purple and cobs red. Stalk strength and yield rated good-excellent in crosses to lines from Iowa Staff Stalk Synthetic, but roots rated below average. Susceptible to *Colletotrichum graminicola* (anthracnose stalk rot), but has at least intermediate resistance to both first and second generation European corn borers (*Ostrinia nubilalis*).

PI 606330. *Zea mays* L. subsp. *mays*

Breeding. Inbred. DE2. PL-296. Pedigree - P3140XP3751/98-3-2-1-1-1. Flowers 1-2 days later than Mo17Ht, but has rapid grain drydown due to open husks at maturity. Similar to Mo17Ht in both plant and ear heights. Ears have soft grain texture and 16 kernel rows. Pollen production and anthesis duration excellent. Silks pale purple and cobs red. Distinguished from sister inbred DE1 by pigmented silk scars. Stalk strength and yield rated good-excellent in crosses to lines from Iowa Staff Stalk Synthetic, but roots rated below average. Susceptible to *Colletotrichum graminicola* (anthracnose stalk rot), but has at least intermediate resistance to both first and second generation European corn borers (*Ostrinia nubilalis*).

The following were developed by Steven D. Linscombe, Louisiana State University, LSU Rice Experiment Station, P.O. Box 1429, Crowley, Louisiana 70527-1429, United States; Farman Jodari, Louisiana State University, Rice Research Station, P.O. Box 1429, Crowley, Louisiana 70527-1429, United States; Don Groth, Louisiana State University, Rice Research Station, P.O. Box 1429, Crowley, Louisiana 70429-1429, United States; P.K. Bollich, Rice Research Station, P.O. Box 1429, Crowley, Louisiana 70527-1429, United States; L.M. White, Louisiana State University, Rice Research Station, P.O. Box 1429, Crowley, Louisiana 70527-1429, United States; R.T. Dunand, Louisiana State University, Rice Research Station, P.O. Box 1429, Crowley, Louisiana 70527-1429, United States; D.E. Sanders, Louisiana Cooperative Extension Service, P.O. Box 25100, Baton Rouge, Louisiana 70894-5100, United States; Q.R. Chu, Rice Research Station, P.O. Box 1429, Crowley, Louisiana 70527-1429, United States. Received 11/09/1998.

PI 606331. *Oryza sativa* L.

Cultivar. Pureline. "COCODRIE". CV-111; PVP 9900148. Pedigree - Cypress//L-202/Tebonnet. Very early semidwarf long-grain variety. Averages 85 days from emergence to 50% heading and 99 cm in height at

maturity. Displays typical southern U.S. long-grain cereal chemistry characteristics (intermediate-high gelatinization temperature and high amylose). Moderately resistant to *Pyricularia grisea* and susceptible to *Rhizoctonia solani*. Displays excellent yield potential, good milling quality, and good ratoon production characteristics.

The following were developed by Novartis Seeds, Inc., United States. Received 12/07/1998.

PI 606332. *Pisum sativum* L.
Cultivar. "BINGO". PVP 9800377.

The following were developed by Pioneer Hi-Bred International, Inc., United States. Received 12/07/1998.

PI 606333. *Zea mays* L. subsp. *mays*
Cultivar. "PH1CN". PVP 9800378.

PI 606334. *Zea mays* L. subsp. *mays*
Cultivar. "PH1GC". PVP 9800379.

PI 606335. *Zea mays* L. subsp. *mays*
Cultivar. "PH24D". PVP 9800380.

PI 606336. *Zea mays* L. subsp. *mays*
Cultivar. "PH0GP". PVP 9800381.

PI 606337. *Zea mays* L. subsp. *mays*
Cultivar. "PH19V". PVP 9800382.

PI 606338. *Zea mays* L. subsp. *mays*
Cultivar. "PH189". PVP 9800387.

The following were developed by International Seeds, Inc., P.O. Box 168, Halsey, Oregon 97348, United States. Received 12/07/1998.

PI 606339. *Agrostis capillaris* L.
Cultivar. "Tiger". PVP 9800388.

The following were developed by DEKALB Genetics Corporation, United States. Received 12/07/1998.

PI 606340. *Medicago sativa* L. subsp. *sativa*
Cultivar. "DK131HG". PVP 9800389.

The following were developed by Seed Research of Oregon, Inc., Corvallis, Oregon, United States. Received 12/07/1998.

PI 606341. *Festuca arundinacea* Schreb.
Cultivar. "SR 8500". PVP 9800390.

The following were developed by Novartis Seeds, Inc., United States. Received 12/07/1998.

PI 606342. Zea mays L. subsp. mays
Cultivar. "NP2015". PVP 9800391.

The following were developed by Terra International, Inc., United States. Received 12/07/1998.

PI 606343. Triticum aestivum L., nom. cons. subsp. aestivum
Cultivar. "MCKENZIE". PVP 9800392.

The following were developed by Pioneer Hi-Bred International, Inc., United States. Received 12/07/1998.

PI 606344. Zea mays L. subsp. mays
Cultivar. "PHOB3". PVP 9900041.

PI 606345. Zea mays L. subsp. mays
Cultivar. "PH3TF". PVP 9900042.

PI 606346. Zea mays L. subsp. mays
Cultivar. "PH404". PVP 9900043.

PI 606347. Zea mays L. subsp. mays
Cultivar. "PH0WE". PVP 9900044.

PI 606348. Zea mays L. subsp. mays
Cultivar. "PH1NF". PVP 9900045.

The following were developed by Limagrain Genetics Grandes Cultures S.A., B.P. 115, 63203 RIOM Cedex, France. Received 12/07/1998.

PI 606349. Zea mays L. subsp. mays
Cultivar. "QCC2". PVP 9900046.

PI 606350. Zea mays L. subsp. mays
Cultivar. "QJL1". PVP 9900047.

PI 606351. Zea mays L. subsp. mays
Cultivar. "SPL1". PVP 9900048.

PI 606352. Zea mays L. subsp. mays
Cultivar. "SVAP7". PVP 9900049.

PI 606353. Zea mays L. subsp. mays
Cultivar. "SVBE4". PVP 9900050.

PI 606354. Zea mays L. subsp. mays
Cultivar. "SVC117". PVP 9900051.

PI 606355. *Zea mays* L. subsp. *mays*
Cultivar. "SVDL64". PVP 9900052.

PI 606356. *Zea mays* L. subsp. *mays*
Cultivar. "SVEB86". PVP 9900053.

The following were developed by Harris Moran Seed Company, P.O. Box 4938, Modesto, California 95352-4938, United States. Received 12/07/1998.

PI 606357. *Allium sativum* L.
Cultivar. "OMO M". PVP 8200019.

The following were developed by Jajo Genetics, United States. Received 12/07/1998.

PI 606358. *Gossypium hirsutum* L.
Cultivar. "556". PVP 9900060. Upland variety.

PI 606359. *Gossypium hirsutum* L.
Cultivar. "569". PVP 9900061. Upland variety.

The following were developed by Speight Seed Farms, Inc., Box 507, Winterville, North Carolina 28590, United States. Received 12/07/1998.

PI 606360. *Nicotiana tabacum* L.
Cultivar. "SPEIGHT 168". PVP 9900062. Flue-cured.

The following were donated by Hoang Minh Tam, Vietnam Agricultural Science Institute, Legumes Research and Development Center, Van Dien, Thanh Tri, Hanoi, Vietnam. Received 11/23/1998.

PI 606361. *Glycine max* (L.) Merr.
Cultivated. Pureline. "AK-03"; SY 9830023.

PI 606362. *Glycine max* (L.) Merr.
Cultivated. Pureline. "AK-05"; SY 9830075.

PI 606363. *Glycine max* (L.) Merr.
Cultivated. Pureline. An Nhon; SY 9830022.

PI 606364. *Glycine max* (L.) Merr.
Cultivated. Pureline. Azumpa; SY 9830073.

PI 606365. *Glycine max* (L.) Merr.
Cultivated. Pureline. Bach hoa tao; SY 9830036.

PI 606366. *Glycine max* (L.) Merr.
Cultivated. Pureline. Bach thong; SY 9830061.

PI 606367. *Glycine max* (L.) Merr.

- Cultivated. Pureline. Bien hoa; SY 9830059.
- PI 606368. *Glycine max* (L.) Merr.**
Cultivated. Pureline. Bien Hoa 2; SY 9830029.
- PI 606369. *Glycine max* (L.) Merr.**
Cultivated. Pureline. "Cao bang 2"; SY 9830069.
- PI 606370. *Glycine max* (L.) Merr.**
Cultivated. Pureline. "Cao bang 4"; SY 9830070.
- PI 606371. *Glycine max* (L.) Merr.**
Cultivated. Pureline. "Cao bang 5"; SY 9830046.
- PI 606372. *Glycine max* (L.) Merr.**
Cultivated. Pureline. "Cao bang 6"; SY 9830071.
- PI 606373. *Glycine max* (L.) Merr.**
Cultivated. Pureline. "Cao bang 7"; SY 9830065.
- PI 606374. *Glycine max* (L.) Merr.**
Cultivated. Pureline. "Cao bang 8"; SY 9830054.
- PI 606375. *Glycine max* (L.) Merr.**
Cultivated. Pureline. Chi lang; SY 9830060.
- PI 606376. *Glycine max* (L.) Merr.**
Cultivated. Pureline. Chu se; SY 9830001.
- PI 606377. *Glycine max* (L.) Merr.**
Cultivated. Pureline. Chum gar; SY 9830072.
- PI 606378. *Glycine max* (L.) Merr.**
Cultivated. Pureline. Cuc Chi Linh; SY 9830009.
- PI 606379. *Glycine max* (L.) Merr.**
Cultivated. Pureline. Cuc Dien; SY 9830014.
- PI 606380. *Glycine max* (L.) Merr.**
Cultivated. Pureline. Cuc Hai duong; SY 9830013.
- PI 606381. *Glycine max* (L.) Merr.**
Cultivated. Pureline. Cuc Luc Ngan; SY 9830021.
- PI 606382. *Glycine max* (L.) Merr.**
Cultivated. Pureline. Cuc mat den; SY 9830031.
- PI 606383. *Glycine max* (L.) Merr.**
Cultivated. Pureline. Cuc mat trang; SY 9830008.
- PI 606384. *Glycine max* (L.) Merr.**
Cultivated. Pureline. Cuc Tho Xuan; SY 9830007.
- PI 606385. *Glycine max* (L.) Merr.**
Cultivated. Pureline. Cuc tuyen; SY 9830012.

- PI 606386. **Glycine max** (L.) Merr.
Cultivated. Pureline. Dau giay; SY 9830020.
- PI 606387. **Glycine max** (L.) Merr.
Cultivated. Pureline. Den Bac Ha; SY 9830051.
- PI 606388. **Glycine max** (L.) Merr.
Cultivated. Pureline. Dien Ban; SY 9830006.
- PI 606389. **Glycine max** (L.) Merr.
Cultivated. Pureline. Doan ket; SY 9830015.
- PI 606390. **Glycine max** (L.) Merr.
Cultivated. Pureline. Dong ha; SY 9830077.
- PI 606391. **Glycine max** (L.) Merr.
Cultivated. Pureline. "DT-84"; SY 9830081.
- PI 606392. **Glycine max** (L.) Merr.
Cultivated. Pureline. "DT-93"; SY 9830076.
- PI 606393. **Glycine max** (L.) Merr.
Cultivated. Pureline. Duc trong; SY 9830047.
- PI 606394. **Glycine max** (L.) Merr.
Cultivated. Pureline. EAH LEO; SY 9830058.
- PI 606395. **Glycine max** (L.) Merr.
Cultivated. Pureline. Ha tuyen; SY 9830052.
- PI 606396. **Glycine max** (L.) Merr.
Cultivated. Pureline. Hat den 2; SY 9830083.
- PI 606397. **Glycine max** (L.) Merr.
Cultivated. Pureline. Hat nho duc trong; SY 9830079.
- PI 606398. **Glycine max** (L.) Merr.
Cultivated. Pureline. Huu lung; SY 9830003.
- PI 606399. **Glycine max** (L.) Merr.
Cultivated. Pureline. Lo 75; SY 9830004.
- PI 606400. **Glycine max** (L.) Merr.
Cultivated. Pureline. Lo Bac Giang; SY 9830010.
- PI 606401. **Glycine max** (L.) Merr.
Cultivated. Pureline. Lo Phu Binh; SY 9830005.
- PI 606402. **Glycine max** (L.) Merr.
Cultivated. Pureline. Luong Son 1; SY 9830024.
- PI 606403. **Glycine max** (L.) Merr.
Cultivated. Pureline. Luong son 2; SY 9830049.

- PI 606404. *Glycine max* (L.) Merr.
Cultivated. Pureline. M 103; SY 9830082.
- PI 606405. *Glycine max* (L.) Merr.
Cultivated. Pureline. Madrak; SY 9830074.
- PI 606406. *Glycine max* (L.) Merr.
Cultivated. Pureline. Mo qua kien thuy; SY 9830040.
- PI 606407. *Glycine max* (L.) Merr.
Cultivated. Pureline. Nam Dan; SY 9830030.
- PI 606408. *Glycine max* (L.) Merr.
Cultivated. Pureline. Nam Vang; SY 9830053.
- PI 606409. *Glycine max* (L.) Merr.
Cultivated. Pureline. Nghe Tinh; SY 9830033.
- PI 606410. *Glycine max* (L.) Merr.
Cultivated. Pureline. Ngoc dong; SY 9830067.
- PI 606411. *Glycine max* (L.) Merr.
Cultivated. Pureline. Ninh Hoa; SY 9830056.
- PI 606412. *Glycine max* (L.) Merr.
Cultivated. Pureline. Ninh tap; SY 9830064.
- PI 606413. *Glycine max* (L.) Merr.
Cultivated. Pureline. Pho Yen; SY 9830032.
- PI 606414. *Glycine max* (L.) Merr.
Cultivated. Pureline. Phuc sen; SY 9830057.
- PI 606415. *Glycine max* (L.) Merr.
Cultivated. Pureline. Quang Hoa; SY 9830025.
- PI 606416. *Glycine max* (L.) Merr.
Cultivated. Pureline. Quang ngai ron den; SY 9830041.
- PI 606417. *Glycine max* (L.) Merr.
Cultivated. Pureline. Quang Nghia ron trang; SY 9830018.
- PI 606418. *Glycine max* (L.) Merr.
Cultivated. Pureline. Quang uyen; SY 9830048.
- PI 606419. *Glycine max* (L.) Merr.
Cultivated. Pureline. Sa thay; SY 9830062.
- PI 606420. *Glycine max* (L.) Merr.
Cultivated. Pureline. Son la; SY 9830080.
- PI 606421. *Glycine max* (L.) Merr.
Cultivated. Pureline. Tan yen hat den; SY 9830045.
- PI 606422. *Glycine max* (L.) Merr.

- Cultivated. Pureline. Thai ap; SY 9830038.
- PI 606423. Glycine max** (L.) Merr.
Cultivated. Pureline. Thai Cao; SY 9830043.
- PI 606424. Glycine max** (L.) Merr.
Cultivated. Pureline. Thai Nguyen; SY 9830027.
- PI 606425. Glycine max** (L.) Merr.
Cultivated. Pureline. Thang chap; SY 9830037.
- PI 606426. Glycine max** (L.) Merr.
Cultivated. Pureline. Thanh oai; SY 9830068.
- PI 606427. Glycine max** (L.) Merr.
Cultivated. Pureline. Thuong Tin; SY 9830026.
- PI 606428. Glycine max** (L.) Merr.
Cultivated. Pureline. Tien Yen ron den; SY 9830016.
- PI 606429. Glycine max** (L.) Merr.
Cultivated. Pureline. Tran Phu; SY 9830028.
- PI 606430. Glycine max** (L.) Merr.
Cultivated. Pureline. Trang ninh duong; SY 9830044.
- PI 606431. Glycine max** (L.) Merr.
Cultivated. Pureline. Tuy an; SY 9830055.
- PI 606432. Glycine max** (L.) Merr.
Cultivated. Pureline. V74; SY 9830078.
- PI 606433. Glycine max** (L.) Merr.
Cultivated. Pureline. Van kieu; SY 9830039.
- PI 606434. Glycine max** (L.) Merr.
Cultivated. Pureline. Vang Cao bang; SY 9830035.
- PI 606435. Glycine max** (L.) Merr.
Cultivated. Pureline. Vang chi thao B; SY 9830066.
- PI 606436. Glycine max** (L.) Merr.
Cultivated. Pureline. Vang Ha Giang; SY 9830050.
- PI 606437. Glycine max** (L.) Merr.
Cultivated. Pureline. Vang nguyen duong; SY 9830034.
- PI 606438. Glycine max** (L.) Merr.
Cultivated. Pureline. Vang phu hung; SY 9830063.
- PI 606439. Glycine max** (L.) Merr.
Cultivated. Pureline. Vang Quang ha; SY 9830042.
- PI 606440. Glycine max** (L.) Merr.
Cultivated. Pureline. "VX-92"; SY 9830084.

PI 606441. *Glycine max* (L.) Merr.
Cultivated. Pureline. Xanh Quang Ha; SY 9830019.

PI 606442. *Glycine max* (L.) Merr.
Cultivated. Pureline. Xanh tu qui; SY 9830011.

PI 606443. *Glycine max* (L.) Merr.
Cultivated. Pureline. Xuan Loc; SY 9830017.

PI 606444. *Glycine max* (L.) Merr.
Cultivated. Pureline. Yachim; SY 9830002.

The following were collected by Richard H. Converse, USDA/ARS, Oregon State University, Dept. Botany & Plant Pathology, Corvallis, Oregon, United States. Received 08/01/1991.

PI 606445. *Rubus idaeus* L.
Wild. Collected 07/23/1991 in Denmark. Latitude 56 deg. N. Longitude 10 deg. E. Elevation 100 m. Danish National Park, Jutland, along roadside in a woodland. Pedigree - Collected from the wild in Denmark. Population sample. Plants vigorous.

The following were collected by Chang Min Zhao, Nanjing Botanical Garden, Mem. Sun Yat-Sen, Nanjing, Jiangsu 21004, China. Donated by Maxine Thompson, National Clonal Germplasm Repository, 33447 Peoria Road, Corvallis, Oregon 97333, United States. Received 07/21/1992.

PI 606446. *Rubus chingii* Hu
Cultivated. 92217; *R. chingii*. Collected in China. Latitude 32 deg. 2' N. Longitude 118 deg. 47' E. Very hot, humid summers. To -10 C in winter. Pedigree - Open pollinated from the wild, kept in Botanical collection. Fruit red.

The following were collected by Maxine Thompson, National Clonal Germplasm Repository, 33447 Peoria Road, Corvallis, Oregon 97333, United States; Judith Young, Unknown; Gong Deshen, Guizhou Botanical Garden, Liuchongguan, Guiyang, Guizhou 550001, China; Shi Shengde, Guizhou Botanical Garden, Liuchongguan, Guiyang, Guizhou 550001, China; De Sheng Wei, Guizhou Botanical Garden, Liuchongguan, Guiyang, Guizhou 550001, China; Cheng Xiang Wang, Guizhou Botanical Garden, Guizhou Academy of Science, Liuchongguan, Guiyang, Guizhou 550001, China. Donated by Maxine Thompson, National Clonal Germplasm Repository, 33447 Peoria Road, Corvallis, Oregon 97333, United States. Received 07/21/1992.

PI 606447. *Rubus columellaris* Tutcher
Wild. 92130; *R. columellaris*. Collected 06/04/1992 in Guizhou, China. Latitude 25 deg. 43' N. Longitude 108 deg. 43' E. Elevation 315 m. 16 km west of Congjiang. Plants hanging over a dry road cut. Pedigree - Collected from the wild in China. Fruit yellow, with hollow center.

PI 606448. *Rubus columellaris* Tutcher

Wild. 92132; *R. columellaris*. Collected 06/04/1992 in Guizhou, China. Latitude 25 deg. 42' N. Longitude 108 deg. 48' E. Elevation 708 m. 10 km west of Congjiang along roadside. Pedigree - Collected from the wild in China. Fruit yellow, with hollow center. Plants productive.

PI 606449. *Rubus columellaris* Tutcher

Wild. 92135; *R. columellaris*. Collected 06/05/1992 in Guizhou, China. Latitude 25 deg. 38' N. Longitude 108 deg. 57' E. Elevation 307 m. Drive 29 km southeast of Congjiang to Xi Shan town, Congjiang County. subtropical forest. Pedigree - Collected from the wild in China. Fruit yellow, with hollow center. Largest fruit: 21 x 22 mm. Smallest fruit: 17 x 18 mm.

PI 606450. *Rubus corchorifolius* L. f.

Wild. 92003; *R. corchorifolius*. Collected 05/21/1992 in Guizhou, China. Latitude 27 deg. 47' N. Longitude 108 deg. 43' E. Elevation 661 m. In the vicinity (within 1 km) of the Ecological Station in Fanjing Shan Nature Preserve, about 27 km NW of Jiangkuo, Jiangkuo County. Very steep mountains, heavily vegetated near Hei Wan River. Pedigree - Collected from the wild in China. Orange fruit, medium - small, good taste. Drupelets adhere to receptacle.

PI 606451. *Rubus corchorifolius* L. f.

Wild. 92021; *R. corchorifolius*. Collected 07/1992 in Guizhou, China. Latitude 27 deg. 49' N. Longitude 108 deg. 45' E. Elevation 650 m. In the vicinity (within 1 km) of the Ecological Station in Fanjing Shan Nature Preserve, about 27 km NW of Jiangkuo, Kiangkuo County. Very steep mountains, heavily vegetated Near Hei Wan River. Pedigree - Collected from the wild in China. Additional information is forthcoming.

PI 606452. *Rubus corchorifolius* L. f.

Wild. 92077; *R. corchorifolius*. Collected 07/1992 in Guizhou, China. Latitude 28 deg. 2' N. Longitude 108 deg. 24' E. Elevation 1107 m. In the vicinity (within 1 km) of the Ecological Station in Fanjing Shan Nature Preserve, about 27 km NW of Jiangkuo, Kiangkuo County. Very steep mountains, heavily vegetated Near Hei Wan River. Pedigree - Collected from the wild in China. Additional information is forthcoming.

PI 606453. *Rubus corchorifolius* L. f.

Wild. 92108; *R. corchorifolius*. Collected 07/1992 in Guizhou, China. Latitude 26 deg. 23' N. Longitude 108 deg. 11' E. Elevation 1450 m. Drive from Leishan to top of Leigong Mt. Nature Preserve, walk a few km down the road for collection Leishan County. Pedigree - Collected from the wild in China. Additional information is forthcoming.

PI 606454. *Rubus corchorifolius* L. f.

Wild. 92110; *R. corchorifolius*. Collected 07/1992 in Guizhou, China. Latitude 26 deg. 20' N. Longitude 108 deg. 15' E. Elevation 1280 m. drive 35 km SE from Leishan to Mao Ping Leigong Mt. Nature Preserve, Leishan County drove to lower site at 1260 m. cool, subtropical, mountainous vegetation, mostly shrubby with scattered large trees. Pedigree - Collected from the wild in China. Additional information is forthcoming.

PI 606455. *Rubus corchorifolius* L. f.

Wild. 92116; *R. corchorifolius*. Collected 07/1992 in Guizhou, China. Latitude 26 deg. 20' N. Longitude 108 deg. 15' E. Elevation 2000 m. drive 35 km SE from Leishan to Mao Ping Leigong Mt. Nature Preserve, Leishan County drove to lower site at 1260 m. cool, subtropical, mountainous vegetation, mostly shrubby with scattered large trees. Pedigree - Collected from the wild in China. Additional information is forthcoming.

PI 606456. *Rubus coreanus* Miq.

Wild. 92133; *R. coreanus*. Collected 07/1992 in Guizhou, China. Latitude 25 deg. 42' N. Longitude 108 deg. 48' E. Elevation 708 m. 10 km west of Congjiang. along roadside. Pedigree - Collected from the wild in China. Additional information is forthcoming.

PI 606457. *Rubus eustephanos* Focke ex Diels

Wild. 92001; *R. eustephanos*. Collected 07/1992 in Guizhou, China. Latitude 27 deg. 49' N. Longitude 108 deg. 45' E. Elevation 650 m. In the vicinity (within 1 km) of the Ecological Station in Fanjing Shan Nature Preserve 27 km NW of Jiangkuo, Jiangkuo County. very steep mountains, heavily vegetated near Hei Wan River. Pedigree - Collected from the wild in China. Additional information is forthcoming.

PI 606458. *Rubus eustephanos* Focke ex Diels

Wild. 92013; *R. eustephanos*. Collected 07/1992 in Guizhou, China. Latitude 27 deg. 49' N. Longitude 108 deg. 45' E. Elevation 650 m. In the vicinity (within 1 km) of the Ecological Station in Fanjing Shan Nature Preserve, about 27 km NW of Jiangkuo, Jiangkuo County. Very steep mountains, heavily vegetated Near Hei Wan River. Pedigree - Collected from the wild in China. Additional information is forthcoming.

PI 606459. *Rubus multibracteatus* H. Lev. & Vaniot

Wild. 92190; *R. multibracteatus*. Collected 07/1992 in Guizhou, China. Latitude 25 deg. 0' N. Longitude 105 deg. 27' E. Elevation 985 m. drive 30 km south from Anlong to Pojiao in Anlong County near the Nanpanjiang River lower elevation, hotter and drier. land cleared, few native trees left but patches of planted trees occur on the north slopes. Pedigree - Collected from the wild in China. Additional information is forthcoming.

PI 606460. *Rubus multibracteatus* H. Lev. & Vaniot

Wild. 92199; *R. multibracteatus*. Collected 07/1992 in Guizhou, China. Latitude 25 deg. 8' N. Longitude 106 deg. 2' E. Elevation 800 m. About 20 km southwest of Wangmo Wangmo County. large shrubs growing among other dense shrubs/trees. Pedigree - Collected from the wild in China. Additional information is forthcoming.

PI 606461. *Rubus niveus* Thunb.

Wild. 92159; *R. niveus*. Collected 07/1992 in Guizhou, China. Latitude 25 deg. 39' N. Longitude 105 deg. 39' E. Elevation 1260 m. about 24 km south of Huajan, in Guan Ling County. growing on roadbank. Pedigree - Collected from the wild in China. Additional information is forthcoming.

PI 606462. *Rubus niveus* Thunb.

Wild. 92161; *R. niveus*. Collected 07/1992 in Guizhou, China. Latitude 25 deg. 40' N. Longitude 105 deg. 20' E. Elevation 1415 m. near Ping Zai village in Xing Ren County. very common plant. Pedigree - Collected

from the wild in China. Additional information is forthcoming.

PI 606463. *Rubus niveus* Thunb.

Wild. 92170; *R. niveus*. Collected 07/1992 in Guizhou, China. Latitude 25 deg. 2' N. Longitude 105 deg. 23' E. Elevation 1268 m. drive from Xingyi to Anlong, Anlong County near Wen Jia Po village, about 6 km west of Anlong. open rocky slope beside road with scattered shrubs. Pedigree - Collected from the wild in China. Additional information is forthcoming.

PI 606464. *Rubus niveus* Thunb.

Wild. 92219; *R. niveus*. Collected 07/1992 in Guizhou, China. Latitude 25 deg. 0' N. Longitude 105 deg. 38' E. Elevation 1348 m. Drive 28 km southeast from Anlong to Shi Pan village, hike around Xian He Ping Mountain. Beside trail about 0.2 km beyond 92186. Pedigree - Collected from the wild in China. Additional information is forthcoming.

PI 606465. *Rubus parvifolius* L.

Wild. 92140; *R. parvifolius*. Collected 07/1992 in Guizhou, China. Latitude 25 deg. 38' N. Longitude 108 deg. 58' E. Elevation 554 m. near Bei Meng Village. Pedigree - Collected from the wild in China. Additional information is forthcoming.

PI 606466. *Rubus parvifolius* L.

Wild. 92302; *R. parvifolius*. Collected 07/1992 in Guizhou, China. Latitude 25 deg. 19' N. Longitude 105 deg. 27' E. Elevation 1700 m. Longshan Mountain, about 35 km north of Anlong. Pedigree - Collected from the wild in China. Additional information is forthcoming.

PI 606467. *Rubus parvifolius* L.

Wild. 92303; *R. parvifolius*. Collected 07/1992 in Guizhou, China. Latitude 25 deg. 19' N. Longitude 105 deg. 27' E. Elevation 1160 m. Longshan Mt. about 35 km north of Anlong. On the edge of bunds supporting corn patches, on a cliff above road at 1,108 m and 1,237 m. Pedigree - Collected from the wild in China.

PI 606468. *Rubus pinfaensis* H. Lev. & Vaniot

Wild. 92125; *R. pinfaensis*. Collected 07/1992 in Guizhou, China. Latitude 26 deg. 4' N. Longitude 108 deg. 42' E. Elevation 677 m. drove a few km from Lu SDi Zui village in vicinity of Feng Deng Zai village. The region is extensively cultivated or too steep for access so government official needed to help collect. collection along a trail up a creek valley dense vegetation : low shrubs, ferns, small trees. Pedigree - Collected from the wild in China. Additional information is forthcoming.

PI 606469. *Rubus sumatranus* Miq.

Wild. 92134; *R. sumatranus*. Collected 07/1992 in Guizhou, China. Latitude 25 deg. 42' N. Longitude 108 deg. 48' E. Elevation 708 m. 6-7 km west of Congjiang in the vicinity of Shi Re Pan village. Pedigree - Collected from the wild in China. Additional information is forthcoming.

PI 606470. *Rubus sumatranus* Miq.

Wild. 92145; *R. sumatranus*. Collected 07/1992 in Guizhou, China. Latitude 26 deg. 8' N. Longitude 109 deg. 5' E. Elevation 692 m. Shi Jin Shan Forest Farm about 20 km wouth west of Liping. extension

reforestation. Pedigree - Collected from the wild in China. Additional information is forthcoming.

PI 606471. *Rubus swinhoei* Hance

Wild. 92124; *R. swinhoei*. Collected 07/1992 in Guizhou, China. Latitude 26 deg. 4' N. Longitude 108 deg. 42' E. Elevation 584 m. Drive 30 km northeast of Rongjiang to Zai Ma town. near Lu Si Zui village. The region is extensively cultivated or too steep for access so government official needed to help collect. Pedigree - Collected from the wild in China. Additional information is forthcoming.

The following were collected by Henrietta Chambers, National Clonal Germplasm Repository, 33447 Peoria Road, Corvallis, Oregon 97333-2521, United States. Received 08/17/1992.

PI 606472. *Rubus parviflorus* Nutt.

Wild. Collected 07/31/1992 in Alaska, United States. Latitude 58 deg. 2' 0'' N. Longitude 134 deg. 26' 0'' W. Juneau, Alaska - banks near downtown waterfront. Pedigree - Collected from the wild in Alaska.

The following were collected by Hugh A. Daubeny, Agriculture Canada, Vancouver Experiment Station, 6660 N.W. Marine Drive, Vancouver, British Columbia V6T 1X2, Canada. Received 10/14/1992.

PI 606473. *Rubus strigosus* Michx.

Wild. Collected 1992 in British Columbia, Canada. Latitude 55 deg. 54' 0'' N. Longitude 129 deg. 59' 0'' W. Elevation 1900 m. Near Stewart, BC at Bell II. Pedigree - Collected from the wild in Canada.

PI 606474. *Rubus strigosus* Michx.

Wild. Collected 1992 in British Columbia, Canada. Latitude 55 deg. 54' 0'' N. Longitude 129 deg. 59' 0'' W. Near Stewart, BC at Meziadin Lake. Pedigree - Collected from the wild in Canada.

The following were collected by Sun Ming-jun. Developed by USDA, ARS, U.S. National Arboretum, Woody Landscape Plant Germplasm Repository, Glenn Dale, Maryland 20769, United States. Donated by Elizabeth Ley, USDA, ARS, U.S. National Arboretum, 3501 New York Avenue, Washington, District of Columbia 20002, United States. Received 07/01/1993.

PI 606475. *Rubus rosifolius* Sm.

Cultivated. NA 62469. Collected 06/22/1993 in China. Latitude 30 deg. 5' 0'' N. Longitude 118 deg. 34' 0'' E. Elevation 700 m. Qingliangfeng Natural Preserve, Jixi, Anhui. Pedigree - Open pollinated seed from National Arboretum. Seed is likely pure. National Arboretum #NA 62469.

The following were collected by Barbara Reed, USDA, ARS, National Germplasm Repository, 33447 Peoria Road, Corvallis, Oregon 97333-2521, United States. Received 07/12/1993.

PI 606476. *Rubus occidentalis* L.

Wild. Collected 07/1993 in Nebraska, United States. Latitude 40 deg. 41' 0'' N. Longitude 95 deg. 52' 0'' W. 2 miles west of Nebraska City on Hwy 2, Otoe Co. Gun Club. Pedigree - Collected from the wild in Nebraska. Fruit collected from several plants.

The following were collected by Donna Rae McKay, USDA Forest Service, Forest Resources Bldg, Corvallis, Oregon 97331, United States. Received 07/16/1993.

PI 606477. *Rubus parviflorus* Nutt.

Wild. Collected 1987 in Oregon, United States. Oregon Coast Range. Pedigree - Collected from the wild in Oregon. Stored in a refrigerator (approx 40C) prior to being donated to NCGR.

PI 606478. *Rubus ursinus* Cham. & Schltldl.

Wild. Collected 07/1986 in Oregon, United States. Oregon Coast Range. Pedigree - Collected from the wild in Oregon.

The following were collected by Carlos Alberto Viquez, Zarcero de Alfaro Ruiz, Costa Rica. Donated by Martin Thingvold, 2816 NW 29th Street, Corvallis, Oregon 97330, United States. Received 01/31/1994.

PI 606479. *Rubus* sp.

Wild. Collected 11/1993 in Costa Rica. Latitude 10 deg. 0' N. Longitude 84 deg. 0' W. Elevation 2000 m. Collected on a hill. Species name yet to be determined as of 3-22-94. Could be *R. odenotricus* or *R. urticifolius*.

The following were collected by Chad Finn, USDA, ARS, NW Center for Small Fruits Research, 3420 NW Orchard Street, Corvallis, Oregon 97339, United States; James Luby, University of Minnesota, Department of Horticultural Science, 342 Alderman Hall, St. Paul, Minnesota 55108, United States; Ted Mackey, Horticultural Crops Research Laboratory, 3420 Orchard St., Corvallis, Oregon 97330, United States; Herb Hoover, University of Minnesota, St. Paul, Minnesota, United States; Rick Harrison, University of Minnesota, Department of Horticultural Science, 1970 Folwell Avenue, St. Paul, Minnesota 55108-6007, United States. Donated by Chad Finn, USDA, ARS, NW Center for Small Fruits Research, 3420 NW Orchard Street, Corvallis, Oregon 97339, United States. Received 08/31/1993.

PI 606480. *Rubus spectabilis* Pursh

Wild. LIG-13. Collected 08/09/1993 in Washington, United States. Latitude 48 deg. 30' N. Longitude 121 deg. 20' W. Elevation 900 m. T38N R8W Sec. 24; Mt. Baker-Snoqualmie Nat'l Forest, along FR 1130. Pedigree - Collected from the wild in Washington. Clear cut area covered with *Vaccinium*. *R. spectabilis* was large fruited and both yellow and orange. Site generally well drained with some boggy areas.

The following were donated by University of Arkansas, Arkansas Agr. Exp. Sta., Fayetteville, Arkansas 72701, United States. Received 1967.

PI 606481. *Lupinus albus* L.

Uncertain. W6 7124; NSL 56371; LINE NO 10.

The following were collected by Walter J. Kaiser, USDA, ARS, Washington State University, Regional Plant Introduction Station, Pullman, Washington 99164-6402, United States. Received 01/15/1992.

PI 606482. *Lupinus albus* L.

Cultivated. W6 9509; LUCKY. Collected 04/01/1991 in Spain.

PI 606483. *Lupinus albus* L.

Cultivated. W6 9510; MULTULUPA. Collected 04/01/1991 in Cordoba, Spain.

PI 606484. *Lupinus albus* L.

Cultivated. E92-2; W6 10475. Collected in Egypt. Market, Nubaria area of the north Delta area.

PI 606485. *Lupinus albus* L.

Cultivated. E92-13; W6 10486. Collected 04/17/1992 in Egypt. Latitude 30 deg. 3' 0" N. Longitude 31 deg. 15' 0" E. Bazaar in Cairo.

The following were donated by Bevon Buirchell, Western Australia Dept. of Agriculture, Baron-Hay Court, South Perth, Western Australia 6151, Australia. Received 05/23/1994.

PI 606486. *Lupinus angustifolius* L.

Cultivar. "DANJA"; W6 15600.

PI 606487. *Lupinus angustifolius* L.

Cultivar. "GUNGURRU"; W6 15601.

PI 606488. *Lupinus angustifolius* L.

Cultivar. "YANDEE"; W6 15602.

PI 606489. *Lupinus angustifolius* L.

Cultivar. "YORREL"; W6 15603.

The following were collected by James R. Ballington, North Carolina State University, Department of Horticultural Sciences, Box 7609, Raleigh, North Carolina 27695-7609, United States; Jerry A. Payne, Wildlife Biology Department, Rt. 5, Box 180, Forsyth, Georgia 31029, United States. Donated by James R. Ballington, North Carolina State University, Department of Horticultural Sciences, Box 7609, Raleigh, North Carolina 27695-7609, United States. Received 08/31/1995.

PI 606490. *Rubus argutus* Link

Wild. NC 95-2-1. Collected 06/11/1995 in South Carolina, United States. Latitude 34 deg. 38' 27" N. Longitude 79 deg. 55' 35" W. Elevation 0 m. North on cty rd 35 for about 3.7 mi off SC 34 east of Darlington. Then right on unpaved road into the 'Great Pee Dee River Heritage Preserve' in the Great Pee Dee Swamp. Bottomland hardwood forest. Population sample of fruit from plants along the roadside. Associated w/ *P. canadensis*, *R. flagellans*, *R. trivialis*. Pedigree - collected from

the wild in South Carolina.

The following were collected by Chad Finn, USDA, ARS, NW Center for Small Fruits Research, 3420 NW Orchard Street, Corvallis, Oregon 97339, United States; James Luby, University of Minnesota, Department of Horticultural Science, 342 Alderman Hall, St. Paul, Minnesota 55108, United States; Rick Harrison, University of Minnesota, Department of Horticultural Science, 1970 Folwell Avenue, St. Paul, Minnesota 55108-6007, United States. Donated by Chad Finn, USDA, ARS, NW Center for Small Fruits Research, 3420 NW Orchard Street, Corvallis, Oregon 97339, United States. Received 03/01/1995.

- PI 606491. *Rubus leucodermis*** Douglas ex Torr. & A. Gray
Wild. LIG-9; CRUB 1829. Collected 08/09/1993 in Washington, United States. Latitude 48 deg. N. Longitude 124 deg. W. Elevation 610 m. Olympic National Forest. Along FR 3040. T30N R10W Sec 15. Clallam County. Very steep hillside, clearcut. Collected on south (uphill) side of road. Moist site. Pedigree - collected from the wild.
- PI 606492. *Rubus leucodermis*** Douglas ex Torr. & A. Gray
Wild. LIG-11; CRUB 1830. Collected 08/10/1993 in Washington, United States. Latitude 48 deg. 30' N. Longitude 122 deg. 40' W. Elevation 2 m. Deception Pass State Park, Washington. Cranberry Lake Picknic area. T34N R1E Sec 36. Whidbey Island. Low lying fields on south side of Cranberry Lake. Associated w/ *P. menziesii*, grasses. Pedigree - collected from the wild.
- PI 606493. *Rubus ursinus*** Cham. & Schltldl.
Wild. LIG-2; CRUB 1841. Collected 08/08/1993 in Washington, United States. Latitude 47 deg. 45' 28'' N. Longitude 122 deg. 57' 39'' W. Elevation 792 m. Olympic National Forest. 13.2 km (8.2 mi) west/southwest of US 101 on FR 2620 where FR 2620, FR 2650 and FR 50 join. T26N R2W Sec 8. Jefferson County. Upland site. Due to clear cuts, generally exposed site. Pedigree - collected from the wild in Washington.
- PI 606494. *Rubus ursinus*** Cham. & Schltldl.
Wild. LIG-4; CRUB 1842. Collected 08/08/1993 in Washington, United States. Latitude 47 deg. 57' 0'' N. Longitude 123 deg. W. Elevation 700 m. Olympic National Forest. Continuing west and northwest along FR 28. T28N R3W Sec 4. Typical coastal forest. Pedigree - collected from the wild in Washington.
- PI 606495. *Rubus ursinus*** Cham. & Schltldl.
Wild. LIG-5; CRUB 1843. Collected 08/08/1993 in Washington, United States. Latitude 48 deg. N. Longitude 123 deg. W. Elevation 15 m. Dungeness Recreation Area, Dungeness, Washington. Along trail on top of sand dune/sandstone bluffs along Strait of Juan de Fuca. T31N R4W Sec 27 and Sec 33. Clallam County. Very sandy area, appears to be typical coastal/beach environment. Associated w/ *Gaultheria shallon*. Pedigree - collected from the wild in Washington.
- PI 606496. *Rubus ursinus*** Cham. & Schltldl.
Wild. LIG-6; CRUB 1844. Collected 08/09/1993 in Washington, United States. Latitude 48 deg. 9' 0'' N. Longitude 123 deg. 43' 0'' W.

Elevation 5 m. Salt Creek County Park. Along Crescent Bay and around Tongue Point on the Strait of Juan de Fuca. T31N R8W Sec 21. Washington County. Site generally very exposed to elements, *R. ursinus* tended to be found in protected nooks in cliff or in areas protected by shrubs at the base of the cliff. Pedigree - collected from the wild in Washington.

PI 606497. *Rubus ursinus* Cham. & Schlttdl.

Wild. LIG-7; CRUB 1845. Collected 08/09/1993 in Washington, United States. Elevation 191 m. Washington State Department of Natural Resources Land adjacent to Olympic National Forest. 1.6 km southwest of WA 112 on FR 3040. T30N R9W Sec 6. Washington County. Typical coastal forest. Pedigree - collected from the wild in Washington.

PI 606498. *Rubus ursinus* Cham. & Schlttdl.

Wild. LIG-8; CRUB 1846. Collected 08/09/1993 in Washington, United States. Latitude 48 deg. N. Longitude 124 deg. W. Elevation 380 m. Olympic National Forest. Along FR 3040. T30N R10W Sec 1 and Sec 12. Typical coastal forest. Associated w/ *R. spectabilis*, *G. shallon*. Pedigree - collected from the wild in Washington.

PI 606499. *Rubus ursinus* Cham. & Schlttdl.

Wild. LIG-9; CRUB 1847. Collected 08/09/1993 in Washington, United States. Latitude 48 deg. N. Longitude 124 deg. W. Elevation 610 m. Olympic National Forest. Along FR 3040. T30N R10W Sec 15. Clallam County. Very steep hillside, clearcut. Collected on south (uphill) side of road. Moist site. Pedigree - collected from the wild in Washington.

PI 606500. *Rubus ursinus* Cham. & Schlttdl.

Wild. LIG-11; CRUB 1848. Collected 08/10/1993 in Washington, United States. Latitude 48 deg. 30' N. Longitude 122 deg. 40' W. Elevation 2 m. Deception Pass State Park, Washington. Cranberry Lake Picknic area. T34N R1E Sec 36. Whidbey Island. Low lying fields on south side of Cranberry Lake. Associated w/ *P. menziesii*, grasses. Pedigree - collected from the wild in Washington.

PI 606501. *Rubus ursinus* Cham. & Schlttdl.

Wild. LIG-17; CRUB 1851. Collected 08/11/1993 in Washington, United States. Latitude 48 deg. 30' N. Longitude 121 deg. W. Elevation 472 m. Mt. Baker-Snoqualmie National Forest. From WA 20 take Cascade River Road west to Marblemount. Skagit County. Coastal forest. Fairly low light and high moisture area. Pedigree - collected from the wild in Washington.

PI 606502. *Rubus ursinus* Cham. & Schlttdl.

Wild. LIG-24; CRUB 1852. Collected 08/13/1993 in Washington, United States. Latitude 47 deg. 40' N. Longitude 121 deg. 15' W. Elevation 740 m. Mt. Baker-Snoqualmie National Forest. Collections made on FR 6099, approx 1.6 km from US 2 near Stevens Pass. T26N R13E Sec 28. King County. Moist, coastal forest area. Pedigree - collected from the wild in Washington.

PI 606503. *Rubus ursinus* Cham. & Schlttdl.

Wild. LIG-30; CRUB 1854. Collected 08/14/1993 in Washington, United States. Latitude 48 deg. 23' 0'' N. Longitude 121 deg. 1' 0'' W. Wenatchee National Forest. From FR 6500 head northwest until road turns to gravel. Collection made for 3.2 km to Lake Creek NFS Campground. T28N

R15E Sec 36 and Sec 31. Moist forest type. Associated w/ *Tsuga heterophylla*, *Alnus* spp. Pedigree - collected from the wild in Washington.

PI 606504. *Rubus ursinus* Cham. & Schltldl.

Wild. LIG-32; CRUB 1856. Collected 08/15/1993 in Washington, United States. Latitude 46 deg. 45' 0'' N. Longitude 121 deg. 27' 0'' W. Elevation 790 m. Gifford Pinchot National Forest. From Packwood, Washington, take FR 52 to FR 5260, which runs along Johnson Creek. T14N R8E Sec 23. Washington County. Associated w/ *P. menziesii*. Pedigree - collected from the wild in Washington.

PI 606505. *Rubus ursinus* Cham. & Schltldl.

Wild. LIG-30-SFI; CRUB 1859. Collected 08/14/1993 in Washington, United States. Latitude 48 deg. 23' 0'' N. Longitude 121 deg. 1' 0'' W. Wenatchee National Forest. From FR 6500 head northwest until road turns to gravel. Collection made for 3.2 km to Lake Creek NFS Campground. T28N R15E Sec 36 and Sec 31. Moist forest type. Associated w/ *Tsuga heterophylla*, *Alnus* spp. Pedigree - collected from the wild in Washington.

PI 606506. *Rubus ursinus* Cham. & Schltldl.

Wild. LIG-30-SFII; CRUB 1860. Collected 08/14/1993 in Washington, United States. Latitude 48 deg. 23' 0'' N. Longitude 121 deg. 1' 0'' W. Wenatchee National Forest. From FR 6500 head northwest until road turns to gravel. Collection made for 3.2 km to Lake Creek NFS Campground. T28N R15E Sec 36 and Sec 31. Moist forest type. Associated w/ *Tsuga heterophylla*, *Alnus* spp. Pedigree - collected from the wild in Washington.

The following were collected by James R. Ballington, North Carolina State University, Department of Horticultural Sciences, Box 7609, Raleigh, North Carolina 27695-7609, United States. Received 06/06/1996.

PI 606507. *Rubus hispidus* L.

Wild. NC 96-10-2; CRUB 1874. Collected 05/15/1996 in North Carolina, United States. Latitude 35 deg. 31' 17'' N. Longitude 76 deg. 55' 52'' W. Beaufort County, North Carolina. US 264 at NC Forest Service Office. Moist site w/ scattered *R. hispidus* and occas. *R. flagellaris*. Ericaceous species were fairly abundant. Planted pines adjacent to roadside. Pedigree - Collected from the wild in North Carolina.

The following were collected by Catherine Wright, Alaska Plant Materials Ctr., HCO2, Box 7440, Palmer, Alaska 99645, United States; Kim Hummer, USDA, ARS, National Clonal Germplasm Repository, 33447 Peoria Road, Corvallis, Oregon 97333-2521, United States. Donated by Kim Hummer, USDA, ARS, National Clonal Germplasm Repository, 33447 Peoria Road, Corvallis, Oregon 97333-2521, United States. Received 08/08/1996.

PI 606508. *Rubus spectabilis* Pursh

Wild. KHCW 96-02-01; CRUB 1875. Collected 07/30/1996 in Alaska, United States. Latitude 60 deg. 32' 38'' N. Longitude 145 deg. 45' 25'' W. Elevation 30 m. Adams Street extension in downtown Cordova gravel road,

strong slope 40-45 degrees. Understory of wooded road edge, west facing slope. Pedigree - open pollinated seed of wild *R. spectabilis*. USDA Plant Exploration Expedition, 1996. Associated plants: Sitka spruce, Arunkus, Geum, Epilobium.

PI 606509. *Rubus spectabilis* Pursh

Wild. KHCW 96-04-04; CRUB 1876. Collected 07/30/1996 in Alaska, United States. Latitude 60 deg. 29' 29'' N. Longitude 145 deg. 52' 14'' W. Elevation 30 m. Whitshed road, about 6 miles east of Cordova. Peat bog on east side of road. Pedigree - open pollinated seed of wild *R. spectabilis*. USDA Plant Exploration Expedition, 1996. Associated plants: *V. uliginosum*, *Spiranthes romanzoffiana*, *Geum calthifolium*, *Festuca rubra*, *Carex*, *Drosera rotundifolia*, *Salix*, *Alnus*, *V. oxycoccus*, *V. vitis-idaea*.

PI 606510. *Rubus spectabilis* Pursh

Wild. KHCW 96-08-01; CRUB 1877. Collected 07/30/1996 in Alaska, United States. Pedigree - open pollinated seed of wild *R. spectabilis*. USDA Plant Exploration Expedition, 1996. Associated plants: Devil's club, False Solomon's Seal, Baneberry, Goatsbeard, Elderberry, Willow, Cow Parsnip, *Artemesia*, Braken- fern, bedstraw.

PI 606511. *Rubus spectabilis* Pursh

Wild. KHCW 96-09-03; CRUB 1878. Collected 07/31/1996 in Alaska, United States. Latitude 60 deg. 30' N. Longitude 145 deg. 20' W. McKinley Lake Trail between 1 to 2.5 miles up from Copper River Road. Along trail edge. Pedigree - open pollinated seed of wild *R. spectabilis*. USDA Plant Exploration Expedition, 1996. Associated plants: *Cornus*, Devil's Club, Rusty Menziesii, *Lycopodium*, Foam flower, Braken Fern.

PI 606512. *Rubus pedatus* Sm.

Wild. KHCW 96-09-04; CRUB 1879. Collected 07/31/1996 in Alaska, United States. Latitude 60 deg. 30' N. Longitude 145 deg. 20' W. Elevation 20 m. McKinley Lake Trail, collected between 1 to 2.5 miles up from Copper River Road. Along trail edge, ground cover. Pedigree - open pollinated seed of wild *R. pedatus*. USDA Plant Exploration Expedition, 1996. Associated plants: *Cornus*, Devil's Club, Rusty Menziesii, *Lycopodium*, Foam flower, *Dryoperis*.

PI 606513. *Rubus arcticus* subsp. *stellatus* (Sm.) B. Boivin

Wild. KHCW 96-10-01; CRUB 1880. Collected 07/31/1996 in Alaska, United States. Latitude 60 deg. 28' N. Longitude 145 deg. 25' W. 0.5 mile from Copper River Road on Alaganik Slough Road, about 22 miles from Cordova. Around base of interpretive sign describing Moose habitat. In open sun and in shade under alders, ground cover. Pedigree - open pollinated seed of wild *R. arcticus* subsp. *stellatus*. USDA Plant Exploration Expedition, 1996. Associated plants: *Epilobium*, *Alnus*, *Salix*, *Equisetum*, *Poa* *Festuca*.

PI 606514. *Rubus arcticus* subsp. *stellatus* (Sm.) B. Boivin

Wild. KHCW 96-13-02; CRUB 1881. Collected 07/31/1996 in Alaska, United States. Latitude 60 deg. 30' N. Longitude 145 deg. 30' W. Elevation 15 m. Cabin Lake about 3.5 miles to the north of Cordova airport. Around open forest edge of parking lot near lake outlet, ground cover. Pedigree - open pollinated seed of wild *R. arcticus* subsp. *stellatus*.

USDA Plant Exploration Expedition, 1996. Associated plants: Epilobium, Alnus, Salix, Equisetum, Poa Festuca.

PI 606515. *Rubus pedatus* Sm.

Wild. KHCW 96-13-04; CRUB 1882. Collected 07/31/1996 in Alaska, United States. Latitude 60 deg. 30' N. Longitude 145 deg. 30' W. Elevation 15 m. Cabin Lake about 3.5 miles to the north of Cordova airport. Around open forest edge of parking lot near lake outlet, ground cover. Pedigree - open pollinated seed of wild *R. pedatus*. USDA Plant Exploration Expedition, 1996. Associated plants: Epilobium, Alnus, Salix, Equisetum, Poa Festuca.

PI 606516. *Rubus arcticus* subsp. *stellatus* (Sm.) B. Boivin

Wild. KHCW 96-15-02; CRUB 1883. Collected 08/01/1996 in Alaska, United States. Latitude 57 deg. 40' N. Longitude 152 deg. 10' W. Elevation 20 m. Brinker Point on Chiniak Bay, extension of Twin Creeks Beach. Plants growing on cliffs overlooking the bay, north facing. Pedigree - open pollinated seed of wild *R. arcticus*. USDA Plant Exploration Expedition, 1996.

PI 606517. *Rubus arcticus* subsp. *stellatus* (Sm.) B. Boivin

Wild. KHCW 96-16-01; CRUB 1884. Collected 08/02/1996 in Alaska, United States. Latitude 57 deg. 35' N. Longitude 152 deg. 25' W. Elevation 0 m. Kalsin Bay, Kodiak Island, adjacent to an old Alaska Plant Materials Center Cooperative trial site. Open meadow, scattered willow and alder. Pedigree - open pollinated seed of wild *R. arcticus*. USDA Plant Exploration Expedition, 1996. Associated plants: Epilobium, Salix, Polenonium, Lupinus, Solidago, Festuca, Trifolium, Aquifolium fruit present, some plants in flower (deep pink).

PI 606518. *Rubus arcticus* subsp. *stellatus* (Sm.) B. Boivin

Wild. KHCW 96-16-01; CRUB 1885. Collected 08/02/1996 in Alaska, United States. Latitude 57 deg. 35' N. Longitude 152 deg. 25' W. Elevation 0 m. Kalsin Bay, Kodiak Island, adjacent to an old Alaska Plant Materials Center Cooperative trial site. Open meadow, scattered willow and alder. Pedigree - open pollinated seed of wild *R. arcticus*. USDA Plant Exploration Expedition, 1996. Associated plants: Epilobium, Salix, Polenonium, Lupinus, Solidago, Festuca, Trifolium, Aquifolium fruit present, some plants in flower (deep pink).

PI 606519. *Rubus spectabilis* Pursh

Wild. KHCW 96-17-01; CRUB 1886. Collected 08/02/1996 in Alaska, United States. Latitude 57 deg. 28' N. Longitude 152 deg. 28' W. Elevation 30 m. Just off edge of road to Pasagshak Beach, about 0.5 mile before a Coast Guard Loran Station. Open sun near edge of road. Pedigree - open pollinated seed of wild *R. spectabilis*. USDA Plant Exploration Expedition, 1996. Associated plants: Lupinus, Epilobium, Salix, Alnus, Solidago Aquifolium, Festuca, Geranium, Spiranthes, Heracleum.

PI 606520. *Rubus spectabilis* Pursh

Wild. KHCW 96-20-01; CRUB 1887. Collected 08/03/1996 in Alaska, United States. Latitude 57 deg. 50' N. Longitude 152 deg. 40' W. Elevation 30 m. About 0.5 mile on trail past end of the road going around Anton Larsen Bay, Kodiak Island. Open sun near edge of road. Pedigree - open pollinated seed of wild *R. spectabilis*. USDA Plant Exploration

Expedition, 1996. Associated plants: *Rosa woodsii*, *Spirea belbardiana*, *Veratrum viride*, *Epilobium angustifolium*, *Trentellia europaea*, *Salix alazensis*, *Viola*, *Sambucus racemosum*.

PI 606521. *Rubus idaeus* L.

Wild. KHCW 96-23-01; CRUB 1888. Collected 08/04/1996 in Alaska, United States. Latitude 60 deg. 25' N. Longitude 151 deg. 5' W. Elevation 30 m. Plants were collected while walking down a nature trail to the lake. Kenai National Wildlife Refuge, Skihill Road. Dense shrub along trail. Pedigree - open pollinated *R. idaeus* subsp. *melanilasius*. USDA Plant Exploration Expedition, 1996. Associated plants: *Betula nana*, *Ledum palustris* ssp. *groenlandicum* *Andromeda polifolia*, *Geacaulon lividum*, *Empetrum nigrum* *Vaccinium vitis-idaea*.

PI 606522. *Rubus chamaemorus* L.

Wild. KHCW 96-23-02; CRUB 1889. Collected 08/04/1996 in Alaska, United States. Latitude 60 deg. 25' N. Longitude 151 deg. 5' W. Elevation 30 m. Plants were collected while walking down a nature trail to the lake. Kenai National Wildlife Refuge, Skihill Road. Sphagnum bog near nature trail. Pedigree - open pollinated *R. chamaemorus*. USDA Plant Exploration Expedition, 1996. Associated plants: *Betula nana*, *Ledum palustris* ssp. *groenlandicum* *Andromeda polifolia*, *Geacaulon lividum*, *Empetrum nigrum* *Vaccinium vitis-idaea*.

PI 606523. *Rubus chamaemorus* L.

Wild. KHCW 96-23-02; CRUB 1890. Collected 08/04/1996 in Alaska, United States. Latitude 60 deg. 25' N. Longitude 151 deg. 5' W. Elevation 30 m. Plants were collected while walking down a nature trail to the lake. Kenai National Wildlife Refuge, Skihill Road. Sphagnum bog near nature trail. Pedigree - open pollinated *R. chamaemorus*. USDA Plant Exploration Expedition, 1996. Associated plants: *Betula nana*, *Ledum palustris* ssp. *groenlandicum* *Andromeda polifolia*, *Geacaulon lividum*, *Empetrum nigrum* *Vaccinium vitis-idaea*.

PI 606524. *Rubus idaeus* L.

Wild. KHCW 96-24-01; CRUB 1892. Collected 08/04/1996 in Alaska, United States. Latitude 60 deg. 25' N. Longitude 151 deg. 5' W. Elevation 25 m. Pull-off to west of Kalifonski Beach Road, overlooking Cook Inlet. Open edge of parking log, facing west. Pedigree - open pollinated *R. idaeus*. USDA Plant Exploration Expedition, 1996.

PI 606525. *Rubus idaeus* L.

Wild. KHCW 96-24-01; CRUB 1893. Collected 08/04/1996 in Alaska, United States. Latitude 60 deg. 25' N. Longitude 151 deg. 5' W. Elevation 25 m. Pull-off to west of Kalifonski Beach Road, overlooking Cook Inlet. Open edge of parking log, facing west. Pedigree - open pollinated *R. idaeus*. USDA Plant Exploration Expedition, 1996.

PI 606526. *Rubus arcticus* subsp. *stellatus* (Sm.) B. Boivin

Wild. KHCW 96-26-01; CRUB 1894. Collected 08/05/1996 in Alaska, United States. Latitude 60 deg. 9' N. Longitude 149 deg. 10' W. Elevation 100 m. 8 miles north of Seward on Golden Finn Trail on west side about 0.5 miles in from the Seward Highway. Pedigree - open pollinated *arcticus* subsp. *stellatus*. USDA Plant Exploration Expedition, 1996.

- PI 606527. *Rubus pedatus* Sm.**
 Wild. KHCW 96-26-02; CRUB 1895. Collected 08/05/1996 in Alaska, United States. Latitude 60 deg. 9' N. Longitude 149 deg. 10' W. Elevation 100 m. 8 miles north of Seward on Golden Finn Trail on west side about 0.5 miles in from the Seward Highway. Pedigree - open pollinated pedatus. USDA Plant Exploration Expedition, 1996.
- PI 606528. *Rubus pedatus* Sm.**
 Wild. KHCW 96-26-02; CRUB 1896. Collected 08/05/1996 in Alaska, United States. Latitude 60 deg. 9' N. Longitude 149 deg. 10' W. Elevation 100 m. 8 miles north of Seward on Golden Finn Trail on west side about 0.5 miles in from the Seward Highway. Pedigree - open pollinated pedatus. USDA Plant Exploration Expedition, 1996.
- PI 606529. *Rubus spectabilis* Pursh**
 Wild. KHCW 96-27-01; CRUB 1897. Collected 08/05/1996 in Alaska, United States. Latitude 60 deg. 45' N. Longitude 148 deg. 40' W. Elevation 75 m. About 1 mile west of Seward (across railroad tracks) near Whittier Creek camping area. Edge of open woods. Pedigree - open pollinated spectabilis. USDA Plant Exploration Expedition, 1996.
- PI 606530. *Rubus pedatus* Sm.**
 Wild. KHCW 96-27-04; CRUB 1898. Collected 08/05/1996 in Alaska, United States. Latitude 60 deg. 45' N. Longitude 148 deg. 40' W. Elevation 75 m. About 1 mile west of Seward (across railroad tracks) near Whittier Creek camping area. Edge of open woods. Pedigree - open pollinated pedatus. USDA Plant Exploration Expedition, 1996.
- PI 606531. *Rubus pedatus* Sm.**
 Wild. KHCW 96-27-04; CRUB 1899. Collected 08/05/1996 in Alaska, United States. Latitude 60 deg. 45' N. Longitude 148 deg. 40' W. Elevation 75 m. About 1 mile west of Seward (across railroad tracks) near Whittier Creek camping area. Edge of open woods. Pedigree - open pollinated pedatus. USDA Plant Exploration Expedition, 1996.
- PI 606532. *Rubus chamaemorus* L.**
 Wild. KHCW 96-28-05; CRUB 1900. Collected 08/05/1996 in Alaska, United States. Latitude 60 deg. 55' N. Longitude 149 deg. 0' W. Elevation 100 m. Moose Meadows bog at the end of Alberg Street in Girdwood across and down the street from ski resort. Sphagnum bog. Pedigree - open pollinated R. chamaemorus. USDA Plant Exploration Expedition, 1996.
- PI 606533. *Rubus chamaemorus* L.**
 Wild. KHCW 96-29-05; CRUB 1901. Collected 08/06/1996 in Alaska, United States. Latitude 61 deg. 10' N. Longitude 150 deg. 5' W. Elevation 30 m. Klatt Bog in Anchorage. Sphagnum bog. Pedigree - open pollinated R. chamaemorus. USDA Plant Exploration Expedition, 1996.
- PI 606534. *Rubus idaeus* L.**
 Wild. KHCW 96-30-01; CRUB 1902. Collected 08/06/1996 in Alaska, United States. Latitude 61 deg. 34' 54'' N. Longitude 149 deg. 23' 31'' W. Elevation 100 m. Cottonwood Creek, Wasilla. Woody marsh next to Cottonwood Creek. Pedigree - open pollinated R. idaeus. USDA Plant Exploration Expedition, 1996.

PI 606535. *Rubus arcticus* subsp. *stellatus* (Sm.) B. Boivin
Wild. KHCW 96-30-02; CRUB 1903. Collected 08/06/1996 in Alaska, United States. Latitude 61 deg. 34' 54'' N. Longitude 149 deg. 23' 31'' W. Elevation 100 m. Cottonwood Creek, Wasilla. Woody marsh next to Cottonwood Creek. Pedigree - open pollinated *R. arcticus* subsp. *stellatus*. USDA Plant Exploration Expedition, 1996.

The following were donated by Qinghua Zhang, Institute of Forest Ecology and Environment, Chinese Academy of Forestry, Wan Shou Shan, Beijing, Beijing 100091, China. Received 12/23/1997.

PI 606536. *Rubus cockburnianus* Hemsl.
Wild. CRUB 1959. Pedigree - Collected from the wild in China.

PI 606537. *Rubus fockeanus* Kurz
Wild. CRUB 1960. Collected in Yunnan, China. Pedigree - Collected from the wild in China.

PI 606538. *Rubus aurantiacus* Focke
Wild. CRUB 1961. Collected in Yunnan, China. Pedigree - Collected from the wild in China.

The following were collected by M. Koppar, Nat. Bureau of Plant Genetic Resources, Germplasm Exploration Div., Indian Council of Ag. Res., New Delhi, Delhi 110 012, India; James D. McCreight, USDA, ARS, Agricultural Research Station, 1636 E. Alisal Street, Salinas, California 93905, United States; Jack E. Staub, USDA, ARS, University of Wisconsin, Department of Horticulture, Madison, Wisconsin 53706, United States. Donated by James D. McCreight, USDA, ARS, Agricultural Research Station, 1636 E. Alisal Street, Salinas, California 93905, United States; Kathleen Reitsma, Iowa State University, Regional Plant Introduction Station, Ames, Iowa 50011, United States. Received 03/04/1993.

PI 606539. *Cucumis sativus* L.
Cultivated. KSM 502; Ames 25159. Collected 11/02/1992 in Madhya Pradesh, India. Latitude 22 deg. 16' 0'' N. Longitude 76 deg. 3' 0'' E. Near Barawah, West Nimar district. Site: 086, subsite: A. Pedigree - Separation from Ames 20890. Separation from Ames 20890.

The following were developed by Lloyd May, USDA, ARS, Coastal Plains Soil, Water, and Plant Res., 2200 Pocket Road, Florence, South Carolina 29506-9706, United States. Received 11/30/1998.

PI 606540. *Gossypium hirsutum* L.
Breeding. Pureline. PD 94045. Pedigree - Coker 315/Jimian 8. Combines high yield potential, high percentage of lint relative to seed, and excellent fiber quality.

The following were developed by John Henning, New Mexico State University, Department of Agronomy & Horticulture, Box 3Q, Las Cruces, New Mexico 88003, United States; Bill Melton, New Mexico State University, Dept. of Crop and

Soil Science, Box 3Q, Las Cruces, New Mexico 88003, United States; Ian Ray, New Mexico State University, College Of Agriculture & Home Economics, Department of Agronomy and Horticulture, Las Cruces, New Mexico 88003-8003, United States; Cliff Currier, New Mexico State University, Box 30003 Dept. 30, Agronomy & Horticulture, Las Cruces; M.S. Townsend, New Mexico State University, Dept. of Agronomy & Horticulture, Las Cruces, New Mexico 88003, United States. Received 10/30/1998.

PI 606541. *Medicago sativa* L. subsp. *sativa*

Breeding. Pureline. NM-9D11A-PRR3. GP-334. Pedigree - 50 clone synthetic originating from Wilson. Germplasm sources are: *M. falcata* (1%), *M. varia* (1%), Turkistan (72%), Flemish (1%), Chilean (22%), African (1%), unknown (2%). Forage yield equalled that of the best cultivars in variety trials conducted under 14 d and 30 d irrigation intervals at Las Cruces, New Mexico. Resistant to phytophthora root rot (47% resistant check, Agate = 46%). Fall dormancy not tested, but parental pedigrees indicate that it should be semidormant.

The following were developed by Steven J. Knapp, Oregon State University, Department of Crop & Soil Science, Crop Science Building, 451C, Corvallis, Oregon 97331-3002, United States. Received 11/23/1998.

PI 606542. *Cuphea viscosissima* Jacq.

Breeding. Population. VL160. Pedigree - Self-pollinated wild *Cuphea viscosissima* x *C. lanceolata* [PI 534911*2/LN61ND-S5]S4. Self-pollinated fully non-dormant BC1S4 line. Germination percentage of freshly harvested seed 82%, whereas the germination percentage for freshly harvested PI 534911 seed was 0%. Naturally self-pollinated.

PI 606543. *Cuphea viscosissima* Jacq.

Breeding. Population. VL186. Pedigree - Open-pollinated *Cuphea viscosissima* x *C. lanceolata* f. *silenooides* population developed from three cycles of recurrent mass selection for increased oil content in the VL-50 population. Produces more oil than wild *C. lanceolata* and *C. viscosissima* germplasm accessions and is segregating for an induced mutation (CPR-1) affecting caprylic and capric acid content and for numerous agronomic traits (e.g. biomass, seed yield, plant height, and crop architecture).

PI 606544. *Cuphea viscosissima* Jacq.

Breeding. Population. PSR23. Pedigree - Open-pollinated *Cuphea viscosissima* x *C. lanceolata* f. *silenooides* population developed from one cycle of recurrent mass selection and two generations of inbreeding and selection for reduced seed shattering in the VL-50 population. Development of the dorsal dehiscence zone is delayed 1 to 3 weeks and the placenta fails to separate from the calyx tube. Twenty to 30% of the seed produced was lost to shattering in a field trial at Corvallis, OR, whereas seed of wildtype lines lost 70-100% to shattering.

The following were developed by James H. Elgin, USDA, ARS, Room 326, Building 005, BARC-West, 10300 Baltimore Avenue, Beltsville, Maryland 20705-2350, United States; Wayne W. Hanna, USDA, ARS, Coastal Plains Experiment Station, P.O. Box 748, Tifton, Georgia 31794, United States; J.E. Elsner, Georgia Seed

Development Commission, Georgia Dept. of Agric., Athens, Georgia 30605, United States. Received 06/16/1997.

PI 606545. *Cynodon dactylon* (L.) Pers. var. *dactylon*

Cultivar. "TifEagle"; TW72; Grif 13970. CV-38. Pedigree - Hybrid between *Cynodon dactylon* & *transvaalensis* selected in 1990 as a dense fine-textured off-type grass within a plot of one (mutant no. 2) of 48 putative mutants induced in Tifway 2 with 70 Gy (7000 rads) of Cobalt 60 gamma radiation in 1988. Vegetatively propagated and selected for ability to produce high quality turf under close mowing (4 mm or less), lack of seed-head formation at Tifton, GA and Auburn, AL and lower levels of tawny mole cricket (*Scapteriscus vicinus*) infestation compared with Tifdwarf after year of establishment at Tifton and Savannah, GA. Superior or equal to performance of Tifdwarf in four experiments mowed at 6 mm at Tifton, GA from 1991 to 1996. Superior in turf quality to Tifdwarf on greens mowed at 3 or 4 mm on one golf course in North Carolina in 1993, three golf courses in Georgia and Florida since 1994, one golf course in Florida since 1995, one golf course in Tennessee since 1996 and research plots in Florida and Alabama since 1993 and 1996, respectively. Stimp meter values have been higher than Tifdwarf when mowed at 3 mm. *Poa trivialis* can be successfully overseeded into Tifeagle. Produces more thatch than Tifdwarf which needs to be controlled by regular verticutting, top-dressing.

The following were developed by Kay H. Asay, USDA, ARS, Forage & Range Research Unit, Utah State University, Logan, Utah 84322-6300, United States; N. Jerry Chatterton, USDA-ARS, Forage & Range Research, Utah State University, Logan, Utah 84322-6300, United States; Kevin B. Jensen, USDA, ARS, Utah State University, Forage & Range Research Laboratory, Logan, Utah 84322-6300, United States; W.H. Horton, USDA, ARS, Forage and Range Research Laboratory, Utah State University, Logan, Utah 84322-6300, United States; S.A. Young, Utah State University, Plants, Soils, and Biometerorology Department, Logan, Utah 84322-4820, United States; Douglas A. Johnson, USDA, ARS, Forage and Range Research Laboratory, Utah State University, Logan, Utah 84322-6300, United States. Received 12/14/1998.

PI 606546. *Agropyron cristatum* (L.) Gaertn.

Cultivar. "ROADCREST". CV-25; PVP 9900096. Pedigree - Synthetic developed solely from the Turkish collection received from Dr. Esvet Acikgoz, Ankara, Turkey. No outcrossing occurred with other populations. Sod-forming (rhizomatous) crested wheatgrass. Included in a breeding program to increase its spreading (rhizomatous) growth habit and other turf-related characteristics such as finer leaves and a shorter growth stature. Recommended for use along roadsides and similar sites in semiarid regions receiving from 250 to 500 mm (10-20in) of annual precipitation.

The following were collected by H. Hauptli, University of California, Department of Agronomy and Range Science, Davis, California 95616, United States. Donated by Rodale Research Center, Rodale Press, Box 323, RD 1, Kutztown, Pennsylvania 19530, United States. Received 04/15/1986.

PI 606547. *Amaranthus hybrid*

Genetic. HH 33; RRC 704; Ames 5382. Collected 06/01/1981 in Unknown. Progeny from Hauptli breeding program. Pedigree - Most resembles *Amaranthus caudatus*. Said to be from a cross with *Amaranthus retroflexus*. This is very similar to PI 511753, but will be maintained separately because it could be a selection by H. Hauptli for non-circumscissile utricles. The non-circumscissile utricles could reduce shattering in new cultivars. Utricles are either fully, partly, or not circumscissile. Seeds black, foliage and flowers green. The RRC class type is: unique, but the plants look weedy, and are branched. The plants are said by H. Hauptli to be a cross of *A. caudatus* X *A. retroflexus*. They did not mature seeds in a field planting in Pennsylvania.

The following were collected by Walter J. Kaiser, USDA, ARS, Washington State University, Regional Plant Introduction Station, Pullman, Washington 99164-6402, United States. Received 05/18/1989.

PI 606548. *Lens culinaris* Medik. subsp. *culinaris*

Cultivated. M89-2; W6 26. Collected 04/17/1989 in Morocco. Latitude 33 deg. 4' N. Longitude 7 deg. 36' W. Market place in Settata, Settata Province. Seed medium size yellow cotyledon type of local landrace.

PI 606549. *Lens culinaris* Medik. subsp. *culinaris*

Cultivated. M89-3; W6 27. Collected 04/17/1989 in Morocco. Latitude 33 deg. 4' N. Longitude 7 deg. 36' W. Market place in Settata, Settata Province. Seed medium size mostly yellow cotyledon type of a local landrace.

PI 606550. *Lens culinaris* Medik. subsp. *culinaris*

Cultivated. M89-14; W6 31. Collected 04/18/1989 in Morocco. Latitude 34 deg. 5' N. Longitude 4 deg. 57' W. Market place in city of Fes. Seed large.

PI 606551. *Lens culinaris* Medik. subsp. *culinaris*

Cultivated. M89-24; W6 39. Collected 04/19/1989 in Morocco. Latitude 33 deg. 53' N. Longitude 5 deg. 37' W. Market place in city of Meknes. Seed large.

PI 606552. *Lens culinaris* Medik. subsp. *culinaris*

Cultivated. M89-25; W6 40. Collected 04/19/1989 in Morocco. Latitude 33 deg. 53' N. Longitude 5 deg. 37' W. Market place in city of Meknes. Seed small to medium.

PI 606553. *Lens culinaris* Medik. subsp. *culinaris*

Cultivated. M89-32; W6 43. Collected 04/19/1989 in Morocco. Latitude 33 deg. 53' N. Longitude 5 deg. 37' W. Market place in city of Meknes.

The following were collected by Walter J. Kaiser, USDA, ARS, Washington State University, Regional Plant Introduction Station, Pullman, Washington 99164-6402, United States; Fred J. Muehlbauer, USDA, ARS, Washington State University, Grain Legume Genetics & Phys. Res. Unit, Pullman, Washington 99164-6434, United States; Calvin R. Sperling, USDA, ARS, Natl. Germplasm Resources Laboratory, Room 402, Building 003, BARC-West, Beltsville, Maryland

20705-2350, United States. Received 09/15/1989.

PI 606554. *Lens culinaris* Medik. subsp. *culinaris*

Cultivated. 040689-0201; W6 1997. Collected 06/04/1989 in Mardin, Turkey . Latitude 37 deg. 23' N. Longitude 40 deg. 50' E. Elevation 1120 m. Rocky limestone fields in valley region. Extensive grape cultivation. Surrounded by vineyards and almond trees in fencerows. Wild Lens collected nearby. 2km N of the Mardin-Midyat road on the road to Savur. Plants short to 8cm tall. Seeds small. Cotyledons red, variable from plant to plant. Some mottled.

PI 606555. *Lens culinaris* Medik. subsp. *culinaris*

Cultivated. 050689-0201; W6 2012. Collected 06/05/1989 in Mardin, Turkey . Latitude 37 deg. 33' N. Longitude 41 deg. 0' E. Elevation 1000 m. Cultivated lentil field surrounded by rocky limestone slopes, rock terraces falling down. W facing slope in mouth of ravine. 4.1km after Dereici on road to Midyat from Savur. 85 single plants taken and a bulk sample. Cotyledon small diameter, red.

PI 606556. *Lens culinaris* Medik. subsp. *culinaris*

Cultivated. 060689-0602; W6 2041. Collected 06/06/1989 in Mardin, Turkey . Latitude 37 deg. 27' N. Longitude 41 deg. 3' E. Cultivated lentil and chickpea fields. 11km E of Oemerli on Midyat-Mardin road. Short to 20cm due to droughty conditions. Small red cotyledon type.

PI 606557. *Lens culinaris* Medik. subsp. *culinaris*

Cultivated. 160689-0102; W6 2127. Collected 06/16/1989 in Konya, Turkey. Latitude 37 deg. 11' N. Longitude 32 deg. 15' E. Weekly farmer's market. Town of Bozkir (southeast of Sugla Lake). Reported to have come from nearby smaller village of Karacaardic. Seeds large, variable. Seed coats wrinkled.

The following were donated by A. France, Instituto de Investigaciones, Agropecuarias Estacion Exp., Quilamapu, Chile. Received 03/21/1988.

PI 606558. *Lens culinaris* Medik. subsp. *culinaris*

Cultivar. "ARAUCANA"; W6 2987. Seed large. Selected from local type.

PI 606559. *Lens culinaris* Medik. subsp. *culinaris*

Cultivar. "CENTINELA"; W6 2988. Seed large. Tolerant to rust.

The following were donated by International Board for Plant Genetic Resources, AGPG, FAO, Via della terme de Caracalla, Rome, Latium 00100, Italy . Received 02/13/1990.

PI 606560. *Lens culinaris* Medik. subsp. *culinaris*

Uncertain. W6 3129. Collected in Nepal.

PI 606561. *Lens culinaris* Medik. subsp. *culinaris*

Uncertain. W6 3130. Collected in Nepal.

PI 606562. *Lens culinaris* Medik. subsp. *culinaris*

Uncertain. W6 3131. Collected in Nepal.

PI 606563. *Lens culinaris* Medik. subsp. *culinaris*
Uncertain. W6 3132. Collected in Nepal.

PI 606564. *Lens culinaris* Medik. subsp. *culinaris*
Uncertain. W6 3133. Collected in Nepal.

PI 606565. *Lens culinaris* Medik. subsp. *culinaris*
Uncertain. W6 3135. Collected in Nepal.

PI 606566. *Lens culinaris* Medik. subsp. *culinaris*
Uncertain. W6 3136. Collected in Nepal.

PI 606567. *Lens culinaris* Medik. subsp. *culinaris*
Uncertain. W6 3137. Collected in Nepal.

The following were collected by Dave Eder, USDA-ARS, Western Regional Plant Introduction Sta., Washington State University, Pullman, Washington 99164-6402, United States. Received 03/14/1990.

PI 606568. *Lens culinaris* Medik. subsp. *culinaris*
Wild. DE-17; W6 3660. Collected 01/15/1990 in Ecuador.

The following were collected by Walter J. Kaiser, USDA, ARS, Washington State University, Regional Plant Introduction Station, Pullman, Washington 99164-6402, United States; Fred J. Muehlbauer, USDA, ARS, Washington State University, Grain Legume Genetics & Phys. Res. Unit, Pullman, Washington 99164-6434, United States. Developed by Shanxi Academy of Agricultural Sciences, Yang Ling, Shanxi, China. Received 07/12/1990.

PI 606569. *Lens culinaris* Medik. subsp. *culinaris*
Cultivated. WJK-PRC-9; Ice bean; W6 4467. Collected 05/25/1990 in Shanxi, China.

The following were donated by A.I. Abbas, Int. Center for Agricultural Research in the Dry Areas, Amman Office, P.O. Box 950764, Amman, Jordan. Received 11/22/1991.

PI 606570. *Lens culinaris* Medik. subsp. *culinaris*
Cultivated. IQ 210003; W6 8364. Collected in Iraq.

PI 606571. *Lens culinaris* Medik. subsp. *culinaris*
Cultivated. IQ 210009; W6 8369. Collected in Iraq.

PI 606572. *Lens culinaris* Medik. subsp. *culinaris*
Cultivated. IQ 210010; W6 8370. Collected in Iraq.

PI 606573. *Lens culinaris* Medik. subsp. *culinaris*
Cultivated. IQ 210013; W6 8373. Collected in Iraq.

The following were donated by Miho Mihov, Institute for Wheat and Sunflower,

General Toschevo, Tolbukhin 9520, Bulgaria. Received 12/11/1991.

- PI 606574. *Lens culinaris* Medik. subsp. *culinaris***
Cultivated. SH 89-25-1; W6 8425. Pedigree - F3 generation of IWS
accession numbers 50/HC972. Greece CA/Jana.
- PI 606575. *Lens culinaris* Medik. subsp. *culinaris***
Cultivated. SH 89-38-2; W6 8427. Pedigree - F3 generation of IWS
accession numbers 334/38. LC 711981/Tadjikskaya 95.
- PI 606576. *Lens culinaris* Medik. subsp. *culinaris***
Cultivated. SH 86-8-4-3-1; W6 8443. Pedigree - F6 generation of IWS
accession numbers 1414/1005. Naslada/Diana.
- PI 606577. *Lens culinaris* Medik. subsp. *culinaris***
Cultivated. SH 85-29-11-8-1; W6 8447. Pedigree - F7 generation of IWS
accession numbers F2(1414/335) F1(335/38). F2(Naslada/Laird)
F1(Laird/Tadjik.95).
- PI 606578. *Lens culinaris* Medik. subsp. *culinaris***
Cultivated. SH 85-32-5-5; W6 8448. Pedigree - F7 generation of IWS
accession numbers 614/81/38. USSR line/Tadjik. 95.
- PI 606579. *Lens culinaris* Medik. subsp. *culinaris***
Cultivated. SH 82-7-14-10-6; W6 8452. Pedigree - F10 generation of IWS
accession numbers 335/38. Laird/Tadjikskay 95.
- PI 606580. *Lens culinaris* Medik. subsp. *culinaris***
Cultivated. SH 89-7-6; W6 8458. Pedigree - F3 generation of IWS
accession numbers 10/HC1414. Var. melanosp./Naslada.
- PI 606581. *Lens culinaris* Medik. subsp. *culinaris***
Cultivated. SH 89-8-5; W6 8459. Pedigree - F3 generation of IWS
accession numbers 38/48. Tadjik.95/Obr.chif. 7.
- PI 606582. *Lens culinaris* Medik. subsp. *culinaris***
Cultivated. SH 89-38-1; W6 8470. Pedigree - F3 generation of IWS
accession numbers 334/38. LC 711981/Tadjik. 95.
- PI 606583. *Lens culinaris* Medik. subsp. *culinaris***
Cultivated. SH 89-39-1; W6 8471. Pedigree - F3 generation of IWS
accession numbers 335/23. Laird/Borisova 3.
- PI 606584. *Lens culinaris* Medik. subsp. *culinaris***
Cultivated. SH 82-7-1-13; W6 8481. Pedigree - F10 generation of IWS
accession numbers 335/38. Laird/Tadjik. 95.
- PI 606585. *Lens culinaris* Medik. subsp. *culinaris***
Cultivar. "NASLADA"; W6 8488.

The following were donated by J.H. Marion, NWFP Agricultural University,
Tipan Project/USAID, Peshawar, North-West Frontier, Pakistan. Received
12/20/1991.

PI 606586. *Lens culinaris* Medik. subsp. *culinaris*

Cultivated. LENTIL #1; W6 9386. Collected 04/1986 in North-West Frontier, Pakistan. Malakandher Farm, Peshawar. Seeded in November, harvested in April. Blight resistant. Seed small, flat, grey-green.

PI 606587. *Lens culinaris* Medik. subsp. *culinaris*

Cultivated. LENTIL #2; W6 9387. Collected 04/1986 in North-West Frontier, Pakistan. Malakandher Farm, Peshawar. Seeded in November, harvested in April. Blight resistant. Seed small, round, black.

The following were collected by Calvin R. Sperling, USDA, ARS, Natl. Germplasm Resources Laboratory, Room 402, Building 003, BARC-West, Beltsville, Maryland 20705-2350, United States; H.H. Gecit, Ankara University, Ankara, Ankara, Turkey; D. Eser, Ankara University, Ankara, Ankara, Turkey. Donated by University of Ankara, College of Agriculture, Department of Agronomy, Ankara, Ankara, Turkey; Calvin R. Sperling, USDA, ARS, Natl. Germplasm Resources Laboratory, Room 402, Building 003, BARC-West, Beltsville, Maryland 20705-2350, United States. Received 10/14/1986.

PI 606588. *Lens culinaris* Medik. subsp. *culinaris*

Cultivated. TU86-16-02; CS-52; W6 9450. Collected 07/09/1986 in Siirt, Turkey. Latitude 37 deg. 56' N. Longitude 42 deg. 21' E. Elevation 1450 m. Area of some scattered oak scrub and shallow agricultural valleys of reddish soils, 22.5km W of Pervari on Pervari-Siirt road, Ekinduzu village, Siirt Province. Harvested and now drying in piles before threshing.

The following were collected by Walter J. Kaiser, USDA, ARS, Washington State University, Regional Plant Introduction Station, Pullman, Washington 99164-6402, United States. Received 01/15/1992.

PI 606589. *Lens culinaris* Medik. subsp. *culinaris*

Cultivated. "Lenteja Pardina de Leon"; W6 9507. Collected 04/01/1991 in Cordoba, Spain. Purchased in supermarket. Small-seeded with yellow cotyledons.

PI 606590. *Lens culinaris* Medik. subsp. *culinaris*

Cultivated. "Leren".; W6 9508. Collected 04/01/1991 in Cordoba, Spain. Purchased in supermarket. Small-seeded with red cotyledons.

The following were donated by Miho Mihov, Institute for Wheat and Sunflower, General Toschevo, Tolbukhin 9520, Bulgaria. Received 02/27/1992.

PI 606591. *Lens culinaris* Medik. subsp. *culinaris*

Cultivated. W6 10081; LINE (HC393). Collected in Iran. Seeds were produced in the field.

The following were donated by Thomas A. Lumpkin, Washington State University, Department of Crop and Soil Science, Pullman, Washington 99164-6420, United States. Received 04/03/1992.

PI 606592. *Lens culinaris* Medik. subsp. *culinaris*
Cultivated. W6 10170. Collected 04/1986 in Xinjiang, China. Gobi.

PI 606593. *Lens culinaris* Medik. subsp. *culinaris*
Cultivated. W6 10171. Collected 04/1986 in Xinjiang, China. Gobi.

PI 606594. *Lens culinaris* Medik. subsp. *culinaris*
Cultivated. W6 10172. Collected 04/1986 in Xinjiang, China. Gobi.

The following were collected by Walter J. Kaiser, USDA, ARS, Washington State University, Regional Plant Introduction Station, Pullman, Washington 99164-6402, United States. Received 06/01/1992.

PI 606595. *Lens culinaris* Medik. subsp. *culinaris*
Cultivated. E92-1; W6 10474. Collected 04/14/1992 in Egypt. Elevation 5 m. Market, Nubaria area of the north Delta area, about 35km south of Alexandria. Red cotyledon type.

PI 606596. *Lens culinaris* Medik. subsp. *culinaris*
Cultivated. E92-11; W6 10484. Collected 04/17/1992 in Egypt. Bazaar in Cairo. Small red cotyledon type.

PI 606597. *Lens culinaris* Medik. subsp. *culinaris*
Cultivated. E92-12; W6 10485. Collected 04/17/1992 in Egypt. Bazaar in Cairo. Mixture of seed sizes.

PI 606598. *Lens culinaris* Medik. subsp. *culinaris*
Cultivated. S92-1; W6 10489. Collected 04/20/1992 in Syria. Large bazaar in Aleppo. Growing in vicinity of Aleppo. Large-seeded type with yellow cotyledons.

The following were donated by Ashmi Risq, Agriculture Research Center, Giza, Giza, Egypt. Received 05/16/1992.

PI 606599. *Lens culinaris* Medik. subsp. *culinaris*
Cultivar. W6 10497; GIZA 370.

The following were collected by Darlene Foote, c/o U.S. Peace Corps, G.P.O. Box 613, Kathmandu, Nepal. Received 07/08/1992.

PI 606600. *Lens culinaris* Medik. subsp. *culinaris*
Cultivated. PDF 91002; Masuro; W6 10508. Collected 1992 in Nepal. Latitude 29 deg. 35' N. Longitude 81 deg. 15' E. Elevation 1368 m. Chainpur Village, Bajhang District.

PI 606601. *Lens culinaris* Medik. subsp. *culinaris*
Cultivated. PDF 92001; Masuro; W6 10509. Collected 1992 in Nepal. Latitude 21 deg. 52' N. Longitude 81 deg. 20' E. Elevation 1338 m.

PI 606602. *Lens culinaris* Medik. subsp. *culinaris*
Cultivated. PDF 92002; W6 10510. Collected 1992 in Nepal. Latitude 29 deg. 15' N. Longitude 81 deg. 15' E. Elevation 1368 m. Local land race.

PI 606603. *Lens culinaris* Medik. subsp. *culinaris*

Cultivated. PDF 92010; Masuro(dhael); W6 10511. Collected 1992 in Nepal. Latitude 29 deg. 32' N. Longitude 81 deg. 10' E. Elevation 1216 m. Subheda Village, Bajhang District. Land race (Harvest 1992).

The following were collected by Richard M. Hannan, USDA, ARS, Washington State University, Regional Plant Introduction Station, Pullman, Washington 99164-6402, United States; Walter J. Kaiser, USDA, ARS, Washington State University, Regional Plant Introduction Station, Pullman, Washington 99164-6402, United States. Received 08/24/1992.

PI 606604. *Lens culinaris* Medik. subsp. *culinaris*

Cultivar. B92-99; "NASLADA"; W6 10795. Collected 07/02/1992 in Bulgaria. Institute of Wheat and Sunflower (IWS) Guest house.

PI 606605. *Lens culinaris* Medik. subsp. *culinaris*

Cultivar. B92-100; "TADJISKUYA"; W6 10796. Collected 07/02/1992 in Russian Federation. Institute of Wheat and Sunflower (IWS) Guest house.

PI 606606. *Lens culinaris* Medik. subsp. *culinaris*

Cultivar. B92-101; "STONKA-1"; W6 10797. Collected 07/02/1992 in Bulgaria. Institute of Wheat and Sunflower (IWS) Guest house.

PI 606607. *Lens culinaris* Medik. subsp. *culinaris*

Cultivar. B92-102; "STONKA-2"; W6 10798. Collected 07/02/1992 in Bulgaria. Institute of Wheat and Sunflower (IWS) Guest house.

PI 606608. *Lens culinaris* Medik. subsp. *culinaris*

Wild. B92-110; W6 10799. Collected 07/02/1992 in Bulgaria. Institute of Wheat and Sunflower (IWS) Guest house. As B92-221.1 on original notes. Cat. no. 230, var. *punctata*.

PI 606609. *Lens culinaris* Medik. subsp. *culinaris*

Cultivated. B92-111; No. 1; W6 10800. Collected 07/02/1992 in France. Du Puy-1.

PI 606610. *Lens culinaris* Medik. subsp. *culinaris*

Cultivated. B92-124; No. 19; W6 10808. Collected 07/02/1992 in Russian Federation. Tadzhijskaja-75.

PI 606611. *Lens culinaris* Medik. subsp. *culinaris*

Cultivated. B92-134; No. 46; W6 10818. Collected 07/02/1992 in Romania. Yashi-9.

PI 606612. *Lens culinaris* Medik. subsp. *culinaris*

Cultivated. B92-143; No. 71; W6 10826. Collected 07/02/1992 in Bulgaria. Zhelyazkovo-11.

PI 606613. *Lens culinaris* Medik. subsp. *culinaris*

Cultivated. B92-169; No. 161; W6 10852. Collected 07/02/1992 in Bulgaria. Cherniche.

PI 606614. *Lens culinaris* Medik. subsp. *culinaris*

Cultivated. B92-175; No. 178; No. 185; W6 10858. Collected 07/02/1992 in Russian Federation. Tambovskaya oblast.

PI 606615. *Lens culinaris* Medik. subsp. *culinaris*

Cultivated. B92-177; No. 180; W6 10860. Collected 07/02/1992 in Russian Federation. Stepnaja-244.

PI 606616. *Lens culinaris* Medik. subsp. *culinaris*

Cultivated. B92-182; No. 185 3-74; W6 10865. Collected 07/02/1992 in Bulgaria.

PI 606617. *Lens culinaris* Medik. subsp. *culinaris*

Cultivated. B92-183; No. 186; W6 10866. Collected 07/02/1992 in Czechoslovakia. Lenka.

PI 606618. *Lens culinaris* Medik. subsp. *culinaris*

Cultivated. B92-195; No. 233; W6 10877. Collected 07/02/1992 in Bulgaria

PI 606619. *Lens culinaris* Medik. subsp. *culinaris*

Cultivated. B92-196; No. 236; W6 10878. Collected 07/02/1992 in Bulgaria

PI 606620. *Lens culinaris* Medik. subsp. *culinaris*

Cultivated. B92-210; No. 320; W6 10892. Collected 07/02/1992 in Russian Federation. Petrovskaja Iubileinaja.

PI 606621. *Lens culinaris* Medik. subsp. *culinaris*

Cultivated. B92-211; No. 329; W6 10893. Collected 07/02/1992 in Bulgaria . Misia B92-99.

PI 606622. *Lens culinaris* Medik. subsp. *culinaris*

Cultivated. B92-212; No. 610/81; W6 10894. Collected 07/02/1992 in Russian Federation. Station of Petrovsk.

PI 606623. *Lens culinaris* Medik. subsp. *culinaris*

Cultivated. B92-213; No. 612/81; W6 10895. Collected 07/02/1992 in Russian Federation. Station of Petrovsk.

PI 606624. *Lens culinaris* Medik. subsp. *culinaris*

Cultivated. B92-214; No. 614/81; W6 10896. Collected 07/02/1992 in Russian Federation. Station of Petrovsk.

PI 606625. *Lens culinaris* Medik. subsp. *culinaris*

Cultivated. B92-215; No. 38; W6 10897. Collected 07/02/1992 in Russian Federation. Tadzhikskaja. Dwarf.

PI 606626. *Lens culinaris* Medik. subsp. *culinaris*

Cultivated. B92-216; N.S. 125; W6 10898. Collected 07/02/1992 in Bulgaria. Stela.

PI 606627. *Lens culinaris* Medik. subsp. *culinaris*

Cultivated. B92-218; N.S. 972; W6 10900. Collected 07/02/1992 in Bulgaria. Zhana.

- PI 606628. *Lens culinaris* Medik. **subsp. culinaris**
Cultivated. B92-219; 1962 M; W6 10901. Collected 07/02/1992 in Bulgaria.
- PI 606629. *Lens culinaris* Medik. **subsp. culinaris**
Cultivated. B92-220; N.S. 1414; W6 10902. Collected 07/02/1992 in Bulgaria. Naslada.
- PI 606630. *Lens culinaris* Medik. **subsp. culinaris**
Cultivated. B92-221; W6 10903. Collected 07/02/1992 in Bulgaria. Anisia.
- PI 606631. *Lens culinaris* Medik. **subsp. culinaris**
Cultivated. B92-119; No. 14; W6 10904. Collected 07/02/1992 in Bulgaria. Institute for Introduction, Sadovo.
- PI 606632. *Lens culinaris* Medik. **subsp. culinaris**
Cultivated. B92-117; No. 11; W6 10905. Collected 07/02/1992 in Bulgaria. Institute for Introduction, Sadovo.
- PI 606633. *Lens culinaris* Medik. **subsp. culinaris**
Cultivated. B92-116; No. 10; W6 10907. Collected 07/02/1992 in Bulgaria. Institute for Introduction, Sadovo.
- PI 606634. *Lens culinaris* Medik. **subsp. culinaris**
Cultivated. B92-115; No. 9; W6 10908. Collected 07/02/1992 in Bulgaria. Institute for Introduction, Sadovo.
- PI 606635. *Lens culinaris* Medik. **subsp. culinaris**
Cultivated. B92-135; No. 47; W6 10959. Collected 07/02/1992 in Russian Federation. Kolos-HB.
- PI 606636. *Lens culinaris* Medik. **subsp. culinaris**
Cultivated. B92-184; No. 188; W6 10960. Collected 07/02/1992 in Bulgaria . Obrastzov chiflik.

The following were donated by Research Centre for Agrobotany, I.P.P.Q., H-2766 Tapioszele. Received 11/25/1992.

- PI 606637. *Lens culinaris* Medik. **subsp. culinaris**
Cultivar. "LENKA"; 952; W6 11111. Collected in Czechoslovakia.
- PI 606638. *Lens culinaris* Medik. **subsp. culinaris**
Cultivar. "PLAJEVSKAJA"; 955; W6 11113. Collected in Czechoslovakia.
- PI 606639. *Lens culinaris* Medik. **subsp. culinaris**
Cultivar. "STEPNAJA 244"; 957; W6 11114. Collected in Germany.
- PI 606640. *Lens culinaris* Medik. **subsp. culinaris**
Cultivated. 963; W6 11118. Collected in Albania.

The following were donated by Int. Center for Agricultural Research in the Dry Areas, P.O. Box 5466, Aleppo, Syria. Received 01/14/1993.

- PI 606641. *Lens culinaris* Medik. **subsp. culinaris**

Cultivated. ILL 5684; W6 11176. Resistant to Ascochyta blight.

The following were donated by Ludmila Krokhmal, Kharkov Agrarian University, Kharkov, Kharkiv, Ukraine. Received 01/30/1993.

PI 606642. *Lens culinaris* Medik. subsp. *culinaris*

Cultivar. Krokhmal #5; W6 11347; Penzenskaia 6. Collected in Russian Federation. Small seeded lentil introduced into the Ukraine from Czechoslovakia.

PI 606643. *Lens culinaris* Medik. subsp. *culinaris*

Cultivar. Krokhmal #6; W6 11348. Small seeded lentil.

PI 606644. *Lens culinaris* Medik. subsp. *culinaris*

Cultivar. Krokhmal #7; W6 11349. Collected in Russian Federation.

PI 606645. *Lens culinaris* Medik. subsp. *culinaris*

Cultivar. Krokhmal #8; W6 11350.

PI 606646. *Lens culinaris* Medik. subsp. *culinaris*

Cultivar. Krokhmal #9; W6 11351; Narjadnaia.

The following were donated by Dan Bruce, BNP Lentil Co., P.O. Box 146, Farmington, Washington 99128, United States. Received 01/11/1993.

PI 606647. *Lens culinaris* Medik. subsp. *culinaris*

Wild. Castelluccio Lentil; W6 11362. Collected in Italy. Latitude 40 deg. 0' N. Longitude 15 deg. 38' E. Near Castelluccio. Collected in the wild, harvested by hand, and sold in the market places. Cost \$15-\$20 per kilo.

PI 606648. *Lens culinaris* Medik. subsp. *culinaris*

Landrace. Mountain Lentil #1; W6 11363. Collected in Italy. Cultivated. Cost \$2-\$2.50 per kilo.

PI 606649. *Lens culinaris* Medik. subsp. *culinaris*

Landrace. Mountain Lentil #2; W6 11364. Collected in Italy. Cultivated. Cost \$2-\$2.50 per kilo.

The following were donated by Walter J. Kaiser, USDA, ARS, Washington State University, Regional Plant Introduction Station, Pullman, Washington 99164-6402, United States; L.V. Kaiser, NW 420 Orion Drive, Pullman, Washington 99164, United States. Received 03/02/1993.

PI 606650. *Lens culinaris* Medik. subsp. *culinaris*

Cultivated. W6 11370; Spanish Brown. Collected in Spain.

The following were collected by Walter J. Kaiser, USDA, ARS, Washington State University, Regional Plant Introduction Station, Pullman, Washington 99164-6402, United States; Fred J. Muehlbauer, USDA, ARS, Washington State University, Grain Legume Genetics & Phys. Res. Unit, Pullman, Washington

99164-6434, United States. Received 03/03/1993.

PI 606651. *Lens culinaris* Medik. subsp. *culinaris*

Cultivated. M93-1; W6 11371. Collected 02/16/1993 in Sinaloa, Mexico. Purchased in the Central Market in Culiacan, Sinaloa State. Small seeded line from the Guadulajara region of Jalisco State, Mexico. Possibly Eston originally from Canada.

PI 606652. *Lens culinaris* Medik. subsp. *culinaris*

Cultivated. 100785-0701; W6 11539. Collected 07/10/1985 in Turkey. Elevation 720 m. Farmer's field, 16km from Silvan on the Diyarbakir-Silvan road, Diyarbakir Province. Brown rocky soil. Seeds small-medium sized with red cotyledons. Seed coats red or mottled.

PI 606653. *Lens culinaris* Medik. subsp. *culinaris*

Cultivated. 130785; W6 11540. Collected 07/13/1985 in Turkey. Elevation 1300 m. 12km after Darende Village, on way to Kayseri, Malatya Province. Planted November, hard winter, survival is good. Plants short and few pods. Cotyledons yellow.

PI 606654. *Lens culinaris* Medik. subsp. *culinaris*

Cultivated. 260685-0201; W6 11542. Collected 06/26/1985 in Turkey. Elevation 840 m. Field 13km east of Denizli, at village of Bos Cesme, Denizli Province.

PI 606655. *Lens culinaris* Medik. subsp. *culinaris*

Wild. 300685-0703L; W6 11571. Collected 06/30/1985 in Turkey. Elevation 700 m. 19km north of Kilis on road to Gaziantep. Cracking gray soil. Mixed with 300685-0703.

The following were donated by Institute of Introduction and Plant Genetic Resources, K. Malkov Agric. Exp. Stat., Sadovo, Plovdiv 4122, Bulgaria. Received 01/01/1987.

PI 606656. *Lens culinaris* Medik. subsp. *culinaris*

Cultivar. "N 209a"; W6 12012.

The following were collected by Walter J. Kaiser, USDA, ARS, Washington State University, Regional Plant Introduction Station, Pullman, Washington 99164-6402, United States. Received 06/26/1989.

PI 606657. *Lens culinaris* Medik. subsp. *culinaris*

Cultivated. PAK 19; W6 12044. Collected 04/11/1986 in Punjab, Pakistan. Elevation 456 m. Gram Breeding Substation, Attock, Punjab Province. Sandy soil. Crop free of *Ascochyta* blight.

PI 606658. *Lens culinaris* Medik. subsp. *culinaris*

Cultivated. PAK 20; W6 12045. Collected 04/13/1986 in North-West Frontier, Pakistan. Kohat Bazar, Kohat District, North-West Frontier Province. Shop owner said came from Punjab Province.

The following were donated by Al Slinkard, University of Saskatoon, Crop

Development Center, 51 Campus Drive, Saskatoon, Saskatchewan S7N 5A8, Canada.
Received 06/11/1993.

PI 606659. *Lens culinaris* Medik. subsp. *culinaris*
Cultivar. "INDIAN HEAD"; W6 12102.

The following were donated by V.E. Wilson, Agricultural Research Service --
USDA, Western Regional PI Station, Washington State University, Pullman,
Washington 99164, United States. Received 01/01/1976.

PI 606660. *Lens culinaris* Medik. subsp. *culinaris*
Cultivar. French 3; W6 14911. Collected in Syria. French.

PI 606661. *Lens culinaris* Medik. subsp. *culinaris*
Cultivar. French 4; W6 14921. Collected in Syria. Mesyak.

The following were donated by K.H. Evans, USDA Regional Pulse Improvement
Project, Tehran, Tehran, Iran. Received 03/01/1979.

PI 606662. *Lens culinaris* Medik. subsp. *culinaris*
Cultivated. RPIP 33-032-10202; W6 14926. Collected in Chile.

PI 606663. *Lens culinaris* Medik. subsp. *culinaris*
Cultivated. RPIP 33-032-10210; W6 14927. Collected in Chile.

PI 606664. *Lens culinaris* Medik. subsp. *culinaris*
Cultivated. RPIP 33-032-10253; W6 14928. Collected in Chile.

PI 606665. *Lens culinaris* Medik. subsp. *culinaris*
Cultivated. RPIP 33-032-10254; W6 14929. Collected in Chile.

PI 606666. *Lens culinaris* Medik. subsp. *culinaris*
Cultivated. RPIP 33-085-11177; W6 14930. Collected in Lebanon.

The following were donated by International Board for Plant Genetic
Resources, AGPG, FAO, Via della terme de Caracalla, Rome, Latium 00100, Italy
. Received 05/27/1994.

PI 606667. *Lens culinaris* Medik. subsp. *culinaris*
Cultivated. W6 15651; 2722(3). Collected in Pakistan.

PI 606668. *Lens culinaris* Medik. subsp. *culinaris*
Cultivated. W6 15653; 2728(5). Collected in Pakistan.

PI 606669. *Lens culinaris* Medik. subsp. *culinaris*
Cultivated. W6 15654; 2729(2). Collected in Pakistan.

PI 606670. *Lens culinaris* Medik. subsp. *culinaris*
Cultivated. W6 15657; 2736(3). Collected in Pakistan.

PI 606671. *Lens culinaris* Medik. subsp. *culinaris*
Cultivated. W6 15660; 2745(4). Collected in Pakistan.

- PI 606672. *Lens culinaris* Medik. subsp. *culinaris***
Cultivated. W6 15664; 2752(6). Collected in Pakistan.
- PI 606673. *Lens culinaris* Medik. subsp. *culinaris***
Cultivated. W6 15665; 2755(5). Collected in Pakistan.
- PI 606674. *Lens culinaris* Medik. subsp. *culinaris***
Cultivated. W6 15666; 2756(3). Collected in Pakistan.
- PI 606675. *Lens culinaris* Medik. subsp. *culinaris***
Cultivated. W6 15667; 2757(2). Collected in Pakistan.
- PI 606676. *Lens culinaris* Medik. subsp. *culinaris***
Cultivated. W6 15669; 2763(6). Collected in Pakistan.

The following were collected by Walter J. Kaiser, USDA, ARS, Washington State University, Regional Plant Introduction Station, Pullman, Washington 99164-6402, United States; Fred J. Muehlbauer, USDA, ARS, Washington State University, Grain Legume Genetics & Phys. Res. Unit, Pullman, Washington 99164-6434, United States. Donated by Ismail Kusmenoglu, Central Research Inst. of Field Crops, Ministry of Agriculture, P.O. Box 226, Ulus, Ankara 06042, Turkey. Received 1994.

- PI 606677. *Lens culinaris* Medik. subsp. *culinaris***
Cultivar. WJK94-T27; W6 16236; Emre 20. Collected 06/1994 in Turkey. Small red cotyledon line developed by the Transitional Zone Research Institute, Eskisehir, Turkey.

The following were collected by Walter J. Kaiser, USDA, ARS, Washington State University, Regional Plant Introduction Station, Pullman, Washington 99164-6402, United States; Fred J. Muehlbauer, USDA, ARS, Washington State University, Grain Legume Genetics & Phys. Res. Unit, Pullman, Washington 99164-6434, United States. Developed by Miho Mihov, Institute for Wheat and Sunflower, General Toschevo, Tolbukhin 9520, Bulgaria. Received 09/1995.

- PI 606678. *Lens culinaris* Medik. subsp. *culinaris***
Cultivated. B94-34; "Naslada"; W6 16415. Collected 09/23/1994 in Bulgaria. Elevation 325 m. Yellow cotyledon.
- PI 606679. *Lens culinaris* Medik. subsp. *culinaris***
Cultivated. B94-35; "Stela"; W6 16416. Collected 09/23/1994 in Bulgaria. Elevation 325 m. Yellow cotyledon.

The following were donated by Judy VanVleet-Mills, Palouse Empire Marketing, Inc., Moscow, Idaho 83843, United States. Received 1995.

- PI 606680. *Lens culinaris* Medik. subsp. *culinaris***
Cultivated. W6 16669. Collected 1995 in China. Probably grown in surrounding provinces of Beijing, Hebei and Shanxi. These are small samples that are being distributed by Chinese exporters for potential sale in the U.S. The seeds were most likely shipped from the port of

Tianjin and were probably grown in the surrounding provinces of Beijing, Hobei, and Shanxi. Small seeded with mostly yellow cotyledons, but a few seeds with red cotyledons.

The following were donated by M. Okhovat, University of Tehran, Faculty of Agriculture, Karaj, Tehran, Iran. Received 04/25/1995.

PI 606681. *Lens culinaris* Medik. subsp. *culinaris*
Cultivated. "Mardom"; W6 16883.

PI 606682. *Lens culinaris* Medik. subsp. *culinaris*
Cultivated. "Ziba"; W6 16884.

PI 606683. *Lens culinaris* Medik. subsp. *culinaris*
Cultivated. TN-40-1039; W6 16885.

PI 606684. *Lens culinaris* Medik. subsp. *culinaris*
Cultivated. TN-40-1047; W6 16886.

PI 606685. *Lens culinaris* Medik. subsp. *culinaris*
Cultivated. TN-40-1825; W6 16887.

The following were collected by Leon Reese, 1017 NW 12th Street, Pendleton, Washington 97801, United States. Donated by Walter J. Kaiser, USDA, ARS, Washington State University, Regional Plant Introduction Station, Pullman, Washington 99164-6402, United States. Received 04/28/1995.

PI 606686. *Lens culinaris* Medik. subsp. *culinaris*
Cultivar. "Talin 6"; W6 16902. Collected 1994 in Armenia. High-yielding variety with good physical and food qualities. Some years susceptible to Fusarium. Introduced in 1957. Medium-sized seed with yellow cotyledon.

PI 606687. *Lens culinaris* Medik. subsp. *culinaris*
Cultivar. "Armenian 88"; W6 16903. Collected 1994 in Armenia. High-yielding variety with good physical and food qualities. Resistant to Fusarium. Introduced into commercial production in 1888. Small-sized seed with red cotyledon.

The following were donated by Institute of Introduction and Plant Genetic Resources, K. Malkov Agric. Exp. Stat., Sadovo, Plovdiv 4122, Bulgaria. Received 1995.

PI 606688. *Lens culinaris* Medik. subsp. *culinaris*
Cultivar. "Misija"; W6 17271.

PI 606689. *Lens culinaris* Medik. subsp. *culinaris*
Cultivar. "86E163"; W6 17273.

PI 606690. *Lens culinaris* Medik. subsp. *culinaris*
Cultivar. "Obraztzev chiflik"; W6 17275.

PI 606691. *Lens culinaris* Medik. subsp. *culinaris*

Cultivar. "88205001"; W6 17278.

The following were collected by Fred J. Muehlbauer, USDA, ARS, Washington State University, Grain Legume Genetics & Phys. Res. Unit, Pullman, Washington 99164-6434, United States; Edward J. Garvey, USDA, ARS, Natl. Germplasm Resources Laboratory, Room 409, Building 003, BARC-West, Beltsville, Maryland 20705-2350, United States; Lufter Xhuveli, Agricultural University of Tirana, Dept. of Agronomy, Rr."Myslym Shyri", Tirana, Albania. Received 09/1996.

PI 606692. *Lens culinaris* Medik. subsp. *culinaris*

Uncertain. Al 142; W6 18672. Collected 09/04/1996 in Albania. Latitude 41 deg. N. Longitude 20 deg. E. Elevation 110 m. Agricultural Research Institute at Lushnje. Average temp 14 degrees C, average precipitation 8.5 mm/mo. Stress (drought) and disease tolerant. Little evidence of disease observed on the line (FJM). Said to be from Argentina. Grown for many years in Albania. Introduced in 1960.

The following were collected by Higmat Demiri, Agricultural Research Institute, Lushnja, Albania. Donated by George A. White, USDA-ARS, Beltsville Agricultural Research Ctr., Bldg. 001, 3rd Floor, Barc-West, Beltsville, Maryland 20705, United States. Received 11/1994.

PI 606693. *Lens culinaris* Medik. subsp. *culinaris*

Cultivar. "BERATI"; W6 19087. Collected 11/1994 in Albania. Latitude 19 deg. 41' 2'' N. Longitude 40 deg. 56' 57'' E. Elevation 18 m. From town of Lushnje. Large-seeded.

The following were developed by Virginia Coffman, USDA-ARS, Irrigated Agriculture Res Ctr, Rt 2 Box 2953A, Prosser, Washington 99350-9687, United States; John M. Kraft, USDA, ARS, Irrigated Agric. Research & Extension Ctr., 24106 North Bunn Road, Prosser, Washington 99350, United States. Received 12/07/1998.

PI 606694. *Pisum sativum* L.

Breeding. 96-2052. GP-86. Pedigree - [86-638 (GP-1) x 79-2022 (GP-21)]. Moderately resistant to *Aphanomyces* and *Fusarium* root rot. Resistant to *Fusarium* wilt race 1. Segregates for resistance to race 2.

PI 606695. *Pisum sativum* L.

Breeding. 96-2058. GP-87. Pedigree - {[79-2022 (GP-21) x 74SN3(GP-15) x [Recette x PD606-8]}. Moderately resistant to *Aphanomyces* root rot. Highly resistant to *Fusarium* root rot and *Fusarium* wilt race 1. Segregates for resistance to *Fusarium* wilt races 2, 5, and 6.

PI 606696. *Pisum sativum* L.

Breeding. 96-2068. GP-88. Pedigree - [75-786 (GP-34) x Dark Skin Perfection Tac]. Resistant to *Aphanomyces* root rot and *Fusarium* wilt races 1 and 2.

PI 606697. *Pisum sativum* L.

Breeding. 96-2198. GP-89. Pedigree - [Charo x 79-2022 (GP-21)].

Resistant to *Aphanomyces* root rot and *Fusarium* wilt races 1 and 2.

PI 606698. *Pisum sativum* L.

Breeding. 96-2222. GP-90. Pedigree - {[Scout x PI 142777] x [74SN5 (GP-17) x 79-2022 (GP-21)]}. Tolerant to *Fusarium* root rot. Resistant to *Aphanomyces* root rot, *Fusarium* wilt race 1 and powdery mildew. Segregates for resistance to *Fusarium* wilt race 5.

PI 606699. *Pisum sativum* L.

Breeding. 97-363. GP-91. Pedigree - [{B-468-1019 x (Western Valley 108C x PI 189171) x Coquette x [PH-14-119 (GP-10) x ARS 244219-B (GP-18)] x [Wisc. 7104 x ARS 244219-B] x [ARS 233219 x Wisc. 7103] x Geneva 059.89} . Sugar snap pea. Resistant to *Fusarium* root rot and *Fusarium* wilt races 1 and 5.

PI 606700. *Pisum sativum* L.

Breeding. 97-2170. GP-92. Pedigree - [{ARS-244219-B (GP-18) x 74-SN3(GP-15) x [PH-14-119 (GP-10) x ARS-244219-B]}. Sugar snap pea. Tolerant to *Aphanomyces* root rot. Resistant to *Fusarium* wilt race 1.

PI 606701. *Pisum sativum* L.

Breeding. 97-2162. GP-93. Pedigree - [{ARS-244219-B x 74-SN3] x PI 180693}. Sugar snap pea. Tolerant to *Aphanomyces* root rot. Resistant to *Fusarium* wilt races 1, 2, 5 and 6.

PI 606702. *Pisum sativum* L.

Breeding. 97-261. GP-94. Pedigree - [86-2197 (GP-76) x VR-410-2 (GP-19)] . Wrinkled seeded canner. Tolerant to *Fusarium* and *Aphanomyces* root rot. Resistant to *Fusarium* wilt race 1 and Pea Seedborne Mosaic Virus.

PI 606703. *Pisum sativum* L.

Breeding. 97-2154. GP-95. Pedigree - [86-2197 (GP-76) x VR-410-2 (GP-19)]. Wrinkled seeded freezer. Resistant to *Fusarium* and *Aphanomyces* root rot, *Fusarium* wilt races 1 and 2 and Pea Seedborne Mosaic Virus.

The following were developed by Norman L. Taylor, University of Kentucky, Department of Agronomy, N-122 Agric. Sci. Bldg.-N, Lexington, Kentucky 40546-0019, United States; R.E. Mundell, University of Kentucky, Dept. of Agronomy, Lexington, Kentucky 40546-0091, United States. Received 11/12/1998.

PI 606704. *Trifolium pratense* L.

Genetic. Population. L38-1485; Multi-cotyledon. GS-9. Pedigree - Selection from TP-MC (multiple cotyledon stock). Produces 77% multicotyledons of which 66% have three, 10% have four and 1% have five or six cotyledons. Low frequencies of double-unifoliolate leaves and multiple crown genotypes occur in the stock. Plants possess a significant degree of self fertility and may be inbred by toothpick tipping. Detailed genetic investigations have not been conducted but the character appears to be inherited in a recessive manner.

The following were developed by Wayne W. Hanna, USDA, ARS, Coastal Plains Experiment Station, P.O. Box 748, Tifton, Georgia 31794, United States. Received 12/07/1998.

PI 606705. Sorghum bicolor (L.) Moench

Breeding. Inbred. Tift 98bmrA1. Pedigree - Inbred Combine Kafir 60B was pollinated in 1976 with bmr mutant #12 from Purdue University. Selection for good agronomic plant type and 3-dwarf plant height continued for four generations when a uniform bmr 3-dwarf selection (82-5335) was pollinated in 1982 with BTx623. Forty F2 bmr plants were selected and advanced to the F4 generation. Tift 98bmrB1 was selected in the F4 when it was a morphologically uniform true-breeding line. Tift 98bmrA1 was developed by backcrossing Tift 98bmrB1 to ATx623. Highest forage yielding Tift 98bmrA1 x bmr sudangrass hybrid in 1993 and 1994 produced on the average forage that was 5 percentage units more digestible than the non-bmr commercial hybrid sorghum check and Tifleaf 2 pearl millet. No seed was set on 49 of 50 selfed inflorescences of Tift 98bmrA1 in 1997. One inflorescence set less than 1% selfed seed. Fifty open-pollinated inflorescences of Tift 98bmrA1 set greater than 99% seed.

PI 606706. Sorghum bicolor (L.) Moench

Breeding. Inbred. Tift 98bmrB1. Pedigree - Inbred Combine Kafir 60B was pollinated in 1976 with bmr mutant #12 from Purdue University. Selection for good agronomic plant type and 3-dwarf plant height continued for four generations when a uniform bmr 3-dwarf selection (82-5335) was pollinated in 1982 with BTx623. Forty F2 bmr plants were selected and advanced to the F4 generation. Tift 98bmrB1 was selected in the F4 when it was a morphologically uniform true-breeding line. Highest forage yielding Tift 98bmrA1 x bmr sudangrass hybrid in 1993 and 1994 produced on the average forage that was 5 percentage units more digestible than the non-bmr commercial hybrid sorghum check and Tifleaf 2 pearl millet. No seed was set on 49 of 50 selfed inflorescences of Tift 98bmrA1 in 1997. One inflorescence set less than 1% selfed seed. Fifty open-pollinated inflorescences of Tift 98bmrB1 set greater than 99% seed.

The following were developed by Sluis & Groot, P.O.B. 13, Westeinde 62, Enkhuizen, North Holland 1600 AA, Netherlands. Donated by W. Atlee Burpee Company, 300 Park Avenue, Warminster, Pennsylvania 18974, United States. Received 1961.

PI 606707. Spinacia oleracea L.

Cultivar. "AMERICA"; NSL 6091. Pedigree - Bloomsdale Dark Green X Viking. Released 1950. Deep dark green, matures later than other Bloomsdale varieties and extremely slow bolting. Adapted for long day conditions and spring sowing.

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Rubus lambertianus (604620)
Rubus leucodermis (604625-604635, 606491-606492)
Rubus multibracteatus (606459-606460)
Rubus niveus (604619, 606461-606464)
Rubus occidentalis (606476)
Rubus parviflorus (606472, 606477)
Rubus parvifolius (606465-606467)
Rubus pedatus (606512, 606515, 606527-606528, 606530-606531)
Rubus pinfaensis (606468)
Rubus rosifolius (606475)
Rubus setchuenensis (604616-604617)
Rubus sieboldii (604622)
Rubus sp. (604618, 604644, 606479)

Rubus spectabilis (604615, 606480, 606508-606511, 606519-606520, 606529)
Rubus strigosus (606473-606474)
Rubus sumatranus (606469-606470)
Rubus swinhoei (606471)
Rubus tephrodes (604621)
Rubus ursinus (604636-604642, 606478, 606493-606506)
Rumex crispus (603119)
Saccharum hybrid (603059-603070, 603901, 603932-603938)
Saccharum spontaneum (602862-602895)
Salicornia bigelovii (603973)
Secale cereale subsp. cereale (602997)
Senna singueana (601951)
Senna x floribunda (601946-601950)
Sesbania sp. (601967)
Solanum acaule subsp. acaule (604039)
Solanum agrimonifolium (604047, 604055-604057, 604062-604063, 604070-604071,
604076-604077, 604085)
Solanum alandiae (604040)
Solanum berthaultii (604212)
Solanum bulbocastanum (604051, 604064-604066, 604073-604074)
Solanum chacoense (602604, 604041)
Solanum clarum (604048, 604052, 604054, 604058-604060, 604067-604069, 604072,
604075, 604078-604081, 604083, 604086)
Solanum colombianum (604201)
Solanum demissum (604049)
Solanum doddsii (604042)
Solanum flahaultii (604038)
Solanum iopetalum (604096-604099)
Solanum jamesii (603051-603058, 605357-605372)
Solanum longiconicum (604087-604095)
Solanum morelliforme (604045-604046, 604050, 604053, 604061, 604082)
Solanum oxycarpum (604084)
Solanum paramoense (604202)
Solanum sp. (604210-604211, 604216-604217)
Solanum sparsipilum (604043)
Solanum stenotomum (604204)
Solanum tarijense (604044)
Solanum tuberosum (602473-602489, 604213-604215)
Solanum tuberosum subsp. andigena (604203)
Solanum tuquerrense (604200)
Solanum vernei (602472)
Solanum x ajanhuiri (604205)
Solanum x curtilobum (604206-604208)

Solanum x sambucinum (604209)
Solanum yungasense (602471)
Sorbaria sorbifolia (603120)
Sorghum bicolor (601820-601943, 602001-602046, 602444-602446, 602599-602600,
602667-602860, 602898-602921, 602979-602983, 602989-602990,
603811-603812, 603982-603983, 604667, 605723-605726, 606705-606706)
Spergula arvensis (603121-603123)
Spinacia oleracea (604777-604780, 604782-604791, 606707)
Spinacia turkestanica (604792)
Spiraea betulifolia (603124)
Spiraea blumei (603125)
Spiraea fritschiana (603126)
Strophostyles helvula (601970-601971, 603808-603809)
Symphoricarpos orbiculatus (603127)
Tephrosia sp. (601968)
Tephrosia vogelii (601969)
Trifolium alpestre (604677, 604686-604688)
Trifolium ambiguum (604700, 604703, 604720, 604726, 604730-604731, 604743,
604749, 604752, 604756-604757, 604765)
Trifolium badium (604702, 604727, 604732, 604755, 604767)
Trifolium incarnatum (603034)
Trifolium lupinaster (604717-604718)
Trifolium medium (604675-604676, 604690, 604701, 604711, 604725, 604729,
604733, 604742, 604754, 604762, 604769)
Trifolium ochroleucum (604691)
Trifolium pannonicum (604692)
Trifolium patulum (604678)
Trifolium plumosum (604682)
Trifolium pratense (604693, 604695-604699, 604704, 604706, 604709-604710,
604712-604713, 604715-604716, 604719, 604723, 604728, 604734-604741,
604750-604751, 604753, 604758-604759, 604766, 604771-604773, 605379,
606704)
Trifolium repens (602944, 604684-604685, 604689, 604694, 604705,
604707-604708, 604714, 604721-604722, 604724, 604744-604748,
604760-604761, 604763-604764, 604768, 604770, 604774)
Trifolium wormskioldii (604679-604681, 604683)
Trigonella corniculata (602367)
Triticum aestivum subsp. *aestivum* (601817-601818, 602363-602364,
602428-602443, 602547-602566, 602581, 602595, 602598, 602861, 602960,
602969, 603039-603040, 603213-603214, 603266, 603918-603919, 603952,
603958-603961, 604033-604036, 604219-604225, 604231, 604245,
604603-604604, 605388-605391, 605741-605742, 605910, 606243-606248,
606283-606285, 606287-606290, 606308, 606316-606317, 606322-606323,

606328, 606343)
Triticum hybrid (604860-604883)
Triticum turgidum subsp. dicoccon (606325)
Triticum turgidum subsp. durum (602409-602427, 602976, 603286, 604462, 606286)
Vaccaria hispanica subsp. grandiflora (603128)
Vicia articulata (602370)
Vicia galeata (602380)
Vicia grandiflora (602377)
Vicia monantha (602379, 602381)
Vicia narbonensis (602365)
X Aegilotriticum sp. (604884-604890)
X Elytricum sp. (604891-605256)
X Elytriticale sp. (605257-605344)
X Elytritolops sp. (605345-605348)
X Triticosecale sp. (601974, 605349-605350, 605396, 605414-605470)
Zea mays subsp. mays (601990-601991, 602495, 602588-602591, 602953-602958,
603080, 603814-603842, 603902-603906, 603939, 603966-603969,
603976-603981, 604234, 604605-604606, 605375, 605380-605382,
605385-605387, 605397-605400, 605705, 605707-605711, 605718,
605720-605722, 605732-605737, 606329-606330, 606333-606338, 606342,
606344-606356)
Zinnia angustifolia (603129)
Zinnia bicolor (603130)
Zinnia haageana (603131-603132)
Zinnia sp. (605376)
Zinnia violacea (603133-603136)

