

CHECKLIST OF TEXAS GRASS SPECIES AND A KEY TO THE GENERA

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ABSTRACT

The grass family (Poaceae) is the second largest vascular plant family in Texas. This checklist was created to provide information on the currently known grass species and their distribution in Texas using the 10 vegetational areas for the state. The list provides current scientific names and synonyms as well as common names and an indication of the geographic distribution. The origin (native versus introduced), longevity (perennial versus annual), and season of growth (cool versus warm) are also given for each species. A dichotomous key to the Texas grass genera follows the checklist.

KEY WORDS: Poaceae, Texas, species checklist, synonyms, vegetational areas, key to genera



The need for identification and classification of organisms, like grasses, is fundamental to the study of ecology, ecological restoration, forages, and wetlands as well as our immediate surroundings. Communication with other people regarding plants requires more than a simple, “This is buffalograss”, with a specimen or image. Plant names, be they common or scientific, are highly important to accurately and quickly communicate knowledge to other people, written or verbally. Checklists have been developed to show species occurrence within certain boundaries or variation within a taxon e.g., “All these are grama grasses.”

Texas has about 638 species (Table 1), and about 150 genera of grasses. Table 1 shows a comparison of Gould (1975), Shaw et al. (2011), with our data. Table 2 is a synopsis of our classification, giving the numbers of subfamilies, tribes, genera, and species in the state.

Grass species distributions use the map (Fig. 1) with 10 vegetation areas. These areas are numbered 1-10 and have specific names. The numbers following species in the checklist indicates the distribution of each taxon. For additional information see the following publications and discussions (Cory & Parks 1937; Gould 1962, 1975; Correll & Johnston 1970; Hatch et al. 1990; Powell 1994; Jones et al. 1997; Turner et al. 2003; Shaw et al. 2011).

VEGETATIONAL AREAS OF TEXAS

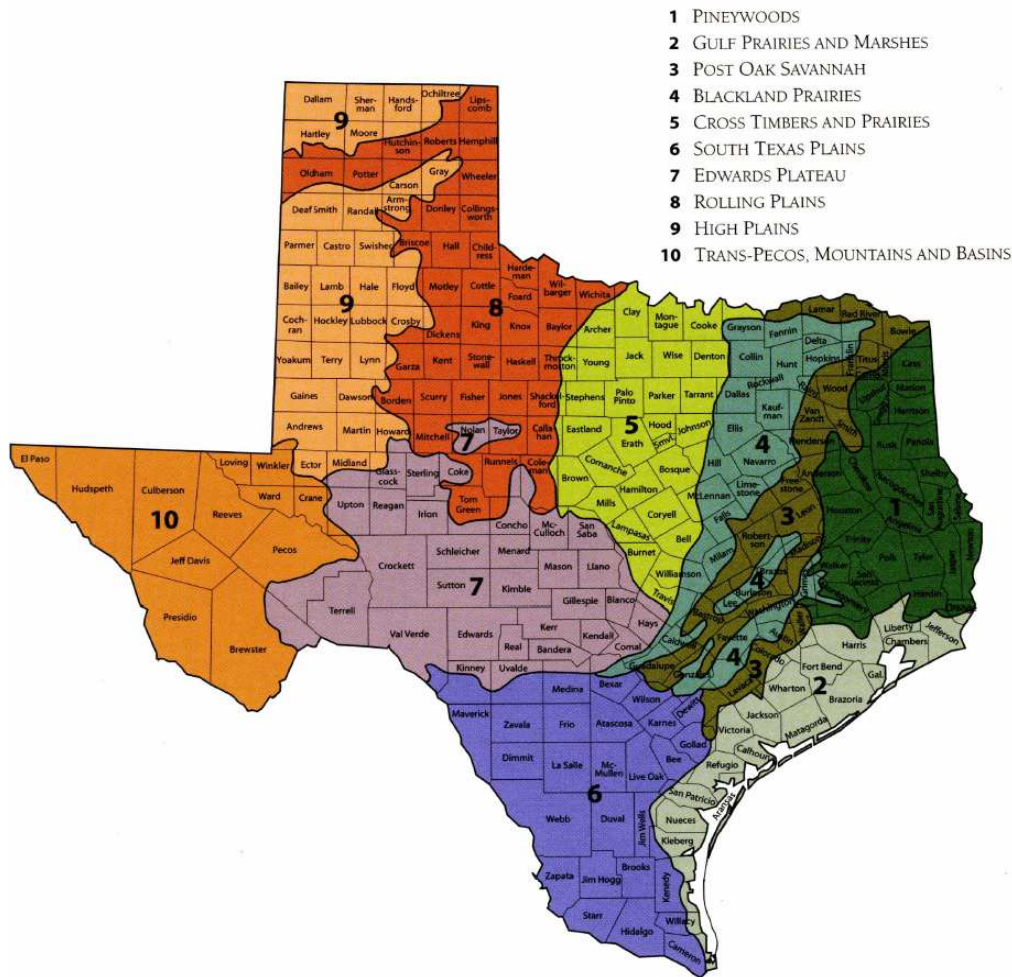


Figure 1. Vegetational areas of Texas.

The current checklist and key are based primarily on the large collection of grasses housed in the S.M. Tracy Herbarium (TAES) and thus reflect a larger base of data than in previous summary accounts of the Texas Poaceae. Although we have attempted to provide relevant data on Texas grasses, this publication obviously will be incomplete in various respects. We emphasize the importance of expanding and refining the understanding of the Texas flora. Thus, we welcome and encourage all interested persons to comment and make additions to the database used for this list. We encourage the documentation of new records by specimen vouchers and expect to add many new records as a result of your collections and our verification.

Table 1. Comparison of selected treatments of Texas Grasses

	Goulds (1975)	Shaw et al. 2011	This Checklist
Subfamilies	6	8	9
Tribes	21	19	23
Genera	122	181	150
Species	523	721	638

Table 2. Synopsis of this grass classification

Subfamilies	Tribes	Genus/Genera	Species
Aristidoideae	1	1	18
Arundinoideae	1	3	4
Bambusoideae	2	3	3
Centothecoideae	1	1	2
Chloridoideae	4	45	215
Danthonioideae	1	2	4
Ehrhartoideae	2	6	11
Panicoideae	2	42	239
Pooideae	9	47	142
Total	23	150	638

This *Checklist of Texas Grasses* summarizes species and distribution data that includes the following information:

1. **All species names are in alphabetical order.**
2. The **distribution for each taxon** is **summarized** by the **numbers 1-10**, representing the 10 vegetational areas of Texas (Fig. 1). In addition to this see the six areas of the data below.
3. **Correct names are in italics and boldface.** Appropriate synonyms are not in italics or bold and underlined. Synonyms are included in the alphabetical list. The synonyms are followed by parentheses that include an equal (=) sign and where that synonym is now treated as a taxon.
4. **Authorities are given for genera, species, subspecies, and varieties** (typical subspecies and varieties, called autonyms, do not have authorities).
5. **Scientific names and authorities are followed by common names** (if available). The first common name of a species is shown in all capital letters, and additional common names appear in lowercase letters. The initial letters of common names for genera, if any, are capitalized. If the common name of a genus is used, the name is abbreviated to its first letter.
6. **The codes for origin, longevity, phenology, distribution, and cultivation are given to the right of the accepted species.**

Origin

N= Native I= Introduced

Longevity

A= Annual B= Biennial P= Perennial

Season of Growth

W= Warm season C= Cool season

Cultivated

CUL

7. **Cultivated crops or ornamental taxa are designated with CUL.**

The following codes denote plant origin, longevity, season of growth and wetland classification.

Origin: **N** = Native, **I** = Introduced

Longevity: **A** = Annual, **B** = Biennial, **P** = Perennial

Season of growth: **W** = Warm season growth, **C** = Cool season growth.

Cultivated = **CUL**

2012 Grasses of Texas Checklist

ACHNATHERUM (= *STIPA*)

- A. aridum (= *Stipa arida*)
A. clandestinum (= *Stipa clandestina*)
A. curvifolium (= *Stipa curvifolia*)
A. eminens (= *Stipa eminens*)
A. hymenoides (= *Stipa hymenoides*)
A. lobatum (= *Stipa lobata*)
A. nelsonii (= *Stipa perplexa*)
A. perplexum (= *Stipa perplexa*)
A. robustum (= *Stipa robusta*)
A. scribneri (= *Stipa scribneri*)

AEGILOPS (= *TRITICUM*)

- A. cylindrica (= *Triticum cylindricum*)

AGROPOGON

- A. littoralis (Sm.) C. E. Hubbard
 (*Agrostis stolonifera* × *Polypogon monspeliensis*) IPW 10

AGROPYRON Gaertn., Wheatgrass

- A. arizonicum (= *Elymus arizonicus*)
A. cristatum (L.) Gaertn., CRESTED W. IPC 8 9 10CUL
A. desertorum (= *A. cristatum*)
A. elongatum (= *Elymus pontica*)
A. intermedium (= *Elymus hispidus*)
A. smithii (= *Elymus smithii*)
A. spicatum (= *Elymus spicatus*)
A. subsecundum (= *Elymus trachycaulus*)
A. trachycaulum (= *Elymus trachycaulus*)

AGROSTIS L., Bentgrass

- A. avenacea J. Gmel., PACIFIC B. IPC 10
A. elliotiana Schult., ELLIOTT B., annual
 ticklegrass NAC 1 2 3 4 7
A. exarata Trin. SPIKE B. NPC 10
A. gigantea (= *A. stolonifera*)
A. hyemalis (Walt.) B.S.P., WINTER B., fly-
 away grass, ticklegrass, spring b. NPC 1 2 3 4 5 6 7 10
A. perennans (Walt.) Tuckerm., AUTUMN B.,
 perennial b. NPC 1 3
A. scabra (= *A. hyemalis*)
A. semiverticillata (= *Polypogon viridis*)

<u>A. ischaemum</u> var. <u>songaricus</u> (= <i>Bothriochloa ischaemum</i>)										
<u>A. littoralis</u> (= <i>Schizachyrium scoparium</i> var. <i>littoralis</i>)										
<u>A. longipaniculata</u> (= <i>Bothriochloa laguroides</i> subsp. <i>torreyana</i>)										
<u>A. neomexicanum</u> (= <i>Schizachyrium neomexicanum</i>)										
<u>A. nodosus</u> (= <i>Dichanthium aristatum</i>)										
<u>A. perforatus</u> (= <i>Bothriochloa barbinodis</i>)										
<u>A. pertusus</u> (= <i>Bothriochloa pertusa</i>)										
<u>A. saccharoides</u> var. <u>torreyanus</u> (= <i>Bothriochloa laguroides</i> subsp. <i>torreyana</i>)										
<u>A. scoparius</u> var. <u>divergens</u> (= <i>Schizachyrium scoparium</i> var. <i>divergens</i>)										
<u>A. scoparius</u> var. <u>virilis</u> (= <i>Schizachyrium scoparium</i> var. <i>divergens</i>)										
<u>A. sericeus</u> (= <i>Dichanthium sericeum</i>)										
<u>A. spadiceus</u> (= <i>Schizachyrium spadiceum</i>)										
<u>A. springfieldii</u> (= <i>Bothriochloa springfieldii</i>)										
<u>A. ternarius</u> Michx. SPLITBEARD B., splitbeard beardgrass, silvery beardgrass, feather b.	NPW	1	2	3	4	5				10
<u>A. virginicus</u> L., BROOMSEGE B., yellowsedge b., Virginia b., broomsedge	NPW	1	2	3	4	5	6	7		
<u>A. virginicus</u> var. <u>abbreviatus</u> (= <i>A. glomeratus</i>)										
<u>A. wrightii</u> (= <i>Bothriochloa wrightii</i>)										
ANISTANTHA (= BROMUS)										
<u>A. diandrus</u> (= <i>Bromus diandrus</i>)										
<u>A. rubens</u> (= <i>Bromus rubens</i>)										
<u>A. sterilis</u> (= <i>Bromus sterilis</i>)										
<u>A. tectorum</u> (= <i>Bromus tectorum</i>)										
ANTHAENANTIA P. Beauv., Silkyscale										
<u>A. rufa</u> (Eil.) Schult., PURPLE S.	NPW	1	2							
<u>A. villosa</u> (Michx.) P. Beauv., GREEN S., purple s.	NPW	1	2	3						
ANTHOXANTHUM L., Vernalgrass										
<u>A. aristatum</u> Boiss., SMALL SWEET V., v.	IAC									
<u>A. odoratum</u> L., SWEET V.	IPC									
APERA Adans.										
<u>A. spica-venti</u> (L.) P. Beauv., LOOSE SILKYBENT, windgrass	IAC					4				

BLEPHARONEURON Nash

B. tricholepis (Torr.) Nash, PINE DROPSEED, NPW 10
hairy dropseed

BOTHRIOCHLOA Kuntze., Bluestem

B. alta (A. Hitchc.) Henr., TALL B. NPW 10

B. barbinodis (Lag.) Hert., CANE B.

var. *barbinodis*, CANE B., cane NPW 2 5 6 7 8 9 10
beardgrass, bristlejoint b.

var. *perforata* (Fourn.) Gould, NPW 2 5 6 7 8 9 10
PINHOLE B., pinhole beardgrass,
perforated b.

B. bladhii (Retz.) S. T. Blake, AUSTRALIAN B. IPW 2 3 6

B. caucasica (= *B. bladhii*)

B. edwardsiana (Gould) L. R. Parodi, MERRILL'S NPW 7
B.

B. exaristata (Nash) Henr., AWNLESS B. NPW 2

B. hybrida (Gould) Gould, HYBRID B. NPW 2 6 7

B. intermedia (= *B. bladhii*)

B. ischaemum (L.) Keng, KING RANCH B. IPW 1 2 3 4 5 6 7 8 9 10

B. laguroides (DC.) Hert.

subsp. *torreyana* (Steud.) Allred & NPW 1 2 3 4 5 6 7 8 9 10
Gould, SILVER B., silver beardgrass

B. longipaniculata (= *B. laguroides* subsp. *torreyana*)

B. pertusa (L.) A. Camus, PITTED B. IPW 6

B. sachharoides var. *torreyana* (= *B. laguroides* subsp. *torreyana*)

B. springfieldii (Gould) L. R. Parodi, NPW 9 10
SPRINGFIELD B.

B. wrightii (Hack.) Henr., WRIGHT'S B. NPW 10

BOUTELOUA Lag. *mut.* Lag., Grama

B. aristidoides (Kunth) Griesb. NAW 6 7 10

var. *aristidoides*, NEEDLE G., sixweek g.

var. *arizonica* (M. E. Jones) Allred

B. barbata Lag., SIXWEEKS G. NAW 1 2 3 4 5 6 7 8 9 10

B. breviseta Vasey, GYP G. NPW 10

B. chondrosioides (Kunth) Benth. *ex* S. Wats. , NPW 10
SPRUCETOP G.

B. curtipendula (Michx.) Torr.

var. *caespitosa* Gould & Kapadia, NPW 5 6 7 10
SIDEOATS G.

var. *curtipendula*, SIDEOATS G. NPW 2 3 4 5 6 7 8 9 10

var. *tenuis* Gould & Kapadia, IPW 7
CREEPING SIDEOATS G.

B. dactyloides (= *Buchloe dactyloides*)

<i>B. eriopoda</i> (Torr.) Torr., BLACK G., woollyfoot g.	NPW						7	8	9	10	
<i>B. gracilis</i> (Kunth) Lag., <i>ex</i> Griffiths, BLUE G.	NPW					5	7	8	9	10	
<i>B. hirsuta</i> Lag., HAIRY G.	NPW	1	2	3	4	5	6	7	8	9	10
<i>B. kayii</i> Warnock, KAY G.	NPW							7		10	
<i>B. pectinata</i> Featherly, TALL G.	NPW							7		10	
<i>B. ramosa</i> Scribn. <i>ex</i> Vasey, CHINO G.	NPW								9	10	
<i>B. repens</i> (Kunth) Scribn., & Merr., SLENDER G., large-mesquite g.	NPW						6	7			
<i>B. rigidiseta</i> (Steud.) A. Hitchc.											
var. <i>rigidiseta</i> , TEXAS G., mesquitegrass	NPW		2	3	4	5	6	7	8	9	10
<i>B. simplex</i> Lag., MAT G.	NAW									10	
<i>B. trifida</i> Thurb. <i>ex</i> S. Wats., RED G., threeawn g.	NPW		2	3		5	6	7	8	9	10
var. <i>trifida</i>											
<i>B. uniflora</i> Vasey, NEALLEY G., one-flowered g.	NPW							7		10	
<i>B. warnockii</i> Gould & Kapadia, WARNOCK G.	NPW									10	
BRACHIARIA (Trin.) A. Griseb., Signalgrass											
<u><i>B. arizonica</i></u> (= <i>Urochloa arizonica</i>)											
<u><i>B. brizantha</i></u> (= <i>U. brizantha</i>)											
<u><i>B. ciliatissima</i></u> (= <i>U. ciliatissima</i>)											
<i>B. eruciformis</i> (J. E. Smith) A. Griseb.	IAW								7		
<u><i>B. fasciculata</i></u> (= <i>U. fusca</i>)											
<u><i>B. mutica</i></u> (= <i>U. mutica</i>)											
<u><i>B. plantaginea</i></u> (= <i>U. platyphylla</i>)											
<u><i>B. platyphylla</i></u> (= <i>U. platyphylla</i>)											
<u><i>B. ramosa</i></u> (= <i>U. fasciculata</i>)											
<u><i>B. reptans</i></u> (= <i>U. reptans</i>)											
<u><i>B. texana</i></u> (= <i>U. texana</i>)											
BRACHYELYTRUM P. Beauv.											
<i>B. erectum</i> (Schreb. <i>ex</i> Spreng.) P. Beauv., SOUTHERN SHORTHUSK	NPC	1									
BRACHYPODIUM P. Beauv.											
<i>B. distachyon</i> (L.) P. Beauv., PURPLE FALSEBROME	IAC						5		7		
BRIZA L., Quakinggrass											
<i>B. maxima</i> L., BIG Q.	IAC	1	2								
<i>B. minor</i> L., LITTLE Q.	IAC	1	2	3	4					CUL	

BUCHLOË Engelm.

B. dactyloides (Nutt.) Engelm., NPW 1 2 3 4 5 6 7 8 9 10
BUFFALOGRASS

CALAMOVILFA (A. Gray) Hack.

C. gigantea (Nutt.) Scribn. & Merr. BIG NPW 8 9 10
SANDREED, giant reedgrass

CATAPODIUM Link (=DESMAZERIA)

C. rigidum (=Desmazeria rigida)

CATHESTECUM J. Presl

C. erectum Vasey & Hack., FALSE GRAMA NPW 7 10

CENCHRUS L., Sandbur, Cenchrus

C. brownii Roem. & Schult., GREEN S. IPW 6

C. ciliaris (=Pennisetum ciliare)

C. echinatus L., SOUTHERN S., hedge-hog NAW 1 2 3 4 6
grass

C. incertus (=C. spinifex)

C. longespinus (Hack.) Fern., LONGSPINE S. NAW 3 4 5 6 7 8 9 10

C. myosuroides Kunth, BIG C., big sandbur, NPW 2 6 7 10
cadillo

C. pauciflorus (=C. spinifex)

C. setigerus (= Pennisetum setigerum)

C. spinifex A. Cav., COMMON S. NPW 1 2 3 4 5 6 7 8 9 10

CERATOCHLOA (=BROMUS)

C. carinata (=Bromus carinatus)

C. catharticus (=Bromus catharticus)

C. polyantha (=Bromus polyanthus)

CHASMANTHIUM Link, Woodoats

C. latifolium (Michx.) H. Yates, BROADLEAF NPW 1 2 3 4 5 6 7 8
W.

C. laxum (L.) H. Yates, NARROWLEAF W. NPW 1 2 3 4

C. sessiliflorum (=C. laxum)

CHLORIS Sw., Windmillgrass, Chloris

C. andropogonoides E. Fourn., SLIMSPIKE W. NPW 2 7

C. barbata (L.) Sw., SWOLLEN W. NAW 2

C. x brevispica (C. x subdolichostachya)

C. canterae Arechav., PARAGUAYAN W. IPW 2 3 6 7

C. chloridea (=Enteropogon chlorideus)

C. ciliata Sw., FRINGED C. NPW 2 6 7

CORTADERIA Stapf

- C. jubata* (Lemoine *ex* Carriere) Stapf, PURPLE IPW
PAMPUSGRASS
- C. selloana* (Schult. & Schult. f.) Asch. & Graebn., IPW 1 2 3 4 5 6 7 8 9 10 CUL
PAMPASGRASS

COTTEA Kunth

- C. pappophoroides* Kunth, COTTAGRASS NPW 7 10

CRITESION (= *HORDEUM*)

- C. jubatum* (= *Hordeum jubatum*)
- C. murinum* (= *Hordeum murinum*)
- C. pusillum* (= *Hordeum pusillum*)

CTENIUM Panz., TOOTHACHEGRASS

- C. aromaticum* (Walt.) A. Wood, NPW 1
TOOTHACHEGRASS, orangegrass

CYNODON L. Rich., Bermudagrass

- C. aethiopicus* Clayton & Harlan, ETHIOPIAN IPW
DOGTOOTHGRASS CUL
- C. dactylon* (L.) Pers., B., pata del gallo, common IPW 1 2 3 4 5 6 7 8 9 10
b. CUL
- C. x magennisii* Hurcombe, MAGENNIS IPW
DOGTOOTH GRASS CUL
- C. nlemfuensis* Vanderyst, AFRICA B. IPW 2 6 CUL
- C. plectostachyus* (K. Schum.) Pilg., IPW 6 CUL
STARGRASS

CYNOSURUS L.

- C. echinatus* L., BRISTLY DOGTAIL IAC 3

DACTYLIS L.

- D. glomerata* L., ORCHARDGRASS IPC 1 2 7 9 10
CUL

DACTYLOCTENIUM Willd.

- D. aegyptium* (L.) Willd., DURBAN IAW 1 2 3 4 5 6 7
CROWFOOTGRASS, Egyptian crowfootgrass

DANTHONIA DC., Danthonia, Oatgrass

- D. sericea* Nutt., DOWNY O. NPC 1
- D. spicata* (L.) P. Beauv. *ex* Roem. & Schult., NPC 1 3 5
POVERTY O., poverty d.

DASYOCHLOA Willd. *ex* Rydb.

- D. pulchella* (Kunth) Willd. *ex* Rydb., NPW 7 8 9 10
FLUFFGRASS

DESMAZERIA Dumort

D. rigida (L.) T. Tutin, STIFFGRASS IAC 1 2 3 4 5 6 7

DIARRHENA P. Beauv.

D. americana of TX authors (= *D. obovata*)

D. obovata (Gleason) A. Brandenburg, NPC 1
AMERICAN BEAKGRAIN

DICHANTHELIUM (A. Hitchc. & Chase) Gould, Rosettegrass

D. aciculare (Desv. ex Poir.) Gould & C. Clark

var. *aciculare*, NARROW-LEAF R. NPC 1 2 3 4

var. *angustifolium* (Ell.) Freckmann & NPC
Lelong

D. acuminatum (Sw.) Gould & C. Clark

var. *acuminatum*, _WOOLLY R. NPC 1 2 3 4 5 6 7 8 10

var. *densiflorum* (Rand & Redf.) Gould NPC
& C. Clark 2

var. *lindheimeri* (Nash) Gould & C. NPC 1 2 3 4 5 7
Clark, LINDHEIMER R.

var. *longiligulatum* (Nash) Gould & C. NPC 1
Clark

var. *villosum* (Sw.) Gould & C. NPC 1 3 5
Clark, WHITEHAIRD R.

D. angustifolium (= *D. aciculare*)

D. boscii (Poir.) Gould & C. Clark, BOSCO'S R. NPC 1 2 3

D. clandestinum (L.) Gould, DEERTONGUE R. NPC 1 3

D. commutatum (Schult.) Gould, VARIABLE R. NPC 1 2

D. consanguineum (Kunth) Gould & C. Clark, NPC 1 2
KUNTH'S R.

D. depauperatum (Muhl.) Gould, STARVED R. NPC 1

D. dichotomum (L.) Gould, FORKED R.

var. *dichotomum* NPC 1 2 3 4 5

var. *ensifolium* (= *D. ensifolium*)

var. *lucidum* (Ashe) Freckmann & NPC
Lelong

var. *nitidum* (Lam.) Freckmann & Lelong NPC

var. *ramulosum* (Torr.) LeBlond NPC

var. *uncephyllum* (Trin.) Davidse NPC

D. ensifolium (Baldw. ex Ell.) Gould BOG R. NPC 1

D. lanuginosum (= *D. acuminatum* var.
acuminatum)

D. latifolium (L.) Harvil, BROADLEAF R. NPC 1

D. laxiflorum (Lam.) Gould, OPENFLOWER R. NPC 1 3

D. leucoblepharis (= *D. strigosum*)

D. lindheimeri (= *D. acuminatum* var. *lindheimeri*)

ELEUSINE Gaertn., Goosegrass

<i>E. indica</i> (L.) Gaertn., G., yardgrass, zacate guacima	IAW	1	2	3	4	5	6	7	8	9	10
<i>E. tristachya</i> (Lam.) Lam., THREESPIKE G.	IAW			3							

ELIONURUS Humb. & Bonpl. *ex* Willd.,
Balsamscale

<i>E. barbiculmis</i> Hack., WOOLSPIKE B., bristlenode b.	NPW										10
<i>E. tripsacoides</i> Humb. & Bonpl. <i>ex</i> Willd., PAN AMERICAN B., b.	NPW		2				6				

ELYMUS L., Wildrye, Wheatgrass

<i>E. arizonicus</i> (Scribn. & J. G. Smith) Gould, ARIZONA WHEATGRASS	NPC										10
<i>E. canadensis</i> L. var. <i>canadensis</i> , CANADA WILDRYE., nodding wildrye	NPC	1	2	3	4	5		7	8	9	10
<i>E. curvatus</i> (= <i>E. virginicus</i>)											
<i>E. elymoides</i> (= <i>E. longifolius</i>)											
<i>E. elongatus</i> (= <i>E. ponticus</i>)	IPC									9	10
<i>E. glabriflorus</i> (= <i>E. virginicus</i>)											
<i>E. hispidus</i> (P. Opiz) Melderis, INTERMEDIATE WHEATGRASS	IPC									9	10 CUL
<i>E. interruptus</i> (= <i>E. canadensis</i>)											
<i>E. junceus</i> (= <i>Psathrostachys juncea</i>)											
<i>E. macgregorii</i> (= <i>E. virginicus</i>)											
<i>E. longifolius</i> (J. G. Smith) Gould, LONGLEAF SQUIRRELTAIL	NPC							7	8	9	10
<i>E. ponticus</i> (Podp.) Melderis, TALL WHEATGRASS	IPC								8	9	CUL
<i>E. pringlei</i> (= <i>E. canadensis</i>)											
<i>E. repens</i> (L.) Gould, QUACKGRASS	IPC									9	10
<i>E. smithii</i> (Rydb.) Gould, WESTERN WHEATGRASS	NPC					5		7	8	9	10
<i>E. spicatus</i> (Pursh) Gould, BLUEBUNCH WHEATGRASS	NPC										10
<i>E. texensis</i> (? hybrid)											
<i>E. trachycaulus</i> (Link) Gould <i>ex</i> Shinnery, SLENDER WHEATGRASS	NPC								8	9	10
<i>E. triticoides</i> (= <i>Leymus triticoides</i>)											
<i>E. villosus</i> Muhl. <i>ex</i> Willd., DOWNY WILDRYE	NPC						6	7			
<i>E. virginicus</i> L., VIRGINIA WILDRYE	NPC	1	2	3	4	5	6	7	8		

<i>E. contracta</i> A. Hitchc., PRAIRIE C.	NAW	1	2	3	4	5	6	7	8	9
<i>E. gracilis</i> (= <i>E. acuminata</i> var. <i>acuminata</i>)										
<i>E. gracilis</i> var. <i>minor</i> (= <i>E. acuminata</i> var. <i>minor</i>)										
<i>E. polystachya</i> Kunth, CARIBBEAN C.	IPW		2							
<i>E. pseudoacrotricha</i> (Stapf ex Thell.) J. M. Blake, VERNAL C.	IPW		2				6			
<i>E. punctata</i> (L.) Desv. ex Hamilton, LOUISIANA C., everlasting-grass	NPW		2				6			
<i>E. sericea</i> (Scheele) Munro ex Vasey, TEXAS C., silky c.	NPW		2		4	5	6	7	8	10
ERIONEURON Nash, Erioneuron, Woollygrass										
<i>E. avenaceum</i> (Kunth) Tateoka, LARGEFLOWERED E.	NPW							7		10
<i>E. grandiflora</i> (= <i>E. avenaceum</i>)										
<i>E. nealleyi</i> (Vasey) Tateoka, NEALLEY'S E.	NPW									10
<i>E. pilosum</i> (Buckl.) Nash, HAIRY E., hairy tridens	NPW		2		4	5	6	7	8	9
<i>E. pulchellum</i> (= <i>Dasyochloa pulchella</i>)										
EUCHLAENA (= ZEA)										
<i>E. perennis</i> (= <i>Zea perennis</i>)	IPW		2							
EUSTACHYS Desv., Fingergrass										
<i>E. caribea</i> (Spreng.) Herter, CHICKENFOOTGRASS	IPW				3					
<i>E. neglecta</i> (Nash) Nash, FOURSPIKE F.	IPW				3					
<i>E. petraea</i> (Sw.) Desv., STIFFLEAF F.	NPW		2	3	4					
<i>E. retusa</i> (Lag.) Kunth, F.	NPW			3	4					
FESTUCA L., Fescue										
<i>F. arizonica</i> Vasey, ARIZONA F., canuela borreguera	NPC									10
<i>F. arundinacea</i> (= <i>Schedonorus arundinaceus</i>)										
<i>F. dertonensis</i> (= <i>Vulpia bromoides</i>)										
<i>F. ligulata</i> Swallen, GUADALUPE F.	NPC									10
<i>F. megalura</i> (= <i>Vulpia myuros</i> var. <i>hirsuta</i>)										
<i>F. myuros</i> (= <i>Vulpia myuros</i> var. <i>myuros</i>)										
<i>F. obtusa</i> (= <i>F. subverticillata</i>)										
<i>F. octoflora</i> (= <i>Vulpia octoflora</i> var. <i>octoflora</i>)										
<i>F. paradoxa</i> Desv., CLUSTER F.	NPC	1		3						
<i>F. pratensis</i> (= <i>Schedonorus arundinaceus</i>)										
<i>F. rubra</i> L., RED F.	NPC									10
<i>F. sciurea</i> (= <i>V. sciurea</i>)										
<i>F. subverticillata</i> (Pers.) E. Alexeev, NODDING B.	NPC	1	2	3						

<i>F. versuta</i> Beal, TEXAS F.	NPC					7			
GASTRIDIVM P. Beauv.									
<i>G. phleoides</i> (Nees & Meyer) C. E. Hubb., NITGRASS	IAC								10
<u><i>G. ventricosum</i></u> (= <i>G. phleoides</i>)									
GLYCERIA R. Br., Mannagrass									
<u><i>G. arkansana</i></u> (= <i>G. septentrionalis</i> var. <i>arkansana</i>)									
<i>G. declinata</i> Breb., LOW M.	IPC	1							
<i>G. grandis</i> S. Wats., NOT VERIFIED									
<i>G. notata</i> Chevall, NOT VERIFIED									
<i>G. septentrionalis</i> A. Hitchc., EASTERN M., floating m.									
var. <i>arkansana</i> (Fern.) Steyerm. & Kucera, ARKANSAS M.	NPC	1							
var. <i>septentrionalis</i> , EASTERN M., floating m.	NPC	1	2	3					
<i>G. striata</i> (Lam.) A. Hitchc., FOWL M., nerved m.	NPC				3	4		7	10
GYMNOPOGON P. Beauv., Skeletongrass									
<i>G. ambiguus</i> (Michx.) B.S.P., BEARDED S., broad-leaved beardgrass	NPW	1	2	3			5		
<i>G. brevifolius</i> Trin., SHORTLEAF S.	NPW				3				
HACKELOCHLOA (= <i>MNESITHEA</i>)									
<u><i>H. granularis</i></u> (= <i>Mnesithea granularis</i>)									
HAINARDIA Greuter									
<i>H. cylindrica</i> (Willd.) W. Greuter THINTAIL	IAC								2
HEMARTHRIA R. Br.									
<i>H. altissima</i> (Poir.) Stapf & C. E. Hubb., LIMPOGRASS	IPW		2				6		10
HESPEROSTIPA (Elias) Barkworth, Needlegrass									
<i>H. comata</i> (Trin. & Rupr.) M. Barkworth, NEEDLE-AND-THREAD	NPW							8	9 10
<i>H. neomexicana</i> (Thurb.) M. Barkworth, NEW MEXICO FEATHERGRASS, New Mexico n.	NPW						7	8	9 10
HETEROPOGON Pers., Tanglehead									
<i>H. contortus</i> (L.) P. Beauv. <i>ex</i> Roem. & Schult., TANGLEHEAD, retorcido moreno, barba negra	NPW		2				6	7	10

<i>H. melanocarpus</i> (Ell.) Benth., SWEET TANGLEHEAD	IAW	2																	CUL
HILARIA Kunth																			
<i>H. belangeri</i> (Steud.) Nash, COMMON CURLY- MESQUITE, creeping mesquite	NPW	2	4	5	6	7	8	9	10										
<i>H. jamesii</i> (Torr.) Benth., GALLETA	NPW						8	9	10										
<i>H. mutica</i> (Buckl.) Benth., TOBOSA, tobosagrass	NPW				6	7	8	9	10										
<i>H. swallenii</i> Cory, SWALLEN CURLY - MESQUITE	NPW																		10
HOLCUS L.																			
<i>H. lanatus</i> L., COMMON VELVETGRASS	IPC	1	2																CUL
HOPIA (=PANICUM)																			
<u>H. obtusa</u> (=Panicum obtusum)																			
HORDEUM L., Barley																			
<i>H. jubatum</i> L., FOXTAIL B., squirreltail grass	NPW						7	8	9	10									
<u>H. leporium</u> (=H. murinum subsp. leporinum)																			
<i>H. murinum</i> L.																			
subsp. <i>glaucum</i> (Steud.) Tzvelev	IAC																		10
subsp. <i>leporinum</i> , MOUSE B.	IAC						7	8	9	10									
<i>H. pusillum</i> Nutt., LITTLE B., mouse b.	NAC	1	2	3	4	5	6	7	8	9	10								
<i>H. vulgare</i> L., BARLEY	IAC	1	2	3	4	5	6	7	8	9	10								CUL
HYDROCHLOA (=LUZIOLA)																			
<u>H. caroliniensis</u> (=Luziola fluitans)																			
HYPARRHENIA Andersson ex E. Fourm., Thatchinggrass																			
<i>H. hirta</i> (L.) Stapf, THATCHINGGRASS	IPW	2	3	4			7												CUL
<i>H. rufa</i> (L.) Stapf, JARAGUAGRASS	IAPW	2	3																CUL
IMPERATA Cirillo																			
<i>I. brevifolia</i> Vasey, SATINTAIL, congograss	NPW						7												10
<i>I. cylindrica</i> (L.) Raesch., CONGONGRASS	IPW	2	3																CUL
KOELERIA Pers., Junegrass																			
<u>K. cristata</u> (=K. macrantha)																			
<u>K. gerardii</u> (=Rostraria cristata)																			
<i>K. macrantha</i> (Ledeb.) Schult., JUNEGRASS, prairie junegrass	NPW						7	8	9	10									
<u>K. phleoides</u> (=Rostraria cristata)																			
<u>K. pyramidata</u> (=K. macrantha)																			

LAMARCKIA Moench*L. aurea* (L.) Moench, GOLDENTOP IAC**LEERSIA** Sw., Cutgrass

L. hexandra Sw., CLUBHEAD C. NPW 2 6
L. lenticularis Michx., CATCHFLYGRASS NPW 1 2
L. monandra Sw., BUNCH C. NPW 2 6
L. oryzoides (L.) Sw., RICE C. NPW 1 2 3 4 5 6 7 8 10
L. virginica Willd., WHITEGRASS, Virginia c. NPW 1 2 3 4

LEPTOCHLOA P. Beauv., Sprangletop

L. chloridiformis (Hack.) Parodi, ARGENTINE S. NPW 2
L. dubia (Kunth) Nees, GREEN S., Texas crowfoot NPW 2 4 5 6 7 8 9 10
L. fascicularis (= *L. fusca* subsp. *fascicularis*)
L. filiformis (= *L. panicea* subsp. *mucronata*)
L. fusca (L.) Kunth
 subsp. *fascicularis* (Lam.) N. Snow, BEARDED S. NAW 1 2 3 4 5 6 7 8 9 10
 subsp. *uninervia* (J. Presl) N. Snow, MEXICAN. S. NAW 2 3 5 6 7
L. panicea (Retz.) Ohwi subsp. *mucronata* (Michx.) Nowack, RED S., slendergrass NAW 1 2 3 4 5 6 7 8 9 10
L. nealleyi Vasey, NEALLEY S. NAW 2 6
L. panicoides (J. Presl) A. Hitchc., AMAZON S. NAW 1 2
L. scabra Nees, ROUGH S. IAW 2
L. uninervia (= *L. fusca* subsp. *uninervia*)
L. virgata (L.) P. Beauv., TROPIC S. NPW 2 6 7
L. viscida (Scribn.) Beal, STICKY S. NAW 10

LEPTOLOMA (= ***DIGITARIA***)

L. arenicola (= *Digitaria arenicola*)
L. cognatum var. *arenicola* (= *Digitaria arenicola*)
L. cognatum (= *Digitaria cognatum* subsp. *cognatum*)

LEYMUS Hochst., Wildrye*L. triticoides* (Buckl.) Pilger, CREEPING W., beardless w. NPC 8 10 CUL**LEPTURUS** (= ***PARAPHOLIS***)*L. incurvus* (= *Parapholis incurvus*)**LIMNODEA** L. H. Dewey

MICROSTEGIUM Nees

M. vimineum (Trin.) A. Camas, NEPALESE BROWNTOP IAW 1

MISCANTHUS Anderss.

M. sinensis Anderss., EULALIA, Silvergrass IPW CUL

MNESITHEA Kunth, Jointtail

M. cylindrica (Michx.) Koning & Sosef, CAROLINA J. NPW 1 2 3 4 5 6 7 8

M. granularis (L.) Koning & Sosef, PITSCALEGRASS IAW

M. rugosa (Michx.) Koning & Sosef, WRINKLED J. NPW 1 2

MONANTHOCHLOË Engelm.

M. littoralis Engelm., SHOREGRASS, dwarfstand saltgrass, keygrass NPW 2

MONERMA (=HAINARDIA)

M. cylindrica (=Hainardia cylindrica)

MOOROCHLOA (=BRACHIARIA)

M. eruciformis (=Brachiaria eruciformis) Shaw et al. 2011

MUHLENBERGIA Schreb., Muhly

M. andina (Nutt.) A. Hitchc., FOXTAIL M. NPW 10

M. arenacea (Buckl.) A. Hitchc., EAR M., sand m. NPW 7 9 10

M. arenicola Buckl., SAND M. NPW 7 8 9 10

M. asperifolia (Trin.) Parodi, SCRATCHGRASS, alkali m., rough-leaved dropseed, rough-leaved m. NPW 7 8 9 10

M. brevis C. O. Gooding, SHORT M. NAW 10

M. bushii R. W. Pohl, NODDING M. NPW 4

M. capillaris (Lam.) Trin., HAIRYAWN M., long-awned hairgrass, slender m. NPW 1 2 3

M. crispiseta A. Hitchc., MEXICAN M. IAW 10

M. cuspidata (Torr.) Rydb., PLAINS M. NPW 9

M. depauperata Scribn., SIXWEEKS M. NAW 10

M. diversiglumis Trin. IAW 2

M. dubia E. Fourn., PINE M. NPW 10

M. eludens C. Reeder, GRAVELBAR M. NAW 10

M. emersleyi Vasey, BULLGRASS, bluegrass NPW 7 10

M. expansa (Poir.) Trin., CUTOVER M. NPW 1 2

M. filiformis (Thurb. ex S. Wats.) Rydb., PULL-UP M. IAW 3

<i>P. anceps</i> Michx., BEAKED P.	NPW	1	2	3	4		7			
<i>P. angustifolium</i> (= <i>Dichantherium aciculare</i>)										
<i>P. antidotale</i> Retz., BLUE P.	IPW		2	3	4		6	7	8	9
<i>P. arizonicum</i> (= <i>Urochloa arizonica</i>)										
<i>P. bergii</i> Arechav.	IPW		2	3	4					
<i>P. brachyanthum</i> Steud., PIMPLE P.	NPW	1	2	3						
<i>P. brizanthum</i> (= <i>Urochloa brizantha</i>)										
<i>P. bulbosum</i> Kunth, BULB P.	NPW						7			10
<i>P. capillare</i> L., COMMON WITCHGRASS	NAW	1	2	3	4	5	7	8	9	10
<i>P. capillarioides</i> Vasey, SOUTHERN WITCHGRASS, slender panicgrass	NPW		2				6			
<i>P. ciliatissimum</i> (= <i>Urochloa ciliatissima</i>)										
<i>P. clandestinum</i> (= <i>Dichantherium clandestinum</i>)										
<i>P. coloratum</i> L., KLEINGRASS	IPW			3	4	5	7			CUL
<i>P. commutatum</i> (= <i>Dichantherium commutatum</i>)										
<i>P. condensum</i> (= <i>P. rigidulum</i>)										
<i>P. depauperatum</i> (= <i>Dichantherium depauperatum</i>)										
<i>P. dichotomum</i> (= <i>Dichantherium dichotomum</i> var. <i>dichotomum</i>)										
<i>P. dichotomiflorum</i> Michx., FALL P., spreading witchgrass	NAW	1	2	3	4		7		9	
<i>P. diffusum</i> Sw., SPREADING P.	NPW		2	3	4	5	6	7	8	10
<i>P. ensifolium</i> (= <i>Dichantherium ensifolium</i>)										
<i>P. fasciculatum</i> (= <i>Urochloa fasciculata</i>)										
<i>P. filipes</i> (= <i>P. hallii</i> var. <i>filipes</i>)										
<i>P. firmulum</i> (= <i>Setaria reverchonii</i> subsp. <i>firmula</i>)										
<i>P. flexile</i> (Gatt.) Scribn. in Kearney, WIRY WITCHGRASS	NAW			3	4					
<i>P. geminatum</i> (= <i>Paspalidium geminatum</i>)										
<i>P. ghiesbreghtii</i> E. Fourn., GHIESBREGHT P.	NPW		2				6			
<i>P. gymnocarpon</i> Ell., SAVANNAH P.	NPW	1	2	3						
<i>P. hallii</i> Vasey										
var. <i>filipes</i> (Scribn.) Waller, FILLY P.	NPW		2	3	4	5	6	7	8	10
var. <i>hallii</i> , HALLS P.	NPW		2	3	4	5	6	7	8	9
<i>P. havardii</i> Vasey, HARVARD P.	NPW						7		9	10
<i>P. helleri</i> (= <i>Dichantherium oligosanthos</i> var. <i>scribnerianum</i>)										
<i>P. hemitomon</i> Schult., MAIDENCANE, Simpson's grass	NPW	1	2	3						
<i>P. hians</i> Ell., GAPIING P.	NPW	1	2	3	4		6	7		
<i>P. hillmanii</i> Chase, HILLMAN P.	NAW					5		8	9	10
<i>P. hirsutum</i> Sw., HAIRY WITCHGRASS, giant witchgrass, hairy p.	NPW		2				6			

<i>P. distichum</i> L., KNOTGRASS, jointgrass, Ft. Thompsongrass	NPW	1	3	4	5	6	7	8	9	10
<i>P. floridanum</i> Michx, FLORIDA P., big Florida p., big p.,	NPW	1	2	3	4	5	7			
<i>P. fluitans</i> (Ell.) Kunth, WATER P.	NAW	1	2	3						
<i>P. hartwegianum</i> E. Fourn., HARTWEG P.	NPW		2				6	7		
<i>P. hydrophilum</i> (= <i>P. modestum</i>)										
<i>P. intermedium</i> Munro ex Morong & Britt., INTERMEDIATE P.	IPW									
<i>P. laeve</i> Michx., ROUND-SEED P., field p. smooth p.	NPW	1	2	3						
<i>P. laeve</i> var. <i>circularis</i> (= <i>P. laeve</i>)										
<i>P. laeve</i> var. <i>pilosum</i> (= <i>P. laeve</i>)										
<i>P. langei</i> (E. Fourn.) Nash, RUSTYSEED P., Lange's p.	NPW	1	2	3			6			
<i>P. lentiferum</i> (= <i>P. praecox</i>)										
<i>P. lividum</i> Trin. ex Schltal., LONGTOM, pull-and- be- damned	NPW	1	2				6			
<i>P. longipilum</i> (= <i>P. laeve</i> var. <i>pilosum</i>)										
<i>P. malacophyllum</i> Trin., RIBBED P.	IPW			3						
<i>P. minus</i> E. Fourn., MAT P.	NPW	1	2				6			
<i>P. modestum</i> Mez, WATER P.	IPW		2							
<i>P. monostachyum</i> Vasey, GULFDUNE P, single-spike p.	NPW		2				6			
<i>P. notatum</i> Flugge, BAHIAGRASS	IPW	1	2	3	4	5	7			
<i>P. paspalodes</i> (= <i>P. distichum</i>)										
<i>P. plicatulum</i> Michx., BROWNSEED P., plaited p.	NPW	1	2	3	4		6	7		
<i>P. praecox</i> Walt., EARLY P.	NPW	1	2	3						
<i>P. pubiflorum</i> Rupr. ex E. Fourn., HAIRYSEED P, smoothseed p., hairyflowered p.	NPW	1	2	3	4	5	6	7	8	10
<i>P. pubiflorum</i> var. <i>glabrum</i> (= <i>P. pubiflorum</i>)										
<i>P. repens</i> (= <i>P. fluitans</i>)										
<i>P. scrobiculatum</i> L., INDIA P.	IPW			3						
<i>P. separatum</i> Shinnery	NPW			3						
<i>P. setaceum</i> Michx.										
var. <i>ciliatifolium</i> (Michx.) Vasey, FRINGELEAF P.	NPW	1	2	3						
var. <i>muhlenbergii</i> (Nash) D. Banks	NPW	1	2	3	4	5	7			
var. <i>setaceum</i> , THIN P.	NPW	1					7			
var. <i>stramineum</i> (Nash) D. Banks	NPW	1	2	3	4	5	6	7	8	9
<i>P. stramineum</i> (= <i>P. setaceum</i> var. <i>stramineum</i>)										
<i>P. texanum</i> (= <i>P. plicatulum</i>)										
<i>P. unispicatum</i> (Scribn. & Merr.) Nash, ONESPIKE P.	NPW		2				6			
<i>P. urvillei</i> Steud., VASEYGRASS, Urville's p.	IPW	1	2	3	4	5	7			

POLYPOGON Desf., Polypogon, Beardgrass*P. elongatus* Kunth, SOUTHERN B. NPC 10*P. interruptus* H.B.K., DITCH B. IPC 7*P. monspeliensis* (L.) Desf., RABBITFOOT P.,
annual beardgrass, rabbitfoot-grass IAC 1 2 3 4 5 6 7 8 9 10*P. semiverticillatus* (= *P. viridis*)*P. viridis* (A. Gouan) M. Breistroffer, WATER
BENTGRASS IPC 4 5 6 7 8 10**PSATHYROSTACHYS** Nevski, Wildrye*P. juncea* (Fischer) Nevski, RUSSIAN W. IPC 10
CUL**PSEUDOROEGRERIA** (= **ELYMUS**)*P. arizonica* (= *Elymus arizoncus*)*P. spicata* (= *Elymus spicatus*)**PUCCINELLIA** Parl., Alkaligrass*P. fasciculata* (Torr.) E. Bickn., SALTMARSH A. IPC 8**REDFIELDIA** Vasey*R. flexuosa* (Thurb. ex A. Gray) Vasey, NPW 9
BLOWOUT GRASS**RHYNCHELYTRUM** (= **MELINIS**)*R. repens* (= *Melinis repens*)**ROSTRARIA** Trin.*R. cristata* (L.) Tzvelev, ANNUAL JUNEGRASS IAC 2 3**ROTTBOELLIA** L.f.*R. cochinchinensis* (Lour.) W. Clayton, IAW 2
ITCHGRASS**SACCHARUM** L., Plumegrass*S. alopecuroides* (L.) Nutt., SILVER P. NPW 1 2*S. baldwinii* Spreng., NARROW P. NPW 1 2*S. bengalense* Retz., TALL P. IPW

CUL

S. brevibarbe (Michx.) Pers.var. *brevibarbe*, SHORTBEARD P. NPW 1 2var. *contortum* (Ell.) R. D. Webster, NPW 1 2 3
BENTAWN P.

SCLEROPOA (=DESMAZERIA)

S. rigida (=D. *rigida*)

SCLEROPOGON Philippi

S. brevifolius Philippi, BURROGRASS NPW 8 9 10

SECALE L., Rye

S. cereale L., RYE IAC 2 3 4 5 7 8 9 10
CUL

SETARIA P. Beauv., Bristlegrass, Millet

S. adhaerans (Forssk.) Chiov., TROPICAL BARBED B. IAC 2 3*S. corrugata* (Ell.) Schult., COASTAL B. NPW 1 2*S. firmula* (= *S. reverchonii* subsp. *firmula*)*S. geniculata* (=S. *parviflora*)*S. glauca* (=S. *pumila*)*S. griesbachii* E. Fourn., GRIESBACH B. NAW 6 7 10*S. italica* (L.) P. Beauv., FOXTAIL M., Italian m. IAW 4 7 8
CUL*S. leucopila* (Scribn. & Merr.) K. Schum., PLAINS B. NPW 2 5 6 7 8 9 10*S. lutescens* (=S. *pumila*)*S. macrostachya* Kunth, PLAINS B. NPW 2 6 7*S. magna* Griseb., GIANT B., giant foxtail grass NAW 2*S. palmifolia* (J. König) Stapf, PALMGRASS IPW 2*S. parviflora* (Poir.) Kerguel., KNOTROOT B. NPW 1 2 3 4 5 6 7 8 9 10
CUL*S. pumila* (Poir.) Roem. & Schult., YELLOW B. IAW 1 2 3 4 5 7 8 9 10*S. reverchonii* (Vasey) Pilgersubsp. *firmula* (A. Hitchc. & Chase) W. E. Fox, KNOTGRASS NPW 2 6subsp. *ramiseta* (Scribn.) W. E. Fox, RIO GRAND BRISTLEGRASS NPW 2 5 6 7 8subsp. *reverchonii*, REVERCHON B. NPW 2 3 5 6 7 8 9 10*S. scheelei* (Steud.) A. Hitchc., SOUTHWESTERN B., Scheele's b. NPW 2 4 6 7 8 9 10*S. texana* Emery, TEXAS B. NPW 6 7 10*S. verticillata* (L.) P. Beauv., HOOKED B., bur b., foxtail grass IAW 3 4 5 6 7 10*S. villosissima* (Scribn. & Merr.) K. Schum., HAIRYLEAF B. NPW 6 7 10*S. viridis* (L.) P. Beauv., GREEN B., green foxtail grass IAW 4 5 6 7 8 9 10

SITANION (=ELYMUS)

S. hystrix (=E. *longifolius*)**SORGHASTRUM** Nash, Indiangrass*S. avenaceum* (= *S. nutans*)*S. elliotii* (C. Mohr) Nash, SLENDER I., long-bristled i. NPW 1 2 3 4 5 6 7 8 9 10*S. nutans* (L.) Nash, YELLOW I., indianreed NPW 1 2 3 4 5 6 7 8 9 10**SORGHUM** Moench, Sorghum*S. bicolor* (L.) Moench, GRAIN S. IAW 2 3 4 6 7*S. x drummondii* (Steud.) Mills. & M. A. Chase, SUDANSGRASS IAW 3 4 5 7 8 CUL 10 CUL*S. halepense* (L.) Pers., JOHNSONGRASS IPW 1 2 3 4 5 6 7 8 9 10*S. sudanense* (=S. x *drummondii*)*S. vulgare* (=S. *bicolor*)**SPARTINA** Schreb., Cordgrass*S. alterniflora* Loisel. var. *glabra* (Muhl.) Fern., SMOOTH C., salt-marshgrass NPW 2*S. bakeri* Merr., SAND C. NPW 2*S. cynosuroides* (L.) Roth, BIG C., salt-reedgrass NPW 2*S. juncea* (=S. *patens*)*S. densiflora* Brongn., DENSEFLOWERED C. IPW 7*S. patens* (Ait.) Muhl., MARSHHAY C., rush saltgrass NPW 2*S. pectinata* Link, PRAIRIE C., tall marshgrass, sloughgrass NPW 2 4 5 7 8 9*S. spartinae* (Trin.) Merr. ex A. Hitchc., GULF C., coastal sacahuista, sacahuista NPW 2 3 6 7**SPHENOPHOLIS** Scribn., Wedgescale*S. filiformis* (Chapm.) Scribn., LONGLEAF W. NPC 1*S. intermedia* (=S. *obtusata* var. *major*)*S. interrupta* (Buckl.) Scribn., PRAIRIE W. IAC 1 2 3 4 5 7 8 9 10*S. longiflora* (Vasey ex L. H. Dewey) A. Hitchc., BAYOU W. NAC 1 2 3*S. nitida* (Biehl.) Scribn., SHINY W. NPW 1 7*S. obtusata* (Michx.) Scribn., PRAIRIE W. NAC 1 2 3 4 5 7 8 9 10**SPOROBOLUS** R. Br., Dropseed*S. airoides* (Torr.) Torr., ALKALI SACATON NPW 2 6 7 8 9 10*S. airoides* var. *wrightii* (=S. *wrightii*)

<i>S. texanus</i> Vasey, TEXAS D.	NPW							8	9	10
<i>S. tharpii</i> A. Hitchc., PADRE ISLAND D.	NPW	2				6				
<i>S. vaginiflorus</i> (Torr. ex A. Gray) Torr. ex A. Wood										
var. <i>ozarkanus</i> (Fern.) Shinnery, OZARK D.	NAW			4	5		7			
var. <i>vaginiflorus</i> , POVERTY D., southern povertygrass	NAW	1	3	4	5	6	7	8		
<i>S. virginicus</i> (L.) Kunth, SEASHORE D., seashore rushgrass	NPW	2								
<i>S. wrightii</i> Munro ex Scribn., BIG SACATON, Wright's sacaton	NPW					6	7			10
STEINCHISMA (=PANICUM)										
<i>S. hians</i> (<i>Panicum hians</i>)										
STENOTAPHRUM Trin.										
<i>S. secundatum</i> (Walt.) O. Ktze., ST. AUGUSTINEGRASS	IPW	1	2	3	4		6	7		CUL
STIPA L., Needlegrass										
<i>S. arida</i> M. E. Jones, MORMON N., desert n.	NPW									10
<i>S. avenacea</i> (= <i>Piptochaetium avenaceum</i>)										
<i>S. clandestina</i> Hack., SHARPLEAF N., mexican n.	IPW							7		
<i>S. columbiana</i> (= <i>S. perplexa</i>)										
<i>S. comata</i> (= <i>Hesperostipa comata</i>)										
<i>S. curvifolia</i> Swallen, GUADALUPE N.	NPC									10
<i>S. eminens</i> Cav., SOUTHWESTERN N., tall n.	NPC									10
<i>S. hymenoides</i> Roem. & Schult., INDIAN RICEGRASS	NPC								9	10
<i>S. leucotricha</i> (= <i>Nassella leucotricha</i>)										
<i>S. lobata</i> Swallen, LITTLEAWN N., lobed n.	NPC								9	10
<i>S. nelsonii</i> (= <i>S. perplexa</i>)										
<i>S. neomexicana</i> (<i>Hesperostipa neomexicana</i>)										
<i>S. perplexa</i> (P. Hoge & M. Barkworth) Wipff & Jones, COLUMBIA N., alpine n.	NPC							7		10
<i>S. pringlei</i> (= <i>Piptochaetium pringlei</i>)										
<i>S. robusta</i> (Vasey) Scribn., SLEEPYGRASS	NPC								9	10
<i>S. tenuissima</i> (= <i>Nassella tenuissima</i>)										
<i>S. scribneri</i> Vasey, SCRIBNER'S N.	NPC									10
THEMEDA Forrsk.										
<i>T. triandra</i> Forrsk., RED OATGRASS	IPW							7		CUL

THINOPYRUM (=ELYMUS)

T. hispidum (=Elymus hispidus)T. ponticum (=Elymus ponticum)

TRACHYPOGON Nees

T. secundus (J. Presl) Scribn., CRINKLEAWN NPW 2 6 10T. montufari of Hitchcock's Manual Of U. S. Grasses, ed. I. (=T. secundus)

TRAGUS Haller, Burgrass

T. berteronianus Schult., SPIKE B., pricklegrass, IAW 2 6 7 10
goatgrass

TRICHACNE (=DIGITARIA)

T. californica (=Digitaria californica)T. hitchcockii (=Digitaria hitchcockii)T. insularis (=Digitaria insularis)T. patens (=Digitaria patens)

TRICHLORIS E. Fourn. ex Benth., Rhodesgrass

T. crinata (Lag.) Parodi, FALSE R., multiflowered NPW 7 10
chloris*T. pluriflora* E. Fourn., MULTIFLOWERED NPW 2 6
FALSE R., four-flowered chloris

TRICHONEURA Anders.

T. elegans Swallen, SILVEUSGRASS, hairy- NAW 2 6
nerve grass

TRIDENS Roem. & Schult., Tridens

T. albescens (Vasey) Woot. & Standl., WHITE T. NPW 2 3 4 5 6 7 8 9 10*T. ambiguus* (Ell.) Schult., PINEBARREN T. NPW 1 2T. avenaceus (=Erioneuron avenaceum var. avenaceum)*T. buckleyanus* (L. H. Dewey) Nash, BUCKLEY NPW 7
T.*T. congestus* (L. H. Dewey) Nash, PINK T. NPW 2 4*T. eragrostoides* (Vasey & Scribn.) Nash, NPW 2 6 7 10
OVEGRASS T.*T. flavus* (L.) A. Hitchc.var. *chapmanii* (Small) Shinnery, NPW 1
CHAPMAN T.var. *flavus*, PURPLETOP, redtop NPW 1 2 3 4 5 7 8 9T. grandiflora (=Erioneuron avenaceum var. grandiflorum)

GRASSES OF TEXAS
GENERIC KEY TO GROUPS OR SELECTED GENERA

1. Culms woody (bamboo), perennial; flowering irregularly (not every year)..... 2
 1. Culms herbaceous, annual (somewhat woody in *Arundo*); flowering yearly or more frequently..... 3
- 2(1). Primary culms internodes cylindrical; primary culm branches 1; pseudopetioles usually less than 2 mm long.....*Arundinaria*
 2. Primary culms internodes strongly flattened on 1 side (D-shaped); primary culm branches typically 2; pseudopetiole usually 2–3 mm long*Phyllostachys*
- 3(1). Leaf blades less than 1 cm long; leaves in fascicles; spikelets unisexual, inconspicuous in axils of fascicled leaves..... *Monanthochloë*
 3. Leaf blades more than 1 cm long; leaves not in fascicles; spikelets perfect or unisexual, usually conspicuous 4
- 4(3). Second glumes with 5 rows of hooked spines on abaxial surface *Tragus*
 4. Second glumes without hooked spines on abaxial surface..... 5
- 5(4). Spikelets with unisexual florets only; staminate and pistillate spikelets conspicuously different..... **Group A**
 5. Spikelets at least some with one or more perfect florets; if unisexual, then staminate and pistillate spikelets not conspicuously different..... 6
- 6(5). Florets 1 per spikelet 7
 6. Florets 2 or more per spikelet on at least some spikelets 9
- 7(6). Inflorescence a spike or spicate raceme or raceme (*Aristida oligantha*) **Group B**
 7. Inflorescence a panicle, some panicles spicate (depauperate specimens may be reduced to a raceme, e.g some *Bromus* and *Vulpia*)..... 8
- 8(7). Panicles open, contracted, or with racemose branches, but without spicate primary unilateral branches..... **Group C**
 8. Panicles with spicate primary unilateral branches **Group D**
- 9(6). Reduced florets below perfect florets (both above and below in *Uniola*, *C Chasmanthium*, *Phragmites*, and *tenium*)..... 10
 9. Reduced florets above perfect floret or all florets perfect 17
- 10(9). Reduced florets both above and below fertile florets 11
 10. Reduced florets below fertile floret, or both florets reduced/staminate..... 14
- 11(10). Second glumes dorsally awned *Ctenium*
 11. Second glumes awnless or rarely mucronate from apex..... 12
- 12(11). Plants 1–4 m tall; inflorescences plumose.....*Phragmites*
 12. Plants about 1–2.5 m tall; inflorescences not plumose..... 13
- 13(12). Disarticulation above glumes; plants of inland or woodland sites..... *Chasmanthium*
 13. Disarticulation below glumes; plants of coastal dunes *Uniola*

14(10).	Glumes both absent; spikelets appear to have 1 floret (also see <i>Paspalum malacophyllum</i>)	15
14.	Glumes at least one present; spikelets have 2–3 florets	16
15(14).	Plants perennial, native; upper florets less than 6 mm long	<i>Leersia</i>
15.	Plants annual, introduced (cultivated); upper florets 7–12 mm long	<i>Oryza</i>
16(14).	Spikelets paired (except at rame or inflorescence or spicate raceme apex where spikelets are in 3's), one sessile or subsessile and perfect, one pedicellate and sterile (<i>Saccharum</i> both spikelets perfect), upper floret usually membranous or leaf-like; first glume nearly as long as spikelet (Andropogoneae tribe)	Group E
16.	Spikelets not paired or paired; when paired spikelets both perfect; upper floret dissimilar from lower floret or florets; first glume usually reduced or absent (except in <i>Phalaris</i> and some <i>Panicum</i> species) (Paniceae tribe <i>Ehrharta</i> , and <i>Phalaris</i>)	Group F
17(9).	Inflorescence a spike or spicate raceme or raceme	Group G
17.	Inflorescence a panicle (depauperate specimens may be reduced to a raceme)	18
18(17).	Panicles of spicate primary unilateral branches	Group H
18.	Panicles of open, contracted, or rames but without spicate primary unilateral branches	Group I

Group A
(unisexual spikelets only,
staminate and pistillate spikelets conspicuously different)

1.	Plants dioecious	2
1.	Plants monoecious	7
2(1).	Plants ascending to erect	3
2.	Plants mat-forming, not ascending or erect	6
3(2).	Plant height 1–3 m tall; rhizomes absent	<i>Cortaderia</i>
3.	Plant height 35–60 cm tall; rhizomes present or absent	4
4(3).	Lemmas 5–veined	<i>Poa</i>
4.	Lemmas strongly 3–veined	5
5(4).	Ligules a ciliate membrane 0.5–1.4 mm long; inflorescences a panicle; lemmas awnless	<i>Allolepis</i>
5.	Ligules a minute fringe of hairs; inflorescences a spicate raceme or narrow panicle; Lemmas awnless (staminate spikelet) or with twisted awn (pistillate spikelet)	<i>Scleropogon</i>
6(2).	Pistillate and staminate inflorescences similar in appearance; lemmas 3–veined	<i>Eragrostis</i>
6.	Pistillate inflorescences in bur-like clusters and staminate spikelets in clusters on spicate primary unilateral branches; lemmas 3–veined	<i>Buchloë</i>
7(1).	Staminate and pistillate spikelets borne on separate inflorescences	8
7.	Staminate and pistillate spikelets borne on the same inflorescence	9
8(7).	Glumes absent; stamens 6	<i>Luziola</i>
8.	Glumes present; stamens 3	<i>Zea</i>

- 9(7). Pistillate spikelets below staminate spikelets on the inflorescence branch, glumes chartaceous.....**10**
- 9. Pistillate spikelets above staminate spikelets on the inflorescence branch, glume texture leaf like.....**11**
- 10(9). Pistillate spikelets occurring singly in a hard bead-like structures (white to pale blue) (cultivated).....*Coix*
- 10. Pistillate spikelets occur in cobs and no singly.....*Tripsacum*
- 11(9). Staminate spikelets on lower panicle branches; pistillate spikelets on stiffly erect upper branches*Zizania*
- 11. Staminate spikelets on base of branch; pistillate spikelets at apex of same branch..*Zizaniopsis*

Group B
(1 floret/spikelet; spike or spicate raceme)

- 1. Lemmas 3-awned; spikelets more than 15 mm long.....*Aristida*
- 1. Lemmas awnless or with 1 awn; spikelets less than 15 mm long..... **2**
- 2(1). Spikelets in capitate clusters, usually within the leafy part of plant; spikelets unisexual.....*Buchloë*
- 2. Spikelets elevated above leaves in elongated inflorescences not in capitate clusters; spikelets with at least 1 perfect floret**3**
- 3(2). Inflorescences with spikelets unilateral (on one side) on rachis.....*Microchloa*
- 3. Inflorescences with spikelets bilateral on rachis **4**
- 4(3). Spikelets solitary, 1 per inflorescence node..... **5**
- 4. Spikelets 3 per inflorescence node **7**
- 5(4). Plants rhizomatous, perennial; inflorescence a raceme.....*Zoysia*
- 5. Plants caespitose, annual; inflorescence a spike**6**
- 6(5). First glumes present*Parapholis*
- 6. First glumes absent.....*Hainardia*
- 7(4). Glumes reduced to awns; inflorescence a spicate raceme (except *Hordeum vulgare* a spike) ..*Hordeum*
- 7. Glumes not reduced to awns but rather obvious bracts; inflorescence a spike.....*Hilaria*

Group C
(1 floret/spikelet;
panicles without spicate primary unilateral branches)

- 1. Panicle spike-like; lemmas 3-veined.....*Hilaria*
- 1. Panicles open or contracted but not appearing as a spike; lemmas 3- or 5-veined.....**2**
- 2(1). Spikelets dimorphic (fertile spikelets mixed with and usually concealed by sterile spikelets; lemma 5-veined, veins obscure..... *Cynosurus*
- 2. Spikelets of similar morphology; lemmas 3 or 5 veined, veins distinct or obscure..... **3**
- 3(2). Lemmas 3-veined **4**
- 3. Lemmas not conspicuously 3-veined, either 1- or 5- or more veined or veins inconspicuous....**10**

- 4(3). Lemma awn branched to 3-awns, sometimes the lateral awns greatly reduced (e.g. 1 mm long) *Aristida*
4. Lemma awn unbranched or lemma awnless 5
- 5(4). Glumes both as long or longer than lemma (excluding awns) 6
5. Glumes, at least the first, shorter than lemma 7
- 6(5). Lemmas awnless or awned from back, base, or cleft apex; glumes exceeding length of lemma *Agrostis*
6. Lemmas awnless or awned from entire apex; glumes nearly equal to lemma length *Muhlenbergia*
- 7(5). Spikelet disarticulation below the glumes; rachilla extending above floret as a minute bristle *Cinna*
7. Spikelet disarticulation above the glumes; rachilla not extended above the perfect floret 8
- 8(7). First glumes with 2 awns; glume veins 2 (even-numbered) *Lycurus*
8. First glumes awnless or with 1 awn; glume veins odd-numbered 9
- 9(8). Veins of lemmas densely pubescent; lemmas awnless *Blepharoneuron*
9. Veins of lemmas glabrous to scabrous; lemmas awned or awnless *Muhlenbergia*
- 10(3). Lemmas indurate and completely enclosing palea for most of its length 11
10. Lemmas coriaceous, membranous or leaf-like, but not obviously indurate, usually not enclosing the palea for entire length 15
- 11(10). Paleas longer than lemmas, grooved longitudinally; lemma margins involute *Piptochaetium*
11. Paleas shorter than or equal to lemmas, flat; lemma margins flat 12
- 12(11). Lemma margins greatly overlapping; paleas less than one-third lemma length *Nassella*
12. Lemma margins not or slightly overlapping; paleas one-third or more lemma length 13
- 13(12). Palea apex flat, usually pubescent, shorter or equal to lemma length, veins usually terminate below palea apex *Stipa*
13. Palea apex keeled, usually glabrous, as long as lemma, veins terminating at palea apex 14
- 14(13). Lemmas more than 7.5 mm long; callus sharp *Hesperostipa*
14. Lemmas less than 7.5 mm long; callus blunt *Oryzopsis*
- 15(10). Glumes absent *Leersia*
15. Glumes present, at least the second 16
- 16(15). Glumes, at least the first, shorter than floret 17
16. Glumes both longer than or equal to floret 21
- 17(16). Lemmas 5-veined; plants of wet habitats or mesic habitats 18
17. Lemmas 1-veined; plants of mesic or xeric habitats 20
- 18(17). Rachilla terminating at upper floret, not becoming a bristle; plants of wet area *Oryza*
18. Rachilla extending above perfect(usually upper) floret into a bristle; plants of mesic areas 19

19(18).	First glumes 0.1 – 1.1 mm long; plants perennial; lemmas acute	<i>Brachyelytrum</i>
19.	First glumes 1.4–2.6 mm long; plant annual; lemmas bidentate	<i>Apera</i>
20(17).	Lemmas with a tuft of hair at base	<i>Calamovilfa</i>
20.	Lemmas without a tuft of hair at base	<i>Sporobolus</i>
21(16).	Glumes and lemmas awnless.....	22
21.	Glumes or lemmas awned.....	24
22(21).	Lemmas 1–veined; ligules a dense ring of hairs or ciliate membrane	<i>Sporobolus</i>
22.	Lemmas 5–veined or veins inconspicuous; ligules membranous	23
23(22).	Panicle branches in verticels of dense whorls; panicles contracted.....	<i>Polypogon</i>
23.	Panicle branches in verticels or not in verticels but not dense; panicles open or contracted.... ..	<i>Agrostis</i>
24(21).	Glumes awned	25
24.	Glumes awnless (awn-tipped in <i>Gastridium</i>)	26
25(24).	Disarticulation above the glumes; glumes generally 3–veined	<i>Phleum</i>
25.	Disarticulation below the glumes; glumes 1–veined	<i>Polypogon</i>
26(24).	Disarticulation of spikelet above glumes.....	27
26.	Disarticulation of spikelet below glumes.....	28
27(26).	Second glumes 4–5 times longer than lemma.....	<i>Gastridium</i>
27.	Second glumes shorter to longer than lemma but not more than twice as long.....	<i>Agrostis</i>
28(26).	Lemmas awned from below middle; inflorescence a tightly contracted cylindrical panicle.....	<i>Alopecurus</i>
28.	Lemmas awned from near apex; inflorescence contracted but not tightly cylindrical.....	<i>Limnodea</i>

Group D
(1 floret/spikelet;
panicle with spicate primary unilateral branches)

1.	Panicle branches digitate, sub-digitate or rarely verticillate	<i>Cynodon</i>
1.	Panicle branches generally alternate but definitely not digitate	2
2(1).	Spikelets borne on central axis of inflorescence as well as the branches.....	<i>Schedonnardus</i>
2.	Spikelets not borne on central axis of inflorescence, occurring only on the branches.....	3
3(2).	Lemmas 5–veined; paleas 3–veined.....	<i>Leersia</i>
3.	Lemmas conspicuously 1–3–veined; paleas 2–veined.....	4
4(3).	Plants 50 cm or more in height; larger spikelets 6–25 mm long	<i>Spartina</i>
4.	Plants 49 cm or less tall; larger spikelets 4–5 mm long.....	<i>Willkommia</i>

Group E
ANDROPOGONEAE TRIBE
(2 florets/spikelet; spikelets paired, some pedicels
without spikelets; reduced floret below perfect floret)

- | | | |
|---------|---|----------------------|
| 1. | Inflorescence a spicate raceme, several to many per culm..... | 2 |
| 1. | Inflorescence a panicle of rames (rarely a panicle with a single branch)..... | 11 |
| 2(1). | Upper lemmas awned..... | 3 |
| 2. | Upper lemmas awnless | 6 |
| 3(2). | Lemma awn less than 3 cm long..... | <i>Schizachyrium</i> |
| 3. | Lemma awn more than 3.5 cm long | 4 |
| 4(3). | Inflorescences more than 9 cm long (excluding awns)..... | <i>Trachypogon</i> |
| 4. | Inflorescences less than 8 cm long (excluding awns)..... | 5 |
| 5(4). | Spicate racemes composed of many spikelet pairs; inflorescences elongated not fan Shaped | <i>Heteropogon</i> |
| 5. | Spicate racemes composed of a single spikelet (rarely more) and 2 pedicellate spikelets; inflorescences appear fan shaped | <i>Themeda</i> |
| 6(2). | Inflorescences pubescent | <i>Elionurus</i> |
| 6. | Inflorescences glabrous to scabrous | 7 |
| 7(6). | Basal leaf sheaths with stiff, sharp, papilla-based hairs to 3 mm long that irritate the skin; plants annual..... | <i>Rottboellia</i> |
| 7. | Basal leaf sheaths glabrous or with a tuft of pilose hair at apex; plants perennial or annual .. | 8 |
| 8(7). | Sessile spikelets not sunken into thickened rachis, rachis slender..... | 9 |
| 8. | Sessile spikelets sunken into thickened rachis | 10 |
| 9(8). | Plants annual; culms much branched..... | <i>Microstegium</i> |
| 9. | Plants perennial; culms not branching above base | <i>Eremochloa</i> |
| 10(8). | First glume of sessile spikelets smooth on back; inflorescence axis flattened | <i>Hemarthria</i> |
| 10. | First glume of sessile spikelets with pits or ridges; inflorescence axis cylindrical or angled but not flattened | <i>Mnesitbia</i> |
| 11(1). | Rame reduces to a triad of spikelets; lemma awn 10 cm or more long..... | <i>Chrysopogon</i> |
| 11. | Rame not a triad of spikelets; lemma awn less than 5 cm long or awnless..... | 12 |
| 12(11). | Leaf blades with cordate clasping base; plants annual | <i>Arthraxon</i> |
| 12. | Leaf blades without cordate clasping base; plants perennial or annual | 13 |
| 13(12). | Spikelets, both sessile and pedicellate fertile..... | 14 |
| 13. | Spikelets not both fertile, sessile spikelet fertile and pedicellate sterile or pedicellate spikelet absent..... | 17 |
| 14(13). | Panicles subdigitate, central axis short; branches seldom rebranch; plants less than 0.5 m tall | <i>Microstegium</i> |
| 14. | Panicles with elongated central axis; branches may rebranch several times; plants more than 1 m tall | 15 |
| 15(14). | Spikelets falling in pairs (sessile and pedicellate with inflorescence branch)..... | <i>Saccharum</i> |
| 15. | Spikelets falling separate from the inflorescence branch | 16 |

- 16(15). Inflorescences greater than 7 cm long; sheath margins connate; spikelets mostly awned *Miscanthus*
- 16. Inflorescence less than 6.9 cm long; sheath margins open; spikelets awnless *Imperata*
- 17(15). Panicles of 2 to 7 paired or digitate or subdigitate rames, a spathe subtending inflorescence bases can be present or absent; pedicels of upper spikelets without central groove or membranous area.....18
- 17. Panicles of more than 7 rames (occasionally reduced to 3 branches in *Bothriochloa ischaemum*), spathe not subtending inflorescences; pedicels of upper spikelet with or without a central or membranous area..... 20
- 18 (17). Sessile spikelet at base of rames staminate and awnless *Hyparrhenia*
- 18. Sessile spikelets at base of rames bisexual and awned19
- 19(17). Pedicellate spikelets about as large as sessile spikelets, apex broadly rounded; species introduced..... *Dichanthium*
- 19. Pedicellate spikelets shorter and narrower than sessile spikelets or apex narrow and tapering or absent; species native..... *Andropogon*
- 20(17). Glume margins setose, the hairs almost appear like spines..... *Chrysopogon*
- 20. Glume margins not setose, any hairs not appearing like spines.....21
- 21(20). Pedicels and usually upper branch internodes on the upper part of inflorescence with a central groove or membranous area *Bothriochloa*
- 21. Pedicels and upper branch internodes on the upper part of inflorescence without a central groove or membranous area 22
- 22(21). Pedicellate spikelets absent, only hairy pedicel remaining *Sorghastrum*
- 22. Pedicellate spikelets present *Sorghum*

Group F
ANTHOXANTHUM, EHRHARTA, PHALARIS and PANICEAE TRIBE
[2 or 3 florets/spikelet; reduced floret or florets below perfect floret; panicle
inflorescences
(some spicate racemes or racemes)]

- 1. Ear-like appendages at the margins of second lemma; disarticulation above the glumes *Ehrharta*
- 1. Ear-like appendages absent from the base of the second lemma; disarticulation above or below the glumes.....2
- 2(1). Glumes equal, 1 mm or more longer than fertile floret; 2 (occasionally 1) scale-like rudimentary florets below fertile floret; disarticulation above glumes; upper floret coriaceous..... *Phalaris*
- 2. Glumes unequal (rarely equal, e.g. *Panicum obtusum*) or only second glume present (in some species of *Axonopus*, *Digitaria* and *Paspalum*); if equal then reduced floret as long as spikelet; disarticulation below or above the glumes; upper floret usually firm to indurate (except in *Pennisetum* and *Cenchrus*).....3
- 3(2). Florets 3 per spikelet; disarticulation above glumes; fertile floret with dorsal awn *Anthoxanthum*
- 3. Florets 2 per spikelet; disarticulation below glumes 4

- 4(3). Inflorescence a spike or spicate raceme or raceme; spikelets embedded or not embedded in inflorescence..... 5
4. Inflorescence a panicle; spikelets not embedded into cavities of inflorescence branches.....6
- 5(4). Spikelets appear embedded in cavities of rachis *Stenotaphrum*
5. Spikelets not appearing embedded in rachis *Paspalum*
- 6(4). Panicles of spicate (or racemose) primary unilateral branches 7
6. Panicles open or contracted but not having spicate primary unilateral branches 20
- 7(6). First glumes absent or reduced to a cup-like structure on all or some spikelets..... 8
7. First glumes present on all spikelets..... 12
- 8(7). Spikelets subtended by a cup-like or disk-like ring; upper lemma mucronate..... *Eriochloa*
8. Spikelets not subtended by a cup-like or disk-like ring; upper lemma awnless 9
- 9(8). Apex of upper lemma margins folded over palea, not clasping, appearing thin..... *Digitaria*
9. Apex of upper lemma margins clasping the palea, appearing thick 10
- 10(9). Lemma of the fertile florets with rounded surface facing away from inflorescence branch axis *Axonopus*
10. Lemma of fertile florets with rounded surface facing inflorescence branch axis..... 11
- 11(9). Lemma of lower florets awned; upper florets mucronate *Echinochloa*
11. Lemma of lower florets awnless; upper florets rounded to obtuse to acute, not mucronate *Paspalum*
- 12(7). Ligules absent; plants annual *Echinochloa*
12. Ligules present; plants annual and perennial 13
- 13(12). Glumes both awned..... 14
13. Glumes both awnless..... 16
- 14(13). First glumes rudimentary; lower lemmas and second glumes silky villous *Melinis*
14. First glumes well-developed; lower lemmas and second glumes glabrous or pubescent, but both not silky villous.....15
- 15(14). Awn of first glumes mucronate or shorter than glume body; plants not stoloniferous *Echinochloa*
15. Awn of first glumes 6 mm or more long; plants stoloniferous..... *Oplismenus*
- 16(13). Upper lemma margins folded over palea, not clasping, appearing thin *Digitaria*
16. Upper lemma margins clasping palea, appearing thick 17
- 17(16). First glumes adjacent to primary branch axis; upper lemmas smooth *Brachiaria*
17. First glumes away from primary branch axis; upper lemmas smooth or rugose.....18
- 18(17). Primary branch extending beyond spikelet as a point or bristle..... *Paspalidium*
18. Primary branch not extending beyond spikelet as a point or bristle 19
- 19(18). Panicle branches appressed; upper lemmas smooth *Panicum*
19. Panicle branches ascending to divergent; upper lemmas rugose *Urochloa*
- 20(6). First glumes reduced to a cup-like structure subtending spikelet..... *Eriochloa*
20. First glumes bractlike, not reduced to a cup-like structure (minute in *Melinis*).....21

21(20).	Spikelets subtended by 1 to many bristles or flattened spines; bristles or spines forming an involucre, or not fused.....	22
21.	Spikelets not subtended by bristles or flattened spines; bristles or flattened spines not present	24
22(21).	Spikelets disarticulate above bristles or spines; bristles persistent on inflorescence (see <i>Pennisetum glaucum</i>)	<i>Setaria</i>
22.	Spikelets disarticulate with the bristles or spines; bristles not persistent on inflorescence	23
23(22).	Bristles antrorsely barbed	<i>Pennisetum</i>
23.	Bristles or spines retrorsely barbed	<i>Cenchrus</i>
24(21).	Upper lemma margins folded over palea margins, relatively thin and flexible.....	25
24.	Upper lemma margins inrolled (appearing to clasp) over palea margins, relatively thick and rigid (except immature <i>Panicum brachyanthum</i>)	27
25(24).	Rachilla pronounced between florets; first glume present	<i>Melinis</i>
25.	Rachilla not pronounced between florets; first glume absent.....	26
26(25).	Pedicels shorter than spikelet.....	<i>Anthaenantia</i>
26.	Pedicels 2 to several times longer than spikelet	<i>Digitaria</i>
27(24).	Second glumes gibbous at base; fertile florets on a short stipe	<i>Sacciolepis</i>
27.	Second glumes not gibbous at base; fertile florets without stipe.....	28
28(27).	Ligules absent	<i>Echinochloa</i>
28.	Ligules present.....	29
29(28).	Inflorescences of spicate unbranched primary branches.....	<i>Urochloa</i>
29.	Inflorescences with branches that rebranch	30
30(29).	Plants forming a basal rosette of leaves different from cauline leaves; culm simple in cool season with a primary panicle inflorescence per culm, later becoming much branched with small axillary inflorescences in summer and fall.....	<i>Dichantherium</i>
30.	Plants not forming a basal rosette of leaves; leaves at base similar to cauline leaves; culms with a primary panicle inflorescence in summer and fall (see also <i>Dichantherium pedicellatum</i>).....	31
31(30).	Lemma of perfect florets transversely rugose	<i>Urochloa</i>
31.	Lemma of perfect florets smooth or muricate not transversely rugose	<i>Panicum</i>

Group G

(2 or more florets/spikelet; spike or spicate raceme or racemes)

1.	Spikelets in capitate clusters, usually within the leafy part of plant.....	2
1.	Spikelets elevated above leaves, in elongated inflorescences not in capitate clusters	4
2(1).	Lemmas 3-awned, awns ciliate.....	<i>Blepharidachne</i>
2.	Lemmas 1-awned, awns not ciliate.....	3
3(2).	Lemmas acuminate, not bifid; florets 2-3; ligules a ring of hairs	<i>Munroa</i>
3.	Lemmas bifid; florets 6-12; ligule a ciliate membrane	<i>Dasyochloa</i>
4(1).	Inflorescences unilateral spikes.....	<i>Bouteloua</i>
4.	Inflorescences bilateral spikes or spicate racemes or racemes	5

5(4).	Inflorescences a spike with 1 sessile spikelet per node (occasionally 2 spikelets per node in (<i>Elymus smithii</i>).....	6
5.	Inflorescences a spike with 2 or more sessile spikelets per node (rarely 1 spikelet per node in (<i>Leymus triticoides</i>) or a raceme (<i>Bromus</i>).....	13
6(5).	Inflorescence a raceme	7
6.	Inflorescence a spike or spicate raceme.....	8
7(6).	Lemmas bifid, awned from between the lobes of the bifid apex.....	<i>Bromus</i>
7.	Lemmas entire, awn terminal.....	<i>Brachypodium</i>
8(7).	First glume absent on all except the terminal spikelet.....	<i>Lolium</i>
8.	First glume present on all spikelets	9
9(8).	Plants annual; culm bases soft	10
9.	Plants perennial; culm bases firm.....	11
10(9).	Glumes 1–veined	<i>Secale</i>
10.	Glumes 5–11-veined	<i>Triticum</i>
11(9).	Spikelets spreading from rachis at 40E angle	<i>Agropyron</i>
11.	Spikelets appressed to rachis (less than 30 degree angle).....	12
12(11).	Ligules a ciliate membrane; lemmas 3–veined	<i>Tripogon</i>
12.	Ligules membranous; lemmas 5–several-veined or veins inconspicuous	<i>Elymus</i>
13(5).	Spikelets disarticulate in clusters as a complete unit; lemmas 3–veined, veins distinct; stolons or rhizomes present	<i>Hilaria</i>
13.	Spikelets disarticulate above or below the glumes but not in clusters; lemmas 5-7- veined, veins indistinct; stolons not present.....	14
14(13).	Disarticulation of spikelets below glumes	<i>Psathyrostachys</i>
14.	Disarticulation of spikelets above the glumes.....	15
15(14).	Rhizomes present.....	<i>Leymus</i>
15.	Rhizomes absent	16
16(15).	Glumes 2–5-veined	<i>Elymus</i>
16.	Glumes 1–veined	<i>Psathyrostachys</i>

Group H
(2 or more florets/spikelet; inflorescence
a panicle of spicate primary unilateral branches)

1.	Inflorescence a unilateral panicle appearing like a raceme; primary branches short, appearing subsessile to central axis.....	<i>Sclerochloa</i>
1.	Inflorescence with 2 or more spicate primary unilateral branches; primary branches not short and not appearing subsessile to central axis.....	2
2 (1).	Inflorescence branches digitate, subdigitate, or verticillate	3
2.	Inflorescence branches alternate or occasionally paired (<i>Eleusine</i> occasionally reduced to 1–2 branches per inflorescence)	10
3(2).	Fertile florets 3 or more per spikelet	4
3.	Fertile florets 1 or 2 per spikelet	6

4(3).	Inflorescence primary branches terminating in a bare point	<i>Dactyloctenium</i>	
4.	Inflorescence primary branches terminating in a spikelet.....		5
5(4).	Lemmas 3-awned; panicle branches in verticels; second glumes 1-veined.....	<i>Trichloris</i>	
5.	Lemmas awnless to mucronate, panicle branches digitate or subdigitate; second glumes 3-7-veined.....	<i>Eleusine</i>	
6(3).	Leaf blades without a midvein usually conspicuously distichous; second glumes (excluding awn) equal to or longer than spikelet	<i>Gymnopogon</i>	
6.	Leaf blades with midvein, not conspicuously distichous; second glumes (excluding awn) shorter than spikelet.....		7
7 (6)	Lower lemmas laterally compressed; caryopses triangular or subterete in cross section		8
7.	Lower lemmas dorsally compressed; caryopses dorsally compressed.....		10
8(7).	Second glume awned.....	<i>Eustachys</i>	
8.	Second glume awnless.....		9
9(8).	Lowermost lemma awned.....	<i>Chloris</i>	
9.	Lowermost lemma awnless.....	<i>Cynodon</i>	
10(7).	Lowermost lemmas 1-awned.....	<i>Enteropogon</i>	
10.	Lowermost lemmas 3-awned	<i>Trichloris</i>	
11(2).	Lemmas obscurely 5-veined; plants annual	<i>Desmazeria</i>	
11.	Lemmas conspicuously 3-veined; plants perennial or annual		12
12(11).	Fertile florets 1 per spikelet		13
12.	Fertile florets 2 or more per spikelet		14
13(12).	Spikelets in clusters of 3 per primary branch; upper spikelet with one perfect floret, lower spikelets neuter or staminate	<i>Cathestecum</i>	
13.	Spikelets not in clusters of 3 per primary branch; all spikelets with a perfect floret.....	<i>Bouteloua</i>	
14(12).	Glumes 8 mm or more long; lemma veins ciliate.....	<i>Trichoneura</i>	
14.	Glumes less than 7.8 mm long; lemma veins glabrous or puberulent but not with spreading ciliate hairs		15
15(14).	Lemmas glabrous, acute, awnless; spikelets not overlapping on inflorescence Branches.....	<i>Eragrostis</i>	
15.	Lemmas glabrous or pubescent on veins or near the base, apex acute to obtuse or notched, awned or awnless; when lemmas awnless spikelets overlapping on branches.....	<i>Leptochloa</i>	

Group I
(2 or more florets/spikelet; reduced floret
at spikelet apex or absent; panicle inflorescence)

1.	Plants with unilateral panicles.....		2
1.	Plants with rebranched panicles or multiple spikelets per primary branch.....		3
2(1).	Spikelets dimorphic (fertile spikelets mixed with and usually concealed by sterile spikelets), disarticulation below the glumes; glumes 3-9 veined; lemmas 3-veined.....	<i>Sclerochloa</i>	
2.	Spikelets of similar morphology, disarticulation above the glumes; glumes 1-veined; lemmas 5-veined.....	<i>Cynosurus</i>	

3(1).	Plants 2 – 6 m tall.....	4
3.	Plants less than 2 m tall	7
4(3).	Spikelets 3.5–7 cm long; inflorescences not plumose	<i>Arundinaria</i>
4.	Spikelets less than 3.5 cm long; inflorescences a plume-like panicle.....	5
5(4).	Plants without rhizomes (caespitose); glumes 1-veined	<i>Cortaderia</i>
5.	Plants rhizomatous; glumes 3- to many-veined	6
6(5).	Lemmas densely pubescent; rachilla glabrous	<i>Arundo</i>
6.	Lemmas glabrous; rachilla villous	<i>Phragmites</i>
7(3).	Lemmas conspicuously 3-veined	8
7.	Lemmas 1 or 5- many-veined, or veins obscure (midvein may be conspicuous).....	16
8(7).	Veins of lemma glabrous or minutely scabrous; lemma base without long hairs.....	9
8.	Veins of lemma pubescent (occasionally puberulent) to long hairy or lemma base with long hairs.....	11
9(8).	Lemma apex with a slight notch, midvein extending into a mucro; panicles contracted	<i>Tridens</i>
9.	Lemma apex without a notch, midvein not extending into an awn; panicles open or narrow.....	10
10(9).	Second glumes 1-veined; caryopses not beaked.....	<i>Eragrostis</i>
10.	Second glumes 3-5-veined; caryopses beaked.....	<i>Diarrhena</i>
11(8).	Rhizomes present, well developed	<i>Redfieldia</i>
11.	Rhizomes absent	12
12(11).	Paleas densely long-ciliate on upper half; plants annual	<i>Triplasis</i>
12.	Paleas not densely long-ciliate on upper half; plants annual or perennial.....	13
13(12).	Leaf blades with thick white margins; inflorescences usually less than 4 cm long.....	<i>Erioneuron</i>
13.	Leaf blades without thick white margins; inflorescences longer than 5 cm.....	14
14(13).	Lemmas with 3 awns, these 4 mm long or longer	<i>Triraphis</i>
14.	Lemmas awnless or with single awns, if 3 awns then awns mucronate	15
15(14).	Inflorescence a panicle of spicate primary branches	<i>Leptochloa</i>
15.	Inflorescence a panicle without spicate primary branches.....	<i>Tridens</i>
16 (7).	Lemmas 9-or more awned	17
16.	Lemmas 0-3-awned	19
17(16).	Glumes 1-veined	<i>Pappophorum</i>
17.	Glumes 5-or more-veined.....	18
18(17).	Lowermost lemmas 9-veined; lemma awns 9, subequal, plumose.....	<i>Enneapogon</i>
18.	Lowermost lemmas 11-13-veined; lemma awns 11- 13, unequal, glabrous to scabrous.....	<i>Cottea</i>

19(16).	Ligules a line of hairs or ciliate membrane.....	20
19.	Ligules membranous for most or all its length.....	23
20(19).	Lemmas 1-veined, apex entire	<i>Eragrostis</i>
20.	Lemmas strongly 7-9-veined, apex slightly bifid	21
21(20).	Caryopsis apex with 2 persistent horn-like style bases, outline orbicular	<i>Vaseyochloa</i>
21.	Caryopsis apex without persistent horn-like style bases, outline linear to narrowly elliptical.....	22
22(21).	Plants annual; lemmas awnless or nearly so	<i>Schismus</i>
22.	Plants perennial; lemmas awned	<i>Danthonia</i>
23(21).	Glumes or lemmas awned.....	24
23.	Glumes and lemmas awnless	36
24(23).	Lemmas awned from back with a dorsal attached awn (see also immature <i>Bromus lanceolatus</i>).....	25
24.	Lemmas awned from apex or from between the lobes of bifid apex	29
25(24).	Glumes 1.5 cm long or longer.....	<i>Avena</i>
25.	Glumes less than 1.5 cm long	26
26(25).	Fertile spikelets more than 4 mm long; upper lemmas with a hooked awn	<i>Holcus</i>
26.	Fertile spikelets less than 2.6 mm long (excluding the awns; upper lemmas without a hooked awn).....	27
27(26)	Spikelets dissimilar; plants with staminate spikelets and fertile spikelets; fertile spikelet lemmas awned from near apex	<i>Lamarckia</i>
27.	Spikelets all similar; plant without both staminate spikelets and fertile spikelets; fertile spikelet lemmas awned from below the middle.....	28
28(27).	Lemma awn attached dorsally below midlength of the lemma.....	<i>Aira</i>
28.	Lemma awn attached dorsally just below the lemma apex.....	<i>Apera</i>
29(24).	Lemmas bifid, awned from between teeth.....	30
29.	Lemmas acute, not bifid, awned from apex	33
30(29).	Glumes and lemmas papillose or papillose hispid on back.....	<i>Rostraria</i>
30.	Glumes and lemmas glabrous to hairy but not papillose or papillose hispid	31
31(30).	Paleas adnate to caryopsis; lemma apices usually bifid.....	<i>Bromus</i>
31.	Paleas not adnate to caryopsis; lemma apices, entire (or bifid in <i>Sphenopholis interrupta</i>).....	32
32(31).	Spikelets less than 8 mm long; plants annual; lemma apices entire (bifid in <i>Sphenopholis interrupta</i>).....	<i>Sphenopholis</i>
32.	Spikelets more than 8 mm long; plants annual or perennial; lemma apices bifid.....	<i>Bromus</i>
33(29).	Plants annual; stamen 1 (rarely 3) per floret; leaves less than 2 mm wide; lemmas inconspicuously 5-veined	<i>Vulpia</i>
33.	Plants perennial; stamen 3 per floret; leaves more than 4 mm wide; lemmas conspicuously 5-veined	34

- 34(33). Spikelets strongly compressed, on dense 1-sided panicle branches; leaf sheaths keeled.....*Dactylis*
- 34. Spikelets not strongly compressed, not on dense 1-sided panicle branches; leaf sheaths rounded, or not keeled**35**

- 35 (34). Basal leaves **with** auricles; blades flat.....*Schedonnorus*
- 35. Basal leaves **without** auricles; blades flat or involute or conduplicate.....*Festuca*

- 36(23). Glumes longer than 1.7 cm.....*Avena*
- 36. Glumes less than 1.7 cm long **37**

- 37(36). Glumes and lemmas spreading at right angles to rachilla, appearing inflated; pedicels slender.....*Briza*
- 37. Glumes and lemmas ascending, not close to a right angle to rachilla, not appearing obviously inflated; pedicels various..... **38**

- 38(37). Sheath margins connate at least one-fourth the length **39**
- 38. Sheath margins free for more than three-fourths the length..... **42**

- 39(38). Lemma veins uniformly developed and equally spaced (some prominent, some inconspicuous except at apex.)*Glyceria*
- 39. Lemma veins uniformly developed and not equally spaced (most veins inconspicuous at apex).....**40**

- 40(39). Spikelets strongly compressed on dense 1-sided panicle branches; leaf sheaths keeled and laterally compressed.....*Dactylis*
- 40. Spikelets not strongly compressed on dense 1-sided panicle branches; leaf sheaths terete**41**

- 41(40). Paleas usually adnate to caryopsis; lemma usually awned from between the lobes of a bifid apex, some species awnless; caryopsis with tuft of hair at apex*Bromus*
- 41. Paleas free from caryopsis; lemma awnless (Texas species), apex entire; caryopsis without apical tuft of hair *Melica*

- 42(38). Spikelets dissimilar; plants with staminate spikelets and fertile spikelet; fertile spikelets awned *Lamarckia*
- 42. Spikelets all similar; plants without both staminate and fertile spikelets; fertile spikelets awnless**43**

- 43(42). Paleas colorless throughout **44**
- 43. Paleas yellow, green, or brown, at least on veins..... **45**

- 44(43). Second glumes obovate, widest above the middle, apex obtuse*Sphenopholis*
- 44. Second glumes lanceolate, widest below the middle, apex acute.....*Koeleria*

- 45(43). Lemma apex bifid **46**
- 45. Lemma apex acute or obtuse, not bifid..... **47**

- 46(43). Rachilla extended beyond upper floret; panicles narrow, congested.....*Sphenopholis*
- 46. Rachilla not extended beyond upper floret; panicles open, diffuse *Aira*

- 47(45). Lemma apex obtuse to broadly acute; lemma veins 5, distinct or indistinct..... **48**
- 47. Lemma apex attenuate to narrowly acute; lemma veins 5 or more, often indistinct..... **50**

- 48(47). Panicles of stiff spicate primary branches; plants annual.....*Desmazeria*
 48. Panicles of rebranched primary branches, branches not appearing stiff; plants annual or
 perennial.....**49**
- 49(48). Lemmas keeled on back (abaxial surface)..... *Poa*
 49. Lemmas rounded on back (abaxial surface)..... *Puccinellia*
- 50(47). Spikelets with all unisexual florets; ligules a ciliate membrane..... *Distichlis*
 50. Spikelets with 2 or more perfect florets; ligules membranous **51**
- 51(50). Plants annual; stamen 1 (rarely 3) per floret *Vulpia*
 51. Plants perennial; stamens 3 per floret..... **52**
- 52(51). Basal leaves **with** auricles; blades flat*Schedonorus*
 52. Basal leaves **without** auricles; blades flat or involute or conduplicate.....*Festuca*

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