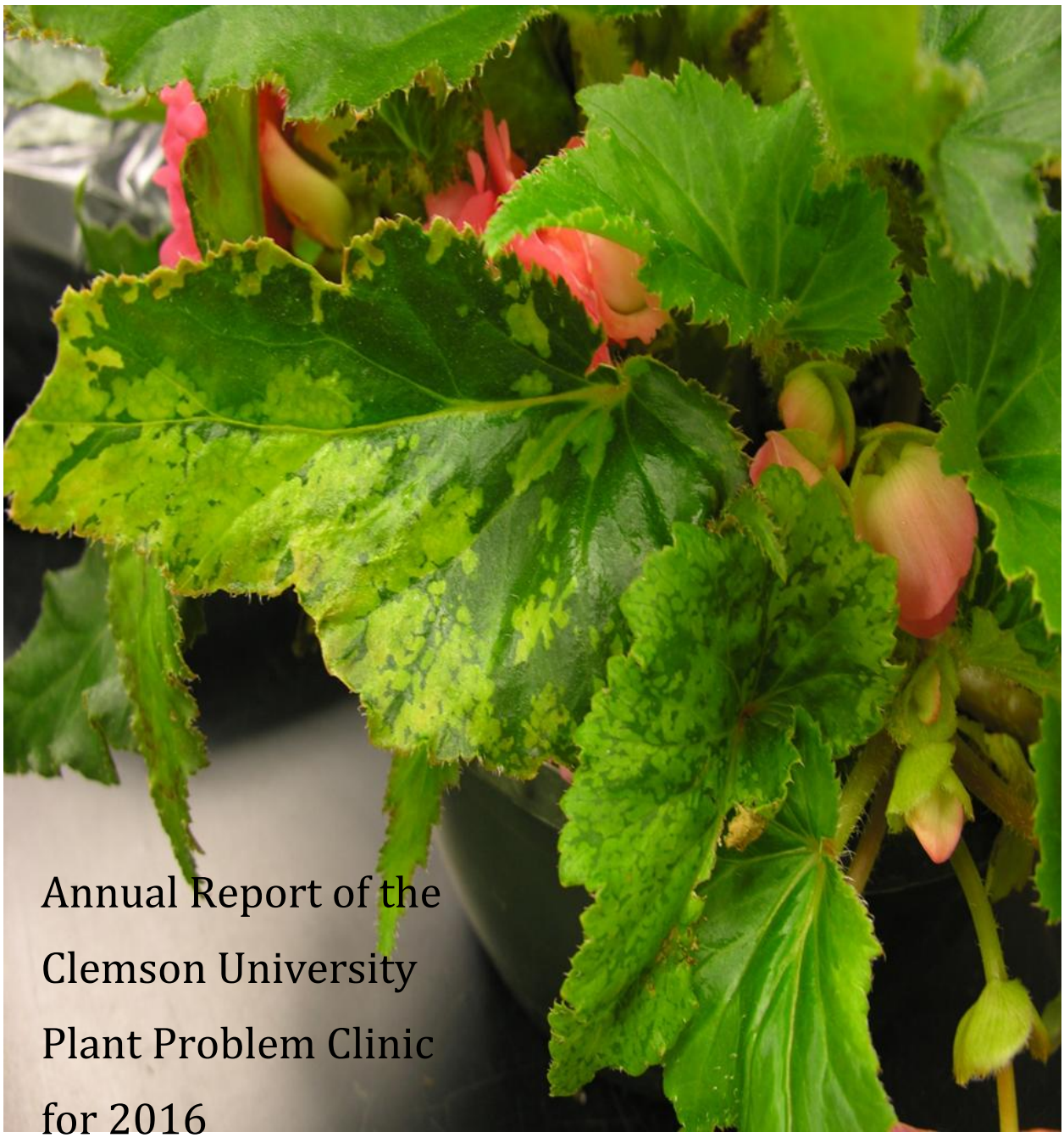


Annual Report of the Clemson University Plant Problem Clinic for 2016

Introduction to the 2016 Annual Report

The Clemson University Plant Problem Clinic serves the people of South Carolina as a multidisciplinary lab that provides diagnoses of plant diseases and identifications of weeds and insect pests of plants and structures. Solutions for these problems are provided through management recommendations. As a part of the Department of Plant Industry in Regulatory Services, the Plant Problem Clinic also helps to detect and document new plant diseases and pests in South Carolina and serves as an information resource for Clemson University Extension, teaching, regulatory and research personnel.

We were lucky to retain the part-time assistance of Madeline Dowling and Suzette Sharpe, graduate students in Plant Pathology. Madeline Dowling has prepared many of the tables for Host/Diagnosis by Crop for this report and she's done an excellent job. Predeesh Chandran continued his work identifying insects and also prepared the Insect Identification section of this report.

In 2016, the Plant Problem Clinic received 1291 samples. As with last year, 24 people from seven disciplinary areas assisted the Clinic by identifying diseases, insects or plants or by providing management recommendations. Two contributors, an Entomologist and a Plant Pathologist were from the University of Georgia. Appreciation is expressed to all faculty, students and staff that contributed their time and effort, enhancing the success of the Plant Problem Clinic. Special thanks are extended to those who are primary identifiers: Entomologists; Tim Drake and Predeesh Chandran, Botanist; Dixie Damrel and Mycologist; Julia Kerrigan.

Much gratitude also goes out to the core lab staff. Diana Low, the Lab Coordinator, performed both lab and office duties while using her organizational skills to keep things running smoothly. Curt Colburn, the Molecular Biologist in charge of the Molecular Plant Pathogen Detection Lab (MPPD), assisted the Plant Problem Clinic by doing bacterial identifications, plus PCR reactions and ELISA tests in some cases.

Curt, in the MPPD, processed 131 samples. Most of these were submitted by Department of Plant Industry Regulatory Inspectors as they performed surveys to detect pathogens of regulatory concern.

This year, the annual report only includes two sections, the Plant Problem Clinic, and the MPPD Lab. Reports for the Nematode Assay Lab and the Commercial Turf Clinic will stand on their own. I hope that readers find these reports both interesting and informative.

Meg Williamson, Diagnostician

Diagnosticians and Identifiers who Processed Samples in 2016

Christel Harden, processed 1 sample.
Curt Colburn, processed 25 samples.
Dan Horton, processed 1 sample.
DixieDamrel, processed 140 samples.
Eric Benson, processed 26 samples.
Joey Williamson, processed 1 sample.
John Hains, processed 11 samples.
JuliaKerrigan, processed 2 samples.
Madeline Dowling, processed 70 samples.
Meg Williamson, processed 953 samples.
Michael Caterino, processed 1 sample.
PredeeshChandran, processed 179 samples.
Suzette Sharpe, processed 32 samples.
Timothy Drake, processed 69 samples.

Diagnosticians and Identifiers who Wrote Sample Reports in 2016

Madeline Dowling, wrote reports for 4 samples.
Suzette Sharpe, wrote reports for 5 samples.
Timothy Drake, wrote reports for 11 samples.
PredeeshChandran, wrote reports for 148 samples.
Eric Benson, wrote reports for 24 samples.
Curt Colburn, wrote reports for 14 samples.
Meg Williamson, wrote reports for 946 samples.
JuliaKerrigan, wrote reports for 2 samples.
DixieDamrel, wrote reports for 134 samples.

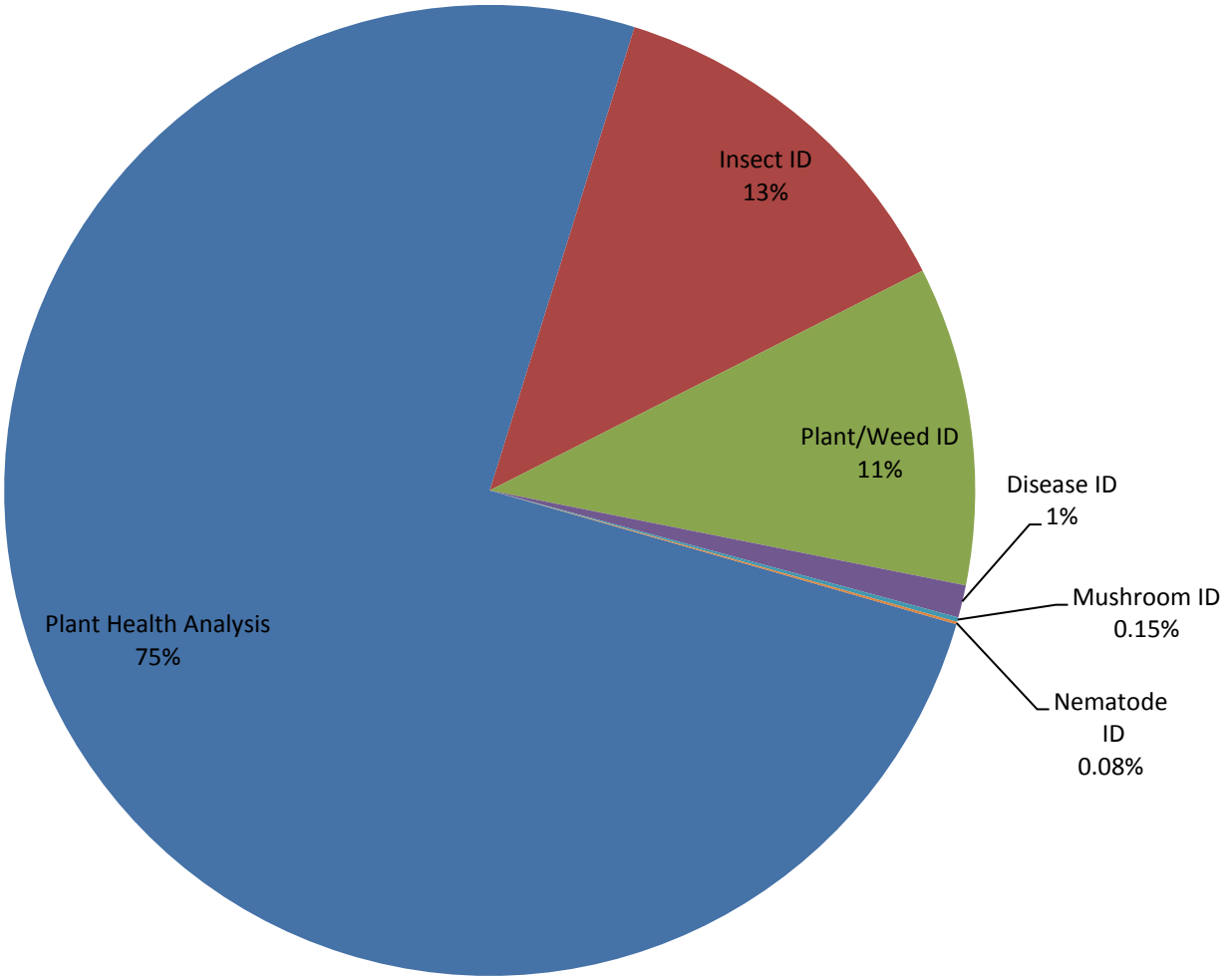
Specialist who Provided Management Recommendations in 2016

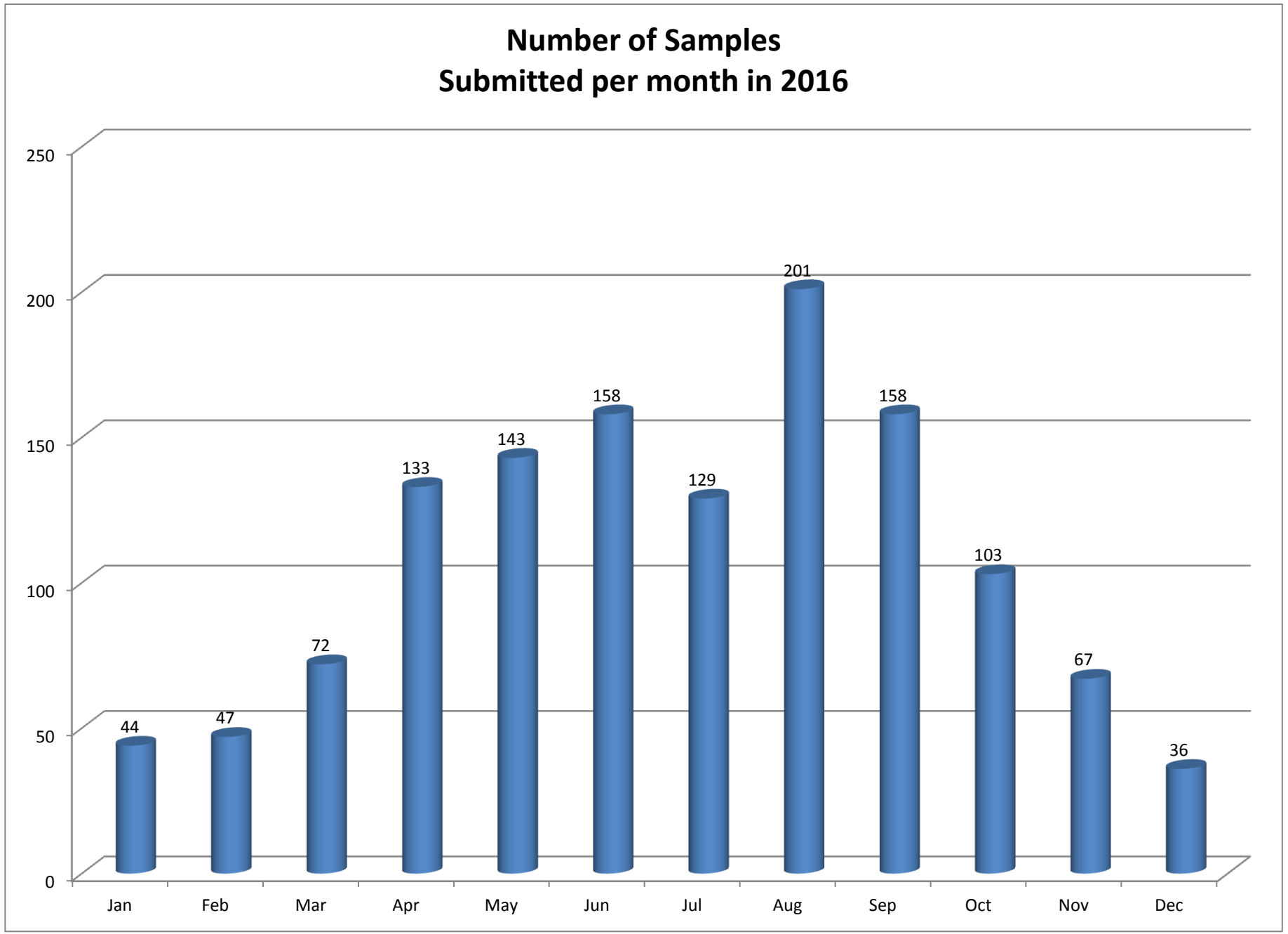
Bert McCarty, gave advice for 4 samples.
Bob Bellinger, gave advice for 1 sample.
Bob Polomski, gave advice for 23 samples.
Corey Heaton, gave advice for 31 samples.
Eric Benson, gave advice for 21 samples.
Greg Yarrow, gave advice for 1 sample.
Guido Schnabel, gave advice for 2 samples.
J.C. Chong, gave advice for 18 samples.
Joey Williamson, gave advice for 23 samples.
John Hains, gave advice for 1 sample.
Mike Marshall, gave advice for 12 samples.
Peter Adler, gave advice for 1 sample.
Phillip Brannen, gave advice for 1 sample.
Powell Smith, gave advice for 3 samples.
Richard Hassell, gave advice for 1 sample.
Tony Keinath, gave advice for 1 sample.

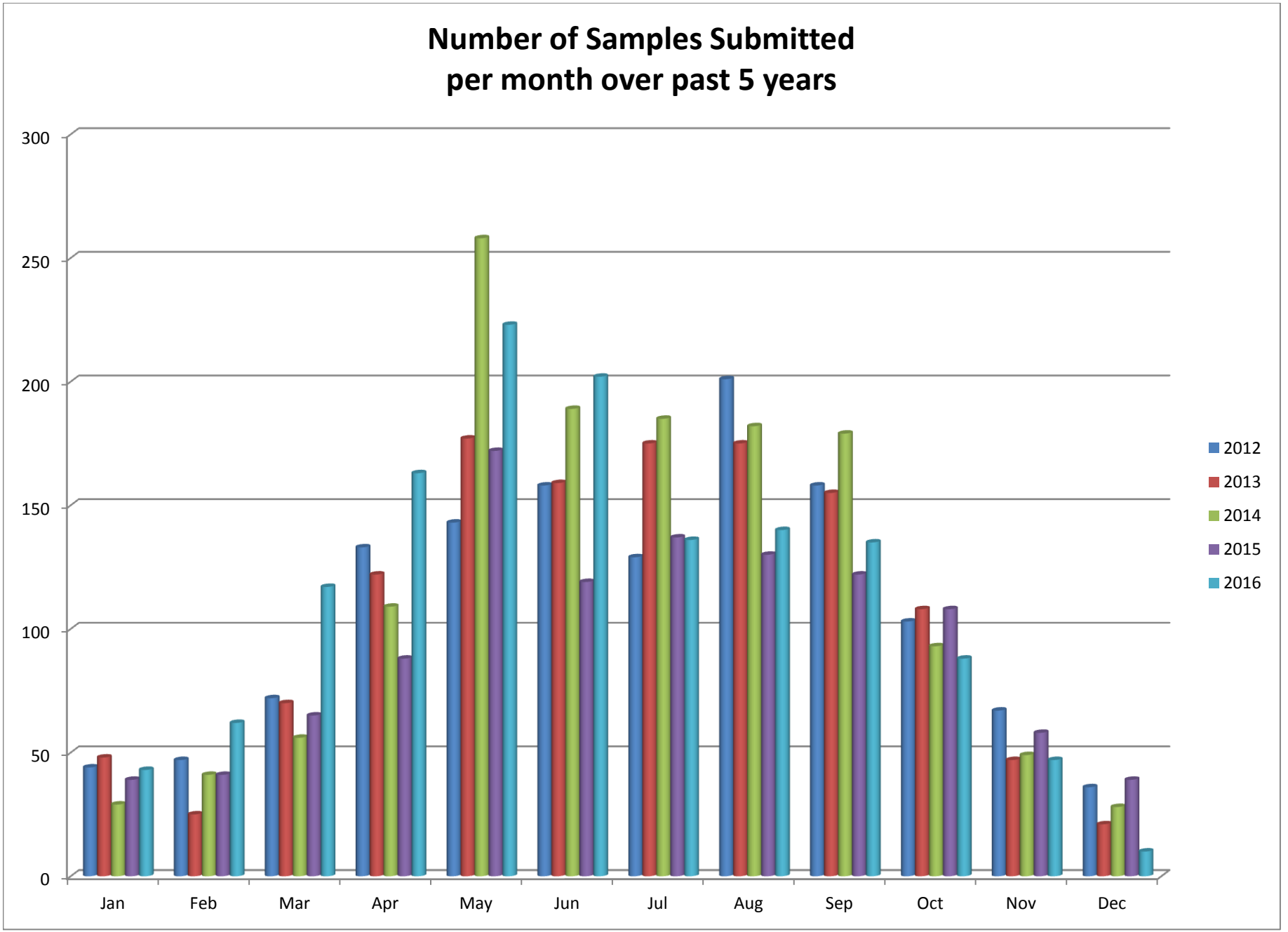
Personnel who Logged in Samples in 2016

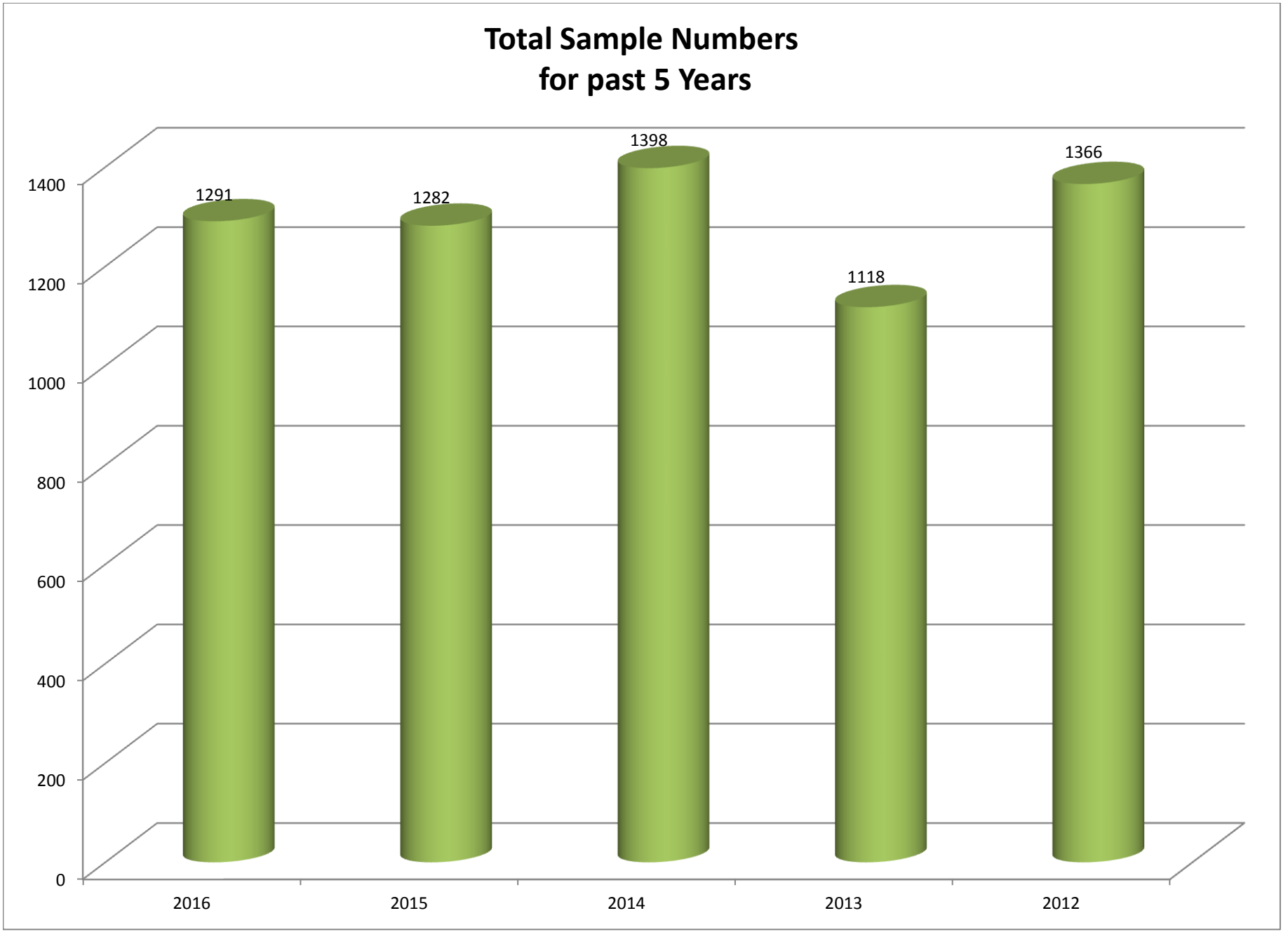
Diana Low, processed 1156 samples.
Madeline Dowling, processed 19 samples.
Meg Williamson, processed 17 samples.
Predeesh Chandran, processed 99 samples.

Diagnoses Requested in 2016

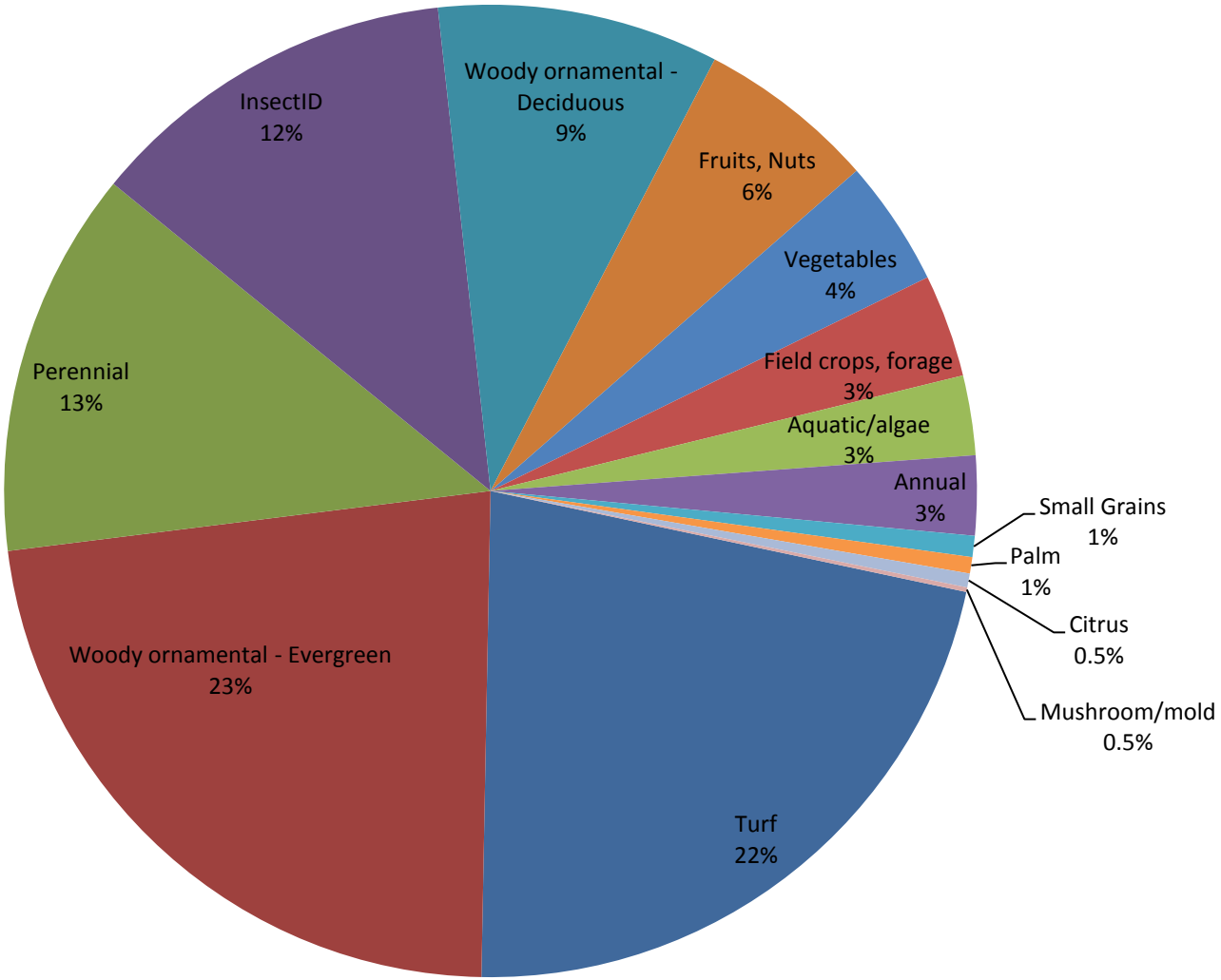


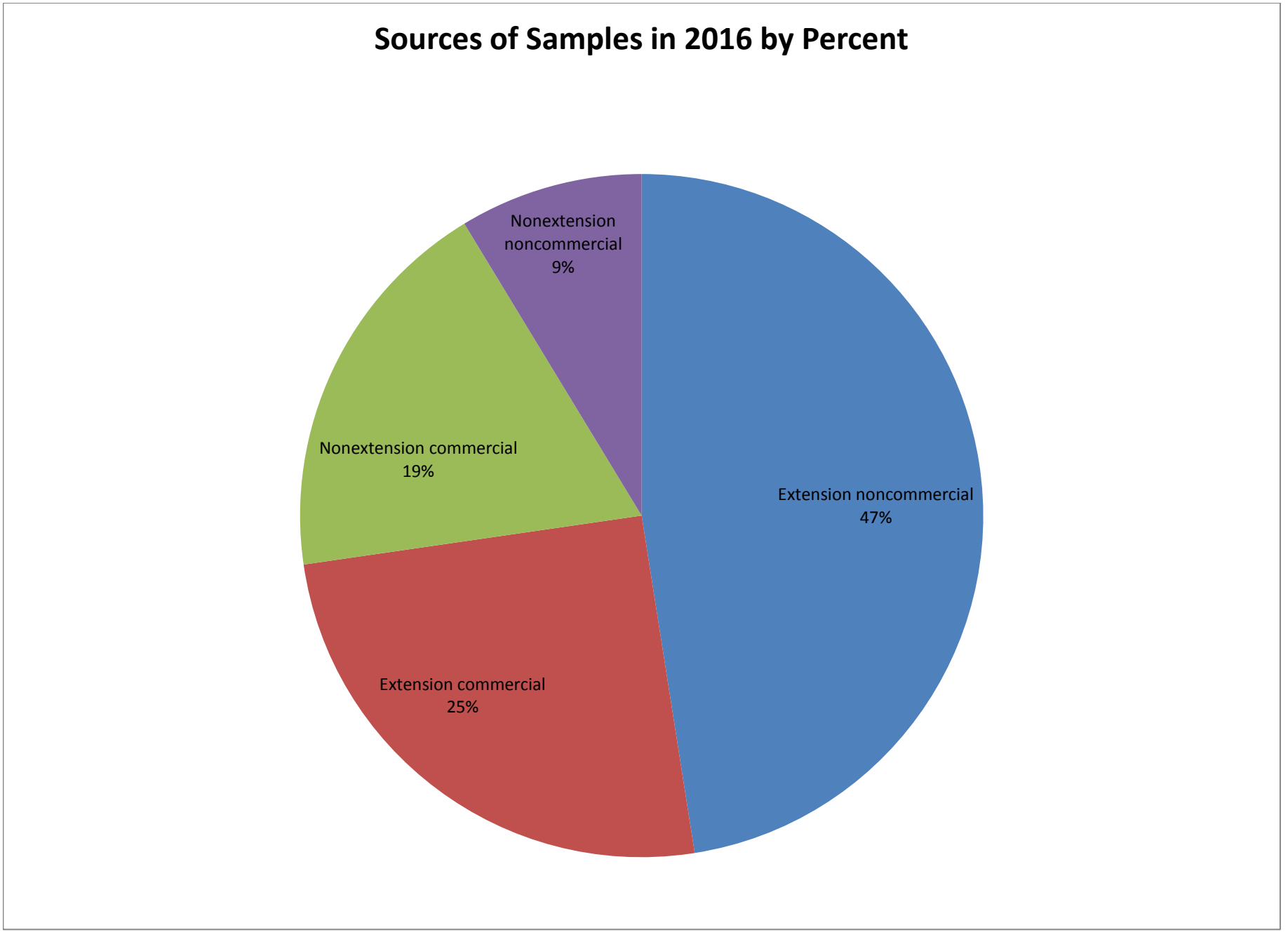

Number of Samples
Submitted per month in 2016
250
200
150
100
50
0
44
47
72
133
143
158
129
201
158
103
67
36
Jan
Feb
Mar
Apr
May
Jun
Jul
Aug
Sep
Oct
Nov
Dec

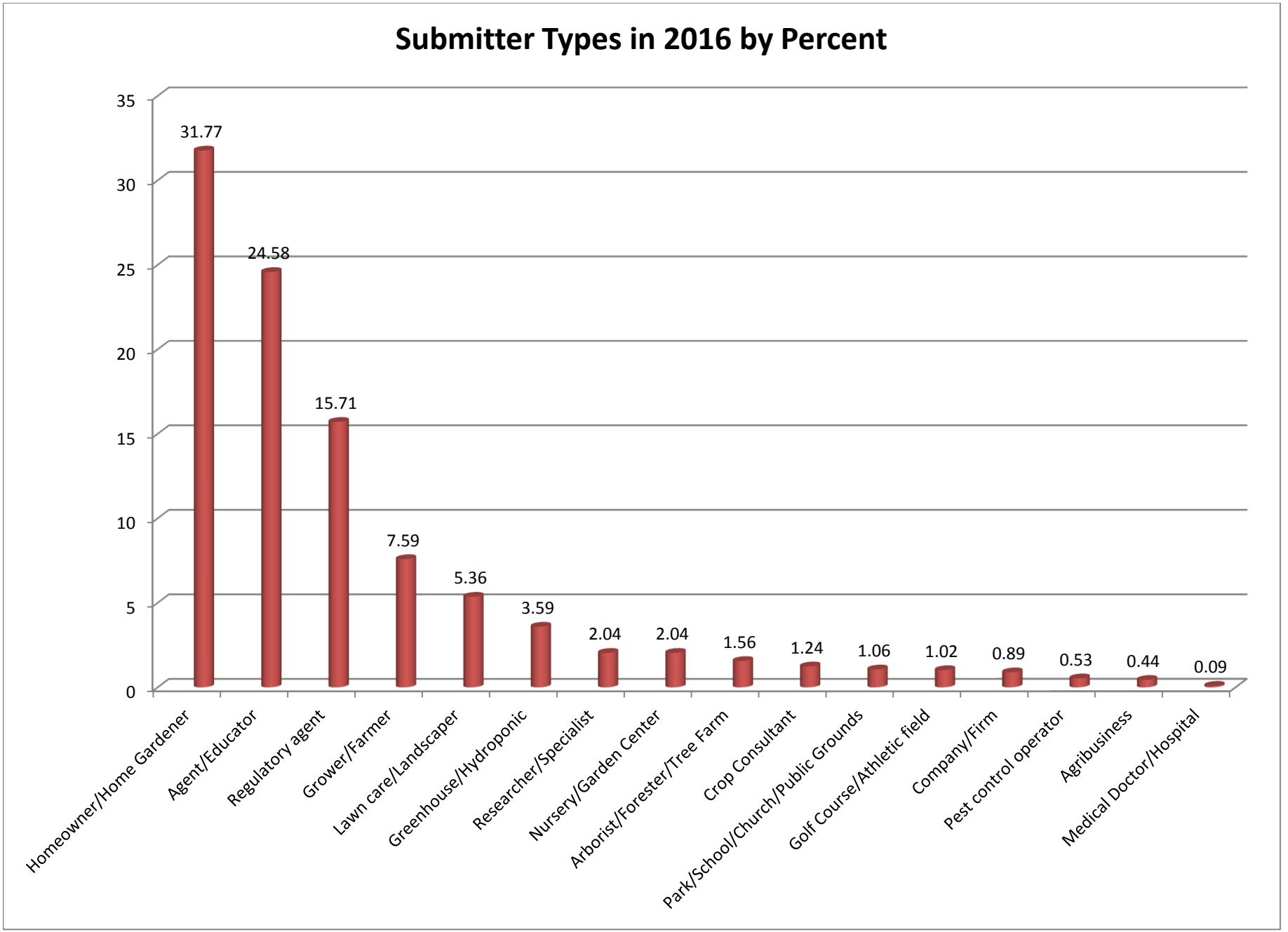

Number of Samples Submitted
per month over past 5 years
300
250
200
150
100
50
0
Jan
Feb
Mar
Apr
May
Jun
Jul
Aug
Sep
Oct
Nov
Dec
2012
2013
2014
2015
2016


Total Sample Numbers
for past 5 Years
1400
1200
1000
800
600
400
200
0
1291
1282
1398
1118
1366
2016
2015
2014
2013
2012

PPC Sample Categories for 2016 by Percent




Sources of Samples in 2016 by Percent
Nonextension noncommercial 9%
Nonextension commercial 19%
Extension noncommercial 47%
Extension commercial 25%


Submitter Types in 2016 by Percent
35
30
25
20
15
10
5
0
31.77
24.58
15.71
7.59
5.36
3.59
2.04
2.04
1.56
1.24
1.06
1.02
0.89
0.53
0.44
0.09
Homeowner/Home Gardener
Agent/Educator
Regulatory agent
Grower/Farmer
Lawn care/Landscaper
Greenhouse/Hydroponic
Researcher/Specialist
Nursery/Garden Center
Arborist/Forester/Tree Farm
Crop Consultant
Park/School/Church/Public Grounds
Golf Course/Athletic field
Company/Firm
Pest control operator
Agribusiness
Medical Doctor/Hospital

Number of Samples from South Carolina and Out-of-state in 2016

County	Number of Samples
Berkeley	7
Darlington	9
Horry	13
Marlboro	1
Spartanburg	59
Beaufort	142
Colleton	20
Hampton	20
Marion	1
Saluda	7
Aiken	48
Charleston	56
Edgefield	71
Kershaw	21
Newberry	16
Union	1
Abbeville	3
Calhoun	6
Dorchester	62
Jasper	10
Mccormick	5
Sumter	33
Barnwell	10
Clarendon	3
Greenwood	16
Lexington	98
Richland	102
Bamberg	4
Chesterfield	4
Greenville	110
Lee	1
Pickens	55
Anderson	61
Chester	4
Georgetown	4
Laurens	21
Orangeburg	20
York	13
Allendale	8
Cherokee	6
Florence	24
Lancaster	8
Oconee	33
Williamsburg	1
STATE TOTAL	1217

Out-of-State Sample Totals

Alabama	5
Colorado	3
Florida	1
Georgia	2
Kansas	3
North Carolina	7
New Hampshire	5
Ohio	5
Pennsylvania	5
Tennessee	9
Texas	16
Virginia	12
Washington	1
TOTAL	74

Diagnoses and Identifications on Ornamentals and Trees

	Confirmed	Not Detected	Suspected	Inconclusive
Abelia (Abelia sp./spp.)				
Fusarium Crown Rot (Fusarium sp./spp.)	1	0	0	0
African Violet (Saintpaulia sp./spp.)				
Cultural/Environmental Problem (Abiotic disorder)	0	0	1	0
Ajuga; Bugle-weed (Ajuga sp./spp.)				
Crown Rot (Unidentified Fungus)	0	0	0	1
Fusarium Stem; Root Rot (Fusarium sp./spp.)	1	0	0	0
Insect Damage (Unidentified Insect)	0	0	0	1
Phoma Blight; Dieback; Rot (Phoma sp./spp.)	1	0	0	0
Almond; Flowering (Prunus glandulosa)				
Dieback; Canker; Twig Blight (Botryosphaeria sp./spp.)	1	0	0	0
Amaryllis (Hippeastrum sp./spp.)				
Mold; Mildew (Penicillium sp./spp.)	1	0	0	0
Anise Tree (Illicium sp./spp.)				
Armillaria root rot (Armillaria sp./spp.)	1	0	0	0
Arborvitae, Green Giant (Thuja standishii x plicata)				
Cultural/Environmental Problem (Abiotic disorder)	0	0	4	0
Dieback; Canker; Twig blight (Botryosphaeria sp./spp.)	1	0	0	0
Mushroom (Unidentified Fungus)	0	0	0	1
Unidentified fungus (Unidentified Fungus)	0	0	0	1
Arborvitae; Northern White (American) cedar (Thuja occidentalis)				
Dieback; Canker; Twig blight (Botryosphaeria sp./spp.)	1	0	0	0
Arborvitae; Western red cedar (Thuja plicata)				
Phytophthora Root and Crown Rot (Phytophthora cinnamomi)	1	0	0	0

	Confirmed	Not Detected	Suspected	Inconclusive
Arborvitae (Thuja sp./spp.)				
Cultural/environmental problem (Abiotic disorder)	1	0	4	0
Dieback; Canker; Twig blight (Botryosphaeria sp./spp.)	1	0	1	0
Low soil moisture (Abiotic disorder)	0	0	1	0
Macrophoma blight; Dieback (Macrophoma sp./spp.)	2	0	1	0
Mite damage (Unidentified Mite)	1	0	0	0
Pestalotiopsis canker/ dieback (Pestalotiopsis sp./spp.)	1	0	0	0
Pestalotiopsis needle blight; Tip blight (Pestalotiopsis sp./spp.)	1	0	0	0
Aucuba, Japanese (Aucuba japonica)				
Anthracnose; Colletotrichum Leaf Spot (Colletotrichum sp./spp.)	1	0	0	0
Armillaria Root Rot (Armillaria sp./spp.)	1	0	0	0
Aucuba, Variegated; Gold Dust plant (Aucuba japonica variegata)				
Anthracnose; Colletotrichum Leaf Spot (Colletotrichum sp./spp.)	1	0	0	0
Sunscald (Abiotic disorder)	0	0	1	0

	Confirmed	Not Detected	Suspected	Inconclusive
Azalea; Rhododendron (Rhododendron sp./spp.)				
Armillaria Root Rot (Armillaria sp./spp.)	0	0	0	0
Azalea bark scale (Eriococcus azaleae)	1	0	0	0
Azalea Lace Bug (Stephanitis pyrioides)	0	0	2	0
Crown and Root Rot (Phytophthora sp./spp.)	1	0	0	0
Dieback; Canker; Twig blight (Botryosphaeria sp./spp.)	2	0	0	0
Drainage Problem (Abiotic disorder)	1	0	0	0
Flea Beetles (Subfamily Alticinae)	1	0	0	0
Flies (Order diptera)	1	0	0	0
Freeze; Frost; Cold Damage (Abiotic disorder)	1	0	0	0
Leaf Spot (Pseudocercospora sp./spp.)	1	0	0	0
Mealybugs (Family Pseudococcidae)	1	0	0	0
Normal Plant Growth (Identification Analysis)	0	0	1	0
Nutrient Imbalance (Abiotic disorder)	0	0	1	0
Obliquebanded Leafroller (Charistoneura rosaceana)	1	0	0	0
Oribatid mites (Family Oribatidae; Acari)	1	0	0	0
Phomopsis dieback; Tip blight; Canker (Phomopsis sp./spp.)	5	0	0	0
Phomopsis Leaf Spot (Phomopsis sp./spp.)	1	0	0	0
Phytophthora Root and Crown Rot (Phytophthora cinnamomi)	1	0	0	0
Seasonal Leaf Drop (Abiotic disorder)	1	0	1	0
Spider mites (Family Tetranychidae)	1	0	2	0
Undetermined Injury (Identification Analysis)	0	0	0	1
Formosa Azalea (Rhododendron simsii formosa)				
Cultural/Environmental Problem (Abiotic disorder)	0	0	1	0
Bamboo, Black (Phyllostachys nigra)				
Bamboo Mealybug (Antonina pretiosa)	1	0	0	0
Beech (Fagus sp./spp.)				
Phomopsis dieback; Tip blight; Canker (Phomopsis sp./spp.)	1	0	0	0
Begonia, Tuberous (Begonia tuberosa)				
Impatiens Necrotic Spot (Impatiens Necrotic Spot Virus (INSV))	1	0	0	0
Begonia, Wax (Begonia semperflorens-cultorum)				
Anthracnose basal rot; Crown rot (Colletotrichum sp./spp.)	1	0	0	0

	Confirmed	Not Detected	Suspected	Inconclusive
Black Gum (Nyssa sylvatica)				
Cercospora leaf spot (Cercospora sp./spp.)	0	0	1	0
Dieback; Canker; Twig blight (Botryosphaeria sp./spp.)	2	0	0	0
Boxwood, Common; American (Buxus sempervirens)				
Boxwood blight; Leaf and stem blight (Calonectria pseudonaviculata)	0	4	0	0
Boxwood mite (Eurytetranychus buxi)	1	0	0	0
Boxwood Volutella blight; Canker (Volutella buxi)	1	0	0	0
Crown and root rot (Phytophthora sp./spp.)	1	0	0	0
Cultural/Environmental Problem (Abiotic disorder)	1	0	0	0
False Oleander Scale (Pseudaulacaspis cockerelli)	1	0	0	0
Fusarium dieback (Fusarium sp./spp.)	1	0	0	0
Fusarium root; Crown rot (Fusarium sp./spp.)	1	0	0	0
Mite Damage (Unidentified Mite)	0	0	0	1
Phytophthora crown and/or root rot (Phytophthora nicotianae)	1	0	0	0
Boxwood, Edging; English (Buxus sempervirens suffruticosa)				
Boxwood Blight; Leaf and Stem Blight (Calonectria pseudonaviculata)	2	2	0	0
Boxwood Volutella Blight; Canker (Volutella buxi)	1	0	0	0
Crown and root rot (Phytophthora sp./spp.)	2	0	0	0
Excessive water (Abiotic disorder)	1	0	0	0
Macrophoma Blight; Dieback (Macrophoma sp./spp.)	1	0	0	0
Pythium root and/or crown rot (Pythium sp./spp.)	1	0	0	0
Boxwood, Japanese (Buxus microphylla var. japonica)				
Anthracnose; Colletotrichum leaf spot (Colletotrichum sp./spp.)	1	0	0	0
Boxwood blight; Leaf and stem blight (Calonectria pseudonaviculata)	0	3	0	0
Cultural/environmental problem (Abiotic disorder)	0	0	1	0
Fusarium root rot (Fusarium sp./spp.)	1	0	0	0
Phytophthora crown and/or root rot (Phytophthora nicotianae)	1	0	0	0
Stem canker (Colletotrichum sp./spp.)	1	0	0	0
Boxwood, Korean (Buxus sinica var. insularis)				
Boxwood Blight; Leaf and Stem Blight (Calonectria pseudonaviculata)	1	0	0	0
Crown and Root Rot (Phytophthora sp./spp.)	1	0	0	0

	Confirmed	Not Detected	Suspected	Inconclusive
Boxwood, Korean (Buxus sinica)				
Boxwood Leafminer (Monarthropalpus flavus (buxi))	1	0	0	0
Crown and Root Rot (Phytophthora sp./spp.)	1	0	0	0
Unspecified Pathology (Paecilomyces sp./spp.)	1	0	0	0
Boxwood, Littleleaf (Buxus microphylla)				
Anthracnose Stem Blight (Colletotrichum sp./spp.)	2	0	0	0
Anthracnose; Twig dieback (Colletotrichum sp./spp.)	1	0	0	0
Boxwood blight; Leaf and stem blight (Calonectria pseudonaviculata)	0	1	0	0
Boxwood Mite (Eurytetranychus buxi)	0	0	1	0
Boxwood Volutella Blight; Canker (Volutella buxi)	1	0	0	0
Crown and root rot (Phytophthora sp./spp.)	1	0	0	0
Cultural/environmental problem (Abiotic disorder)	1	0	0	0

	Confirmed	Not Detected	Suspected	Inconclusive
Boxwood (Buxus sp./spp.)				
Anthracnose Stem Blight (Colletotrichum sp./spp.)	1	0	0	0
Anthracnose; Colletotrichum Leaf Spot (Colletotrichum sp./spp.)	1	0	0	0
Anthracnose; Twig dieback (Colletotrichum sp./spp.)	2	0	0	0
Black twig borer (Xylosandrus compactus)	1	0	0	0
Boxwood blight; Leaf and stem blight (Calonectria pseudonaviculata)	2	0	0	0
Boxwood Leafminer (Monarthropalpus flavus (buxi))	1	0	0	0
Boxwood Macrophoma leaf spot (Dothiorella (Macrophoma) sempervirens (candollei))	1	0	0	0
Boxwood Mite (Eurytetranychus buxi)	1	0	0	0
Boxwood Volutella blight; Canker (Volutella buxi)	3	0	0	0
Crown and root rot (Phytophthora sp./spp.)	0	0	1	0
Cultural/environmental problem (Abiotic disorder)	0	0	4	0
Fusarium crown rot (Fusarium sp./spp.)	1	0	0	0
Herbicide Drift (Abiotic disorder)	0	0	1	0
Hydrophobic soil/planting mix/media (Abiotic disorder)	1	0	0	0
Macrophoma Blight; Dieback (Macrophoma sp./spp.)	2	0	0	0
Oleander Scale (Aspidiotus nerii)	1	0	0	0
Phomopsis Dieback; Tip Blight; Canker (Phomopsis sp./spp.)	1	0	0	0
Root-knot nematodes (Meloidogyne sp./spp.)	0	0	1	0
Spider mites (Family Tetranychidae)	1	0	0	0
Unidentified virus (Unidentified Virus)	0	0	1	0
Volutella Leaf Blight; Dieback (Volutella sp./spp.)	1	0	0	0
Burningbush (Euonymus alatus)				
Cercospora leaf spot (Cercospora sp./spp.)	1	0	0	0
Cultural/environmental problem (Abiotic disorder)	0	0	1	0
Mite damage (Unidentified Mite)	0	0	0	1
Callery Pear (Pyrus calleryana)				
Cedar-Quince Rust (Gymnosporangium clavipes)	2	0	0	0
Dieback; Canker; Twig Blight (Botryosphaeria sp./spp.)	1	0	0	0
Fire Blight (Erwinia amylovora)	0	0	2	0
Yellow-bellied Sapsucker (Sphyrapicus varius)	0	0	1	0

	Confirmed	Not Detected	Suspected	Inconclusive
Common Camellia (Camellia japonica)				
Algal Leaf Spot (Cephaleuros virescens)	1	0	0	0
Black Citrus Aphid (Toxoptera aurantii)	1	0	0	0
Cultural/Environmental Problem (Abiotic disorder)	1	0	1	0
Dieback; Canker; Twig Blight (Botryosphaeria sp./spp.)	1	0	0	0
Lichens (Lichenes)	1	0	0	0
Mite (Aculus sp./spp.)	1	0	0	0
Oedema; Edema (Abiotic disorder)	0	0	1	0
Sooty Mold (Unidentified Fungus)	0	0	0	1
Tea Scale (Fiorinia theae)	2	0	0	0
Unidentified Virus (Unidentified Virus)	0	0	1	3
Camellia, sasanqua (Camellia sasanqua)				
Camellia Leaf Gall (Exobasidium camelliae)	0	0	1	0
Cercospora Leaf Spot (Cercospora sp./spp.)	1	0	0	0
Colletotrichum Dieback (Colletotrichum gloeosporioides)	1	0	0	0
Cultural/Environmental Problem (Abiotic disorder)	0	0	2	0
Herbicide Injury; Exposure (Abiotic disorder)	0	0	1	0
Oedema; Edema (Abiotic disorder)	0	0	1	0
Physiological responses (Abiotic disorder)	0	0	1	0
Stem canker (Colletotrichum (teleo. Glomerella) sp./spp.)	1	0	0	0
Undetermined Injury (Identification Analysis)	0	0	0	1
Camellia (Camellia sp./spp.)				
Armillaria Root Rot (Armillaria sp./spp.)	1	0	0	0
Dieback; Canker; Twig blight (Botryosphaeria sp./spp.)	1	0	0	0
Tea scale (Fiorinia theae)	2	0	0	0
Candytuft (Iberis sempervirens)				
Anthracnose; Colletotrichum leaf spot (Colletotrichum sp./spp.)	1	0	0	0
Cultural/environmental problem (Abiotic disorder)	0	0	1	0
Nutritional deficiency (Abiotic disorder)	0	0	1	0
Poor root development (Abiotic disorder)	1	0	1	0
Stem rot (Unidentified Agent)	0	0	0	1
Tissue proliferation; Callus (Abiotic disorder)	0	0	1	0

	Confirmed	Not Detected	Suspected	Inconclusive
Cedar, Deodar (Cedrus deodara)				
Moisture Stress (Abiotic disorder)	0	0	1	0
Cedar, Eastern Red (Juniperus virginiana)				
Bagworm Moths (Family Psychidae)	0	0	1	0
Cedar-apple Rust (Gymnosporangium juniperi-virginianae)	1	0	0	0
Dieback; Canker; Twig blight (Botryosphaeria sp./spp.)	1	0	0	0
Moisture stress (Abiotic disorder)	0	0	1	0
Pestalotiopsis needle blight; Tip blight (Pestalotiopsis sp./spp.)	1	0	0	0
Cerulean flax-lily (Dianella ensifolia)				
Flax Lily Rust (Uredo dianellae)	1	0	0	0
Chastetree (Vitex sp./spp.)				
Salt damage (Abiotic disorder)	0	0	1	0
Weevils (Family Curculionidae)	1	0	0	0
Cherry (Prunus sp./spp.)				
Cultural/Environmental Problem (Abiotic disorder)	0	0	1	0
Cherry-laurel (Prunus laurocerasus)				
Crown and root rot (Phytophthora sp./spp.)	1	0	0	0
Phytophthora Root and Crown Rot (Phytophthora cinnamomi)	1	0	0	0
Shothole (Various Pathogens)	0	0	0	1
Trunk girdling (Abiotic disorder)	1	0	0	0
Cherry, Japanese Flowering (Prunus serrulata)				
Bark Beetles; Ambrosia Beetles (Family Scolytidae)	1	0	0	0
China Fir (Cunninghamia lanceolata)				
Cultural/environmental problem (Abiotic disorder)	0	0	1	0
Chinese Fringe flower (Loropetalum chinense)				
Armillaria Root Rot; Butt Rot (Armillaria sp./spp.)	1	0	0	0
Root Problem (Unknown Cause)	0	0	0	1
Chinese Paperbush (Edgeworthia chrysantha)				
Southern Stem Rot (Sclerotium rolfsii)	1	0	0	0

	Confirmed	Not Detected	Suspected	Inconclusive
Chrysanthemum (Chrysanthemum sp./spp. hybrids)				
Bacterial Blight (Unidentified Bacteria)	1	0	0	0
Botrytis blight (Botrytis sp./spp.)	0	1	0	0
European pepper moth (Duponchelia fovealis)	1	0	0	0
Fusarium stem rot (Fusarium sp./spp.)	1	0	0	0
Pythium Root Rot (Pythium aphanidermatum)	1	0	0	0
Clematis (Clematis sp./spp.)				
Cultural/environmental problem (Abiotic disorder)	0	0	3	0
Cleyera, Japanese (Ternstroemia gymnanthera)				
Cultural/Environmental Problem (Abiotic disorder)	0	0	1	0
Yellow-bellied sapsucker (Sphyrapicus varius)	0	0	1	0
Coreopsis, Dwarf (Coreopsis auriculata)				
Botrytis blight (Botrytis sp./spp.)	1	0	0	0
Pythium root and/or crown rot (Pythium sp./spp.)	1	0	0	0
Crabapple (Malus sp./spp.)				
Apple blotch; Leaf spot; Twig canker (Phyllosticta arbutifolia)	1	0	0	0
Stem rot; Dieback; Canker (Botryodiplodia sp./spp.)	1	0	0	0
Crape Myrtle (Lagerstroemia indica)				
Asiatic Garden Beetle (Maladera castanea)	4	0	0	0
Barklice (Order psocoptera)	1	0	0	0
Herbicide Drift (Abiotic disorder)	0	0	1	0
Poor Pruning Practice (Abiotic disorder)	1	0	0	0
Root Problems (Abiotic disorder)	0	0	1	0
Salt damage (Abiotic disorder)	0	0	1	0
Cryptomeria (Cryptomeria sp./spp.)				
Macrophoma blight; Dieback (Macrophoma sp./spp.)	1	0	0	0
Phytophthora Root and Crown Rot (Phytophthora cinnamomi)	1	0	0	0
Cypress, Carolina Sapphire (Cupressus arizonica glabra)				
Dieback; Canker; Twig blight (Botryosphaeria sp./spp.)	1	0	0	0

	Confirmed	Not Detected	Suspected	Inconclusive
Cypress (Cupressus sp./spp.)				
Cultural/environmental problem (Abiotic disorder)	0	0	1	0
Seiridium canker (Seiridium unicorne)	1	0	0	0
Italian Cypress (Cupressus semperviriens)				
Dieback; Canker; Twig blight (Botryosphaeria sp./spp.)	1	0	0	0
Root Problems (Abiotic disorder)	1	0	0	0
Cypress, Leyland Cypress (X cupressocyparis leylandii)				
Bagworm (Thyridopteryx ephemeraeformis)	1	0	0	0
Branch canker and dieback (Unidentified Agent)	0	0	0	1
Cultural/environmental problem (Abiotic disorder)	0	0	1	0
Dieback; Canker (Seiridium sp./spp.)	1	0	0	0
Dieback; Canker (Seiridium unicorne)	1	0	0	0
Dieback; Canker; Twig Blight (Botryosphaeria sp./spp.)	2	0	0	0
Insufficient Light (Abiotic disorder)	1	0	0	0
Macrophoma blight; Dieback (Macrophoma sp./spp.)	1	0	0	0
Minute cypress scale (Carulaspis minima)	1	0	0	0
Seiridium canker (Seiridium unicorne)	0	0	0	0
Seiridium canker (Seiridium unicorne)	1	0	0	0
Daisy, Nippon (Chrysanthemum nipponicum)				
Alternaria leaf spot (Alternaria sp./spp.)	1	0	0	0
Daisy, Nippon (Nipponanthemum nipponicum)				
Alternaria leaf spot (Alternaria sp./spp.)	1	0	0	0
Daylily (Hemerocallis sp./spp. hybrids)				
Anthracnose; Colletotrichum leaf spot (Colletotrichum sp./spp.)	1	0	0	0
Daylily rust (Puccinia hemerocallidis)	1	0	0	0
Dianthus, clove pink; carnation (Dianthus caryophyllus)				
Anthracnose; Colletotrichum Leaf Spot (Colletotrichum sp./spp.)	1	0	0	0
Bacterial Leaf Spot (Burkholderia andropogonis)	1	0	0	0
Bacterial Leaf Spot (Unidentified Bacteria)	0	0	0	1
Dianthus; Pinks (Dianthus sp./spp.)				
Bacterial Leaf Spot (Burkholderia andropogonis)	1	0	0	0

	Confirmed	Not Detected	Suspected	Inconclusive
Dogwood, Flowering (Cornus florida)				
Armored Scales (Family Diaspididae)	1	0	0	0
Canker (Unidentified Fungus)	0	0	0	1
Cercospora leaf spot (Pseudocercospora cornicola)	1	0	0	0
Cultural/Environmental Problem (Abiotic disorder)	0	0	3	0
Decline; Dieback (Abiotic disorder)	2	0	0	0
Dogwood Powdery Mildew (Erysiphe pulchra)	1	0	0	0
Flea Beetles (Subfamily Alticinae)	0	0	1	0
Leaf spot (Pseudocercospora sp./spp.)	1	0	0	0
Nutrient Imbalance (Abiotic disorder)	0	0	1	0
Septoria Leaf Spot (Septoria sp./spp.)	1	0	0	0
Spot Anthracnose (Elsinoe corni)	5	0	0	0
Sunscald (Abiotic disorder)	0	0	1	0
Dogwood, Japanese; Kousa Dogwood (Cornus kousa)				
Cultural/Environmental Problem (Abiotic disorder)	0	0	1	0
Dogwood (Cornus sp./spp.)				
Dogwood Powdery Mildew (Erysiphe pulchra)	1	0	0	0
Herbicide Drift (Abiotic disorder)	0	0	1	0
Root Problems (Abiotic disorder)	0	0	1	0
Water Damage (Abiotic disorder)	0	0	1	0
Elm, American (Ulmus americana)				
Obscure Scale (Melanaspis obscura)	0	0	1	0
Euphorbia; Wood Spurge (Euphorbia amygdaloides)				
Cercospora leaf spot (Cercospora sp./spp.)	1	0	0	0
Chemical; Environmental injury (Abiotic disorder)	0	0	1	0
Euphorbia (Euphorbia sp./spp.)				
Unidentified virus (Unidentified Virus)	0	0	0	1
Fern, Autumn (Dryopteris erythrosora)				
Hydrophobic soil/planting mix/media (Abiotic disorder)	0	0	1	0
Fern, Remote Wood (Dryopteris remota)				
Cultural/environmental problem (Abiotic disorder)	0	0	1	0
Snail (Mollusca; Gastropoda)	1	0	0	0

	Confirmed	Not Detected	Suspected	Inconclusive
Fern, Ribbon (Pteris cretica)				
Foliar nematodes (Aphelenchoides sp./spp.)	1	0	0	0
Fern, Shield (Polystichum tsus-simense)				
Cultural/environmental problem (Abiotic disorder)	0	0	1	0
Firethorn (Pyracantha sp./spp.)				
Anthracnose; Twig Dieback (Colletotrichum sp./spp.)	1	0	0	0
Oedema; Edema (Abiotic disorder)	1	0	0	0
Florida Anisetree (Illicium floridanum)				
Cercospora Leaf Spot (Cercospora sp./spp.)	1	0	0	0
Geranium, Bigroot (Geranium macrorrhizum)				
Black Root Rot (Thielaviopsis basicola)	1	0	0	0
Fusarium Stem Rot (Fusarium sp./spp.)	1	0	0	0
Gardenia (Gardenia sp./spp. hybrids)				
Cultural/Environmental Problem (Abiotic disorder)	0	0	2	0
Root Girdling (Abiotic disorder)	1	0	0	0
Wax Scale (Ceroplastes sp./spp.)	1	0	0	0
Grass, Grey Clubawn (Corynephorus canescens)				
Cultural/environmental problem (Abiotic disorder)	0	0	1	0
Pyricularia leaf spot (Pyricularia sp./spp.)	1	0	0	0
Grass, Redtop (Agrostis alba)				
Anthracnose; Colletotrichum leaf spot (Colletotrichum sp./spp.)	1	0	0	0
Leaf spot (Bipolaris sp./spp.)	1	0	0	0
Snail (Succinea sp./spp.)	1	0	0	0
Helleborus Hybrid (Helleborus hybrids)				
Cultural/environmental problem (Abiotic disorder)	0	0	1	0
Normal plant growth (Identification Analysis)	0	0	2	0
Heuchera; Coral Bells (Heuchera sanguinea)				
Fusarium stem rot (Fusarium sp./spp.)	1	0	0	0
Heuchera (Heuchera sp./spp.)				
Phytophthora Root and Crown Rot (Phytophthora cinnamomi)	1	0	0	0
Holly, Burford (Ilex cornuta burfordii)				
Black Root Rot (Thielaviopsis basicola)	1	0	0	0
Branch girdling (Abiotic disorder)	1	0	0	0

	Confirmed	Not Detected	Suspected	Inconclusive
Holly, Chinese (Ilex cornuta)				
Armillaria Root Rot (Armillaria sp./spp.)	0	0	1	0
Cottony Camellia Scale (Pulvinaria floccifera)	1	0	0	0
Cultural/Environmental Problem (Abiotic disorder)	0	0	1	0
Nutrient Imbalance (Abiotic disorder)	0	0	1	0
Seasonal Leaf Drop (Abiotic disorder)	1	0	0	0
Trunk Girdling (Abiotic disorder)	1	0	0	0
Holly, Heller; mushroom holly (Ilex crenata helleri)				
Black Root Rot (Thielaviopsis basicola)	1	0	0	0
Cultural/environmental problem (Abiotic disorder)	0	0	1	0
Dieback; Canker; Twig Blight (Botryosphaeria sp./spp.)	0	0	1	0
Gall (Unidentified Agent)	0	0	0	1
Holly, Japanese (Ilex crenata)				
Black Root Rot (Thielaviopsis basicola)	1	0	0	0
Cultural/environmental problem (Abiotic disorder)	0	0	3	0
Dieback; Canker; Twig blight (Botryosphaeria sp./spp.)	2	0	0	0
Japanese maple scale (Lopholeucaspis japonica)	1	0	0	0
Mite damage (Unidentified Mite)	2	0	0	0
Oribatid mites (Family Oribatidae; Acari)	1	0	0	0
Root problem (Unknown Cause)	0	0	0	1
Southern red mite (Oligonychus ilicis)	1	0	0	0
Trunk girdling (Abiotic disorder)	1	0	0	0
Holly, Lusterleaf (Ilex latifolia)				
Dieback; Canker; Twig blight (Botryosphaeria sp./spp.)	1	0	0	0
Tea scale (Fiorinia theae)	1	0	0	0
Holly, Oak Leaf (Ilex x 'Conaf')				
Dieback; Canker; Twig blight (Botryosphaeria sp./spp.)	1	0	0	0
Holly, Yaupon (Ilex vomitoria)				
Dieback; Canker; Twig blight (Botryosphaeria sp./spp.)	1	0	0	0
Slime Mold (Class Myxogastria; Mycetozoa)	0	0	1	0
Wax Scale (Ceroplastes sp./spp.)	1	0	0	0

	Confirmed	Not Detected	Suspected	Inconclusive
Holly (Ilex sp./spp.)				
Cultural/environmental problem (Abiotic disorder)	0	0	1	0
Peony Scale (Pseudaonidia paeoniae)	0	0	1	0
Phytophthora Root and Crown Rot (Phytophthora cinnamomi)	1	0	0	0
Soft scales (Family Coccidae)	1	0	0	0
Holly, Hybrid (Ilex hybrid)				
Algae (General)	1	0	0	0
Pollen (Abiotic disorder)	1	0	0	0
Hosta (Hosta sp./spp.)				
Fusarium Crown Rot (Fusarium sp./spp.)	1	0	0	0
Hosta Virus X (Hosta Virus X (HVX))	1	0	0	0
Tardiva Hydrangea (Hydrangea paniculata 'Tardiva')				
Japanese Beetle (Popillia japonica)	0	0	1	0
Hydrangea (Hydrangea sp./spp.)				
Freeze; Frost; Cold Damage (Abiotic disorder)	1	0	0	0
Leaf Spot (Phyllosticta sp.)	1	0	0	0
Root-knot Nematodes (Meloidogyne sp./spp.)	1	0	0	0
Japanese Beetle (Popillia japonica)	0	0	1	0
Ice Plant (Delosperma sp./spp.)				
Pythium root and/or crown rot (Pythium sp./spp.)	1	0	0	0
Impatiens (Impatiens sp./spp.)				
Pythium Root and/or Crown Rot (Pythium sp./spp.)	2	0	0	0
Indian Hawthorn (Raphiolepis indica)				
Armillaria Root Rot (Armillaria sp./spp.)	0	0	1	0
Armillaria root rot; Butt rot (Armillaria sp./spp.)	1	0	0	0
Root problems (Abiotic disorder)	0	0	1	0
Ivy, English (Hedera helix)				
Anthracnose; Colletotrichum Leaf Spot (Colletotrichum sp./spp.)	1	0	0	0
Ivy Bacterial Leaf Spot (Xanthomonas campestris pv. hederae)	0	0	1	0
Ivy (Hedera sp./spp.)				
Anthracnose; Colletotrichum leaf spot (Colletotrichum sp./spp.)	1	0	0	0
False oleander scale (Pseudaulacaspis cockerelli)	1	0	0	0

	Confirmed	Not Detected	Suspected	Inconclusive
Jasmine, Asiatic (Trachelospermum asiaticum)				
Rhizoctonia stem rot (Rhizoctonia sp./spp.)	2	0	0	0
Jasmine, Confederate; star-jasmine (Trachelospermum jasminoides)				
Cultural/environmental problem (Abiotic disorder)	0	0	2	0
Juniper, Andorra (Juniperus horizontalis 'Plumosa Compacta'				
Cultural/environmental problem (Abiotic disorder)	0	0	1	0
Juniper, Parson's (Juniperus davurica 'parsoni')				
Dieback; Canker; Twig blight (Botryosphaeria sp./spp.)	1	0	0	0
Leptothyrium leaf spot (Leptothyrium sp./spp.)	0	0	1	0
Juniper, Shore (Juniperus conferta)				
Cultural/Environmental Problem (Abiotic disorder)	0	0	3	0
Dieback; Canker; Twig Blight (Botryosphaeria sp./spp.)	1	0	0	0
Natural senescence (Abiotic disorder)	1	0	0	0
Pestalotiopsis needle blight; Tip blight (Pestalotiopsis sp./spp.)	2	0	0	0
Root Problems (Abiotic disorder)	0	0	1	0
Juniper, Wilton Carpet; blue rug juniper (Juniperus horizontalis wiltoni)				
Root problems (Abiotic disorder)	0	0	1	0
Juniper (Juniperus sp./spp.)				
Cultural/Environmental Problem (Abiotic disorder)	0	0	3	0
Dieback; Canker; Twig Blight (Botryosphaeria sp./spp.)	1	0	0	0
Juniper Scale (Carulaspis juniperi)	0	0	1	0
Mechanical damage (Abiotic disorder)	0	0	1	0
Mite damage (Unidentified Mite)	2	0	1	0
Pestalotiopsis needle blight; Tip blight (Pestalotiopsis sp./spp.)	1	0	0	0
Spruce Spider Mite (Oligonychus ununguis)	1	0	0	0
Trunk girdling (Abiotic disorder)	1	0	0	0
Lenten Rose (Helleborus orientalis)				
Colletotrichum Stem Decay (Colletotrichum sp./spp.)	1	0	0	0
Downy Mildew (Peronospora pulveracea)	1	0	0	0
Leopard Plant (Farfugium japonicum)				
Crown and root rot (Phytophthora sp./spp.)	1	0	0	0

	Confirmed	Not Detected	Suspected	Inconclusive
Lily Turf (Liriope muscari)				
Root rot (Various Fungi)	0	0	1	0
Lilyturf; Bordergrass (Liriope sp./spp.)				
Anthracnose; Colletotrichum leaf spot (Colletotrichum sp./spp.)	2	0	0	0
Fusarium crown rot (Fusarium sp./spp.)	0	0	1	0
Fusarium root rot (Fusarium sp./spp.)	1	0	0	0
Lithodora, Grace Ward (Lithodora diffusa)				
Anthracnose stem blight (Colletotrichum sp./spp.)	1	0	0	0
Bacterial crown gall (Rhizobium radiobacter)	1	0	0	0
Crown gall (Agrobacterium sp./spp.)	0	0	1	0
Cultural/environmental problem (Abiotic disorder)	0	0	4	0
Phoma blight; Dieback; Rot (Phoma sp./spp.)	1	0	0	0
Little Bluestem (Schizachyrium scoparium)				
Fusarium root rot (Fusarium sp./spp.)	1	0	0	0
Loquat (Eriobotrya japonica)				
Chemical; Environmental Injury (Abiotic disorder)	0	0	1	0
Cultural/Environmental Problem (Abiotic disorder)	0	0	1	0
Dieback; Canker; Twig Blight (Botryosphaeria sp./spp.)	1	0	0	0
Lupine (Lupinus sp./spp.)				
Anthracnose Stem Blight (Colletotrichum sp./spp.)	1	0	0	0
Magnolia, Southern (Magnolia grandiflora)				
Algal Leaf Spot (Cephaleuros virescens)	1	0	0	0
Ambrosia Beetle (Xylosandrus amputatus)	2	0	0	0
Magnolia Scale (Neolecanium cornuparvum)	1	0	0	0
Root Problems (Abiotic disorder)	0	0	1	0
Seasonal Leaf Drop (Abiotic disorder)	0	0	1	0
Magnolia, Sweet Bay (Magnolia virginiana)				
Armored Scales (Family Diaspididae)	0	0	0	1
Cultural/environmental problem (Abiotic disorder)	0	0	2	0
Dieback; Canker; Twig Blight (Botryosphaeria sp./spp.)	1	0	0	0
Oleander scale (Aspidiotus nerii)	1	0	0	0

	Confirmed	Not Detected	Suspected	Inconclusive
Mandevilla (Mandevilla sp./spp.)				
Cucumber mosaic (CMV) (Cucumovirus Cucumber Mosaic Virus)	1	0	0	0
Maple, Freeman (Acer x freemanii)				
Dieback; Canker; Twig Blight (Botryosphaeria sp./spp.)	1	0	0	0
Maple, Japanese (Acer palmatum)				
Anthracnose (Kabatiella sp./spp.)	1	0	0	0
Anthracnose; Colletotrichum leaf spot (Colletotrichum sp./spp.)	2	0	0	0
Cultural/environmental problem (Abiotic disorder)	0	0	3	0
Discula anthracnose (Discula sp./spp.)	1	0	0	0
Oriental beetle (Anomala orientalis)	1	0	0	0
Phomopsis Dieback; Tip Blight; Canker (Phomopsis sp./spp.)	1	0	0	0
Trunk Decay; Rot (Unidentified Fungus)	0	0	1	0
Maple, Red (Acer rubrum)				
Canker; Stem Blight; Dieback (Botryosphaeria dothidea)	1	0	0	0
Maple Decline (Complex of Biotic; Abiotic Factors)	0	0	1	0
Roundheaded Wood Borers (Lhb) (Family Cerambycidae)	1	0	0	0
Maple, Sugar (Acer saccharum)				
Fusarium root rot (Fusarium sp./spp.)	1	0	0	0
Pythium root and/or crown rot (Pythium sp./spp.)	1	0	0	0
Root girdling (Abiotic disorder)	1	0	0	0
Maple (Acer sp./spp.)				
Anthracnose (Discula quercina)	1	0	0	0
Dieback; Canker; Twig blight (Botryosphaeria sp./spp.)	1	0	0	0
Herbicide Injury; Exposure (Abiotic disorder)	0	0	1	0
Maple Decline (Complex of Biotic; Abiotic Factors)	1	0	0	0
Valsa canker (Valsa sp./spp.)	0	0	1	0
Marigold, French (Tagetes patula)				
Growth Regulator Effect (Abiotic disorder)	0	0	1	0
Unidentified Virus (Unidentified Virus)	0	0	0	1
Mazus (Mazus reptans)				
Phoma blight; Dieback; Rot (Phoma sp./spp.)	1	0	0	0

	Confirmed	Not Detected	Suspected	Inconclusive
Mixed Plant material (unspecified)				
Chemical; Environmental injury (Abiotic disorder)	0	0	1	0
Mondograss (dwarf lily turf) (Ophiopogon japonicus)				
Anthracnose; Colletotrichum Leaf Spot (Colletotrichum sp./spp.)	4	0	0	0
Pythium Root and/or Crown Rot (Pythium sp./spp.)	1	0	0	0
Armored scales (Family Diaspididae)	1	0	0	0
Pythium Root Rot (Pythium sp. Group F)	1	0	0	0
Montbretia (Crocosmia sp./spp.)				
Anthracnose; Colletotrichum Leaf Spot (Colletotrichum sp./spp.)	1	0	0	0
Cultural/Environmental Problem (Abiotic disorder)	0	0	1	0
Nandina; Heavenly Bamboo (Nandina domestica)				
Cucumber mosaic (CMV) (Cucumovirus Cucumber Mosaic Virus)	1	0	0	0
Impatiens necrotic spot (INSV) (Tospovirus Impatiens Necrotic Spot Virus)	1	0	0	0
Phytophthora crown and/or root rot (Phytophthora nicotianae)	1	0	0	0
Oak, Chestnut (Quercus prinus)				
Gracillariid leafminer (Cameraria sp./spp.)	1	0	0	0
Oak lace bug (Corythucha arcuata)	1	0	0	0
Oak, Live (Quercus virginiana)				
Anthracnose (Discula quercina)	2	0	0	0
Cylindrosporium Leaf Spot (Cylindrosporium sp./spp.)	1	0	0	0
Cynipid Gall Wasp (Disholcaspis sp./spp.)	1	0	0	0
Gall wasps (Family Cynipidae)	1	0	0	0
Pine Oak Gall Rust (Cronartium quercuum)	1	0	0	0
Root Problems (Abiotic disorder)	0	0	1	0
Oak, Northern Red (Quercus rubra)				
Canker (Hypoxylon sp./spp.)	0	0	1	0
Tussock moths (Family Lymantriidae)	1	0	0	0
Oak, Nuttall (Quercus nuttalli)				
Cultural/Environmental Problem (Abiotic disorder)	0	0	1	0
Oak, Post (Quercus stellata)				
Cecidomyiid (Polystepha sp./spp.)	0	0	1	0
Leptothyrium Leaf Spot (Leptothyrium sp./spp.)	0	0	1	0

	Confirmed	Not Detected	Suspected	Inconclusive
Oak, Red (Quercus falcata)				
Leaf spot (Tubakia dryina)	1	0	0	0
Water Oak (Quercus nigra)				
Cultural/environmental problem (Abiotic disorder)	0	0	3	0
Dieback; Canker; Twig Blight (Botryosphaeria sp./spp.)	1	0	0	0
Discula anthracnose (Discula sp./spp.)	3	0	0	0
Gallmaking midges (Family Cecidomyiidae)	0	0	1	0
Leaf spot (Tubakia dryina)	3	0	0	0
Leaf Spot (Tubakia sp./spp.)	1	0	0	0
Oak Decline (Complex of Biotic; Abiotic Factors)	0	0	1	0
Spider mites (Family Tetranychidae)	3	0	0	0
Oak (Quercus sp./spp.)				
Anthracnose; Colletotrichum leaf spot (Colletotrichum sp./spp.)	1	0	0	0
Canker (Hypoxylon sp./spp.)	1	0	0	0
Herbicide Injury; Exposure (Abiotic disorder)	0	0	1	0
Leaf spot (Tubakia dryina)	1	0	0	0
Oak Decline (Complex of Biotic; Abiotic Factors)	1	0	0	0
Red Oak Borer (Enaphalodes rufulus)	0	0	1	0
Pachysandra; Japanese Spurge (Pachysandra terminalis)				
Cultural/Environmental Problem (Abiotic disorder)	0	0	1	0
Pachysandra (Pachysandra sp./spp.)				
Leaf and stem blight (Volutella pachysandrae)	1	0	0	0
Volutella canker; Leaf blight (Pseudonectria (ana. Volutella) pachysandricola (pachysandrae))	1	0	0	0
Palm, cabbage; blue palm (Sabal palmetto)				
Nutritional Deficiency (Abiotic disorder)	0	0	1	0
Palm (Family arecaceae)				
Leaf spot (Unknown cause)	0	0	0	1
Palms (Mixed species)				
Cultural/environmental problem (Abiotic disorder)	0	0	1	0
False oleander scale (Pseudaulacaspis cockerelli)	1	0	0	0
Tessellated scale (Eucalymnatus tessellatus)	0	0	1	0

	Confirmed	Not Detected	Suspected	Inconclusive
Palm, Pindo; jelly palm (Butia capitata)				
Herbicide Injury; Exposure (Abiotic disorder)	0	0	1	0
Leaf Spot Pestalotia (Pestalotiopsis palmarum)	1	0	0	0
Nutritional Deficiency (Abiotic disorder)	1	0	0	0
Palmetto, Saw (Serenoa repens)				
Florida Red Scale (Chrysomphalus aonidum)	1	0	0	0
Pansy (Viola wittrockiana)				
Botrytis Blight (Botrytis sp./spp.)	2	0	0	0
Chemical; Environmental Injury (Abiotic disorder)	0	0	1	0
Cultural/Environmental Problem (Abiotic disorder)	0	0	1	0
Pythium root and/or crown rot (Pythium sp./spp.)	1	0	0	0
Pansy, violet; violas (Viola sp./spp.)				
Black Root Rot (Thielaviopsis basicola)	7	0	0	0
Crown and Root Rot (Phytophthora sp./spp.)	2	0	0	0
Crown Rot; Root Rot; Stem Rot (Phytophthora sp./spp.)	1	0	0	0
Pythium root and/or crown rot (Pythium sp./spp.)	6	0	0	0
Pansy, Viola (Viola cornuta)				
Phytophthora root and basal stem rot (Phytophthora nicotianae)	1	0	0	0
Paper Pampasgrass (Cortaderia selloana)				
Gray leaf spot (Pyricularia grisea)	1	0	0	0
Leaf spot (Exserohilum sp./spp.)	1	0	0	0
Paperbush (Edgeworthia sp./spp.)				
Southern Stem Rot (Sclerotium rolfsii)	1	0	0	0
Pentas (Pentas sp./spp.)				
Green Peach Aphid (Myzus persicae)	1	0	0	0
Peony (Paeonia lactiflora)				
No pathogen found (Identification Analysis)	3	0	0	0
Peony (Paeonia sp./spp.)				
Armillaria Root Rot (Armillaria sp./spp.)	1	0	0	0
Petunia, Garden (Petunia x hybrida)				
Fusarium stem rot (Fusarium sp./spp.)	1	0	0	0
Petunias (Petunia sp./spp. hybrids)				
Iron Deficiency (Abiotic disorder)	0	0	1	0

	Confirmed	Not Detected	Suspected	Inconclusive
Phlox, Perennial (Phlox paniculata)				
Cultural/environmental problem (Abiotic disorder)	0	0	1	0
Phlox Moss; pink phlox (Phlox subulata)				
Anthracnose; Colletotrichum leaf spot (Colletotrichum sp./spp.)	1	0	0	0
Black root rot (Thielaviopsis basicola)	1	0	0	0
Colletotrichum stem decay (Colletotrichum sp./spp.)	1	0	0	0
Cultural/environmental problem (Abiotic disorder)	0	0	4	0
Downy Mildew (Peronospora phlogina)	1	0	0	0
Fusarium Root Rot (Fusarium sp./spp.)	2	0	0	0
Phyllosticta leaf spot (Phyllosticta sp./spp.)	2	0	0	0
Pythium Root and/or Crown Rot (Pythium sp./spp.)	1	0	0	0
Phlox, Wild Blue (Phlox divaricata)				
Anthracnose stem blight (Colletotrichum sp./spp.)	1	0	0	0
Phlox (Phlox sp./spp.)				
Southern stem rot (Sclerotium rolfsii)	1	0	0	0
Pincushion Flower (Scabiosa sp./spp.)				
Anthracnose stem blight (Colletotrichum sp./spp.)	1	0	0	0
Pine, Austrian (Pinus nigra)				
Diplodia blight (Sphaeropsis sapinea)	1	0	0	0
Pine, Eastern White (Pinus strobus)				
Drainage problem (Abiotic disorder)	0	0	1	0
Pine, Japanese Black (Pinus thunbergiana)				
Natural senescence (Abiotic disorder)	1	0	0	0
Root Problem (Unknown Cause)	0	0	0	1
Pine, Loblolly (Pinus taeda)				
Environmental Stress; Problem (Abiotic disorder)	0	0	1	0
Jerusalem cherry (Solanum pseudocapsicum)	1	0	0	0
Pine (Pinus sp./spp.)				
Bark Beetle; Engraver Beetle (Ips sp./spp.)	0	0	1	0
Pineapple Guava (Feijoa sellowiana)				
Leaf Spot (Pestalotiopsis (Pestalotia) sp./spp.)	1	0	0	0
Pineapple Sage (Salvia elegans)				
Cultural/environmental problem (Abiotic disorder)	0	0	1	0

	Confirmed	Not Detected	Suspected	Inconclusive
Pittosporum (Pittosporum sp./spp.)				
Dieback; Canker; Twig blight (Botryosphaeria sp./spp.)	1	0	0	0
Leaf spot (Pseudocercospora pittospori)	0	0	2	0
Poinsettia (Euphorbia pulcherrima)				
Anthracnose; Colletotrichum Leaf Spot (Colletotrichum sp./spp.)	1	0	0	0
Leaf Scorch (Abiotic disorder)	0	0	1	0
Princess Tree (Paulownia tomentosa)				
Chemical; Environmental Injury (Abiotic disorder)	0	0	1	0
Privet, Glossy (Ligustrum lucidum)				
Cultural/environmental problem (Abiotic disorder)	0	0	1	0
Leaf spot (Pseudocercospora sp./spp.)	1	0	0	0
Wax-leaf Privet (Ligustrum texanum)				
Armillaria root rot (Armillaria sp./spp.)	0	0	1	0
Cultural/environmental problem (Abiotic disorder)	0	0	1	0
Privet (Ligustrum sp./spp.)				
Cercospora Leaf Spot (Cercospora sp./spp.)	1	0	0	0
Citrus whitefly (CWf) (Dialeurodes citri)	1	0	0	0
Crown and Root Rot (Phytophthora sp./spp.)	1	0	0	0
Dieback; Canker; Twig blight (Botryosphaeria sp./spp.)	1	0	0	0
High temperature damage (Abiotic disorder)	0	0	1	0
Mechanical damage (Abiotic disorder)	1	0	0	0
Oedema; Edema (Abiotic disorder)	1	0	0	0
Rhododendron (Rhododendron sp./spp.)				
Nutrient imbalance (Abiotic disorder)	1	0	0	0

	Confirmed	Not Detected	Suspected	Inconclusive
Rose (Rosa sp./spp.)				
Chemical; Environmental injury (Abiotic disorder)	0	0	1	0
Cultural/environmental problem (Abiotic disorder)	0	0	0	0
Flower Thrips (Frankliniella tritici)	1	0	0	0
Glyphosate Injury (Abiotic disorder)	5	0	0	0
Mite damage (Unidentified Mite)	2	0	0	0
Potato Aphid (Macrosiphum euphorbiae)	1	0	0	0
Powdery mildew (Oidium sp./spp.)	1	0	0	0
Rose aphid (Macrosiphum rosae)	1	0	0	0
Rose Canker (Coniothyrium sp./spp.)	1	0	0	0
Rose Rosette Disease (Rose Rosette Virus (RRV))	0	0	6	0
Spider Mite Destroyer (Stethorus picipes)	1	0	0	0
Spider mites (Family Tetranychidae)	1	0	0	0
Twospotted Spider Mite (Tetranychus urticae)	4	0	0	0
Unknown Abiotic Disorder (Abiotic disorder)	0	0	0	1
Western flower Thrips (Frankliniella occidentalis)	2	0	2	0
Sage, Russian (Perovskia atriplicifolia)				
Crown Rot (Unidentified Fungus)	0	0	0	1
Hydrophobic soil/planting mix/media (Abiotic disorder)	1	0	0	0
Woodland Sage (Salvia nemorosa)				
Black root rot (Thielaviopsis basicola)	2	0	0	0
Unidentified virus (Unidentified Virus)	0	0	1	0
Salvia; Sage (Salvia sp./spp.)				
Aerial blight (Phytophthora nicotianae)	1	0	0	0
Sedum; Stonecrop (Sedum sp./spp.)				
Anthracnose stem blight (Colletotrichum sp./spp.)	1	0	0	0
Normal plant growth (Identification Analysis)	0	0	1	0
Snapdragon (Antirrhinium sp./spp. hybrids)				
Cultural/environmental problem (Abiotic disorder)	0	0	1	0

	Confirmed	Not Detected	Suspected	Inconclusive
Speedwell (Veronica sp./spp.)				
Cultural/environmental problem (Abiotic disorder)	0	0	2	0
Fusarium root rot (Fusarium sp./spp.)	1	0	0	0
Phoma blight; Dieback; Rot (Phoma sp./spp.)	2	0	0	0
Phytophthora root and crown rot (Phytophthora cinnamomi)	3	0	0	0
Spirea (Spiraea sp./spp.)				
Cylindrosporium leaf spot (Cylindrosporium sp./spp.)	1	0	0	0
Spirea aphid (Aphis spiraecola)	1	0	0	0
Spruce, Blue (Picea pungens)				
Phytophthora Root and Crown Rot (Phytophthora cinnamomi)	1	0	0	0
Spruce (Picea sp./spp.)				
Rhizosphaera needle cast (Rhizosphaera sp./spp.)	1	0	0	0
Sweetgum, American (Liquidambar styraciflua)				
Bacterial Wetwood; Slime Flux (Various Pathogens)	0	0	1	0
Sweet Box (Sarcococca sp./spp.)				
Anthracnose; Colletotrichum leaf spot (Colletotrichum sp./spp.)	1	0	0	0
Boxwood blight; Leaf and stem blight (Calonectria pseudonaviculata)	0	1	0	0
American Sycamore (Platanus occidentalis)				
Cottony Maple Scale (Neopulvinaria innumerabilis)	1	0	0	0
Scale Insects (Order homoptera)	1	0	0	0
Seed Bug (Belonochilus numenius)	1	0	0	0
Sycamore Anthracnose (Apiognomonia veneta)	1	0	0	0
Tea Olive; Sweet Olive (Osmanthus fragrans)				
Anthracnose; Colletotrichum leaf spot (Colletotrichum sp./spp.)	1	0	0	0
Tea Olive; Osmanthus (Osmanthus sp./spp.)				
Cultural/Environmental Problem (Abiotic disorder)	0	0	1	0
Normal Plant Growth (Identification Analysis)	1	0	0	0
Tulip Tree (Liriodendron tulipifera)				
Anthracnose; Colletotrichum Leaf Spot (Colletotrichum sp./spp.)	1	0	0	0
Cultural/Environmental Problem (Abiotic disorder)	0	0	1	0
Natural Senescence (Abiotic disorder)	0	0	1	0
Yellow-poplar Weevil (Odontopus calceatus)	0	0	1	0

	Confirmed	Not Detected	Suspected	Inconclusive
Verbena (Verbena sp./spp.)				
Cotton Aphid; Melon Aphid (Aphis gossypii)	1	0	0	0
Western Flower Thrips (Frankliniella occidentalis)	1	0	0	0
Vinca, Annual; Madagascar Periwinkle (Catharanthus roseus)				
Aerial Stem Blight (Phytophthora sp./spp.)	1	0	0	0
Crown rot; Root rot; Stem rot (Phytophthora sp./spp.)	1	0	0	0
Phytophthora Crown and/or Root Rot (Phytophthora nicotianae)	1	0	0	0
Phytophthora Root and Basal Stem Rot (Phytophthora nicotianae)	1	0	0	0
Pythium root and/or crown rot (Pythium sp./spp.)	1	0	0	0
Vinca, Greater Periwinkle (Vinca major)				
Phytophthora crown and/or root rot (Phytophthora nicotianae)	1	0	0	0
Vinca, Periwinkle (Vinca sp./spp.)				
Fusarium root rot (Fusarium sp./spp.)	1	0	0	0
Root rot (Unidentified Agent)	0	0	0	1
Viburnum, Blackhaw (Viburnum prunifolium)				
Dieback; Canker; Twig Blight (Botryosphaeria sp./spp.)	1	0	0	0
Viburnum, Sandankwa (Viburnum suspensum)				
Anthracnose; Colletotrichum leaf spot (Colletotrichum sp./spp.)	1	0	0	0
Citrus Whitefly (CWf) (Dialeurodes citri)	0	0	1	0
Seasonal Leaf Drop (Abiotic disorder)	0	0	1	0
Southern Red Mite (Oligonychus ilicis)	1	0	0	0
Sunscald (Abiotic disorder)	1	0	1	0
Viburnum downy mildew (Plasmopara viburni)	1	0	0	0
Viburnum, Sweet (Viburnum odoratissimum)				
Anthracnose; Colletotrichum leaf spot (Colletotrichum sp./spp.)	1	0	0	0
Cultural/environmental problem (Abiotic disorder)	0	0	1	0
Hydrophobic soil/planting mix/media (Abiotic disorder)	0	0	1	0
Sunscald (Abiotic disorder)	0	0	1	0
Viburnum Downy Mildew (Plasmopara viburni)	1	0	0	0
Whiteflies (Family Aleyrodidae)	1	0	0	0

	Confirmed	Not Detected	Suspected	Inconclusive
Viburnum (Viburnum sp./spp.)				
Environmental Stress; Problem (Abiotic disorder)	0	0	1	0
Hydrophobic soil/planting mix/media (Abiotic disorder)	0	0	1	0
Viburnum Downy Mildew (Plasmopara viburni)	1	0	0	0
Wax myrtle; Southern Bayberry (Myrica cerifera)				
Septoria Leaf Spot (Septoria myricae)	1	0	0	0
Willow, Golden; golden osier (Salix alba)				
Leaf Spot (Pseudocercospora sp./spp.)	1	0	0	0
Willow (Salix sp./spp.)				
Wax Scale (Ceroplastes sp./spp.)	1	0	0	0
Yew, Japanese (Podocarpus macrophyllus)				
Aphids (Plant Lice) (Family Aphididae)	1	0	0	0
Armillaria Root Rot; Butt Rot (Armillaria sp./spp.)	1	0	0	0
Cultural/Environmental Problem (Abiotic disorder)	0	0	2	0
Hydrophobic soil/planting mix/media (Abiotic disorder)	1	0	0	0
Planting Too Deep (Abiotic disorder)	1	0	0	0
Root Problem (Unknown Cause)	0	0	1	0
Sooty Mold (Unidentified Fungus)	0	0	0	1
Yew (Taxus sp./spp.)				
Anthracnose; Colletotrichum Leaf Spot (Colletotrichum sp./spp.)	1	0	0	0
Cultural/Environmental Problem (Abiotic disorder)	0	0	1	0
Spider Mites (Family Tetranychidae)	1	0	0	0

Diagnoses and Identifications on Field and Pasture Crops

	Confirmed	Not Detected	Suspected	Inconclusive
Alfalfa (Medicago sativa) *(Host,Diagnosis/ID) (1,1)*				
Darkling Beetles (Family Tenebrionidae)	1	0	0	0
Corn, field (Zea mays) *(Host,Diagnosis/ID) (20,20)*				
Spiderflower (Cleome gynandra)	1	0	0	0
Bengal Dayflower (Commelina benghalensis)	1	0	0	0
Sunscald (Abiotic disorder)	0	0	1	0
Tropical Spiderwort; Benghal Dayflower (Commelina benghalensis)	15	0	0	0
Western Flower Thrips (Frankliniella occidentalis)	1	0	0	0
Cotton (Gossypium hirsutum) *(Host,Diagnosis/ID) (21,21)*				
Bengal Dayflower (Commelina benghalensis)	1	0	0	0
Tropical Spiderwort; Benghal Dayflower (Commelina benghalensis)	20	0	0	0
Millet, pearl (Pennisetum americanum typhoideum) *(Host,Diagnosis/ID) (1,1)*				
Hairy Chinch Bug (Blissus leucopterus)	1	0	0	0
Oats (Avena sativa) *(Host,Diagnosis/ID) (2,3)*				
Anthracnose (Colletotrichum graminicola)	1	0	0	0
Magnesium Deficiency (Abiotic disorder)	1	0	0	0
Oat Leaf Spot; Seedling Blight (Pyrenophora (ana. Drechslera) avenae)	1	0	0	0
Peanut (Arachis hypogaea) *(Host,Diagnosis/ID) (7,8)*				
Aspergillus crown rot (Aspergillus niger)	1	0	0	0
Darkwinged fungus gnat (Bradysia sp./spp.)	1	0	0	0
Thrips damage (Unidentified Thrips)	0	0	1	0
Tropical Spiderwort; Benghal Dayflower (Commelina benghalensis)	5	0	0	0
Rye (Secale cereale) *(Host,Diagnosis/ID) (1,1)*				
Leaf spot (Bipolaris sp./spp.)	1	0	0	0
Sorghum, grain (Sorghum vulgare) *(Host,Diagnosis/ID) (1,1)*				
Cultural/Environmental Problem (Abiotic disorder)	0	0	1	0

	Confirmed	Not Detected	Suspected	Inconclusive
Soybean (Glycine max) *(Host,Diagnosis/ID) (10,13)*				
Cultural/environmental problem (Abiotic disorder)	0	0	1	0
Dryland root (Foot) rot (Various Fungi)	1	0	0	0
European Corn Borer (Ostrinia nubilalis)	1	0	0	0
Fusarium Stem Rot (Fusarium sp./spp.)	2	0	0	0
Mineral; Elemental toxicity (Abiotic disorder)	1	0	0	0
Nutrient imbalance (Abiotic disorder)	0	0	1	0
Tropical Spiderwort; Benghal Dayflower (Commelina benghalensis)	6	0	0	0
Sunflower (Helianthus annuus) *(Host,Diagnosis/ID) (2,2)*				
Charcoal Rot (Macrophomina sp./spp.)	1	0	0	0
Herbicide Injury; Exposure (Abiotic disorder)	0	0	1	0
Wheat, common (Triticum aestivum) *(Host,Diagnosis/ID) (6,13)*				
Cultural/Environmental Problem (Abiotic disorder)	0	0	1	0
Fusarium Stem Rot (Fusarium sp./spp.)	2	0	0	0
Gibberella Root Rot (Fusarium graminearum)	1	0	0	0
Hessian Fly (Mayetiola destructor)	1	0	0	0
Rattail Fescue (Vulpia myuros)	1	0	0	0
Rhizoctonia Stem Rot (Rhizoctonia sp./spp.)	2	0	0	0
Septoria Leaf Blotch (Septoria sp./spp.)	1	0	0	0
Sheath Blight (Rhizoctonia sp./spp.)	1	0	0	0
Wheat Powdery Mildew (Blumeria graminis f.sp. tritici)	2	0	0	0

Diagnoses and Identifications on Fruits and Nuts

	Confirmed	Not Detected	Suspected	Inconclusive
Apple, common (Malus sylvestris) *(Host,Diagnosis/ID) (7,10)*				
Bitter Rot (Colletotrichum gloeosporioides)	1	0	0	0
Burr Knot (Abiotic disorder)	1	0	0	0
Canker; Stem blight; Dieback (Botryosphaeria dothidea)	2	0	0	0
Codling Moth (CM) (Cydia pomonella)	1	0	0	0
Cultural/environmental problem (Abiotic disorder)	0	0	2	0
Dieback; Canker; Twig Blight (Botryosphaeria sp./spp.)	0	0	1	0
Fire Blight (Erwinia amylovora)	1	0	0	0
Fruit Rot (Unidentified Agent)	0	0	0	1
Avocado (Persea americana) *(Host,Diagnosis/ID) (1,2)*				
Anthracnose; Colletotrichum Leaf Spot (Colletotrichum sp./spp.)	1	0	0	0
Cultural/Environmental Problem (Abiotic disorder)	0	0	1	0
Blackberry (Rubus sp./spp.) *(Host,Diagnosis/ID) (6,10)*				
Broad mite (Polyphagotarsonemus latus)	3	0	0	0
Cane and Leaf Rust (Kuehneola uredinis)	1	0	0	0
Cane blotch (Cephaleuros sp./spp.)	1	0	0	0
Leaf spot (Pseudocercospora sp./spp.)	1	0	0	0
Spider mites (Family Tetranychidae)	4	0	0	0
Blueberry (Vaccinium sp./spp.) *(Host,Diagnosis/ID) (8,10)*				
Crown gall (Agrobacterium tumefaciens)	1	0	0	0
Cultural/Environmental Problem (Abiotic disorder)	0	0	2	0
Dieback; Canker; Twig Blight (Botryosphaeria sp./spp.)	2	0	0	0
Leaf Rust (Naohidemyces (Pucciniastrum) vacciniorum (vaccinii))	0	0	1	0
Mummy Berry (Monilinia vaccinii-corymbosi)	1	0	0	0
Phytophthora root and crown rot (Phytophthora cinnamomi)	2	0	0	0
Powdery Mildew (Oidium sp./spp.)	0	0	1	0
Blueberry, highbush (Vaccinium corymbosum) *(Host,Diagnosis/ID) (1,1)*				
Leaf Rust (Naohidemyces (Pucciniastrum) vacciniorum (vaccinii))	0	0	1	0

	Confirmed	Not Detected	Suspected	Inconclusive
Blueberry, rabbit-eye (Vaccinium ashei) *(Host,Diagnosis/ID) (2,2)*				
Nutrient Imbalance (Abiotic disorder)	0	0	1	0
Phytophthora Root and Crown Rot (Phytophthora cinnamomi)	1	0	0	0
Cherry, sour (Prunus cerasus) *(Host,Diagnosis/ID) (1,1)*				
Black Twig Borer (Xylosandrus compactus)	1	0	0	0
Chestnut (Castanea sp./spp.) *(Host,Diagnosis/ID) (2,4)*				
Colletotrichum nut rot (Colletotrichum gloeosporioides)	1	0	0	0
Leaf spot (Tubakia sp./spp.)	1	0	0	0
Mucor fruit rot (Mucor sp./spp.)	0	0	1	0
Zonate leaf spot (Monochaetia sp./spp.)	1	0	0	0
Citrus (Citrus sp./spp.) *(Host,Diagnosis/ID) (1,1)*				
Citrus Greening Huanglongbing (Asian) (Candidatus Liberibacter asiaticus)	1	0	0	0
Fig, common (Ficus carica) *(Host,Diagnosis/ID) (4,6)*				
Anthracnose; Colletotrichum leaf spot (Colletotrichum sp./spp.)	1	0	0	0
Dieback; Canker; Twig Blight (Botryosphaeria sp./spp.)	1	0	0	0
Mite damage (Unidentified Mite)	0	0	1	0
Phomopsis Dieback; Tip Blight; Canker (Phomopsis sp./spp.)	1	0	0	0
Potyvirus Group (Potyvirus sp./spp.)	0	1	0	0
Unidentified virus (Unidentified Virus)	0	0	0	1
Goji berry (Lycium barbarum) *(Host,Diagnosis/ID) (1,1)*				
Rust (Puccinia tumidipes)	1	0	0	0
Grapefruit (Citrus paradisi) *(Host,Diagnosis/ID) (1,1)*				
Citrus Greening Huanglongbing (Asian) (Candidatus Liberibacter asiaticus)	0	1	0	0
Lemon (Citrus limon) *(Host,Diagnosis/ID) (3,5)*				
Cercospora Leaf Spot (Cercospora sp./spp.)	1	0	0	0
Cultural/Environmental Problem (Abiotic disorder)	0	0	2	0
Mite Damage (Unidentified Mite)	0	0	1	0
Oedema; Edema (Abiotic disorder)	1	0	0	0
Nectarine (Prunus persica nectarina) *(Host,Diagnosis/ID) (1,2)*				
Brown Rot; Blossom and Twig Blight (Monilinia fructicola)	1	0	0	0
Frosty Mildew (Cercosporella persicae)	1	0	0	0

	Confirmed	Not Detected	Suspected	Inconclusive
Orange, sweet (Citrus sinensis) *(Host,Diagnosis/ID) (1,2)*				
Citrus greasy spot (Zasmidium citri)	0	0	1	0
Rust mites (Order acari)	0	0	1	0
Peach (Prunus persica) *(Host,Diagnosis/ID) (8,9)*				
Cultural/environmental problem (Abiotic disorder)	0	0	1	0
Flea Beetles (Subfamily Alticinae)	1	0	0	0
Nitrogen Deficiency (Abiotic disorder)	0	0	1	0
Rust (Tranzschelia discolor)	1	0	0	0
Sphaeropsis dieback (Sphaeropsis sp./spp.)	1	0	0	0
Spring Cankerworm (Paleacrita vernata)	1	0	0	0
Unknown Abiotic Disorder (Abiotic disorder)	0	0	0	1
Pecan (Carya illinoinensis) *(Host,Diagnosis/ID) (6,10)*				
Anthracnose; Colletotrichum Leaf Spot (Colletotrichum sp./spp.)	1	0	0	0
Blue Mold Rot (Penicillium sp./spp.)	1	0	0	0
Cultural/Environmental Problem (Abiotic disorder)	1	0	0	0
Hickory shuckworm (HSw) (Cydia caryana)	1	0	0	0
Pecan Leaf Phylloxera (Phylloxera notabilis)	1	0	0	0
Pecan; Hickory scab (Fusicladium caryigenum)	3	0	0	0
Stink Bug Damage (Unidentified Stink Bug)	0	0	1	0
Walnut Caterpillar (Datana integerrima)	1	0	0	0
Plum (Prunus sp./spp.) *(Host,Diagnosis/ID) (1,2)*				
Plum Curculio (Conotrachelus nenuphar)	1	0	0	0
Soldier Beetles (Family Cantharidae)	1	0	0	0

	Confirmed	Not Detected	Suspected	Inconclusive
Strawberry, commercial (garden) (Fragaria x ananassa) *(Host,Diagnosis/ID) (15,29)*				
Unidentified Virus (Unidentified Virus)	0	0	1	0
Anthracnose (Colletotrichum acutatum)	1	0	0	0
Anthracnose basal rot; Crown rot (Colletotrichum sp./spp.)	1	0	0	0
Anthracnose stem blight (Colletotrichum sp./spp.)	3	0	0	0
Botrytis Fruit Rot (Botrytis sp./spp.)	1	0	0	0
Charcoal Rot (Macrophomina sp./spp.)	1	0	0	0
Crown and root rot (Unidentified Agent)	0	0	0	1
Crown Rot (Botrytis sp./spp.)	1	0	0	0
Cultural/Environmental Problem (Abiotic disorder)	0	0	2	0
Dieback/ Stem Rot (Sclerotinia sclerotiorum)	1	0	0	0
Fungal Canker (Various Fungi)	2	0	0	0
Fusarium Root Rot (Fusarium sp./spp.)	2	0	0	0
Fusarium root; Crown rot (Fusarium sp./spp.)	2	0	0	0
Fusarium stem rot (Fusarium sp./spp.)	1	0	0	0
Leaf Blotch (Gnomonia sp./spp.)	1	0	0	0
Leaf Scorch (Diplocarpon (ana. Marssonina) earlianum (fragariae))	1	0	0	0
Poor root development (Abiotic disorder)	1	0	0	0
Powdery mildew (Oidium sp./spp.)	1	0	0	0
Strawberry root weevil (Otiorhynchus ovatus)	1	0	0	0
Twospotted Spider Mite (Tetranychus urticae)	1	0	0	0
Unspecified pathology (Botrytis sp./spp.)	1	0	0	0
Unspecified Pathology (Phomopsis sp./spp.)	1	0	0	0
Unspecified pathology (Phytophthora sp./spp.)	1	0	0	0

Diagnoses and Identifications on Vegetable and Herb Crops

	Confirmed	Not Detected	Suspected	Inconclusive
Asparagus (Asparagus officinalis) *(Host,Diagnosis/ID) (2,2)*				
Asparagus Fusarium Crown Rot (Fusarium oxysporum f.sp. asparagi)	1	0	0	0
Basil, sweet (Ocimum basilicum) *(Host,Diagnosis/ID) (3,3)*				
Cultural/Environmental Problem (Abiotic disorder)	0	0	1	0
Downy mildew (Peronospora belbahrii)	1	0	0	0
Leaf Spot (Unknown cause)	0	0	0	1
Bean, snap; green bean (Phaseolus vulgaris) *(Host,Diagnosis/ID) (1,1)*				
Phyllosticta Leaf Spot (Phyllosticta sp./spp.)	1	0	0	0
Broccoli (Brassica oleracea var. botrytis) *(Host,Diagnosis/ID) (1,1)*				
Downy Mildew (Hyaloperonospora parasitica)	0	0	1	0
Cabbage (Brassica oleracea var. capitata) *(Host,Diagnosis/ID) (1,1)*				
Transplant Shock; Stress (Abiotic disorder)	0	0	1	0
Cantalope; Cantaloupe (Cucumis melo cantalupensis) *(Host,Diagnosis/ID) (1,1)*				
Anthracnose (Colletotrichum orbiculare)	1	0	0	0
Collards (Brassica oleracea var. acephala) *(Host,Diagnosis/ID) (4,4)*				
Crucifer bacterial black rot (Xanthomonas campestris)	1	0	0	0
Downy Mildew (Hyaloperonospora parasitica)	2	0	0	0
Magnesium deficiency (Abiotic disorder)	0	0	1	0
Cucumber (Cucumis sativus) *(Host,Diagnosis/ID) (6,9)*				
Chemical; Environmental Injury (Abiotic disorder)	0	0	1	0
Corynespora leaf spot (Corynespora cassiicola)	2	0	0	0
Cucurbit downy mildew (Pseudoperonospora cubensis)	2	0	0	0
Cultural/environmental problem (Abiotic disorder)	0	0	1	0
Fusarium Stem Rot (Fusarium sp./spp.)	1	0	0	0
Pythium root and/or crown rot (Pythium sp./spp.)	1	0	0	0
Eggplant (Solanum melogena) *(Host,Diagnosis/ID) (1,1)*				
Green Peach Aphid (Myzus persicae)	1	0	0	0

	Confirmed	Not Detected	Suspected	Inconclusive
Lavender (Lavandula sp./spp.) *(Host,Diagnosis/ID) (46,59)*				
Aphids (Plant lice) (Family Aphididae)	1	0	0	0
Crown and Root Rot (Phytophthora sp./spp.)	5	0	0	0
Cultural/environmental problem (Abiotic disorder)	0	0	0	0
Environmental Stress; Problem (Abiotic disorder)	0	0	1	0
Fusarium Crown Rot (Fusarium sp./spp.)	1	0	0	0
Fusarium Wilt; Fusarium Wilt Complex (Fusarium sp./spp.)	1	0	0	0
Phytophthora crown and/or root rot (Phytophthora nicotianae)	0	0	0	0
Phytophthora root and basal stem rot (Phytophthora nicotianae)	1	0	0	0
Pythium Root and/or Crown Rot (Pythium sp./spp.)	1	0	0	0
Rhizoctonia Foliar/ Aerial/ Web Blight (Rhizoctonia solani)	1	0	0	0
Unspecified Pathology (Phytophthora sp./spp.)	2	1	0	0
Lavender, English (Lavandula angustifolia) *(Host,Diagnosis/ID) (1,1)*				
Cultural/environmental problem (Abiotic disorder)	0	0	1	0
Lavender, French (Lavandula dentata) *(Host,Diagnosis/ID) (1,1)*				
Phoma blight; Dieback; Rot (Phoma sp./spp.)	1	0	0	0
Melon (Cucumis melo) *(Host,Diagnosis/ID) (1,1)*				
Alternaria Leaf Blight and Spot (Alternaria cucumerina)	1	0	0	0
Muskmelon (Cucumis melo reticulatus) *(Host,Diagnosis/ID) (3,5)*				
Common Thrips (Family Thripidae)	1	0	0	0
Fusarium Wilt; Fusarium Wilt Complex (Fusarium sp./spp.)	1	0	0	0
Gummy Stem Blight (Didymella sp./spp.)	0	1	0	0
Rhizoctonia Stem Canker (Thanatephorus (Rhizoctonia) cucumeris (solani))	1	0	0	0
Okra (Abelmoschus esculentus) *(Host,Diagnosis/ID) (2,2)*				
Choanephora Wet Rot (Choanephora sp./spp.)	1	0	0	0
Cultural/environmental problem (Abiotic disorder)	0	0	1	0
Oregano (Origanum vulgare) *(Host,Diagnosis/ID) (1,1)*				
Cultural/environmental problem (Abiotic disorder)	0	0	1	0
Parsley (Petroselinum crispum) *(Host,Diagnosis/ID) (1,1)*				
Alternaria leaf blight (Alternaria sp./spp.)	1	0	0	0
Anthracnose stem blight (Colletotrichum sp./spp.)	1	0	0	0
Black leg; Pythium stem rot (Pythium sp./spp.)	1	0	0	0

	Confirmed	Not Detected	Suspected	Inconclusive
Pepper, bell (Capsicum annuum grossum) *(Host,Diagnosis/ID) (4,4)*				
Anthracnose fruit rot (Colletotrichum sp./spp.)	1	0	0	0
Phytophthora Root and Basal Stem Rot (Phytophthora nicotianae)	1	0	0	0
Pythium Root and/or Crown Rot (Pythium sp./spp.)	1	0	0	0
Tomato; Pepper Bacterial Spot (Xanthomonas campestris pv. vesicatoria)	0	0	1	0
Peppermint (Mentha x piperita) *(Host,Diagnosis/ID) (1,1)*				
Stem Rot and Aerial Blight (Rhizoctonia sp./spp.)	1	0	0	0
Potato (Solanum tuberosum) *(Host,Diagnosis/ID) (1,1)*				
Root-knot Nematodes (Meloidogyne sp./spp.)	1	0	0	0
Rosemary (Rosmarinus officinalis) *(Host,Diagnosis/ID) (2,4)*				
Fusarium stem rot (Fusarium sp./spp.)	1	0	0	0
Lygaeid bugs (Family Lygaeidae)	1	0	0	0
Poor root development (Abiotic disorder)	1	0	0	0
Southern purple mint moth (Pyrausta laticlavia)	1	0	0	0
Sage, garden (Salvia officinalis) *(Host,Diagnosis/ID) (1,1)*				
Henbit Downy Mildew (Peronospora lamii)	1	0	0	0
Squash (Cucurbita sp./spp.) *(Host,Diagnosis/ID) (1,1)*				
Gummy Stem Blight (Didymella (ana. Phoma) bryonae (cucurbitacearum))	1	0	0	0
Sweetpotato (Ipomoea batatas) *(Host,Diagnosis/ID) (1,1)*				
Sweetpotato weevil (SPW) (Cylas formicarius)	1	0	0	0
Thyme (Thymus sp./spp.) *(Host,Diagnosis/ID) (2,2)*				
Cultural/environmental problem (Abiotic disorder)	0	0	1	0
Thyme (Thymus vulgaris) *(Host,Diagnosis/ID) (1,1)*				
Fusarium Root Rot (Fusarium sp./spp.)	1	0	0	0

	Confirmed	Not Detected	Suspected	Inconclusive
Tomato (Lycopersicon esculentum) *(Host,Diagnosis/ID) (20,25)*				
Bacterial Wilt (Ralstonia solanacearum)	2	0	0	0
Black Leg; Pythium Stem Rot (Pythium sp./spp.)	1	0	0	0
Chemical; Environmental Injury (Abiotic disorder)	0	0	1	0
Cladosporium Leaf Spot (Cladosporium sp./spp.)	1	0	0	0
Cultural/Environmental Problem (Abiotic disorder)	0	0	1	0
Early Blight; Leaf Spot (Alternaria solani)	1	0	1	0
Fusarium Stem Rot (Fusarium sp./spp.)	1	0	0	0
Fusarium Wilt (Fusarium oxysporum)	1	0	0	0
Fusarium wilt; Fusarium wilt complex (Fusarium sp./spp.)	2	0	0	0
Glyphosate Injury (Abiotic disorder)	0	0	0	0
Herbicide Drift (Abiotic disorder)	0	0	1	0
Herbicide Injury; Exposure (Abiotic disorder)	0	0	1	0
High Soluble Salt (Abiotic disorder)	0	0	1	0
Leaf Mold (Passalora fulva)	1	0	0	0
Leaf spot (Unknown cause)	0	0	0	1
Potassium Deficiency (Abiotic disorder)	0	0	1	0
Pythium Root and/or Crown Rot (Pythium sp./spp.)	2	0	0	0
Silverleaf Whitefly (Bemisia argentifolii)	1	0	0	0
Tomato Spotted Wilt (TSWV) (Tospovirus Tomato Spotted Wilt Virus)	1	0	0	0
Tomato; Pepper Bacterial Spot (Xanthomonas campestris pv. vesicatoria)	1	0	0	0
Turnip (Brassica rapa) *(Host,Diagnosis/ID) (1,1)*				
Western Spotted Cucumber Beetle (Diabrotica undecimpunctata)	1	0	0	0

	Confirmed	Not Detected	Suspected	Inconclusive
Watermelon (Citrullus lanatus) *(Host,Diagnosis/ID) (9,14)*				
Cotton Aphid; Melon Aphid (Aphis gossypii)	1	0	0	0
Cultural/environmental problem (Abiotic disorder)	0	0	1	0
Flower Thrips (Thrips coloratus)	1	0	0	0
Fusarium Stem; Root Rot (Fusarium sp./spp.)	1	0	0	0
Fusarium Wilt; Fusarium Wilt Complex (Fusarium sp./spp.)	1	0	0	0
Insect Damage (Unidentified Insect)	0	0	1	0
Natural Senescence (Abiotic disorder)	0	0	1	0
Nutrient Imbalance (Abiotic disorder)	0	0	1	0
Pythium Root and/or Crown Rot (Pythium sp./spp.)	2	0	0	0
Rhizoctonia Root; Crown Rot (Rhizoctonia sp./spp.)	1	0	0	0
Root-knot Nematodes (Meloidogyne sp./spp.)	0	0	1	0
Watermelon Fusarium Wilt (Fusarium oxysporum f.sp. niveum)	1	0	0	0

Diagnoses and Identifications on Turf

	Confirmed	Not Detected	Suspected	Inconclusive
Bahiagrass (Paspalum notatum) *(Host,Diagnosis/ID) (2,4)*				
Camphor Pluchea (Pluchea camphorata)	1	0	0	0
Leaf spot (Bipolaris sp./spp.)	1	0	0	0
Marsh Seedbox (Ludwigia palustris)	1	0	0	0
Bahiagrass, Paspalum (Paspalum sp./spp.) *(Host,Diagnosis/ID) (2,5)*				
Common eveningprimrose (Oenothera biennis)	1	0	0	0
Large crabgrass; Hairy crabgrass (Digitaria sanguinalis)	1	0	0	0
Rustweed (Polypremum procumbens)	1	0	0	0
Spotted ladysthumb (Polygonum persicaria)	1	0	0	0
Torpedograss (Panicum repens)	1	0	0	0
Bentgrass (Agrostis sp./spp.) *(Host,Diagnosis/ID) (3,5)*				
Cultural/Environmental Problem (Abiotic disorder)	0	0	2	0
Dollar Spot (Sclerotinia homeocarpa)	1	0	0	0
Microdochium patch (Microdochium nivale)	2	0	0	0
Bentgrass, Creeping (Agrostis palustris) *(Host,Diagnosis/ID) (1,2)*				
Pythium Root Dysfunction (Pythium sp./spp.)	0	0	1	0
Spiral Nematodes (Helicotylenchus sp./spp.)	1	0	0	0
Bentgrass, Creeping (Agrostis stolonifera) *(Host,Diagnosis/ID) (1,1)*				
Pythium Root Dysfunction (Pythium sp./spp.)	1	0	0	0

	Confirmed	Not Detected	Suspected	Inconclusive
Bermudagrass (Cynodon sp./spp.) *(Host,Diagnosis/ID) (37,68)*				
Algae (General)	1	0	0	1
Anthracnose (Colletotrichum graminicola)	1	0	0	0
Bermudagrass mite (Eriophyes cynodoniensis)	1	0	0	0
Bermudagrass Scale (Odonaspis ruthae)	1	0	0	0
Brome Fescue (Vulpia bromoides)	1	0	0	0
Crabgrass (Digitaria sp./spp.)	1	0	0	0
Crambus Sod Webworm (Crambus sp./spp.)	1	0	0	0
Cream Leaf Blight (Limonomyces roseipellis)	0	0	1	0
Crown Gall (Agrobacterium tumefaciens)	0	1	0	0
Cultural/Environmental Problem (Abiotic disorder)	0	0	9	0
Curvularia blight; Leaf spot (Curvularia sp./spp.)	6	0	0	0
Dense Thatch Layer (Abiotic disorder)	1	0	0	0
Dollar Spot (Sclerotinia homeocarpa)	0	0	0	0
ETRI ectotrophic root infecting fungi (Complex of Fungi)	0	0	0	2
Horseweed (Conyza canadensis)	1	0	0	0
Insect damage (Unidentified Insect)	0	0	1	0
Leaf rust; Rust (Puccinia sp./spp.)	5	0	0	0
Leaf Spot (Bipolaris sp./spp.)	4	0	0	0
Leaf Spot (Exserohilum sp./spp.)	6	0	0	0
Leaf Spot; Leaf Blight (Exserohilum rostratum)	1	0	0	0
Perennial Ryegrass (Lolium perenne)	1	0	0	0
Poor Leaf Emergence (Abiotic disorder)	1	0	0	0
Pythium Blight; Cottony Blight (Pythium sp./spp.)	3	0	0	0
Pythium Root Dysfunction (Pythium sp./spp.)	1	0	0	0
Root Problem (Unknown Cause)	0	0	0	1
Root problems (Abiotic disorder)	1	0	1	0
Root-knot Nematodes (Meloidogyne sp./spp.)	2	0	0	0
Soil Compaction (Abiotic disorder)	2	0	0	0
Spring Dead Spot (Ophiosphaerella sp./spp.)	0	0	1	0

	Confirmed	Not Detected	Suspected	Inconclusive
Centipedegrass (Eremochloa ophiuroides) *(Host,Diagnosis/ID) (101,142)*				
Annual Silverhair Grass (Aira elegans (caryophyllea))	2	0	0	0
Anthracnose (Colletotrichum graminicola)	5	0	0	0
Bermudagrass Scale (Odonaspis ruthae)	1	0	0	0
Brown Patch (Colletotrichum caudatum)	3	0	0	0
Carolina Jessamine (Gelsemium sempervirens)	1	0	0	0
Cultural/Environmental Problem (Abiotic disorder)	0	0	35	0
Curvularia blight; Leaf spot (Curvularia sp./spp.)	0	0	0	0
Dense Thatch Layer (Abiotic disorder)	0	0	0	0
Dollar Spot (Sclerotinia homeocarpa)	2	0	0	0
Drainage problem (Abiotic disorder)	0	0	0	0
Groundpearls (Margarodes sp./spp.)	1	0	0	0
Herbicide Injury; Exposure (Abiotic disorder)	0	0	8	0
High pH Damage (Abiotic disorder)	1	0	0	0
Hydrophobic soil/planting mix/media (Abiotic disorder)	6	0	3	0
Insufficient Light (Abiotic disorder)	1	0	0	0
Japanese Beetle (Popillia japonica)	1	0	0	0
Large patch (Rhizoctonia solani)	10	0	0	0
Low Soil Moisture (Abiotic disorder)	1	0	0	0
Manganese deficiency (Abiotic disorder)	0	0	1	0
Moss (General)	0	0	0	1
Nutrient Imbalance (Abiotic disorder)	0	0	3	0
Partridge Berry (Mitchella repens)	1	0	0	0
Phosphorus Deficiency (Abiotic disorder)	0	0	1	0
Haircap Moss (Polytrichum sp./spp.)	0	0	1	0
Poor Leaf Emergence (Abiotic disorder)	9	0	6	0
Pythium Blight; Cottony Blight (Pythium sp./spp.)	2	0	0	0
Rescuegrass (Bromus catharticus)	1	0	0	0
Rhizoctonia Leaf Spot and/or Leaf Blight (Rhizoctonia sp./spp.)	1	0	0	0
Rhodesgrass mealybug (Antonina graminis)	1	0	0	0
Root problem (Unknown Cause)	0	0	1	0
Root problems (Abiotic disorder)	0	0	0	0
Soil Compaction (Abiotic disorder)	1	0	0	0

	Confirmed	Not Detected	Suspected	Inconclusive
Southern crabgrass (Digitaria ciliaris)	1	0	0	0
Suckling Clover (Trifolium dubium)	1	0	0	0
Uneven Irrigation (Abiotic disorder)	0	0	2	0
Unspecified pathology (Rhizoctonia sp./spp.)	1	0	0	0
Fescues (Festuca spp) *(Host,Diagnosis/ID) (8,12)*				
Anthracnose (Colletotrichum graminicola)	3	0	0	0
Ascochyta blight (Ascochyta sp./spp.)	1	0	0	0
Cultural/environmental problem (Abiotic disorder)	0	0	2	0
Leaf rust; Rust (Puccinia sp./spp.)	0	0	0	0
Prickly Sida; Prickly fanpetals (Sida spinosa)	1	0	0	0
Striped Smut (Ustilago striiformis)	1	0	0	0
White grub; June beetle (Phyllophaga crinita)	1	0	0	0
Fescue, Tall (Schedonorus arundinaceus) *(Host,Diagnosis/ID) (1,1)*				
Anthracnose (Colletotrichum graminicola)	1	0	0	0

	Confirmed	Not Detected	Suspected	Inconclusive
St. Augustinegrass (Stenotaphrum secundatum) *(Host,Diagnosis/ID) (62,90)*				
Butterweed (Packera glabella)	1	0	0	0
Carolina Geranium (Geranium carolinianum)	1	0	0	0
Chemical; Environmental Injury (Abiotic disorder)	0	0	1	0
Chinch bug complex (Blissus sp./spp.)	1	0	0	0
Cultural/environmental problem (Abiotic disorder)	0	0	10	0
Dogfennel (Eupatorium capillifolium)	1	0	0	0
Gray leaf spot (Pyricularia grisea)	23	0	5	0
Groundpearls (Margarodes sp./spp.)	1	0	0	0
Horseweed (Conyza canadensis)	1	0	0	0
Hydrophobic soil/planting mix/media (Abiotic disorder)	0	0	2	0
Large patch (Rhizoctonia solani)	6	0	0	0
Marsh Seedbox/ Common Waterpurselane (Ludwigia palustris)	1	0	0	0
Nutrient imbalance (Abiotic disorder)	1	0	0	0
Nutritional Deficiency (Abiotic disorder)	0	0	0	0
Poor Growing Conditions (Abiotic disorder)	0	0	1	0
Poor Leaf Emergence (Abiotic disorder)	2	0	2	0
Root Problem (Unknown Cause)	0	0	0	2
Root Problems (Abiotic disorder)	0	0	1	0
Root-knot Nematodes (Meloidogyne sp./spp.)	2	0	0	0
Rustyseed Paspalum (Paspalum langei)	1	0	0	0
Smooth Cat''sear (Hypochaeris glabra)	1	0	0	0
Soil Compaction (Abiotic disorder)	0	0	0	0
Spiny Sowthistle (Sonchus asper)	1	0	0	0
Sticky Chickweed (Cerastium glomeratum)	2	0	0	0
Yellow Thistle (Cirsium horridulum)	1	0	0	0

	Confirmed	Not Detected	Suspected	Inconclusive
Zoysia Grass; Manilagrass (Zoysia matrella) *(Host,Diagnosis/ID) (68,106)*				
Anthracnose (Colletotrichum graminicola)	4	0	0	0
Bulbous Woodrush (Luzula bulbosa)	1	0	0	0
Chemical Spill Toxicity (Abiotic disorder)	1	0	0	0
Cultural/Environmental Problem (Abiotic disorder)	0	0	11	0
Curvularia Blight; Leaf Spot (Curvularia sp./spp.)	16	0	0	0
Dense thatch layer (Abiotic disorder)	1	0	0	0
Dollar Spot (Sclerotinia homeocarpa)	8	0	1	0
Excessive water (Abiotic disorder)	1	0	0	0
Fertilizer Injury (Abiotic disorder)	0	0	1	0
Groundpearls (Margarodes sp./spp.)	1	0	0	0
Hydrophobic soil/planting mix/media (Abiotic disorder)	5	0	1	0
Insect damage (Unidentified Insect)	0	0	1	2
Large Patch (Thanatephorus (Rhizoctonia) cucumeris (solani))	1	0	0	0
Leaf rust; Rust (Puccinia sp./spp.)	3	0	0	0
Leaf Spot (Bipolaris sorokiniana)	1	0	0	0
Nutritional Deficiency (Abiotic disorder)	1	0	0	0
Poor Leaf Emergence (Abiotic disorder)	6	0	2	0
Poor root development (Abiotic disorder)	1	0	0	0
Poorjoe (Diodia teres)	1	0	0	0
Potassium deficiency (Abiotic disorder)	0	0	1	0
Root Problem (Unknown Cause)	0	0	0	2
Root Problems (Abiotic disorder)	1	0	5	0
Root-knot Nematodes (Meloidogyne sp./spp.)	1	0	0	0
Rust; Leaf Rust (Puccinia zoysiae)	6	0	0	0
Smooth Crabgrass (Digitaria ischaemum)	0	0	1	0
Soil Compaction (Abiotic disorder)	4	0	0	0
Tropical Mexican-clover (Richardia brasiliensis)	1	0	0	0
White grub; June beetle (Phyllophaga crinita)	1	0	0	0
Zoysia Grass (Zoysia japonica)	1	0	0	0
Zoysia sp.	0	0	1	0
Zoysia; Japanese lawngrass (Zoysia japonica) *(Host,Diagnosis/ID) (1,1)*				
Insect damage (Unidentified Insect)	0	0	0	1

Diagnoses of Regulated Pests and Pathogens

	Confirmed	Not Detected	Suspected	Inconclusive
Exotic Weeds				
Cotton (Gossypium hirsutum) *(Host,Diagnosis/ID) (21,21)*				
Bengal Dayflower (Commelina benghalensis)	1	0	0	0
Tropical Spiderwort; Benghal Dayflower (Commelina benghalensis)	20	0	0	0
Corn, Field (Zea mays) *(Host,Diagnosis/ID) (19,19)*				
Bengal Dayflower (Commelina benghalensis)	1	0	0	0
Tropical Spiderwort; Benghal Dayflower (Commelina benghalensis)	15	0	0	0
Plant Id request (genera) *(Host,Diagnosis/ID) (1,1)*				
Tropical spiderwort; Benghal dayflower (Commelina benghalensis)	1	0	0	0
Soybean (Glycine max) *(Host,Diagnosis/ID) (10,13)*				
Tropical Spiderwort; Benghal Dayflower (Commelina benghalensis)	6	0	0	0
Citrus Crops				
Citrus (Citrus sp./spp.) *(Host,Diagnosis/ID) (1,1)*				
Citrus Greening Huanglongbing (Asian) (Candidatus Liberibacter asiaticus)	1	0	0	0
Grapefruit (Citrus paradisi) *(Host,Diagnosis/ID) (1,1)*				
Citrus Greening Huanglongbing (Asian) (Candidatus Liberibacter asiaticus)	0	1	0	0
Sweetpotato (Ipomoea batatas) *(Host,Diagnosis/ID) (1,1)*				
Sweetpotato weevil (SPW) (Cylas formicarius)	1	0	0	0
Boxwood Blight				
Common Boxwood (Buxus sempervirens) *(Host,Diagnosis/ID) (14,20)*				
Boxwood blight; Leaf and stem blight (Calonectria pseudonaviculata)	0	4	0	0
Edging Boxwood (Buxus sempervirens suffruticosa) *(Host,Diagnosis/ID) (7,12)*				
Boxwood Blight; Leaf and Stem Blight (Calonectria pseudonaviculata)	2	2	0	0
Korean Boxwood (Buxus sinica var. insularis) *(Host,Diagnosis/ID) (1,2)*				
Boxwood Blight; Leaf and Stem Blight (Calonectria pseudonaviculata)	1	0	0	0
Littleleaf Boxwood (Buxus microphylla) *(Host,Diagnosis/ID) (10,13)*				
Boxwood blight; Leaf and stem blight (Calonectria pseudonaviculata)	0	1	0	0

Identifications of Insects and Other Arthropods

	Confirmed	Not Detected	Suspected	Inconclusive
Ants *(14)*				
Argentine ant (Linepithema humile)	6	0	0	0
Carpenter ant (Camponotus sp./spp.)	1	0	0	0
Florida carpenter ant (Camponotus abdominalis)	2	0	0	0
Pyramid Ant (Dorymyrmex smithi)	1	0	0	0
Red Imported Fire Ant (IFA) (Solenopsis invicta)	3	0	0	0
Rover Ant (Brachymyrmex depilis)	0	0	1	0
Beetles *(31)*				
Acorn weevil (Curculio glandium)	0	0	1	0
Antlike Flower Beetles (Family Anthicidae)	1	0	0	0
Bark Beetle (Ips sp.)	1	0	0	0
Beetles (Order coleoptera)	0	1	0	0
Cigarette Beetle (Lasioderma serricorne)	1	0	0	0
Darkling beetles (Family Tenebrionidae)	1	0	0	0
Darkling Ground Beetle (Blapstinus sp./spp.)	1	0	0	0
Dermestid beetle (Trogoderma sp./spp.)	1	0	0	0
Drugstore Beetle (Stegobium paniceum)	1	0	0	0
Foreign Grain Beetle (Ahasverus advena)	2	0	0	0
Ground beetles (Family Carabidae)	1	0	0	0
Old House Borer (Hylotrupes bajulus)	1	0	0	0
Red flour beetle (Tribolium castaneum)	1	0	0	0
Rice Weevil (Sitophilus oryzae)	2	0	0	0
Sap Beetle (Amartus sp./spp.)	1	0	0	0
Sap Beetle (Carpophilus sp./spp.)	1	0	0	0
Scolytid beetle (Pityophthorus liquidambarus)	1	0	0	0
Skin Beetle (Dermestes sp./spp.)	1	0	0	0
Sweetpotato Weevil (SPW) (Cylas formicarius)	3	0	0	0
Twig borers (Prostephanus punctatus)	1	0	0	0
Varied carpet beetle (Anthrenus verbasci)	6	0	0	0
Wireworms (Click Beetles) (Family Elateridae)	1	0	0	0

	Confirmed	Not Detected	Suspected	Inconclusive
Bugs *(5)*				
Assasin Bug (Pselliopus sp./spp.)	1	0	0	0
Bee Assassin (Apiomerus crassipes)	1	0	0	0
Brown Marmorated Stink Bug (Halyomorpha halys)	1	0	0	0
Lygaeid Bugs (Family Lygaeidae)	1	0	0	0
Lygaeid Bug (Scolopostethus sp./spp.)	1	0	0	0
Caterpillars, Moths *(9)*				
Bollworm; Budworm; Complex (Helicoverpa zea)	1	0	0	0
Bollworm; Corn earworm (Helicoverpa (Heliothis) zea)	4	0	0	0
Casemaking Clothes Moth (Tinea pellionella)	1	0	0	0
Indianmeal moth (ImM) (Plodia interpunctella)	1	0	0	0
Moth (Lepidoptera)	1	0	0	0
Webbing Clothes Moth (Tineola bisselliella)	1	0	0	0
Fleas *(2)*				
Cat Flea (Ctenocephalides felis)	1	0	0	0
Fleas (Order Siphonaptera)	1	0	0	0

	Confirmed	Not Detected	Suspected	Inconclusive
Flies, Midges, Wasps *(20)*				
Cicada Killer (Sphecius speciosus)	1	0	0	0
Culicid mosquitos (Family Culicidae)	1	0	0	0
Darkwinged Fungus Gnats (Family Sciaridae sp./spp.)	1	0	0	0
Digger Wasp (Oxybelus sp./spp.)	1	0	0	0
Dipteran Fly (Order Diptera)	1	0	0	0
European Hornet (Vespa crabro)	1	0	0	0
Flesh Fly (Sarcophaga sp./spp.)	1	0	0	0
Flies (Order Diptera)	1	0	0	0
Fruit Flies (Family Drosophilidae)	1	0	0	0
House and Stable Flies (Family Muscidae)	1	0	0	0
Humpbacked Flies (Family Phoridae)	2	0	0	0
Humpbacked Phorid Fly (Megaselia sp./spp.)	2	0	0	0
Hymenopterans (Order Hymenoptera)	1	0	0	0
Lance Flies (Lonchaea sp.)	1	0	0	0
Lesser House Fly (Fannia sp./spp.)	2	0	0	0
Psychodid Drain Fly (Clogmia albipunctata)	1	0	0	0
Torsalo Fly (Dermatobia hominis)	1	0	0	0
Cockroaches, Household pests *(15)*				
Earwigs (Order Dermaptera)	2	0	0	0
German cockroach (Blattella germanica)	2	0	0	0
Psocids (Family Psocidae; Psocoptera)	1	0	0	0
Smoky Brown Cockroach (Periplaneta fuliginosa)	3	0	0	0
Springtails (Order collembola)	7	0	0	0

	Confirmed	Not Detected	Suspected	Inconclusive
Human Parasites, Animal Parasites *(28)*				
American Dog Tick (Dermacentor variabilis)	1	0	0	0
Bed bug (Cimex lectularius)	5	0	1	0
Blacklegged Tick (Ixodes scapularis)	1	0	0	0
Bloodsucking Conenose (Triatoma sanguisuga)	1	0	0	0
Booklice (Family Liposcelidae; Psocoptera)	1	0	0	0
Brown Dog Tick (Rhipicephalus sanguineus)	1	0	0	0
Hard-backed ticks (Family Ixodidae; Acari)	1	0	0	0
Head louse (Pediculus humanus)	1	0	0	0
Lone Star Tick (Amblyomma americanum)	1	0	0	0
Parasitic roundworm (Toxascaris leonia)	0	0	1	0
Tropical Rat Mite (Ornithonyssus bacoti)	0	0	1	0
No Insect Found (Identification Analysis)	0	1	0	0
No Pest Found (Identification Analysis)	0	11	0	0
Lacewings *(3)*				
Aphidlions (Green lacewings) (Family Chrysopidae)	1	0	0	0
Brown Lacewings (Family Hemerobiidae)	1	0	0	0
Neuropterans (Order neuroptera)	1	0	0	0
Other *(11)*				
Amphipod Landhopper; Land Shrimp (Arcitalitrus sylvaticus)	1	0	0	0
Herbicide drift (Abiotic disorder)	0	0	1	0
Pillbugs; Sowbugs (Order Isopoda)	7	0	0	0
Snakes; Lizards; Turtles (Subphylum Vertebrata; Class Reptilia)	1	0	0	0
Terrestrial land snail (Family Discidae)	1	0	0	0
Plant Insects *(5)*				
Bean plataspid (Megacopta cribraria)	1	0	0	0
Clover Mite (Bryobia praetiosa)	1	0	0	0
Eriophyid mites (Family Eriophyidae)	0	1	0	0
Thrips (Thrips sp./spp.)	1	0	0	0
Western Flower Thrips (Frankliniella occidentalis)	0	0	1	0

	Confirmed	Not Detected	Suspected	Inconclusive
Termites *(9)*				
Eastern Subterranean Termite (Reticulitermes flavipes)	2	0	0	0
Formosan Subterranean Termite (Coptotermes formosanus)	4	0	0	0
Southeastern Drywood Termite (Incisitermes snyderi)	3	0	0	0
Spiders *(4)*				
Barn funnel weaver spider (Tegenaria domestica)	0	0	1	0
Funnelweb spider (Tegenaria sp./spp.)	1	0	0	0
Spiders (Order Araneae)	1	0	0	0
Wolf Spider (Hogna sp./spp.)	1	0	0	0

Mushroom and Fungal Identifications

	Confirmed	Not Detected	Suspected	Inconclusive
Mushroom (genera) *(Host,Diagnosis/ID) (1,1)*				
Yellow houseplant mushroom (Leucocoprinus birnbaumii)	1	0	0	0
Mushroom (general) *(Host,Diagnosis/ID) (1,1)*				
Ganoderma root rot (Ganoderma lucidum)	1	0	0	0
Sheet Moss (Hypnum curvifolium) (Host,Diagnosis/ID) (1,1)				
Mold; Mildew (Penicillium sp./spp.)	1	0	0	0

Terrestrial, Aquatic Plant and Algae Identifications

	Confirmed	Not Detected	Suspected	Inconclusive
Pasture (habitat) *(Host,Diagnosis/ID) (4,4)*				
Eastern Black Nightshade (Solanum ptycanthum)	1	0	0	0
Lateflowering Thoroughwort (Eupatorium serotinum)	1	0	0	0
Rattail Fescue (Vulpia myuros)	1	0	0	0
Smut grass (Sporobolus indicus)	1	0	0	0
Plant Id request (general) *(Host,Diagnosis/ID) (13,15)*				
Centepede grass (Eremochloa ophiuroides)	1	0	0	0
Colonial Bentgrass (Agrostis capillaris)	1	0	0	0
Common carpetgrass (Axonopus fissifolius)	1	0	0	0
Common Pear (Pyrus communis)	1	0	0	0
Cuban Jute (Sida rhombifolia)	1	0	0	0
Denseflower Knotweed (Polygonum glabrum)	1	0	0	0
Hog Plum (Prunus umbellata)	1	0	0	0
Insufficient Sample (Identification Analysis)	0	0	0	0
Parrotfeather (Myriophyllum aquaticum)	1	0	0	0
Ryegrass (Loliuim sp.)	1	0	0	0
Slimpod Rush (Juncus diffusissimus)	1	0	0	0
Tall Fescue (Festuca arundinacea)	1	0	0	0
Tropical Spiderwort; Benghal Dayflower (Commelina benghalensis)	2	0	0	0
Volunteer Rye (Secale cereale)	1	0	0	0

Suspected Identifications

	Confirmed	Not Detected	Suspected	Inconclusive
Foxtail (Setaria sp./spp.) [Suspected] *(Host,Diagnosis/ID) (1,1)*				
Munj Sweetcane (Saccharum bengalense)	1	0	0	0
Yellow Nutsedge (Cyperus esculentus) [Suspected]*(Host,Diagnosis/ID) (1,1)*				
Old World Hairsedge (Bulbostylis barbata)	1	0	0	0
Turfgrass (Turfgrass mixed species) *(Host,Diagnosis/ID) (3,8)*				
Annual Bluegrass (Poa annua)	2	0	0	0
Bristly Mallow (Modiola caroliniana)	1	0	0	0
Centipedegrass (Eremochola ophiuriodes)	2	0	0	0
Field Burrweed; Spurweed (Soliva sessilus)	2	0	0	0
Lyreleaf sage (Salvia lyrata)	1	0	0	0

	Confirmed	Not Detected	Suspected	Inconclusive
Ponds; Lakes; impounded waters (Aquatic habitat) *(Host,Diagnosis/ID) (33,52)*				
Alligatorweed (Alternanthera philoxeroides)	2	0	0	0
Baldwin's Spikerush (Eleocharis baldwinii)	6	0	0	0
Bladderwort (Utricularia sp.)	3	0	0	0
Bladderwort (Utricularia sp..)	1	0	0	0
Bladderwort species (Utricularia sp.)	1	0	0	0
Blue-green Algae (Microcystis sp./spp.)	1	0	0	0
Blue-green Algae (Oscillatoria sp./spp.)	0	0	0	0
Bluegreen algae/Cyanobacteria	0	1	0	0
Brazilian Watermeal (Wolffia brasiliensis)	2	0	0	0
Brazilian Waterweed (Egeria densa)	1	0	0	0
Carolina Fanwort (Cabomba caroliniana)	1	0	0	0
Dotted Duckweed (Landoltia punctata)	4	0	0	0
Filamentous Blue-green Algae (Lyngbya sp./spp.)	0	0	0	0
Filamentous Green Algae (Oedogonium sp. ; (Mougeotia sp. , Ulothrix sp. , Bulbochaete	1	0	0	0
Filamentous Green Algae (Spirogyra; Oedogonium; Cladophora sp./spp.)	4	0	0	0
Green algae (Desmids)	1	0	0	0
Hairy Seedbox (Ludwigia pilosa)	1	0	0	0
Insufficient Sample (Identification Analysis)	0	0	0	0
Lemna Duckweed (Lemna sp./spp.)	1	0	0	0
Marsh Seedbox (Ludwigia palustris)	2	0	0	0
Orange Jewelweed (Impatiens capensis)	1	0	0	0
Pickerelweed (Pontederia cordata)	1	0	0	0
Roundfruit Hedgehyssop (Gratiola virginiana)	1	0	0	0
Small pondweed (Potamogeton pusillus)	0	0	0	0
Southern Naiad (Najas guadalupensis)	1	0	0	0
Southern Watergrass (Luziola fluitans)	1	0	0	0
Swamp Loosestrife (Decodon verticillatus)	1	0	0	0
Watershield (Brasenia schreberi)	2	0	0	0
Waterthread Pondweed (Potamogeton diversifolius)	2	0	0	0

The Molecular Plant Pathogen Detection Lab

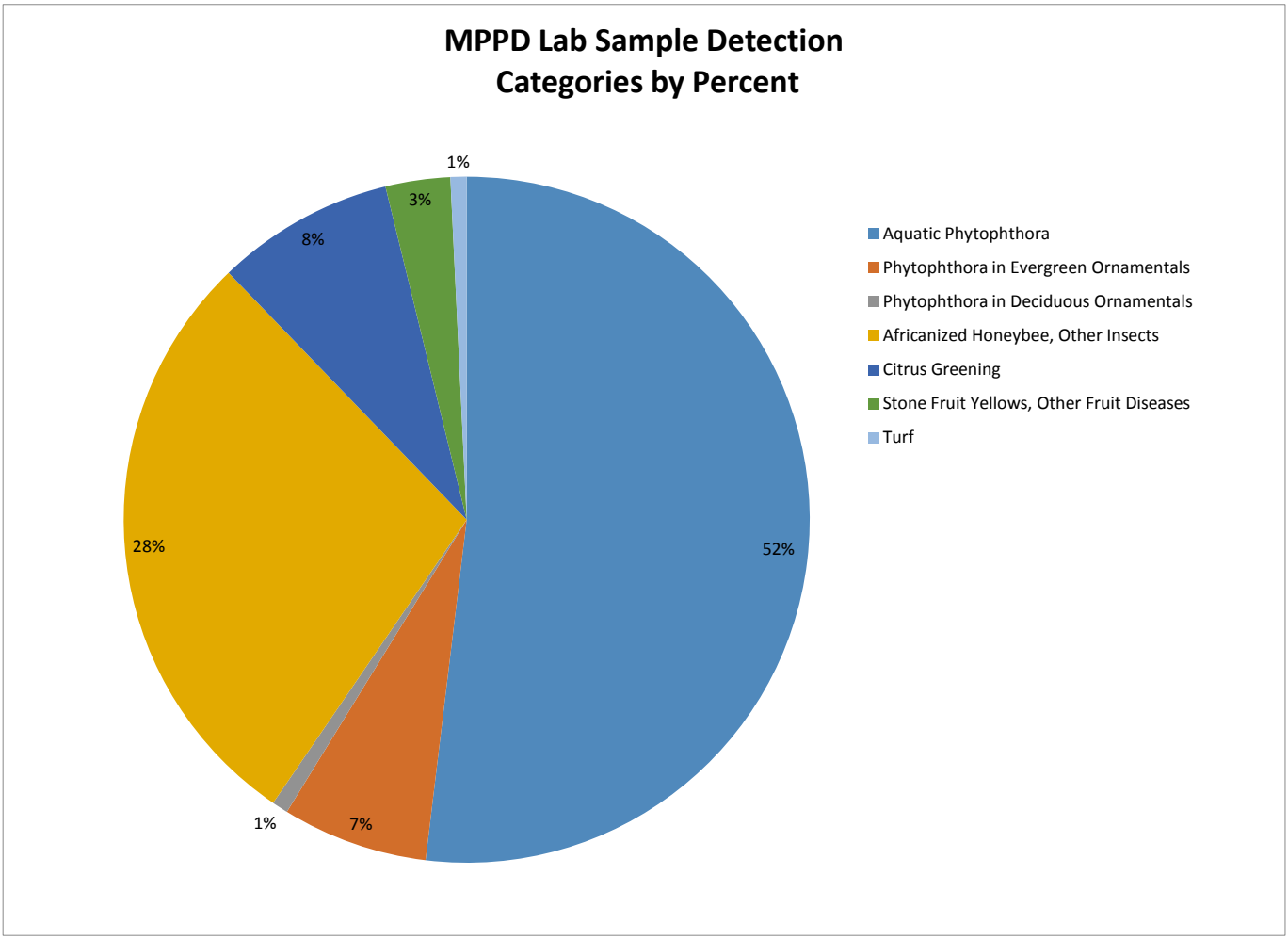
The Molecular Plant Pathogen Detection (MPPD) Lab utilizes both molecular techniques and older methods to identify plant pathogens. Pathogens are identified by polymerase chain reaction (PCR), by real-time PCR and by colony morphology.

The PCR process allows us to amplify a trace amount of pathogen DNA into a larger and more easily detectable amount of DNA. This technique identifies pathogens much faster than traditional techniques, and identifies pathogens that are difficult to isolate and culture. The main purpose of the lab is to support South Carolina growers in the early detection of plant diseases, especially those that are of USDA-APHIS regulatory concern. The Lab has taken on other projects as well, such as molecular identification of Africanized honeybees and surface water microbial tracking.

The Clemson MPPD lab is accredited under the USDA National Plant Protection Laboratory Accreditation Program (NPPLAP) program in molecular diagnostics for HLB (Citrus Greening) and Sudden Oak Death, or Ramorum blight, caused by *Phytophthora ramorum*.

The following pages show data on detections performed in the MPPD.

Dr. Curt Colburn, MPPD Lab Director


MPPD Lab Sample Detection
Categories by Percent
1%
3%
8%
28%
52%
1%
7%
Aquatic Phytophthora
Phytophthora in Evergreen Ornamentals
Phytophthora in Deciduous Ornamentals
Africanized Honeybee, Other Insects
Citrus Greening
Stone Fruit Yellows, Other Fruit Diseases
Turf

	Confirmed	Not detected	Suspected	Inconclusive
PHYTOPHTHORA DISEASES ON PLANTS				
Azalea; Rhododendron (Rhododendron sp./spp.)				
Ramorum Blight (Phytophthora ramorum)	0	1	0	0
Ramorum Blight ; Sudden Oak Death (Phytophthora ramorum)	0	1	0	0
Camellia (Camellia sp./spp.) (Host,Diagnosis/ID)				
Ramorum Blight (Phytophthora ramorum)	0	2	0	0
Ramorum blight; Sudden oak death (Phytophthora ramorum)	0	1	0	0
Common Camellia (Camellia japonica) *(Host,Diagnosis/ID)*				
Ramorum Blight (Phytophthora ramorum)	0	1	0	0
Pieris (Pieris sp./spp.) *(Host,Diagnosis/ID)*				
Ramorum Blight (Phytophthora ramorum)	0	1	0	0
Rhododendron (Rhododendron sp./spp.) *(Host,Diagnosis/ID)*				
Ramorum Blight (Phytophthora ramorum)	0	2	0	0
Viburnum (Viburnum sp./spp.) *(Host,Diagnosis/ID*				
Ramorum Blight (Phytophthora ramorum)	0	1	0	0
PHYTOPHTHORA SPECIES IN WATER SOURCES				
Ponds; Lakes; impounded waters (Aquatic habitat) *(Host,Diagnosis/ID)*				
Phytophthora Blight (Phytophthora cinnamomi)	2	0	0	0
Phytophthora oak decline; Root rot (Phytophthora quercina)	0	10	0	0
Ramorum Blight (Phytophthora ramorum)	0	30	0	0
River; Stream; creek; waterway (Aquatic habitat) *(Host,Diagnosis/ID)*				
Phytophthora Blight (Phytophthora cinnamomi)	12	0	0	0
Phytophthora oak decline; Root rot (Phytophthora quercina)	0	20	0	0
Ramorum Blight (Phytophthora ramorum)	0	1	0	0
Water Sample (Aquatic habitat) *(Host,Diagnosis/ID*				
Phytophthora Oak Decline; Root Rot (Phytophthora quercina)	0	3	0	0
Ramorum Blight (Phytophthora ramorum)	0	3	0	0
CITRUS SAMPLES				
Citrus (Citrus sp./spp.) *(Host,Diagnosis/ID)*				
Asiatic Citrus Psyllid (Diaphorina citri)	1	0	0	0
Citrus Greening Huanglongbing (Asian) (Candidatus Liberibacter asiaticus)	0	7	0	0

	Confirmed	Not detected	Suspected	Inconclusive
Lemon (Citrus limon) *(Host,Diagnosis/ID)*				
Citrus Greening Huanglongbing (Asian) (Candidatus Liberibacter asiaticus)	0	2	0	0
Marumi Kumquat (Citrus japonica) *(Host,Diagnosis/ID)*				
Citrus Greening Huanglongbing (Asian) (Candidatus Liberibacter asiaticus)	0	1	0	0
Satsuma; Mandarin; tangerine (Citrus reticulata) *(Host,Diagnosis/ID*				
Citrus greening huanglongbing (Asian) (Candidatus Liberibacter asiaticus)	0	1	0	0
PYHTOPLASMAS				
Peach (Prunus persica) *(Host,Diagnosis/ID)*				
European Stone Fruit Yellows (Candidatus Phytoplasma prunorum 16SrX-F)	0	4	0	0
AFRICANIZED HONEY BEE TESTING				
Honey Bee and products (Apis mellifera) *(Host,Diagnosis/ID)* \				
European Honey Bee (EHB) (Apis mellifera european)	37	0	0	0
BACTERIAL DISEASES				
Bermudagrass (Cynodon sp./spp.) (Host,Diagnosis/ID)				
Bacterial Leaf Scorch (Xylella fastidiosa)	0	1	0	0