# Plant Disease Clinic Annual Report 2012



The University of Georgia College of Agricultural and Environmental Sciences Department of Plant Pathology Compiled by Ansuya Jogi Diagnosticians: Ansuya Jogi and Jason Brock Extension Specialists: Phillip Brannen, Bob Kemerait, David Langston, Elizabeth Little, Alfredo Martinez-Espinoza, Jean Williams Woodward

#### **2012 PLANT DISEASE CLINICS ANNUAL SUMMARY**

Extension Plant Pathology maintains plant disease clinics at Athens and Tifton to aid county extension faculty in diagnosing and correcting disease related plant problems. Additionally, a laboratory for analysis for nematodes is maintained at Athens. The Plant Disease Clinic at Athens, operated by Ansuya Jogi, is located in Room 2405 Miller Plant Science Building. Samples analyzed in this clinic include commercial fruit, ornamentals, and turf; Christmas trees and forestry; all homeowner samples; legume forages, small grains, mushroom identification and wood rots. The Plant Disease Clinic at Tifton, operated by Jason Brock, is located in Room 116 of the Horticulture Building. Samples analyzed in this clinic include commercial fully of the samples of field crops, grain forages, pecans, and vegetables.

In 2012, 747 commercial plant samples were processed for diagnosis at Athens and 684 commercial plant samples were processed for diagnosis at Tifton. For the homeowners, 393 samples were analyzed.

Diagnoses and educational recommendations are returned to the county faculty. The clinics maintain a computerized database of samples and their diagnoses through the DDDI system.

Сгор	<b>Commercial Samples</b>	Homeowner Samples	Total
Field Crops	387	3	390
Fruits and Nuts	188	44	232
Herbaceous Ornamentals	100	27	127
Miscellaneous	6	6	12
Trees	28	44	72
Turf	319	169	488
Vegetables	288	50	338
Woody Ornamentals	117	58	175
Total*	1433	401	1834

#### **CLINIC SUMMARIES: 2012 PLANT SPECIMEN DIAGNOSES**

\*The total number of diagnoses shown here is larger than the total number of samples received (shown by Monthly Sample Submission) because some samples have more than one problem or diagnosis.

The largest crop category for Commercial clinic submissions was Field Crops, followed by Turf and then Vegetables. The largest crop category for Homeowner clinic submission was Turf, followed by Woody Ornamentals and then Fruits and Nuts and Trees.

Month	Commercial Samples	Homeowner Samples
January	14	3
February	48	4
March	71	29
April	128	42
May	168	77
June	172	62
July	132	28
August	176	32
September	125	15
October	126	42
November	42	5
December	10	3
Total	1212	342

#### MONTHLY SAMPLE SUBMISSION SUMMARY: 2012

County	Samples	County	Samples	County	Samples
Appling	25	Effingham	18	NA	166
Atkinson	7	Elbert	2	Newton	4
Bacon	27	Emanuel	11	Oconee	4
Banks	2	Evans	14	Oglethorpe	2
Barrow	2	Fayette	8	Paulding	4
Bartow	3	Floyd	8	Peach	12
Ben Hill	6	Forsyth	8	Pickens	3
Berrien	61	Franklin	1	Pierce	13
Bibb	21	Fulton	16	Pike	1
Brantley	4	Glynn	1	Polk	2
Brooks	4	Gordon	1	Pulaski	15
Bryan	1	Grady	5	Putnam	2
Bulloch	5	Greene	1	Rabun	1
Burke	3	Gwinnett	16	Richmond	17
Calhoun	2	Habersham	3	Seminole	12
Camden	1	Hall	3	Spalding	3
Candler	7	Harris	10	Stephens	1
Carroll	4	Hart	1	Sumter	24
Catoosa	1	Henry	5	Tattnall	4
Chatham	13	Houston	1	Taylor	8
Cherokee	5	Irwin	9	Telfair	6
Clarke	25	Jackson	4	Terrell	4
Clinch	1	Jenkins	1	Tift	35
Cobb	16	Johnson	1	Toombs	8
Coffee	24	Jones	3	Treutlen	3
Colquitt	25	Lanier	13	Troup	3
Columbia	23	Laurens	23	Turner	12
Cook	20	Lee	1	Walker	1
Coweta	8	Lowndes	27	Walton	6
Crawford	7	Macon	26	Ware	4
Dawson	3	Madison	3	Washington	8
Decatur	4	Marion	6	Wayne	10
DeKalb	25	McDuffie	26	Webster	10
Dodge	3	Meriwether	1	Wheeler	2
Dooly	6	Miller	21	Wilcox	7
Dougherty	6	Mitchell	1	Wilkes	2
Douglas	16	Montgomery	5	Worth	8
Early	3	Morgan	10		_
Echols	3	Muscogee	10		

## DISTRIBUTION OF COMMERCIAL SAMPLES SUBMITTED BY COUNTY FOR 2012

## DISTRIBUTION OF HOMEOWNER SAMPLES SUBMITTED BY COUNTY FOR 2012

County	Samples	County	Samples
Appling	8	Liberty	1
Ben Hill	1	Madison	5
Bibb	24	Monroe	12
Bulloch	4	Montgomery	2
Burke	1	Morgan	7
Carroll	5	Murray	3
Chatham	4	NA	1
Cherokee	4	Newton	9
Clarke	19	Oconee	5
Cobb	21	Paulding	4
Columbia	4	Pierce	6
Coweta	6	Pike	1
Dade	4	Rabun	1
Dawson	4	Richmond	12
Decatur	1	Rockdale	7
DeKalb	4	Spalding	1
Dodge	1	Sumter	5
Dougherty	11	Thomas	5
Douglas	1	Union	2
Elbert	2	Unknown	4
Fannin	10	Upson	1
Fayette	6	Walton	1
Floyd	1	Ware	2
Forsyth	3	Whitfield	2
Fulton	17		
Gordon	1		
Greene	1		
Gwinnett	8		
Hall	1		
Harris	2		
Henry	22		
Jackson	9		
Jasper	5		
Jeff Davis	2		
Jefferson	3		
Jenkins	1		
Jones	4		
Laurens	10		
Lee	7		

#### **CROP SUMMARIES**

The following sections contain summaries of diagnosed samples by crop category. C: Commercial

H: Homeowner

## FIELD CROPS

# (Total Diagnoses 390: C=387; H=3)

HOST	DISEASE	CAUSAL ORGANISM	С	Н
Alfalfa	Leptosphaerulina Leaf Spot	Leptosphaerulina sp./spp.	1	0
C = 1				
H = 0				
Annual	Environmental Stress; Problem	Abiotic disorder	1	0
Ryegrass				
C = 1				
H = 0				
Bahiagrass	No Pathogen Found	No Pathogen Found	1	0
C = 1				
H = 0				
Barley	Spot Blotch	Cochliobolus sp./spp.	1	0
C = 1				
H = 0				
Bermudagrass	Helminthosporium Leaf Spot	Cochliobolus (Bipolaris)	2	0
C = 9		cynodontis		
H = 0	Pink Snow Mold; Fusarium Patch	Monographella	1	0
		(Microdochium) nivalis		
		(nivale)		
	Root Decline of Warm Season	Gaeumannomyces	1	0
	Grasses	graminis		
	Leaf Rust; rust	Puccinia sp./spp.	2	0
	Insect Damage	Unidentified Insect	1	0
	No Pathogen Found	No Pathogen Found	1	0
		Bipolaris sp./spp.	1	0
Clover	Sclerotinia Stem/ Crown or Root	Sclerotinia trifoliorum	1	0
C = 1	Rot			
H = 0				
Common	Powdery Mildew	Erysiphe sp./spp.	2	0
Wheat	Fusarium Stem Rot	Fusarium sp./spp.	1	0
C = 20	Rhizoctonia Root; Crown Rot	Rhizoctonia sp./spp.	1	0
H = 0	Not Pathogen; Saprophyte	Secondary Agents;	1	0
		Saprophytes; Unspecif.	_	
	Hessian Fly	Mayetiola destructor	1	0
	Environmental Stress; Problem	Abiotic disorder	1	0

	Pythium Root and/or Crown Rot	Pythium sp./spp.	1	0
	Leaf Rust; rust	Puccinia sp./spp.	1	0
	Tan Spot; Yellow Leaf Spot	Pyrenophora (ana.	1	0
		Drechslera) tritici-repentis		
	Insufficient Sample	Identification Analysis	2	0
	No Pathogen Found	No Pathogen Found	6	0
		Fusarium sp./spp.	1	0
		Wheat Soil-borne Mosaic	1	0
		Virus (WSBMV)		
Corn	Southern Leaf Blight	Cochliobolus (ana.	3	0
C = 88		Bipolaris) heterostrophus		
H = 0		(maydis)		
	Unknown	General	10	0
	Charcoal Rot	Macrophomina	1	0
		phaseolina		
	Fusarium Ear Rot	Fusarium sp./spp.	2	0
	Fusarium Stem Rot	Fusarium sp./spp.	2	0
	Rhizoctonia Root; Crown Rot	Rhizoctonia sp./spp.	1	0
	Common Corn Rust	Puccinia sorghi	9	0
	Smut	Ustilago sp./spp.	5	0
	Chemical Injury	Abiotic disorder	11	0
	Genetic Disorders	Abiotic disorder	1	0
	Corn Eyespot	Kabatiella (Aureobasidium)	1	0
		zeae		
	Northern Corn Leaf Blight; Leaf	Setosphaeria (Exserohilum)	16	0
	Spot	turcica (turcicum)		
	Southern Corn Rust	Puccinia polysora	9	0
	No Pathogen Found	No Pathogen Found	10	0
		Abiotic disorder	6	0
		Complex of Biotic; Abiotic	1	0
		Factors		
Corn (Seed)	Unknown	General	1	0
C = 6	Smut	Ustilago sp./spp.	1	0
H = 0	Northern Corn Leaf Blight; Leaf	Setosphaeria (Exserohilum)	2	0
	Spot	turcica (turcicum)		
	Southern Corn Rust	Puccinia polysora	1	0
	No Pathogen Found	No Pathogen Found	1	0
Cotton	Cotton Boll Rot; Seedling BI't	Colletotrichum indicum	2	0
C = 79	Ascochyta Blight	Ascochyta gossypii	1	0
H = 0	Fusarium Wilt	Fusarium oxysporum	2	0
	Unknown	General	13	0
	Cotton Boll Rot	Botryosphaeria (Diplodia)	5	0
		rhodina (natalensis)		

	Charcoal Rot	Macrophomina	1	0
		phaseolina		
	Alternaria Leaf Spot	Alternaria sp./spp.	3	0
	Cercospora Leaf Spot	Cercospora sp./spp.	6	0
	Corynespora Leaf Spot	Corynespora sp./spp.	5	0
	Corynespora Leaf Spot	Corynespora cassiicola	12	0
	Stemphylium Leaf Spot	Stemphylium sp./spp.	16	0
	Chemical Injury	Abiotic disorder	1	0
	Nutritional Deficiency	Abiotic disorder	1	0
	Boll Rot	Various fungi	1	0
	No Pathogen Found	No Pathogen Found	7	0
		Unknown Agent	2	0
		Unknown cause	1	0
Grain Sorghum	Anthracnose	Colletotrichum	1	0
C = 4		graminicola		
H = 0	Charcoal Rot	Macrophomina	1	0
		phaseolina		
	Fusarium Stem Rot	Fusarium sp./spp.	1	0
	No Pathogen Found	No Pathogen Found	1	0
Oats	Environmental Stress; Problem	Abiotic disorder	2	0
C = 5	Helminthosporium Diseases	Pyrenophora (ana.	1	0
H = 0		Drechslera) sp./spp.		
	No Pathogen Found	No Pathogen Found	2	0
Peanut	Anthracnose	Glomerella sp./spp.	1	0
C = 73	Rhizoctonia Blight	Rhizoctonia solani	1	0
H = 0	Unknown	General	16	0
	Cylindrocladium Black Rot	Cylindrocladium	4	0
		parasiticum		
	Collar Rot	Diplodia sp./spp.	1	0
	Aspergillus Crown Rot	Aspergillus niger	1	0
	Rhizoctonia Root and Stem Rot	Thanatephorus	2	0
		(Rhizoctonia) cucumeris		
		(solani)		
	Southern Stem Rot	Sclerotium rolfsii	4	0
	Rhizoctonia Stem Rot	Rhizoctonia sp./spp.	2	0
	Tomato Spotted Wilt	Tomato Spotted Wilt Virus	3	0
		(TSWV)		
	Chemical Injury	Abiotic disorder	5	0
	Unknown Abiotic Disorder	Abiotic disorder	2	0
	Anthracnose; Colletotrichum Leaf	Colletotrichum sp./spp.	1	0
	Spot			
	Early Leaf Spot	Mycosphaerella (ana.	8	0
		Cercospora) arachidis (		

		arachidicola)		
	Leaf Scorch; Pepper Spot	Leptosphaerulina	3	0
		crassiasca		
	Neocosmospora Root or Fruit Rot	Neocosmospora	1	0
		vasinfecta		
	Late Leaf Spot	Mycosphaerella (ana.	2	0
		Passalora) berkeleyi		
		(personata)		
	Insufficient Sample	Identification Analysis	1	0
	No Pathogen Found	No Pathogen Found	5	0
		Aspergillus flavus	2	0
		Lasiodiplodia	1	0
		(Botryodiplodia)		
		theobromae		
		No Pathogen Found	3	0
		Unknown cause	2	0
	Rhizoctonia limb rot	Rhizoctonia solani	1	0
	Rhizoctonia limb rot	Rhizoctonia solani	1	0
Pecan	No Pathogen Found	No Pathogen Found	1	0
C = 1				
H = 0				
Ryegrass	No Pathogen Found	No Pathogen Found	1	0
C = 1				
H = 0				
Soybean	Anthracnose	Glomerella sp./spp.	1	0
C = 52	Southern Stem Blight	Sclerotium rolfsii	1	0
H = 0	Soybean Bacterial Pustule	Xanthomonas campestris	3	0
	Downy Mildew	Peronospora sp./spp.	6	0
	Soybean Downy Mildew	Peronospora manshurica	4	0
	Unknown	General	9	0
	Charcoal Rot	Macrophomina	1	0
		phaseolina		0
	Australasian Soybean Rust	Phakopsora pachyrhizi	7	0
	Chemical Injury	Abiotic disorder	1	0
	Pod and Stem Blight	Diaporthe (Phomopsis)	2	0
	No Dath a san Faund	sp./spp.	4.5	0
	No Pathogen Found	No Pathogen Found	15	0
		No Pathogen Found	1	0
C	Dhizomus Liss d Dat	Unknown cause	1	0
Sunflower	Rhizopus Head Rot	Rhizopus sp./spp.	1	0
C = 1				
H = 0		Conoral	-	
Tobacco (Flue-	Unknown	General	2	0

cured)	Black Root Rot	Thielaviopsis (Chalara)	2	0
C = 41		basicola (elegans)		
H = 0	Black Shank	Phytophthora nicotianae	4	0
	Collar Rot	Sclerotinia sp./spp.	1	0
	Rhizoctonia Root; Crown Rot	Rhizoctonia sp./spp.	1	0
	Tobacco Etch	Tobacco Etch Virus (TEV)	2	0
	Tobacco Mosaic	Tobacco Mosaic Virus (TMV)	3	0
	Tomato Spotted Wilt	Tomato Spotted Wilt Virus (TSWV)	5	0
	Sclerotinia Rot	Sclerotinia sclerotiorum	1	0
	Potato Virus Y	Potato Virus Y (PVY)	2	0
	Pythium Root and/or Crown Rot	Pythium sp./spp.	2	0
	Pythium Damping Off	Pythium sp./spp.	5	0
	Rhizoctonia Foliar/ Aerial/ Web Blight	Rhizoctonia solani	2	0
	No Pathogen Found	No Pathogen Found	7	0
		Alternaria sp./spp.	1	0
		Potato Virus Y (PVY)	1	0
Unknown; No	Insufficient Sample	Identification Analysis	1	0
Site Specified C = 1 H = 3		Unknown cause	0	3
Wheat C = 1 H = 0	Chemical Injury	Abiotic disorder	1	0

## FRUITS AND NUTS

(Total Diagnoses 232: C=188; H=44)

HOST	DISEASE	CAUSAL ORGANISM	С	Н
Blackberry	Cane Blotch	Cephaleuros sp./spp.	1	0
C = 12	Unknown	General	1	0
H = 3	Orange Rust	Gymnoconia nitens	1	0
	Cercospora Leaf Spot	Cercospora sp./spp.	0	1
	Eriophyid Mites	Family Eriophyidae	2	0
	Raspberry Cane Borer	Oberea bimaculata	0	1
	Unknown Abiotic Disorder	Abiotic disorder	1	0
	Canker	Dieback; Leaf Blight	1	1
	Cane and Leaf Rust	Kuehneola sp./spp.	1	0
		Botryosphaeria sp./spp.	1	0
		Cephaleuros virescens	2	0
		Mycosphaerella (Septoria)	0	1
		rubi		
		Unknown cause	1	
Blueberry	Unknown	General	8	1
C = 60	Phyllosticta Leaf Spot	Phyllosticta sp./spp.	1	1
H = 5	Septoria Leaf Spot	Septoria sp./spp.	1	0
	Blueberry Red Ringspot	Blueberry Red Ringspot	2	0
		Virus (BRRV)		
	Chemical Injury	Abiotic disorder	1	0
	Cultural/Environmental Problem	Abiotic disorder	0	2
	Nutrient Imbalance	Abiotic disorder	2	1
	Scorch	Abiotic disorder	1	0
	Environmental Stress; Problem	Abiotic disorder	1	0
	Drought Stress Damage	Abiotic disorder	1	0
	Unknown Abiotic Disorder	Abiotic disorder	5	0
	Freeze; Frost; Cold Damage	Abiotic disorder	1	0
	Hemlock-Blueberry Rust	Thekopsora minima	5	0
	Anthracnose; Colletotrichum Leaf	Colletotrichum sp./spp.	2	0
	Spot			
	Dieback; Canker; Twig Blight	Botryosphaeria sp./spp.	1	0
	Canker	Dieback; Leaf Blight	1	1
	Bacterial Leaf Scorch (BLS)	Xylella fastidiosa (BLS)	1	0
	Undetermined Injury or Pest	Identification Analysis	1	0
	No Pathogen Found	No Pathogen Found	1	0
	Blueberry Necrotic Ring Blotch	Blueberry Necrotic Ring	3	0
		Blotch Disorder virus		
		suspected		
		Abiotic disorder	2	0

		Alternaria sp./spp.	2	0
		Blueberry Necrotic Ring	4	0
		Blotch Disorder virus		
		suspected		
		Botryosphaeria sp./spp.	6	0
		Pestalotia sp./spp.	4	0
		Rhizoctonia sp./spp.	1	0
		Unknown cause	2	0
Cherry	Environmental Stress; Problem	Abiotic disorder	0	1
C = 0				
H = 2				
	Wound Canker	Abiotic disorder	0	1
Common Apple	Sooty Blotch (Fruit)	Gloeodes pomigena	0	1
C = 0				
H = 2				
	Undetermined Injury or Pest	Identification Analysis	0	1
Common Fig	Winter Injury	Abiotic disorder	0	1
C = 0	Environmental Stress; Problem	Abiotic disorder	0	1
H = 4	Root Problems	Abiotic disorder	0	1
		Gibberella (Fusarium)	0	1
		sp./spp.		
Crabapple	Fire Blight	Erwinia amylovora	0	1
C = 1	Unknown	General	1	0
H = 1				
Domestic Apple	Fire Blight	Erwinia amylovora	0	1
C = 0				
H = 1				
European	Grapevine Pierce's Disease (PD)	Xylella fastidiosa (PD)	1	0
Grape				
C = 1				
H = 0				
Fig	Cercospora Leaf Spot	Cercospora sp./spp.	1	0
C = 1				
H = 0				
Grape	Grape Downy Mildew	Plasmopara viticola	1	0
C = 5	Unknown	General	0	1
H = 8	Macrophoma Rot	Botryosphaeria dothidea	0	1
	Angular Leaf Spot	Cercospora brachypus	1	0
	Environmental Stress; Problem	Abiotic disorder	0	1
	Unknown Abiotic Disorder	Abiotic disorder	0	1
	Black Rot	Guignardia (Phyllosticta)	1	3
		bidwellii (ampelicida)		
	Spider Mite Injury	Unidentified Spider Mite	1	0

		Unknown cause	1	1
Japanese	Environmental Stress; Problem	Abiotic disorder	0	1
Persimmon		Botryosphaeria sp./spp.	1	0
C = 2		Unidentified Wood Boring	1	0
H = 1		Insect		
Mango	Cultural/Environmental Problem	Abiotic disorder	0	1
C = 0				
H = 1				
Muscadine	Cercospora Leaf Spot	Cercospora sp./spp.	1	0
Grape	Cultural/Environmental Problem	Abiotic disorder	0	2
C = 2	Unknown Abiotic Disorder	Abiotic disorder	1	0
H = 2				
Olive	Freeze; Frost; Cold Damage	Abiotic disorder	1	0
C = 2		Abiotic disorder	1	0
H = 0				
Oval Kumquat	Environmental Stress; Problem	Abiotic disorder	0	1
(Chinese				
Orange)				
C = 0				
H = 1				
Peach	Unknown	General	1	0
C = 4	Chemical Injury	Abiotic disorder	0	1
H = 2	Unknown Abiotic Disorder	Abiotic disorder	1	0
	Scale Insects	Order Homoptera	1	0
		Rhizopus sp./spp.	1	0
		Unknown cause	0	1
Pear	Fire Blight	Erwinia amylovora	0	2
C = 0	Unknown Abiotic Disorder	Abiotic disorder	0	1
H = 3				
Pecan	Anthracnose	Gloeosporium sp./spp.	3	0
C = 58	Anthracnose	Glomerella sp./spp.	2	0
H = 2	Anthracnose	Glomerella	4	0
		(Colletotrichum) cingulata		
		(gloeosporioides)		
	Phomopsis Blight	Phomopsis sp./spp.	1	0
	Pecan; Hickory Scab	Cladosporium caryigenum	6	0
	Unknown	General	2	1
	Mites	Order Acari	1	0
	Pecan Leaf Scorch Mite	Eotetranychus hicoriae	1	0
	Black Pecan Aphid	Melanocallis caryaefoliae	2	0
	Chemical Injury	Abiotic disorder	4	0
	Chemical; Environmental Injury	Abiotic disorder	1	0
	Nutritional Deficiency	Abiotic disorder	3	0

	Environmental Stress; Problem	Abiotic disorder	0	1
	Physiological Responses	Abiotic disorder	4	0
	Undetermined Injury or Pest	Identification Analysis	1	0
	No Pathogen Found	No Pathogen Found	13	0
		Lasiodiplodia	3	0
		(Botryodiplodia)	-	-
		theobromae		
		Lasiodiplodia (Diplodia)	2	0
		theobromae (gossypina)		
		No Pathogen Found	3	0
		Unknown cause	2	0
Persimmon (Ornamental)	Environmental Stress; Problem	Abiotic disorder	0	1
C = 0 H = 1				
Plum	Brown Rot	Monilia sp./spp.	0	1
C = 0 H = 2	Nutrient Imbalance	Abiotic disorder	0	1
Pomegranate	Anthracnose Fruit Rot	Colletotrichum sp./spp.	4	0
C = 13	Crown and Root Rot	Pathogen complex	1	0
H = 0	Cultural/Environmental Problem	Abiotic disorder	0	1
	No Pathogen Found	No Pathogen Found	1	0
		Abiotic disorder	1	0
		Complex of Biotic; Abiotic Factors	1	0
		No Pathogen Found	1	0
		Pestalotia sp./spp.	1	0
		Unknown cause	2	0
Raspberry	Cultural/Environmental Problem	Abiotic disorder	0	1
C = 1	Unknown Abiotic Disorder	Abiotic disorder	1	0
H = 2	Insect Damage	Unidentified Insect	0	1
Soybean C = 1 H = 0	No Pathogen Found	No Pathogen Found	1	0
Strawberry	Unknown	General	2	0
C = 25	Rhizoctonia Root Rot	Rhizoctonia sp./spp.	1	0
H = 0	Phytophthora Stem Rot	Phytophthora sp./spp.	1	0
	Rhizoctonia Crown and Stem Rot	Rhizoctonia sp./spp.	2	0
	Spider Mites	Family Tetranychidae	2	0
	Anthracnose; Colletotrichum Leaf Spot	Colletotrichum sp./spp.	3	0
	Pythiaceous Root Rot	Family Pythiaceae	3	0
	Phytophthora Crown	Root and/or Stem Rot	5	5

	Phomopsis Leaf Blight	Phomopsis obscurans	1	0
		Abiotic disorder	1	0
		Phytophthora cactorum	4	0
Watermelon	Unknown	General	0	1
C = 0				
H = 1				

## HERBACEOUS ORNAMENTALS

(Total Diagnoses 127: C=100; H=27)

HOST	DISEASE	CAUSAL ORGANISM	С	Н
Agave	Bacterial Soft Rot	Pectobacterium	1	0
C = 1		carotovorum		
H = 0				
Asiatic Jasmine	Rhizoctonia Crown and Stem Rot	Rhizoctonia sp./spp.	1	0
C = 1				
H = 0				
Begonia	Pythium Root and/or Crown Rot	Pythium sp./spp.	4	0
C = 6	Phytophthora Crown	Root and/or Stem Rot	1	1
H = 0	No Pathogen Found	No Pathogen Found	1	0
Black Mondo	Root Problems	Abiotic disorder	0	2
Grass				
C = 0				
H = 2				
Butterfly-bush	Phytophthora Crown	Root and/or Stem Rot	1	1
C = 1				
H = 0				
Chrysanthemum	No Pathogen Found	No Pathogen Found	1	0
C = 1				
H = 0				
Coleus	No Pathogen Found	No Pathogen Found	2	0
C = 2				
H = 0				
Copper-leaf	No Pathogen Found	No Pathogen Found	1	0
C = 1				
H = 0				
Crowfoot Or	No Pathogen Found	No Pathogen Found	1	0
Buttercup				
(Orna.)				
C = 1				
H = 0				
Dissotis	Cercospora Leaf Spot	Cercospora sp./spp.	1	0
C = 1				
H = 0				
Double	Downy Mildew	Plasmopara obducens	1	0
Impatiens				
C = 1				
H = 0				
Echinacea	Rhizoctonia Root; Crown Rot	Rhizoctonia sp./spp.	1	0
Coneflower				

C = 1				
H = 0				
Elephant Ear	Environmental Stress; Problem	Abiotic disorder	0	1
Plant		Abiotic disorder	0	<b>–</b>
C = 0				
H = 1				
English Ivy	Environmental Stress; Problem	Abiotic disorder	0	1
C = 1	No Pathogen Found	No Pathogen Found	1	0
H = 1		Norachogenround	-	0
Euphorbia	Root Problems	Abiotic disorder	0	1
C = 0			Ű	-
H = 1				
Garden Ginger	Phyllosticta Leaf Spot	Phyllosticta sp./spp.	1	0
C = 2	Anthracnose; Colletotrichum Leaf	<i>Colletotrichum</i> sp./spp.	1	0
H = 0	Spot	concretitional op / oppi	-	Ŭ
Geranium	Saprophytic Fungus	Chromelosporium	1	0
('cultivated')		sp./spp.		
C = 9	No Virus Found	No Virus Found	3	0
H = 0	No Pathogen Found	No Pathogen Found	3	0
		No Pathogen Found	2	0
Gerber Daisy	Powdery Mildew	Oidium sp./spp.	0	1
(AfricanDaisy)				
C = 0				
H = 1				
Heuchera	Environmental Stress; Problem	Abiotic disorder	0	1
C = 0				
H = 1				
Hibiscus	Alternaria Leaf Spot	Alternaria sp./spp.	1	0
C = 3	Bacterial Leaf Spot	Pseudomonas sp./spp.	1	0
H = 0	Phytophthora Crown	Root and/or Stem Rot	1	1
Holly Fern		No Pathogen Found	1	0
C = 1				
H = 0				
Hollyhock	Mallow Rust; Hollyhock Rust	Puccinia malvacearum	0	1
C = 0				
H = 1				
Hosta	Cultural/Environmental Problem	Abiotic disorder	0	1
C = 0				
H = 1				
Impatiens	Downy Mildew	Plasmopara obducens	4	4
C = 6	Pythium Root and/or Crown Rot	Pythium sp./spp.	0	1
H = 7	No Virus Found	No Virus Found	1	0
	No Pathogen Found	No Pathogen Found	0	1

	Impatiens downy mildew	Plasmopara obducens	0	1
lvy		No Pathogen Found	1	0
C = 1				
H = 0				
lvy Geranium	No Virus Found	No Virus Found	1	0
C = 2		No Pathogen Found	1	0
H = 0				
Japanese	Rhizoctonia Stem and Root Rot	Rhizoctonia sp./spp.	1	0
Spurge				
C = 1				
H = 0				
Jasmine	Root Problems	Abiotic disorder	0	4
C = 0				
H = 4				
Johnny-Jump-	Black Root Rot	Thielaviopsis (Chalara)	1	0
Up		basicola (elegans)		
C = 1				
H = 0				
Kalanchoe	No Virus Found	No Virus Found	1	0
C = 3	No Pathogen Found	No Pathogen Found	1	0
H = 0		No Pathogen Found	1	0
Lily Turf	Phytophthora Crown	Root and/or Stem Rot	2	2
C = 2				
H = 0				
Lily-of-the-nile	Fusarium Crown Rot	Fusarium sp./spp.	1	0
C = 2	Bacterial Soft Rot	Unidentified Bacterium	1	0
H = 0				
Lilyturf	Cultural/Environmental Problem	Abiotic disorder	0	1
(Bordergrass)	Environmental Stress; Problem	Abiotic disorder	0	1
C = 3	Pythium Root and/or Crown Rot	Pythium sp./spp.	1	0
H = 2	Phytophthora Crown	Root and/or Stem Rot	2	2
Little Bluestem	Tangle top	Myriogenospora	1	0
C = 1		atramentosa		
H = 0				
Madagascar	Aerial Stem Blight	Phytophthora sp./spp.	3	0
periwinkle;	Fusarium Stem Rot	Fusarium sp./spp.	1	0
Vinca	Alternaria Leaf Spot	Alternaria sp./spp.	1	0
C = 6	Phytophthora Crown	Root and/or Stem Rot	1	1
H = 0				
Mandevilla	Fusarium Stem Rot	Fusarium sp./spp.	1	0
C = 2	Phytophthora Crown	Root and/or Stem Rot	1	1
H = 0				
Marigold	Rhizoctonia Crown and Stem Rot	Rhizoctonia sp./spp.	1	0

C = 2	Phytophthora Crown	Root and/or Stem Rot	1	1
H = 0				
Mealy-cup	Phytophthora Crown	Root and/or Stem Rot	1	1
(Blue) Salvia				
C = 1				
H = 0				
Mistflower	Pythium Root and/or Crown Rot	Pythium sp./spp.	1	0
C = 1				
H = 0				
Mondograss	Pythium Root and/or Crown Rot	Pythium sp./spp.	1	0
(Dwarf Lily Turf)				
C = 1				
H = 0				
Multiple hosts	Pythium Root and/or Crown Rot	Pythium sp./spp.	1	0
C = 1				
H = 0				
New Guinea		No Pathogen Found	1	0
Impatiens				
C = 1				
H = 0				
Oregano	Rhizoctonia Root Rot	Rhizoctonia sp./spp.	1	0
C = 2	Pythium Root and/or Crown Rot	Pythium sp./spp.	1	0
H = 0				
Pansy	Unknown	General	0	1
C = 8	Black Root Rot	Thielaviopsis (Chalara)	2	0
H = 3		basicola (elegans)		
	Rhizoctonia Root; Crown Rot	Rhizoctonia sp./spp.	1	0
	Environmental Stress; Problem	Abiotic disorder	0	1
	Pythium Root and/or Crown Rot	Pythium sp./spp.	2	1
	Phytophthora Crown	Root and/or Stem Rot	1	1
		Abiotic disorder	1	0
		No Pathogen Found	1	0
Penstemon	Impatiens Necrotic Spot	Impatiens Necrotic Spot	1	0
(Beard-tongue)		Virus (INSV)		
C = 1				
H = 0				
Pentas	Pythium Root and/or Crown Rot	Pythium sp./spp.	1	0
C = 1				
H = 0				
Pepper	Pythium Root and/or Crown Rot	Pythium sp./spp.	1	0
C = 1				
H = 0				
Perennial Phlox		No Pathogen Found	1	0

C = 1				
H = 0				
Petunias	Black Root Rot	Thielaviopsis (Chalara)	1	0
C = 2		basicola (elegans)		
H = 0	Pythium Root and/or Crown Rot	Pythium sp./spp.	1	0
Pinks		No Pathogen Found	1	0
C = 1				
H = 0				
Poinsettia	No Pathogen Found	No Pathogen Found	1	0
C = 1		_		
H = 0				
Russian Sage		No Pathogen Found	1	0
C = 1		_		
H = 0				
Shasta Daisy	Not Pathogen; Saprophyte	Secondary Agents;	1	0
C = 1		Saprophytes; Unspecif.		
H = 0				
Sky Flower	Phytophthora Crown	Root and/or Stem Rot	1	1
(Golden	No Pathogen Found	No Pathogen Found	1	0
Dewdrop)		_		
C = 2				
H = 0				
Snapdragon	Phytophthora Stem Rot	Phytophthora sp./spp.	1	0
C = 1				
H = 0				
Stevia	Not Pathogen; Saprophyte	Secondary Agents;	1	0
C = 1		Saprophytes; Unspecif.		
H = 0				
Stonecrop		No Pathogen Found	1	0
C = 1				
H = 0				
Sunflower	No Pathogen Found	No Pathogen Found	1	0
C = 1				
H = 0				
Thyme	Pythium Root and/or Crown Rot	Pythium sp./spp.	1	0
C = 1				
H = 0				
Unknown; No	Unknown Abiotic Disorder	Abiotic disorder	0	1
Site Specified				
C = 0				
H = 1				
Violas (Violet;	Phytophthora Crown	Root and/or Stem Rot	1	1
Pansy)		No Pathogen Found	1	0

C = 2 H = 0				
Woodland Sage	Rhizoctonia Stem Rot	Rhizoctonia sp./spp.	1	0
C = 1				
H = 0				

#### MISCELLANEOUS

(Total Diagnoses 12: C=6; H=6)

HOST	DISEASE	CAUSAL ORGANISM	С	Н
Fungus Id	Birds Nest Fungus	Family Nidulariaceae	1	0
Request				
C = 1				
H = 0				
Household;		No Pathogen Found	1	0
Domestic				
Dwellings				
C = 1				
H = 0				
Japanese Grass	Japanese Stilt Grass	Microstegium vimineum	0	1
C = 0				
H = 1				
Pine	Undetermined Injury or Pest	Identification Analysis	0	1
C = 0				
H = 1				
Potting Soil;		Candida albicans	1	0
growing media				
C = 1				
H = 0				
Rape; Canola	No Pathogen Found	No Pathogen Found	1	0
C = 1				
H = 0				
Rice	Not Pathogen; Saprophyte	Secondary Agents;	1	0
C = 1		Saprophytes; Unspecif.		
H = 0				
Stevia	Rhizoctonia Stem Rot	Rhizoctonia sp./spp.	1	0
C = 1				
H = 0				
Unknown; No	Unknown	General	0	3
Site Specified	Not Pathogen; Saprophyte	Secondary Agents;	0	1
C = 0		Saprophytes; Unspecif.		
H = 4				

**TREES** (Total Diagnoses 72: C=28; H=44)

HOST	DISEASE	CAUSAL ORGANISM	С	Н
Arborvitae	Environmental Stress; Problem	Abiotic disorder	0	1
C = 0				
H = 1				
Arizona Cypress	Poor Root Development	Abiotic disorder	1	0
C = 1				
H = 0				
Cherry-laurel	Root Problems	Abiotic disorder	0	1
C = 0				
H = 1				
Chinese		Complex of Biotic; Abiotic	1	0
Lacebark elm		Factors		
C = 1				
H = 0				
Crabapple	Fire Blight	Erwinia amylovora	4	1
C = 4				
H = 1				
Crape Myrtle	Cercospora Leaf Spot	Cercospora sp./spp.	1	0
C = 2	Leaf Spot	Unknown cause	1	0
H = 0				
Cryptomeria	Cultural/Environmental Problem	Abiotic disorder	0	2
C = 0				
H = 6	Environmental Stress; Problem	Abiotic disorder	0	3
	No Pathogen Found	No Pathogen Found	0	1
Deodar Cedar	Environmental Stress; Problem	Abiotic disorder	0	1
C = 1				
H = 1				
Dogwood	Nutrient Imbalance	Abiotic disorder	0	1
C = 0	Environmental Stress; Problem	Abiotic disorder	0	1
H = 2				
Eastern Red	Decline; Dieback	Abiotic disorder	1	0
Cedar	No Pathogen Found	No Pathogen Found	1	0
C = 2				
H = 0				
Elm	Unknown	General	0	1
C = 0				
H = 1				
Eucalyptus		Unknown cause	0	1
C = 0				
H = 1				

Flowering Dogwood C = 1 H = 0	Insufficient Sample	Identification Analysis	1	0
Hemlock C = 0 H = 1	Cultural/Environmental Problem	Abiotic disorder	0	1
Japanese Dogwood (Kousa) C = 1 H = 0	No Pathogen Found	No Pathogen Found	1	0
Japanese Maple C = 2	Not Pathogen; Saprophyte	Secondary Agents; Saprophytes; Unspecif.	1	0
H = 2	Environmental Stress; Problem	Abiotic disorder	0	1
	Root Problems	Abiotic disorder	0	1
	No Pathogen Found	No Pathogen Found	1	0
Leyland Cypress	Chemical Injury	Abiotic disorder	0	1
C = 3	Environmental Stress; Problem	Abiotic disorder	0	1
H = 2	Pythium Root and/or Crown Rot	Pythium sp./spp.	1	0
	No Pathogen Found	No Pathogen Found	1	0
		No Pathogen Found	1	0
Live Oak C = 1 H = 0	Wood Boring Insect Damage	Unidentified Wood Boring Insect	1	0
Magnolia	Chemical Injury	Abiotic disorder	0	1
C = 0	Leaf Spot; Black Mildew	Sarcinella sp./spp.	0	1
H = 3	Sooty Mold	Unidentified Fungus	0	1
Maple	Cultural/Environmental Problem	Abiotic disorder	0	2
C = 0 H = 3	Raffaelea Fungus	Raffaelea sp./spp.	1	0
Norway Maple C = 1 H = 0		No Pathogen Found	1	0
Oak	Oak Leaf Blister	Taphrina caerulescens	0	3
C = 1	Unknown	General	0	1
H = 8	Herbicide Injury; Exposure	Abiotic disorder	0	1
	Insect Damage	Unidentified Insect	0	1
	Bacterial Leaf Scorch (BLS)	Xylella fastidiosa (BLS)	1	0
	Undetermined Injury or Pest	Identification Analysis	0	1
		Inonotus sp./spp.	0	1
Pear C = 0	Fire Blight	Erwinia amylovora	0	3

H = 3				
Persimmon	Environmental Stress; Problem	Abiotic disorder	0	1
(Ornamental)		Botryosphaeria sp./spp.	0	1
C = 0				
H = 2				
Pin Oak	No Pathogen Found	No Pathogen Found	1	0
C = 1				
H = 0				
Pine	Planting Too Deep	Abiotic disorder	1	0
C = 1				
H = 0				
Planetree	Bacterial Leaf Scorch (BLS)	Xylella fastidiosa (BLS)	2	0
(Sycamore)				
C = 2				
H = 0				
Red Maple	Cryptosporiopsis Canker	Cryptosporiopsis sp./spp.	1	0
C = 1				
H = 0				
Red Oak	Wood Decay Fungus	Steccherinum ochraceum	1	0
C = 1				
H = 0				
Red Oaks		Abiotic disorder	0	1
C = 0				
H = 1				
River Birch	Insect Damage	Unidentified Insect	0	1
C = 0				
H = 1				
Tulip Tree	Tar Spot	Rhytisma sp./spp.	0	1
C = 0	Environmental Stress; Problem	Abiotic disorder	0	1
H = 2				
Unknown; No	Insufficient Sample	Identification Analysis	1	0
Site Specified				
C = 1				
H = 0				
White Oak	No Pathogen Found	No Pathogen Found	0	1
C = 0				
H = 1				
Willow	Environmental Stress; Problem	Abiotic disorder	0	1
C = 0				
H = 1				

**TURF** (Total Diagnoses 488: C=319; H=169)

HOST	DISEASE	CAUSAL ORGANISM	С	Н
Bentgrass	Brown Patch	Rhizoctonia sp./spp.	1	0
C = 43	Fairy Ring	Various fungi	1	0
H = 0	Rhizoctonia Root; Crown Rot	Rhizoctonia sp./spp.	1	0
	Algae	General	1	0
	Cultural/Environmental Problem	Abiotic disorder	1	0
	Environmental Stress; Problem	Abiotic disorder	1	0
	Anthracnose	Colletotrichum cereale	14	0
	Pythium Root and/or Crown Rot	Pythium sp./spp.	8	0
	Dollar Spot	Sclerotinia homeocarpa	1	0
	No Pathogen Found	No Pathogen Found	13	0
		Rhizoctonia sp./spp.	1	0
Bermudagrass	Anthracnose	Gloeosporium sp./spp.	0	1
C = 4	Rhizoctonia Blight	Rhizoctonia solani	0	1
H = 15	Spring Dead Spot	Ophiosphaerella sp./spp.	0	1
	Bipolaris Spot Blotch	Bipolaris sp./spp.	1	0
	Slime Mold	Class myxomycetes;	0	2
		myxomycota		
	Take-all	Gaeumannomyces	0	1
		sp./spp.		
	Cultural/Environmental Problem	Abiotic disorder	0	9
	Large Patch	Thanatephorus	1	0
		(Rhizoctonia) cucumeris		
		(solani)		
	Leaf Rust; rust	Puccinia sp./spp.	0	1
		Puccinia sp./spp.	0	1
Bermudagrass	Rhizoctonia Blight	Rhizoctonia solani	0	1
C = 94	Spring Dead Spot	Ophiosphaerella sp./spp.	3	2
H = 17	Bipolaris Spot Blotch	Bipolaris sp./spp.	4	0
	Fairy Ring	Various fungi	3	0
	Unknown	General	1	1
	Slime Mold	Class myxomycetes;	0	2
		myxomycota		
	Rhizoctonia Stem and Root Rot	Rhizoctonia sp./spp.	1	0
	Rhizoctonia Root; Crown Rot	Rhizoctonia sp./spp.	1	0
	Rhizoctonia Crown and Root Rot	Thanatephorus	1	0
		(Rhizoctonia) cucumeris		
		(solani)	<u> </u>	
	Not Pathogen; Saprophyte	Secondary Agents;	2	0
		Saprophytes; Unspecif.		

	Bipolaris Leaf Spot	Cochliobolus setariae	4	0
	Helminthosporium Leaf Spot	Cochliobolus (Bipolaris)	1	0
		cynodontis		
	Cultural/Environmental Problem	Abiotic disorder	4	8
	Environmental Stress; Problem	Abiotic disorder	8	1
	Plant Parasitic Nematodes	Unspecified Genera	1	0
	Pink Snow Mold; Fusarium Patch	Monographella	5	0
		(Microdochium) nivalis		
		(nivale)		
	Leaf Spot	Bipolaris sp./spp.	1	0
	Large Patch	Thanatephorus	11	0
		(Rhizoctonia) cucumeris		
		(solani)		
	Pythium Root and/or Crown Rot	Pythium sp./spp.	5	2
	Root Decline of Warm Season	Gaeumannomyces	10	0
	Grasses	graminis		
	Leaf Rust; rust	Puccinia sp./spp.	2	0
	Dollar Spot	Sclerotinia homeocarpa	1	0
	Rhizoctonia Leaf Spot and/or Leaf Blight	Rhizoctonia sp./spp.	1	0
	Insect Damage	Unidentified Insect	3	0
	No Pathogen Found	No Pathogen Found	7	0
		Bipolaris sp./spp.	8	0
		No Pathogen Found	3	0
		Rhizoctonia sp./spp.	1	0
		Rhizoctonia zeae	1	0
		Saprophytic Fungi and	1	0
		Yeasts		
Centipedegrass	Rhizoctonia Blight	Rhizoctonia solani	0	18
C = 80	Fairy Ring	Various fungi	4	0
H = 54	Take-all	Gaeumannomyces	0	4
		sp./spp.		
	Not Pathogen; Saprophyte	Secondary Agents;	2	0
		Saprophytes; Unspecif.		
	Cultural/Environmental Problem	Abiotic disorder	8	29
	Environmental Stress; Problem	Abiotic disorder	14	0
	Decline; Dieback	Abiotic disorder	5	0
	Large Patch	Thanatephorus	18	0
		(Rhizoctonia) cucumeris		
		(solani)		
	Root Decline of Warm Season	Gaeumannomyces	10	0
	Grasses	graminis		
	Insect Damage	Unidentified Insect	0	1

	No Pathogen Found	No Pathogen Found	13	2
		Rhizoctonia solani	2	0
		Rhizoctonia sp./spp.	4	0
Common	Tan Spot; Yellow Leaf Spot	Pyrenophora (ana.	1	0
Wheat		Drechslera) tritici-repentis		
C = 1				
H = 0				
Fescues	Rhizoctonia Blight	Rhizoctonia solani	0	1
C = 0	Cultural/Environmental Problem	Abiotic disorder	0	2
H = 4	No Pathogen Found	No Pathogen Found	0	1
Ryegrass	Melting Out (Turfgrass)	Drechslera sp./spp.	2	0
C = 2				
H = 0				
Seashore		No Pathogen Found	1	0
Paspalum				
C = 1				
H = 0				
St.	Rhizoctonia Blight	Rhizoctonia solani	0	4
Augustinegrass	Fairy Ring	Various fungi	1	0
C = 24	Unknown	General	0	1
H = 27	Take-all	Gaeumannomyces	1	15
		sp./spp.		
	Gray Leaf Spot	Magnaporthe (ana.	1	2
		Pyricularia) grisea		
	Cultural/Environmental Problem	Abiotic disorder	0	4
	Leaf Spot	Bipolaris sp./spp.	0	1
	Large Patch	Thanatephorus	2	0
		(Rhizoctonia) cucumeris		
		(solani)		
	Root Decline of Warm Season	Gaeumannomyces	13	0
	Grasses	graminis		
	Insect Damage	Unidentified Insect	2	0
	No Pathogen Found	No Pathogen Found	1	0
		Rhizoctonia solani	1	0
		Rhizoctonia sp./spp.	2	0
Turfgrass	Slime Mold	Class myxomycetes;	0	1
C = 1		myxomycota		
H = 1		Rhizoctonia sp./spp.	1	0
Zoysia	Anthracnose	Gloeosporium sp./spp.	0	1
(Japanese	Rhizoctonia Blight	Rhizoctonia solani	0	1
Lawngrass)	Cultural/Environmental Problem	Abiotic disorder	0	3
C = 0				
H = 5				

Zoysia Grass	Rhizoctonia Blight	Rhizoctonia solani	0	11
C = 69	Bipolaris Spot Blotch	Bipolaris sp./spp.	1	0
H = 46	Fairy Ring	Various fungi	6	0
	Unknown	General	1	1
	Take-all	Gaeumannomyces	0	4
		sp./spp.		
	Not Pathogen; Saprophyte	Secondary Agents;	5	1
		Saprophytes; Unspecif.		
	Cultural/Environmental Problem	Abiotic disorder	8	22
	Environmental Stress; Problem	Abiotic disorder	7	3
	Unknown Abiotic Disorder	Abiotic disorder	0	1
	Curvularia Blight; Leaf Spot	Curvularia sp./spp.	1	0
	Large Patch	Thanatephorus	10	0
		(Rhizoctonia) cucumeris		
		(solani)		
	Pythium Root and/or Crown Rot	Pythium sp./spp.	0	2
	Root Decline of Warm Season	Gaeumannomyces	2	0
	Grasses	graminis		
	Leaf Rust; rust	Puccinia sp./spp.	3	0
	Insect Damage	Unidentified Insect	2	0
	Insufficient Sample	Identification Analysis	3	0
	No Pathogen Found	No Pathogen Found	12	1
		Bipolaris sp./spp.	2	0
		No Pathogen Found	1	0
		Rhizoctonia sp./spp.	5	0

#### VEGETABLES (Total Diagnoses 338: C=288; H=50)

HOST	DISEASE	CAUSAL ORGANISM	С	Н
Autumn-winter	Cucurbit Downy Mildew	Pseudoperonospora	1	0
Squash		cubensis		
C = 1				
H = 0				
Bean	Anthracnose Fruit Rot	Colletotrichum sp./spp.	1	0
C = 12	Charcoal Rot	Macrophomina	1	0
H = 3		phaseolina		
	Rhizoctonia Root Rot	Rhizoctonia sp./spp.	1	0
	Rhizoctonia Crown and Stem Rot	Rhizoctonia sp./spp.	1	0
	Herbicide Injury; Exposure	Abiotic disorder	2	0
	Root Problems	Abiotic disorder	0	1
	Unknown Abiotic Disorder	Abiotic disorder	0	1
	Anthracnose; Colletotrichum Leaf Spot	Colletotrichum sp./spp.	4	0
	Pythium Root and/or Crown Rot	Pythium sp./spp.	1	0
	Insect Damage	Unidentified Insect	0	1
	Cucurbit Leaf Crumple	Cucurbit Leaf Crumple	1	0
		Virus (CuLCrv)		
Bell Pepper	Southern Stem Blight	Sclerotium rolfsii	1	0
C = 6	Bacterial Soft Rot	Erwinia sp./spp.	1	0
H = 0	Bacterial Leaf Spot	Xanthomonas sp./spp.	1	0
	Pythium Damping Off	Pythium sp./spp.	1	0
	No Pathogen Found	No Pathogen Found	2	0
Broccoli	Unknown	General	1	0
C = 4	Alternaria Leaf Spot	Alternaria sp./spp.	1	0
H = 0	Freeze; Frost; Cold Damage	Abiotic disorder	2	0
Butternut Squash C = 1 H = 0	Physiological Responses	Abiotic disorder	1	0
Cabbage	Unknown	General	3	0
C = 22	Black Rot	Xanthomonas campestris	2	0
H = 1	Rhizoctonia Root; Crown Rot	Rhizoctonia sp./spp.	3	0
	Rhizoctonia Crown and Root Rot	Thanatephorus (Rhizoctonia) cucumeris (solani)	1	0
	Not Pathogen; Saprophyte	Secondary Agents; Saprophytes; Unspecif.	1	0
	Bacterial Leaf Spot	Xanthomonas sp./spp.	2 0 0 4 1 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	0

	Unknown Abiotic Disorder	Abiotic disorder	0	1
	Sclerotinia Rot	Sclerotinia sclerotiorum	1	0
	Pythium Root and/or Crown Rot	Pythium sp./spp.	1	0
	Insufficient Sample	Identification Analysis	1	0
	· · · · · · · · · · · · · · · · · · ·	Abiotic disorder	1	0
		No Pathogen Found	3	0
		Xanthomonas campestris	1	0
Cantalope;	Downy Mildew	Peronospora sp./spp.	1	0
Cantaloupe	Unknown	General	1	0
C = 11	Alternaria Leaf Spot	Alternaria sp./spp.	3	0
H = 0	Bacterial Leaf Spot	Pseudomonas syringae	1	0
	Poor pollination	Abiotic disorder	1	0
	Gummy Stem Blight	Didymella (ana. Phoma)	1	0
	,	bryonae		
		(cucurbitacearum)		
	Phytophthora Crown	Root and/or Stem Rot	1	1
	No Pathogen Found	No Pathogen Found	1	0
	Ŭ	Abiotic disorder	1	0
Carrot	Unknown	General	1	0
C = 4	Sclerotinia Rot	Sclerotinia sclerotiorum	2	0
H = 0		No Pathogen Found	1	0
Cole Crops		Unidentified Spider Mite	1	0
C = 1				
H = 0				
Collards	Black Rot	Xanthomonas campestris	1	0
C = 2		No Pathogen Found	1	0
H = 0				
Cucumber	Downy Mildew	Peronospora sp./spp.	1	0
C = 6	Cucurbit Downy Mildew	Pseudoperonospora	2	0
H = 0		cubensis		
	Unknown	General	1	0
	Alternaria Leaf Spot	Alternaria sp./spp.	1	0
	Anthracnose; Colletotrichum Leaf	Colletotrichum sp./spp.	1	0
	Spot			
Dill	Herbicide Injury; Exposure	Abiotic disorder	0	1
C = 0				
H = 1				
Dry Bean	Pythium Root and/or Crown Rot	Pythium sp./spp.	1	0
C = 2	Phytophthora Crown	Root and/or Stem Rot	1	1
H = 0				
Eggplant	Phomopsis Fruit Rot	Phomopsis sp./spp.	1	0
C = 4	Physiological Responses	Abiotic disorder	1	0
H = 0		Phomopsis sp./spp.	1	0

		Unknown Agent	1	0
Kale	Alternaria Leaf Spot	Alternaria sp./spp.	1	0
C = 2				
H = 0				
Lettuce	Cercospora Leaf Spot	Cercospora sp./spp.	1	0
C = 4	Pythium Root and/or Crown Rot	Pythium sp./spp.	1	0
H = 0	Pythium Damping Off	Pythium sp./spp.	1	0
		No Pathogen Found	1	0
Okra	Charcoal Rot	Macrophomina sp./spp.	1	0
C = 1 H = 1	Root Problems	Abiotic disorder	0	1
Onion	Unknown	General	2	0
C = 8	Not Pathogen; Saprophyte	Secondary Agents;	1	0
H = 0		Saprophytes; Unspecif.		
	Insufficient Sample	Identification Analysis	1	0
	No Pathogen Found	No Pathogen Found	2	0
	Yellow Bud	Pseudomonas sp./spp.	1	0
		Unknown cause	1	0
Pepper	Chemical Injury	Abiotic disorder	1	0
C = 8	Herbicide Injury; Exposure	Abiotic disorder	1	0
H = 0	Pythium Root and/or Crown Rot	Pythium sp./spp.	2	0
	No Pathogen Found	No Pathogen Found	3	0
		No Pathogen Found	1	0
Potato	Southern Stem Rot	Sclerotium rolfsii	1	0
C = 3				
H = 0	Herbicide Injury; Exposure	Abiotic disorder	1	0
		Streptomyces scabies	1	0
Pumpkin	Powdery Mildew	Sphaerotheca sp./spp.	1	0
C = 5	Fusarium Fruit Rot	Fusarium sp./spp.	1	0
H = 0	Phytophthora Fruit Rot	Phytophthora capsici	1	0
	Unidentified Virus	Unidentified Virus	1	0
		Pseudoperonospora	1	0
		cubensis		
Radish	Not Pathogen; Saprophyte	Secondary Agents;	1	0
C = 1		Saprophytes; Unspecif.		
H = 0				
Southern peas;	Southern Stem Blight	Sclerotium rolfsii	1	0
Cowpeas	Fusarium Crown Rot	Fusarium sp./spp.	1	0
Blackeye Peas	Southern Stem Rot	Sclerotium rolfsii	1	0
C = 4	Herbicide Injury; Exposure	Abiotic disorder	1	0
H = 0				
Spinach	Alternaria Leaf Spot	Alternaria sp./spp.	1	0
C = 2	Cercospora Leaf Spot	Cercospora sp./spp.	1	0

H = 0				
Squash C = 11	Cucurbit Downy Mildew	Pseudoperonospora cubensis	1	0
H = 3	Powdery Mildew	Sphaerotheca sp./spp.	1	0
_	Unknown	General	1	0
	Bacterial Leaf Spot	Pseudomonas syringae	1	0
	Silverleaf Whitefly (Sweetpo.)	Bemisia argentifolii	1	0
	Cultural/Environmental Problem	Abiotic disorder	0	1
	Physiological Responses	Abiotic disorder	3	0
	Squash Vine Borer	Melittia cucurbitae	0	1
	No Pathogen Found	No Pathogen Found	3	0
	5	Rhizopus sp./spp.	0	1
Sweetpea C = 1 H = 0	Rhizoctonia Root; Crown Rot	Rhizoctonia sp./spp.	1	0
Sweetpotato	Unknown	General	1	0
C = 2 H = 0	Charcoal Rot	Macrophomina sp./spp.	1	0
Tomatillo; Tree Tomato C = 1 H = 0	Cercospora Leaf Spot	<i>Cercospora</i> sp./spp.	1	0
Tomato	Late Blight	Phytophthora infestans	0	2
C = 29	Southern Stem Blight	Sclerotium rolfsii	1	0
H = 34	Fusarium Wilt	Fusarium oxysporum	0	2
	Unknown	General	3	3
	Leaf Mold	Fulvia fulva	0	1
	Not Pathogen; Saprophyte	Secondary Agents; Saprophytes; Unspecif.	0	1
	Septoria Leaf Spot	Septoria sp./spp.	0	1
	Bacterial Leaf Spot	Xanthomonas sp./spp.	7	0
	Tobacco Mosaic	Tobacco Mosaic Virus (TMV)	1	0
	Tomato Spotted Wilt	Tomato Spotted Wilt Virus (TSWV)	3	2
	Spider Mites	Family Tetranychidae	0	1
	Chemical Injury	Abiotic disorder	0	2
	Herbicide Injury; Exposure	Abiotic disorder	0	4
	Cultural/Environmental Problem	Abiotic disorder	0	5
	Nutrient Imbalance	Abiotic disorder	1	0
	Environmental Stress; Problem	Abiotic disorder	0	1
	Unknown Abiotic Disorder	Abiotic disorder	0	3
	Septoria Leaf Blight	Septoria lycopersici	0	3

	Bacterial Wilt	Ralstonia solanacearum	2	0
	Early Blight; Leaf Spot	Alternaria solani	1	1
	Rust Mites	Order acari	0	1
	Pythium Root and/or Crown Rot	Pythium sp./spp.	0	1
	Bacterial Pathogens	General	0	2
	Insufficient Sample	Identification Analysis	1	0
	No Pathogen Found	No Pathogen Found	6	0
		Abiotic disorder	1	0
Turnip	Downy Mildew	Peronospora sp./spp.	1	0
C = 3	Nutritional Deficiency	Abiotic disorder	1	0
H = 2	White Leaf Spot; Gray Stem	Mycosphaerella (ana. Pseudocercosporella capsellae	0	1
	Insect Damage	Unidentified Insect	0	1
		No Pathogen Found	1	0
Vegetables C = 1 H = 0	Fruit Rot	Sclerotium rolfsii	1	0
Watermelon	Anthracnose	Gloeosporium sp./spp.	1	0
C = 116	Watermelon Fruit Blotch	Acidovorax avenae	7	0
H = 2	Powdery Mildew	Sphaerotheca sp./spp.	3	0
	Fusarium Wilt	Fusarium oxysporum	34	0
	Unknown	General	7	1
	Phytophthora Fruit Rot	Phytophthora capsici	1	0
	Rhizoctonia Root Rot	Rhizoctonia sp./spp.	1	0
	Rhizoctonia Stem and Root Rot	Rhizoctonia sp./spp.	1	0
	Rhizoctonia Stem Rot	Rhizoctonia sp./spp.	1	0
	Rhizoctonia Root; Crown Rot	Rhizoctonia sp./spp.	1	0
	Pythium Fruit Rot;Cottony Leak	Pythium sp./spp.	1	0
	Bacterial Leaf Spot	Pseudomonas syringae	4	0
	Chemical Injury	Abiotic disorder	1	0
	Herbicide Injury; Exposure	Abiotic disorder	1	0
	Cultural/Environmental Problem	Abiotic disorder	0	1
	Physiological Responses	Abiotic disorder	1	0
	Unknown Abiotic Disorder	Abiotic disorder	1	0
	Anthracnose; Colletotrichum Leaf Spot	Colletotrichum sp./spp.	7	0
	Gummy Stem Blight	Didymella (ana. Phoma) bryonae (cucurbitacearum)	18	0
	Pythium Root and/or Crown Rot	Pythium sp./spp.	2	0
	No Virus Found	No Virus Found	2	0

	Insufficient Sample	Identification Analysis	2	0
	No Pathogen Found	No Pathogen Found	13	0
		Abiotic disorder	6	0
Yellow Squash	Unknown	General	0	1
C = 6	Unidentified Virus	Unidentified Virus	1	0
H = 3	Phytophthora Crown	Root and/or Stem Rot	2	2
	Insect Damage	Unidentified Insect	0	2
	Cucurbit Leaf Crumple	Cucurbit Leaf Crumple	3	0
		Virus (CuLCrv)		
Zucchini Squash	Phytophthora Fruit Rot	Phytophthora sp./spp.	1	0
C = 4	Rhizoctonia Root; Crown Rot	Rhizoctonia sp./spp.	1	0
H = 0	Bacterial Leaf Spot	Pseudomonas syringae	1	0
		Abiotic disorder	1	0

#### WOODY ORNAMENTALS

(Total Diagnoses 175: C=117; H=58)

HOST	DISEASE	CAUSAL ORGANISM	С	Н
Alder	No Pathogen Found	No Pathogen Found	1	0
C = 1				
H = 0				
Arborvitae	No Pathogen Found	No Pathogen Found	1	0
C = 2				
H = 0				
Azalea;	Cercospora Leaf Spot	Cercospora sp./spp.	2	0
Rhododendron	Azalea Leaf Spot	Cercospora handelii	1	0
C = 15	Canker	Leptosphaeria sp./spp.	1	0
H = 1	Dieback; Canker; Twig Blight	Botryosphaeria sp./spp.	1	0
	Pythium Root and/or Crown Rot	Pythium sp./spp.	4	0
	Phytophthora Crown	Root and/or Stem Rot	1	1
	No Pathogen Found	No Pathogen Found	4	1
		No Pathogen Found	1	0
Banana Shrub C = 0	No Pathogen Found	No Pathogen Found	0	1
H = 1				
Bigleaf	Cercospora Leaf Spot	Cercospora sp./spp.	1	0
Hydrangea	Fungal Leaf Spot	Cercospora hydrangeae	1	0
C = 4	Sunscald	Abiotic disorder	1	0
H = 0	Additional Sample Requested	Identification Analysis	1	0
Blueberry		No Pathogen Found	1	0
C = 1		U U		
H = 0				
Boxwood	Crown and Root Rot	Phytophthora sp./spp.	0	1
C = 10	Chemical Injury	Abiotic disorder	0	1
H = 10	Cultural/Environmental Problem	Abiotic disorder	3	2
	Environmental Stress; Problem	Abiotic disorder	0	4
	Root Problems	Abiotic disorder	0	1
	Verticillium Dieback	Verticillium sp./spp.	1	0
	Pythium Root and/or Crown Rot	Pythium sp./spp.	1	0
	Phytophthora Crown	Root and/or Stem Rot	4	4
	Insect Damage	Unidentified Insect	0	1
	Insufficient Sample	Identification Analysis	1	0
Camellia	Anthracnose	Glomerella	1	0
C = 6		(Colletotrichum) cingulata		
H = 2		(gloeosporioides)		
	Camellia Yellow Mottle	Camellia Yellow Mottle	1	0
		Virus		

	Cultural/Environmental Problem	Abiotic disorder	0	1
	Oedema; Edema	Abiotic disorder	1	0
	Unknown Abiotic Disorder	Abiotic disorder	0	1
	Freeze; Frost; Cold Damage	Abiotic disorder	1	0
	Stem Canker	Colletotrichum (teleo.	1	0
		Glomerella) sp./spp.		
	No Pathogen Found	No Pathogen Found	1	0
Cherry	Shothole Borer	Scolytus rugulosus	1	1
C = 0				
H = 1				
Cherry-laurel	Insufficient Sample	Identification Analysis	1	1
C = 2	Undetermined Injury or Pest	Identification Analysis	1	1
H = 0				
Chinese Fringe	Pseudomonas Canker	Pseudomonas sp./spp.	1	0
Flower	No Pathogen Found	No Pathogen Found	1	0
C = 3		Pseudomonas savastanoi	1	0
H = 0				
Common	Boxwood Volutella Blight; Canker	Volutella buxi	1	0
Boxwood	No Pathogen Found	No Pathogen Found	2	0
C = 3				
H = 0				
Common	Glomerella Canker	Glomerella	2	0
Camellia		(Colletotrichum) cingulata		
C = 3		(gloeosporioides)		
H = 0	Camellia Leaf Gall	Exobasidium camelliae	1	0
Common	Rhizoctonia Crown and Stem Rot	Rhizoctonia sp./spp.	1	0
Gardenia (Cape	Phytophthora Crown	Root and/or Stem Rot	1	1
Jasmine)				
C = 2				
H = 0 Confederate	Unknown	General	0	1
Rose	Unknown	General	0	T
C = 0				
H = 1				
Crape Myrtle	Unknown	General	0	1
C = 0	Insect Damage	Unidentified Insect	0	1
H = 2				
Edging	Planting Too Deep	Abiotic disorder	1	0
Boxwood	Boxwood Volutella Blight; Canker	Volutella buxi	1	0
C = 2			1	
H = 0				
	Cultural/Environmental Problem	Abiotic disorder	0	1
C = 0				
Euonymus C = 0	Cultural/Environmental Problem	Abiotic disorder	0	1

H = 1				
Gardenia	Phytophthora Crown	Root and/or Stem Rot	1	1
C = 4	No Pathogen Found	No Pathogen Found	3	0
H = 0		C C		
Hawthorn	Cedar-Hawthorn Rust	Gymnosporangium	1	0
C = 1		globosum		
H = 0				
Heavenly	Anthracnose; Colletotrichum Leaf	Colletotrichum sp./spp.	1	0
Bamboo	Spot			
C = 2		No Pathogen Found	1	0
H = 0				
Hinoki	Dieback; Canker; Twig Blight	Botryosphaeria sp./spp.	1	0
Falsecypress				
C = 1				
H = 0				
Holly	Black Root Rot	Thielaviopsis (Chalara)	1	0
C = 4		basicola (elegans)		
H = 3	Cultural/Environmental Problem	Abiotic disorder	0	1
	Environmental Stress; Problem	Abiotic disorder	0	1
	Pythium Root and/or Crown Rot	Pythium sp./spp.	0	1
	No Pathogen Found	No Pathogen Found	2	0
		No Pathogen Found	1	0
Hydrangea	Rhizoctonia Root; Crown Rot	Rhizoctonia sp./spp.	1	0
C = 5	Cercospora Leaf Spot	<i>Cercospora</i> sp./spp.	0	1
H = 5	Mites	Order Acari	1	0
	Granulate Ambrosia Beetle	Xylosandrus crassiusculus	1	1
	Cultural/Environmental Problem	Abiotic disorder	0	1
	Environmental Stress; Problem	Abiotic disorder	0	1
	Insect Damage	Unidentified Insect	0	1
	No Virus Found	No Virus Found	1	0
	No Pathogen Found	No Pathogen Found	1	0
Japanese	Pythium Root and/or Crown Rot	Pythium sp./spp.	1	0
Barberry				
C = 1				
H = 0				
Japanese	Cultural/Environmental Problem	Abiotic disorder	0	1
Cleyera	No Pathogen Found	No Pathogen Found	1	0
C = 1	_	_		
H = 1				
Japanese Plum-	Rhizoctonia Crown and Stem Rot	Rhizoctonia sp./spp.	1	0
yew				
C = 1				
H = 0				

Japanese Privet	Leaf Spot	Pseudocercospora	0	2
C = 0 H = 5		sp./spp.		
	Cultural/Environmental Problem	Abiotic disorder	0	2
	Environmental Stress; Problem	Abiotic disorder	0	1
Japanese Yew C = 1 H = 0	No Pathogen Found	No Pathogen Found	1	0
Jasmine C = 0 H = 1	No Pathogen Found	No Pathogen Found	1	1
Juniper	Phomopsis Blight	Phomopsis sp./spp.	1	1
C = 5	Spider Mites	Family Tetranychidae	1	1
H = 8	Cultural/Environmental Problem	Abiotic disorder	4	4
	Environmental Stress; Problem	Abiotic disorder	2	2
	Phomopsis Tip Blight; Needle Blight	Phomopsis juniperovora	1	1
	Insect Damage	Unidentified Insect	1	1
	No Pathogen Found	No Pathogen Found	3	3
Leucothoe C = 0 H = 1	Environmental Stress; Problem	Abiotic disorder	1	1
Ligustrum;	Thrips	Thrips sp./spp.	1	1
Privet	Environmental Stress; Problem	Abiotic disorder	2	2
C = 4 H = 2	No Pathogen Found	No Pathogen Found	3	3
Lilac C = 0 H = 1	White Peach Scale	Pseudaulacaspis pentagona	1	1
Loquat C = 1 H = 0	Anthracnose; Colletotrichum Leaf Spot	Colletotrichum sp./spp.	1	1
Loropetalum C = 0 H = 1	Environmental Stress; Problem	Abiotic disorder	1	1
Lusterleaf Holly C = 1 H = 0	No Pathogen Found	No Pathogen Found	1	1
Magnolia C = 0 H = 1	Chemical Injury	Abiotic disorder	1	1
Mountain Laurel C = 1		No Pathogen Found	1	1

H = 0				
Nellie R. Stevens Holly	No Pathogen Found	No Pathogen Found	1	1
C = 1				
H = 0				
Oakleaf	Armillaria Root Rot	Armillaria (Armillariella)	1	1
Hydrangea		sp./spp.		
C = 0				
H = 1 Osmanthus	Environmental Stress; Problem	Abiotic disorder	1	1
C = 0	Root Problems	Abiotic disorder	1	1
H = 2	Root Problems	Abiotic disorder		T
Rhododendron	Cercospora Leaf Spot	Cercospora sp./spp.	1	1
C = 2	Broad Mite	Polyphagotarsonemus	1	1
H = 2		latus		
	Environmental Stress; Problem	Abiotic disorder	1	1
	Insect Damage	Unidentified Insect	1	1
Rose	Rhizoctonia Root; Crown Rot	Rhizoctonia sp./spp.	1	1
C = 12	Root Girdling	Abiotic disorder	1	1
H = 2	Unknown Abiotic Disorder	Abiotic disorder	1	1
	Phomopsis Dieback; Tip Blight; Canker	Phomopsis sp./spp.	1	1
	Phytophthora Crown	Root and/or Stem Rot	1	1
	Rose Rosette Disease	Rose rosette-associated virus (RRaV)	1	1
	No Pathogen Found	No Pathogen Found	8	8
Rosemary C = 0 H = 1	Chemical Injury	Abiotic disorder	1	1
Rubus (Ornamental) C = 2 H = 0	Phytophthora Crown	Root and/or Stem Rot	2	2
Sasanqua Camellia C = 2 H = 0		No Pathogen Found	2	2
Saucer Magnolia C = 1 H = 0	Bacterial Leaf Spot	Pseudomonas sp./spp.	1	1
Snowbell C = 1	Insufficient Sample	Identification Analysis	1	1

H = 0				
Southern	No Pathogen Found	No Pathogen Found	1	1
Bayberry; Wax				
Myrtle				
C = 1				
H = 0				
Sweet (Tea)	False oleander scale	Pseudaulacaspis	1	1
Olive		cockerelli		
C = 1				
H = 0				
Trumpet	Honeysuckle Leaf Blight	Insolibasidium	1	1
Honeysuckle		(Herpobasidium)		
C = 1		deformans		
H = 0				
Viburnum	Armillaria Root Rot/ Mushroom	Armillaria (Clitocybe)	1	1
C = 4	Rot	tabescens		
H = 1				
	Pythium Root and/or Crown Rot	Pythium sp./spp.	1	1
	No Pathogen Found	No Pathogen Found	3	3
Wisteria	Nutrient Imbalance	Abiotic disorder	1	1
C = 0				
H = 1				
Yew	Phytophthora Crown	Root and/or Stem Rot	1	1
C = 2		No Pathogen Found	1	1
H = 0				