# Plant Disease Clinic Annual Report 2019

The University of Georgia College of Agricultural and Environmental Sciences Department of Plant Pathology Diagnosticians: Ansuya Jogi and Jason Brock Extension Specialists: Phillip Brannen, Bhabesh Dutta, Abolfazl Hajihassani, Bob Kemerait, Elizabeth Little, Jonathan Oliver, Alfredo Martinez-Espinoza, Jean Williams-Woodward

### 2019 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 samples of field crops, grain forages, pecans, and vegetables.

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	132	1	133
Fruits and Nuts	306	38	344
Herbaceous Ornamentals	74	19	93
Miscellaneous	2	1	3
Trees	114	95	209
Turf	236	91	327
Vegetables	402	41	443
Woody Ornamentals	157	108	265
Total*	1423	394	1817

### **CLINIC SUMMARIES: 2019 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. This data is for DDDI Plant Pathology commercial physical, homeowner physical & digital and homeowner digital samples. It excludes DDDI commercial digital submissions.

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

Month	Commercial Samples	Homeowner Samples
January	17	10
February	43	7
March	57	21
April	99	30
May	143	63
June	137	66
July	109	40
August	111	65
September	84	28
October	96	37
November	49	15
December	38	7
Total*	983	389

#### **MONTHLY SAMPLE SUBMISSION SUMMARY: 2019**

\*The total number of samples received shown here is smaller than the diagnoses shown in the clinic summaries because some samples have more than one problem or diagnosis. This data is for DDDI Plant Pathology commercial physical, homeowner physical & digital and homeowner digital samples. It excludes DDDI commercial digital submissions.

County	Samples	County	Samples	County	Samples
Appling	7	Elbert	6	Newton	1
Atkinson	10	Emanuel	2	Oconee	11
Bacon	26	Evans	3	Paulding	1
Banks	1	Floyd	11	Peach	3
Barrow	5	Forsyth	7	Pierce	30
Bartow	1	Fulton	42	Pike	5
Ben Hill	10	Grady	11	Pulaski	21
Berrien	17	Greene	1	Rabun	4
Bibb	8	Gwinnett	8	Richmond	14
Brooks	10	Habersham	1	Rockdale	2
Bryan	1	Harris	6	Screven	5
Bulloch	15	Hart	1	Seminole	2
Burke	6	Henry	1	Spalding	2
Calhoun	1	Houston	11	Sumter	13
Camden	1	Irwin	10	Tattnall	40
Candler	6	Jackson	14	Taylor	2
Carroll	13	Jeff Davis	10	Telfair	8
Chatham	3	Jefferson	3	Terrell	4
Cherokee	2	Johnson	2	Thomas	5
Clarke	29	Lanier	4	Tift	14
Clinch	15	Laurens	7	Toombs	9
Cobb	39	Liberty	1	Turner	10
Coffee	11	Lowndes	22	Union	3
Colquitt	93	Macon	2	Walker	2
Cook	28	Madison	1	Walton	13
Coweta	5	McDuffie	23	Wayne	8
Crisp	3	McIntosh	2	Webster	4
De Kalb	17	Meriwether	2	Wheeler	7
Decatur	3	Miller	3	White	2
Dodge	11	Mitchell	4	Wilcox	12
Dougherty	9	Montgomery	1	Wilkes	1
Douglas	3	Morgan	2	Worth	16
Early	1	Murray	8		
Echols	4	Muscogee	12		
Effingham	2	NA	60		

## DISTRIBUTION OF HOMEOWNER SAMPLES SUBMITTED BY COUNTY FOR 2019

County	Samples	County	Samples
Appling	1	Henry	10
Barrow	6	Jasper	1
Ben Hill	2	Jeff Davis	1
Bibb	9	Jenkins	1
Bryan	2	Johnson	1
Bulloch	1	Lanier	1
Burke	1	Laurens	2
Butts	8	Lee	12
Camden	6	Liberty	1
Candler	1	Lincoln	1
Carroll	1	McDuffie	6
Catoosa	2	McIntosh	4
Charlton	4	Meriwether	7
Chatham	2	Morgan	29
Cherokee	4	Murray	3
Clarke	43	Muscogee	12
Clayton	3	Newton	1
Cobb	33	Oconee	5
Coweta	5	Paulding	1
Crawford	3	Pickens	6
De Kalb	5	Pierce	11
Decatur	2	Pike	9
Dodge	2	Pulaski	1
Dougherty	9	Rabun	1
Douglas	1	Rockdale	12
Effingham	1	Screven	3
Fayette	1	Stephens	1
Forsyth	3	Tift	3
Franklin	3	Towns	2
Fulton	29	Troup	3
Glynn	2	Twiggs	2
Greene	6	Union	3
Gwinnett	8	Walton	3
Habersham	1	Ware	8
Hall	5	White	1
Harris	1	Wilkes	1
Hart	2	Worth	2

### **CROP SUMMARIES**

The following sections contain summaries of diagnosed samples by crop category for commercial physical samples, homeowner physical samples and homeowner digital samples. **C:** Commercial

H: Homeowner

### FIELD CROPS

## (Total Diagnoses 133: C=132; H=1)

Alfalfa C = 2 H = 0Alfalfa common leaf spotPseudopeziza medicaginisBermudagrass C = 3 H = 0Rhizoctonia sp./spp.Bermudagrass C = 3 H = 0RustUromyces sp./spp.C = 3 H = 0Leaf spotBipolaris sp./spp.Common Wheat C = 3 H = 0ScabFusarium sp./spp.Common Wheat C = 3 H = 0Cultural/environmental problemAbiotic disorderCorn C = 19UnknownGeneral	1	0
H = 0Rhizoctonia sp./spp.BermudagrassRustUromyces sp./spp.C = 3InsectsBipolaris sp./spp.H = 0Leaf spotBipolaris sp./spp.InsectsClass insectaCommon WheatScabFusarium sp./spp.C = 3InsectsClass insectaH = 0Cultural/environmental problemAbiotic disorderSooty moldUnidentified FungusCornUnknownGeneralC = 19InsectsCultural		
BermudagrassRustRhizoctonia sp./spp.C = 3InsectsUromyces sp./spp.H = 0Leaf spotBipolaris sp./spp.InsectsClass insectaCommon WheatScabFusarium sp./spp.C = 3InsectsClass insectaH = 0Cultural/environmental problemAbiotic disorderSooty moldUnidentified FungusCornUnknownGeneralC = 19InsectsInsecta		
BermudagrassRustUromyces sp./spp.C = 3Image: Spot spot spot spot spot spot spot spot s		
C = 3Leaf spotBipolaris sp./spp.H = 0Leaf spotBipolaris sp./spp.InsectsClass insectaCommon WheatScabFusarium sp./spp.C = 3HCultural/environmental problemAbiotic disorderM = 0Cultural/environmental problemAbiotic disorderSooty moldUnidentified FungusCornUnknownGeneralC = 19	1	0
H = 0Leaf spotBipolaris sp./spp.InsectsClass insectaCommon WheatScabFusarium sp./spp.C = 3InsectsClass insectaH = 0Cultural/environmental problemAbiotic disorderSooty moldUnidentified FungusCornUnknownGeneralC = 19Image: Sooty moldImage: Sooty mold	1	0
Lear spotBipolaris sp./spp.InsectsClass insectaCommon WheatScabFusarium sp./spp.C = 3InsectsClass insectaH = 0Cultural/environmental problemAbiotic disorderSooty moldUnidentified FungusCornUnknownGeneralC = 19Image: Sooty moldImage: Sooty mold		
Common Wheat C = 3 H = 0ScabFusarium sp./spp.Cultural/environmental problemAbiotic disorderSooty moldUnidentified FungusCorn C = 19UnknownGeneralCultural/environmental problem	1	0
C = 3 H = 0Cultural/environmental problemAbiotic disorderCorn C = 19UnknownGeneral	1	0
H = 0Cultural/environmental problemAbiotic disorderSooty moldUnidentified FungusCornUnknownGeneralC = 19	1	0
CornUnknownGeneralC = 19CornCorn		
CornUnknownGeneralC = 19	1	0
C = 19	1	0
	2	0
H = 0 Chemical injury Abiotic disorder	3	0
Scorch Abiotic disorder	1	0
Southern corn rust Puccinia polysora	1	0
No Pathogen Found	4	0
No pathogen found Identification Analysis	1	0
Southern leaf blight Bipolaris maydis	4	0
Northern corn leaf spot Bipolaris zeicola	1	0
Northern corn leaf blight; Leaf spot Exserohilum turcicum	2	0
Cotton Fusarium wilt Fusarium oxysporum	2	0
C = 44		
H = 0 Unknown General	1	0
Alternaria leaf spot Alternaria sp./spp.	2	0
Cercospora leaf spot Cercospora sp./spp.	2	0
Stemphylium leaf spot Stemphylium sp./spp.	4	0
Threecornered alfalfa hopper Spissistilus festinus	1	0
Chemical injury Abiotic disorder	1	0
Nutritional deficiency Abiotic disorder	1	0
Environmental stress; Problem Abiotic disorder	1	
Magnesium deficiency Abiotic disorder	1	0

	Cotton Fusarium wilt	Fusarium oxysporum	2	0
	Nematode damage	Unidentified Nematode	1	0
	Additional sample requested	Identification Analysis	2	0
		Corynespora sp./spp.	2	0
		No Pathogen Found	9	0
		Rhizoctonia solani	2	0
		Sclerotium rolfsii	1	0
		Unknown Agent	1	0
		Unknown cause	2	0
		Viruses	1	0
	No pathogen found	Identification Analysis	1	0
		Ramularia gossypii	1	0
	Root problem	Unknown cause	1	0
	Target spot	Corynespora cassiicola	1	0
Grain Sorghum	Anthracnose	Colletotrichum graminicola	1	0
C = 1		5		
H = 0				
Oats	Tan spot	Drechslera sp./spp.	1	0
C = 2				
H = 0				
	Derlow vollow dwarf (DVD) ( MA) ()	Luteovirus Barley Yellow Dwarf	1	0
	Barley yellow dwarf (BYDV-MAV)	Virus	1	0
Orchardgrass	Leaf blight	Various Fungi	1	0
C = 1				
H = 0				
Peanut	Diplodia collar rot	Diplodia gossypina	1	0
C = 30				
H = 0	Aspergillus crown rot	Aspergillus niger	2	0
	Southern stem rot	Sclerotium rolfsii	3	0
	Chemical injury	Abiotic disorder	3	0
		No Pathogen Found	10	0
		Rhizoctonia solani	1	0
		Unknown cause	1	0
	Tomato spotted wilt (TSWV)	Tospovirus Tomato Spotted Wilt Virus	7	0
	Peanut late leaf spot	Passalora personata	1	0
	Peanut early leaf spot	Passalora arachidicola	1	0
Pear	Southern stem rot	Sclerotium rolfsii	1	0
C = 1				
H = 0				
Pecan	Anthracnose	Glomerella sp./spp.	1	0
C = 1				
H = 0				

Soybean	Charcoal rot	Macrophomina sp./spp.	1	0
C = 10				
H = 0	Southern stem rot	Sclerotium rolfsii	1	0
	Phytotoxicity	Abiotic disorder	1	0
	Soybean bacterial pustule	Xanthomonas axonopodis	1	0
		No Pathogen Found	1	0
		Rhizoctonia solani	1	0
		Septoria sp./spp.	1	0
		Unknown cause	2	0
	Root rot	Phytophthora sp./spp.	1	0
Sugarcane	Environmental stress; Problem	Abiotic disorder	0	1
C = 0				
H = 1				
Tobacco (Flue-	Black shank	Phytophthora nicotianae	3	0
cured)				
C = 13		Candida albicans	1	0
H = 0		No Pathogen Found	4	0
	Frogeye leaf spot	Cercospora physalidis	1	0
	Tomato spotted wilt (TSWV)	Tospovirus Tomato Spotted Wilt Virus	3	0
	Seedling diseases	Rhizoctonia solani	1	0
Tomato	Insufficient sample	Identification Analysis	1	0
C = 1				
H = 0				
Wheat	Nutritional deficiency	Abiotic disorder	1	0
C = 1				
H = 0				

## FRUITS AND NUTS

# (Total Diagnoses 344: C=306; H=38)

HOST	DISEASE	CAUSAL ORGANISM	С	Н
Banana	Unknown abiotic disorder	Abiotic disorder	0	1
C = 0				
H = 1				
Blackberry	Cane blotch	Cephaleuros sp./spp.	2	0
C = 35				
H = 2	Crown gall	Agrobacterium sp./spp.	1	0
	Downy mildew	Peronospora sp./spp.	1	0
	Orange rust	Gymnoconia nitens	1	0
	Algal leaf spot	Cephaleuros virescens	0	1
	Cultural/environmental problem	Abiotic disorder	0	1
	Cane and leaf rust	Kuehneola sp./spp.	3	0
		Botryosphaeria sp./spp.	1	0
		Colletotrichum sp./spp.	1	0
		Coniothyrium sp./spp.	1	0
		Fusicoccum sp./spp.	1	0
		Leptosphaeria sp./spp.	3	0
		Phytophthora sp./spp.	10	0
		Pseudocercospora sp./spp.	6	0
		Rhizoctonia sp./spp.	3	0
		Sphaeropsis sp./spp.	1	0
Blueberry	Unknown	General	1	0
C = 138				
H = 5	Phyllosticta leaf spot	Phyllosticta sp./spp.	1	0
	Chemical injury	Abiotic disorder	5	0
	Chemical; Environmental injury	Abiotic disorder	1	0
	Nutritional deficiency	Abiotic disorder	3	0
	Nutrient imbalance	Abiotic disorder	0	1
	Environmental stress; Problem	Abiotic disorder	0	2
	Oedema; Edema	Abiotic disorder	1	0
	Unidentified fungus	Unidentified fungus	1	0
	Sooty mold	Unidentified Fungus	1	0
	Insect damage	Unidentified Insect	3	0
	Mite damage	Unidentified Mite	1	0
		Alternaria sp./spp.	1	0
		Blueberry Necrotic Ring Blotch Disorder virus suspected	1	0
		Botryosphaeria sp./spp.	8	0
		Cercospora sp./spp.	1	0

	1	Colletation	-	_
		Colletotrichum sp./spp.	5	0
		Environmental Stresses	4	0
		Fusicoccum sp./spp.	2	0
		Leptosphaeria sp./spp.	2	0
		Pestalotia sp./spp.	1	0
		Phomopsis sp./spp.	2	0
		Phyllosticta sp./spp.	3	0
		Phytophthora cinnamomi	35	0
		Phytophthora sp./spp.	1	0
		Pucciniastrum sp./spp.	5	0
		Rhizoctonia sp./spp.	33	0
		Unknown Agent	1	0
		Unknown cause	1	0
	Crown rot; Root rot; Stem rot	Phytophthora sp./spp.	0	1
	Root problem	Unknown cause	8	1
	Phytophthora root and crown rot	Phytophthora cinnamomi	1	0
	Bacterial leaf scorch	Xylella fastidiosa	2	0
Cherry	Brown rot	Monilia sp./spp.	0	1
C = 0				
H = 1				
Citrus	Nutritional deficiency	Abiotic disorder	1	0
C = 9				
H = 0	Insect damage	Unidentified Insect	1	0
		Alternaria sp./spp.	1	0
		Colletotrichum sp./spp.	4	0
		Mycosphaerella sp./spp.	1	0
	Root problem	Unknown cause	1	0
Common Apple	Plum Curculio	Conotrachelus nenuphar	0	1
C = 7				
H = 4	Chemical injury	Abiotic disorder	0	1
	Cedar-apple rust	Gymnosporangium juniperi-	1	0
		virginianae		0
	Insect damage	Unidentified Insect	0	1
		Botryosphaeria sp./spp.	1	0
		Environmental Stresses	1	0
		Fusicoccum sp./spp.	1	0
		Phomopsis sp./spp.	1	0
		Unknown cause	2	0
	Apple scab	Venturia inaequalis	0	1
Common Fig	Unknown	General	0	1
C = 0				
H = 4	Cultural/environmental problem	Abiotic disorder	0	1
	Environmental stress; Problem	Abiotic disorder	0	2

Grape	Bitter rot	Greeneria uvicola	1	0
C = 23				
H = 2	Chemical; Environmental injury	Abiotic disorder	1	0
	Environmental stress; Problem	Abiotic disorder	0	1
	Poor pollination	Abiotic disorder	0	1
		Alternaria sp./spp.	2	0
		Botryosphaeria sp./spp.	1	0
		Cladosporium sp./spp.	5	0
_		Phytophthora sp./spp.	2	0
		Saprophytic Fungi and Yeasts	4	0
		Thrips sp./spp.	4	0
		Unknown cause	1	0
	Armillaria root rot	Armillaria sp./spp.	1	0
	Black rot	Phyllosticta ampelicida	1	0
Japanese Pear	Fruit flies	Family Drosophilidae	1	0
C = 2				
H = 0				
		Saprophytic Fungi and Yeasts	1	0
Japanese	Phomopsis blight	Phomopsis sp./spp.	1	0
Persimmon				
C = 3	Unknown	General	1	0
H = 0	Mite damage	Unidentified Mite	1	0
Lemon	Mites	Order Acari	0	1
C = 0				
H = 2				
	Insect damage	Unidentified Insect	0	1
Loquat	Cultural/environmental problem	Abiotic disorder	0	1
C = 0				
H = 1				
Mango	Environmental stress; Problem	Abiotic disorder	0	1
C = 0				
H = 1				
Muscadine Grape	Ripe rot	Colletotrichum sp./spp.	1	0
C = 5	· · · · · · · · · · · · · · · · · · ·			
H = 0		Phyllosticta sp./spp.	1	0
		Unidentified Insect	1	0
ļ		Unknown Agent	1	0
F		Unknown cause	1	0
Oleander		Colletotrichum sp./spp.	1	0
C = 1			1	1
H = 0				
Peach	Cultural/environmental problem	Abiotic disorder	0	1

C = 2				
H = 3	Environmental stress; Problem	Abiotic disorder	0	1
	Insect damage	Unidentified Insect	0	1
	Brown rot; Blossom blight; Fruit rot	Monilinia sp./spp.	1	0
	San jose scale	Diaspidiotus perniciosus	1	0
Pear	Fire blight	Erwinia amylovora	0	1
C = 2				
H = 5	Environmental stress; Problem	Abiotic disorder	0	2
	Unknown abiotic disorder	Abiotic disorder	0	1
	Cedar-quince rust	Gymnosporangium clavipes	0	1
		Colletotrichum sp./spp.	1	0
		Environmental Stresses	1	0
Pecan	Pecan leaf Phylloxera	Phylloxera notabilis	1	0
C = 11			-	
H = 1	Zinc deficiency	Abiotic disorder	1	0
		No Pathogen Found	4	0
	Pecan; Hickory scab	Fusicladium caryigenum	2	1
	Bacterial leaf scorch	Xylella fastidiosa	2	0
	Anthracnose	Colletotrichum sp./spp.	1	0
Persimmon	Unknown	General	0	1
(Ornamental)				-
C = 0	Moss	General	0	1
H = 3	Cultural/environmental problem	Abiotic disorder	0	1
Plum	Cultural/environmental problem	Abiotic disorder	0	1
C = 0				
H = 3	Black knot	Apiosporina morbosa	0	1
	Root problem	Unknown cause	0	1
Pomegranate	Unknown	General	3	0
C = 30				-
H = 0	Penicillium fruit rot	Penicillium sp./spp.	1	0
	Thrips	Thrips sp./spp.	1	0
	Chemical; Environmental injury	Abiotic disorder	1	0
	Unidentified fungus	Unidentified fungus	2	0
	Unidentified bacteria	Unidentified Bacteria	1	0
	Insect damage	Unidentified Insect	3	0
	Mite damage	Unidentified Mite	1	0
	5	Alternaria sp./spp.	2	0
		Botryosphaeria sp./spp.	1	0
		<i>Cladosporium</i> sp./spp.	1	0
		<i>Colletotrichum</i> sp./spp.	6	0
				0
		Fusicoccum sp./spp.	1	0

		Phytophthora sp./spp.	2	0
		Unknown Agent	1	0
		Unknown cause	2	0
Satsuma	Graft failure	Abiotic disorder	1	0
Tangerine				
C = 11	Root rot	Various Fungi	1	0
H = 0		Alternaria sp./spp.	1	0
		Colletotrichum sp./spp.	1	0
		Phytophthora cinnamomi	1	0
		Phytophthora sp./spp.	3	0
		Rhizoctonia sp./spp.	3	0
Strawberry	Powdery mildew	Oidium sp./spp.	1	0
C = 27				
H = 0	Powdery mildew	Sphaerotheca sp./spp.	1	0
	Phomopsis leaf spot	Phomopsis sp./spp.	1	0
	Mites	Order Acari	2	0
	Spider mites	Family Tetranychidae	3	0
	Phytophthora root and crown rot	Phytophthora cactorum	2	0
	Mite damage	Unidentified Mite	1	0
		Alternaria sp./spp.	1	0
		Cercospora sp./spp.	1	0
		Cladosporium sp./spp.	2	0
		Environmental Stresses	1	0
		Phytophthora cactorum	3	0
		Phytophthora sp./spp.	1	0
		Rhizopus sp./spp.	1	0
		Saprophytic Fungi and Yeasts	3	0
		Botrytis cinerea	2	0
	Leaf scorch	Diplocarpon fragariae	1	0

## HERBACEOUS ORNAMENTALS

(Total Diagnoses 93: C=74; H=19)

HOST	DISEASE	CAUSAL ORGANISM	С	Н
Algerian Ivy	Crown and root rot	Phytophthora sp./spp.	1	0
C = 2				
H = 0				
		Rhizoctonia sp./spp.	1	0
American Ginseng	Crown and root rot	Phytophthora sp./spp.	2	0
C = 2				
H = 0				
Begonia	Crown and root rot	Phytophthora sp./spp.	1	0
C = 2				
H = 0				
		No Pathogen Found	1	0
Black Mondo	Environmental stress; Problem	Abiotic disorder	0	3
Grass				
C = 0				
H = 3	Loof rust Dust	Duccinia en lenn	1	0
Blue sedge C = 2	Leaf rust; Rust	Puccinia sp./spp.		0
H = 0				
-		Phizostopia on John	1	0
Butterflyweed	Environmental stress, Droblem	Rhizoctonia sp./spp. Abiotic disorder	0	
C = 0	Environmental stress; Problem	Ablotic disorder	0	1
H = 1				
Chrysanthemum		No Pathagan Found	1	0
C = 1		No Pathogen Found		0
H = 0				
Coleus		No Pathogon Found	1	0
C = 1		No Pathogen Found		0
H = 0				
Creeping Jenny	Boot problems	Abiotic disordor	0	1
C = 0	Root problems	Abiotic disorder	0	T
H = 3		Rhizoctonia sp./spp.	0	1
-	Root rot	Phytophthora sp./spp.	0	1
Creeping Phlox	ROOTIO	No Pathogen Found	1	0
C = 1				0
H = 0				
Crowfoot;	Crown and root rot	Phytophthora sp./spp.	1	0
Buttercup				0
(Ornamental)				
C = 2		Botrytis sp./spp.	1	0
		bouyus sp./spp.	1	U

H = 0				
English Ivy		Colletotrichum sp./spp.	1	0
C = 2				
H = 0				
		Phytophthora sp./spp.	1	0
Fountain Grass		Rhizoctonia sp./spp.	1	0
C = 1				
H = 0				
Ground Morning	Cercospora leaf spot	Cercospora sp./spp.	0	1
Glory				
C = 0				
H = 1		Carriel		1
Hellebore C = 0	Unknown	General	0	1
H = 3				
	<b>.</b>	/		-
	Downy mildew	Peronospora pulveracea	0	2
Helleborus Hybrid C = 2	Downy mildew	Peronospora pulveracea	1	0
H=0				
	Foliar nematodes	Aphelenchoides sp./spp.	1	0
Hibiscus	Root rot	Phytophthora sp./spp.	1	0
C = 1 H = 0				
Hops C = 1		No Pathogen Found	1	0
H=0				
Hosta C = 10	Environmental stress; Problem	Abiotic disorder	0	1
H = 1				-
-		Colletotrichum sp./spp.	1	0
-		No Pathogen Found	3	0
-		Phytophthora sp./spp.	4	0
-		Rhizoctonia sp./spp.	1	0
	Hosta virus X (HVX)	Potexvirus Hosta Virus X	1	0
lris C = 0	Environmental stress; Problem	Abiotic disorder	0	1
H = 1				
Jade Plant C = 0	Unknown abiotic disorder	Abiotic disorder	0	1
C=0 H=1				
	Difference in the second secon			
Lavender C = 8	Rhizoctonia crown and stem rot	Rhizoctonia sp./spp.	1	0
C = 8 H = 1	<b></b>			
	Environmental stress; Problem	Abiotic disorder	0	1
		Botrytis sp./spp.	2	0

		Phytophthora sp./spp.	1	0
_		Pythium sp./spp.	2	0
_	Root rot	Phytophthora sp./spp.	2	0
Lavender Bell		Cucumber Mosaic Virus (CMV)	1	0
C = 1				
H = 0				
Lupine		Colletotrichum sp./spp.	1	0
C = 2 H = 0				
Η=0				
		Phytophthora sp./spp.	1	0
Madagascar	Phytophthora blight; Dieback	Phytophthora nicotianae	2	0
periwinkle; Vinca				
C = 2				
H = 0				
Marigold C = 1	Crown and root rot	Phytophthora sp./spp.	1	0
H=0				
Mondograss;		Phytophthora sp./spp.	1	0
Dwarf Lily Turf		Phytophthora sp./spp.	L	0
C = 2				
H = 0		Rhizoctonia sp./spp.	1	0
Moonflower	Cercospora leaf spot	Cercospora sp./spp.	0	1
C = 0			0	
H = 1				
Multiple hosts		Botrytis sp./spp.	1	0
C = 2			-	
H = 0				
New Guinea		Rhizoctonia sp./spp.	1	0
Impatiens		No Pathogen Found	1	0
C = 2		5		
H = 0				
_		Rhizoctonia sp./spp.	1	0
Pansy	Crown and root rot	Phytophthora sp./spp.	1	0
C = 4				
H = 0		Botrytis sp./spp.	1	0
		Phytophthora sp./spp.	1	0
	Black root rot	Berkeleyomyces basicola	1	0
Pentas	Phytophthora blight; Dieback	Phytophthora nicotianae	1	0
C = 1				
H = 0				
Petchoa	Crown and root rot	Phytophthora sp./spp.	1	0
C = 1				
H = 0				

Phalaenopsis	Unidentified virus	Unidentified Virus	0	1
Orchid C = 0				
C = 0 H = 1				
Purple Lovegrass		Phytophthora sp./spp.	1	0
C = 3			4	
H = 0		Rhizoctonia sp./spp.	1	0
-	Rust	Uromyces eragrostidis	1	0
Red-hot Poker	Rust	Phytophthora sp./spp.	1	0
C = 1			T	0
H = 0				
Rockcress		Tospovirus Tomato Spottad Wilt		
C = 1	Tomato spotted wilt (TSWV)	Tospovirus Tomato Spotted Wilt Virus	1	0
H=0		VIIUS		
-				
Roselle		Rhizoctonia sp./spp.	1	0
C = 2				0
H = 0				
-	Root rot	Phytophthora sp./spp.	1	0
Salvia; Sage	Crown and root rot	Phytophthora sp./spp.	1	0
C = 1	crown and root rot		1	0
H = 0				
Sky Flower;	Crown and root rot	Phytophthora sp./spp.	1	0
Golden Dewdrop	crown and root rot		1	0
C = 2				
H = 0		Rhizactonia cn. (cnn.	1	0
Soft Rush		Rhizoctonia sp./spp.	1	0
C = 3		Colletotrichum sp./spp.	Ŧ	0
H = 0		Dhutanhthara an Jann	1	0
-		Phytophthora sp./spp.	1	0
Stonecrop		Rhizoctonia sp./spp.	1	
C = 1		Pythium sp./spp.	1	0
H = 0				
		A bistis discuder		1
Unknown; No Site Specified	Environmental stress; Problem	Abiotic disorder	0	1
C = 0				
H = 1				
Violas (Violet;	Black root rot	Berkeleyomyces basicola	1	0
Pansy)				1
C = 1				
H = 0				
Water Hyacinth	Root problems	Abiotic disorder	0	1
C = 0				
H = 1				

Yucca		Pythium sp./spp.	1	0
C = 3				
H = 0		Rhizoctonia sp./spp.	1	0
	Anthracnose	Colletotrichum sp./spp.	1	0

## MISCELLANEOUS

(Total Diagnoses 3: C=2; H=1)

HOST	DISEASE	CAUSAL ORGANISM	С	Н
Leyland Cypress		No Pathogen Found	1	0
C = 1				
H = 0				
Sunflower	Sunflower leaf blight; Stem spot	Alternariaster helianthi	1	0
C = 1				
H = 0				
Unknown; No Site		No Pathogen Found	0	1
Specified				
C = 0				
H = 1				

## TREES

# (Total Diagnoses 209: C=114; H=95)

HOST	DISEASE	CAUSAL ORGANISM	С	Н
American	Wound canker	Abiotic disorder	0	1
Sycamore				
C = 0				
H = 1				<u> </u>
Arborvitae	Rhizoctonia	Rhizoctonia sp./spp.	1	0
C = 12	stem and root rot			
H = 12				
	Crown and root rot	Phytophthora sp./spp.	1	0
	Bagworm moths	Family Psychidae	0	1
	Environmental stress; Problem	Abiotic disorder	0	10
	Sooty mold	Unidentified Fungus	0	1
	Wood decay fungus	Unidentified Fungus	1	0
		No Pathogen Found	3	0
	Needle cast; Blight	Passalora sequoiae	1	0
	Root problem	Unknown cause	2	0
	Seiridium canker	Seiridium unicorne	3	0
Black Gum		Unidentified Canker	1	0
C = 1				
H = 0				
Blue Spruce	Environmental stress; Problem	Abiotic disorder	0	1
C = 0			0	-
H = 1				
Centipedegrass	Environmental stress; Problem	Abiotic disorder	0	1
C = 0			0	
H = 1				-
	Frierbuid mites	Family Friendwides	0	1
Cherry C = 1	Eriophyid mites	Family Eriophyidae	0	1
H = 2				
	Environmental stress; Problem	Abiotic disorder	0	1
		Leptosphaeria sp./spp.	1	0
Chinese Elm	Wound canker	Abiotic disorder	0	1
C = 1 H = 1				
Π = Ι				
		No Pathogen Found	1	0
Common Apple	Putnam scale	Diaspidiotus ancylus	0	1
C = 0				
H = 3	Oystershell scale	Lepidosaphes ulmi	0	1
	San jose scale	Diaspidiotus perniciosus	0	1
Crabapple		No Pathogen Found	1	0
C = 1				1

H = 0				
Crape Myrtle C = 0	Environmental stress; Problem	Abiotic disorder	0	1
H = 2				
	Powdery mildew	Erysiphe australiana	0	1
Cryptomeria C = 4	Environmental stress; Problem	Abiotic disorder	0	3
H = 4	Unknown abiotic disorder	Abiotic disorder	0	1
		Phytophthora sp./spp.	1	0
		Passalora sp./spp.	1	0
	Root problem	Unknown cause	1	0
	Cypress canker	Lepteutypa cupressi	1	0
Deodar Cedar C = 1 H = 1	Environmental stress; Problem	Abiotic disorder	0	1
_	Root rot	Phytophthora sp./spp.	1	0
Dogwood	Cercospora leaf spot	Cercospora sp./spp.	0	1
C = 0				
H = 4	Chemical injury	Abiotic disorder	0	1
	Environmental stress; Problem	Abiotic disorder	0	1
	Spot anthracnose	Elsinoe corni	0	1
Eastern Red Cedar C = 0 H = 2	Environmental stress; Problem	Abiotic disorder	0	2
Eastern Redbud C = 1 H = 0		No Pathogen Found	1	0
Elm C = 2	Woodpeckers	Family Picidae	0	1
H = 1		No Pathogen Found	1	0
	Root rot	Phytophthora sp./spp.	1	0
English Oak C = 1 H = 0		No Pathogen Found	1	0
English Walnut;		Pseudocercospora sp./spp.	1	0
Persian Walnut C = 1 H = 0				
European Hornbeam C = 2		Environmental Stresses	1	0
H = 0	Anthracnose	Monostichella sp./spp.	1	0
Falsecypress	Environmental stress; Problem	Abiotic disorder	0	1

C = 0				
H = 1				
Flowering Cherry		Cercospora sp./spp.	1	0
C = 2				
H = 0				
	Root rot	Phytophthora sp./spp.	1	0
Flowering		Fusicoccum sp./spp.	1	0
Dogwood				
C = 1				
H = 0 Franklinia	Deat rat	Dhutanhthann an Ionn	1	0
C = 1	Root rot	Phytophthora sp./spp.	1	0
H = 0				
Fringe Tree		Botryosphaeria sp./spp.	1	0
C = 2				
H = 0				
	Unspecified pathology	Pleospora sp./spp.	1	0
Ginkgo	Wound canker	Abiotic disorder	0	1
C = 0				
H = 1				
Green Giant	Crown and root rot	Phytophthora sp./spp.	1	0
Arborvitae				
C = 2				
H = 0		No Pathogen Found	1	0
Hemlock	Environmental stress; Problem	Abiotic disorder	0	2
C = 2				
H = 2		Phytophthora sp./spp.	1	0
		Rhizoctonia sp./spp.	1	0
Hinoki	Environmental stress; Problem	Abiotic disorder	0	1
Falsecypress				
C = 0				
H = 1				
Italian Cypress C = 4	Crown and root rot	Phytophthora sp./spp.	1	0
H = 1				
··· -	Environmental stress; Problem	Abiotic disorder	0	1
	Deet problem	Botryosphaeria sp./spp.	1	0
	Root problem Seiridium canker	Unknown cause	1	0
Japanese Black		Seiridium unicorne Lophodermium sp./spp.	1	0
Pine	Lophodermium leaf spot; Needle cast	Lophouermium sp./spp.	1	0
C = 2				
H = 0	Diplodia tip blight; Canker	Diplodia sapinea	1	0
		Dipioulu supilieu	L	U

Japanese Cedar C = 1		Secondary Agents; Saprophytes; Unspecif.	1	0
H = 0				
1				
Japanese Flowering Cherry	Leaf blight and spot; Shothole	Blumeriella jaapii	1	0
C = 1				
H = 0				
Japanese Maple	Crown and root rot	Phytophthora sp./spp.	1	1
C = 9				
H = 6	Cultural/environmental problem	Abiotic disorder	0	1
-	Environmental stress; Problem	Abiotic disorder	0	3
	Unknown abiotic disorder	Abiotic disorder	0	1
	Dieback; Canker; Twig blight	Botryosphaeria sp./spp.	1	0
		Colletotrichum sp./spp.	1	0
		Fusicoccum sp./spp.	1	0
		No Pathogen Found	1	0
-	Root rot	Phytophthora sp./spp.	4	0
Leyland Cypress	Cultural/environmental problem	Abiotic disorder	0	1
C = 10				
H = 12	Environmental stress; Problem	Abiotic disorder	0	9
		Phytophthora sp./spp.	3	0
	Passalora leaf spot	Passalora sp./spp.	0	2
	Needle cast; Blight	Passalora sequoiae	3	0
-	Seiridium canker	Seiridium unicorne	4	0
Live Oak		No Pathogen Found	1	0
C = 2				
H = 0				
		Sphaeropsis sp./spp.	1	0
Longleaf Pine		Pythium sp./spp.	1	0
C = 1				
H = 0				
Magnolia	Environmental stress; Problem	Abiotic disorder	0	4
C = 0				
H = 5				
-	Leaf spot	Unknown cause	0	1
Maple	Crown and root rot	Phytophthora sp./spp.	1	0
C = 2				
H = 2	Environmental stress; Problem	Abiotic disorder	0	1
	Wound canker	Abiotic disorder	0	1
ľ		No Pathogen Found	1	0
North. White	Needle cast; Blight	Passalora sequoiae	1	0
(American) Cedar				

C = 1				
H = 0				
Nuttall Oak	Anthracnose	Apiognomonia sp./spp.	1	0
C = 2				
H = 0				
	Bacterial leaf scorch	Xylella fastidiosa	1	0
Oak	Unknown	General	0	2
C = 2				
H = 15	Herbicide injury; Exposure	Abiotic disorder	0	1
	Environmental stress; Problem	Abiotic disorder	0	1
	Wound canker	Abiotic disorder	0	3
	Insect gall	Insect Gall	0	1
	Leaf spot	Tubakia sp./spp.	0	5
		Septobasidium sp./spp.	1	0
		Tubakia sp./spp.	1	0
	Pine oak gall rust	Cronartium quercuum	0	1
	Leaf spot	Unknown cause	0	1
Oriental	Needle cast; Blight	Passalora sequoiae	1	0
Arborvitae		,		
C = 1				
H = 0				
Peach	Unknown	General	0	1
C = 0				
H = 1				
Pecan		No Pathogen Found	1	0
C = 1				
H = 0				
Pin Oak	Leaf spot	Tubakia sp./spp.	0	1
C = 0				
H = 1				
Pine	Unknown	General	0	1
C = 2				
H = 3	Algae	General	0	1
	Environmental stress; Problem	Abiotic disorder	0	1
	Scale insects	Order homoptera	1	0
		No Pathogen Found	1	0
Purpleleaf Plum		Colletotrichum sp./spp.	1	0
C = 1				
H = 0				1
Red Maple	Crown and root rot	Phytophthora sp./spp.	1	0
C = 8				
H = 2	Corynespora leaf spot	Corynespora sp./spp.	0	1

		Cristulariella sp./spp.	0	1
		Phomopsis sp./spp.	1	0
-		Pseudocercospora sp./spp.	1	0
		Sphaeropsis sp./spp.	2	0
		Phloeospora sp./spp.	1	0
Redbud	Verticillium wilt	Verticillium sp./spp.	1	0
C = 2				
H = 0				
		Fusicoccum sp./spp.	1	0
Sabal Palm; Fan	Environmental stress; Problem	Abiotic disorder	0	1
Palm			-	_
C = 0				
H = 1				
Sassafras	Crown and root rot	Phytophthora sp./spp.	2	0
C = 2				
H = 0				
Sawtooth Oak	Environmental stress; Problem	Abiotic disorder	0	1
C = 2				
H = 1		Entomosporium sp./spp.	1	0
		Pestalotia sp./spp.	1	0
Scarlet Oak		Tubakia sp./spp.	1	0
C = 1				
H = 0				
Shumard Oak;	Trunk decay; Rot	Unidentified fungus	1	0
Texas Oak;				
Spanish Oak				
C = 1				
H = 0 Southern	Algoliosferet	Contralouros viros cons	1	0
Magnolia	Algal leaf spot	Cephaleuros virescens		0
C = 4	Scale insects	Order homoptera	1	0
H = 0	Scale Insects	Colletotrichum sp./spp.	1	0
	Root problem	Unknown cause	1	0
Sugar Hackberry	Root problem			-
C = 1		Fusarium sp./spp.	1	0
H = 0				
Sugar Maple		No Dathagan Found	1	0
C = 2		No Pathogen Found		U
H = 0				
	Anthracnose	Monostichella sp.	1	0
Swamp White Oak	Bacterial leaf scorch	Xylella fastidiosa	1	0
C = 1			1	0
H = 0				
-				

Sweetgum		Fusicoccum sp./spp.	1	0
C = 2				
H = 0				
	Canker; Stem rot	Lasiodiplodia theobromae	1	0
Trident Maple		Phomopsis sp./spp.	1	0
C = 2				
H = 0				
Γ		Phytophthora sp./spp.	1	0
Tulip Tree	Environmental stress; Problem	Abiotic disorder	0	1
C = 0				
H = 1				
Unknown; No Site	Wood decay fungus	Unidentified Fungus	0	1
Specified				
C = 0				
H = 1				
Water Oak C = 2	Environmental stress; Problem	Abiotic disorder	0	1
C = 2 H = 1		/	-	_
		Tubakia sp./spp.	1	0
	Southern fusiforme rust	Cronartium quercuum	1	0
Weeping Willow		Cladosporium sp./spp.	1	0
C = 1 H = 0				
-				
Western Red		No Pathogen Found	1	0
Cedar C = 1				
C = 1 H = 0				
White Oak	Environmental stress; Problem	Abiotic disorder	0	1
C = 2				-
H = 1	Bacterial wetwood; Slime flux	Various Pathogens	1	0
		No Pathogen Found	1	0
Willow	Cultural/environmental problem	Abiotic disorder	0	1
C = 0				<u> </u>
H = 1				

# TURF (Total Diagnoses 327: C=236; H=91)

HOST	DISEASE	CAUSAL ORGANISM	С	Н
Bentgrass	Nematodes; General plant	Order Tylenchida	1	0
C = 24				
H = 0	Anthracnose	Colletotrichum cereale	8	0
	Pythium root and/or crown rot	Pythium sp./spp.	13	0
	Root rot	Various Fungi	1	0
		No Pathogen Found	1	0
Bermudagrass	Nematodes; General plant	Order Tylenchida	5	0
C = 24				
H = 0	Cultural/environmental problem	Abiotic disorder	1	0
	Soil compaction	Abiotic disorder	1	0
	Environmental stress; Problem	Abiotic disorder	2	0
	Root problems	Abiotic disorder	1	0
	Leaf spot	Bipolaris sp./spp.	3	0
	Pythium root and/or crown rot	Pythium sp./spp.	6	0
	Root decline of warm season grasses	Gaeumannomyces graminis	2	0
	Root rot	Various Fungi	1	0
		Bipolaris sp./spp.	1	0
		Rhizoctonia sp./spp.	1	0
Bermudagrass	Melting out (Turfgrass)	Drechslera sp./spp.	2	0
C = 36				
H = 14	Nematodes; General plant	Order Tylenchida	2	0
	Cultural/environmental problem	Abiotic disorder	4	2
	Nutritional deficiency	Abiotic disorder	1	0
	Soil compaction	Abiotic disorder	1	0
	Environmental stress; Problem	Abiotic disorder	1	11
	Poor root development	Abiotic disorder	1	0
	Anthracnose	Colletotrichum cereale	1	0
	Leaf spot	Bipolaris sp./spp.	1	0
	Pythium root and/or crown rot	Pythium sp./spp.	1	0
	Root decline of warm season grasses	Gaeumannomyces graminis	4	0
	Root rot	Various Fungi	6	0
		Bipolaris sp./spp.	2	0
		Rhizoctonia sp./spp.	1	0
	Slime mold	Physarum cinereum	1	0
	Large patch	Rhizoctonia solani	7	0
	Dollar spot	Clarireedia homoeocarpa	0	1
Centipedegrass	Fairy ring	Various Fungi	3	0
C = 57				

H = 29	Take-all	Gaeumannomyces sp./spp.	0	1
	Nematodes; General plant	Order Tylenchida	1	0
	Cultural/environmental problem	Abiotic disorder	12	2
	Soil compaction	Abiotic disorder	1	0
	Environmental stress; Problem	Abiotic disorder	8	26
	Pythium root and/or crown rot	Pythium sp./spp.	2	0
	Root decline of warm season grasses	Gaeumannomyces graminis	7	0
	Root rot	Various Fungi	5	0
	Large patch	Rhizoctonia solani	18	0
Fescues	Cultural/environmental problem	Abiotic disorder	0	1
C = 0				
H = 6	Environmental stress; Problem	Abiotic disorder	0	3
	Unknown abiotic disorder	Abiotic disorder	0	1
	Pythium root and/or crown rot	Pythium sp./spp.	0	1
St. Augustinegrass	Unknown	General	0	1
C = 23				
H = 18	Take-all	Gaeumannomyces sp./spp.	1	9
	Cultural/environmental problem	Abiotic disorder	1	1
	Environmental stress; Problem	Abiotic disorder	0	7
	Root decline of warm season grasses	Gaeumannomyces graminis	7	0
	Insects	Class insecta	2	0
	Gray leaf spot	Pyricularia grisea	4	0
	Large patch	Rhizoctonia solani	8	0
Tall Fescue	Brown patch	Rhizoctonia sp./spp.	1	0
C = 3				
H = 0	Environmental stress; Problem	Abiotic disorder	1	0
	Root rot	Various Fungi	1	0
Zoysia Grass	Melting out (Turfgrass)	Drechslera sp./spp.	1	0
C = 69				
H = 24	Take-all	Gaeumannomyces sp./spp.	1	1
	Cultural/environmental problem	Abiotic disorder	9	0
	Nutritional deficiency	Abiotic disorder	1	0
	Soil compaction	Abiotic disorder	1	0
	Environmental stress; Problem	Abiotic disorder	6	22
	Drought stress damage	Abiotic disorder	1	0
	Drainage problem	Abiotic disorder	1	0
	Leaf spot	Bipolaris sp./spp.	1	0
	Pythium root and/or crown rot	Pythium sp./spp.	3	1
	Root decline of warm season grasses	Gaeumannomyces graminis	8	0
	Root rot	Various Fungi	13	0
	Large patch	Rhizoctonia solani	22	0
	Dollar spot	Clarireedia homoeocarpa	1	0

## VEGETABLES

# (Total Diagnoses 443: C=402; H=41)

HOST	DISEASE	CAUSAL ORGANISM	С	Н
Asparagus	Anthracnose	Colletotrichum orbiculare	1	0
C = 1				
H = 1				
	Root rot	Phytophthora sp./spp.	0	1
Bean	Unknown	General	0	1
C = 1				
H = 3	Cercospora leaf spot	Cercospora sp./spp.	0	1
	Unknown abiotic disorder	Abiotic disorder	0	1
		No Pathogen Found	1	0
Bok Choy; Chinese		Begomovirus Group	1	0
Cabbage				
C = 1				
H = 0				
Brassica green		Rhizoctonia sp./spp.	1	0
C = 1				
H = 0				
Broccoli	Root maggots; General	Family Anthomyiidae	0	1
C = 3				
H = 3	Environmental stress; Problem	Abiotic disorder	0	2
		Begomovirus Group	1	0
		Erwinia (Pectobacterium)	1	0
		carotovora (um)	-	Ŭ
		Sclerotinia sclerotiorum	1	0
Cabbage	Powdery mildew	Erysiphe sp./spp.	1	0
C = 44				
H = 0	Black rot	Xanthomonas campestris	4	0
	Bacterial soft rot	Erwinia carotovora	1	0
	Crucifer bacterial black rot	Xanthomonas campestris	4	0
	Cercospora leaf spot	Cercospora sp./spp.	2	0
	Nutrient imbalance	Abiotic disorder	1	0
	Unknown abiotic disorder	Abiotic disorder	1	0
		Alternaria sp./spp.	1	0
		Begomovirus Group	2	0
Γ		Cercospora sp./spp.	9	0
		No Pathogen Found	8	0
		Pseudomonas sp./spp.	1	0
		Pythium sp./spp.	2	0
F		Rhizoctonia solani	1	0
-		Rhizoctonia sp./spp.	2	0

		Sclerotinia sclerotiorum	1	0
		Xanthomonas campestris	1	0
		Xanthomonas raphni	2	0
Cantalope;		No Pathogen Found	1	0
Cantaloupe				
C = 6		Phytophthora capsici	2	0
H = 0		Pseudomonas sp./spp.	1	0
		Unknown Agent	1	0
		Xanthomonas sp./spp.	1	0
Carrot		Alternaria sp./spp.	1	0
C = 2				
H = 0				
	Root-knot nematodes	Meloidogyne sp./spp.	1	0
Cauliflower	Black rot	Xanthomonas campestris	0	1
C = 10				
H = 1	Black leaf spot	Alternaria brassicicola	1	0
		Alternaria brassicicola	1	0
		No Pathogen Found	5	0
		Rhizoctonia sp./spp.	1	0
-	Alternaria head rot	Alternaria sp./spp.	1	0
	Undetermined injury	Identification Analysis	1	0
Cilantro	Corynespora leaf spot	Corynespora sp./spp.	1	0
C = 1				
H = 0				
Collards		Cercospora sp./spp.	1	0
C = 6				
H = 0		No Pathogen Found	2	0
		Xanthomonas campestris	1	0
		Xanthomonas sp./spp.	1	0
	Bacterial spot	Xanthomonas sp./spp.	1	0
Cucumber	Anthracnose	Colletotrichum orbiculare	3	0
C = 23				
H = 1	Cucurbit downy mildew	Pseudoperonospora cubensis	0	1
	Nutritional deficiency	Abiotic disorder	1	0
		Alternaria sp./spp.	1	0
		Cucumber Mosaic Virus (CMV)	5	0
		No Virus Found	1	0
		Pseudoperonospora cubensis	2	0
		Pythium sp./spp.	1	0
	Root-knot nematodes	Meloidogyne sp./spp.	1	0
		Potyvirus sp./spp.	5	0
		Cucumovirus Cucumber Mosaic		
		Virus	2	0

		Potyvirus Potato Virus Y	1	0
Curly Mustard;		Begomovirus Group	1	0
Leaf Mustard				
C = 1				
H = 0	De staviel le ef event	De au de me a recentie anne	- 1	0
Eggplant C = 3	Bacterial leaf spot	Pseudomonas syringae	1	0
H=0				
		Pectobacterium sp./spp.	1	0
Carlia		Phomopsis sp./spp.	1	0
Garlic C = 1	Cultural/environmental problem	Abiotic disorder	1	0
H=0				
Kale C = 5		Alternaria sp./spp.	1	0
H=0			-	
		Cercospora sp./spp.	1	0
-		No Pathogen Found	1	0
_		Pythium sp./spp.	1	0
	No pathogen found	Identification Analysis	1	0
Lettuce		Pythium sp./spp.	1	0
C = 1 H = 0				
Lima Bean	Cercospora leaf spot	Cercospora sp./spp.	0	1
C = 0				
H = 2				
	Insect damage	Unidentified Insect	0	1
Mustard Green		Pythium sp./spp.	1	0
C = 1				
H = 0				
Mustards		Pythium sp./spp.	1	0
C = 1				
H = 0				
Not Found On List	Root-knot nematodes	Meloidogyne sp./spp.	1	0
C = 1				
H = 0				
Okra	Nematodes; General plant	Order Tylenchida	1	0
C = 5				
H = 2	Environmental stress; Problem	Abiotic disorder	0	1
		Fusarium sp./spp.	2	0
		No Pathogen Found	1	0
	Southern blight	Sclerotium rolfsii	0	1
	Root-knot nematodes	Meloidogyne sp./spp.	1	0
Onion	Botrytis blight	Botrytis sp./spp.	1	0
C = 33				

H = 0	Stemphylium leaf blight	Stemphylium vesicarium	2	0
	Bacterial blight	Pseudomonas viridiflava	1	0
	Downy mildew	Peronospora sp./spp.	1	0
	Bacterial soft rot	Erwinia sp./spp.	1	0
	Stemphylium leaf spot	Stemphylium sp./spp.	1	0
	Leaf streak and bulb rot	Pseudomonas viridiflava	1	0
	Center rot	Pantoea ananatis	1	0
	Additional sample requested	Identification Analysis	1	0
		Botrytis allii	1	0
		Botrytis sp./spp.	8	0
		Erwinia sp./spp.	1	0
		Fusarium sp./spp.	2	0
		No Pathogen Found	2	0
		Pantoea ananatis	2	0
		Pythium sp./spp.	4	0
		Enterobacter sp./spp.	1	0
	Secondary onion pathogen	Enterobacter ludwigii	1	0
	Secondary bacterial species	Secondary	1	0
Pepper	Unknown	General	0	2
C = 29				
H = 5	Bacterial leaf spot	Pseudomonas sp./spp.	2	0
	Bacterial leaf spot	Pseudomonas syringae	1	0
	High soluble salt	Abiotic disorder	1	0
	Cultural/environmental problem	Abiotic disorder	0	1
	Environmental stress; Problem	Abiotic disorder	0	2
	Bacterial leaf blight	Pseudomonas sp./spp.	1	0
	Sclerotinia rot	Sclerotinia sclerotiorum	1	0
	Bacterial leaf spot	Xanthomonas campestris	2	0
		Fusarium sp./spp.	1	0
		No Pathogen Found	7	0
		Phytophthora capsici	2	0
		Phytophthora sp./spp.	2	0
		Pseudomonas sp./spp.	1	0
		Pythium sp./spp.	3	0
		Unknown cause	1	0
	Tomato spotted wilt (TSWV)	Tospovirus Tomato Spotted Wilt Virus	1	0
	Anthracnose	Colletotrichum sp./spp.	1	0
	Bacterial leaf spot	Xanthomonas euvesicatoria	1	0
	Viral pathogen suspect	Viral suspect	1	0
Potato		Potyvirus sp./spp.	1	0
C = 1				
H = 0				

Pumpkin C = 1 H = 0	Cucurbit downy mildew	Pseudoperonospora cubensis	1	0
Rutabaga; Swedish Turnip C = 1	Rutabaga	Brassica napus	1	0
H = 0				
Snap Bean; Green Bean	Ashy stem blight	Macrophomina phaseolina	1	0
C = 12	Bacterial blight	Xanthomonas sp./spp.	1	0
H = 0		Alternaria sp./spp.	1	0
-		Cercospora sp./spp.	2	0
-		No Pathogen Found	1	0
-		Pythium sp./spp.	3	0
	Cucurbit leaf crumple (CuLCrV)	Begomovirus Cucurbit Leaf Crumple Virus	1	0
	Burn due to potential phytotoxicity from spray burn	Phytotoxicity	1	0
	SiGMV	Sida Golden Mosaic Virus	1	0
Southern peas;	Insect damage	Unidentified Insect	1	0
Cowpeas Blackeye				
Peas				
C = 2 H = 0		No Pathogen Found	1	0
Sphagetti squash	Anthracnose	Colletotrichum orbiculare	1	0
C = 1 H = 0				
Squash C = 20	Anthracnose	Colletotrichum orbiculare	1	0
H = 1	Gummy stem blight	Didymella sp./spp.	1	0
-	Cucurbit yellow vine disease	Serratia marcescens	0	1
-	Unidentified virus	Unidentified Virus	1	0
-	Wet rot; Fruit rot	Choanephora cucurbitarum	1	0
-	·	Abiotic disorder	1	0
-		Choanephora sp./spp.	1	0
-		No Pathogen Found	5	0
-		Phytophthora capsici	3	0
-		Pseudomonas sp./spp.	1	0
		Unknown cause	1	0
	Cucurbit leaf crumple (CuLCrV)	Begomovirus Cucurbit Leaf Crumple Virus	2	0
	Cucurbit Yellow Stunting Disorder(CYSDV)	Crinivirus Cucurbit Yellow Stunting Disorder Virus	1	0
	Powdery mildew	Podosphaera xanthii	1	0

Sweet Basil C = 1		Pseudomonas sp./spp.	1	0
H = 0				
Sweet Corn C = 2	Southern corn rust	Puccinia polysora	1	0
H = 0				
	Couthour loof blight	Dia classic securitic	1	0
Sweetpotato	Southern leaf blight	Bipolaris maydis	1	0
Sweetpotato C = 3		No Pathogen Found	1	0
H = 0	Leve black act		4	0
	Java black rot	Lasiodiplodia theobromae	1	0
	Potato black leg	Pectobacterium atrosepticum	1	0
Tomatillo; Tree Tomato		Cercospora sp./spp.	1	0
C = 1				
H = 0				
Tomato	Sour rot	Geotrichum candidum	1	0
C = 16				
H = 0	Tomato; Pepper bacterial spot	Xanthomonas campestris	1	0
	No virus found	No Virus Found	1	0
		Fusarium sp./spp.	1	0
		No Pathogen Found	6	0
		Phytophthora capsici	1	0
		Pythium sp./spp.	1	0
		Unknown cause	1	0
	Southern blight	Sclerotium rolfsii	1	0
	Leaf mold	Passalora fulva	1	0
	Tomato Bacterial Spot	Xanthomonas sp.	1	0
Tomato	Unknown	General	1	1
C = 21			-	-
H = 19	Sour rot	Geotrichum sp./spp.	1	0
	Herbicide injury; Exposure	Abiotic disorder	0	2
	Herbicide drift	Abiotic disorder	0	1
	Cultural/environmental problem	Abiotic disorder	0	1
	Environmental stress; Problem	Abiotic disorder	0	6
	Unknown abiotic disorder	Abiotic disorder	1	0
	Septoria leaf blight	Septoria lycopersici	0	1
	Bacterial wilt	Ralstonia solanacearum	1	0
	Early blight; Leaf spot	Alternaria solani	1	3
	Tomato; Pepper bacterial spot	Xanthomonas campestris	2	0
	Bacterial pathogens	General	0	1
	No virus found	No Virus Found	1	0
			+	
		Cercospora sp./spp.	1	0
		No Pathogen Found	3	0

		Unknown Agent	1	0
-		Xanthomonas sp./spp.	1	0
-	Bacterial blight	Unidentified Bacteria	1	0
-	Southern blight	Sclerotium rolfsii	1	1
-	Tomato bacterial spot	Xanthomonas perforans	1	0
-	Root problem	Unknown cause	0	1
-	Leaf mold	Passalora fulva	2	0
	Tomato spotted wilt (TSWV)	Tospovirus Tomato Spotted Wilt Virus	1	1
-	Target spot	Corynespora cassiicola	1	0
Turnip	5 1	Cercospora sp./spp.	1	0
C = 3				
H = 0		No Pathogen Found	1	0
		Rhizoctonia solani	1	0
Watermelon C = 130	Anthracnose	Colletotrichum orbiculare	4	0
H = 3	Gummy stem blight	Didymella sp./spp.	4	0
	Downy mildew	Pseudoperonospora sp./spp.	1	0
	Cucurbit downy mildew	Pseudoperonospora cubensis	1	0
	Fusarium wilt	Fusarium oxysporum	1	0
	Unknown	General	0	1
	Pythium pod rot	Pythium sp./spp.	1	0
	Unknown abiotic disorder	Abiotic disorder	2	0
	Blossom end rot	Abiotic disorder	1	0
	Stem rot	Sclerotinia sclerotiorum	1	0
	Watermelon Fusarium wilt	Fusarium oxysporum	10	0
	Insect damage	Unidentified Insect	0	2
	Insufficient sample	Identification Analysis	1	0
		Cercospora sp./spp.	2	0
		Fusarium sp./spp.	24	0
		No Pathogen Found	38	0
		Phytophthora capsici	7	0
-		Phytophthora sp./spp.	1	0
-		Pseudomonas viridiflava	1	0
-		Pseudoperonospora cubensis	3	0
Ē		Pythium sp./spp.	10	0
Ē		Sclerotium rolfsii	1	0
Ē		Unknown Agent	1	0
Ē		Unknown cause	5	0
Ē	No pathogen found	Identification Analysis	1	0
Ē	Root-knot nematodes	Meloidogyne sp./spp.	1	0
		Begomovirus Cucurbit Leaf Crumple Virus	2	0

		Potyvirus Papaya Ringspot Virus	1	0
	Tomato pith necrosis	Pseudomonas sp./spp.	1	0
	Cucurbit gummy stem blight	Stagonosporopsis curcubitacearum	1	0
	Powdery mildew	Podosphaera fuliginea	1	0
	Anthracnose	Colletotrichum sp./spp.	1	0
	Gummy stem blight	Stagonosporopsis citrulli	1	0
Zucchini Squash	Phytophthora fruit rot	Phytophthora capsici	1	0
C = 7				
H = 0		Choanephora cucurbitarum	1	0
		Choanephora sp./spp.	1	0
		Phytophthora capsici	1	0
		Pseudomonas sp./spp.	1	0
	Cucurbit leaf crumple (CuLCrV)	Begomovirus Cucurbit Leaf Crumple Virus	1	0
	Cucurbit Yellow Stunting Disorder(CYSDV)	Crinivirus Cucurbit Yellow Stunting Disorder Virus	1	0

## WOODY ORNAMENTALS

(Total Diagnoses 265: C=157; H=108)

HOST	DISEASE	CAUSAL ORGANISM	С	Н
Andora Juniper	Crown and root rot	Phytophthora sp./spp.	1	0
C = 2				
H = 0				
	Phomopsis tip blight; Needle blight	Phomopsis juniperovora	1	0
Anise Tree		No Virus Found	1	0
C = 4				
H = 0		Phytophthora sp./spp.	1	0
	Root problem	Unknown cause	1	0
	Root rot	Phytophthora sp./spp.	1	0
Arborvitae	Crown and root rot	Phytophthora sp./spp.	3	0
C = 8				
H = 2	Site disturbance	Abiotic disorder	0	1
	Environmental stress; Problem	Abiotic disorder	0	1
	Scale insects	Order homoptera	1	0
		No Pathogen Found	1	0
		Rhizoctonia sp./spp.	1	0
	Root rot	Phytophthora sp./spp.	2	0
Arizona Cypress		Phomopsis sp./spp.	1	0
C = 1				
H = 0				
Asiatic Jasmine		Phytophthora sp./spp.	1	0
C = 2				
H = 0				
·		Rhizoctonia sp./spp.	1	0
Azalea;	Rhizoctonia stem and root rot	Rhizoctonia sp./spp.	1	0
Rhododendron				
C = 6	Crown and root rot	Phytophthora sp./spp.	1	0
H = 10	Cercospora leaf spot	Cercospora sp./spp.	1	0
	Leaf spot	Pseudocercospora sp./spp.	0	1
	Azalea lace bug	Stephanitis pyrioides	0	1
	Herbicide drift	Abiotic disorder	0	1
	Environmental stress; Problem	Abiotic disorder	0	6
-	Root problems	Abiotic disorder	0	1
		Phytophthora sp./spp.	1	0
	Leaf and flower gall	Exobasidium vaccinii	1	0
	Root rot	Phytophthora sp./spp.	1	0
Bigleaf Hydrangea		No Pathogen Found	1	0
C = 1				t í

H = 0				
Bluebeard		Fusarium sp./spp.	1	0
C = 2				
H = 0				
	Root rot	Phytophthora sp./spp.	1	0
Blueberry		Sphaeropsis sp./spp.	1	0
C = 1				
H = 0				
Boxwood	Crown and root rot	Phytophthora sp./spp.	3	0
C = 63				
H = 31	Cottony cushion scale	Icerya purchasi	0	2
	Environmental stress; Problem	Abiotic disorder	0	22
	Root problems	Abiotic disorder	0	3
	Mite damage	Unidentified Mite	1	0
		Colletotrichum sp./spp.	16	0
		Environmental Stresses	1	0
		No Pathogen Found	7	0
		Phytophthora sp./spp.	3	0
	Boxwood blight; Leaf and stem blight	Calonectria pseudonaviculata	5	1
	Root problem	Unknown cause	3	2
	Boxwood Macrophoma leaf spot	Dothiorella candollei	2	0
	Root rot	Phytophthora sp./spp.	0	1
	Boxwood Volutella blight; Canker	Pseudonectria buxi	22	0
Butterfly Bush	Environmental stress; Problem	Abiotic disorder	0	1
C = 0				
H = 1				
Camellia	Environmental stress; Problem	Abiotic disorder	0	2
C = 0			-	
H = 2				
Cherry Laurel;		Phytophthora sp./spp.	1	0
Wild Orange			_	-
Laurel				
C = 1				
H = 0				
Chindo Viburnum		No Pathogen Found	2	0
C = 2 H = 0				
Chinese Fringe	Unknown	General	0	1
Flower C = 3			1	
C = 3 H = 2		Abiotic disorder	1	0
		No Pathogen Found	1	0
		Pseudomonas amygdali	1	0
		(Bacterial)		

	Bacterial gall	Pseudomonas savastanoi	0	1
Chinese Holly C = 2 H = 0	Scale insects	Order homoptera	1	0
	Root rot	Various Fungi	1	0
Common Boxwood		Colletotrichum sp./spp.	1	0
C = 6 H = 0		No Pathogen Found	1	0
	Boxwood Volutella blight; Canker	Pseudonectria buxi	4	0
Common Camellia C = 1 H = 0	Crown and root rot	Phytophthora sp./spp.	1	0
Common Fig C = 1 H = 0	Phytophthora fruit rot	Phytophthora sp./spp.	1	0
Confederate Rose C = 0 H = 1	Environmental stress; Problem	Abiotic disorder	0	1
Crape Myrtle C = 0 H = 1	Unknown	General	0	1
Distylium C = 1 H = 0	Crown and root rot	Phytophthora sp./spp.	1	0
Dogwood C = 0 H = 2	Environmental stress; Problem	Abiotic disorder	0	1
-		Abiotic disorder	0	1
Elaeagnus C = 0 H = 1	Unknown abiotic disorder	Abiotic disorder	0	1
English Ivy C = 0 H = 2	Bacterial leaf spot	Xanthomonas sp./spp.	0	1
	Chemical injury	Abiotic disorder	0	1
Falsecypress C = 1 H = 0		Phytophthora sp./spp.	1	0
Florida Anisetree C = 0 H = 1	Environmental stress; Problem	Abiotic disorder	0	1
Gardenia	Unknown abiotic disorder	Abiotic disorder	0	1

C = 1				
H=1				
		No Pathogen Found	1	0
Green Giant	Crown and root rot	Phytophthora sp./spp.	1	0
Arborvitae	Crown and root rot	Phytophthold sp./spp.	1	0
C = 1				
H = 0				
Hawthorn	Cercospora leaf spot	Cercospora sp./spp.	0	1
C = 0				
H = 1				
Heavenly Bamboo		Cucumber Mosaic Virus (CMV)	2	0
C = 2				
H = 0				
Himalayan Sweet	Environmental stress; Problem	Abiotic disorder	0	1
Вох				
C = 0				
H = 1				
Holly C = 3	Environmental stress; Problem	Abiotic disorder	0	3
H = 5	De et e cel·le ese			4
_	Root problems	Abiotic disorder	0	1
_		Fusicoccum sp./spp.	1	0
_		No Pathogen Found	1	0
_	Destaughlaus	Phytophthora sp./spp.	1	0
Lludrongoo	Root problem	Unknown cause	0	1
Hydrangea C = 2	Cercospora leaf spot	Cercospora sp./spp.	0	1
H = 4	Creider miter	Formily Totropychide o	0	1
-	Spider mites	Family Tetranychidae	0	1
_	Chemical injury	Abiotic disorder	0	1
_	Environmental stress; Problem	Abiotic disorder	0	1
_		Phytophthora sp./spp.	1	0
Indian Hawthorn	Entomosporium leaf spot	Pythium sp./spp. Entomosporium sp./spp.	1	0
C = 1	Entomosponum lear spor	Entomosponum sp./spp.	0	1
H = 3	Environmental stress; Problem	Abiotic disorder	0	2
	Environmental scress, Froblem	No Pathogen Found	1	2
Japanese	Crown and root rot	Phytophthora sp./spp.	1	0
Andromeda	Crown and root rot		1	0
C = 1				
H = 0				
Japanese Aralia	Crown and root rot	Phytophthora sp./spp.	1	0
C = 2				
H = 1	Insect damage	Unidentified Insect	0	1
		Colletotrichum sp./spp.	1	0
Japanese Holly	Crown and root rot	Phytophthora sp./spp.	1	0

C = 1				
H = 1				
	Environmental stress; Problem	Abiotic disorder	0	1
Japanese Maple	Unknown abiotic disorder	Abiotic disorder	0	1
C = 0				
H = 1				
Jasmine		Cercospora sp./spp.	1	0
C = 1				
H = 0				
Juniper	Crown and root rot	Phytophthora sp./spp.	1	0
C = 8				
H = 4	Environmental stress; Problem	Abiotic disorder	1	2
	Root problems	Abiotic disorder	0	2
	Scale insects	Order homoptera	2	0
		No Pathogen Found	1	0
		Phytophthora sp./spp.	1	0
	Root problem	Unknown cause	1	0
	Seiridium canker	Seiridium unicorne	1	0
Leucothoe	Environmental stress; Problem	Abiotic disorder	0	1
C = 0				
H = 1				
Leyland Cypress	Passalora leaf spot	Passalora sp./spp.	0	1
C = 0				
H = 1				
Ligustrum; Privet	Crown and root rot	Phytophthora sp./spp.	1	0
C = 3				
H = 2	Cercospora leaf spot	Cercospora sp./spp.	0	1
_	Environmental stress; Problem	Abiotic disorder	0	1
_		Phytophthora sp./spp.	1	0
		Pseudocercospora sp./spp.	1	0
Loropetalum;		No Pathogen Found	1	0
Chinese Fringe Flower				
C = 1				
H = 0				
Magnolia		Pseudaulacaspis cockerelli	0	1
C = 0		· ·		
H = 1				
Mahonia	Environmental stress; Problem	Abiotic disorder	0	1
C = 0				
H = 1				
Mountain Laurel	Leaf spot	Unknown cause	0	1
C = 0				

H = 1				
Oakleaf	Bacterial leaf spot	Xanthomonas sp./spp.	1	0
Hydrangea				
C = 2				
H = 0		Phytophthora sp./spp.	1	0
Pittosporum	Mealybugs	Family Pseudococcidae	0	1
C = 2				
H = 4	Environmental stress; Problem	Abiotic disorder	0	1
		Phytophthora sp./spp.	1	0
	Nectriella stem gall	Nectriella pironii	1	0
	Root problem	Unknown cause	0	1
	Aphids; Plant lice	Family Aphididae	0	1
Plum-yew		No Pathogen Found	1	0
C = 1				
H = 1				
		Pulvinaria sp./spp.	0	1
Podocarpus; Plum	Crown and root rot	Phytophthora sp./spp.	1	0
Pine				
C = 1				
H = 0				
Pomegranate	Unknown abiotic disorder	Abiotic disorder	0	1
C = 0 H = 1				
Red Osier		Colletotrichum sp./spp.	1	0
Dogwood C = 1				
H = 0				
Rhododendron	Environmental stress; Problem	Abiotic disorder	0	1
C = 0			Ŭ	-
H = 1				
Rose	Powdery mildew	Oidium sp./spp.	1	0
C = 8			-	
H = 12	Unknown	General	0	3
	Crown and root rot	Phytophthora sp./spp.	2	0
	Chemical injury	Abiotic disorder	1	1
	Cultural/environmental problem	Abiotic disorder	0	1
-	Environmental stress; Problem	Abiotic disorder	0	1
	Root problems	Abiotic disorder	0	1
	Insect damage	Unidentified Insect	0	1
	Mite damage	Unidentified Mite	1	0
		No Pathogen Found	1	0
	Root problem	Unknown cause	0	2
	Rose rosette disease (RRV)	Emaravirus Rose Rosette Virus	1	1
			L T	L -

	Black spot (Rose)	Diplocarpon rosae	0	1
	Root rot	Phytophthora sp./spp.	1	0
Rosemary	Insect damage	Unidentified Insect	0	1
C = 0				
H = 1				
Sasanqua Camellia	Armillaria root rot	Armillaria sp./spp.	1	0
C = 1				
H = 0				
Sawara	Environmental stress; Problem	Abiotic disorder	0	1
Falsecypress				
C = 0				
H = 1				
Summersweet	Armillaria root rot; Butt rot	Armillaria sp./spp.	0	1
C = 0				
H = 1				
Unknown; No Site		No Pathogen Found	1	0
Specified				
C = 2				
H = 0	Root problem	Unknown cause	1	0
Viburnum	Root problem	Unknown cause	0	1
C = 1				
H = 1				
	Root rot	Phytophthora sp./spp.	1	0
Winter Daphne		Phytophthora sp./spp.	1	0
C = 2				
H = 0				
F	Black root rot	Berkeleyomyces basicola	1	0
Yellow anise		Botryosphaeria sp./spp.	1	0
C = 1				
H = 0				