

**The Plant Disease Clinic and Weed Identification Laboratory
1999 Annual Report**

Table of Contents

Acknowledgements	ii
Introduction	iii
Plant Disease Clinic Summaries	
Monthly Submission Report	1
Crop Category Report	2
Diagnostic Category Report	3
Samples by Diagnostic Category	3
Plant Pathogens	4
Other Agents	4
Distribution of Samples by County	5
Samples by District	6
Samples by Submitter Type	6
Weed Identification Lab Summaries	
Monthly Submission Report	7
Sample Totals by Crop	7
Distribution of Samples by County.....	8
Summary of Diagnoses by Plant	
Field Crops	9
Vegetables and Herbs	13
Tree Fruits and Nuts	21
Small Fruits	24
Herbaceous Ornamentals and Indoor Plants	26
Woody Ornamentals	38
Trees	48
Turf	59
Weeds and Nonplant Material	61
Summary of Plant Identifications	62

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The Plant Disease Clinic depends on a industrious staff of both full-time and part-time employees to prepare culture media, isolate pathogens from plant tissue, measure soil pH, extract nematodes from soil and plant tissue, maintain records, answer the telephone, keep track of samples, and send out reports. In 1999, diagnoses in the Plant Disease Clinic in Blacksburg were performed by Mary Ann Hansen and Diane Reaver with valuable assistance from Elizabeth Bush.

Plant Clinic staff consult with many faculty and staff in various departments in order to make complete, accurate diagnoses and recommendations. We would like to thank the following people for their helpful assistance during the past year:

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The Weed Identification Clinic is operated by Dr. Scott Hagood with the assistance of Mr. Claude Kenley and Mr. Kevin Bradley. Mr. Tom Wieboldt, curator of the Herbarium in the Biology Department, performs many of the plant and weed identifications.

We would also like to thank Mr. Todd Powell of TSP Software for designing and continuing to support the Plant Clinic database ("PClinic"). The database has given us the ability to keep complete records of Plant Clinic samples and to mail reports to Extension Offices electronically. Information on purchasing PClinic can be obtained from the Clinic at <clinic@vt.edu>. We are also especially grateful to Mr. Shahrooz Feizabadi for maintaining our computer system and network.

Elizabeth Bush compiled and designed the annual report. Peter Sforza formatted the annual report for the World Wide Web. It can be viewed on-line at <<http://oak.ppws.vt.edu/~clinic/>>.

Introduction

The annual report for the Plant Disease Clinic and the Weed Identification Clinic located on the Virginia Tech campus in Blacksburg is presented in the following pages. Results of the soil assays performed by the Nematode Assay Laboratory are not included, nor are plant specimens which were submitted to and diagnosed at the Agricultural Research and Extension Centers throughout the Commonwealth.

For those pathogens that could be identified to species or for which only one species is known to occur on the host plant in question, the species name is listed. For those diseases in which one of several species could have been involved, the epithet is listed as "sp." The Plant Disease Clinic did not routinely identify pathogenic organisms to species since species identification can sometimes be a very time-consuming process and often has little bearing on control recommendations. Most pathogens were assumed to be disease incitants if they were cultured in sufficient numbers from the plant tissue, if they were reported in the literature to be pathogens of the particular host plant, and if they were reported to cause the observed symptoms.

Viral problems were, for the most part, diagnosed by the ELISA (Enzyme-Linked Immunosorbent Serological Assay) method by Agdia, Inc. Agdia provides testing services for a wide range of plant viruses; however, testing is limited to the viruses for which antisera are available. Host inoculation was also used to identify viruses in some specimens.

The phrase "Cause of Problem Unknown" is used for specimens for which no pathogen could be isolated and for which no obvious environmental or cultural condition could be associated with the problem. Trees have more specimens in this category and in the category "Insufficient Sample" than any other type of plant. Tree problems are more difficult to diagnose in a clinic setting than problems of annual plants for several reasons. First, tree problems often develop over the course of several years and current symptoms may be related to stressful conditions that occurred in previous years. Also, it is difficult for growers to supply an appropriate plant specimen for diagnosis since the causes of many tree diseases occur in the trunk or roots.

Some insect problems are also listed in this report. Insect damage is often mistaken for disease, and samples with insect damage are sometimes submitted to the Plant Disease Clinic rather than the Insect Identification Lab. We make a preliminary diagnosis of insect damage on these samples and refer them to Mr. Eric Day in the Insect Identification Lab. The final diagnosis on all samples of insect damage is performed by Mr. Day.

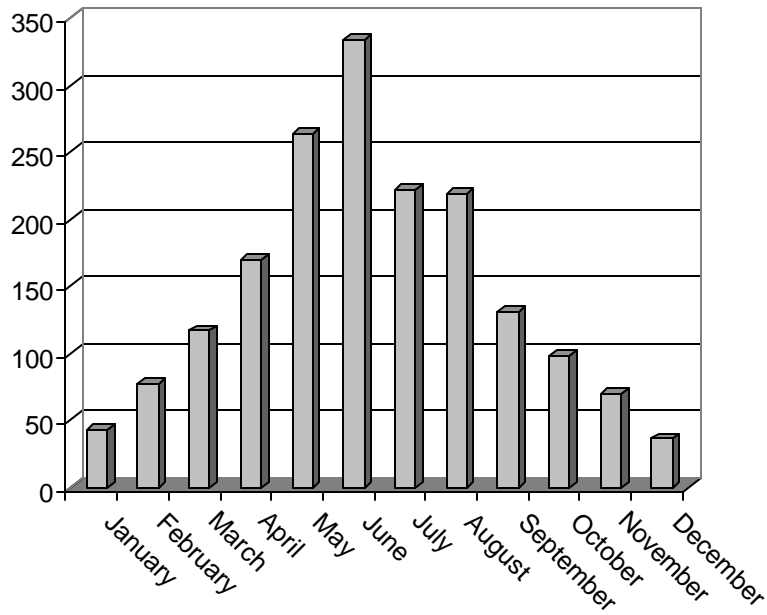
Reports are now mailed electronically to the Extension Office email address. Upon request, we will simultaneously send electronic reports to one or more individual Extension personnel. Since implementing electronic mailing, we have discontinued faxing reports. For the time being, we are continuing to send a copy of the original diagnostic form submitted by the agent back to the Extension office through the Extension Distribution Center. Any factsheets or additional printed information is attached to this form. Any comments or questions about reports or plant problems can be emailed to us at <clinic@vt.edu>.

Plant Disease Clinic

Monthly Submission Report Number of Samples Received by Month 1999

Month	# of Samples
January	43
February	77
March	117
April	170
May	264
June	334
July	222
August	219
September	131
October	98
November	70
December	36
Total	1781

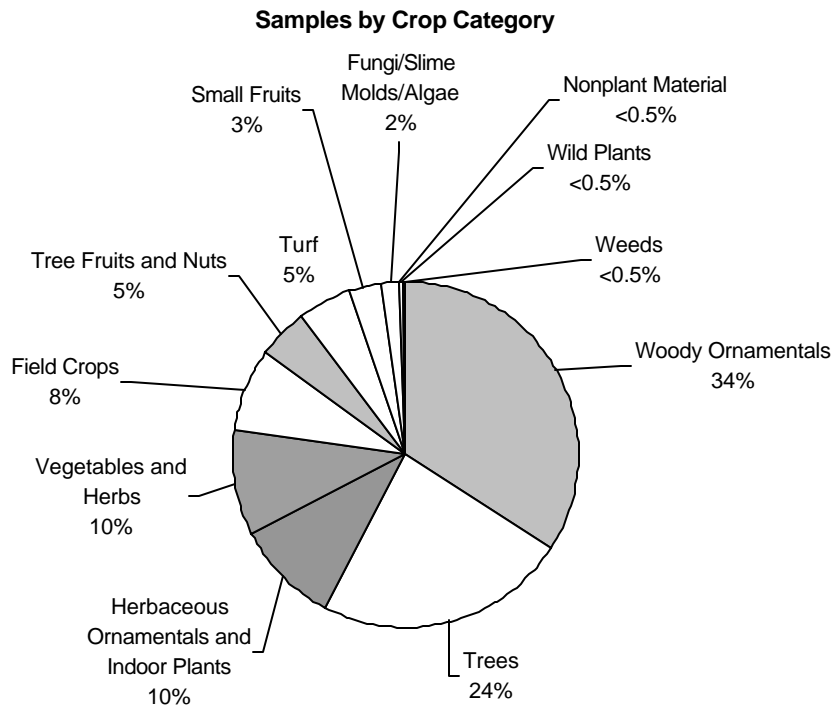
Number of Samples by Month



Plant Disease Clinic

Crop Category Report Sample Totals by Major Crop Category 1999

Crop Category	# of Samples	% of Total
Woody Ornamentals	607	34.1
Trees	421	23.6
Herbaceous Ornamentals and Indoor Plants	175	9.8
Vegetables and Herbs	174	9.8
Field Crops	135	7.6
Tree Fruits and Nuts	87	4.9
Turf	87	4.9
Small Fruits	55	3.1
Fungi/Slime Molds/Algae	29	1.6
Nonplant Material	6	0.3
Wild Plants	3	0.2
Weeds	2	0.1
Total	1781	100.0

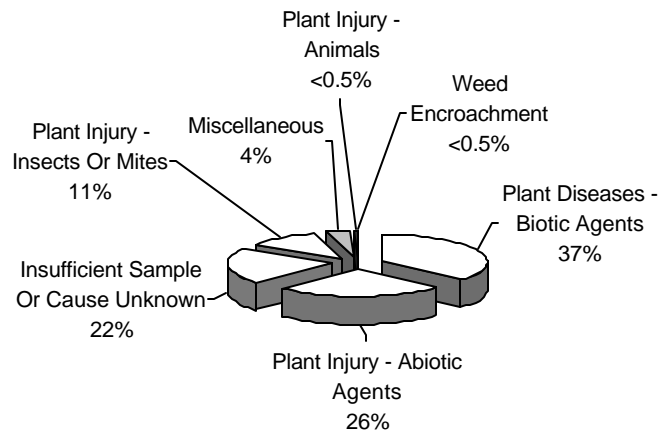


Plant Disease Clinic

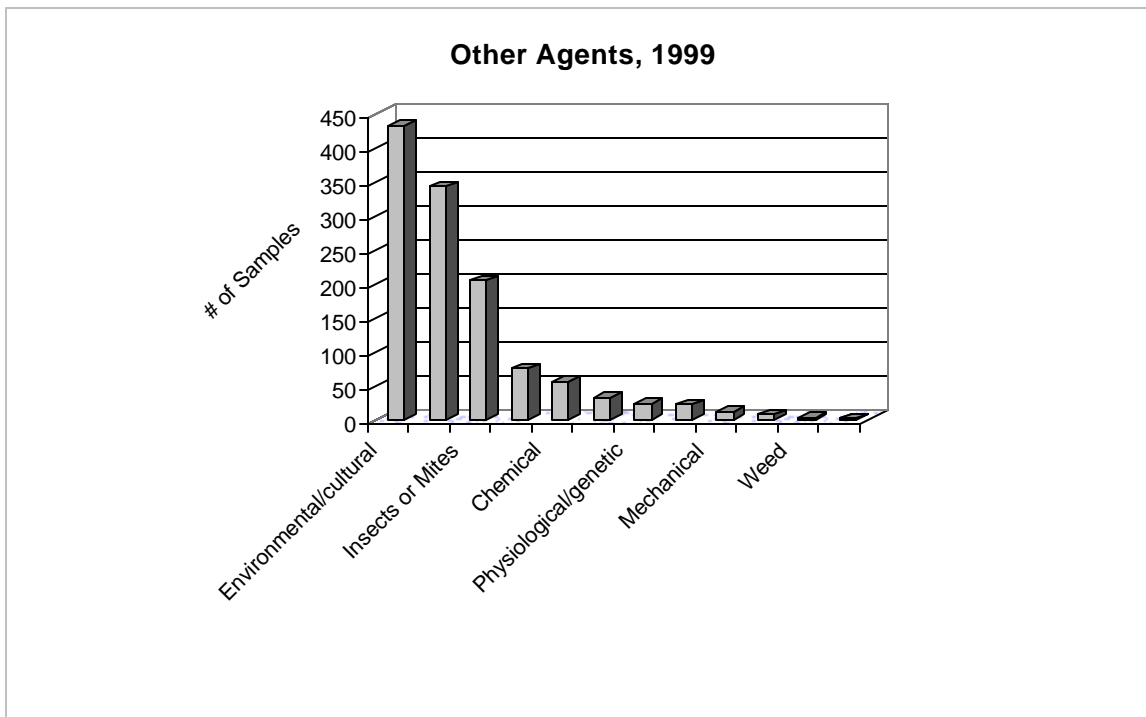
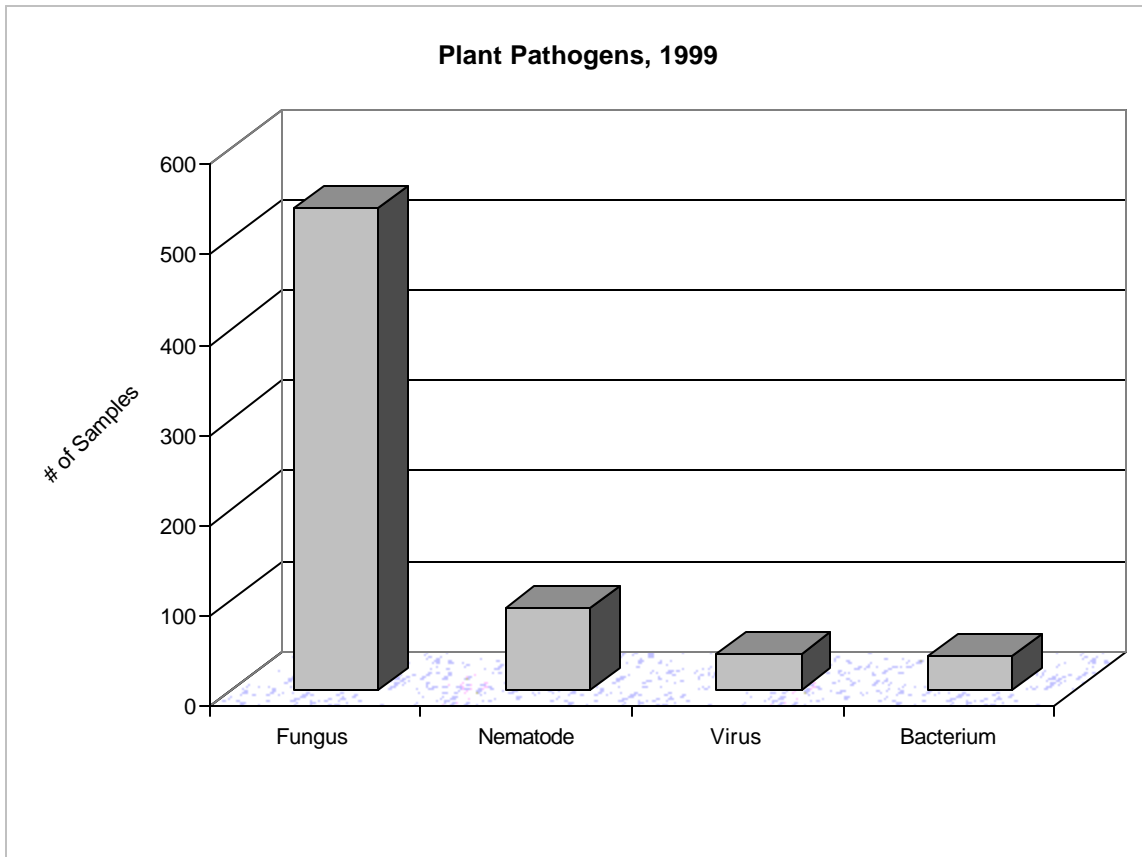
Diagnostic Category Report Distribution of Diagnoses by Major Diagnostic Category 1999

	# of Diagnoses	% of Total
Plant Diseases - Biotic Agents	700	36.7
Bacterium (37)		
Fungus (534)		
Nematode (90)		
Virus (39)		
Plant Injury - Abiotic Agents	500	26.2
Chemical (56)		
Environmental/cultural (433)		
Mechanical (11)		
Plant Injury - Insects or Mites	204	10.7
Insects Or Mites (204)		
Plant Injury - Animals	8	0.4
Birds (1)		
Mammals (7)		
Insufficient Sample or Cause Unknown	417	21.9
Insufficient Sample Or Information (343)		
Unknown (74)		
Miscellaneous	77	4.0
Normal Condition (32)		
Other (22)		
Physiological/genetic (23)		
Weed Encroachment	2	0.1
Weed (2)		
Total	1908	100.0

1999 Samples by Diagnostic Category



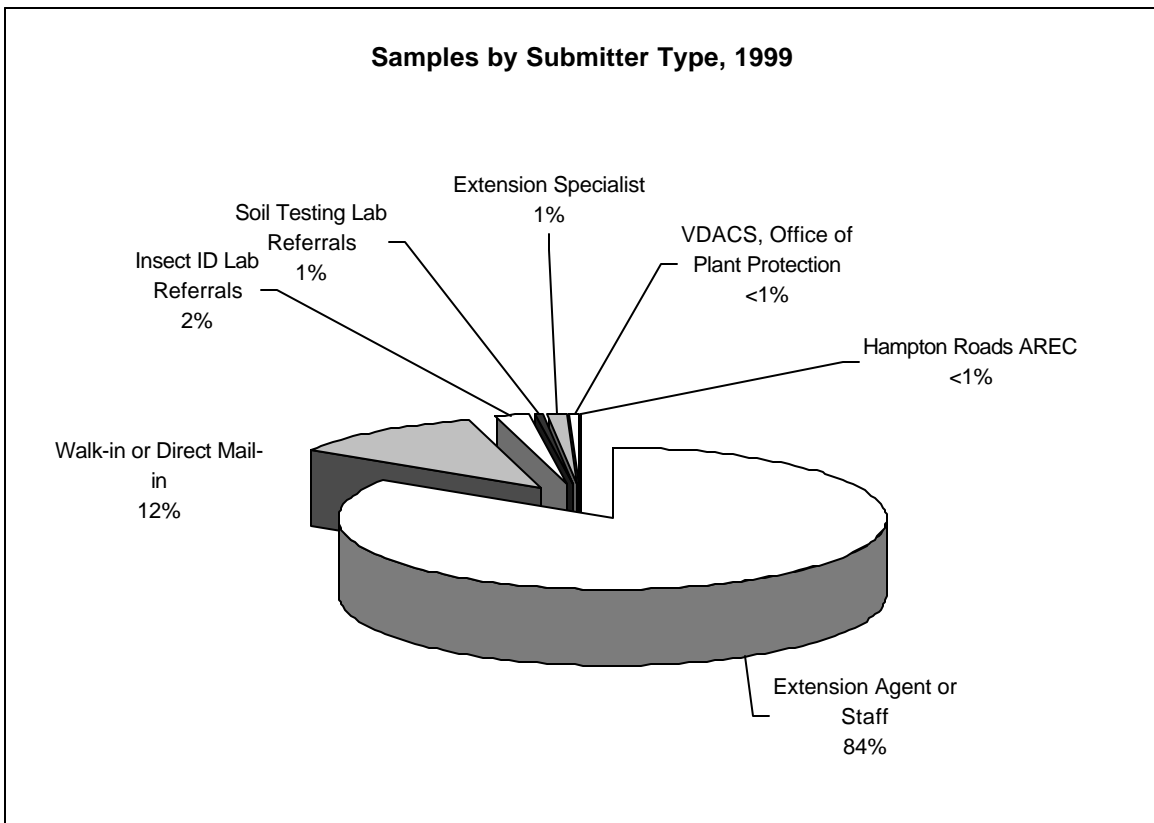
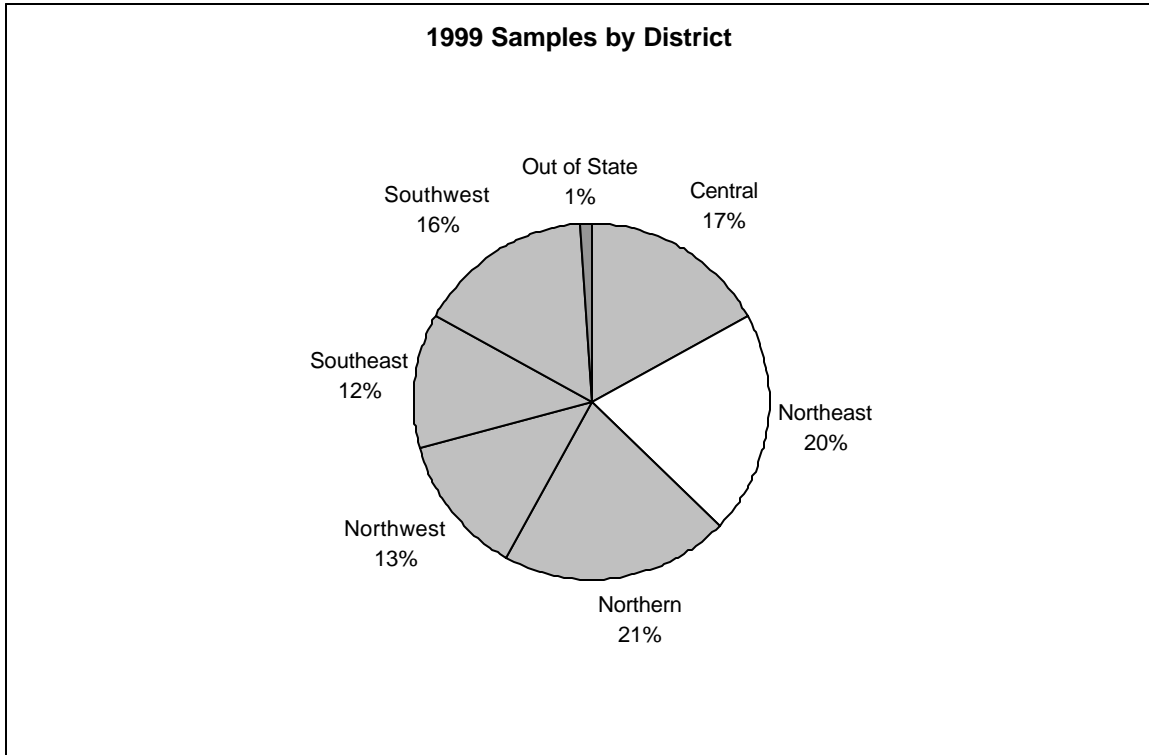
Plant Disease Clinic



Plant Disease Clinic
Distribution of Samples by County
1999

County	# of Samples	County	# of Samples
Accomack	11	Loudoun	12
Albemarle	183	Louisa	14
Amelia	4	Lunenburg	12
Amherst	4	Lynchburg (IC)	58
Appomattox	1	Madison	4
Arlington	52	Mathews	4
Augusta	27	Mecklenburg	1
Bath	5	Middlesex	18
Bedford	17	Montgomery	138
Botetourt	13	Nelson	20
Brunswick	13	New Kent	6
Buchanan	4	Newport News (IC)	4
Buckingham	3	Norfolk (IC)	8
Campbell	3	Northumberland	18
Caroline	5	Nottoway	2
Carroll	7	Orange	15
Charles City	3	Page	14
Chesapeake (IC)	23	Patrick	14
Chesterfield	66	Pittsylvania	7
Clarke	8	Powhatan	4
Craig	2	Prince Edward	7
Culpeper	13	Prince George	44
Cumberland	2	Prince William	7
Danville (IC)	32	Pulaski	3
Dickenson	14	Rappahannock	13
Dinwiddie	14	Roanoke	73
Essex	13	Roanoke (IC)	1
Fairfax	32	Rockbridge	1
Fauquier	32	Rockingham	41
Floyd	9	Russell	3
Fluvanna	27	Scott	2
Franklin	21	Shenandoah	7
Frederick	17	Smyth	1
Giles	5	Southampton	7
Gloucester	2	Spotsylvania	2
Goochland	9	Stafford	46
Grayson	5	Suffolk (IC)	9
Greene	3	Surry	2
Halifax	4	Sussex	11
Hampton (IC)	36	Tazewell	7
Hanover	108	Virginia Beach (IC)	12
Henrico	30	Warren	7
Henry	8	Washington	14
Highland	4	Westmoreland	36
Isle of Wight	2	Wise	4
James City	54	Wythe	12
King and Queen	14	York	36
King George	13	Out-of-state: New York	4
King William	7	Out-of-state: West Virginia	1

Plant Disease Clinic



Weed Identification Lab

Monthly Submission Report Number of Samples Received by Month 1999

Month	# of Samples
January	6
February	7
March	15
April	25
May	45
June	57
July	37
August	38
September	30
October	30
November	19
December	8
Total	317

Sample Totals by Crop 1999

Crop	# of Samples
Alfalfa	4
Aquatic	16
Corn	20
Flowers	7
Vegetable Garden	15
Hayfield	29
House Plant	0
ID only	32
Insufficient	0
Landscape	13
Lawn	77
Nursery	0
Orchard	0
Pasture	76
Peanuts	0
Small Grain	3
Soybeans	1
Berry Crops	1
Tobacco	2
Turf	8
Vineyards	2
Woods	11
Total	317

Weed Identification Lab
Distribution of Samples by County
1999

County	# of Samples	County	# of Samples
Accomack	1	Lunenburg	8
Albemarle	9	Lynchburg (IC)	16
Alleghany	1	Madison	1
Amherst	1	Mathews	1
Appomattox	1	Middlesex	5
Arlington	1	Montgomery	6
Augusta	15	Nelson	1
Bath	3	Northumberland	1
Bedford	2	Nottoway	1
Botetourt	2	Page	8
Brunswick	2	Patrick	3
Campbell	1	Pittsylvania	7
Carroll	5	Powhatan	1
Clarke	7	Prince Edward	2
Craig	1	Pulaski	1
Culpeper	1	Rappahannock	12
Danville (IC)	1	Roanoke	1
Dickenson	15	Roanoke (IC)	6
Dinwiddie	3	Rockbridge	2
Essex	2	Rockingham	12
Fauquier	7	Russell	1
Floyd	2	Scott	9
Franklin	4	Shenandoah	4
Giles	11	Smyth	2
Goochland	1	Spotsylvania	1
Grayson	2	Stafford	3
Greene	3	Surry	1
Halifax	2	Sussex	3
Hanover	19	Tazewell	9
Henrico	2	Warren	2
Henry	3	Washington	7
Highland	3	Westmoreland	5
Isle of Wight	2	Wise	2
James City	14	Wythe	9
King William	2	York	4
Lee	2	Other	3
Louisa	4		
		Total	317

Plant Disease Clinic

Summary of Diagnoses by Plant 1999

FIELD CROPS

ALFALFA

1 Anthracnose	Colletotrichum trifolii
1 Freeze Damage	
1 Potato Leafhoppers	
2 Rust	Uromyces striatus

5 Total for Alfalfa	

BARLEY

1 Cephalosporium Stripe	Cephalosporium graminearum
1 Chemical Injury	
1 Cold Injury	
2 Frost Injury	
1 Low pH	
1 Spot Blotch	Bipolaris sorokiniana

7 Total for Barley	

BROMEGRASS

1 Powdery Mildew	Erysiphe graminis

1 Total for Bromegrass	

CLOVER

1 Insufficient Sample	
1 Powdery Mildew	Erysiphe polygoni

2 Total for Clover	

Plant Disease Clinic

CORN

1 Anthracnose	<i>Colletotrichum graminicola</i>
2 Cause of Problem Unknown	
3 Chemical Injury	
1 Cold Injury	
1 Common Smut	<i>Ustilago maydis</i>
1 Diplodia Ear Rot	<i>Stenocarpella maydis</i>
2 Environmental Stress	
1 Excess Soluble Salts	
3 Fusarium Ear Rot	<i>Fusarium moniliforme</i>
1 Fusarium Root Rot	<i>Fusarium sp.</i>
1 Fusarium Stalk Rot	<i>Fusarium sp.</i>
1 Genetic Spotting	
1 Gray Leaf Spot - Resistant Reaction	<i>Cercospora zeae-maydis</i>
1 Insufficient Information	
1 Insufficient Sample	
5 Lance Nematodes	<i>Hoplolaimus sp.</i>
8 Low pH	
1 Magnesium Deficiency	
2 Nutrient Deficiency	
2 Penicillium Ear Rot	<i>Penicillium sp.</i>
3 Purpling-Environmental Stress	
1 Pythium Root Rot	<i>Pythium sp.</i>
1 Sidewall Compaction	
1 Soluble Salts Test Request	
1 Southern Corn Leaf Blight	<i>Bipolaris maydis</i>
1 Stubby Root Nematodes	<i>Trichodorus sp.</i>
1 Sunscald	
1 Suspect Bacterial Leaf Blight	<i>Pseudomonas avenae</i>
1 Suspect Chemical Injury	
1 Suspect Soil Compaction	
2 Thrips	
1 Wheat Streak Mosaic Virus	

54 Total for Corn	

FESCUE

1 Death of Annual Grass
1 Drought

2 Total for Fescue

HAYFIELD

1 Environmental Stress

1 Total for Hayfield

Plant Disease Clinic

OATS

2 Barley Yellow Dwarf Virus	
1 Helminthosporium Leaf Blotch	Pyrenophora avenae
1 Suspect Chemical Injury	

4 Total for Oats	

ORCHARDGRASS

1 Barley Yellow Dwarf Virus	
1 Drought	
4 Environmental Stress	
1 Insects	

7 Total for Orchardgrass	

PASTURE

1 Chemical Injury	

1 Total for Pasture	

SORGHUM

1 Maize Dwarf Mosaic Virus	

1 Total for Sorghum	

SOYBEAN

1 Brown Stem Rot	Phialophora gregata
3 Cause of Problem Unknown	
2 Chemical Injury	
1 Cultural Problem	
12 Cyst Nematodes	Heterodera glycines
1 Dagger Nematodes	Xiphinema sp.
1 Deer Injury	
1 Essex Syndrome	Fusarium oxysporum
1 High pH	
1 Insufficient Sample	
1 Lance Nematodes	Hoplolaimus sp.
4 Lesion Nematodes	Pratylenchus sp.
1 Mites	
1 Nematodes	
1 Phomopsis Seed Decay	Phomopsis sp.
1 Poor Nodulation	
1 Root Knot Nematodes	Meloidogyne sp.

34 Total for Soybean	

Plant Disease Clinic

TIMOTHY

2 Drechslera Leaf Spot
1 Eyespot

3 Total for Timothy

Drechslera sp.
Helminthosporium phlei

TOBACCO

1 Insufficient Sample
1 Negative for Blue Mold

2 Total for Tobacco

WHEAT

4 (+) for Pythium
1 Black Head Mold
2 Cause of Problem Unknown
1 Chemical Injury
1 Fertilizer Burn
4 Frost Injury
3 High pH
4 Insufficient Sample
1 Kernel Smudge
1 Leaf Rust
1 Manganese Deficiency
3 Powdery Mildew
1 Pythium Root Rot
1 Sooty Mold
1 Suspect Chemical Injury
1 Suspect Tan Spot
4 Suspect Wheat Spindle Streak Mosaic
1 Take-all
1 Tan Spot
1 Uneven Planting Depth
8 Wheat Spindle Streak Mosaic Virus

45 Total for Wheat

Pythium sp.
Cladosporium sp.

Puccinia recondita

Erysiphe graminis
Pythium sp.

Pyrenophora tritici-repentis

Gaeumannomyces graminis
Pyrenophora tritici-repentis

Plant Disease Clinic

VEGETABLES AND HERBS

ASPARAGUS

- 1 Aphids
- 1 Insufficient Sample
-
- 2 Total for Asparagus

BASIL

- | | |
|-------------------------------|--------------------|
| 1 Pythium Root Rot | Pythium sp. |
| 1 Rhizoctonia Stem Rot | Rhizoctonia solani |
| 1 Suspect Nutrient Deficiency | |
| ---- | |
| 3 Total for Basil | |

BEAN

- | | |
|---------------------------------|------------------------|
| 1 Black Root Rot | Thielaviopsis basicola |
| 1 Chemical Injury | |
| 2 Fusarium Root Rot | Fusarium solani |
| 1 Fusarium Stem and Root Rot | Fusarium sp. |
| 1 Insufficient Sample | |
| 1 Low pH | |
| 1 Mites | |
| 1 Pythium Root Rot | Pythium sp. |
| 2 Rhizoctonia Root Rot | Rhizoctonia solani |
| 1 Rhizoctonia Stem and Root Rot | Rhizoctonia solani |
| 1 Root Knot Nematodes | Meloidogyne sp. |
| 1 Thrips | |
| ---- | |
| 14 Total for Bean | |

BEE BALM

- 1 Insufficient Sample
-
- 1 Total for Bee Balm

BROCCOLI

- 1 Low pH
-
- 1 Total for Broccoli

Plant Disease Clinic

CABBAGE

1 Air Pollution	
1 Alternaria Leaf Spot	Alternaria brassicicola
2 Cultural Problem	
1 Environmental Stress	
1 Nutrient Deficiency	
1 Pythium Root Rot	Pythium sp.
1 Tipburn	

8 Total for Cabbage	

CANTALOUPE

1 Air Pollution	
2 Chemical Injury	
1 Drought	
1 High Soluble Salts	
2 Insufficient Sample	

7 Total for Cantaloupe	

CARROT

1 Buckshot Rot	Typhula sp.
1 Healthy	

2 Total for Carrot	

COLLARDS

1 Fusarium Root Rot	Fusarium sp.
2 Nutrient Deficiency	

3 Total for Collards	

CORIANDER

1 Suspect Nutrient Deficiency	

1 Total for Coriander	

COWPEA

1 Fusarium Stem and Root Rot	Fusarium sp.

1 Total for Cowpea	

Plant Disease Clinic

CUCUMBER

1 Air Pollution	
1 Bacterial Wilt	Erwinia tracheiphila
1 Belly Rot	Rhizoctonia solani
1 Cucumber Beetles	
1 Drought	

5 Total for Cucumber	

DILL

1 Suspect Nutrient Deficiency	

1 Total for Dill	

GREENS

2 Cercospora Leaf Spot	Cercospora brassicae

2 Total for Greens	

HERBS, MISCELLANEOUS

1 Four-lined Plant Bugs	

1 Total for Herbs, Miscellaneous	

KALE

1 Nutrient Deficiency	

1 Total for Kale	

LIMA BEAN

1 Fusarium Root Rot	Fusarium sp.
1 Insufficient Sample	
2 Mites	
1 Rhizoctonia Root Rot	Rhizoctonia solani
2 Root Knot Nematodes	Meloidogyne sp.
1 Yeast Spot	Nematospora coryli

8 Total for Lima Bean	

MINT

1 Four-lined Plant Bugs	

1 Total for Mint	

Plant Disease Clinic

OKRA

1 Verticillium Wilt	Verticillium albo-atrum

1 Total for Okra	

ONION

1 Low pH	

1 Total for Onion	

PEA

1 Nutrient Deficiency	

1 Total for Pea	

PEPPER

1 Bacterial Soft Rot	Erwinia amylovora
1 Bacterial Spot	Xanthomonas vesicatoria
1 Chemical Injury	
1 Damping-off	Rhizoctonia solani
1 Insufficient Information	
1 Insufficient Sample	
1 Nutrient Deficiency	
1 Phytophthora Blight	Phytophthora capsici
2 Southern Blight	Sclerotium rolfsii

10 Total for Pepper	

POTATO

2 Cause of Problem Unknown	
2 Common Scab	Streptomyces scabies
1 Insufficient Sample	
1 Root Knot Nematodes	Meloidogyne sp.
1 Skin Pigmentation	
1 Surface Abrasions	
1 Wireworms	

9 Total for Potato	

Plant Disease Clinic

PUMPKIN

1 Air Pollution	
1 Chemical Injury	
3 Downy Mildew	Pseudoperonospora cubensis
1 Insufficient Information	
2 Insufficient Sample	
3 Powdery Mildew	Erysiphe cichoracearum
1 Virus	

12 Total for Pumpkin	

RADISH

1 Environmental Stress	

1 Total for Radish	

ROSEMARY

1 Environmental Stress	

1 Total for Rosemary	

RUTABAGA

1 Suspect Boron Deficiency	

1 Total for Rutabaga	

SAGE

1 Environmental Stress	
1 Insufficient Sample	
1 Phytophthora Stem and Root Rot	Phytophthora sp.

3 Total for Sage	

SQUASH

2 Air Pollution	
1 Pythium Stem Rot	Pythium sp.
1 Root Knot Nematodes	Meloidogyne sp.

4 Total for Squash	

Plant Disease Clinic

SWEET CORN

- 1 Sap Beetles
- 3 Sunscald
- 1 Varietal Characteristic
-
- 5 Total for Sweet Corn

SWEET POTATO

- 1 Fusarium Surface Rot
- 1 Insufficient Sample
- 1 Scurf
-
- 3 Total for Sweet Potato

Fusarium solani

Monilochaetes infuscans

THYME

- 1 Environmental Stress
-
- 1 Total for Thyme

Plant Disease Clinic

TOMATO

1 Adventitious Roots	
1 Air Pollution	
5 Bacterial Wilt	<i>Pseudomonas solanacearum</i>
1 Blossom End Rot	
2 Catfacing	
1 Cause of Problem Unknown	
5 Chemical Injury	
1 Cultural Problem	
2 Early Blight	<i>Alternaria solani</i>
8 Environmental Stress	
2 Fertilizer Burn	
1 Fusarium Wilt	<i>Fusarium oxysporum</i>
1 Insufficient Information	
7 Insufficient Sample	
1 Lightning Injury	
3 Mites	
2 Nutrient Deficiency	
1 Physiological Leaf Roll	
1 Powdery Mildew	<i>Oidium</i> sp.
1 Rhizoctonia Stem Canker	<i>Rhizoctonia solani</i>
1 Root Knot Nematodes	<i>Meloidogyne</i> sp.
1 Southern Blight	<i>Sclerotium rolfsii</i>
1 Stinkbugs	
2 Suspect Chemical Injury	
1 Suspect Cold Injury	
1 Suspect Fertilizer Burn	
1 Suspect Tobacco Mosaic Virus	
2 Thrips	
1 Tomato Black Ring Virus	
1 Tomato Bushy Stunt Virus	
3 Tomato Spotted Wilt Virus	
1 Verticillium Wilt	<i>Verticillium albo-atrum</i>
1 Yellow Shoulder	
1 Zippering	

65 Total for Tomato	

TURNIP

1 Anthracnose	<i>Colletotrichum higginsianum</i>
1 Cercospora Leaf Spot	<i>Cercospora brassicae</i>
1 Insufficient Sample	

3 Total for Turnip	

VEGETABLE GARDEN

1 Insufficient Sample	

1 Total for Vegetable Garden	

Plant Disease Clinic

WATERMELON

- 1 Aphids
- 1 Insufficient Sample
- 1 Thrips
-
- 3 Total for Watermelon

Plant Disease Clinic

TREE FRUITS AND NUTS

APPLE

1 Alternaria Blotch	Alternaria mali
1 Aphids	
2 Bitter Pit	
1 Bitter Rot	Glomerella cingulata
2 Black Rot	Physalospora obtusa
2 Burrknot	
1 Cause of Problem Unknown	
1 Cedar-Apple Rust	Gymnosporangium juniperi-virginianae
1 Chemical Injury	
1 Cork Spot	
2 Drought	
1 Environmental Stress	
5 Fire Blight	Erwinia amylovora
1 Frogeye Leaf Spot	Physalospora obtusa
2 Hail Injury	
2 Insects	
3 Insufficient Sample	
1 Measles	
1 Sooty Blotch	Gloeodes pomigena
1 White Rot	Botryosphaeria dothidea
1 Woolly Apple Aphids	

33 Total for Apple	

CHERRY

3 Black Knot	Dibotryon morbosum
1 Environmental Stress	
1 Insufficient Sample	
1 Suspect Frost Injury	

6 Total for Cherry	

CHESTNUT

1 Insufficient Sample	

1 Total for Chestnut	

CRABAPPLE

1 Black Rot Canker	Botryosphaeria obtusa
1 Botryosphaeria Canker	Botryosphaeria sp.
1 Eastern Tent Caterpillars	
2 Fire Blight	Erwinia amylovora
1 Scab	Venturia inaequalis

6 Total for Crabapple	

Plant Disease Clinic

NECTARINE

1 Brown Rot	Monilinia fructicola

1 Total for Nectarine	

PEACH

2 Brown Rot	Monilinia fructicola
3 Environmental Stress	
3 Insects	
1 Insufficient Information	
2 Insufficient Sample	
1 Natural Thinning	
1 Peach Leaf Curl	Taphrina deformans
2 Scab	Cladosporium carpophilum
1 Suspect Hail Injury	
1 Suspect Mechanical Injury	
1 Suspect Nutrient Deficiency	

18 Total for Peach	

PEAR

1 Environmental Stress	
2 Fire Blight	Erwinia amylovora
2 Frost Injury	
1 Insufficient Information	
2 Insufficient Sample	
1 Pear Leaf Blister Mites	
1 Sooty Blotch	Gloeodes pomigena
1 Suspect Environmental Stress	

11 Total for Pear	

PECAN

2 Environmental Stress
1 Insufficient Sample
3 Pops
2 Stinkbugs
1 Suspect Bunch Disease

9 Total for Pecan

PERSIMMON

1 Cause of Problem Unknown
1 Environmental Stress

2 Total for Persimmon

Plant Disease Clinic

PLUM

2 Black Knot

2 Total for Plum

Dibotryon morbosum

WALNUT

1 *Cylindrosporium* Leaf Spot
1 Environmental Stress
1 Insects
2 *Melanconis* Canker
1 Petiole Galls

6 Total for Walnut

Cylindrosporium juglandis

Melanconis juglandis

Plant Disease Clinic

SMALL FRUITS

BLACKBERRY

1 Aphids	
1 Cause of Problem Unknown	
1 Chemical Injury	
1 Orange Rust	Gymnoconia peckiana
1 Spur Blight	Didymella applanata
1 Suspect Virus	

6 Total for Blackberry	

BLUEBERRY

1 Herbicide Injury	
1 Insufficient Sample	
1 Phytophthora Root Rot	Phytophthora cinnamomi

3 Total for Blueberry	

FIG

1 Environmental Stress	

1 Total for Fig	

GRAPE

2 Anthracnose	Elsinoe ampelina
2 Bitter Rot	Greeneria uvicola
3 Black Rot	Guignardia bidwellii
2 Cause of Problem Unknown	
2 Chemical Injury	
1 Cultural Problem	
1 Dagger Nematodes	
2 Insects	
6 Insufficient Sample	
1 Nutrient Deficiency	
1 Phylloxera Galls	
1 Poor Pollination	
1 Powdery Mildew	Uncinula necator
1 Thrips	

26 Total for Grape	

Plant Disease Clinic

RASPBERRY

1 Cause of Problem Unknown	
1 Environmental Stress	
2 Insufficient Sample	
1 Negative for Yellow Rust	
1 Phytophthora Root Rot	Phytophthora sp.

6 Total for Raspberry	

STRAWBERRY

1 Dendrophoma Leaf Blight	Dendrophoma obscurans
1 Environmental Stress	
1 High pH	
1 Insects	
1 Insufficient Sample	
1 Leaf Spot	Mycosphaerella fragariae
3 Lesion Nematodes	Pratylenchus sp.
1 Phomopsis Leaf Blight	Phomopsis obscurans
4 Pythium Root Rot	Pythium sp.
6 Rhizoctonia Root Rot	Rhizoctonia solani
3 Root Knot Nematodes	Meloidogyne sp.
1 Rootworms	
1 Strawberry Rootworm	
1 Suspect Chemical Injury	
1 Thrips	

27 Total for Strawberry	

Plant Disease Clinic

HERBACEOUS ORNAMENTALS AND INDOOR PLANTS

AFRICAN VIOLET

- 1 Cyclamen Mites
-
- 1 Total for African Violet

AGERATUM

- 1 Southern Blight
 -
 - 1 Total for Ageratum
- Sclerotium rolfsii

AJUGA

- 2 Alfalfa Mosaic Virus
 - 1 Cucumber Mosaic Virus
 - 1 Insufficient Sample
 - 1 Negative for Virus
 - 2 Not Tested for Virus
 - 1 Rhizoctonia Crown Rot
 - 1 Web Blight
 -
 - 9 Total for Ajuga
- Rhizoctonia solani
Rhizoctonia solani

ALOE

- 1 Cultural Problem
-
- 1 Total for Aloe

AMAZON LILY

- 1 Insufficient Sample
-
- 1 Total for Amazon Lily

ANEMONE

- 1 Cause of Problem Unknown
 - 1 Foliar Nematodes
 -
 - 2 Total for Anemone
- Aphelenchoides sp.

ARROWHEAD VINE

- 1 Insufficient Sample
-
- 1 Total for Arrowhead Vine

Plant Disease Clinic

ASTILBE

- 1 Environmental Stress
- 1 Four-lined Plant Bugs
-
- 2 Total for Astilbe

BAMBOO

- 1 Cultural Problem
-
- 1 Total for Bamboo

BEGONIA

- 1 Cause of Problem Unknown
-
- 1 Total for Begonia

BELLFLOWER

- 1 Insufficient Sample
-
- 1 Total for Bellflower

BLUEBEARD

- 1 Adventitious Roots
- 1 Four-lined Plant Bugs
- 1 Insufficient Sample
-
- 3 Total for Bluebeard

BRUGMANSIA

- 1 Corky Tissue
-
- 1 Total for Brugmansia

CALLA

- 1 Insufficient Sample
- 1 Suspect Rodent Injury
-
- 2 Total for Calla

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CHRYSANTHEMUM

1 Nutrient Deficiency	
1 Phytophthora Root Rot	Phytophthora sp.
1 Pythium Stem and Root Rot	Pythium sp.

3 Total for Chrysanthemum	

CLEMATIS

1 Environmental Stress	
1 Insufficient Sample	

2 Total for Clematis	

CLIVIA

1 Southern Blight	Sclerotium rolfsii

1 Total for Clivia	

CORAL BELLS

1 Pythium Root Rot	Pythium sp.

1 Total for Coral Bells	

DAHLIA

1 Suspect Nutrient Deficiency	

1 Total for Dahlia	

DAISY

1 Chemical Injury	
1 Insufficient Sample	

2 Total for Daisy	

DAYLILY

1 Cause of Problem Unknown	
1 Leaf Streak	Collecephalus hemerocalli

2 Total for Daylily	

DIANTHUS

1 Cultural Problem	
1 Insufficient Sample	

Plant Disease Clinic

2 Total for Dianthus

DIEFFENBACHIA

1 Insufficient Sample

1 Total for Dieffenbachia

DUSTY MILLER

1 Rhizoctonia Stem and Root Rot

Rhizoctonia solani

1 Total for Dusty Miller

EXACUM

1 Impatiens Necrotic Spot Virus

1 Total for Exacum

FERN

1 Cause of Problem Unknown

1 Total for Fern

FICUS

1 Cultural Problem

1 Total for Ficus

FUCHSIA

1 Insufficient Sample

1 Total for Fuchsia

GARDENIA

1 Environmental Stress

1 Total for Gardenia

Plant Disease Clinic

GERANIUM

2 Bacterial Blight	Xanthomonas campestris
1 Cause of Problem Unknown	
1 Excess Soluble Salts	
1 Insufficient Sample	
1 Pythium Blackleg	Pythium sp.
1 Pythium Root Rot	Pythium sp.
1 Suspect Bacterial Wilt	Pseudomonas solanacearum
1 Suspect Chemical Injury	
1 Suspect Nutrient Deficiency	
2 Virus	

12 Total for Geranium	

GERBERA DAISY

1 Pythium Root Rot	Pythium sp.

1 Total for Gerbera Daisy	

GLADIOLUS

1 Four-lined Plant Bugs	

1 Total for Gladiolus	

GOURD

1 Fusarium Fruit Rot	Fusarium sp.

1 Total for Gourd	

HEATH

1 Environmental Stress	
1 Phytophthora Root Rot	Phytophthora cinnamomi

2 Total for Heath	

HELLEBORE

1 Environmental Stress	
1 Pythium Root Rot	Pythium sp.

2 Total for Hellebore	

Plant Disease Clinic

HIBISCUS

1 Virus

1 Total for Hibiscus

HOLLYHOCK

1 Rust

1 Total for Hollyhock

Puccinia malvacearum

HOSTA

1 Cause of Problem Unknown
1 Fungus Gnats
1 Information on Pythium
1 Insufficient Information
1 Insufficient Sample
1 Soft Rot
1 Southern Blight

7 Total for Hosta

Erwinia carotovora
Sclerotium rolfsii

HOUSEPLANT

1 Aphids

1 Total for Houseplant

IMPATIENS

1 Environmental Stress
1 Pythium Root Rot
1 Rhizoctonia Root Rot
1 Rhizoctonia Stem Rot
1 Rhizoctonia Stem and Root Rot

5 Total for Impatiens

Pythium sp.
Rhizoctonia solani
Rhizoctonia solani
Rhizoctonia solani

INDOOR PLANT, UNKNOWN

2 Insufficient Sample

2 Total for Indoor Plant, Unknown

IRIS

1 Bulb Mites
1 Insufficient Sample
1 Mechanical Injury

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3 Total for Iris

JADE

1 Cultural Problem

1 Sunscald

2 Total for Jade

JUSTICIA

3 Cultural Problem

3 Total for Justicia

LAMB'S EARS

1 Insufficient Sample

1 Total for Lamb's Ears

LARKSPUR

1 Rhizoctonia Crown and Root Rot

Rhizoctonia solani

1 Total for Larkspur

LIRIOPE

1 Chemical Injury

1 Scales

2 Total for Liriope

LOBELIA

1 Cucumber Mosaic Virus

1 Impatiens Necrotic Spot Virus

2 Total for Lobelia

LOOSESTRIFE

1 Southern Blight

Sclerotium rolfsii

1 Total for Loosestrife

LUNGWORT

1 Environmental Stress

1 Total for Lungwort

Plant Disease Clinic

LUPINE

1 Pythium Root Rot	Pythium sp.

1 Total for Lupine	

MADAGASCAR PERIWINKLE

1 Botrytis Stem Canker	Botrytis cinerea
2 Phytophthora Blight	Phytophthora parasitica
1 Phytophthora Stem Rot	Phytophthora parasitica
2 Rhizoctonia Root Rot	Rhizoctonia solani

6 Total for Madagascar Periwinkle	

MARIGOLD

1 Fusarium Stem and Root Rot	Fusarium oxysporum
1 Insufficient Sample	
1 Rhizoctonia Stem Rot	Rhizoctonia solani

3 Total for Marigold	

NORFOLK ISLAND PINE

1 Cultural Problem	
1 Environmental Stress	

2 Total for Norfolk Island Pine	

ORCHID

1 Environmental Stress	
1 Mechanical Injury	
1 Rhizoctonia Root Rot	Rhizoctonia solani

3 Total for Orchid	

OXALIS

1 Rust	Puccinia sp.

1 Total for Oxalis	

PACHYSANDRA

1 Southern Blight	Sclerotium rolfsii
1 Suspect Pythium Root Rot	Pythium sp.
1 Volutella Blight	Volutella pachysandrae

3 Total for Pachysandra	

Plant Disease Clinic

PALM

- 2 Mites
- 1 Suspect Cultural Problem
-
- 3 Total for Palm

PANSY

- | | |
|-----------------------------------|--------------------------------|
| 1 Anthracnose | Colletotrichum gloeosporioides |
| 1 Botrytis Blight | Botrytis sp. |
| 1 Fertilizer Burn | |
| 1 Frost Injury | |
| 1 Insufficient Sample | |
| 1 Mites | |
| 1 Phytophthora Crown Rot | Phytophthora parasitica |
| 1 Phytophthora Crown and Root Rot | Phytophthora parasitica |
| 1 Pythium Crown Rot | Pythium sp. |
| 2 Pythium Root Rot | Pythium sp. |
| 1 Thrips | |
| ---- | |
| 12 Total for Pansy | |

PENTAS

- 1 Insufficient Sample
-
- 1 Total for Pentas

PEONY

- | | |
|----------------------------|-----------------|
| 1 Cause of Problem Unknown | |
| 1 Insufficient Information | |
| 1 Insufficient Sample | |
| 1 Nutrient Deficiency | |
| 1 Rhizoctonia Root Rot | Rhizoctonia sp. |
| 1 Suspect Chemical Injury | |
| ---- | |
| 6 Total for Peony | |

PERIWINKLE

- | | |
|---------------------------------------|------------------|
| 1 Environmental Stress | |
| 1 Insufficient Sample | |
| 2 Phoma Dieback | Phoma sp. |
| 1 Phyllosticta Stem Rot and Leaf Spot | Phyllosticta sp. |
| ---- | |
| 5 Total for Periwinkle | |

PETUNIA

- | | |
|--------------------|-------------|
| 1 Pythium Root Rot | Pythium sp. |
| ---- | |

Plant Disease Clinic

1 Total for Petunia

PHILODENDRON

1 Cultural Problem
1 Insufficient Sample

2 Total for Philodendron

PHLOX

1 Insufficient Sample
1 Powdery Mildew Sphaerotheca humili
1 Suspect Cold Injury
1 Web Blight Rhizoctonia sp.

4 Total for Phlox

PLANTS, MISCELLANEOUS

2 Insects
1 Insufficient Information
1 Insufficient Sample
1 Rhizoctonia Root Rot Rhizoctonia solani

5 Total for Plants, Miscellaneous

POINSETTISA

1 Air Pollution
1 Botrytis Blight Botrytis cinerea
1 Cultural Problem
1 Environmental Stress
1 Fertilizer Burn
1 Pythium Root Rot Pythium sp.
2 Pythium Stem and Root Rot Pythium sp.

8 Total for Poinsettia

RUBBER PLANT

1 Anthracnose Colletotrichum gloeosporioides

1 Total for Rubber Plant

SALVIA

1 Pythium Root Rot Pythium debaryanum

1 Total for Salvia

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SCABIOSA

1 Botrytis Blight	Botrytis cinerea

1 Total for Scabiosa	

SCHEFFLERA

1 Oedema	
1 Pythium Root Rot	Pythium sp.

2 Total for Schefflera	

SEA THRIFT

1 Web Blight	Rhizoctonia solani

1 Total for Sea Thrift	

SNAPDRAGON

1 Potassium Deficiency	
1 Rust	Puccinia antirrhini
1 Thrips	

3 Total for Snapdragon	

STATICE

1 Insufficient Sample	

1 Total for Statice	

SUNFLOWER

1 Environmental Stress	

1 Total for Sunflower	

SWEDISH IVY

1 Environmental Stress	
1 Insufficient Sample	
1 Normal Condition	

3 Total for Swedish Ivy	

SWEET POTATO

1 Insects	

1 Total for Sweet Potato	

Plant Disease Clinic

SWEET WOODRUFF

1 Rhizoctonia Stem and Root Rot

Rhizoctonia sp.

1 Total for Sweet Woodruff

VERONICA

1 Cultural Problem

1 Total for Veronica

YARROW

1 Environmental Stress

1 Suspect Cold Injury

2 Total for Yarrow

ZINNIA

1 Alternaria Blight

Alternaria zinniae

1 Botrytis Stem Canker

Botrytis cinerea

2 Total for Zinnia

Plant Disease Clinic

WOODY ORNAMENTALS

AUCUBA

2 Anthracnose	Colletotrichum gloeosporioides
2 Insufficient Sample	

4 Total for Aucuba	

AUTUMN OLIVE

2 Environmental Stress

2 Total for Autumn Olive

AZALEA

1 Anthracnose	Colletotrichum sp.
1 Borers	
2 Botryosphaeria Dieback	Botryosphaeria sp.
4 Cause of Problem Unknown	
1 Cercospora Leaf Spot	Cercospora handelii
1 Cultural Problem	
2 Drought	
12 Environmental Stress	
1 High pH	
2 Insects	
25 Insufficient Sample	
9 Lacebugs	
1 Leaf and Flower Gall	Exobasidium vaccinii
2 Lichens	
2 Low pH	
7 Phomopsis Dieback	Phomopsis sp.
1 Phyllosticta Leaf Spot	Phyllosticta sp.
8 Phytophthora Root Rot	Phytophthora cinnamomi
1 Poor Drainage	
1 Powdery Mildew	Sphaerotheca pannosa
4 Rootbound	
2 Scales	
1 Seasonal Leaf Drop	
1 Sooty Mold	
1 Vole Injury	

93 Total for Azalea	

BARBERRY

2 Environmental Stress
1 Insects
1 Scales
2 Webworms

6 Total for Barberry

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BAYBERRY

1 Botryosphaeria Dieback	Botryosphaeria sp.
1 Phytophthora Root Rot	Phytophthora cinnamomi

2 Total for Bayberry	

BOXWOOD

2 Cause of Problem Unknown	
2 Cultural Problem	
1 Deep Planting	
28 English Boxwood Decline	Paecilomyces buxi
20 Environmental Stress	
1 Etch-Cause Unknown	
1 Insects	
1 Insufficient Information	
21 Insufficient Sample	
2 Leafminers	
5 Lesion Nematodes	Pratylenchus sp.
1 Lichens	
2 Low pH	
1 Mechanical Injury	
1 Mites	
6 Negative for Phytophthora	
1 Nematodes	
14 Phytophthora Root Rot	Phytophthora parasitica
3 Poor Drainage	
1 Psyllids	
6 Ring Nematodes	Criconebella sp.
28 Spiral Nematodes	Rotylenchus buxophilus
1 Suspect Environmental Stress	
1 Unknown White Residue	
1 Voles	
1 Volutella Blight	Volutella buxi
1 Winter Injury	

153 Total for Boxwood	

BUTTERFLY BUSH

2 Environmental Stress
1 Insufficient Sample
1 Suspect Cold Injury

4 Total for Butterfly Bush

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CAMELLIA

1 Cold Injury	
1 Environmental Stress	
1 Insufficient Information	
2 Insufficient Sample	
2 Oedema	
1 Phytophthora Root Rot	Phytophthora cinnamomi
1 Pythium Root Rot	Pythium sp.
1 Sooty Mold	
2 Virus	

12 Total for Camellia	

CHERRYLAUREL

4 Botryosphaeria Dieback	Botryosphaeria sp.
1 Cause of Problem Unknown	
1 Deep Planting	
3 Environmental Stress	
1 Insufficient Information	
3 Insufficient Sample	
1 Phomopsis Dieback	Phomopsis sp.
1 Phytophthora Root Rot	Phytophthora cinnamomi
2 Pythium Root Rot	Pythium sp.

17 Total for Cherrylaurel	

CLEYERA

1 Cause of Problem Unknown	

1 Total for Cleyera	

COMMON BROOM

1 Cultural Problem	

1 Total for Common Broom	

COTONEASTER

1 Chemical Injury	
1 Insufficient Sample	
1 Phyllosticta Leaf Spot	Phyllosticta cotoneastri
1 Phytophthora Root Rot	Phytophthora parasitica

4 Total for Cotoneaster	

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CRAPE MYRTLE

- 1 Chemical Injury
- 1 Environmental Stress
- 1 Mechanical Injury
- 1 Suspect Chemical Injury
-
- 4 Total for Crape Myrtle

DAPHNE

- 1 Borers
- 1 Insufficient Sample
-
- 2 Total for Daphne

ENGLISH IVY

- 4 Anthracnose
- 1 Bacterial Leaf Spot
- 1 Cause of Problem Unknown
- 1 Insufficient Information
- 1 Insufficient Sample
- 1 Mites
- 1 Phyllosticta Leaf Spot
- 2 Phytophthora Root Rot
- 1 Pythium Root Rot
- 1 Suspect Chemical Injury
-
- 14 Total for English Ivy

Colletotrichum trichellum
Xanthomonas hederae

Phyllosticta sp.
Phytophthora parasitica
Pythium sp.

EUONYMUS

- 1 Anthracnose
- 2 Botryosphaeria Dieback
- 2 Crown Gall
- 1 Powdery Mildew
- 2 Scales
-
- 8 Total for Euonymus

Colletotrichum gloeosporioides
Botryosphaeria sp.
Agrobacterium tumefaciens
Microsphaera euonymi-japonici

FILBERT

- 1 Eastern Filbert Blight
- 1 Environmental Stress
- 1 Insufficient sample
-
- 3 Total for Filbert

Anisogramma anomala

Plant Disease Clinic

FORSYTHIA

2 Environmental Stress	
1 Hollow Pith	
1 Phytophthora Root Rot	Phytophthora cinnamomi

4 Total for Forsythia	

GERMANDER

1 Rhizoctonia Root Rot	Rhizoctonia sp.

1 Total for Germander	

HIBISCUS

1 Aphids	
2 Cause of Problem Unknown	
1 Lichens	

4 Total for Hibiscus	

HOLLY

1 Anthracnose	Gloeosporium sp.
31 Black Root Rot	Thielaviopsis basicola
1 Botryosphaeria Dieback	Botryosphaeria sp.
1 Cause of Problem Unknown	
1 Cicadas	
1 Cold Injury	
1 Cultural Problem	
11 Environmental Stress	
1 Excess Soil Moisture	
1 Giant European Hornets	
1 Girdling Roots	
1 High pH	
1 Insects	
2 Insufficient Information	
29 Insufficient Sample	
2 Mealybugs	
1 Mites	
1 Negative for Root Disease	
1 Oedema	
1 Phomopsis Dieback	Phomopsis sp.
3 Phytophthora Root Rot	Phytophthora sp.
1 Poor Drainage	
2 Scales	
1 Scorch	
1 Sooty Mold	
1 Spine Spot	
1 Suspect Chemical Injury	

100 Total for Holly	

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HONEYSUCKLE

1 Cause of Problem Unknown	
1 Insects	
1 Insufficient Sample	
1 Mites	
1 Powdery Mildew	Microsphaera lonicerae
1 Thrips	

6 Total for Honeysuckle	

HYDRANGEA

1 Anthracnose	Colletotrichum sp.
1 Insufficient Information	
4 Insufficient Sample	
1 Negative for Virus	

7 Total for Hydrangea	

INDIAN HAWTHORN

1 Environmental Stress	

1 Total for Indian Hawthorn	

INKBERRY

1 Black Root Rot	Thielaviopsis basicola
2 Environmental Stress	
1 Insufficient Sample	
1 Phytophthora Root Rot	Phytophthora cinnamomi

5 Total for Inkberry	

JUNIPER

1 Cause of Problem Unknown	
1 Cedar-Quince Rust	Gymnosporangium clavipes
16 Environmental Stress	
16 Insufficient Sample	
4 Kabatina Tip Blight	Kabatina juniperi
4 Mites	
1 Negative for Phytophthora	
2 Phomopsis Tip Blight	Phomopsis juniperovora
7 Phytophthora Root Rot	Phytophthora sp.
1 Scales	
1 Suspect Drought	

54 Total for Juniper	

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LAUREL

1 Botryosphaeria Dieback
1 Environmental Stress
3 Insufficient Sample
1 Lacebugs
1 Physiological Leaf Spot

7 Total for Laurel

Botryosphaeria sp.

LEUCOTHOE

1 Cylindrocladium Leaf Spot
1 Phyllosticta Leaf Spot

2 Total for Leucothoe

Cylindrocladium vesiculatum
Phyllosticta sp.

LILAC

1 Cause of Problem Unknown
2 Environmental Stress
1 Powdery Mildew
1 Suspect Chemical Injury
1 Suspect Excess Soil Moisture

6 Total for Lilac

Microsphaera pencillata

LOBLOLLY BAY

1 Insufficient Sample

1 Total for Loblolly Bay

MAHONIA

1 Insufficient sample

1 Total for Mahonia

NANDINA

1 Cercospora Leaf Spot
2 Environmental Stress

3 Total for Nandina

Cercospora nandinae

OSMANTHUS

1 Scales

1 Total for Osmanthus

Plant Disease Clinic

PHOTINIA

2 Entomosporium Leaf Spot
4 Insufficient Sample

6 Total for Photinia

Entomosporium mespili

PIERIS

1 Environmental Stress
1 Insufficient Sample

2 Total for Pieris

PITTOSPORUM

1 Environmental Stress

1 Total for Pittosporum

PLANTS, MISCELLANEOUS

1 Chemical Injury
1 Environmental Stress
1 Insufficient Information
1 Insufficient Sample
1 Suspect Chemical Injury

5 Total for Plants, Miscellaneous

PRIVET

2 Cold Injury
1 Environmental Stress
1 Insufficient Sample
1 Phyllosticta Leaf Spot

5 Total for Privet

Phyllosticta sp.

PYRACANTHA

1 Environmental Stress
1 Insufficient Sample

2 Total for Pyracantha

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RHODODENDRON

6 Borers	
10 Botryosphaeria Dieback	Botryosphaeria sp.
2 Cercospora Leaf Spot	Cercospora handelii
1 Colletotrichum Leaf Spot	Colletotrichum sp.
11 Environmental Stress	
1 Galls-Cause Unknown	
1 Gray Blight	Pestalotia sydowniana
3 Insects	
16 Insufficient Sample	
7 Lacebugs	
1 Negative for Root Disease	
1 Phomopsis Dieback	Phomopsis sp.
1 Phyllosticta Leaf Spot	Phyllosticta sp.
6 Phytophthora Root Rot	Phytophthora cinnamomi
2 Plant Hairs	
1 Poor Drainage	
1 Sunscald	
1 Suspect Vole Injury	Microtus sp.

72 Total for Rhododendron	

ROSE

1 Black Spot	Diplocarpon rosae
1 Botryosphaeria Dieback	Botryosphaeria ribis
1 Cause of Problem Unknown	
1 Chemical Injury	
1 Common Canker	Coniothyrium fuckelii
1 Cultural Problem	
1 Environmental Stress	
1 Insects	
1 Insufficient Information	
1 Low pH	
2 Mites	
1 Powdery Mildew	Sphaerotheca pannosa
1 Rose Flower Proliferation	
2 Suspect Chemical Injury	
3 Thrips	
1 Virus	

20 Total for Rose	

RUSSIAN OLIVE

1 Cause of Problem Unknown	

1 Total for Russian Olive	

SPICEBUSH

1 Environmental Stress	

1 Total for Spicebush	

Plant Disease Clinic

VIBURNUM

- 1 Giant European Hornets
- 2 Insufficient Sample
-
- 3 Total for Viburnum

WITCHHAZEL

- 1 Phyllosticta Leaf Blight Phyllosticta hamamelidis
-
- 1 Total for Witchhazel

YEW

- 1 Botryosphaeria Dieback Botryosphaeria sp.
- 1 Cause of Problem Unknown
- 4 Environmental Stress
- 6 Insufficient Sample
- 1 Lichens
- 1 Mealybugs
- 1 Mites
- 1 Negative for Phytophthora
- 1 Oedema
- 4 Phytophthora Root Rot Phytophthora cinnamomi
- 1 Sooty Mold
-
- 22 Total for Yew

YUCCA

- 2 Mycosphaerella Leaf Spot Mycosphaerella yuccae
- 1 Yucca Plant Bugs
-
- 3 Total for Yucca

Plant Disease Clinic

TREES

ARBORVITAE

1 Bagworms	
3 Cause of Problem Unknown	
1 Cytospora Canker	Cytospora sp.
1 Drought	
8 Environmental Stress	
2 Insufficient Sample	
1 Male Flowers	
1 Phytophthora Root Rot	Phytophthora cinnamoni
1 Seasonal Needle Drop	
1 Seiridium Twig Canker	Seiridium sp.
1 Tip Miners	

21 Total for Arborvitae	

ASH

3 Anthracnose	Discula sp.
1 Chemical Injury	
1 Insects	

5 Total for Ash	

BALDCYPRESS

1 High pH	
1 Iron Chlorosis	

2 Total for Baldcypress	

BEECH

1 Anthracnose	Discula umbrinella
1 Drought	
1 Insects	
1 Leafminers	
1 Sooty Mold	Scorias spongiosa

5 Total for Beech	

BIRCH

1 Aphids	
1 Botryosphaeria Dieback	Botryosphaeria sp.

2 Total for Birch	

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CEDAR

1 Insufficient Sample	
1 Suspect Armillaria Root Rot	Armillaria mellea

2 Total for Cedar	

CHINAFIR

1 Environmental Stress	

1 Total for Chinafir	

CRYPTOMERIA

2 Environmental Stress	
2 Insufficient Sample	
1 Scales	

5 Total for Cryptomeria	

CYPRESS

2 Bagworms	
2 Cause of Problem Unknown	
1 Environmental Stress	
4 Insufficient Sample	
1 Mechanical Injury	
1 Mites	
1 Pestalotiopsis Canker	Pestalotiopsis sp.
1 Phyllosticta Tip Blight	Phyllosticta sp.
1 Seasonal Needle Drop	
2 Seiridium Canker	Seiridium cardinale
1 Seiridium Canker	Seiridium unicorne
1 Suspect Genetic Variegation	
1 Suspect Kabatina Dieback	Kabatina juniperi
1 Suspect Mechanical Injury	
3 Suspect Seiridium Canker	Seiridium sp.

23 Total for Cypress	

Plant Disease Clinic

DOGWOOD

1 Botryosphaeria Canker	Botryosphaeria sp.
2 Cause of Problem Unknown	
1 Cultural Problem	
4 Discula Anthracnose	Discula destructiva
13 Environmental Stress	
1 Excess Soil Moisture	
2 Fusarium Canker	Fusarium sp.
1 Insects	
2 Insufficient Information	
9 Insufficient Sample	
1 Lichens	
1 Mechanical Injury	
1 Phyllosticta Leaf Spot	Phyllosticta sp.
4 Powdery Mildew	Oidium sp.
4 Scorch	
1 Septoria Leaf Spot	Septoria cornicola
2 Spot Anthracnose	Elsinoe corni
1 Suspect Arabis Mosaic Virus	
1 Twig Borers	
1 Vole Injury	

53 Total for Dogwood	

DOUGLASFIR

1 Botryosphaeria Canker	Botryosphaeria dothidea
1 Cause of Problem Unknown	
1 Drought	
2 Swiss Needle Cast	Phaeocryptopus gaeumannii

5 Total for Douglasfir	

EASTERN RED CEDAR

1 Chemical Injury	
1 Environmental Stress	
1 Insufficient Sample	

3 Total for Eastern Red Cedar	

ELM

1 Botryosphaeria Canker	Botryosphaeria dothidea
1 Cause of Problem Unknown	
1 Insects	
1 Negative for Dutch Elm Disease	
2 Scales	

6 Total for Elm	

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FALSECYPRESS

2 Insufficient Sample

2 Total for Falsecypress

FIR

1 Aphids
1 Balsam Twig Aphids
1 Cultural Problem
3 Environmental Stress
1 Insects
2 Suspect Environmental Stress

9 Total for Fir

FRINGE TREE

1 Cause of Problem Unknown
1 Environmental Stress

2 Total for Fringe Tree

GINGKO

1 Cause of Problem Unknown

1 Total for Gingko

HAWTHORN

1 Cedar-Quince Rust

1 Total for Hawthorn

Gymnosporangium clavipes

HEMLOCK

2 Environmental Stress
1 Insects
3 Insufficient Sample
3 Mites
1 Negative for Phytophthora
1 Scales
1 Woolly Adelgids

12 Total for Hemlock

HORNBEAM

1 Insufficient Sample

1 Total for Hornbeam

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JUNIPER

1 Insufficient Sample	
1 Kabatina Tip Blight	Kabatina juniperi
1 Mites	
1 Tip Borers	

4 Total for Juniper	

LARCH

1 Suspect Air Pollution	

1 Total for Larch	

MAGNOLIA

2 Cause of Problem Unknown	
1 Drought	
4 Environmental Stress	
1 Excess Soil Moisture	
3 Insufficient Sample	
1 Negative for Root Disease	
1 Scales	
1 Sooty Mold	
1 Suspect Chemical Injury	
1 Suspect Cultural Problem	
1 Suspect Frost Injury	
3 Winter Injury	

20 Total for Magnolia	

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MAPLE

4 Anthracnose	Discula sp.
1 Bacterial Wetwood	
1 Borers	
1 Cause of Problem Unknown	
1 Chemical Injury	
1 Deep Planting	
7 Environmental Stress	
1 Excess Soil Moisture	
1 Eyespot Galls	
11 Insufficient Sample	
1 Japanese Beetles	
1 Leafhoppers	
1 Lichens	
1 Nectria Canker	Nectria galligena
2 Negative for Verticillium Wilt	
2 Phomopsis Dieback	Phomopsis sp.
2 Scales	
5 Scorch	
1 Suspect Drought	
1 Suspect Insects	
2 Tar Spot	Rhytisma acerinum
1 Tree Crickets	
2 Verticillium Wilt	Verticillium albo-atrum
1 Wood Decay	

52 Total for Maple	

MIMOSA

1 Environmental Stress

1 Total for Mimosa

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OAK

1 Armillaria Root Rot	Armillaria sp.
1 Bacterial Scorch	Xylella fastidiosa
1 Bacterial Wetwood	
1 Brown Rot	
1 Chemical Injury	
1 Cicada Injury	
1 Cultural Problem	
1 Drought	
2 Environmental Stress	
1 Gall Insect	
1 Gouty Oak Galls	
1 Hypoxylon Canker	Hypoxylon atropunctatum
1 Insect Galls	
4 Insects	
1 Insufficient Information	
5 Insufficient Sample	
1 Negative for Bacterial Scorch	
1 Negative for Phytophthora	
6 Oak Leaf Button Galls	
1 Phomopsis Dieback	Phomopsis sp.
2 Scales	
1 Suspect Chemical Injury	
1 Wool Sower Galls	

37 Total for Oak	

ORNAMENTAL CHERRY

1 Borers	
2 Botryosphaeria Canker	Botryosphaeria sp.
3 Cause of Problem Unknown	
1 Environmental Stress	
2 Insufficient Sample	
1 Phomopsis Canker	Phomopsis sp.

10 Total for Ornamental Cherry	

ORNAMENTAL CRABAPPLE

1 Environmental Stress	
1 Scab	Venturia inaequalis

2 Total for Ornamental Crabapple	

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ORNAMENTAL PEAR

1 Chemical Injury	
1 Drought	
2 Environmental Stress	
6 Fire Blight	Erwinia amylovora
1 Suspect Fire Blight	Erwinia amylovora

11 Total for Ornamental Pear	

ORNAMENTAL PLUM

3 Black Knot	Dibotryon morbosum
1 Borers	
1 Environmental Stress	

5 Total for Ornamental Plum	

PAULOWNIA

1 Cultural Problem	

1 Total for Paulownia	

PERSIMMON

1 Psyllids	

1 Total for Persimmon	

PINE

1 Aphids	
2 Cause of Problem Unknown	
1 Cenangium Dieback	Cenangium ferruginosum
1 Chemical Injury	
1 Cytospora Canker	Cytospora sp.
1 Diplodia Tip Blight	Diplodia pinea
2 Dothistroma Needle Blight	Dothistroma pini
5 Environmental Stress	
1 Healthy	
2 Insects	
17 Insufficient Sample	
1 Mechanical Injury	
1 Nantucket Pine Tip Moths	
1 Negative for Pinewood Nematodes	
1 Pine Bark Adelgids	
1 Pinewood Nematodes	Bursaphelenchus xylophilus
2 Seasonal Needle Drop	
1 Winter Fleck	
1 Woodpecker Injury	

43 Total for Pine	

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POPLAR

1 Sooty Mold

1 Total for Poplar

PRUNUS

2 Black Knot
1 Shothole borers
1 Tent Caterpillers

4 Total for Prunus

Dibotryon morbosum

REDBUD

2 Chemical Injury
1 Environmental Stress
1 Fusarium Canker
2 Insufficient Sample

6 Total for Redbud

Fusarium lateritium

REDWOOD

1 Cercospora Needle Blight

1 Total for Redwood

Cercospora sequoiae

SERVICEBERRY

1 Drought
1 Environmental Stress
1 Suspect Insects

3 Total for Serviceberry

SOURWOOD

1 Environmental Stress

1 Total for Sourwood

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SPRUCE

1 Cause of Problem Unknown	
11 Environmental Stress	
1 Excess Soil Moisture	
1 Gall Adelgids	
3 Insects	
1 Insufficient Information	
14 Insufficient Sample	
6 Mites	
1 Negative for Root Disease	
4 Rhizosphaera Needle Blight	Rhizosphaera kalkhoffii
1 Rootbound	
1 Stigmina Needle Cast	Stigmina verrucosa
1 Suspect Drought	
1 Winter Injury	

47 Total for Spruce	

SWEET GUM

2 Insufficient Sample	
1 Suspect Sphaeropsis Gall	Sphaeropsis tumefaciens
1 Winged Bark	

4 Total for Sweet Gum	

SYCAMORE

2 Anthracnose	Gnomonia platani

2 Total for Sycamore	

TULIP TREE

1 Physiological Leaf Spot	

1 Total for Tulip Tree	

UMBRELLA PINE

1 Environmental Stress	

1 Total for Umbrella Pine	

WILLOW

1 Botryosphaeria Dieback	Botryosphaeria sp.
2 Cause of Problem Unknown	
1 Crown Gall	Agrobacterium tumefaciens
1 Phoma Canker	Phoma sp.

5 Total for Willow	

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ZELKOVA

- 1 Insufficient Information
- 1 Insufficient Sample
-
- 2 Total for Zelkova

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TURF

BENTGRASS

1 Algae	
1 Black Layer	
1 Dead Spot	Ophiosphaerella agrostis
1 Dollar Spot	Sclerotinia homeocarpa
2 Environmental Stress	
1 Lance Nematodes	Hoplolaimus sp.
4 Ring Nematodes	Criconemella sp.
1 Rust	Puccinia sp.
1 Yellow Patch	Rhizoctonia cerealis

13 Total for Bentgrass	

BERMUDAGRASS

1 Bermudagrass Decline	Gaeumannomyces graminis
1 Bipolaris Leaf Spot and Crown Rot	Bipolaris cynodontis
1 Ring Nematodes	Criconemella sp.
2 Sting Nematodes	Belonolaimus sp.

5 Total for Bermudagrass	

BLUEGRASS

1 Brown Patch	Rhizoctonia solani
1 Excess Thatch	
1 Heat Stress	
3 Insufficient Sample	
1 Melting Out	Drechslera poae
1 Summer Patch	Magnaporthe poae

8 Total for Bluegrass	

FESCUE

16 Brown Patch	Rhizoctonia solani
1 Cause of Problem Unknown	
1 Drought	
5 Environmental Stress	
2 Excess Thatch	
5 Helminthosporium Blight	Drechslera dictyoides
1 Insufficient Information	
5 Insufficient Sample	
1 Slime Mold	
1 Weed Encroachment	Poa sp.

38 Total for Fescue	

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RYEGRASS

2 Environmental Stress

2 Total for Ryegrass

ST. AUGUSTINEGRASS

1 Cause of Problem Unknown

1 Total for St. Augustinegrass

TURFGRASS

4 Brown Patch

1 Cause of Problem Unknown

1 Cultural Problem

1 Dog Damage

1 Drought

1 Environmental Stress

1 Excess Soil Moisture

1 Excess Soluble Salts

1 Excess Thatch

3 Helminthosporium Blight

1 Helminthosporium Leaf Spot

3 Insufficient Sample

1 Lance Nematodes

1 Melting Out

1 Pink Patch

1 Roughstalk Bluegrass Encroachment

1 Rust

1 Slime Mold

1 Suspect Dog Damage

26 Total for Turfgrass

Rhizoctonia solani

Drechslera dictyoides

Bipolaris sorokiniana

Hoplolaimus sp.

Drechslera poae

Limonomyces roseipellis

Poa trivialis

Puccinia graminis

ZOYSIA

2 Cause of Problem Unknown

2 Total for Zoysia

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WEEDS AND NONPLANT MATERIAL

DEAD NETTLE

1 Cercospora Leaf Spot

Cercospora sp.

1 Total for Dead Nettle

MULCH

1 pH Test

1 Total for Mulch

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Summary of Plant Identifications 1999

Higher Plants (46)

Family: Poaceae Festuca arundinacea	Tall Fescue
Family: Anacardiaceae Rhus copallina	Winged Sumac
Family: Apocynaceae Catharanthus roseus	Madagascar Periwinkle
Family: Aquifoliaceae Ilex glabra	Inkberry
Family: Asteraceae Santolina chamaecyparissus	Lavender Cotton
Family: Basellaceae Basella rubra	Malabar Nightshade
Family: Berberidaceae Nandina domestica	Heavenly Bamboo
Family: Caprifoliaceae Viburnum dentatum Viburnum lentago Viburnum prunifolium (2)	Arrowwood Viburnum Nannyberry Blackhaw Viburnum
Family: Celastraceae Euonymus europaeus Euonymus japonica 'Aureus'	European Euonymus Euonymus
Family: Cornaceae Cornus kousa	Kousa Dogwood
Family: Cucurbitaceae Unknown species	Cucurbit
Family: Cupressaceae Thuja occidentalis	American Arborvitae
Family: Ericaceae Vaccinium stamineum	Deerberry
Family: Euphorbiaceae Acalypha wilkesiana	Copper Leaf
Family: Fabaceae Wisteria frutescens	American Wisteria
Family: Hippocastanaceae Aesculus pavia	Red Buckeye
Family: Lamiaceae Plectranthus australis	Swedish Ivy

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Family: Magnoliaceae Magnolia sp.	Magnolia
Family: Moraceae Broussonetia papyrifera (2) Morus alba	Paper Mulberry White Mulberry
Family: Nyssaceae Nyssa sylvatica	Black Gum
Family: Oleaceae Fraxinus americana	White Ash
Family: Oleaceae Ligustrum obtusifolium	Border Privet
Family: Pinaceae Cedrus deodara Pinus nigra	Deodara Cedar Austrian Pine
Family: Poaceae Lolium perenne	Perennial Ryegrass
Family: Polygonaceae Polygonum cuspidatum	Japanese Bamboo
Family: Rosaceae Aronia arbutifolia Unknown species Malus sp. Photinia serrulata Prunus serotina Prunus sp. Prunus tomentosa Pyrus communis Rubus odoratus	Red Chokeberry Apple Chinese Photinia Black Cherry Prunus Manchu Cherry Pear Flowering Raspberry
Family: Salicaceae Populus grandidentata	Bigtooth Aspen
Family: Sapindaceae Koelreuteria paniculata	Golden-rain-tree
Family: Scrophulariaceae Paulownia tomentosa	Empress Tree
Family: Solanaceae Cyphomandra betacea	Tree Tomato
Family: Unknown Unknown species	Weed

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Fungi (33)

Class: Unknown

Insufficient Sample
Unknown species (2)

Suspect Stinkhorn
Fungus

Class: Basidiomycetes

Bondarzewia berkeleyi (2)
Coprinus sp.
Ganoderma sp.
Ganoderma tsugae
Grifola frondosa
Hericium erinaceus
Ionotus dryadeus
Irpex lacteus (2)
Lactarius indigo
Laetiporus sulphureus (2)
Meripilus sumstinei (3)
Morchella deliciosa
Ramaria sp.
Russula sp.
Unknown species

Bondarzewia
Inky Cap
Ganoderma
Varnished Conk
Hen of the Woods
Lion's Mane
Hericium
Weeping Conk
Irpex
Indigo Mild Cap
Sulfur Shelf
Meripilus
White Morel
Coral Fungus
Russula
White Rot Fungus

Class: Deuteromycetes

Sphaeropsis coryli

Sphaeropsis coryli

Class: Gasteromycetes

Calvatia cyathiformis
Cyathus sp.
Mutinus caninus (2)
Phallus ravenelii
Scleroderma geaster
Sphaerobolus stellatus
Unknown species

Puffball
Bird's Nest Fungus
Common Stinkhorn
Stinkhorn
Scleroderma
Artillery Fungus
Gasteromycete

Class: Myxomycetes

Lycogala epidendrum

Slime Mold

Insects (2)

Cypress Flower Galls

Order: Orthoptera

Family: Mantidae

Tenodera aridifolia sinensis

Chinese Mantid

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Other (5)

Algae

Unknown species (2)

Other Substance

Paint balls

Other Invertebrate

Family: Enchytraeidae

Unknown species

Unknown Substance