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Acknowledgements

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 2004, diagnoses in the Plant Disease Clinic in Blacksburg were performed by Mary Ann Hansen, and Nina Hopkins, with valuable assistance from Shannon Hill.

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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- Dr. Pat Phipps
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- Dr. Curt Roane
- Mr. Peter Sforza
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- Dr. Sue Tolin
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- Dr. Greg Welbaum
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- Mr. Steve Heckendorn
- Ms. Pat Hipkins

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The Weed Identification Clinic is operated by Dr. Scott Hagood with the assistance of Dr. Kevin Bradley, Mr. Josh Beam, and Mr. Lloyd Hipkins. 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.

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 that were submitted to and diagnosed at the Agricultural Research and Extension Centers throughout the Commonwealth. Note that the number of diagnoses performed was higher than the number of samples received because some samples have more than one problem.

For 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 pathogens to species because 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 high 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. or by Agdia’s immunostrip testing system. In some cases, identification of the specific virus was not desired by the client. In those cases, if symptoms indicated a virus infection, the diagnosis is listed simply as “virus”.

Soil samples for nematode assays were forwarded to the Nematode Assay Laboratory. Nematode diseases were diagnosed by extracting nematodes from soil or plant tissue. Samples must include at least 1 pint of soil for nematode assays. Nematode assays were routinely performed on samples of plant species known to be affected by nematodes, e.g. boxwood. Nematode populations in the sample were compared to damage threshold levels in making a control recommendation. Threshold levels have been developed in research trials for many, but not all, crops grown in Virginia.

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 are 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.

We occasionally receive digital images or email messages regarding plant problems. For the most part, it is difficult to diagnose diseases without an actual plant sample; however, diseases that cause unique symptoms can sometimes be diagnosed from an image or a description. Images are most useful when submitted in addition to a plant sample.

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 if a diagnostic form with carbon copies
is submitted with the sample. Any fact sheets or additional printed information are attached to this form. The new diagnostic form is available on the Web at: http://www.ext.vt.edu/vce/anr/plantpathology/450-097.pdf. For samples submitted with single copy forms, we send out only the electronic report. Any comments or questions about reports or plant problems can be emailed to us at <clinic@vt.edu>.

For information on how to submit samples and complete the appropriate forms, please refer to the following website for an audiovisual web presentation:
http://www.ext.vt.edu/vce/staffdev/anrtraining/
Highlights from 2004

The growing season in 2004 was generally very wet in many parts of Virginia and was thus favorable for many fungal and bacterial diseases. The favorable disease conditions were reflected in an increase in the total number of plant samples submitted to the Plant Disease Clinic over the 2003 total; the number of samples increased by 150 to a total of 1377.

In field crops, the wet spring led to severe outbreaks of black stem, caused by the fungus *Phoma medicaginis*, in many alfalfa fields. This disease is present most years, but in wet springs, the disease can have a significant effect on yield. Anthracnose, caused by *Colletotrichum graminicola*, was common on orchardgrass. Although this fungus was present on leaves of the orchardgrass samples we received, it can reportedly spread to the crown or roots and cause death of plants in the second or third year after infection, especially under conditions of low fertility. No fungicides are registered for control of these diseases in forage crops.

Several cases of daylily rust (*Puccinia hemerocallidis*) and impatiens necrotic spot virus (on impatiens and veronica), were seen in herbaceous ornamentals. Daylily rust is easily confused with daylily leaf streak (*Aureobasidium microstictum*), which is ubiquitous in Virginia. Daylily rust, which is usually more devastating, can be prevented by using resistant cultivars, but growers should be aware that cultivars with resistance to rust do not necessarily have resistance to leaf streak. We also received one case of geranium rust (*Puccinia pelargonii-zonalis*), which is relatively uncommon in Virginia. State and federal quarantines in the 1970’s kept this disease from becoming a widespread problem after its introduction to the US in the late 1960’s.

The wet growing season of 2004 was also conducive to growth of fungi that are not plant pathogens, such as the artillery fungus, *Sphaerobolus stellatus*, which was seen on a variety of herbaceous and woody ornamentals. This fungus is in the same group of fungi as the bird’s nest fungi, and like the bird’s nest fungi, is commonly encountered on wood chip mulch. The artillery fungus gets its name from the fact that it forcibly ejects the spore masses from its fruiting bodies. Spore masses are sticky and can travel a long distance. They often land on and glue themselves to the surfaces of cars, house siding, or plants. Spore masses will glue themselves to any plant species within range of the wood chip mulch on which they grow, but the fungus does not parasitize the plant it lands on. The main problem caused by these fungi is that the spore masses are hard to remove from car paint or siding without leaving a mark on the surface.

In small fruits, we diagnosed several cases of Petri disease in grapes, caused by the fungus *Phaeoacremonium aleophilum*. This disease has been present in Virginia for some time, but has received increasing publicity in recent years for causing a general decline of young grapevines. It can be caused by several related fungi, including *Phaeoacremonium aleophilum* and *Phaeomoniella chlamydospora*. These fungi cause a speckled dark discoloration of the xylem tissue (hence the alternate disease name “black measles”) and apparently block water and nutrient transport to leaves. Plants can be asymptomatic carriers of the disease and express symptoms only under conditions of stress, i.e. these fungi may be present in healthy-looking propagation material, only to cause symptoms under stressful environmental conditions later in the field. No chemical controls are currently available for this disease. Cultural controls, such as maintaining adequate fertilizer levels, irrigating new transplants for at least four weeks after transplanting, and avoiding overcropping, are recommended. Rapid detection techniques are currently being developed by some labs so that the presence of these fungi can be detected during the propagation process before infected propagation material is sold.

Another small fruit disease that was common in 2004 was Phytophthora crown rot of strawberries, caused by the oomycete, *Phytophthora cactorum*. Several species of Phytophthora can cause disease in strawberries. This particular species causes an upper crown rot and a sudden collapse or wilting of plants. Petioles may also be blackened. (This symptom could be confused with anthracnose.) Treatment involves application of mefenoxam fungicide in spring when roots are actively growing. In some cases (as in the case of several of the samples we...
received), plants recover by putting out new leaves, but such plants may be stunted. In contrast, recovery is not common with anthracnose.

Some of the common tree diseases we saw in 2004 included cherry leaf spot (Coccomyces hiemalis), powdery mildew of dogwood (Oidium sp.), Tubakia leaf spot of oak (Tubakia dryina), and zonate leaf spot of maple (Cristulariella pyrimidalis). Cherry leaf spot is present in most years, but it was more severe in 2004. When severe, this disease can result in significant defoliation and yield loss. Although powdery mildew is mainly of cosmetic concern on many tree species, it can cause severe stunting on susceptible dogwoods. The dogwood species of powdery mildew is thought to be a relatively recent (1990’s) introduction to the United States. It was first seen in the Clinic in 1993. Since that time, many dogwoods have been bred for resistance to the disease. Both Tubakia leaf spot of oak and zonate leaf spot of maple are usually late season diseases, but in 2004 earlier infections resulted in defoliation in many trees. Another problem that was common on oaks in 2004 was oak leaf button gall, caused by an insect. The small galls that form on the lower leaf surface often drop off, leaving a hole in the leaf. Many of these cases were mistaken for disease and sent to the Plant Disease Clinic in 2004. All of these samples were referred to the Insect ID Lab.

Some of the more unusual woody ornamental diseases we saw in 2004 included hypericum rust (Uromyces triquestrus), Clitocybe root rot on cherry laurel and bayberry (Clitocybe tabescens), Cylindrocladium blight on rhododendron (Cylindrocladium scoparium), foliar nematodes on summersweet (Aphelenchoids sp.), rose rosette disease (precise cause unknown), and juniper broom rust on serviceberry (Gymnosporangium nidus-avis).

Hypericum rust is one of the rust fungi that does not require an alternate host to complete its life cycle; therefore, plant-to-plant infections can occur in hypericum. New infections can be prevented by application of a fungicide labeled for control of rust diseases.

The fungus Clitocybe is a basidiomycete-type fungus that produces mushrooms at certain times of year. This fungus is not commonly found on landscape ornamentals in Virginia, but it often rots the root of oaks or other trees in woodland settings. It can persist in decaying roots for many years and can grow across points of contact between infected roots and roots of nearby healthy plants. Thus, it is mostly a problem where landscape plants are transplanted into or near woodlands. On plants that are not yet severely diseased, disease progression can sometimes be halted by excavating the root collar to allow aeration and drying of the crown of the plant.

Cylindrocladium blight is a disease that is mainly found in nurseries; however, we diagnosed this disease in plants from a natural setting on a mountain top. The disease may have been introduced to the landscape on rhododendron transplants. It was not present below a certain elevation. The spatial distribution of the disease may relate to the fact that the pathogen is temperature-sensitive. Conditions may have been just right for disease development at the top of the mountain, but not at the lower elevations.

Foliar nematodes were found in Clethra (summersweet) plants in a nursery. Foliar nematodes have a wide host range and can move from plant to plant by swimming across films of moisture on leaves in contact. To prevent spread, it is important to space plants so that leaves of adjacent plants do not touch. Pylon insecticide is registered for control of foliar nematodes, but it will not eradicate nematodes completely, so cultural control methods are also important.

Rose rosette disease was first diagnosed in cultivated roses in the Plant Disease Clinic in 2000. Several cases per year have been diagnosed since. The causal organism of this disease has not yet been identified; however, it is most likely a virus. The disease is known to be transmitted by eriophyid mites and can cause a variety of unusual and sometimes alarming symptoms on roses. These symptoms, e.g. excessive thorniness, distortion of stems, leaves and flowers, and reddening of new growth, are used to diagnose the disease. Complete removal of affected plants
is necessary because the pathogen is distributed systemically in the plants. Even plants that regenerate from old infected root pieces have the disease.

The juniper broom rust fungus, like many other rust fungi, requires two hosts to complete its life cycle. On serviceberry, it causes leaf spots, twig dieback and swelling of petioles. On junipers, the fungus can cause witches' brooms and stem swelling. The disease can be controlled on serviceberry by use of a preventative rust fungicide in early spring.

One disease of woody ornamentals that we were on the lookout for during 2004 but did not see was ramorum blight, commonly known as “sudden oak death”. In 2004, many states, including Virginia, received shipments of woody plant species from a nursery in California that was known to have plants infected with the pathogen that causes this disease. The Virginia Department of Agriculture and Consumer Services conducted extensive surveys to try to detect any infected plants in Virginia nurseries that had received plants from this nursery. In the end only two infected plants were found and these shipments were destroyed according to quarantine regulations. No cases of this disease were found in any landscape plants submitted to the Plant Disease Clinic in 2004.

In vegetables, we saw many cases of tomato spotted wilt virus (TSWV), although the number of samples with TSWV was not nearly as high as in 2002 when we received 43 tomato samples with this disease. Symptoms include spotting of upper leaves, ringspots on fruit, low yield, and sometimes death of plants. Another diagnosis that was common on tomato samples in 2004 was chemical injury from misapplied herbicides, including 2,4-D and Roundup. The former causes growth distortion that can be confused with cucumber mosaic virus infection. Roundup causes a bleaching or chlorosis at the petiole-end of the leaflets. We saw another type of chemical injury in watermelon: contact burn from Gramoxone droplets.

Diseases we saw for the first time in the Plant Clinic in 2004 included:
- Bacterial blight of clover (*Pseudomonas syringae*)
- Clitocybe root rot on bayberry and cherrylaurel (*Clitocybe* sp.)
- Juniper broom rust on serviceberry (*Gymnosporangium nidus-avis*)
- Foliar nematodes on summersweet (*Aphelenchoides* sp.)
- Spot anthracnose on snowball bush (*Spatheloma viburni*)
Plant Disease Clinic

Monthly Submission Report
Number of Samples Received by Month
2004

<table>
<thead>
<tr>
<th>Month</th>
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<td>August</td>
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<td>September</td>
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<td>October</td>
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<td>November</td>
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<td>December</td>
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</tbody>
</table>

**TOTAL** 1377

Number of Samples by Month
### Crop Category Report

#### Sample Totals by Major Crop Categories
**2004**

<table>
<thead>
<tr>
<th>Crop Category</th>
<th># of Samples</th>
<th>% of Total</th>
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</thead>
<tbody>
<tr>
<td>Woody Ornamentals</td>
<td>405</td>
<td>29.4</td>
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<tr>
<td>Trees</td>
<td>371</td>
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<tr>
<td>Vegetables and Herbs</td>
<td>177</td>
<td>12.9</td>
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<tr>
<td>Herbaceous Ornamentals</td>
<td>134</td>
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<tr>
<td>Turf</td>
<td>80</td>
<td>5.8</td>
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<tr>
<td>Field Crops</td>
<td>77</td>
<td>5.6</td>
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<tr>
<td>Tree Fruits and Nuts</td>
<td>63</td>
<td>4.6</td>
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<tr>
<td>Small Fruits</td>
<td>47</td>
<td>3.4</td>
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<tr>
<td>Other</td>
<td>23</td>
<td>1.7</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>1377</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

#### Samples by Crop Category

- **Woody Ornamentals**: 28%
- **Trees**: 27%
- **Vegetables and Herbs**: 13%
- **Herbaceous Ornamentals and Indoor Plants**: 10%
- **Tree Fruits and Nuts**: 5%
- **Small Fruits**: 3%
- **Field Crops**: 6%
- **Other**: 2%
- **Turf**: 6%
Plant Disease Clinic

Diagnostic Category Report
Distribution of Diagnoses by Major Diagnostic Category
2004

<table>
<thead>
<tr>
<th>Diagnostic Category</th>
<th># of Diagnoses</th>
<th>% of Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plant Diseases-Biotic Agents</td>
<td>641</td>
<td>43.5</td>
</tr>
<tr>
<td>Bacterium (42)</td>
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<td></td>
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<tr>
<td>Fungus (548)</td>
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<tr>
<td>Nematode (17)</td>
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<tr>
<td>Virus (34)</td>
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<tr>
<td><strong>Plant Injury-Abiotic Agents</strong></td>
<td>328</td>
<td>22.2</td>
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<td>Chemical (62)</td>
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<td></td>
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<tr>
<td>Environmental/Cultural (261)</td>
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<tr>
<td>Mechanical (5)</td>
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<td></td>
</tr>
<tr>
<td><strong>Plant Injury-Insects or Mites</strong></td>
<td>167</td>
<td>11.3</td>
</tr>
<tr>
<td>Insects or Mites (167)</td>
<td></td>
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<tr>
<td><strong>Plant Injury-Animals</strong></td>
<td>4</td>
<td>0.3</td>
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<tr>
<td>Birds (1)</td>
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<tr>
<td>Mammals (3)</td>
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<tr>
<td><strong>Insufficient Sample or Cause Unknown</strong></td>
<td>236</td>
<td>16.0</td>
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<tr>
<td>Insufficient Sample or Information (218)</td>
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<td>Unknown (18)</td>
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<tr>
<td><strong>Miscellaneous</strong></td>
<td>51</td>
<td>3.5</td>
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<tr>
<td>Normal Condition (10)</td>
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<td>Other (14)</td>
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<td>Physiological/Genetic (27)</td>
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<td><strong>Weed Encroachment</strong></td>
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<td><strong>Total</strong></td>
<td>1428</td>
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2004 Samples by Diagnostic Category

- Plant Diseases-Biotic Agents: 44%
- Plant Injury-Abiotic Agents: 23%
- Plant Injury-Insects or Mites: 12%
- Plant Injury-Animals: 0%
- Insufficient Sample or Cause Unknown: 17%
- Miscellaneous: 4%
- Weed Encroachment: 0%
Plant Pathogens 2004

Other Assistance, 2004

<table>
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<tr>
<th>Type</th>
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<tbody>
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<td>E-mail</td>
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<td>Digital Images</td>
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<td>Phone Calls</td>
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Other Agents 2004
# Plant Disease Clinic

## Distribution of Samples by County

### 2004

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<th>County</th>
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<tr>
<td>Accomack</td>
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<td>Lee</td>
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<td>Albemarle</td>
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**Total** 1377
**Weed Identification Lab**

**Monthly Submission Report**
**Number of Samples Received by Month**
**2004**

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<td>July</td>
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**Weed Identification Lab**
**Sample Totals by Crop**
**2004**

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<td>New Kent</td>
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</table>

**Total** 330
## Field Crops

### Alfalfa
- 1 Anthracnose: *Colletotrichum trifolii*
- 3 Spring Black Stem and Leaf Spot: *Phoma medicaginis*
- 1 Stemphylium Leaf Spot: *Stemphylium botryosum*

5 Total for Alfalfa

### Barley
- 1 Damping-off: *Fusarium sp.*
- 1 Environmental Stress
- 1 Low pH
- 2 Physiological Leaf Spot
- 3 Spot Blotch: *Bipolaris sorokiniana*
- 1 Spot Form of Net Blotch: *Pyrenophora teres*
- 3 Suspect Chemical Injury
- 1 Suspect Nutrient Deficiency

13 Total for Barley

### Bluegrass
- 1 Algae

1 Total for Bluegrass

### Clover
- 1 Sooty Blotch: *Cymadothea trifolii*

1 Total for Clover

### Corn
- 1 Bacterial Stalk Rot: *Erwinia chrysanthemi*
- 1 Chemical Injury
- 1 Compacted Soil
- 1 Cultural Problem
- 1 Diplodia Ear Rot: *Stenocarpella maydis*
- 2 Gray Leaf Spot: *Cercospora zeae-maydis*
- 2 Insects
- 1 Insufficient Sample
- 9 Low pH
- 1 Maize Chlorotic Dwarf Virus
- 1 Maize Dwarf Mosaic Virus
- 1 Manganese Toxicity
- 1 Nitrogen Deficiency
- 2 Nutrient Deficiency
- 1 Pythium Seedling Rot: *Pythium sp.*

26 Total for Corn
## Plant Disease Clinic

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<th>Pathogen(s)</th>
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<td>Trichoderma sp.</td>
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<td><strong>Total for Hay</strong></td>
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<td><strong>Millet</strong></td>
<td>1 Gibberella Head Blight</td>
<td>Gibberella zeae</td>
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<td>1 Gray Leaf Spot</td>
<td>Pyricularia grisea</td>
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<td>4 Anthracnose</td>
<td>Colletotrichum graminicola</td>
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<td>1 Leaf Streak</td>
<td>Cercosporidium graminis</td>
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<td></td>
<td>1 Low pH</td>
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<td>1 Anthracnose</td>
<td>Colletotrichum truncatum</td>
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<td>1 Cyst Nematodes</td>
<td>Heterodera glycines</td>
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<td>2 Frogeye Leaf Spot</td>
<td>Cercospora sojina</td>
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<td>1 Poor Drainage</td>
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<td>1 Pythium Root Rot</td>
<td>Pythium sp.</td>
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<td>1 Rhizoctonia Stem Canker</td>
<td>Rhizoctonia solani</td>
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<td>2 Root Knot Nematodes</td>
<td>Meloidogyne sp.</td>
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<td>1 Thrips</td>
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<td>Pythium sp.</td>
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<td><strong>Total for Tobacco</strong></td>
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</table>
Plant Disease Clinic

WHEAT

2 High pH
1 Low pH
2 Nutrient Deficiency
1 Physiological Problem
2 Scab
1 Sooty Mold
2 Stagonospora Leaf and Glume Blotch
1 Suspect Wheat Spindle Streak Mosaic
1 Wheat Spindle Streak Mosaic Virus

Fusarium graminearum
Stagonospora nodorum

13 Total for Wheat
### HERBACEOUS ORNAMENTALS AND INDOOR PLANTS

#### AFRICAN VIOLET
1. Nutrient Imbalance
2. Total for African Violet

#### AJUGA
1. Mites
2. Root Knot Nematodes: *Meloidogyne sp.*
3. Southern Blight: *Sclerotium rolfsii*
4. Total for Ajuga

#### BELLFLOWER
1. Insufficient Sample
2. Total for Bellflower

#### BITTER CRESS
1. Gray Mold: *Botrytis cinerea*
2. Total for Bitter Cress

#### BLUEBEARD
1. Cause of Problem Unknown
2. Mites
3. Phomopsis Leaf Spot: *Phomopsis sp.*
4. Total for Bluebeard

#### CELOSIA
1. Insufficient Sample
2. Rhizoctonia Stem and Root Rot: *Rhizoctonia solani*
3. Total for Celosia

#### CHRYSANTHEMUM
1. Bacterial Blight: *Erwinia chrysanthemi*
2. Bacterial Leaf Spot: *Pseudomonas cichorii*
3. Environmental Stress
4. Negative for Root Rot Disease
5. Pythium Root Rot: *Pythium sp.*
6. Rust: *Puccinia chrysanthemi*
7. Sclerotinia Stem Rot: *Sclerotinia sclerotiorum*
8. Suspect Nutrient Deficiency
9. Total for Chrysanthemum

#### CLEMATIS
1. Insufficient Sample
2. Total for Clematis
CONEFLOWER
1 Cause of Problem Unknown
1 Insects
----
2 Total for Coneflower

CORAL BELLS
1 Botrytis Blight Botrytis cinerea
1 Environmental Stress
1 Low pH
1 Pythium Root Rot Pythium sp.
----
4 Total for Coral Bells

COREOPSIS
1 Cause of Problem Unknown
----
1 Total for Coreopsis

CROCOSMIA
1 Thrips
----
1 Total for Crocosmia

DAHLIA
1 Insufficient Sample
----
1 Total for Dahlia

DAISY
1 Suspect Nutrient Deficiency
----
1 Total for Daisy

DAYLILY
2 Botrytis Blight Botrytis sp.
1 Chemical Injury
2 Daylily Rust Puccinia hemerocallidis
1 High ph
1 Leaf Streak Aureobasidium microstictum
2 Thrips
----
9 Total for Daylily

DRACAENA
1 Excess Soluble Salts
1 Insufficient Sample
----
2 Total for Dracaena

FLEECEFLOWER
1 Physiological Problem
----
1 Total for Fleeceflower
FLOWERING MAPLE
  1 Cultural Problem
  ----
  1 Total for Flowering Maple

FOXGLOVE
  1 Mites
  ----
  1 Total for Foxglove

FUSCHIA
  1 Suspect Nutrient Deficiency
  ----
  1 Total for Fuchsia

GERANIUM
  1 Bacterial Blight                           Xanthomonas campestris pv. pelargonii
  1 Insufficient Sample
  1 Oedema
  1 Rust                                      Puccinia pelargonii-zonalis
  1 Suspect Nutrient Deficiency
  ----
  5 Total for Geranium

GERBERA DAISY
  1 Botrytis Blight                           Botrytis cinerea
  ----
  1 Total for Gerbera Daisy

GLADIOLUS
  1 Thrips
  ----
  1 Total for Gladiolus

HELIOPSIS
  1 Suspect Chemical Injury
  ----
  1 Total for Heliopsis

HOLLYHOCK
  1 Suspect Nutrient Toxicity
  ----
  1 Total for Hollyhock

HOSTA
  1 Artillery Fungus                          Sphaerobolus stellatus
  1 Botrytis Blight                           Botrytis cinerea
  1 Insufficient Sample
  1 Soft Rot                                  Erwinia carotovora
  ----
  4 Total for Hosta
Plant Disease Clinic

IMPATIENS
1 Air Pollution
5 Impatiens Necrotic Spot Virus
1 Physiological Problem
1 Suspect Chemical Injury
----
8 Total for Impatiens

IRIS
1 Cause of Problem Unknown
1 Heterosporium Leaf Spot Heterosporium iridis
1 Pythium Root Rot Pythium sp.
----
3 Total for Iris

JADE
1 Oedema
----
1 Total for Jade

LARKSPUR
1 Ascochyta Collar Rot Ascochyta aquilegiae
1 Insufficient Sample
----
2 Total for Larkspur

LAVENDER
1 Environmental Stress
1 Gray Mold Botrytis cinerea
----
2 Total for Lavender

LIRIOPE
1 Mites
1 Mycosphaerella Leaf Spot Mycosphaerella sp.
----
2 Total for Liriope

LISIANTHUS
1 Fusarium Root and Stem Rot Fusarium sp.
----
1 Total for Lisianthus

MADAGASCAR PERIWINKLE
1 Black Root Rot Thielaviopsis basicola
1 Insufficient Sample
1 Physiological Problem
2 Rhizoctonia Stem and Root Rot Rhizoctonia solani
----
5 Total for Madagascar Periwinkle

MANDEVILLA
1 Phyllosticta Leaf Spot Phyllosticta sp.
----
1 Total for Mandevilla
MARGUERITE DAISY
  1 Cultural Problem
  ----
  1 Total for Marguerite Daisy

MISCANTHUS
  1 Abiotic Problem
  1 Low pH
  1 Miscanthus Blight  Leptosphaeria sp.
  ----
  3 Total for Miscanthus

MONDOGRASS
  1 Environmental Stress
  ----
  1 Total for Mondograss

MYRTLE
  1 Suspect Chemical Injury
  ----
  1 Total for Myrtle

OBEIDENT PLANT
  1 Mites
  ----
  1 Total for Obedient Plant

ORCHID
  1 Insufficient Sample
  ----
  1 Total for Orchid

OSTEOSPERMUM
  1 Sclerotinia Stem Rot  Sclerotinia sclerotiorum
  ----
  1 Total for Osteospermum

PANSY
  1 Environmental Stress
  1 Low pH
  1 Negative for Root Disease
  1 Pythium Crown Rot  Pythium sp.
  ----
  4 Total for Pansy

PEACOCK SPIKEMOSS
  1 Cultural Problem
  ----
  1 Total for Peacock Spikemoss

PEONY
  1 Bacterial Soft Rot  Erwinia sp.
  3 Botrytis Blight  Botrytis cinerea
  1 Insufficient Sample
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  5 Total for Peony
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<td>1 Blue Mold</td>
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<td>1 Total for Zinnia</td>
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Plant Disease Clinic

UNKNOWN INDOOR PLANT
  2 Insufficient Sample
  1 Scales
  ----
  3 Total for Unknown Indoor Plant
## SMALL FRUITS

### BLACKBERRY
- 2 Spur Blight: Didymella applanata
- **Total for Blackberry: 2**

### BLUEBERRY
- 1 Botryosphaeria Stem Blight: Botryosphaeria dothidea
- 1 Insects
- 2 Insufficient Sample
- 1 Phomopsis Twig Blight: Phomopsis vaccinii
- **Total for Blueberry: 5**

### GRAPE
- 1 Anthracnose: Elsinoe ampelina
- 4 Black Rot: Guignardia bidwellii
- 3 Botryosphaeria Dieback: Botryosphaeria sp.
- 1 Cause of Problem Unknown
- 1 Cold Injury
- 1 Insect Galls
- 1 Insufficient Information
- 2 Insufficient Sample
- 1 Negative for Petri Disease
- 1 Nutrient Deficiency
- 1 Petri Disease: Phaeoacremonium aleophilum
- 2 Phomopsis: Phomopsis sp.
- 4 Suspect Crown Gall: Agrobacterium vitis
- 1 Thrips
- 1 Wild-type Grape
- 2 Winter Injury
- **Total for Grape: 27**

### RASPBERRY
- 1 Anthracnose: Elsinoe veneta
- 1 Mites
- **Total for Raspberry: 2**

### STRAWBERRY
- 1 Anthracnose: Colletotrichum acutatum
- 1 Chemical Injury
- 2 Dendrophoma Leaf Blight: Dendrophoma obscurans
- 1 Gray Mold: Botrytis cinerea
- 1 Negative for Disease
- 3 Phytophthora Crown Rot: Phytophthora cactorum
- 1 Phytophthora Root Rot: Phytophthora cinnamomi
- 1 Poor Drainage
- 1 Powdery Mildew: Sphaerotheca macularis
- 3 Pythium Root Rot: Pythium sp.
- 2 Rhizoctonia Crown and Root Rot: Rhizoctonia solani
- **Total for Strawberry: 17**
Plant Disease Clinic

**TREES**

**ARBORVITAE**
1 Bagworms
1 Chemical Injury
1 Cultural Problem
1 Environmental Stress
3 Mites
1 Pestalotiopsis Twig Blight
1 Suspect Dog Urine Injury
1 Winter Injury
---
10 Total for Arborvitae

**ASH**
1 Anthracnose
1 Insufficient Sample
1 Rust
---
3 Total for Ash

**BALDCYPRESS**
1 Midge Galls
---
1 Total for Baldcypress

**BEECH**
1 Suspect Bacterial Wetwood
---
1 Total for Beech

**BIRCH**
2 Insects
1 Negative for Disease
---
3 Total for Birch

**CEDAR**
2 Environmental Stress
1 Suspect Dog Damage
---
3 Total for Cedar

**CHERRY**
1 Cicadas
---
1 Total for Cherry

**CHINKAPIN**
1 Cultural Problem
---
1 Total for Chinkapin
Plant Disease Clinic

CYPRUS
1 Bagworms
1 Cultivar Characteristic
1 Hail Injury
2 Insects
17 Insufficient Sample
3 Negative for Disease
4 Pestalotiopsis Tip Blight  Pestalotiopsis funerea
1 Phomopsis Tip Blight  Phomopsis sp.
1 Phylllosticta Tip Blight  Phylllosticta sp.
2 Phytophthora Root Rot  Phytophthora cinnamomi
1 Scales
2 Seasonal Needle Drop
7 Seiridium Canker  Seiridium sp.
1 Suspect Cultural Problem
1 Suspect Environmental Stress
3 Suspect Seiridium Canker  Seiridium sp.
1 Winter Injury
----
49 Total for Cypress

DOGWOOD
1 Botryosphaeria Canker  Botryosphaeria sp.
2 Botrylis Blight  Botrylis cinerea
1 Discula Anthracnose  Discula destructiva
3 Environmental Stress
5 Insufficient Sample
1 Mites
1 Nutrient Deficiency
1 Phomopsis Dieback  Phomopsis sp.
1 Physiological Problem
6 Powdery Mildew  Oidium sp.
3 Scorch
1 Septoria Leaf Spot  Septoria cornicola
1 Spot Anthracnose  Elsinoe corni
1 Suspect Chemical Injury
----
28 Total for Dogwood

DOUGLASFIR
2 Insufficient Sample
2 Swiss Needle Cast  Phaeocryptopus gaeumannii
1 Winter Injury
----
5 Total for Douglasfir

EASTERN RED CEDAR
2 Environmental Stress
----
2 Total for Eastern Red Cedar
## Plant Disease Clinic

### ELM
- 1 Anthracnose: Gloeosporium ulmicola
- 1 Botryosphaeria Canker: Botryosphaeria dothidea
- 2 Insects
- 1 Insufficient Sample
- 1 Negative for Dutch Elm Disease

#### Total for Elm: 6

### FALSECYPRESS
- 2 Rootbound

#### Total for Falsecypress: 2

### FIR
- 1 Cultural Problem
- 1 Environmental Stress
- 1 Fertilizer Burn
- 1 Girdling Roots
- 1 Insufficient Sample
- 1 Negative for Phytophthora
- 2 Negative for Root Disease
- 2 Phytophthora Root Rot: Phytophthora sp.
- 1 Suspect Chemical Injury

#### Total for Fir: 11

### FRINGE TREE
- 1 Insufficient Sample

#### Total for Fringe Tree: 1

### GOLDEN-RAIN-TREE
- 2 Insufficient Sample
- 1 Mites

#### Total for Golden-rain-tree: 3

### HACKBERRY
- 1 Sooty Mold

#### Total for Hackberry: 1

### HAWTHORN
- 3 Cedar-Quince Rust: Gymnosporangium clavipes

#### Total for Hawthorn: 3

### HEMLOCK
- 1 Environmental Stress
- 2 Insufficient Sample
- 1 Phytophthora Root Rot: Phytophthora cinnamomi

#### Total for Hemlock: 4
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<td>9 Purple-eye Leaf Spot</td>
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Plant Disease Clinic

1 Tar Spot                                     Rhytisma acerinum
1 Tip Borers
1 Venturia Leaf Blight                         Venturia acerina
1 Wood Decay
10 Zonate Leaf Spot                             Cristulariella pyramidalis
----
67  Total for Maple

MIMOSA
1 Insufficient Sample
1 Mimosa Wilt                                  Fusarium oxysporum f.sp. perniciosa
----
2  Total for Mimosa

MOUNTAIN ASH
1 Fabreaa Leaf Spot                            Fabraea maculata
----
1 Total for Mountain Ash

OAK
1 Anthracnose                                  Apiognomonia quercina
1 Bacterial Scorch                               Xylella fastidiosa
1 Bacterial Wetwood
1 Beetles
1 Botryosphaeria Dieback                       Botryosphaeria sp.
1 Cause of Problem Unknown
4 Chemical Injury
1 Cicada Injury
2 Eriophyid Mites
1 Gall Insect
1 Insect Galls
9 Insects
4 Insufficient Sample
5 Iron Chlorosis
1 Lacebugs
1 Lichens
5 Mites
1 Monochaetia Leaf Blotch                       Monochaetia monochaeta
3 Oak Leaf Blister                             Taphrina caerulescens
3 Oak Leaf Button Galls
2 Scales
1 Squawroot                                     Conopholis americana
1 Suspect Hail Injury
1 Suspect Winter Injury
12 Tubakia Leaf Spot                            Tubakia dryina
1 White Rot                                     Stereum hirsutum
1 Wood Decay - False Turkeytail
1 Total for Oak

ORNAMENTAL CHERRY
1 Insects
----
1 Total for Ornamental Cherry
Plant Disease Clinic

**ORNAMENTAL PEAR**
1 Chemical Injury
2 Cultural Problem
----
3 Total for Ornamental Pear

**PAULOWNIA**
1 Insufficient Sample
----
1 Total for Paulownia

**PINE**
1 Atropellis Twig Canker
2 Bifusella Needle Blight
2 Cause of Problem Unknown
2 Cultural Problem
2 Cyclaneusma Needle Cast
5 Diplodia Tip Blight
1 Dothistroma Needle Blight
2 Environmental Stress
1 Eriophyid Mites
2 Insects
12 Insufficient Sample
1 Lophodermium Needle Cast
1 Physiological Problem
1 Scales
1 Seasonal Needle Drop
1 Sooty Mold
1 Suspect Procerum Root Disease
----
37 Total for Pine

**REDBUD**
2 Botryosphaeria Dieback
1 Botrytis Blight
1 Cause of Problem Unknown
1 Chemical Injury
1 Insects
2 Mites
1 Pestalotia Leaf Spot
----
9 Total for Redbud

**REDWOOD**
1 Normal Condition
----
1 Total for Redwood

**SASSAFRAS**
1 Phomopsis Canker
----
1 Total for Sassafras
# Plant Disease Clinic

## SERVICEBERRY
- 1 Botryosphaeria Canker: Botryosphaeria dothidea
- 1 Juniper Broom Rust: Gymnosporangium nidus-avis

## SPRUCE
- 1 Botryosphaeria Canker: Botryosphaeria sp.
- 1 Chemical Injury
- 2 Environmental Stress
- 4 Insufficient Sample
- 1 Mechanical Injury
- 6 Mites
- 1 Negative for Disease
- 1 Phytophthora Root Rot: Phytophthora parasitica
- 4 Rhizosphaera Needle Blight: Rhizosphaera kalkhoffii
- 3 Stigmina Needle Cast: Stigmina verrucosa
- 1 Suspect Chemical Injury
- 2 Suspect Cytospora Canker: Cytospora sp.
- 1 Suspect Insects
- 1 Winter Injury

## SWEETGUM
- 1 Chemical Injury

## TULIP TREE
- 1 Cultural Problem
- 1 Environmental Stress
- 1 White Rot

## WILLOW
- 1 Galls
- 1 Gloeosporium Twig Canker: Gloeosporium sp.
- 1 Suspect Black Canker: Physalospora miyabeana
Plant Disease Clinic

**TREE FRUITS AND NUTS**

**APPLE**
1 Alternaria Blotch
1 Alternate Year Bearing
1 Apple Maggots
1 Black Rot
3 Cedar-Apple Rust
1 Cedar-Quince Rust
1 Chemical Injury
1 Environmental Stress
3 Fire Blight
1 Fly Speck
1 Insects
2 Insufficient Sample
1 Powdery Mildew
1 Scab
1 Sooty Blotch

----
20 Total for Apple

**APRICOT**
1 Borers
1 Environmental Stress

----
2 Total for Apricot

**ASIAN PEAR**
1 Stinkbugs

----
1 Total for Asian Pear

**CHERRY**
1 Black Knot
1 Botryosphaeria Canker
1 Cercospora Leaf Spot
3 Cherry Leaf Spot
2 Cultural Problem
1 Eriophyid Mites
1 Insufficient Sample
1 Negative for Verticillium
1 Physiological Leaf Spot
1 Suspect Environmental Stress

----
13 Total for Cherry

**CHESTNUT**
1 Tubakia Leaf Spot

----
1 Total for Chestnut
CRABAPPLE
1 Cedar-Quince Rust  Gymnosporangium clavipes
3 Fire Blight  Erwinia amylovora
2 Scab  Venturia inaequalis
----
6 Total for Crabapple

FILBERT
1 Eastern Filbert Blight  Anisogramma anomala
1 Insects
----
2 Total for Filbert

MULBERRY
1 Suspect Bacterial Wetwood
----
1 Total for Mulberry

PEACH
1 Brown Rot  Monilinia fructicola
1 Chemical Injury
4 Curculios
1 Insects
1 Peach Leaf Curl  Taphrina deformans
1 Physiological Problem
1 Scab  Cladosporium carpophilum
1 Suspect Nutrient Deficiency
----
11 Total for Peach

PEAR
1 Adequate, Sample and Information
1 Cause of Problem Unknown
1 Fire Blight  Erwinia amylovora
1 Insufficient Information
1 Negative for Fire Blight
----
5 Total for Pear

PERSIMMON
1 Persimmon Wilt  Cephalosporium diospyri
----
1 Total for Persimmon

PLUM
1 Cercospora Leaf Spot  Cercospora circumscissa
1 Environmental Stress
1 Insufficient Sample
1 Suspect Chemical Injury
----
4 Total for Plum

WALNUT
1 Mites
----
1 Total for Walnut
Plant Disease Clinic

**TURF**

**BENTGRASS**
- 1 Algae
- 1 Anaerobiosis
- 3 Brown Patch
- 2 Fusarium Patch
- 1 Presence of Pythium
- 1 Red Leaf Spot

---

9 Total for Bentgrass

**BERMUDAGRASS**
- 1 Brown Patch
- 1 Curvularia Blight
- 1 Low pH

---

3 Total for Bermudagrass

**BLUEGRASS**
- 2 Insufficient Sample

---

2 Total for Bluegrass

**CLOVER**
- 1 Bacterial Blight
- 1 Mites

---

2 Total for Clover

**FESCUE**
- 24 Brown Patch
- 1 Cultural Problem
- 2 Dollar Spot
- 3 Fusarium Blight
- 1 Fusarium Patch
- 1 Gray Leaf Spot
- 2 Helminthosporium Blight
- 1 Insufficient Sample
- 2 Low pH
- 1 Red Thread
- 2 Rust
- 1 Slime Mold
- 1 Suspect Chemical Injury
- 1 Yellow Patch

---

43 Total for Fescue

**RYEGRASS**
- 1 Winter Injury

---

1 Total for Ryegrass
Plant Disease Clinic

TURFGRASS
1 Anthracnose
10 Brown Patch
1 Cultural Problem
1 Fusarium Blight
6 Insufficient Sample
1 Melting Out
1 Moss
1 Negative for Disease
1 Nimblewill Encroachment
1 Rust

----
24 Total for Turfgrass

ZOYSIA
1 Cultural Problem
1 Low pH
1 Rust
1 Zoysia Patch

----
4 Total for Zoysia
# Plant Disease Clinic

## VEGETABLES AND HERBS

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<th>Crop</th>
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<td><strong>ASPARAGUS</strong></td>
<td>1 Fusarium Crown Rot</td>
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Plant Disease Clinic

CARROT
1 Alternaria Leaf Blight
----
1 Total for Carrot

CUCUMBER
1 Alternaria Leaf Spot
1 Anthracnose
1 Bacterial Wilt
2 Downy Mildew
1 Insects
1 Powdery Mildew
----
7 Total for Cucumber

EGGPLANT
2 Insufficient Sample
----
2 Total for Eggplant

GARLIC
2 White Rot
----
2 Total for Garlic

GINSENG
1 Phytophthora Root Rot
----
1 Total for Ginseng

GOURED
1 Insufficient Sample
----
1 Total for Gourd

KALE
1 Pythium Root Rot
----
1 Total for Kale

LIMA BEAN
1 Low pH
----
1 Total for Lima Bean

PEPPER
1 Anthracnose
1 Aphids
2 Blossom End Rot
2 Chemical Injury
1 Excess Soluble Salts
2 Insufficient Sample
1 Pythium Stem Rot
1 Rhizoctonia Root Rot
----
11 Total for Pepper

---

Alternaria dauci
Alternaria cucumerina
Colletotrichum lagenarium
Erwinia tracheiphila
Pseudoperonospora cubensis
Sphaerotheca fuliginea
Phytophthora cactorum
Sclerotium cepivorum
Phytophthora cactorum
Pythium sp.
Colletotrichum gloeosporioides
Pythium sp.
Rhizoctonia solani
# Plant Disease Clinic

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<td>1 Common Scab</td>
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<td>3 Downy Mildew</td>
<td>Sphaerotheca fuliginea</td>
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<td>1 Powdery Mildew</td>
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<td><strong>ROSEMARY</strong></td>
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<td>1 Phytophthora Root Rot</td>
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<td>1 Web Blight</td>
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<td>1 Southern Corn Leaf Blight</td>
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</table>
### Plant Disease Clinic

#### SWEET POTATO
- 1 Fusarium End Rot: *Fusarium oxysporum*
- 1 Physiological Problem
- 1 Wireworms

Total for Sweet Potato: 3

#### TANSY
- 1 Insufficient Sample

Total for Tansy: 1

#### TOMATO
- 1 Abiotic Problem
- 1 Adventitious Roots
- 1 Anthracnose: *Colletotrichum coccodes*
- 1 Aphids
- 1 Bacterial Canker: *Clavibacter michiganense*
- 4 Bacterial Wilt: *Ralstonia solanacearum*
- 1 Catfacing
- 12 Chemical Injury
- 1 Cucumber Mosaic Virus
- 2 Cultural Problem
- 3 Early Blight: *Alternaria solani*
- 1 Environmental Stress
- 1 Excess Soluble Salts
- 1 Fertilizer Burn
- 3 Fusarium Wilt: *Fusarium oxysporum*
- 1 Insufficient Information
- 11 Insufficient Sample
- 1 Magnesium Deficiency
- 2 Mites
- 2 Negative for Disease
- 3 Nutrient Deficiency
- 1 Phoma Fruit Rot: *Phoma destructiva*
- 1 Physiological Leaf Roll
- 1 Physiological Problem
- 1 Pith Necrosis: *Pseudomonas corrugata*
- 1 Poor Drainage
- 1 Possible Herbicide Injury
- 1 Root Knot Nematodes: *Meloidogyne sp.*
- 6 Septoria Leaf Spot: *Septoria lycopersici*
- 3 Stinkbugs
- 1 Suspect Bacterial Wilt
- 1 Suspect Boron Deficiency
- 1 Suspect Chemical Injury
- 1 Suspect Cultural Problem
- 1 Suspect Environmental Stress
- 1 Suspect Fertilizer Burn
- 1 Suspect Frost Injury
- 1 Suspect Nutrient Deficiency
- 18 Tomato Spotted Wilt Virus

Total for Tomato: 96
Plant Disease Clinic

**TURNIP**
1. Cercosporella Leaf Spot  
   Cercosporella brassicae  
1. Nutrient Deficiency  
   ----  
2. Total for Turnip

**WATERMELON**
2. Alternaria Leaf Spot  
   Alternaria cucumerina  
4. Chemical Injury  
2. Gummy Stem Blight  
   Mycosphaerella citrullina  
1. Pythium Root Rot  
   Pythium sp.  
   ----  
9. Total for Watermelon

**ZUCCHINI**
1. Squash Bugs  
   ----  
1. Total for Zucchini
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Plant Disease Clinic

7  Spiral Nematodes
1  Suspect Chemical Injury
1  Suspect Salt Injury
1  Volutella Blight
1  Winter Injury
----
82  Total for Boxwood

BURNING BUSH
1  Poor Drainage
1  Suspect Chemical Injury
----
2  Total for Burning Bush

BUTTERFLY BUSH
1  Artillery Fungus
2  Mites
1  Phomopsis Leaf Spot
----
4  Total for Butterfly Bush

CAMELLIA
1  Cause of Problem Unknown
3  Eriophyid Mites
2  Insufficient Sample
1  Leaf and Flower Gall
1  Suspect Winter Injury
1  Winter Injury
----
9  Total for Camellia

CHERRYLAUREL
1  Borers
1  Clitocybe Root Rot
2  Cultural Problem
2  Environmental Stress
2  Insects
9  Insufficient Sample
1  Lacebugs
1  Mites
1  Mycosphaerella Leaf Spot
1  Normal Condition - Glands
----
21  Total for Cherrylaurel

CHOKEBERRY
1  Botryosphaeria Dieback
----
1  Total for Chokeberry

CLEYERA
1  Cultural Problem
----
1  Total for Cleyera
### Plant Disease Clinic

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<td>3 Phyllosticta Leaf Spot</td>
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<td>1 Sooty Mold</td>
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<td>3 Total for Forsythia</td>
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</table>
HIBISCUS
1 Insects
1 Suspect Nutrient Deficiency

2 Total for Hibiscus

HOLLY
1 Anthracnose          Gloeosporium sp.,
10 Black Root Rot      Thielaviopsis basicola
2 Botryosphaeria Dieback Botryosphaeria sp.
1 Cercospora Leaf Spot Cercospora sp.
1 Cold Injury
1 Cultural Problem
2 Environmental Stress
13 Insufficient Sample
1 Mechanical Injury
1 Negative for Root Disease
1 Phomopsis Canker     Phomopsis sp.
1 Phytophthora Root Rot Phytophthora parasitica
1 Planthoppers
2 Rootbound
1 Scales
1 Sooty Mold
1 Spine Spot
1 Suspect Chemical Injury
1 Suspect Cold Injury
1 Suspect Hail Injury
1 Suspect Sapsucker Injury
1 Suspect Winter Injury
2 Winter Injury

48 Total for Holly

HYDRANGEA
1 Artillery Fungus      Sphaerobolus stellatus
1 Cercospora Leaf Spot Cercospora hydrangeae
1 Environmental Stress
3 Insufficient Sample
2 Mites
1 Powdery Mildew       Erisyphe polygoni
1 Thrips

10 Total for Hydrangea

HYPERICUM
1 Rust                  Uromyces triquestrus

1 Total for Hypericum

INKBERRY
1 Environmental Stress
1 Insufficient Sample
1 Phytophthora Root Rot Phytophthora cinnamomi

3 Total for Inkberry
**Plant Disease Clinic**

**JUNIPER**
1 Cause of Problem Unknown
1 Cedar-Quince Rust  
Gymnosporangium clavipes
9 Cultural Problem
7 Environmental Stress
1 High pH
13 Insufficient Sample
2 Kabatina Tip Blight  
Kabatina juniperi
2 Low pH
7 Mites
4 Negative for Root Disease
1 Negative for Tip Blight
5 Phomopsis Tip Blight  
Phomopsis juniperovora
3 Phytophthora Root Rot  
Phytophthora sp.
1 Rootbound
1 Suspect Cultural Problem
1 Suspect Nutrient Deficiency
1 Web Blight  
Rhizoctonia solani

60 Total for Juniper

**LILAC**
1 Artillery Fungus  
Sphaerobolus stellatus
1 Botryosphaeria Dieback  
Botryosphaeria sp.
2 Insufficient Sample
1 Negative for Leaf Disease

5 Total for Lilac

**MOUNTAIN LAUREL**
1 Environmental Stress
2 Insufficient Sample

3 Total for Mountain Laurel

**NANDINA**
1 Phyllosticta Leaf Spot  
Phyllosticta sp.
1 Physiological Problem
1 Suspect Cercospora Leaf Spot  
Cercospora sp.

3 Total for Nandina

**PHOTINIA**
1 Botryosphaeria Dieback  
Botryosphaeria sp.
5 Entomosporium Leaf Spot  
Entomosporium mespili
1 Insufficient Sample

7 Total for Photinia
## Plant Disease Clinic

### PIERIS

<table>
<thead>
<tr>
<th>Disease Type</th>
<th>Cause</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Botryosphaeria Dieback</td>
<td>Botryosphaeria sp.</td>
</tr>
<tr>
<td>1 Insects</td>
<td></td>
</tr>
<tr>
<td>1 Phyllosticta Leaf Spot</td>
<td>Phyllosticta andromedae</td>
</tr>
<tr>
<td>2 Phytophthora Root Rot</td>
<td>Phytophthora cinnamomi</td>
</tr>
<tr>
<td>1 Scales</td>
<td></td>
</tr>
<tr>
<td>1 Thrips</td>
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</table>

7 Total for Pieris

### PLANTS, MISCELLANEOUS

<table>
<thead>
<tr>
<th>Disease Type</th>
<th>Cause</th>
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</thead>
<tbody>
<tr>
<td>1 Chemical Injury</td>
<td></td>
</tr>
<tr>
<td>1 Insects</td>
<td></td>
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</table>

3 Total for Plants, Miscellaneous

### PRIVET

<table>
<thead>
<tr>
<th>Disease Type</th>
<th>Cause</th>
</tr>
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<tbody>
<tr>
<td>1 Alternaria Leaf Spot</td>
<td>Alternaria alternata</td>
</tr>
<tr>
<td>1 Insufficient Sample</td>
<td></td>
</tr>
<tr>
<td>1 Phyllosticta Leaf Spot</td>
<td>Phyllosticta sp.</td>
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</tbody>
</table>

3 Total for Privet

### PYRACANTHA

<table>
<thead>
<tr>
<th>Disease Type</th>
<th>Cause</th>
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<tbody>
<tr>
<td>1 Phomopsis Dieback</td>
<td>Phomopsis sp.</td>
</tr>
<tr>
<td>1 Scab</td>
<td>Spilocaea pyracanthae</td>
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</table>

2 Total for Pyracantha

### RED CEDAR

<table>
<thead>
<tr>
<th>Disease Type</th>
<th>Cause</th>
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<tbody>
<tr>
<td>1 Cedar-Apple Rust</td>
<td>Gymnosporangium juniperi-virginianae</td>
</tr>
<tr>
<td>1 Insufficient Information</td>
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</tbody>
</table>

2 Total for Red Cedar

### RHODODENDRON

<table>
<thead>
<tr>
<th>Disease Type</th>
<th>Cause</th>
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<tbody>
<tr>
<td>1 Abiotic Problem</td>
<td></td>
</tr>
<tr>
<td>1 Artillery Fungus</td>
<td>Sphaerobolus stellatus</td>
</tr>
<tr>
<td>3 Botryosphaeria Dieback</td>
<td>Botryosphaeria sp.</td>
</tr>
<tr>
<td>2 Cercospora Leaf Spot</td>
<td>Cercospora handelii</td>
</tr>
<tr>
<td>1 Cultural Problem</td>
<td></td>
</tr>
<tr>
<td>3 Cylindrocladium Blight</td>
<td>Cylindrocladium scoparium</td>
</tr>
<tr>
<td>1 High pH</td>
<td></td>
</tr>
<tr>
<td>1 Insects</td>
<td></td>
</tr>
<tr>
<td>5 Insufficient Sample</td>
<td></td>
</tr>
<tr>
<td>2 Lacebugs</td>
<td></td>
</tr>
<tr>
<td>1 Mycosphaerella Leaf Spot</td>
<td>Mycosphaerella sp.</td>
</tr>
<tr>
<td>2 Negative for Root Disease</td>
<td></td>
</tr>
<tr>
<td>1 Oedema</td>
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</tr>
<tr>
<td>1 Pestalotia Leaf Spot</td>
<td>Pestalotia sp.</td>
</tr>
<tr>
<td>1 Phomopsis Dieback</td>
<td>Phomopsis sp.</td>
</tr>
<tr>
<td>1 Physiological Problem</td>
<td></td>
</tr>
<tr>
<td>1 Phytophthora Dieback</td>
<td>Phytophthora sp.</td>
</tr>
<tr>
<td>1 Phytophthora Root Rot</td>
<td>Phytophthora sp.</td>
</tr>
<tr>
<td>1 Poor Drainage</td>
<td></td>
</tr>
<tr>
<td>4 Rootbound</td>
<td></td>
</tr>
</tbody>
</table>
Plant Disease Clinic

1 Scorch
1 Suspect Botryosphaeria Dieback Botryosphaeria sp.
----
36 Total for Rhododendron

ROSE
1 Black Spot Diplocarpon rosae
2 Common Canker Coniothyrium fuckelii
1 Downy Mildew Peronospora sparsa
1 Insufficient Information
3 Insufficient Sample
1 Negative for Canker Disease
1 Powdery Mildew Sphaerotheca pannosa
3 Rose Rosette
1 Suspect Chemical Injury
2 Suspect Rose Rosette
----
16 Total for Rose

ROSE-OF-SHARON
1 Insufficient Sample
----
1 Total for Rose-of-sharon

SANTOLINA
1 Environmental Stress
----
1 Total for Santolina

SNOWBALL BUSH
1 Spot Anthracnose Sphaecloma viburni
----
1 Total for Snowball Bush

SPIREA
1 Insufficient Sample
----
1 Total for Spirea

STEWARTIA
1 Kabatiella Leaf Spot Kabatiella sp.
1 Mites
----
2 Total for Stewartia

SUMMERSWEET
1 Foliar Nematodes Aphelenchoides sp.
1 Negative for Foliar Nematodes
----
2 Total for Summersweet

SWEETSPIRE
1 Insects
----
1 Total for Sweetspire
Plant Disease Clinic

VIBURNUM

2 Botryosphaeria Dieback Botryosphaeria sp.
1 Botrytis Blight Botrytis cinerea
1 Cause of Problem Unknown
1 Cercospora Leaf Spot Cercospora sp.
1 Chemical Injury
2 Insufficient Sample
2 Mites
1 Negative for Phytophthora
2 Negative for Root Rot
1 Southern Blight Sclerotium rolfsii

14 Total for Viburnum

WEIGELA

1 Mites

1 Total for Weigela

WITCHHAZEL

1 Phyllosticta Leaf Blight Phyllosticta hamamelidis

1 Total for Witchhazel

YEW

1 Cultural Problem
4 Insufficient Sample
4 Phytophthora Root Rot Phytophthora cinnamomi
1 Sooty Mold

10 Total for Yew
# Plant Disease Clinic

## Summary of Plant Identifications

2004

### Higher Plants (28)

<table>
<thead>
<tr>
<th>Family</th>
<th>Species</th>
<th>Common Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aceraceae</td>
<td>Acer negundo</td>
<td>Boxelder</td>
</tr>
<tr>
<td>Araliaceae</td>
<td>Hedera helix (2)</td>
<td>English Ivy</td>
</tr>
<tr>
<td>Asteraceae</td>
<td>Cirsium arvense</td>
<td>Canada Thistle</td>
</tr>
<tr>
<td>Caprifoliaceae</td>
<td>Viburnum prunifolium</td>
<td>Blackhaw Viburnum</td>
</tr>
<tr>
<td>Cucurbitaceae</td>
<td>Cucurbita pepo</td>
<td>Squash</td>
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<tr>
<td></td>
<td>Lagenaria sp.</td>
<td>Speckled Swan Gourd</td>
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<tr>
<td>Cyperaceae</td>
<td>Kyllinga pumila</td>
<td>Green Kyllinga</td>
</tr>
<tr>
<td>Elaeagnaceae</td>
<td>Elaeagnus pungens</td>
<td>Thorny Eleagnus</td>
</tr>
<tr>
<td>Euphorbiaceae</td>
<td>Euphorbia lathyris</td>
<td>Caper Spurge</td>
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<tr>
<td>Fabaceae</td>
<td>Medicago sativa</td>
<td>Alfalfa</td>
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<tr>
<td></td>
<td>Vigna unguiculata</td>
<td>Cowpea</td>
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<tr>
<td>Fagaceae</td>
<td>Quercus prinus</td>
<td>Chestnut Oak</td>
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<tr>
<td>Hippocastanaceae</td>
<td>Aesculus pavia</td>
<td>Red Buckeye</td>
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<tr>
<td>Lamiaceae</td>
<td>Stachys floridana</td>
<td>Florida Hedge Nettle</td>
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<tr>
<td>Liliaceae</td>
<td>Allium moly</td>
<td>Lily Leek</td>
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<tr>
<td>Moraceae</td>
<td>Broussonetia papyrifera</td>
<td>Paper Mulberry</td>
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<tr>
<td>Nyssaceae</td>
<td>Nyssa sylvatica</td>
<td>Black Gum</td>
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<tr>
<td>Oleaceae</td>
<td>Fraxinus pennsylvanica</td>
<td>Green Ash</td>
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<tr>
<td>Family</td>
<td>Species</td>
<td>Common Name</td>
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<tr>
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<tr>
<td>Poaceae</td>
<td>Muhlenbergia shreveri</td>
<td>Nimblewill</td>
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<tr>
<td></td>
<td>Pennisetum sp.</td>
<td>Pennisetum</td>
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<tr>
<td>Primulaceae</td>
<td>Lysimachia ciliata</td>
<td>Fringed Loosestrife</td>
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<tr>
<td>Rosaceae</td>
<td>Photinia X fraseri</td>
<td>Photinia</td>
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<tr>
<td>Scrophulariaceae</td>
<td>Penstemon digitalis</td>
<td>Beardtongue</td>
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<tr>
<td>Tiliaceae</td>
<td>Tilia americana</td>
<td>American Linden</td>
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<tr>
<td>Urticaceae</td>
<td>Urtica dioica</td>
<td>Stinging Nettle</td>
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<tr>
<td>Verbenaceae</td>
<td>Clerodendrum trichotomum</td>
<td>Harlequin Glorybower</td>
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<td><strong>Fungi (9)</strong></td>
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<tr>
<td>Ganoderma</td>
<td>Ganoderma sp.</td>
<td>Ganoderma</td>
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<td></td>
<td>Lepiota naucina</td>
<td>Smooth Parasol Mushroom</td>
</tr>
<tr>
<td></td>
<td>Lepiota sp.</td>
<td>Parasol Mushroom</td>
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<tr>
<td></td>
<td>Physarum cinereum</td>
<td>Slime Mold</td>
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<tr>
<td></td>
<td>Scleroderma aurantium</td>
<td>Earthball</td>
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<td>Scleroderma geaster (2)</td>
<td>Dead Man's Hand</td>
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<td>Unidentified Genus</td>
<td>Slime Mold</td>
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<td><strong>All Others (4)</strong></td>
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<td>Crystalline Substance (2)</td>
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<tr>
<td>Insufficient Sample</td>
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