The Lab received 22 samples in January. There were 17 ornamental plants, 4 turf, and 1 fruit, a strawberry from Florida. Five of our samples had insect problems, 3 were bacterial, and 10 had fungal diseases. Phytophthora root or crown rots were found on 6 of our ornamental samples.

Table 1. January Plant Diseases Received at the Auburn Plant Diagnostic Lab

<table>
<thead>
<tr>
<th>Plant</th>
<th>Disease</th>
<th>County</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bermudagrass</td>
<td>Bermudagrass decline</td>
<td>Hillsborough, FL</td>
</tr>
<tr>
<td>Carnation</td>
<td><em>Phytophthora</em> root rot</td>
<td>*</td>
</tr>
<tr>
<td>Desert-rose</td>
<td><em>Phytophthora</em> crown rot</td>
<td>*</td>
</tr>
<tr>
<td>Dracaena</td>
<td>Lesser snow scale</td>
<td>Elmore</td>
</tr>
<tr>
<td>Eleagnus</td>
<td>High pH, low phosphorus, possible root rot</td>
<td>Montgomery</td>
</tr>
</tbody>
</table>
Gardenia *Phytophthora* root rot  
Bacterial leaf spot * 
Lavendar *Phytophthora* root rot * 
Leyland cypress *Cercospora* needle blight, possible  
*Botryosphaeria* or *Siridium* canker Walker 
Live oak Wool-bearing gall wasps Crenshaw 
Lotus *Phytophthora* root/stem rot Lee 
Nandina Bacterial leaf spot * 
Osteosperum Insect damage * 
Ponytail palm Lesser snow scale Elmore 
Palm Lesser snow scale Elmore 
Pittosporum, dwarf *Phytophthora* root rot Montgomery 
Strawberry Angular leaf spot Hillsborough, FL 
Zoysia Environmental, nutritional Hillsborough, FL 
*Pythium* root rot Lee 
Brown patch  

*Counties are not reported for greenhouse and nursery samples.

**Birmingham Plant Disease Report, January and February (J. Jacobi)**

The lab received a total of 64 samples during the months of January and February. The most common problems last month were related to the lingering effects of the drought during the summer and fall of 2010. Conifers like arborvitae, Japanese Cryptomeria, and Leyland cypress have shown the most damage. Damage symptoms included dieback and interior browning of affected conifers. Many of these plants were installed in the last year or two; more established plants often showed little damage. Some of the more unusual problems seen last month were San Jose scale on apple, broad mites on greenhouse basil and pepper, wool-bearing gall wasp on live oak, and anthracnose on snake plant.

**Table 2.** Problems Seen in the Birmingham Plant Diagnostic Lab during January and February, 2011

<table>
<thead>
<tr>
<th>Plant</th>
<th>Problem</th>
<th>County</th>
</tr>
</thead>
<tbody>
<tr>
<td>Apple</td>
<td>San Jose Scale</td>
<td>DeKalb</td>
</tr>
<tr>
<td>Arborvitae</td>
<td><em>Phytophthora</em> Root Rot</td>
<td>Jefferson</td>
</tr>
<tr>
<td></td>
<td>Armillaria Root Rot</td>
<td>Lauderdale</td>
</tr>
<tr>
<td>Plant</td>
<td>Issue</td>
<td>Location</td>
</tr>
<tr>
<td>---------------</td>
<td>---------------------------------</td>
<td>-----------------</td>
</tr>
<tr>
<td>Azalea</td>
<td>Azalea Lacebug</td>
<td>Jefferson</td>
</tr>
<tr>
<td></td>
<td>Cercospora Leaf Spot</td>
<td>Jefferson, Walker</td>
</tr>
<tr>
<td></td>
<td>Iron Chlorosis</td>
<td>Jefferson</td>
</tr>
<tr>
<td></td>
<td>Phomopsis Dieback</td>
<td>Walker</td>
</tr>
<tr>
<td>Basil</td>
<td>Broad Mites</td>
<td>Lauderdale</td>
</tr>
<tr>
<td>Bentgrass</td>
<td>Yellow Patch (<em>Rhizoctonia</em>)</td>
<td>*</td>
</tr>
<tr>
<td>Bluegrass, Roughstalk (<em>Poa trivialis</em>)</td>
<td>Yellow Patch (<em>Rhizoctonia</em>)</td>
<td>*</td>
</tr>
<tr>
<td>Boxwood</td>
<td>Boxwood Leafminer</td>
<td>Jefferson (2)</td>
</tr>
<tr>
<td></td>
<td>Planted Too Deep</td>
<td>Jefferson</td>
</tr>
<tr>
<td></td>
<td>Winter Damage</td>
<td>Jefferson (2)</td>
</tr>
<tr>
<td>Cast Iron Plant</td>
<td>Vole Damage</td>
<td>Jefferson</td>
</tr>
<tr>
<td>Cherry Laurel</td>
<td>Cercospora Leaf Spot</td>
<td>Jefferson</td>
</tr>
<tr>
<td>Elaeagnus</td>
<td>Vole Damage</td>
<td>Jefferson</td>
</tr>
<tr>
<td>Gardenia</td>
<td>Cold Damage</td>
<td>Jefferson</td>
</tr>
<tr>
<td></td>
<td>Phomopsis Canker</td>
<td>Jefferson</td>
</tr>
<tr>
<td>Holly</td>
<td>Two Lined Spittlebug</td>
<td>Shelby</td>
</tr>
<tr>
<td>Holly, Chinese</td>
<td>Cottony Camellia Scale</td>
<td>Jefferson</td>
</tr>
<tr>
<td></td>
<td>Sooty Mold</td>
<td>Jefferson</td>
</tr>
<tr>
<td>Juniper</td>
<td>Phytophthora Root Rot</td>
<td>Walker</td>
</tr>
<tr>
<td></td>
<td>Dieback (Drought)</td>
<td>Jefferson</td>
</tr>
<tr>
<td>Magnolia</td>
<td>Algal Leaf Spot</td>
<td>Jefferson</td>
</tr>
<tr>
<td></td>
<td>Anthracnose (<em>Colletotrichum</em>)</td>
<td>Jefferson</td>
</tr>
<tr>
<td>Oak, Live</td>
<td>Wool-bearing Gall Wasp</td>
<td>Jefferson</td>
</tr>
<tr>
<td>Pansy</td>
<td>Pythium Root Rot</td>
<td>Shelby</td>
</tr>
<tr>
<td>Peach</td>
<td>Phomopsis Canker</td>
<td>Chilton</td>
</tr>
<tr>
<td>Pepper</td>
<td>Broad Mites</td>
<td>Lauderdale</td>
</tr>
<tr>
<td>Pine, Longleaf</td>
<td>Drought/Root Girdling</td>
<td>Jefferson</td>
</tr>
<tr>
<td>Rosemary</td>
<td>Cold Damage</td>
<td>*</td>
</tr>
<tr>
<td>Sansevieria (snake plant)</td>
<td>Anthracnose (<em>Colletotrichum</em>)</td>
<td>Jefferson</td>
</tr>
<tr>
<td>Tomato</td>
<td>Twospotted Spider Mites</td>
<td>Lauderdale</td>
</tr>
<tr>
<td>Wax Myrtle</td>
<td>Sapsucker Damage</td>
<td>Jefferson</td>
</tr>
</tbody>
</table>
Virus symptoms on wheat and other small grains may be more evident in March. Barley yellow dwarf virus (BYDV), an aphid transmitted virus, causes oats to develop a red coloration which begins at leaf tips of older leaves and progresses down to the leaf base. In addition to the reddening symptom (which sometimes can be confused with cold damage or nutrient deficiency), infected plants become stunted with excessive tillering. The developing spikes may be white and sterile. BYDV infection may cause the older leaves of wheat to become bright yellow. Severe plant damage may be caused by this disease. Soilborne wheat mosaic virus (SBWMV) may also appear. Symptoms include a yellow streaking or mosaic pattern on the otherwise green wheat leaves. Infected plants may become severely stunted and seedlings do not produce heads. This virus is transmitted and maintained in the soil by the fungus *Polymx a gramin i*. Disease occurrence appears to be more prevalent in low wet areas. Symptoms of SBWMV infection become diminished as temperatures warm up in the spring. Barley and rye are also susceptible.

Other diseases often reported in early spring include Helminthosporium leaf spots on bermuda and small grains; the beginning of powdery mildews, rusts, and/or Septoria leaf blotch on small grains. Some downy mildews, Botrytis blight, and bacterial leaf spots may appear on greenhouse crops.

The following list includes some of the disease problems with their symptoms commonly received in March and early April. Refer to the pertinent fact sheets, timely information sheets, spray guides, and the Alabama Pest Management Handbook for detailed control measures.
**Alfalfa Spring Black Stem and Leaf Spot (Phoma):** Numerous small dark brown to black spots develop on the lower leaves, petioles, and stems in early spring. Leaf spots may increase in size and coalesce; becoming light to medium brown, then leaves may turn yellow, wither, and fall. Lesions on stems and petioles may enlarge and blacken large areas, girdling the base of the plant and causing death to foliage. *Phoma* may also cause a crown and root rot. Seed pods may discolor and shrivel in humid conditions. **CONTROL:** Early cutting; proper fertility management.

**Alfalfa Stemphylium Leaf Spot:** Oval, light brown, slightly sunken lesions are often surrounded by a light yellow halo. Lesions may expand into concentric rings which may under severe conditions cause the leaf to yellow and fall prematurely. **CONTROL:** Frequent or early harvesting.

**Alfalfa White Mold (Sclerotinia):** This crown and stem rot causes lower stems to become yellow and limp, then dark brown and soft. During cool, wet weather a cottony web-like growth (mycelia) can be seen on stems and crowns of infected plants, and may spread over the soil. White spherical bodies up to 2 mm (sclerotia) develop on the mycelia, darkening as they grow to tan, then brown-black. **CONTROL:** Deep plowing buries sclerotia. Spring planting reduces the incidence; late summer and fall seedlings should be planted at the earliest possible date; 2-3 year rotation from forage legumes.

**Apple, Pear Fire Blight (Erwinia):** Affected plant parts appear scorched by fire and may have a watery ooze under humid conditions. **CONTROL:** Sanitation; resistant varieties; see Alabama Pest Management Handbook; see ANR-542.

**Aucuba Pestalotia Leaf Spot:** Irregular, light gray leaf spots; usually develop after cold or other injury. **CONTROL:** Sanitation.

**Azalea Botryosphaeria Canker:** Sunken cracked lesions on branches. This canker often follows a wound, cold injury, or other stress. **CONTROL:** Sanitation.

**Azalea Botrytis Petal Blight:** Blossoms with large, brown, irregular areas, these being covered with a delicate gray webbing during humid weather. **CONTROL:** See Alabama Pest Management Handbook.

**Azalea Cercospora Leaf Spot:** Dark brown, angular spots about 5 mm. diameter; usually associated with stressed plants. **CONTROL:** Remove fallen leaves; Maintain proper fertility and watering schedules; Cleary’s 3336 may be applied as a protective spray.

**Azalea Colletotrichum Leaf Spot (Anthracnose):** Olive to dark brown angular spots up to 0.5 cm. diameter, usually associated with stressed plants. **CONTROL:** Remove fallen leaves; maintain proper fertility and watering schedules; Cleary’s 3336 may be applied as a protective spray.

**Azalea Exobasidium Gall:** Leaves and blossoms develop often large green-pink-white fleshy galls. **CONTROL:** See Alabama Pest Management Handbook.
**Azalea Ovulinia Petal Blight:** Flowers first exhibit small white or brown spots which may appear water-soaked. These enlarge rapidly and become slimy. **CONTROL:** See Alabama Pest Management Handbook.

**Azalea Pestalotia Blight** (secondary): Dry gray-white blotches on leaves, often on leaf edges. **CONTROL:** Sanitation.

**Azalea Phomopsis Twig Blight:** Usually small oval, sunken lesions on small branches and twigs. **CONTROL:** Pruning; improve plant vigor.

**Azalea Phytophthora Crown and Root Rot:** Roots and crown become brown and water-soaked; leaves become chlorotic and wilt. **CONTROL:** Sanitation; see Alabama Pest Management Handbook.

**Azalea Rhizoctonia Aerial Blight:** Irregular brown spots on foliage which may involve half or all of the leaf area. Dead leaves will fall. **CONTROL:** See Alabama Pest Management Handbook.

**Begonia Pythium Crown Rot, Root Rot:** Lower stem and roots become light brown, rotted, and water-soaked. The outer cortex of the root is easily separated from its core. **CONTROL:** Remove damaged plants and replace root-associated soil. Reduce water levels.

**Bentgrass Pythium Blight:** Irregular areas of turf become water-soaked, then light brown. **CONTROL:** See ANR-594.

**Bentgrass Ring Nematode Damage (Criconemoides):** Areas thin, stunted, yellow, and/or dieback. **CONTROL:** See ANR-523.

**Bermuda Brown Patch (Rhizoctonia):** Large circular patches of light brown turf; individual blades show brown lesions and/or crowns show brown lesions, rot. **CONTROL:** See Alabama Pest Management Handbook, ANR-492.

**Bermuda Helminthosporium Leaf Spot:** Small oval or rectangular brown spots; blight occurs when spotting heavy. **CONTROL:** See Alabama Pest Management Handbook.

**Bermuda Ring Nematode (Criconemoides):** Stunted, yellow plants; dieback. **CONTROL:** See ANR-523.

**Bermuda Spring Dead Spot:** Yellow patches develop in early spring. **CONTROL:** See Alabama Pest Management Handbook and ANR-371.

**Blackberry Anthracnose (Elsinoe):** Sunken cream to brown lesions on canes and foliage. **CONTROL:** Sanitation; Liquid Lime Sulfur just prior to bud break, or later apply Benlate.
**Blackberry**  Orange Rust (*Gymnoconia nitens*): Young shoots and leaves are stunted and misshapen. Bright orange, powdery blisters on leaf undersurfaces. Infected leaves wither and drop. **CONTROL:** Sanitation; improve air circulation.

**Blackberry**  Rosette (Double blossom) (*Cercosporella*): Infected blossoms abnormally large with distorted petals and enlarged sepals. Shoots appear rosetted or witches broom, initially are pale green but become bronze. **CONTROL:** See Alabama Pest Management Handbook.

**Blueberry**  Botryosphaeria canker: Elongate, sunken, cracked, lesions. **CONTROL:** Prune affected stems.

**Boxwood**  Macrophoma Blight-Stress: Boxwood may take on a reddish tint in winter, then develop a more serious yellowing and blight with tiny black dots scattered on yellowed leaves. Cankers may also develop. This is generally a problem of stressed plants. **CONTROL:** Pruning; proper maintenance.

**Boxwood**  Phytophthora root rot: Roots become light brown, rotted, and water-soaked. The outer cortex of the root is easily separated from its core. **CONTROL:** Sanitation; maintain proper water and fertility. See Alabama Pest Management Handbook.

**Boxwood**  Pythium root decay: Small feeder roots decay; dieback. **CONTROL:** Remove plants showing dieback. Ensure no excess water. Fungicidal drenches may be used in nursery settings. See Alabama Pest Management Handbook.

**Boxwood**  Volutella Blight: Dieback beyond branch and twig cankers; blighted leaves. Masses of orange spores develop on twigs and leaves in humid conditions. **CONTROL:** Pruning; remove fallen leaves. See Alabama Pest Management Handbook.

**Camellia**  Algal Leaf Spot (*Cephaleuros*): Velvety green, reddish, or brown slightly raised spots develop on upper leaves under wet conditions. Older spots may have white centers and or become grayish green, looking almost lichen-like. **CONTROL:** See Alabama Pest Management Handbook.

**Camellia**  Colletotrichum Leaf Spot (Anthracnose): Light brown circular spots; under close inspection orange-pink-white-brown sporulation may be seen on the lesions. **CONTROL:** Sanitation; Cleary’s 3336 protective sprays.

**Camellia**  Ringspot Virus: Yellow or brown rings on leaves. Plants may be stunted. **CONTROL:** Maintain proper fertility and water schedules.

**Cedar, Red (Juniper)**  Cedar-Apple Rust (*Gymnosporangium*): 1-3 inch round, woody galls on stems which develop orange, jelly-like horns protruding from the entire surface of the gall. **CONTROL:** Remove galls before protrusions develop. Apply protective fungicides to nearby apple, crabapple, and hawthorn. See Alabama Pest Management Handbook. See ANR-468.
**Cedar, Red (Juniper) Pestalotia Tip Blight:** Tips of twigs turn brown to gray. **CONTROL:** Maintain proper fertility and watering schedules. Selective pruning.

**Cedar, Red (Juniper) Phomopsis Dieback:** Browned twig tips. Dieback extends further down twig with time; cankers. **CONTROL:** Sanitation. See Alabama Pest Management Handbook.

**Cedar, Red (Juniper) Phytophthora Root Rot:** Dieback. Roots become brown, wet, and rotted, later drying out. **CONTROL:** Sanitation. Reduce irrigation and improve soil drainage. See Alabama Pest Management Handbook for control in nursery settings.

**Centipede Brown Patch (Rhizoctonia):** Rapidly developing large circular or irregular patches; individual blades show brown lesions, crowns show lesions and rot. **CONTROL:** See Alabama Pest Management Handbook. See ANR-492.

**Centipede Fairy Ring:** Circles or arcs of darker green grass and/or an inner band of thin or dead grass. White mycelium may be evident and there may be associated mushrooms. **CONTROL:** See ANR-372.

**Centipede Lesion Nematode (Pratylenchus sp.):** Yellow, declining growth, thinning, wilting, and sometimes death occurs in patches or uniformly through the turf. **CONTROL:** See ANR-523.

**Cherry Laurel Bacterial Leaf Spot (Xanthomonas):** Initially brown to purple spots, sometimes with a light green halo. Older spots dry and fall out leaving a “shot-hole” appearance. **CONTROL:** Sanitation; basic copper sulfate may provide protective control. See Alabama Pest Management Handbook.

**Cherry Laurel Cercospora Leaf Spot:** Irregular brown spots of variable size. **CONTROL:** Sanitation of leaves in the fall.

**Clematis, Evergreen Pythium Root Rot:** Small feeder roots are the first affected, becoming rotted and water-soaked. The outer cortex of the root is easily separated from its core. **CONTROL:** Remove damaged plants and root-associated soil. Reduce water levels in soil.

**Cleyera Anthracnose (Colletotrichum):** Reddish round or irregular spots about 5 mm. diameter scattered on leaves. **CONTROL:** Sanitation. Cleary’s 3336 or Domain protective sprays.

**Collard Black Rot (Xanthomonas):** V-shaped yellow-black spots along leaf edges; black leaf veins and lower stem. **CONTROL:** Sanitation; crop rotation.

**Cryptomeria Botryosphaeria Canker:** Sunken branch lesions, sometimes with cracking around the edges. **CONTROL:** Pruning 3-4 inches beyond lesions, dipping shears in alcohol between cuts.
**Daffodil  Fusarium Bulb Rot:** A brown discoloration at the base of the bulb. Leaves of bulb develop a dry rot; occasionally a pink mold can be seen beneath the scales. **CONTROL:** Remove damaged bulbs and replace soil in the area. Rotate crops for several years.

**Daylily  Pythium Root Rot:** Roots become light brown, rotted, and water-soaked. The outer cortex of the root is easily separated from its core. **CONTROL:** Remove damaged plants and root-associated soil. Reduce soil moisture.

**Euonymus Anthracnose (Elsinoe):** Round or angular brown lesions on foliage. **CONTROL:** Sanitation. See Alabama Pest Management Handbook.

**Fescue, Tall  Net Blotch (Helminthosporium):** Small (1-2 mm), elongated medium-to reddish-brown spots scattered over leaf blades. **CONTROL:** See Alabama Pest Management Handbook or ANR-621.

**Fescue, Tall  Striped Smut:** Thin stripes of black spores along the leaves. Plants may be stunted and have leaves with yellow streaking.

**Gardenia Pestalotia Leaf Spot:** Gray or brown leaf spots, often secondary after cold damage. **CONTROL:** Remove damaged leaves and debris.

**Geranium Bacterial Blight (Xanthomonas campestris pv. pelargonii):** Small water-soaked spots may first appear on underside of leaves, then darken, are slightly sunken, and become angular. Spots followed by wilt and dieback. **CONTROL:** Sanitation. See Alabama Pest Management Handbook.

**Geranium Botrytis Blight:** Brown leaf spots, blight of blossoms and leaves. Stem blight. **CONTROL:** See Alabama Pest Management Handbook.

**Geranium Pythium Stem and Root Rot:** Lower stems and/or roots become brown to black and decayed. **CONTROL:** See Alabama Pest Management Handbook.

**Gomphrena  Tomato Spotted Wilt Virus:** New growth is stunted, brown to black leaf spots. Upper leaf surface appears bronze. **CONTROL:** Remove damaged plants. Control thrips.

**Greenhouse Crops  Bacterial Leaf Spot:** Dark irregular water-soaked spots which often dry in the center and may have yellow zones or borders. **CONTROL:** Strict sanitation; eliminate overhead irrigation if possible; copper sprays. See Alabama Pest Management Handbook.

**Greenhouse Crops  Botrytis blight:** Blossoms with large, brown, irregular areas, these being covered with a delicate gray webbing during humid weather. **CONTROL:** See Alabama Pest Management Handbook. Decrease humidity.
**Greenhouse Crops  Downy Mildew:** Diffuse yellow spots on upper leaf surfaces with lower surface showing darker color, often with tan or gray fungal growth. **CONTROL:** See Alabama Pest Management Handbook.

**Greenhouse Crops  Phytophthora Root Rot:** Roots brown, decayed, water-soaked; the outer cortex of the root is easily separated from its core. **Sanitation.** Check soil water and fertilizer. **CONTROL:** Chemical control varies among plant types.

**Holly  Botryosphaeria Leaf Spot:** Round black leaf spots; cankers may develop. **CONTROL:** Remove damaged and fallen leaves. Cleary’s 3336 may be used as protectant.

**Holly  Colletotrichum Leaf Spot:** Small brown circular leaf spots. **CONTROL:** Cleary’s 3336 may be used as protectant.

**Holly  Pestalotia Leaf Spot:** Irregular gray or brown blotches. **CONTROL:** Sanitation.

**Hosta  Pythium Crown Rot:** Brown water-soaked decay on stem near soil line. **CONTROL:** Sanitation; improve soil drainage; rotate from Hosta; Subdue 2E after a test treatment.

**Indian Hawthorn  Entomosporium Leaf Spot:** Reddish leaf spots with black centers. **CONTROL:** Sanitation. Protective fungicide sprays.

**Iris, Bearded  Heterosporium Leaf Spot:** Brown elliptical spots may be up to 2 cm. **CONTROL:** Sanitation. Cleary’s 3336 protective sprays.

**Jerusalem Artichoke  Crown Gall:** Hard, woody spherical gall at base of stem. **CONTROL:** Remove and destroy infected plants. Rotate to resistant plant. See Disease Note ANR-944.

**Juniper:** See Cedar, Red.

**Kudzu  Asian Soybean Rust:** Small yellow spots may become white or brown. **CONTROL:** Sanitation.

**Kumquat  Anthracnose:** Brown leaf spots, sometimes zonate. **CONTROL:** Remove fallen leaves. Water at soil level.

**Lavender  Botrytis Blight:** Brown leaf spots and foliage blight. Blossoms may also have these symptoms. **CONTROL:** Remove symptomatic plant parts. Reduce humidity and water levels.

**Leyland cypress  Phomopsis Twig Canker:** Sunken round or elliptical brown twig lesions. **CONTROL:** Sanitation; Cleary’s 3336 can be used as protective spray.

**Leyland cypress  Cercospora Blight:** Blight usually starts on lower inner leaves. **CONTROL:** Pruning, sanitation. Cleary’s 3336 can be used as protective spray.
**Leyland cypress** Macrophoma, *Pestalotia Needle Blight*: Brown needles with tiny black specks. Usually a secondary problem on stressed or weakened plants. **CONTROL:** Sanitation.

**Leyland cypress** Macrophoma, *Phomopsis Cankers*: Small sunken brown lesions on twigs and small stems; black specks may be present on lesion surfaces. **CONTROL:** Sanitation; Cleary’s 3336 protective sprays.

**Ligustrum** Cercospora Leaf Spot: Round or irregular brown leaf spots. **CONTROL:** Sanitation. Improve air circulation. Cleary’s 3336 protective sprays. See Alabama Pest Management Handbook.

**Lilac** Bacterial Leaf Spot: Black, angular, water-soaked leaf spots. **CONTROL:** Sanitation. See Alabama Pest Management Handbook.

**Lilac** Pythium Root Rot: Decayed, water-soaked roots. **CONTROL:** Sanitation. Improve soil drainage. Crop rotation.

**Magnolia** Phyllosticta Leaf Spot: Round circular spots up to 1 cm. See Alabama Pest Management Handbook under “Leaf Spot.”

**Maple, Red** Botryosphaeria Canker: Dry, cracked, dark branch lesions. **CONTROL:** Prune out cankers.

**Mondograss** Anthracnose (*Colletotrichum*): Brown to reddish-brown blotches, often along leaf edge or tip. **CONTROL:** See Alabama Pest Management Handbook.

**Nandina, Dwarf** Phytophthora Root Rot: Roots become water-soaked, brown, and dry. Foliage dieback, wilt, poor growth. **CONTROL:** Sanitation.

**Oak** Botryosphaeria Canker: Sunken lesions with cracked margins. **CONTROL:** Pruning.

**Oak** Hypoxylon Canker: Thick, hard, black fungus layer under the bark. **CONTROL:** Prune out cankers.

**Oats** Barley Yellow Dwarf Virus: Older foliage becomes yellow to red in color; plants become stunted with excess tillering. **CONTROL:** Control difficult and not necessarily cost effective. Control aphids. Eliminate grassy weeds near field.

**Pachysandra** Volutella Blight: Sunken brown stem lesions. Orange dots may be seen on surface of lesions. **CONTROL:** Prune out damaged areas.

**Peach** Armillaria Trunk/Root Rot: Trees do not leaf out in spring, or if they do they dieback a few weeks later. Black thread-like structures and/or white mycelial mats may be present under the bark near the soil line. **CONTROL:** Sanitation of infected plants including roots.
**Peach Black Knot:** Green or black elongated swellings along branches. **CONTROL:** Sanitation. See Alabama Pest Management Handbook.

**Peach Crown Gall:** Brown irregular swellings at lower trunk or upper roots. **CONTROL:** Sanitation; crop rotation. Contact Ed Sikora.

**Peach Botryosphaeria Canker, Gummosis:** Oval sunken lesions on bark with cracked edges and resin exudate. **CONTROL:** Sanitation.

**Peach Leaf Curl (Taphrina):** Thickened, puckered leaves which may turn reddish-green. **CONTROL:** Sanitation. See Alabama Pest Management Handbook.

**Peach Phomopsis Twig Blight:** Oval, sunken cankers; branch cankers may result in dieback and wilting; discoloration evident when out bark is removed. **CONTROL:** Sanitation. Contact Ed Sikora.

**Pear Entomosporium Leaf Spot:** Small black leaf spots. **CONTROL:** Sanitation.

**Pear, Bradford Fireblight (Erwinia):** Black dieback, blossom blight; twigs may have a shepherd’s crook appearance. **CONTROL:** See Alabama Pest Management Handbook.

**Periwinkle Pythium Root Rot:** Roots brown and water-soaked. **CONTROL:** Sanitation. See Alabama Pest Management Handbook.

**Petunia Crown Rot (Phytophthora parasitica):** Cankers and blight develop on foliage. **CONTROL:** Sanitation. Daconil, Echo, Thalonil, and Aliette are labeled.

**Phlox (and other Ornamentals) Powdery Mildew:** Light-colored powdery patches on leaves and stems; some distortion of new growth. **CONTROL:** Cleary’s 3336.

**Phlox (and other Ornamentals) Rhizoctonia Blight:** Brown blotches on lower leaves; whole leaves and stems may be affected. **CONTROL:** Sanitation. Cleary’s 3336.

**Photinia Armillaria Root Rot:** Plant decline. A thin, white mycelial layer may be found under the bark or on roots, as well as black thread-like rhizomorphs on roots. Honey-colored mushrooms may be present. **CONTROL:** Sanitation of plants and roots. Crop rotation. See ANR-907.

**Photinia Entomosporium Leaf Spot:** Dark red spots or blotches on both leaf surfaces. **CONTROL:** Pruning; fungicide treatment. See ANR-392. See Alabama Pest Management Handbook.

**Pine, Loblolly Fusiform Rust (Cronartium quercuum f. sp. fusiforme):** Elliptical swellings on branches and trunks with a rusty, powdery coating. **CONTROL:** Sanitation. Protective sprays in nursery settings. See Alabama Pest Management Handbook.

**Pine, Loblolly Needle Rust (Coleosporium):** Cream-colored, 2-3 mm pustules along needle edges. **CONTROL:** none.
**Pine, Longleaf seedlings**  **Rhizoctonia Root Rot:** Brown lesions, often shriveled, on roots. **CONTROL:** Sanitation.

**Pine, Virginia  Fusarium Pitch Canker:** Pine resin covers sunken oval lesions on branches and trunks. **CONTROL:** Sanitation.

**Pine, Virginia  Needle Rust (Coleosporium):** Cream-colored, 2-3 mm pustules along needle edges. **CONTROL:** none.

**Plum  Black Knot:** Green, swollen, elongated galls in spring become black in summer. **CONTROL:** Pruning; see ANR-1055. Apply Captan at green tip stage.

**Poa trivialis  Pythium Blight:** Yellow to brown irregular or circular areas in turf; dieback. **CONTROL:** See Alabama Pest Management Handbook and ANR-594.

**Privet  Cercospora Leaf Spot:** Round or irregular leaf spots up to 1 cm. **CONTROL:** See Alabama Pest Management Handbook.

**Quince  Fireblight (Erwinia amylovora):** Blossom blight followed by rapid dieback. **CONTROL:** Severe pruning.

**Rhododendron, Azalea  Botryosphaeria Canker:** Elongate sunken brown cankers, often with cracked margins. **CONTROL:** Sanitation.

**Rhododendron  Cercospora Leaf Spot:** Usually round, brown spots up to 1 cm. **CONTROL:** Sanitation; Cleary’s 3336 or Domain protective sprays.

**Rhododendron  Pestalotia Leaf Spot:** Gray-brown leaf blotches. Often occurs on cold-stressed or injured leaves. **CONTROL:** Sanitation.

**Rose  Black Spot (Diplocarpon rosa):** Round black spots with feathery edges. **CONTROL:** See ANR-505 and Alabama Pest Management Handbook.

**Rose  Coniothyrium Canker:** Brown oval sunken lesion on stems. A microscopic exam may be required to distinguish this from other canker diseases. **CONTROL:** Sanitation. Protective fungicides labeled for black spot.

**Rose  Phytophthora Root Rot:** Poor growth; lower foliage may yellow, wilt; plant death. **CONTROL:** Sanitation. See Alabama Pest Management Handbook and ANR-505.

**Rose  Powdery Mildew (Sphaerotheca spp.):** White powdery coating on leaves and stems. **CONTROL:** See Alabama Pest Management Handbook and ANR-407.

**Rose, Hybrid Tea  Nectria Canker:** Sunken lesions on cane have some callus production around edges. **CONTROL:** Sanitation. Protective fungicides labeled for black spot.
**Rosemary**  **Botrytis Blight:**  Brown to gray leaf spots and blight areas.  **CONTROL:** Sanitation; reduce humidity.

**Ryegrass**  **Pythium Blight:**  Large brown water-soaked leaf spots or lesions.  **CONTROL:** See Alabama Pest Management Handbook and ANR-594.

**Satsuma**  **Anthracnose (**Colletotrichum sp.**):**  Round, brown leaf spots may be zonate.  **CONTROL:** Sanitation; improve air circulation.

**Snapdragon**  **Anthracnose:**  Small brown circular leaf spots.  **CONTROL:** Sanitation. See Alabama Pest Management Handbook.

**Snapdragon**  **Pythium Irregular Crown and Root Rot:**  Light brown, water-soaked roots. Leaves, especially lower foliage, may wilt and dieback.  **CONTROL:** Remove damaged plants. Reduce soil moisture and improve drainage.  Replacement of some soil may be helpful.

**St. Augustinegrass**  **Take-All Patch (**Gaeumannomyces**):**  Circular light to reddish-brown patches of turf.  **CONTROL:** Maintain soil pH between 5.5-6.0; use ammonium forms of nitrogen.

**Strawberry**  **Anthracnose Fruit Rot (**Colletotrichum**):**  Dark rotting develops on fruit. Older spots may produce orange spores.  **CONTROL:** See Alabama Pest Management Handbook or Spray Guide Bulletin for Small Fruit.

**Strawberry**  **Botrytis Fruit Rot:**  Gray-brown rotted areas often with fluffy mycelial growth.  **CONTROL:** Sanitation. See Alabama Pest Management Handbook or Spray Guide Bulletin for Small Fruit.

**Strawberry**  **Mycosphaerella Leaf Spot:**  Symptoms vary by variety and temperature.  2-3 mm round leaf spots may have light centers and purple margins. Spots may coalesce causing leaf death.  **CONTROL:** See Alabama Pest Management Handbook.

**Strawberry**  **Phytophthora Crown and Petiole Rot:**  Inner crown may be reddish. Petioles become brown and decayed.  **CONTROL:** Sanitation. Reduce irrigation and/or improve drainage. See Alabama Pest Management Handbook.

**Sweet Potato**  **Black Rot (**Ceratocystic fimbriata**):**  Initially small dark spots appear on roots. The rot tends to remain firm and shallow.  **CONTROL:** Sanitation. See Alabama Pest Management Handbook for a commercial crop.

**Thrift (**Phlox subulatins**)**  **Anthracnose (**Colletotrichum**):**  Small brown or reddish-brown spots develop and may coalesce.  **CONTROL:** Sanitation. Cleary’s 3336 or Domain protective sprays may be used.

**Tomato**  **Bacterial Leaf Spot (**Xanthomonas axonopodis**):**  Round black, water-soaked leaf spots.  **CONTROL:** See Alabama Pest Management Handbook and ANR-71.

**Tomato Rhizoctonia Crown Rot**: The crown becomes brown, dried, and rotted. **CONTROL**: Crop rotation; possibly soil solarization.

**Tulip Fusarium and Penicillium Bulb Rots**: Dry, sunken, brown-gray lesions develop on bulbs. *Penicillium* sporulation may occur as blue-gray mold on lesion surface. **CONTROL**: Sanitation; bulb dips. See Alabama Pest Management Handbook.

**Turnip Cercospora Leaf Spot**: Irregular cream to brown leaf spots, up to 1 cm diameter. **CONTROL**: Sanitation. See Alabama Pest Management Handbook or Spray Guide Bulletin for Vegetables.

**Vinca Annual Rhizoctonia Stem Rot**: Dried, dark brown, sunken stem lesions; dieback of affected stems. **CONTROL**: Sanitation; remove damaged plants. Protective sprays of Domain, Chipco 26019, or Cleary’s 3336. See Alabama Pest Management Handbook.

**Wax Myrtle Botryosphaeria Canker**: Dark, cracked, slightly sunken branch lesions, often following cold injury. **CONTROL**: Pruning.

**Wheat Bacterial Blight (Black Chaff) (*Xanthomonas*):** Elongated blackish lesions may develop on foliage early in the season. Glumes later become spotted with brown to black lesions; these may be confused with Septoria glume blotch. **CONTROL**: None, except deep plow or crop rotation.

**Wheat Barley Yellow Dwarf Virus**: Yellowing and reddening of older leaves; excessive tillerering, stunting. **CONTROL**: None except aphid control.

**Wheat Leaf Rust (*Puccinia*):** Orange to dark red pustules on leaf blades and sheaths. See Alabama Spray Guide.

**Wheat Powdery Mildew (*Erysiphe*):** White to gray fluffy mycelium on upper surface of leaf blades. See Alabama Spray Guide.

**Wheat Septoria Blotch**: Yellow flecks on lower leaves become irregular, brownish lesions up to 5 by 15 mm, sometimes developing gray centers. **CONTROL**: Generally no control is necessary.

**Wheat Take-All (*Gaeumannomyces*):** Stem and root at soil line become decayed and blackened. **CONTROL**: Crop rotation for 1 year to oats, corn, or legumes.

**Wheat Wheat Soilborne Mosaic Virus**: Stunted plants; leaf streaks or yellowish mosaic lesions. **CONTROL**: Crop rotation.

**Zoysia Brown Patch (*Rhizoctonia*):** Rapidly developing large circular or irregular patches; individual blades show brown lesions, crowns show lesions and rot. **CONTROL**: See ANR-492.