

TIMELY INFORMATION

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OCTOBER PLANT PROBLEM REPORT FROM THE AUBURN PLANT DIAGNOSTIC LAB

OCTOBER PLANT PROBLEM REPORT FROM THE BIRMINGHAM PLANT DIAGNOSTIC LAB

OCTOBER INSECT REPORT FROM THE AUBURN PLANT DIAGNOSTIC LAB

DISEASE POSSIBILITIES FOR NOVEMBER

NEWS ON RESULTS OF TESTING FOR SUDDEN OAK DEATH IN 2005

Jackie Mullen

Extension Plant Pathology Specialist-Auburn

Jim Jacobi

Extension Plant Pathology Specialist-Birmingham

Charles Ray

Research Fellow IV-Auburn

Auburn Plant Disease Report-October (J. Mullen)

In October, the Auburn Plant Diagnostic Lab received 96 plant samples (19 of these samples were nursery samples taken by the AL State Department of Agriculture Inspectors as part of a national nursery survey for sudden Oak Death; 3 of these samples were landscape ornamentals taken by the AL State Department of Agriculture Inspectors as part of the state-wide landscape sampling survey of symptomatic plants for Sudden Oak Death; none of the samples tested from nurseries or landscapes were positive for the Sudden Oak Death fungus; 22 samples were soybeans and kudzu taken as part of the soybean rust state survey with Ed Sikora; 12 of these soybean and kudzu samples were positive for soybean rust.) Some of the diseases seen in October included soybean rust on soybean and kudzu; fungal leaf spots (caused by *Colletotrichum*, *Phomopsis*, *Pestalotia*, *Cercospora*,

and Botryosphaeria) on a variety of landscape trees and shrubs; Phytophthora root rot on azalea, English ivy, and Pittosporium; black rot on mustard and collards; Cercosporidium blight on Leyland cypress; Bipolaris blight and Rhizoctonia brown patch on zoysia grass, and Xylella bacterial scorch on sycamore. In addition, an unusual rust (not Asian soybean rust; PCR testing indicates the rust was not Asian soybean rust) was observed on kudzu. The exact identification of this rust has not been made as yet.

Fungal leaf spots are common at this time of year on many landscape plants as leaves become pre-senescent and senescent. The only control method needed for these plants is sanitation. Fallen leaves should be collected and removed from the area.

Xylella bacterial scorch (caused by *Xylella fastidiosa*) causes dieback and eventual tree death as a result of vascular plugging from bacteria. The bacteria are transmitted by insects, usually leaf hoppers. The only control for this disease is sanitation -- remove the dying trees. This disease may occur on sycamore, elm, oak, maple, and mulberry.

In September and November, we found some time between samples to try out the PCR (DNA based analysis) method for confirming Asian soybean rust. Testing thus far has confirmed our microscopic diagnoses of *Phakapsora pachyrhizi*. PCR testing showed that we also have a non *P. pachyrhizi* rust on kudzu from Talladega County. We sent this sample to the Beltsville Mycology Lab, but unfortunately, the sample did not travel well and identification has not been possible thus far.

Table 1. 2005 October Plant Diseases Seen In The Auburn Plant Diagnostic Lab.

<u>Plant</u>	<u>Disease</u>	<u>County</u>
Azalea	Colletotrichum Leaf Spot	*(2)
	Pestalotia Leaf Spot	*(2)
	Phomopsis Leaf Spot	Lee
	Phytophthora Root Rot	Russell, *
Camellia	Colletotrichum Leaf Spot	*
	Pestalotia Leaf Spot	*
Collard	Black Rot (<i>Xanthomonas campestris</i> pv. <i>campestris</i>)	Franklin
Dogwood	Cercosporidium Leaf Spot	Montgomery
Ivy, English	Phytophthora Root Rot	Bullock
Kudzu	Asian Soybean Rust	Barbour, Bullock, Chambers, Clay, Cherokee, DeKalb, Etowah, Marshall, Randolph, Russell

<u>Plant</u>	<u>Disease</u>	<u>County</u>
	Rust, Unidentified, Not Asian Soybean Rust	Talladega
Leucothoe	Botryosphaeria Leaf Spot	*
	Colletotrichum Leaf Spot	*
Leyland Cypress	Cercospora Blight	Houston, Lee
Magnolia, Japanese	Botryosphaeria Leaf Spot	*
	Colletotrichum Leaf Spot	*
Maple	Colletotrichum Leaf Spot	*
	Pestalotia Leaf Spot	*
Mustard	<i>Xanthomonas campestris</i> pv <i>campestris</i>	*
Persimmon, Oriental	Botryosphaeria Fruit Spots	Tuscaloosa
	Colletotrichum Fruit Spots	Tuscaloosa
Pittosporum	Phytophthora Root Rot	Montgomery
Pomegranate	Anthracoese Fruit Rot (<i>Colletotrichum</i>)	Russell
Soybean	Asian Soybean Rust	Baldwin
	Rhizoctonia Stem Canker	Sumter
Sycamore	Bacterial Scorch (<i>Xylella</i> <i>fastidiosa</i>)	Tallapoosa
Turnips	Cercospora Leaf Spot	Talladega
Viburnum	Colletotrichum Leaf Spot	*
	Pestalotia Leaf Spot	*
Zoysia	Bipolaris Blight	Tuscaloosa
	Brown Patch (<i>Rhizoctonia</i>)	Montgomery, Tuscaloosa

*Counties are not reported for greenhouse, nursery, or golf course samples.

Birmingham Plant Disease Report-October (J. Jacobi)

We received 73 plant samples during October. Problems seen last month included Phomopsis dieback on azalea, anthracnose on fern, black twig borer on American beech and southern magnolia, Cercosporidium blight on Leyland cypress, and large patch on zoysiagrass

Cercosporidium needle blight (*Cercosporidium sequoiae*) of Leyland cypress was seen in several samples from overhead irrigated landscapes last month. This disease typically starts in the lower canopy and causes needle blight and defoliation that progresses up the tree and out towards the branch tips. In severe cases, only the newest needles on the branch tips remain green. Repeated infections over several years may result in complete defoliation and tree death. Several fungicides, including Chlorothalonil (Daconil and other brand names) or Mancozeb provide good control, when applied on a 14 day interval from July-October. Pruning out severely damaged branches may help improve control of the disease. For more information on the identification and control of this disease see the following extension publication on-line (<http://www.aces.edu/dept/extcomm/publications/anr/anr-1196/anr-1196.html>).

Phomopsis dieback or twig blight was also seen last month. This is an important disease of established landscape azaleas. A common symptom is slight chlorosis of all the leaves on a twig or branch, followed by wilting of that branch. Frequently only a branch or two is affected, resembling a flag of dying leaves. A reddish-brown discoloration can be found under the bark extending into the woody tissue on dying branches. The discoloration frequently shows up on one side of the stem and often appears as a v-shaped browning from the bark towards the center of the twig. Phomopsis dieback is often worse following heat or drought stress like we have experienced this fall. The following tips will help manage this disease. 1.) Prune out dead and wilting portions of affected plants back 2-4 inches into green healthy growth. Sterilize pruning tools between cuts with rubbing alcohol or a bleach solution (1 part bleach, 9 parts water). 2.) Reduce future problems by maintaining good growing conditions for the azaleas. This includes irrigating during dry weather and fertilizing according to soil test results. 3.) Application of fungicides containing thiophanate-methyl (Cleary's 3336, Fertilome Halt Systemic Fungicide and other brand names) may help reduce disease reoccurrence when used in conjunction with pruning and proper plant care.

Table 2. 2005 October Problems Seen In The Birmingham Plant Diagnostic Lab.

<u>Plant</u>	<u>Problem</u>	<u>County</u>
Azalea	Anthracnose (<i>Colletotrichum</i>)	Jefferson
	Azalea Lacebugs	Jefferson (2)
	Phomopsis Dieback	Jefferson (2)
	Two-Spotted Spider Mite	Jefferson
	Tip Midge	Jefferson
Beech, American	Black Twig Borer (<i>Xylosandrus</i>)	Jefferson (2)

<u>Plant</u>	<u>Problem</u>	<u>County</u>
Bentgrass	Pythium Root Dysfunction	*
Bermudagrass	Bipolaris Leaf Spot	Jefferson
Birch, River	Anthracnose (<i>Cylindrosporium</i>)	Tuscaloosa
Boxwood, Common	Black Twig Borers	Jefferson (2)
	Leaf Miners	Jefferson (2)
	Macrophoma Blight	Jefferson
	Pythium Root Rot	Jefferson
Cherry, Yoshino	Crown Gall Suspected	Tuscaloosa
	Shot Hole (<i>Cercospora</i>)	Tuscaloosa
Crape Myrtle	Aphids/Sooty Mold	Jefferson
	Powdery Mildew	Jefferson
Cypress, Leyland	Cercosporidium Blight	Jefferson (3)
Fern, Shaggy Shield	Anthracnose (<i>Colletotrichum</i>)	*
Fern, Tassel	Anthracnose (<i>Colletotrichum</i>)	*
Holly, Japanese	Botryosphaeria Canker	Jefferson (2)
Hydrangea, Bigleaf	Cercospora Leaf Spot	Shelby (2)
Hydrangea, Panicle	Cercospora Leaf Spot	Shelby
Ivy, English	Phytophthora Root Rot	Jefferson
Lantana	Lantana Lacebug	Shelby
Lettuce	Pythium Root Rot	*
Magnolia, Southern	Black Twig Borer (<i>Xylosandrus</i>)	Jefferson
Maple, Japanese	Bark Lice (<i>Psocidae</i>)	Jefferson
	Marginal Leaf Scorch	Jefferson, Shelby
	Phyllosticta Leaf Spot	Jefferson

<u>Plant</u>	<u>Problem</u>	<u>County</u>
Okra	Root Knot Nematode (<i>Meloidogyne</i>)	Jefferson (2)
Rose	Black Spot	Shelby
	Powdery Mildew	Jefferson
Smoke Tree	Cercospora Leaf Spot	Chilton
Turnip	White Spot (<i>Pseudocercospora</i>)	Jefferson
Zoysiagrass	Curvularia Blight	Cullman
	Large Patch (<i>Rhizoctonia</i>)	Jefferson

*Counties are not reported for greenhouse, nursery, or golf course samples.

Auburn Entomology Report-October (C. Ray)

County	Crop	Category	Specimen Name
Mobile	Potting Soil-2 Samples	Miscellaneous	A seed bug, <i>Pachybrachius biobatus</i>
Lee	Leyland Cypress	Ornamental	Maskell Scale
Hale	Human	Medical	Lone Star Tick
Montgomery	Viburnum	Ornamental	Greenhouse Thrips
Montgomery	Pittosporum	Ornamental	Cotton Cushion Scale
Jefferson	Hydroponic Lettuce	Vegetables	Midge Larvae
Jefferson	Building	Household-Miscellaneous	Minute Black Scavenger Flies
Russell	Home	Medical	Southern Unstriped Scorpion
Russell	Lawn	Household-Miscellaneous	Great Leopard Moth Larva
Jefferson	Pomegranite	Fruits	Sap Beetle
Jefferson	Cupressus	Ornamental	Head Capsule of Caterpillar
Lee	Azalea	Ornamental	Azalea Lace Bug
Limestone	Lawn	Turfgrass	White Fringed Beetle
Mobile	Citrus	Ornamental	Citrus Blackfly*
Baldwin	Yellow Iris	Ornamental	<i>Duplachionaspis divergens</i> & California Red Scale
Jefferson	Human	Medical	<i>Aedes</i> sp. Mosquito, Moth Fly, Minute Black Scavenger Fly
Tallapoosa	Sycamore	Ornamental	Sycamore Lace Bug & Leaf Tier
Pike	Snowball Bush	Ornamental	False Spider Mites

*First Record of Citrus Blackfly in Alabama.

Disease Possibilities For November

Typically in November, we see *Helminthosporium* (*Bipolaris*, *Drechslera*, and *Exserohilum*) leaf spots on small grains and grasses. Rust may be seen on small grain crops. A variety of pansy diseases may be seen. Turnips and other related plants often develop *Cercospora* leaf spots. Greenhouse crops may develop *Botrytis* and a variety of other fungal and bacterial diseases.

The list below includes some common disease problems received in the lab during November of the past few years. Comments on control practices are brief. Refer to the Alabama Pest Management Handbook or appropriate fact sheet for details on disease control.

Table 3. Disease Descriptions and Brief Control Comments on Some Common Diseases Often Seen in November.

<u>Plant</u>	<u>Disease</u>	<u>Description</u>	<u>Control</u>
Alfalfa	Leptosphaerulina Leaf Spot	Leaf spots on young leaves and petioles; small, black, pepper spots or 1-3 mm eyespots with tan centers, dark brown borders and diffuse halos.	None.
Ajuga	Rhizoctonia Crown & Root Rot	Crowns & roots develop a brown, dry decay.	Sanitation. Cleary's 3336 will provide protective disease control.
Allspice (<i>Pimenta dioica</i>)	Rust	Yellow-brown leaf spots sometimes with red-orange powdery spore masses.	Sanitation.
Anise, Japanese	Phytophthora Root Rot	Dieback. Roots are dying, brown, & soft rotted.	Sanitation. Reduce soil water levels.
Arbor-vitae	Pestalotiopsis Tip Blight	Branch tips turn brown; browning gradually progress down the branch.	Pruning. Halt may provide some disease control.
	Phytophthora Root Rot	Roots become brown, decayed. When disease is active, roots are water-soaked.	Sanitation; protective fungicide drenches. See AL Pest Management Handbook.

Plant	Disease	Description	Control
	Pythium Root Rot	Dieback. Affected small roots become slightly brown and soft rotted.	Sanitation. Reduce water levels in soil. See fungicides in AL Pest Management Handbook under Arbor-vitae and Phytophthora.
Asparagus	Helminthosporium Stem Spots	Brown elongated, usually about ½ inch long, somewhat rectangular stem lesions.	Sanitation. Mancozeb fungicides.
Azalea	Colletotrichum Leaf Spot	Circular, small (2-4 mm), round leaf spots.	Sanitation. See the AL Pest Management Handbook.
	Phomopsis Dieback	Sunken, elliptical, necrotic lesions on branches with dieback of distal branch segments.	Sanitation. See the AL Pest Management Handbook.
	Phytophthora Root Rot	Foliage dieback. Roots become brown, water-soaked; later roots dry out.	See the AL Pest Management Handbook.
	Powdery Mildew (<i>Microsphaeria</i>)	Whitish powdery dusting on leaves; some leaf deformity if infection occurs on new growth; infected leaves eventually become yellowed.	See the AL Pest Management Handbook.
Azalea (Cuttings, Liners)	Aerial Web Blight (<i>Rhizoctonia</i>)	Lower leaves become brown spotted or blighted; when conditions are humid, a delicate mycelial webbing may occur on infected leaves; eventually, infected, blighted leaves drop.	See the AL Pest Management Handbook.
	Phytophthora Root Rot	See Arbor-vitae.	See Arbor-vitae comments.
Azalea (Cutting)	Rhizoctonia Cutting End Rot	Cutting ends develop brown lesions which may completely encircle the stem. Plant death results.	Sanitation.

<u>Plant</u>	<u>Disease</u>	<u>Description</u>	<u>Control</u>
Barley	Net Blotch (<i>Drechslera</i>)	Narrow, dark brown, longitudinal and transverse net-like streaks on leaves and leaf sheaths. Severely infected leaves may completely die.	Rotation.
Bentgrass	Pythium Blight/Root Rot	Foliage becomes yellowed and then brown as a result of the decaying roots which appear brown and water-soaked.	See the AL Pest Management Handbook for recommendations.
	Rhizoctonia Aerial Blight	Foliage develops brown spots and blight areas. Dieback.	See the AL Pest Management Handbook.
Bermuda	Bipolaris Leaf Spot & Crown Rot	Small elongated spots; spot coalescence and blight of whole leaf blades when disease is severe; lower stem may become necrotic.	See the AL Pest Management Handbook.
	Pythium Root Rot	Foliage turns yellow and dieback follows. Roots become light brown and soft rotted.	See the AL Pest Management Handbook.
Birch, River	Anthracoise (<i>Cryptocline</i>)	Brown blotches on leaves; blotches may occur along veins or at leaf edges.	Sanitation.
Boxwood	Macrophoma Blight	Leaves are yellow with tiny black specks.	Collect all fallen leaves and remove them from the area; identify and eliminate stress factors; Cleary's 3336 or Halt may be used if desired.

<u>Plant</u>	<u>Disease</u>	<u>Description</u>	<u>Control</u>
	<i>Nectria cinnabarina</i> Canker	Sunken lesions on branches, sometimes with orange pin-point bodies of the fungus; dieback.	Pruning at least 3 inches beyond the canker edge.
	Phytophthora Root Rot	Lower foliage turned yellow and brown; roots are rotted with tissues water-soaked and brown.	Remove plants. Improve soil drainage. See the AL Pest Management Handbook if a large planting or nursery.
	Pythium Root Rot	This is often a secondary problem on plants previously weakened by other factors. Roots become light brown and soft rotted. Lower foliage will initially turn yellow and brown. Foliage browning will gradually spread upward through the plant.	Remove dying plants; improve soil drainage; reduce water levels in soil. Eliminate stress.
	Volutella Blight	Dieback, cankers and orange spore masses develop on branches/trunk.	Pruning or plant removal. See the AL Pest Management Handbook.
Broccoli, Cabbage	Black Rot (<i>Xanthomonas</i>)	Yellow or brown V-shaped patches occur at leaf edges. Later, leaf veins in the yellowed areas become black. The black leaf veins extend down the leaf and eventually the vascular elements in stem become black.	Hot water seed treatment or plant certified disease-free seeds. When disease is present, rotate area away from crucifers for 2-3 years.
Camellia	Phyllosticta Leaf Spot	Dark purple-brown circular-oval leaf spots.	Sanitation in the fall. Protective fungicide sprays (Cleary's 3336) if disease appears early in the season.

<u>Plant</u>	<u>Disease</u>	<u>Description</u>	<u>Control</u>
	Phytophthora Root Rot	Foliage dieback. Roots become brown and water-soaked and later dry out.	See the AL Pest Management Handbook.
Camellia, Sasanqua	Anthracoze Leaf Spot (<i>Colletotrichum</i>)	Gray-brown, usually circular leaf spots.	Sanitation of fallen leaves. Cleary's 3336 or Halt protective fungicide sprays will help.
Centipede	Brown Patch (<i>Rhizoctonia</i>)	A light brown circular patch; crowns and leaf blades become brown and dead.	See AL Pest Management Handbook.
	Ring Nematode (<i>Criconemoides</i> sp.)	Patches of lawn show yellowing and thinning.	See ANR-523.
Cherry Laurel 'Otto Lukin'	Botryosphaeria Canker	Elongated sunken branch lesions, often with cracks along the margin.	Sanitation.
Chrysanthemum	Pythium Root Rot	Roots brown and water-soaked. Foliage yellows and shows poor growth, dies.	Sanitation; protective fungicide drench treatments; see AL Pest Management Handbook.
Collards	Anthracoze	White-cream, circular-irregular leaf spots.	Copper fungicides.
	Black Rot (<i>Xanthomonas</i>)	See Broccoli.	---
	Cercospora Leaf Spot	Light brown irregular spots (about 0.6 cm or ¼ inch diameter), sometimes with a darker brown border.	Sanitation.
Columbine	Botrytis Blight	Gray-brown blotches develop on blossoms, leaves, and stems.	Sanitation. Cleary's 3336 or Halt may be applied for protective control.
	Pythium Root Rot	Foliage dieback; roots become water-soaked, and brown, and later dry out.	Sanitation; reduce water levels in the area; crop rotation.
Coneflower	Aster Yellows (Suspect)	Plants become stunted with green flowers and some abnormal foliage development.	Sanitation.

<u>Plant</u>	<u>Disease</u>	<u>Description</u>	<u>Control</u>
Cotoneaster	Phytophthora Root Rot	Foliage dieback. Roots become brown, water-soaked and later dried.	Sanitation. Reduce water levels. Subdue protective treatments, following label directions.
Cucumber	Downy Mildew (<i>Pseudoperonospora</i>)	Irregular yellow spots that become necrotic.	See the AL Pest Management Handbook.
Daylily	Rust (<i>Puccinia hemerocallidis</i>)	Yellowing spots and blight of leaves. Orange powder may wipe off on fingers.	See the AL Pest Management Handbook.
Dianthus	Bacterial Leaf Spot (<i>Xanthomonas</i>)	Small, black angular, wet-looking spot.	Sanitation; Kocide may help.
	Colletotrichum Leaf Spot	Irregular brown, sometimes circular spots.	Sanitation; protective sprays of Cleary's will help.
Fescue, Tall	Pythium Blight	Brown, water-soaked lesions, blight on foliage.	Reduce watering schedule. Apply protective fungicides. See the AL Pest Management Handbook and ANR-1168.
	Rust (<i>Puccinia</i>)	Yellowing spots and blight of leaves. Orange powder may wipe off on fingers.	See the AL Pest Management Handbook.
Fig	Common Rust (<i>Cerotelium</i>)	Yellow spots that develop an orange rusty appearance.	Sanitation of leaves. This rust will also occur on Florida strangler fig and osage-orange.
Gardenia	Phytophthora Root Rot	Brown discolored, decayed, water-soaked roots.	Sanitation; reduce soil moisture; Banrot or Banol may be used—usually in a nursery situation.
Gardenia, Dwarf	Pythium Root Rot	Lower foliage becomes yellow and then brown. Foliage damage spreads upward. Roots become light brown and wet-rotted. This fungus usually is a problem only on weakened plants.	Remove damaged plants. Improve soil drainage. Reduce water levels in the soil. See AL Pest Management Handbook if fungicide treatment is needed.

<u>Plant</u>	<u>Disease</u>	<u>Description</u>	<u>Control</u>
Geranium	Oedema	Corky brown spots (2-3 mm) on lower leaf surfaces. Corresponding upper leaf surfaces become yellow spotted.	Reduce watering schedule when weather is cool and cloudy.
Helleri Holly Liners and Containers	Black Root Rot (<i>Thielaviopsis</i>)	Roots develop black tips and black lesions and sections.	Sanitation; See AL Pest Management Handbook.
	Rhizoctonia Aerial Blight	Lower leaves become spotted and blighted. Leaf fall occurs.	See AL Pest Management Handbook.
Holly	Pythium Root Rot	Lower foliage becomes yellow and then brown. Foliage damage spread upward. Roots become light brown and wet-rotted. This fungus usually is a problem only on weakened plants.	Remove damaged plants. Improve soil drainage. Reduce water levels in the soil. See AL Pest Management Handbook if fungicide treatment is needed.
Holly, Compacta and Helleri	Colletotrichum Leaf Spot	Brown-black circular spots.	Sanitation. Cleary's 3336 may be used as a protective treatment.
	Phytophthora Root Rot	Lower foliage becomes yellowed and brown. Foliage damage spreads upward in plant. Roots become brown rotted & water-soaked. The outer root cortex can be easily slipped off of the inner central root cylinder.	Remove damaged plants. Correct water problem in soil. See the AL Pesticide Handbook; Sanitation.
Hydrangea	Anthrachnose	White-cream colored irregular-oval of spots.	See the AL Pest Management Handbook. See ANR-1212.
	Powdery Mildew	Patchy leaf areas with white dusty coating. Necrosis develops later.	See the AL Pest Management Handbook. See ANR-1212.
Indian Hawthorne	Entomosporium Leaf Spot	Black spots with red borders develop on the foliage.	Sanitation; protective fungicide sprays. See the AL Pest Management Handbook.

Plant	Disease	Description	Control
Ivy, English	Nectria Canker	Sunken lesions on branches/stems; sometimes diagnostic red pin-point fruiting bodies are present.	Pruning lesions making cuts at least 3 inches beyond lesions edges. Cleary's may help.
Juniper	Phomopsis Tip Blight	Dieback.	Sanitation. See the AL Pest Management Handbook.
	Phytophthora Root Rot	See Arbor-vitae.	See Arbor-vitae comments.
Kalanchoe	Powdery Mildew (<i>Sphaerotheca</i>)	Leaves and stems are covered with a white powdery dusting. Some distortion of new growth may be present. Some foliage yellowing and browning may be present.	Sanitation. Maintain even day-night temperatures if possible. Apply protective sprays of a recommended fungicide. See AL Pest Management Handbook.
Lavender	Fusarium Stem Rot/ Pythium	Stems develop brown decay areas.	Sanitation. Reduce water levels in the area. Move lavender to a new area.
Leucothoe	Phytophthora Blight	Foliage dieback. Roots become brown, water-soaked and later dry.	Sanitation. Reduce water levels. Subdue treatments (drenches) may be used according to label directions.
	Phytophthora Root Rot	Lower foliage becomes yellowed and brown. Foliage damage spreads upward in plant. Roots become brown rotted & water-soaked.	Remove damaged plants. Correct water problem in soil. Apply Subdue if a protective fungicide treatment is desired.
	Powdery Mildew	Leaves develop white superficial dusting on surfaces. Affected leaf areas later turn brown.	Improve air circulation. See the AL Pest Management Handbook.
Leyland Cypress	Botryosphaeria Canker	Small-large sunken, cracked branch/trunk lesions.	Sanitation – pruning.
	Cercosporidium Blight	Lower foliage becomes pale green and then brown.	Sanitation; Improve air circulation; See the AL Pest Management Handbook for protective fungicide treatments.

<u>Plant</u>	<u>Disease</u>	<u>Description</u>	<u>Control</u>
	Seiridium Canker	Small-large elongated, sunken lesions with oozing sap.	Pruning. See the AL Pest Management Handbook.
	Phytophthora Root Rot	Roots become brown, and wet-rotted. Plants show dieback.	Sanitation; tree removal; correct water problems.
Ligustrum	Cercospora Leaf Spot	Relatively large, circular, dark brown leaf spots develop.	Collect & remove all fallen leaves from the area. Apply Cleary's 3336 or Halt for protective disease control.
Lupin	Pythium Root Rot/ Seedling Disease	Roots become brown and water-soaked.	---
	Rhizoctonia Root Rot	Roots become brown and dried.	---
Magnolia, Southern	Algal Leaf Spot (<i>Cephaleuros</i>)	Green or reddish-colored, slightly raised, usually circular or oval spots with wavy margins develop on upper leaf surfaces.	Sanitation.
Maple, Red	Zonate Leaf Spot (<i>Cristulariella</i>)	Brown, zonate leaf spots which may become large at ¼ inch or more.	Sanitation. See the AL Pest Management Handbook under 'Leaf Spot'.
Marigold Plugs	Alternaria Leaf Spot	Small, dark brown, irregular spots (1-3 mm) on leaves and stems.	See AL Pest Management Handbook.
Mustard	Cercospora Leaf Spot	Light brown irregular-shaped leaf spots.	Sanitation. See the AL Pest Management Handbook.
Oak	Ganoderma Wood/ Root Rot	Tree dieback. Conks developing on the trunks of infected trees are non-gilled, poroid, with or without a lateral stalk, with a distinctive reddish-brown or gray-brown varnish-like crust on the upper surface.	Sanitation.
	Powdery Mildew (<i>Phyllactinia</i>)	Powdery white dusting on upper leaf surfaces with blight following.	Sanitation. If tree is small, protective sprays of Cleary's 3336.

<u>Plant</u>	<u>Disease</u>	<u>Description</u>	<u>Control</u>
Oak, Red	Powdery Mildew (<i>Phyllactinia</i>)	Leaves develop white superficial dusting on surfaces. Affected leaf areas later turn brown.	Improve air circulation. See the AL Pest Management Handbook.
Oats	Crown Rust (<i>Puccinia coronata</i>)	Bright orange, round to oblong, powdery pustules on leaves, sheaths, stems, and panicles.	Resistant cultivars.
	<i>Drechslera avenae</i> Leaf Spot	Small brown flecks become longitudinal strips of dead tissue. Outer edges of the brown strips have diffuse areas of yellow or red which may involve the entire leaf blade. Diseased leaves often die.	Rotation; deep plowing; resistant cultivars. See AL Pest Management Handbook.
Okra	Root Knot Nematode (<i>Meloidogyne</i>)	Plants grow poorly and may be stunted. Roots contain irregularly shaped galls.	Crop rotation, solarization, or use of resistant varieties will help. See ANR-30.
Pansy	Anthrachnose (<i>Colletotrichum</i>)	Small, cream-colored, circular spots with dark borders.	Sanitation; See the AL Pest Management Handbook; also ANR-1214.
	Black Root Rot (<i>Thielaviopsis</i>)	Black root tips and black root lesions and areas.	Cleary's 3336; See AL Pest Management Handbook and ANR-1214.
	Cercospora Leaf Spot	Gray-black round leaf spots about ¼-½ cm.	Sanitation. Daconil or Cleary's 3336 may be used for protective disease control, also ANR-1214.
	Fusarium Crown & Root Rot	Dieback of foliage. Lower stems and roots become brown and dried. Orange spore masses may develop on surface of dead tissues.	Sanitation. Cleary's 3336 may give some protective control.
	Myrothecium Crown Rot	Collapse of petioles or lower stems. Tiny black and white pinhead sized bodies on collapsed tissues.	Sanitation. Daconil protective sprays. See ANR-1214.

<u>Plant</u>	<u>Disease</u>	<u>Description</u>	<u>Control</u>
	Phytophthora Crown Rot	Crown, roots become brown and water-soaked.	Sanitation. See the AL Pest Management Handbook and ANR-1214.
	Pythium Crown/Root Rot	Crowns, roots become brown and water-soaked.	See the AL Pest Management Handbook and ANR-1214.
	Rhizoctonia Crown Rot	Crowns develop a dry, brown, sometimes shriveled decay.	Sanitation. Cleary's 3336 would provide some protection. See ANR-1214.
Pear, Bradford	Black Rot (<i>Botryosphaeria obtuse</i>)	Leaf spots are black or brown, sometimes with a dark border. May be confused with <i>Fabraea</i> leaf spot.	Sanitation. Protective sprays of Cleary's 3336 will help.
	<i>Fabraea</i> (<i>Entomosporium</i>) Leaf Spot	Leaf spots are usually black and somewhat circular. May be confused with black rot leaf spots.	Sanitation. See AL Pest Management Handbook.
Periwinkle	Rhizoctonia Crown Rot	Crowns, roots become dried, brown, rotted.	Sanitation. See the AL Pest Management Handbook.
Phlox	Black Root Rot (<i>Thielaviopsis</i>)	See Pansy.	See Pansy.
Photinia	Entomosporium Leaf Spot	Black spots with dark red borders; spot coalescence; leaf drop.	Protective fungicide sprays; sanitation.
Pine, Virginia	Fusarium Pitch Canker	Elongated cankers. Some resin flow.	Sanitation. See comments in the AL Pest Management Handbook.
	<i>Ploioderma</i> (<i>lophodermium</i>) Needle Cast	Older needles become yellow and then brown in spots; eventually whole needles turn brown and drop. Small black football shaped lesions (1-2 mm long) develop on brown needles.	Protective fungicide sprays. See the AL Pest Management Handbook.
	Rhizosphaeria Needle Cast	Needles turn brown. Tiny black dots (fruiting bodies) occur in a linear arrangement on browning needles.	---

<u>Plant</u>	<u>Disease</u>	<u>Description</u>	<u>Control</u>
Plum	Brown Rot (<i>Monilinia</i>)	Fruit tissues become brown & rotted. A gray mold may develop on the fruit surface.	Sanitation. Captan. See Ed Sikora.
<i>Poa trivialis</i>	Pythium Blight	Grass leaves become wet, brown, and decayed.	Decrease irrigation. See the AL Pest Management Handbook and A. Hagan.
Poinsettia	Alternaria Leaf Spot	Gray-brown circular leaf spots; zonate pattern possible.	Sanitation. Exotherm Termil may provide protective control.
	Botrytis Blight	Bracts and leaves develop gray lesions and areas. Elongated lesions may occur on stems. A gray web may develop on surface of lesions when conditions are humid.	See AL Pest Management Handbook.
	Phyllosticta Leaf Spot	Gray-brown circular leaf spots; tiny black specks (fungal bodies) may be scattered on leaf spot surfaces.	Sanitation. Cleary's 3336 or Halt will provide protection.
	Phytophthora Root Rot	See Pythium Root Rot.	See Pythium Root Rot.
	Pythium Stem and Root Rot	Lower stem and roots become brown, soft, water-soaked, and rotted.	See AL Pest Management Handbook; sanitation.
Rose, Miniature	Rhizoctonia Crown & Root Rot	Lower stems develop dry, medium-dark brown surface lesions; roots may become brown and dried.	See AL Pest Management Handbook; sanitation.
	Cylindrocladium Root Rot	Roots show black lesions and rotted areas.	Sanitation.
	Ryegrass	Piricularia Gray Leaf Spot	Gray, brown, oval leaf spots.
Ryegrass	Pythium Blight	Crowns and leaf blades become wet and greasy-looking.	See AL Pest Management Handbook.
Rye	<i>Bipolaris sorokiniana</i> Leaf Spot	Brown, elongated spots on leaf blades.	None.
Snapdragon	Pythium Root Rot	Roots become water-soaked and light brown.	Sanitation. See the AL Pest Management Handbook.

<u>Plant</u>	<u>Disease</u>	<u>Description</u>	<u>Control</u>
Soybean	Anthracnose (<i>Colletotrichum truncatum</i>)	Irregularly shaped brown blotches on stems, pods, leaves sometimes with tiny black specks. This disease can cause a reduced yield.	Use disease free seed. Deep plow crop residues.
	Asian Soybean Rust	Very small, angular brown spots develop on upper and lower leaf surfaces. Surfaces of lower leaf spots may become covered with white spore masses. Defoliation.	Protective fungicide sprays. See Ed Sikora.
	Charcoal Rot	Dieback. Lower stem inner tissues are gray from masses of tiny black fungal bodies (sclerotia).	Check with Ed Sikora.
	Soybean Cyst Nematode	Plants are stunted, yellowed.	Resistant cultivars & crop rotation. Reduce plant stress by cultural management. See Ed Sikora.
	Stem Canker (<i>Diaporthe phaseolarum</i> var. <i>caulivora</i>)	Small red-brown stem lesions, usually near a leaf node; lesions become large and black, sunken cankers. Leaves develop interveinal yellowing-necrosis; plant die.	Check with Ed Sikora.
St. Augustine	Brown Patch (<i>Rhizoctonia</i>)	See Centipede.	See Centipede.
	Take-All Patch (<i>Gaeumannomyces</i>)	Black decay areas on stolons and roots. Yellowing and dying of plants.	See AL Pest Management Handbook and ANR-823.
Strawberry	Botrytis Fruit Rot	Fruit tissue becomes brown and watery, decayed. A gray mold may develop on fruit surface.	Sanitation. See the AL Pest Management Handbook.
	Phomopsis Blight	Leaves develop small red-purple spots that become large zonate spots and later, large V-shaped lesions.	See the AL Pest Management Handbook under 'Leaf Blight'.

<u>Plant</u>	<u>Disease</u>	<u>Description</u>	<u>Control</u>
	Phytophthora Root & Crown Rot	Crows and roots become brown and soft-rotted. Plants develop yellowed lower leaves, dieback, and wilt.	See the AL Pest Management Handbook and ANR-906.
Sweet Potato	Black Rot (<i>Ceratocystis</i>)	Gray-black, slightly sunken lesions or blotches. Underlying tissues between periderm and vascular system become black, firm, dry.	See AL Pest Management Handbook.
	Fusarium Surface Rot (<i>F. oxysporum</i>) (A Storage Decay)	Surface lesions are initially circular, light-dark brown, firm and dry. Decay usually stops at the vascular ring. Roots with lesions in storage may become shrunken and hardened.	Avoid wounding roots; harvest when soils are dry and temperatures are above 55°F. Follow proper curing procedures.
	Fusarium Root Rot (<i>F. solani</i>) (Primarily a Storage Decay)	Symptoms often appear similar to Fusarium surface rot except that lesions and decay will extend beyond the vascular ring. If infected roots are planted, the fungus may spread into the sprout causing a stem canker.	Avoid wounding roots. See comments above for Fusarium surface rot. Do not take cuttings from infected roots.
	Scurf (<i>Monilochaetes</i>)	A superficial brown-black spotting and blotch of the storage root periderm.	See the AL Pest Management Handbook.
Tomato	Anthracoise (<i>Colletotrichum</i>) (Usually, a Ripe Fruit Disease)	Lesions are colorless, circular, slightly sunken and may develop to a size of ½ inch (1.2 cm). Just below the skin, there is a thin layer of white, dry tissue. The center of the lesion may become black, and orange spore masses may develop during moist conditions.	See the AL Pest Management Handbook.

Plant	Disease	Description	Control
	Bacterial Speck (<i>Pseudomonas</i>)	Immature, green fruit tissue is most susceptible. Small (1 mm diam.), slightly raised black specks develop on green or ripe fruit. Spots on leaves & stems are small (2-3 mm or $\frac{1}{4}$ inch or less diam.), angular, black, water-soaked with no halo. Leaf spots may coalesce and some leaf tearing may occur.	See the AL Pest Management Handbook.
	Early Blight (<i>Alternaria</i>)	On seedlings, rapid plant death may occur as a result of crown rot. On older plants, spots occur on leaves, stems, fruits. Leaf spots usually occur first on oldest leaves. These spots are circular, brown, up to $\frac{1}{2}$ inch or 1.2 cm diameter with a target board patterns of concentric rings. Spotted leaves become yellow and then brown. Fruit spots are brown-black, up to 2.4 cm or 1 inch in diameter, firm, depressed, usually with concentric rings. Typically fruit spots develop at the stem end of the fruit.	See the AL Pest Management Handbook.
	<i>Fusarium solani</i> Damping-Off	Seedling lower stem rot.	Sanitation.
	Gray Wall (Blotchy Ripening) (Environmental Stresses Involved)	Green fruit has gray-brown blotches; internal wall tissue is brown. As fruit ripens, brown blotches become yellow on the reddish fruit.	Remove stress situations. Avoid high nitrogen levels and low potassium levels.
	Powdery Mildew	Foliage develops faint white dusty patches which later become necrotic.	---
	Target Spot (<i>Corynespora</i>)	Gray-brown, zonate, oval leaf spots.	Sanitation. See Ed Sikora.

<u>Plant</u>	<u>Disease</u>	<u>Description</u>	<u>Control</u>
Turnip	Alternaria Leaf Spot	Gray-brown leaf spots, irregular in shape.	See the AL Pest Management Handbook.
	Black Rot (<i>Xanthomonas campestris</i> pv. <i>campestris</i>)	Leaf edges develop V-shaped brown-black lesions. Leaf veins darken near lesions. Eventually, lower stems develop soft rot.	Sanitation. Rotate away from cole crops for 2-3 years.
	Cercospora Leaf Spot	Light brown irregularly-shaped spots (about 0.6 cm or ¼ inch diameter) sometimes with a darker brown margin.	See the AL Pest Management Handbook. Also, Benlate recently obtained a label for Cercospora on turnips.
	Pythium Root Rot	Roots become brown and water-soaked.	Reduce irrigation, if possible. Improve soil drainage. Crop rotation for 1 year.
Wheat	<i>Bipolaris sorokiniana</i> Leaf Spot	Brown elongated spots and strips on leaf blades.	See AL Pest Management Handbook.
	Leaf Rust (<i>Puccinia recondite</i>)	Orange-red dots and patches of spore masses on leaves. Plants yellow and show poor growth/head production if infection is severe.	See AL Pest Management Handbook.
Willow, Weeping	Cercospora Leaf Spot	Round or irregular, brown leaf spots.	Sanitation of leaves in the fall. See the AL Pest Management Handbook.
Zoysia	Brown Patch (<i>Rhizoctonia</i>)	Leaf blades and sometimes crowns become blighted and decayed. Often, patches of brown foliage develop in lawn area.	See AL Pest Management Handbook and ANR-492.
	Ring Nematode (<i>Criconemoides</i> sp.)	Areas of the lawn develop spots with yellowing and thinning.	See ANR-523.
	Rust (<i>Puccinia</i>)	Orange powdery dusting (spores) gives an orange tint over green or green-yellow blotched leaves.	See AL Pest Management Handbook.

Plant	Disease	Description	Control
	Take-All (<i>Gaeumannomyces</i>)	Yellowing and die-back. Roots develop black lesions.	See ANR-823.

NEWS ON RESULTS OF TESTING FOR SUDDEN OAK DEATH IN 2005

January-October Sampling for the Possible Presence of *Phytophthora ramorum* in Susceptible Landscape Shrubs and Oaks. This is a nationally directed and outlined program designed to help find any *P. ramorum* infected plants that might have been unknowingly sold during the past 3 years. Our state is part of this program because we have confirmed the presence of this disease in Alabama. We received 47 landscape samples for testing in 2005 thus far, and all results were negative for *Phytophthora ramorum* (Sudden Oak Death-SOD). We received 222 nursery samples from AL State Department of Agriculture as part of a national survey for SOD testing. All of these samples also tested negative for the fungus *Phytophthora ramorum*.