

TIMELY INFORMATION

Agriculture & Natural Resources

February 21, 2007

PP-625

JANUARY PLANT PROBLEM REPORT FROM THE AUBURN PLANT DIAGNOSTIC LAB

JANUARY PLANT PROBLEM REPORT FROM THE BIRMINGHAM PLANT DIAGNOSTIC LAB

JANUARY INSECT REPORT FROM THE AUBURN PLANT DIAGNOSTIC LAB

DISEASE POSSIBILITIES FOR FEBRUARY

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Auburn Plant Disease Report-January (J. Mullen)

In January, our lab received 24 plant samples for disease/problem diagnosis. Problems included deep planting of Indian hawthorn, suspect Armillaria root rot of holly, a high temperature problem on lettuce (J. Kemble), Phomosis petiole canker of windmill palm, take-all patch of St. Augustine, and tomato diseases of bacterial stem rot, target spot, and Fusarium wilt.

Deep planting will cause problems on most shrubs and trees. When the lower trunk is buried and can not obtain adequate oxygen, foliage dieback usually results within 2-5 years from planting. Adventitious roots may develop on the lower trunk. Root decay from root disease may develop.

Armillaria root rot may occur on many shade trees, shrubs, and conifers. Often, trees or shrubs under stress are more susceptible to this root disease. As roots decay, branches will dieback. The fungus will produce honey-colored mushrooms when conditions are wet. A thin, white fungal mat may develop under the bark of the lower trunk or on roots. Black, thread-like fungal structures (rhizomorphs) may develop under the lower trunk bark or on roots. See ANR-907 for more information.

We received lettuce heads showing severe yellowing. This may be caused by a calcium deficiency brought on by high temperatures (J. Kemble).

In January, our St. Augustine sample from the Montgomery area was still green. We do not usually expect to find the take-all patch fungus actively developing in January. See ANR-823 for more information.

The tomato bacterial soft rot cankers (*Pectobacterium carotovora* pv *carotovora*--identified by the gas chromatography method) were thought to have been introduced into the plants via pruning wounds. Conditions in the greenhouse were reportedly warm and wet, which would encourage soft rot bacterial development. Environment and cultural modifications (less wet and sanitation) were suggested for control of this problem.

Tomato target spot may be confused with early blight. Microscopic study showed the fungal spores of *Corynespora cassiicola* were present. Amistar is labeled for use on greenhouse tomatoes for control of target spot. For more information, check with Ed Sikora.

Tomato Fusarium Wilt (*F. oxysporum*) was identified by visual observation of the vascular browning along with culture production of the *F. oxysporum* fungus. Damaged plants must be removed. Do not re-use media. If the problem is in the garden, rotate to plants other than tomato. Or, Fusarium resistant tomatoes may be grown. The Fusarium resistant tomato plants available do not contain resistance for all races of Fusarium. Also, see ANR-797 on ACES publication web site.

Table 1. January 2007 Plant Diseases Seen In The Auburn Plant Diagnostic Lab.

<u>Plant</u>	<u>Disease</u>	<u>County</u>
Hawthorn, Indian	Deep Planting	Lee
	Entomosporium Leaf Spot	Lee
Holly 'Nellie R. Stevens'	Suspect Armillaria Root Rot	*
Lettuce	High Temperature	*
Palm, Windmill	Phomopsis Petiole Canker	Montgomery

<u>Plant</u>	<u>Disease</u>	<u>County</u>
St. Augustine	Take-all Patch (<i>Gaeumannomyces graminis</i> var. <i>graminis</i>)	Montgomery
Tomato	Bacterial Stem Rot (<i>Pectobacterium carotovora</i> pv. <i>carotovora</i> ; formerly <i>Erwinia carotovora</i>)	*
	Fusarium Wilt (<i>F. oxysporum</i>)	*
	Target Spot (<i>Corynespora cassiicola</i>)	*

*Counties are not reported for nursery, greenhouse, and golf courses samples.

Birmingham Plant Disease Report-January (J. Jacobi)

We received 43 samples for the month of January. We saw a large number of boxwood samples last month. As is typical with boxwoods, there was often more than one problem associated with each sample. One of the more common problems was winter injury. Boxwood foliage color may become orange, yellowish, or reddish-brown in the winter if exposed to winter sun, frequent frost, and wind. Plants under stress due to low pH, low fertility, or drought are more likely to develop winter bronzing. We suspect that some of the affected plants had suffered during last summer's drought. New foliage in the spring should develop normal green color.

Damage to zoysiagrass from ground pearls was an unusual find last month. Ground pearls are scale insects that feed on warm season grasses, especially centipedegrass. In this case, patches of turfgrass declined and died while suffering from drought stress last summer. At the present time, there are no effective insecticides to control ground pearls. For more on the biology of this unusual insect pest see the following web publication:
<http://www.ces.ncsu.edu/depts/ent/notes/O&T/lawn/note64/note64.html>.

Table 2. 2007 January Problems Seen In The Birmingham Plant Diagnostic Lab.

<u>Plant</u>	<u>Problem</u>	<u>County</u>
Azalea	Anthrachnose (<i>Colletotrichum</i>)	Shelby
	Cold Injury	Shelby
Boxwood, Common	Black Twig Borer (<i>Xylosandrus</i>)	Jefferson
	Boxwood Leafminer	Jefferson(2)

<u>Plant</u>	<u>Problem</u>	<u>County</u>
	Boxwood Mites	Shelby
	Macrophoma Blight	Jefferson
	Phytophthora Root Rot	Jefferson
	Winter Injury	Jefferson, Shelby
Boxwood, Japanese	Boxwood Mite	Colbert
	Winter Injury	Jefferson(2)
Camellia	Yellow Mottle Virus	Jefferson
Cherrylaurel, Carolina	Botryosphaeria Canker	Jefferson
	Shothole (<i>Cercospora</i>)	Jefferson
Cypress, Leyland	Botryosphaeria Canker	Jefferson
Fern, Maidenhair	Aphids	Jefferson
Gardenia	Pestalotia Leaf Spot	Jefferson
Indian Hawthorn	Cold Injury	Shelby
Magnolia, Southern	Black Twig Borer (<i>Xylosandrus</i>)	Jefferson
Myrtle, Wax	Cold Injury	Jefferson
Pansy	Botrytis Blight	Shelby
Ryegrass, Perennial	Fusarium Blight	*
Zoysiagrass	Ground Pearls (<i>Margarodes</i>)	Jefferson

*Counties are not reported for nursery, greenhouse, and golf courses samples.

January 2007 Insect Report From The Auburn Plant Diagnostic Lab (C. Ray)

COUNTY	CROP	CATEGORY	SPECIMEN NAME
Jefferson	Lawn	Miscellaneous	Cicada Killer Wasp, <i>Sphecius speciosus</i>

COUNTY	CROP	CATEGORY	SPECIMEN NAME
Barbour	Banana Shrub	Ornamental	Yellow Mites (Tydeidae), Tarsonemid Mites (Tarsonemidae), False Spider Mites (Tenuipalpidae), Phytoseiid Mites (Phytoseiidae)
Greene	Home	Household-Miscellaneous	Red Imported Fire Ant, <i>Solenopsis invicta</i>
Elmore	Household	Stored Products	Drugstore Beetle, <i>Stegobium paniceum</i>
Baldwin	Bambusa Multiplex	Ornamental	Penicillate Scale, <i>Froggattiella penicillata</i> and a Bamboo Pit Scale, <i>Bambusaspis</i> sp.
Mobile	Home	Medical	Juvenile Bed Bugs, <i>Cimex</i> sp.
Tallapoosa	Sod	Turfgrass	Crane-fly Larvae, Tipulidae
Dallas	Home	Household-Miscellaneous	Oil Beetle, <i>Meloe</i> sp.
Houston	Home	Household-Miscellaneous	A Blissid Bug, <i>Ischnodemus</i> sp.
Lee	Automobile	Miscellaneous	Artillery Fungus
Clarke	Cargo Truck	Miscellaneous	Lesser Mealworm Beetles, <i>Alphitobius diaperis</i>

Disease Possibilities For February

Powdery mildews and Botrytis may be a problem in greenhouses where temperatures are on the moderate to cool side. Also downy mildew (yellow-brown spotting, sometimes defoliation) on rose, bedding plants and vegetable transplants may develop when temperatures are moderately cool (60-70°F). Powdery mildew disease

spread requires a high relative humidity. Botrytis and downy mildew require high relative humidity and free moisture for disease spread. If temperatures are 60-70°F, some fungal leaf spots on grasses may develop.

The list below includes some common disease problems received in the lab in February of the past few years. Comments on control practices are brief. Refer to appropriate fact sheets, or timely information sheets for details of disease control.

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

<u>Plant</u>	<u>Disease</u>	<u>Description</u>	<u>Control</u>
Aglaonema	Rhizoctonia Crown Rot	Brown dry decay of lower stem.	Sanitation; Cleary's 3336 protective treatments.
Alfalfa	Spring Black Stem and Leaf Spot (<i>Phoma</i>)	Numerous black spots on lower leaves, petioles, and stems. Leaf spots often coalesce and become medium or light brown. Spotted leaves become yellow and fall. Lesions may completely girdle stems and petioles and cause death to the foliage beyond. <i>Phoma</i> may also cause a crown and root rot.	--
Arbor-vitae	Cold Damage/ Pestalotiopsis Tip Blight	Tips show some dieback which eventually becomes gray colored.	Spring pruning to remove the dead plant parts.
Aucuba	Anthracnose (<i>Colletotrichum</i>)	Circular or angular brown spots.	Sanitation; See AL Pest Management Handbook under leaf spot.
	Phytophthora Root Rot	Roots become wet rotted and brown; later, roots become dry.	Sanitation; correct problem with excess soil water. See AL Pest Management Handbook in commercial situations.
Azalea	Cercospora Leaf Spot	Brown, roughly circular leaf spots, diameter.	Sanitation; See the AL Pest Management Handbook.
Begonia	Botrytis Blight	Brown, water-soaked or dry tissue blight.	Sanitation. See the AL Pest Management Handbook.

<u>Plant</u>	<u>Disease</u>	<u>Description</u>	<u>Control</u>
Bentgrass	Brown Patch (<i>Rhizoctonia</i>)	Irregular foliage leaf spots and blight; irregular brown patches in lawn.	See the AL Pest Management Handbook.
	Pythium Blight	Quickly spreading, brown blight (wet-looking) or grass blades.	See AL Pest Management Handbook.
	Pythium Root Rot	Roots become brown and water-soaked and then dry.	Sanitation. See the AL Pest Management Handbook.
Bermuda	Algae	Dark green-black thin 'sheets' of algae sometimes develop at the soil level.	Reduce water levels. See the AL Pest Management Handbook.
	Helminthosporium Spots	Brown elliptical or elongated rectangular, usually small (but spot coalescence often occurs) leaf spots. Sometimes decay occurs at the stem near the soil line and then whole plants die rapidly. Often, spots remain localized on the leaves.	See ANR-621.
	Rhizoctonia Blight	Patchy areas become brown. Individual leaves show brown spots, larger blotches, or a complete leaf blight.	See ANR-492 or the AL Pest Management Handbook.
	Slime Mold	Thin, translucent, ruffled sheets of gelatin-like material.	Physical removal.
Blackberry	Orange Cane Blotch <i>Cephaleuros</i> (Alga)	Orange or brown slightly raised blotches on cane.	See the AL Pest Management Handbook for copper products labeled on blackberries.
Boxwood	Macrophoma Blight	Foliage becomes off color (usually yellow but may be bronzed) and tiny black dots (fruiting bodies) develop on leaves and sometimes small twigs.	Maintain plants in good health and avoid stressful conditions. Protective fungicide treatment may not be needed but if desired, see AL Pest Management Handbook.

<u>Plant</u>	<u>Disease</u>	<u>Description</u>	<u>Control</u>
	Phytophthora Crown & Root Rot	Lower trunk is brown and rotted. Initially the decayed tissues are water-soaked but later the dead tissues are dried.	Sanitation. Improve soil drainage and/or decrease irrigation. See Alabama Pest Management Handbook for fungicides recommended for nursery situations & some large scale landscape plantings.
	Volutella Cankers	Sunken, dried decay areas on branches; orange masses of spores may be present; dieback.	Pruning; see AL Pest Management Handbook.
Broccoli	Downy Mildew (<i>Peronospora</i>)	Faded, yellow blotches on upper leaf surfaces show gray, powdery masses of fungal growth on lower leaf surfaces in areas corresponding to yellow spots.	Reduce humidity; raise temperatures; see AL Pest Management Handbook.
Camellia	Algal Leaf Spot (<i>Cephaleuros</i>)	Reddish-green or reddish-brown roundish leaf spots with a slightly raised edge develop.	Prune to reduce humidity levels. Protective treatments of Bordeaux mixture may be used. See the AL Pest Management Handbook.
	Anthrachnose (<i>Colletotrichum</i>)	Light to medium brown, circular-irregular (0.2-1 cm diameter) spots develop on leaves.	Sanitation; Protective fungicides labeled on camellia such as Cleary's 3336.
	Botrytis (<i>Sclerotinia</i>) Flower Blight	Brown, small-large, irregularly-shaped lesions.	Sanitation of fallen blossoms; see AL Pest Management Handbook.
	Ring Spot Virus	Yellow rings appear on foliage; plants may become slightly stunted.	Sanitation.
Carolina Cherry Laurel	<i>Blumeriella jaapii</i>	Roundish, brown leaf spots with a slightly darker edge develop on leaves.	Sanitation. Cleary's 3336 or Halt may provide some protection.
Collard	Black Rot (<i>Xanthomonas</i>)	Yellow, V-shaped lesions on leaf edges become darkened. Bacteria spread into the	Crop rotation away from crucifers for 2 years.

<u>Plant</u>	<u>Disease</u>	<u>Description</u>	<u>Control</u>
		vascular system and cause leaf veins to darken. Eventually, tissue death and decay spreads into the central vascular system with the lower center stalk becoming rotted.	
Daylily	Kabatiella Leaf Spot	Red brown elongated spots (approx. 1/8-1/4 inch diameter).	Sanitation.
Dusty Miller	Alternaria Leaf Spot	Dark brown angular spots (0.2-0.6 cm) on foliage.	Sanitation. Cleary's 3336 may help.
English, Ivy	Anthrachnose (<i>Colletotrichum</i>)	Circular or irregular, dry, brown spots or blotches on leaves. Leaf spots often begin at leaf edges. Brown stem lesions may also develop.	See the AL Pest Management Handbook or ANR-1148.
Euonymus	Anthrachnose (<i>Colletotrichum</i>)	Large (1/4-1/2 inch diameter; 0.6-1.2 cm) brown, circular spots.	See AL Pest Management Handbook.
Fern, Boston	Fusarium Root Rot	Brown, dry root rot; foliage dieback.	Remove plant. Do not re-use media or do not plant fern in same location. Banrot will give some protective control (used in commercial situations).
Fescue	Pythium Foliage Blight	Dark, water-soaked spots and blotches.	See AL Pest Management Handbook.
	Scab (<i>Elsinoe</i>)	Brown, raised, slightly corky spots (0.1-0.3 cm) develop on foliage.	Sanitation; Cleary's 3336 may help.
Gardenia, Dwarf	Bacterial Leaf Spot	Small, dark, wet-looking, angular leaf spots.	Do not water over-head. Remove all damaged plants.
Geranium	Botrytis Blight	Gray-brown spots and blotches on the foliage.	Sanitation. See the AL Pest Management Handbook.

<u>Plant</u>	<u>Disease</u>	<u>Description</u>	<u>Control</u>
	Fusarium Crown & Root Rot	Lower stem and roots develop a brown, dry rot.	Sanitation.
	Oedema	Small (0.1-0.3 cm diameter), raised corky spots scattered on lower leaf surfaces. Upper leaf surfaces corresponding to corky spots often show yellowed spots.	Reduce watering schedules when weather is cloudy and cool.
	Pythium Root Rot	Lower foliage turns yellow; poor growth. Roots become water-soaked, soft, and pale brown.	Sanitation. See the AL Pest Management Handbook.
	<i>Ralstonia solanacearum</i>	Plants show poor growth, yellowing of lower leaves initially; wilt.	Sanitation.
Geranium, Ivy Leaf	Oedema	Upper leaf surface show diffuse yellow spots; lower leaf surface shows brown, corky, slightly raised spots (less than 1/8 inch diameter; 0.1-0.3 cm).	Decrease watering schedule.
Gerbera Daisy	Powdery Mildew	Leaves show some necrosis and white powdery dusting on leaf surfaces.	Sanitation; Cleary's 3336.
	Pythium Root Rot	Plants become stunted and yellowed. Usually lower leaves become yellowed first. Roots become brown and water-soaked.	Sanitation of damaged plants. In some situations, removal of contaminated soil or media is recommended. Protective fungicide drenches in greenhouse situations.
Greenhouse/Nursery Crops	Peat Mold (<i>Chromelosporium</i>)	Tan-orange-yellow spore masses often develop on the surface of potting mix or at the edge of potting mix next to the pot rim. Extensive fungal growth may cause the potting	Sanitation.

<u>Plant</u>	<u>Disease</u>	<u>Description</u>	<u>Control</u>
		media to become water repellent; that is the media will not absorb water.	
Holly	Phytophthora Root Rot	Roots become brown with a wet rot; later, roots dry out; dieback. Lower leaves may yellow and then yellowing spreads upward.	Sanitation; remove dying plants; modify area so it does not remain wet for a prolonged periods of time. For commercial production, see the AL Pest Management Handbook.
Holly, Foster	Bacterial Leaf Spot	Small, black, angular leaf spots.	Sanitation.
Holly, Japanese	Phomopsis Dieback	Cankers on twigs and small branches with dieback resulting.	Sanitation.
Hydrangea	Powdery Mildew	White dusty coating on upper leaf surfaces. Leaf yellowing and blight; some new growth distortions.	Sanitation. Fungicide spray treatments. See AL Pest Management Handbook.
	Phytophthora & Pythium Root Rot	Roots brown and water-soaked initially, then dried.	Sanitation; improve soil drainage and/or reduce irrigation; Banrot or Banol are recommended in some nursery situations.
Illicium	Phytophthora Root Rot	Roots brown and water-soaked initially, then dried. Foliage develops dieback & yellowing, usually of lower foliage first.	Sanitation, improve soil drainage and/or reduce irrigation; Subdue may be recommended in some nursery situation.
Impatiens	Alternaria Leaf Spot	Dark brown circular or angular leaf spots.	Sanitation. Daconil, Kocide, or Benefit may be used.
	Impatiens Necrotic Spot Virus	Black, circular leaf spots; stunted growth.	Sanitation; thrips control.
	Phytophthora Crown Rot	Plants become stunted. Older leaves turn yellow. Roots become brown and water-soaked.	Sanitation of plants and sometimes removal of contaminated soil or media. Adjust watering practices and/or improve

<u>Plant</u>	<u>Disease</u>	<u>Description</u>	<u>Control</u>
			water drainage through soil or media. Fungicide drenches are often recommended in greenhouse situations.
	Pythium Crown Rot	See Phytophthora comments.	See Phytophthora comments.
Impatiens, New Guinea	Botrytis Stem Rot	Dark, water-soaked leaf blight & stem rot.	Sanitation; See AL Pest Management Handbook.
	Impatiens Necrotic Spot Virus	New growth is stunted; circular black, greasy spots develop.	Remove damaged plants; control thrips.
	Tomato Spotted Wilt Virus	Damage is identical to impatiens necrotic spot virus.	Remove damaged plants; control thrips.
Indian Hawthorn	Cercospora Leaf Spot	Circular, dark brown spots (approx. 1/8 inch diameter).	Sanitation; Mancozeb fungicide.
	Entomosporium Leaf Spot	Red-black spots.	Sanitation. See the AL Pest Management Handbook.
	Suspect Bacterial Leaf Spot	Red-black angular spots.	Sanitation.
Iris	Didymella (<i>Heterosporium</i>) Leaf Spot	Circular or oval, brown leaf spots.	Sanitation of spotted leaves. See the AL Pest Management Handbook.
Irish Potato	Scab (<i>Streptomyces scabies</i>)	Slightly raised, rough, corky, cortex-colored spots, lesions (small-large) on tubers.	Crop rotation. Keep soil pH at 5.0-5.5, if possible.
	Scurf (<i>Rhizoctonia</i>)	Black, irregular, hard slightly raised rough-surfaced scabs on tuber surface.	Crop rotation. Terraclor. See E. Sikora.
Ivy, English	Anthracoise (<i>Colletotrichum</i>)	Black irregularly shaped leaf spots.	Sanitation; See AL Pest Management Handbook.
	Bacterial Leaf Spot (<i>Xanthomonas</i>)	Brown-black, angular, wet-looking spots (1/8-1/4 inch diameter; 0.3-0.6 cm).	Sanitation; See AL Pest Management Handbook.

<u>Plant</u>	<u>Disease</u>	<u>Description</u>	<u>Control</u>
Kalanchoe	Botrytis Blight	Brown, gray spots, blotches on the foliage. Infected areas may become limp. Spots look grayer when spore production occurs.	Sanitation. Apply protective fungicide drenches. See the AL Pest Management Handbook. Decrease humidity. Increase temperature.
Kudzu	Asian Soybean Rust	Small yellow-brown irregular spots on upper and lower leaf surfaces.	Sanitation - remove the plants.
Lantana	Foliar Leaf Spot Nematode	Angular, brown-black leaf spots.	Sanitation.
Leyland Cypress	Botryosphaeria Canker	Cracked, sunken, dry lesions on branches.	Sanitation. Remove stress factors. See the AL Pest Management Handbook.
	Cercospora Blight	Lower foliage turns brown. Usually browning begins on inner branch needles.	See the AL Pest Management Handbook. Some Georgia studies showed Daconil was effective.
	Pestalotia Tip Blight	Tips of branches turn brown and dried.	Sanitation. Remove stress factors.
	Seiridium Canker	Elongated, sunken lesions with sticky sap running down the bark.	Pruning. Sanitation. Maintain good tree vigor. See AL Pest Management Handbook.
Ligustrum	Cercospora Leaf Spot	Brown, circular or irregular leaf spots.	Sanitation of fallen leaves. See the AL Pest Management Handbook under 'Leaf Spot'.
Lily, Easter	Lily Symptomless Virus & Cucumber Mosaic Virus	Yellow and brown flecks on foliage; plants stunted; leaves curl under.	Sanitation. Control aphids.
Liriope	Anthrachnose	Cream-colored blotches and leaf tips sometimes with tiny black specks on leaf spots surface.	See the AL Pest Management Handbook.
Magnolia	Algal Leaf Spot (<i>Cephaleuros</i>)	Greenish or reddish slightly raised spots (0.1-1 cm) on upper leaf surfaces. Spot edges are	Control measures are usually not necessary. Bordeaux mixture may be used. See the AL

<u>Plant</u>	<u>Disease</u>	<u>Description</u>	<u>Control</u>
		often irregular or wavy in appearance. Old spots are usually cream colored in the center.	Pest Management Handbook.
Marigold	Botrytis Canker	Dark brown, elongated cankers form on stems.	Sanitation. See the AL Pest Management Handbook.
Nandina	Cercospora Leaf Spot	Small-large brown circular or angular leaf spots.	Sanitation. See the AL Pest Management Handbook.
Oak, White	Ganoderma Root & Butt Rot	A brown decay of the lower trunk at soil level and also a brown decay of roots; dieback.	Sanitation of roots.
Oats	Crown Rust (<i>Puccinia coronata</i>)	Orange-colored pustules form on leaves, mainly; severely infected plants will turn yellow and grow poorly.	Contact A. Hagan.
	Helminthosporium Leaf Spot/Blotch	On seedling, oblong to elongate, light-reddish-brown spots appear on seedling leaves. Seedling leaves may also be twisted. On older leaves, spots start as small, brown flecks that develop into longitudinal flecks of dead tissue. Tissue outside of the leaf spot become brown, yellow or red. Sometimes these discolored areas around the spots spread to involve the major portion of the leaf blade.	See the Small Grain Recommendations for seed treatment; rotate crops; plow under residue.
Pansy	Black Root Rot	Plants are stunted with lower foliage becoming yellow. Roots develop black tips and blotches.	Sanitation. See the AL Pest Management Handbook.
	Botrytis After Cold Damage	Brown leaf spots/blight; gray mold.	Sanitation; protective fungicide sprays. See AL Pest Management Handbook.

<u>Plant</u>	<u>Disease</u>	<u>Description</u>	<u>Control</u>
	Cercospora Leaf Spot	Brown-black circular spots.	Sanitation; Cleary's 3336.
	Phytophthora Crown/Root Rot	See comments for Impatiens.	
	Pythium Crown/Root Rot	See comments for Impatiens.	
Peach	Botryosphaeria Canker (<i>Gummosis</i>)	Gummy, "bleeding" or oozing spots of sap develop on bark surfaces where sunken, darkened lesions occur in the wood. Lesions are often cracked around the edge.	Sanitation; Benlate sprays on the trunk.
	Cytospora Canker	Sunken lesions on branches and trunk.	Prune off lesions making cuts 3-4 inches beyond margin of decay.
	Phomopsis Twig Blight	Gray sunken cankers, dieback.	Sanitation. Check with Ed Sikora.
Peas, Austin	Sclerotinia Blight	A dark wet-looking rot develops at lower stem area near soil. A white fungal mat may develop. Small (1/16 inch or less) black, hard, flat, irregular-shape bodies may develop in the fungal mat. Infected plants wilt and die.	Crop rotation.
Pentstemom (Beard Tongue)	Septoria Leaf Spot	Small to medium-sized spots (up to ¼ inch diameter) that are brown, somewhat circular with dark margins. Sometimes very tiny black specks may be seen on spot surfaces.	---
Pentas	Bacterial Leaf Spot	Dark brown, angular leaf spots, 1/16-1/8 inch diameter.	Sanitation.
Pentunia, Trailing	Sclerotinia Crown Rot	Lower stems become brown and show a wet or dry rot; a white mold may be present at &	Sanitation; crop rotation.

<u>Plant</u>	<u>Disease</u>	<u>Description</u>	<u>Control</u>
		around lower stems at soil level.	
Photinia	Armillaria Root Rot	Branch dieback; root decay & lower trunk decay; honey-colored mushrooms may be present; See ANR-907.	Remove tree. See ANR-907.
	Entomosporium Leaf Spot	Small reddish spots (¼-½ inch diameter; 0.6-1.2 cm) often coalesce into larger red spots with dark red centers and bright red, diffuse borders.	Sanitation; See the AL Pest Management Handbook.
Pine, Loblolly	Needle Rust (<i>Coleosporium</i>)	Cream-white pustules (⅛ inch diameter; 0.2-0.3 cm) on needles.	No control recommended.
Pine Seedlings, Loblolly	Phytophthora Root Rot	Plants become stunted. Older growth becomes yellowed. Roots become brown and water-soaked.	Sanitation of infected plants and sometimes media/soil replacement is recommended. Correct water problems. Fungicide drenches are recommended in nursery situations.
Pine, Virginia	Lophodermium (<i>Ploioderma</i>) Needle Cast	Small (1/32-1/16 inch diameter; 0.15 cm or less; just barely visible), black, football-shaped slightly raised fruiting bodies scattered on needles; needles brown and drop.	See AL Pest Management Handbook.
Plum	Black Knot	Initially, green swollen areas develop on branches. Swollen areas later become hard and black.	Sanitation. See the AL Pest Management Handbook.
<i>Poa trivialis</i>	Pythium Blight	Foliage blight.	Decrease water content of soil. Apply fungicide treatments as listed in the Alabama Pest Management Handbook for turf grasses.
Pothos	Rhizoctonia Stem Rot	Stems near or touching the soil (potting mix)	Sanitation. Protective sprays of Cleary's 3336.

<u>Plant</u>	<u>Disease</u>	<u>Description</u>	<u>Control</u>
		developed a dark brown canker or lesion (0.3-1 cm).	
Rhododendron	Botryosphaeria Canker	Elongated, sunken cankers with cracked edges.	Pruning and sanitation.
	Pestalotia Leaf Spot	White-gray, sometimes large, irregular spots. Damage may follow cold damage.	Sanitation. Maintain healthy plants.
Rosemary	Pythium Root Rot	Roots become brown and soft rotted.	Sanitation.
Ryegrass	Pythium Root Rot	Grass turns yellow, withers and dies; roots show a wet, brown decay.	See the AL Pest Management Handbook or ANR-594.
	Take-All Patch	Individual plants become yellow and die. Roots develop dead areas and lesions. Affected plants are usually in patchy areas of landscape.	Manage soil pH and nitrogen appropriately. Apply fungicide treatment when economically feasible. See ANR-823.
St. Augustine	Brown Patch (<i>Rhizoctonia</i>)	Irregular areas become brown due to browning of individual grass blades.	See the AL Pest Management Handbook or ANR-492.
	Take-All Patch (<i>Gaeumannomyces graminis</i> var <i>graminis</i>)	See comments under Ryegrass.	
Snapdragon	Downy Mildew	Yellow, irregular, indefinite bordered spots develop on upper leaf surface. A thin gray mold may develop on leaf spot area on lower leaf surface areas.	Sanitation. See the AL Pest Management Handbook.
	Root-Knot Nematode (<i>Meloidogyne</i>)	Stunted, wilted plants; roots develop irregular galls.	Sanitation; See AL Pest Management Handbook.
Spinach	Pythium Root Rot	Plants are stunted; roots develop a light brown discoloration; roots pull apart easily.	Sanitation; reduce moisture levels in the soil.

<u>Plant</u>	<u>Disease</u>	<u>Description</u>	<u>Control</u>
Spirea	Powdery Mildew	Leaves show a white powdery dusting on upper leaf surfaces and young shoots.	Sanitation. Cleary's 3336.
Strawberry	Botrytis Crown Rot	Lower stems become brown spotted at soil line.	Sanitation; see the AL Pest Management Handbook.
	Common Leaf Spot (<i>Mycosphaerella</i>)	Red to red-black leaf spots.	Sanitation; See AL Pest Management Handbook.
	Pythium Root Rot	Roots brown and water-soaked.	See E. Sikora.
Tomato	Bacterial Leaf Speck	Very small (1/16 inch diameter) angular, dark brown spots often with a diffuse yellow halo.	Sanitation. See AL Pest Management Handbook.
	Botrytis Gray Mold	Brown-gray blotches on foliage. A light gray fuzzy mold may develop in humid conditions.	Sanitation. See the AL Pest Management Handbook.
Turnip	Cercospora Leaf Spot	Small, off-white, irregular spots which may enlarge into 1/4-1/2 inch diameter (0.6-1.2 cm).	See AL Pest Management Handbook.
Verbena	Bacterial Leaf Spot	Angular, water-soaked black or dark green leaf spots.	Sanitation.
	Myrothecium Crown Rot	Plants collapse after decay at crown.	Sanitation.
	Foliar Nematode	Angular brown leaf spots; sometimes these symptoms can be confused with bacterial disease.	Sanitation.
	Pythium Root Rot	Roots brown and water-soaked when infections are new.	Sanitation; improve water/soil situation so soil does not remain wet.
Viburnum	Botryosphaeria Canker	Sunken, dried decay areas develop.	Sanitation; pruning.
Wheat	Barley Yellow Dwarf Virus	Plants are stunted; yellowing begins at leaf	Insecticide treatment to help control the

<u>Plant</u>	<u>Disease</u>	<u>Description</u>	<u>Control</u>
		tips of older leaves; reduced tillering.	transmitting aphids. See the AL Pest Management Handbook.
	Bipolaris Leaf Spot	Brown elongated lesions (typically 1/8-1/4 inch long) on foliage.	---
	Powdery Mildew (<i>Erysiphe</i>)	A white to light brown (buff) dusting or slightly raised powdery patches on foliage. Affected leaf areas eventually turn yellow and die. Infection of the flag leaf will severely affect plant development and yield.	See the AL Pest Management Handbook and/or A. Hagan.
	Soilborne Wheat Mosaic Virus (SBWMV)	Green-yellow mosaic pattern (short, narrow stripes) on leaves; stunting; reduced tillering possible plant death.	Crop rotation.
Zoysia	Blue-Green Algae (<i>Nostoc</i>)	Dark, green-brown gelatinous mass which turns black & powdery when dry conditions occur.	See ANR-908.
	Brown Patch (<i>Rhizoctonia solani</i>)	Patches or areas of the lawn become brown from a browning of the leaves.	See the AL Pest Management Handbook.