

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

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Auburn Plant Disease Report-October (J. Mullen)

Our October plant sample numbers were much reduced from our normal plant samples at this time of year. We received 60 samples in October which is about half our normal samples received.

The severe drought of the summer (especially in the northern half of the state) has continued into the fall. Many non-irrigated trees and shrubs have died or are showing dieback symptoms. Many Leyland cypress trees are dying in the Auburn area and I have heard reports of Leyland cypress dying further north. Junipers are normally drought tolerant, but non-irrigated junipers are also showing drought damage in some areas. Even if we receive the much-needed rains in late fall and winter, it is very likely we will see more tree and shrub mortality this winter and spring as a result of the severe drought in the summer and fall of 2007.

Ed Sikora and Mary Delaney reported that in October, soybean rust was found on soybean in the following counties as first soybean reports in the county: Marion, Lamar, Talladega, Franklin, Barbour, Houston, Coffee, Dallas, Lowndes. Soybean rust was found on

kudzu in October in the following counties as first kudzu reports in the county: Clay, Randolph, Bibb, Mobile, Russell, and Bullock. Soybean rust was reported also on kudzu in the following counties as repeated observations: Autauga, Jefferson, Chilton, Greene, St. Clair, Talladega, Dale, & Coffee.

In October we received azaleas which were diagnosed with Phytophthora root rot, Pythium root rot, and also planting too deep. These are problems we see on woody shrubs at least 5-6 times per year. The real and primary problem is that the shrubs were planted too deep. When the lower trunk is covered with soil, the tissues in this area do not receive adequate oxygen. Also, the shrub (or tree) will develop roots in the lower trunk area covered with soil. If the area is kept wet, the roots will become increasingly susceptible to Phytophthora root rot, Pythium root rot, and other root stresses. Root decline and death will occur. Phytophthora is a more aggressive fungal-like root disease agent than Pythium, which often develops on previously damaged roots in wet situations. The Pythium may contribute to the decline of the previously damaged or weakened roots. But, some Pythium species have been shown to be primary disease agents of small, feeder roots of some woody plants. Small nursery tree seedlings or small shrubs are more susceptible to Pythium damage. Trees and shrubs should be planted so the top of the root ball of a container plant is flush with the soil level. Once root disease develops, the plants should be removed. Removal of some root-associated soil may be helpful since the Phytophthora or Pythium spores may remain active in the soil for 1-2 years. Wet conditions are necessary for these two fungal-like organisms to be active.

Last month, Phytophthora root rot was diagnosed on azalea (See previous paragraph.), daylily, mondograss, petunia, and Virginia willow. The plants were located in landscapes except for the willow which was a nursery plant. All these plants were irrigated. Since Phytophthora activity requires abundant soil water, we must assume that excess moisture was present at some past period of time. All the Phytophthora infected plants were located in mid to southern areas of the state where drought was not severe as it has been in northern sections of the state.

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

<u>Plant</u>	<u>Disease</u>	<u>County</u>
Azalea	Phytophthora Root Rot	Dallas
	Planted Too Deep	Dallas
	Pythium Root Rot	Dallas
Bahia	Bipolaris Leaf Spot	Dallas
	Drechslera Leaf Spot	Dallas
Bermuda	Large Patch [=Brown Patch] (<i>Rhizoctonia solani</i>)	Macon
	Large Patch [=Brown Patch] (<i>Rhizoctonia</i>)	Mobile,

<u>Plant</u>	<u>Disease</u>	<u>County</u>
	<i>solani</i>)	Montgomery
	Take-all Patch (<i>Gaeumannomyces graminis</i> var. <i>graminis</i>) & Suspect Stress	?
Daylily	Phytophthora Crown & Root Rot	Dale
	Pythium Crown & Root Rot	Dale
Garlic	<i>Aspergillus niger</i> Clove Rot	Russell
	<i>Penicillium</i> sp. Clove Rot	Russell
Indian Hawthorn	Anthracnose (<i>Colletotrichum</i>)	*
	Leaf Spot	*
Mondograss	Phytophthora Root Rot	Houston
Peanuts	Rhizoctonia Limb Rot	Macon
Pepper, Bell	Anthracnose Fruit Rot	Montgomery
Petunia	Phytophthora Root & Crown Rot	Lee
St. Augustine Grass	Gray Leaf Spot (<i>Piricularia grisea</i>)	Mobile (2), Montgomery (2)
	Large Patch [=Brown Patch] (<i>Rhizoctonia solani</i>)	Mobile (2), Montgomery
	Take-all Patch (<i>Gaeumannomyces graminis</i> var. <i>graminis</i>)	Jefferson, Mobile (4), Montgomery (2)
Willow, Virginia Zoysia	Phytophthora Root Rot Bipolaris Crown Rot	* Montgomery

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

Birmingham Plant Disease Report-October (J. Jacobi)

We received 52 samples for the month of October. Once again the most common problems were abiotic diseases related to the drought. We continue to see a large number of Leyland cypress sample from plants with dieback of scattered branches. Isolations from branch cankers have consistently yielded *Botryosphaeria* from these samples with the exception of *Seiridium* found in one case.

Silverleaf whitefly damage was another problem seen last month. Symptoms included silvering of developing leaves and a bleached appearance to fruit. For images and a complete description of this problem see the following web sites:

<http://www.invasive.org/browse/detail.cfm?imgnum=1305019>

<http://www.uky.edu/Ag/HLA/wkgnewsletteroct.pdf>

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

<u>Plant</u>	<u>Problems</u>	<u>County</u>
Azalea	Azalea Bark Scale	Tuscaloosa
	Azalea Lacebug	Jefferson
	Phomopsis Dieback	Jefferson (2)
Camellia	Phyllosticta Leaf Spot	Jefferson
Camellia, Sasanqua	Dieback and Canker of Camellia (<i>Colletotrichum</i>)	Jefferson
Cedar, Eastern Red	Conifer Scale	Jefferson
	Kabatina Tip Blight	Jefferson
Cherry, Black	Rust (<i>Tranzschelia</i>)	Jefferson
Cypress, Leyland	<i>Botryosphaeria</i> Canker	Jefferson(5)
	<i>Seiridium</i> Canker	Jefferson
Elaeagnus	Vole Damage (Girdling)	Jefferson
Ginkgo	Marginal Leaf Scorch	Jefferson
Holly, Chinese	Indian Wax Scale	Tuscaloosa

<u>Plant</u>	<u>Problems</u>	<u>County</u>
Hydrangea, Bigleaf	Leaf Spot (<i>Corynespora</i>)	Jefferson
Ivy, English	Anthrachnose (<i>Colletotrichum</i>)	Jefferson
Pear, Callery	Colletotrichum Leaf Spot (or Anthracnose)	Jefferson
Squash, Summer	Silverleaf Whitefly Damage	Cullman
St. Augustinegrass	Chinch Bugs	Jefferson
	Large Patch (<i>Rhizoctonia</i>)	Jefferson

Auburn Entomology Report-October (C. Ray)

County	Host	Category	Identification	Scientific Name
Lee	Home, Lawn	Household-Miscellaneous	Black Carpenter Ant	<i>Camponotus pennsylvanicus</i>
Greene	Ornamental	Miscellaneous	Green Lynx Spider	<i>Peucetia viridians</i>
Lee	Home	Household-Miscellaneous	Brown Lacewing	Hemerobiidae
Macon	American Skullcap	Ornamental	A Flea Beetle	<i>Kuschelina gibbitarsa</i>
Lee	Home	Household-Miscellaneous	Argentine Ant	<i>Linepithema humile</i>
Mobile	Unknown	Not Available	A Flower Scarab	<i>Trigonopeltastes delta</i>
Mobile	Unknown	Not Available	A Gasteruptiid Wasp	Gasteruptiidae
Mobile	Unknown	Not Available	A Stilt-Legged Fly	Micropezidae
Madison	Home	Household-Miscellaneous	House Centipede	<i>Scutigera coleoptrata</i>
Montgomery	St. Augustine Grass	Turfgrass	Chinch Bugs	<i>Blissus</i> sp.
Autauga	Home	Household-Medical	Brown Widow Spider	<i>Latrodectes geometricus</i>
Dallas	Home	Household-Miscellaneous	A Lepidopteran Pupal Cocoon, Possibly Pyralidae	

County	Host	Category	Identification	Scientific Name
Crenshaw	Home	Household-Miscellaneous	A Wolf Spider	<i>Schizocosa</i> or <i>Allocosa</i>
Montgomery	Japanese Maple	Ornamental	Cottony Cushion Scale	<i>Icerya purchasi</i>
Dale	Daylily	Ornamental	Bulb Mites	<i>Rhizoglyphus</i> sp.
Limestone	Home	Household-Miscellaneous	Root Weevil	<i>Otiorhynchus</i> sp.
DeKalb	Unknown	Not Available	Springtails	Collembola
Jefferson	Eastern Red Cedar	Ornamental	Conifer Scale	<i>Diaspidiotus coniferarum</i>
Montgomery	Cherry	Ornamental	San Jose Scale	<i>Diaspidiotus perniciosus</i>
Lee	Virginia Willow	Ornamental	White Peach Scale & Brown Soft Scale	<i>Pseudaulacaspis pentagona</i> & <i>Coccus hesperidum</i>
Baldwin	Lawn	Turfgrass	Mole Crickets	Gryllotalpidae
Limestone	Native Azalea	Ornamental	A Hymneopteran Pupa	Hymenoptera
Limestone	Unknown	Miscellaneous	A Leaf-Footed Bug	<i>Acanthocephala femorata</i>
Mobile	Centipede Grass	Turfgrass	Sugar Cane Scale	<i>Aspidiella sacchari</i>

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* and *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.
	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.

<u>Plant</u>	<u>Disease</u>	<u>Description</u>	<u>Control</u>
	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.
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.
Begonia	Cylindrocladium Canker	Dark brown, sunken lesions on lower stems near soil line.	Sanitation - remove damaged plants and some soil in lower stem area.
Bentgrass	Pythium Blight/Root Rot	Foliage becomes yellowed and then brown as a result of the	See the AL Pest Management Handbook for recommendations.

<u>Plant</u>	<u>Disease</u>	<u>Description</u>	<u>Control</u>
		decaying roots which appear brown and water-soaked.	
	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	Anthrachnose (<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.
	<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	Remove dying plants; improve soil drainage; reduce water levels in soil. Eliminate stress.

<u>Plant</u>	<u>Disease</u>	<u>Description</u>	<u>Control</u>
		browning will gradually spread upward through the plant.	
	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.
	<i>Phytophthora ramorum</i> Blight (Sudden Oak Death)	Brown, wet leaf spots on leaves and small stems/twigs; dieback.	Review symptoms & situation with the grower. Contact the AL State Department of Agriculture if you think testing is needed.
	Phytophthora Root Rot	Foliage dieback. Roots become brown and water-soaked and later dry out.	See the AL Pest Management Handbook.
Camellia, Sasanqua	Anthrachnose 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	Large Patch [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	Sanitation.

<u>Plant</u>	<u>Disease</u>	<u>Description</u>	<u>Control</u>
		with cracks along the margin.	
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.
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	Phytophthora Root Rot	Roots become brown and wet; later dead roots become dry; plant foliage shows wilt and dieback.	Sanitation; remove damaged plants; remove some root-associated soil; decrease water levels in the soil.
	Rust (<i>Puccinia hemerocallidis</i>)	Yellowing spots and blight of leaves. Orange powder may wipe off on	See the AL Pest Management Handbook.

<u>Plant</u>	<u>Disease</u>	<u>Description</u>	<u>Control</u>
		fingers.	
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.
Eleagnus	Phytophthora Root Rot	Roots become brown and wet; later dead roots become dry; plant foliage shows wilt and dieback.	Sanitation; remove damaged plants; remove some root-associated soil; decrease water levels in the soil.
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.
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.

<u>Plant</u>	<u>Disease</u>	<u>Description</u>	<u>Control</u>
Hickory	Heart Rot (<i>Phellinus</i>)	It causes a white rot of sapwood usually after other organisms have invaded wounds. It develops a conk on crack surface that is usually hoof shaped with top being black and lower poroid surface being brown. Black (pseudosclerotial) plates may appear as black lines in the rotted wood.	Remove the tree.
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 Helli	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.
Helli 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.
Hydrangea	Anthracnose	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.

<u>Plant</u>	<u>Disease</u>	<u>Description</u>	<u>Control</u>
Impatiens	Root Knot Nematode (<i>Meloidogyne</i>)	Roots develop galls; plants are unthrifty and stunted.	Remove plants. Solarization or crop rotation. See ANR-689.
Indian Hawthorne	Entomosporium Leaf Spot	Black spots with red borders develop on the foliage.	Sanitation; protective fungicide sprays. See the AL Pest Management Handbook.
Ivy, English	Botryosphaeria Canker	Brown, sunken lesions on stems.	Sanitation - prune out the lesions. Make cuts 2 inches beyond the edge of the lesions. Dip shears into alcohol or a 10% bleach solution between cuts.
	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.
Jasmine, Florida	Armillaria Root Rot	Roots become dry-rotted. The fungus may produce a thin, white mycelial mat on roots and under the bark on lower trunk; also the fungus may produce black fungal threads on root surface and lower trunk surface; brown mushrooms may be produced. Dieback of foliage occurs.	See ANR-907.
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.

<u>Plant</u>	<u>Disease</u>	<u>Description</u>	<u>Control</u>
Kudzu	Asian Soybean Rust	Small, yellow-brown angular or round leaf spots occur. Lower leaf surface spots produce spore masses that can be seen with a 20X hand lens.	---
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. Kocide has recently given good control and it is labeled for use on ornamentals.
	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	Collect & remove all fallen leaves from the

<u>Plant</u>	<u>Disease</u>	<u>Description</u>	<u>Control</u>
		spots develop.	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.
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,	Resistant cultivars.

<u>Plant</u>	<u>Disease</u>	<u>Description</u>	<u>Control</u>
		sheaths, stems, and panicles.	
	<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	Anthracnose (<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 1/4-1/2 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 pin-head sized bodies on collapsed tissues.	Sanitation. Daconil protective sprays. See ANR-1214.
	Phytophthora Crown Rot	Crown, roots become brown and water-soaked.	Sanitation. See the AL Pest Management Handbook and ANR-1214.
	Pythium Crown/Root	Crowns, roots become	See the AL Pest

<u>Plant</u>	<u>Disease</u>	<u>Description</u>	<u>Control</u>
	Rot	brown and water-soaked.	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.
Pecan	Brown Spot (<i>Cercospora</i>)	Circular, reddish brown spots appear that become gray with concentric zones, and spots develop irregular shapes.	Maintain trees in good health; fungicides labeled for control of scab will control brown spot.
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.
	Ploioderma (<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	---

<u>Plant</u>	<u>Disease</u>	<u>Description</u>	<u>Control</u>
		bodies) occur in a linear arrangement on browning needles.	
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.
	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.
Privet, Japanese	Cercospora Leaf Spot	Brown, circular-irregular leaf spots; sometimes inner spot areas are light brown and outer spot areas are	Sanitation; protective sprays of Cleary's 3336 may help.

<u>Plant</u>	<u>Disease</u>	<u>Description</u>	<u>Control</u>
		dark brown.	
Rose, Miniature	Cylindrocladium Root Rot	Roots show black lesions and rotted areas.	Sanitation.
Ryegrass	Piricularia Gray Leaf Spot	Gray, brown, oval leaf spots.	See the AL Pest Management Handbook.
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.
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 pale orange-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,	Check with Ed Sikora.

<u>Plant</u>	<u>Disease</u>	<u>Description</u>	<u>Control</u>
		sunken cankers. Leaves develop interveinal yellowing-necrosis; plant die.	
St. Augustine	Large Patch [Brown Patch] (<i>Rhizoctonia</i>)	See Centipede.	See Centipede.
	Gray Leaf Spot	Gray colored irregular spots on leaves. Spots may have a dark brown edge.	Sanitation -- mowing. See ANR-621.
	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'.
	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.

<u>Plant</u>	<u>Disease</u>	<u>Description</u>	<u>Control</u>
	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	Anthrachnose (<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.
	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 ⅛ 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 ½ inch or	See the AL Pest Management Handbook.

<u>Plant</u>	<u>Disease</u>	<u>Description</u>	<u>Control</u>
		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.	
	<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.
	Leaf Mold (<i>Cladosporium = Fulvia fulva</i>)	Older leaves damaged first with pale green-yellow spots (undefined margins) on upper leaf surfaces. When relative humidity and temperatures are high, a green mold develops on lower leaf surface of spots. Spots may merge and whole leaves die.	Sanitation – remove all plant debris. Irrigate early in the day. A maneb, mancozeb, or chlorothalonil fungicide will provide control.
	Powdery Mildew	Foliage develops faint white dusty patches which later become necrotic.	---
	Pythium Root Rot	Roots become light brown and water-soaked; roots easily pull apart.	Sanitation - remove damaged plants; reduce water levels in the soil. See the AL Pest Management Handbook.
	Target Spot (<i>Corynespora</i>)	Gray-brown, zonate, oval leaf spots.	Sanitation. See Ed Sikora.
Turnip	Alternaria Leaf Spot	Gray-brown leaf spots, irregular in shape.	See the AL Pest Management Handbook.

<u>Plant</u>	<u>Disease</u>	<u>Description</u>	<u>Control</u>
	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 & Cercosporoella 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>Criconeoides</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.
	Take-All (<i>Gaeumannomyces</i>)	Yellowing and dieback. Roots develop black lesions.	See ANR-823.