

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 (W. Gazaway)

In October the Plant Diagnostic Lab received and processed 137 plant samples. Fungal diseases were higher than usual due to unusually high rainfall in October.

Brown patch (*Rhizoctonia solani*) which causes large dead patches in centipede, bermudagrass and St. Augustine lawns was frequently observed. Take-all was also seen on St. Augustine and dollar spot was found on bermudagrass. Other fungal diseases observed were pod and stem blight and anthracnose on soybean, Phomopsis canker on blueberry, and Cercospora leaf spot on weeping willow and crape myrtle.

Table 1. 2009 October Plant Diseases Seen In The Auburn Plant Diagnostic Lab.

<u>Plant</u>	<u>Disease</u>	<u>County</u>
Azalea	Possible SOD (<i>Phytophthora ramorum</i>)	*
	Septoria Leaf Spot (<i>Septoria</i> sp.)	Mobile
Bermuda	Bipolaris Leaf Blight (<i>Bipolaris</i> sp.)	Fayette
	Low Soil pH	Fayette
Bermudagrass	Dollar Spot (<i>Sclerotinia homeocarpa</i>)	Coffee
	Pythium Blight (<i>Pythium</i> sp.)	Coffee
	Rhodesgrass Scale (<i>Antonina graminis</i>)	Lee
Blueberry	Phomopsis Dieback (<i>Phomopsis</i> sp.)	Henry
	Phytophthora Root Rot (<i>Phytophthora</i> sp.)	Henry
Camellia	Possible SOD (<i>Phytophthora ramorum</i>)	*
Centipede	Low Soil pH	Winston

<u>Plant</u>	<u>Disease</u>	<u>County</u>
	Suspect High Phosphorus Level	Calhoun
Crape Myrtle	Cercospora Leaf Spot (<i>Cercospora</i> sp.)	Hale
Cryptomeria	Inner Limbs Pestalotia (<i>Pestalotia</i> sp.)	Montgomery
	Pestalotia Dieback (<i>Pestalotia</i> sp.)	Barbour
Cunninghamia	Dieback	Autauga
Cypress, Bald	Cypress Looper	Baldwin
	Fall Webworm	Baldwin
	Fusarium Root Rot (<i>Fusarium</i> sp.)	Baldwin
Cypress, Leyland	Abiotic Problem	Marshall
Fothergilla	Possible Root Problem	Lee
Grape, Muscadine	Suspect Bird Damage	Tuscaloosa

<u>Plant</u>	<u>Disease</u>	<u>County</u>
Hawthorn	Possible SOD (<i>Phytophthora ramorum</i>)	*
Hay	Alternaria Leaf Spot (<i>Alternaria</i> sp.)	Fayette
	Curvularia Blight (<i>Curvularia</i> sp.)	Fayette
Holly, Yaupon	Yaupon Psyllid (<i>Gryopsylla ilicis</i>)	Lee
Hydrangea	Corynespora Leaf Spot (<i>Corynespora</i> sp.)	Mobile
	Powdery Mildew	Mobile
Laurustinus	Possible Lasiodiplodia Canker (<i>Lasiodiplodia</i> sp.)	Tallapoosa
Lotus	Insufficient Sample	Lee
Mustard	Cercospora Leaf Spot (<i>Cercospora</i> sp.)	Winston
Oak, Laurel	Obscure Scale (<i>Melanaspis obscura</i>)	Montgomery
Oak, Live	Eastern Subterranean Termite	Baldwin

<u>Plant</u>	<u>Disease</u>	<u>County</u>
Oak, Nuttall	Oak Lecanium (<i>Parthenolecanium corni</i>)	Montgomery
Oak, Pin	Oak Lecanium (<i>Parthenolecanium corni</i>)	Montgomery
	Possible Basidiomycete Wood Decay	Montgomery
Okra	Root-Knot Nematodes (<i>Meloidogyne</i> sp.)	Elmore
Osmanthus	Artillery Fungus (<i>Shaerobolus</i> sp.)	Marshall
Pieris	Possible SOD (<i>Phytophthora ramorum</i>)	*
Rhododendron	Abiotic Problem	Lee
	Possible SOD (<i>Phytophthora ramorum</i>)	*
Rose-of-Sharon	Scentsless Plant Bug (<i>Niesthrea louisianica</i>)	Lee
Royal Fern	Possible Lasiodiplodia Canker (<i>Lasiodiplodia</i> sp.)	Tallapoosa
	Suspect Root Problem	Tallapoosa

<u>Plant</u>	<u>Disease</u>	<u>County</u>
St. Augustinegrass	Brown Patch (<i>Rhizoctonia solani</i>)	Autauga, Dale, Jefferson, Mobile, Montgomery
Soybean	Cercospora Leaf Spot (<i>Cercospora</i> sp.)	Autauga
	Phytophthora Stem Canker (<i>Diaporthe phaseolorum</i>)	Autauga
Sweet Potato	Fusarium Blight (<i>Fusarium</i> sp.)	Lee
Turf	Bipolaris Leaf Spot (<i>Bipolaris</i> sp.)	Montgomery
	Brown Patch (<i>Rhizoctonia solani</i>)	Calhoun
	Low Soil pH	Montgomery
	Take-All Patch (<i>Gaeumannomyces graminis</i> var. <i>graminis</i>)	Calhoun
Turnip	Burn	Choctaw
Viburnum, Hybrids,	Possible SOD (<i>Phytophthora ramorum</i>)	*

<u>Plant</u>	<u>Disease</u>	<u>County</u>
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Cultivars

Willow, Weeping	Cercospora Leaf Spot (<i>Cercospora</i> sp.)	Hale
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	Unknown Leaf Spot Disease	Lee
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*Counties are not reported for greenhouse, nursery, or golf course samples.

Birmingham Plant Disease Report-October (J. Jacobi)

We received 53 plant samples for the month of October. Some of the samples we saw last month included black twig borer on Japanese anise, large patch on bermudagrass, forsythia gall, Geminivirus on tomato, anthracnose on turnip greens, and web blight on annual vinca.

Black twig borer (*Xylosandrus compactus*) has been especially severe this fall on a wide range of woody shrubs and trees in the Birmingham area (spicebush, anise, sassafras, dogwood, and southern magnolia). This beetle causes dieback of pencil sized twigs. We have had problems with the black twig borer for several years, but the damage on spicebush and sassafras raised concern because of the problems with the redbay ambrosia beetle and laurel wilt in GA, SC, FL, and the recent finding of the redbay ambrosia beetle in MS (Aug 2009). Sassafras and spicebush are two of the potential host plants of this introduced ambrosia beetle. The redbay ambrosia beetle is the vector for laurel wilt disease, which has devastated native stands of redbay from South Carolina to Florida. Because of the potential threat from the redbay ambrosia beetle, unknown ambrosia beetles from damaged plants should be sent to the Auburn Plant Diagnostic Lab for identification. To learn more about the redbay ambrosia beetle and laurel wilt see the following web site: <http://www.fs.fed.us/r8/foresthealth/laurelwilt/index.shtml>.

Last month we received a greenhouse tomato sample with symptoms of tomato yellow leaf curl (a whitefly-transmitted Geminivirus). It's been three years since we had our first case of tomato yellow leaf curl in greenhouse tomatoes in Alabama (Fall 2006). So, this is the second time we have found this virus in greenhouse tomatoes in the

state. The virus is transmitted by whiteflies and causes stunting, leaf distortion, and yellowing of new growth between the veins. A more complete description of the problem can be found at the following web sites.

<http://www.1suagcenter.com/NR/ronlyres/DEECA184-C27C-4E32-9431-540FF4F0217E/46254/pub3069TomatoYellowLeafCurlLOWRES.pdf>

Orange hobnail canker (aka Endothia canker) caused by the fungus *Cryphonectria gyrosa* causes dieback and cankers on branches, stems and exposed roots of oaks, sweetgum, and beech. The cankers and bright orange pustule-like fruiting bodies are often seen on exposed roots of oaks that have been damaged by lawnmowers. The fungus is most damaging on trees that are in a weakened condition. Stress induced by drought, low fertility or mechanical damage predisposes trees to damage from the fungus. Trees growing vigorously are generally resistant to infection. For a picture of the canker and characteristic fruiting bodies, see the following web page:

<http://www.ipmimages.org/browse/detail.cfm?imgnum=4822091>.

Table 2. 2009 October Problems Seen In The Birmingham Plant Diagnostic Lab.

<u>Plant</u>	<u>Problems</u>	<u>County</u>
Amaranth	Root-Knot Nematode (<i>Meloidogyne</i>)	Jefferson
Anise, Japanese	Black Twig Borer (<i>Xylosandrus</i>)	Jefferson
Arborvitae	Poor Drainage	Shelby
Azalea	Azalea Lacebug	Jefferson
Bentgrass	Brown Patch (<i>Rhizoctonia</i>)	*
	Pythium Root Rot	*

<u>Plant</u>	<u>Problems</u>	<u>County</u>
Bermudagrass	Large Patch (<i>Rhizoctonia</i>)	*
Boxwood, Common	Phytophthora Root Rot	*
Crabgrass	Loose Smut (<i>Ustilago</i>)	Jefferson
Cypress, Italian	Cercospora Leaf Blight	Shelby
Forsythia	Forsythia Gall (<i>Phomopsis</i>)	Jackson
Grapes	Pierce's Disease (<i>Xylella</i>)	Madison
Lantana	Lantana Lace Bug	Jefferson
Maple, Japanese	Phyllosticta Leaf Spot	Jefferson
Maple, Red	Anthracoese	Jefferson
Oak, Shumard	Orange Hobnail Canker (<i>Cryphonectria</i>)	Jefferson
Pansy	Black Root Rot (<i>Thielaviopsis</i>)	Jefferson
	Phytophthora Crown Rot	Jefferson

<u>Plant</u>	<u>Problems</u>	<u>County</u>
Pittosporum, Variegated	Cottony Cushion Scale	Jefferson
Spice Bush	Black Twig Borer	Jefferson
Tomato	Whitefly Transmitted Geminivirus	*
Turnip Greens	Anthracnose (<i>Colletotrichum</i>)	Bibb
Viburnum, Japanese Snowball	False Spider Mites	Tuscaloosa
Vinca, Annual	Web Blight (<i>Rhizoctonia</i>)	Cullman
Zoysiagrass	Algae (Cyanobacteria, <i>Nostoc</i>)	Shelby
	Dollar Spot	Jefferson
	Fall Armyworms	Jefferson

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

Auburn Entomology Report-October (C. Ray)

County	Host	Category	Identification	Scientific Name
Lauderdale	Home	Household- Miscellaneous	A Woodland Ground Beetle	<i>Cyclotrachelus</i> sp.
Lee	Rose of Sharon	Ornamentals	A Scentless Plant Bug	<i>Niesthrea louisianica</i>
Montgomery	Home	Household- Stored Products	Carpet Beetle Larva	<i>Anthrenus</i> sp.
Montgomery	Lawn	Household- Miscellaneous	Golden Silk Orb Weaver	<i>Nephila clavipes</i>
Montgomery	Laurel Oak	Ornamental	Obscure Scale	<i>Melanaspis obscura</i>
Montgomery	Pin Oak	Ornamental	Obscure Scale	<i>Melanaspis obscura</i>
Montgomery	Pin Oak	Ornamental	"Oak Lecanium"	<i>Parthenolecanium corni</i> Complex

County	Host	Category	Identification	Scientific Name
Baldwin	Bald Cypress	Ornamental	Fall Webworm	<i>Hypantria cunea</i>
Baldwin	Bald Cypress	Ornamental	Cypress Looper	<i>Anacamptodes pergracilis</i>
Georgia		Miscellaneous	Carolina Leaf-roller infected with entomophagous fungi	<i>Camptonotus carolinensis</i> infested with <i>Cordyceps</i> sp.
Lee	Home	Household-Miscellaneous	A Drain Fly	Psychodidae
Lee	Home	Household-Miscellaneous	A Scuttle Fly	<i>Megaselia</i> sp.
Perry	Home	Household-Miscellaneous	A Rove Beetle	Staphylinidae
Perry	Home	Household-Miscellaneous	A Scuttle Fly	<i>Megaselia</i> sp.
Perry	Home	Household-Miscellaneous	A Bethyloid Wasp	Bethylidae

County	Host	Category	Identification	Scientific Name
Perry	Home	Household- Miscellaneous	A Midge	Chironomidae
Perry	Home	Household- Miscellaneous	A Gall Midge	Cecidomyiidae
Perry	Home	Household- Miscellaneous	A Chalcid Wasp	Chalcoidea
Perry	Home	Household- Miscellaneous	A Love Bug	<i>Plecia</i> sp.
Perry	Home	Household- Miscellaneous	A Pomace Fly	Drosophilidae
Perry	Home	Household- Miscellaneous	A Mosquito	<i>Psorophora columbiae</i>
Madison	Lawn	Turfgrass	Green June Beetle Larvae	<i>Cotinus nitida</i>
Colbert	Soybeans	Row Crops	Millipedes	Diplopoda

County	Host	Category	Identification	Scientific Name
Lee	Yaupon Holly	Ornamental	Yaupon Psyllid	<i>Gyropsylla ilicis</i>
Limestone	Nursery	Ornamental	Red-Headed Flea Beetle	<i>Systema frontalis</i>
Calhoun	Home	Household-Miscellaneous	A Hacklemesh Weaver	<i>Callobius</i> sp.
Limestone		Ornamental	A Geometrid Larva	Geometridae
Montgomery	Home	Household-Stored Products	A weevil – too damaged for ID	Curculionidae
Marion	Home	Household-Medical	Brown Recluse Spider	<i>Loxosceles reclusa</i>
Limestone	Nursery	Ornamental	Magnolia 3-tooth Snail	<i>Triodopsis hopetonensis</i>
Monroe	Jack Bean	Miscellaneous	Brown Widow Spider	<i>Latrodectus geometricus</i>

County	Host	Category	Identification	Scientific Name
Covington	Fruit Trees	Fruits & Nuts	Orange Dog Caterpillar	<i>Papilio cresphontes</i>
Mobile	Home	Household-Structural	Eastern Subterranean Termite	<i>Reticulitermes flavipes</i>
Baldwin	Live Oak	Ornamental	Eastern Subterranean Termite	<i>Reticulitermes flavipes</i>
Elmore	Home – Bit Occupant	Household-Medical	Juvenile Corsair	<i>Rasahus</i> sp.

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 Cercosporella 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.
	Rust (<i>Uromyces striatus</i>)	Small yellow and red-brown colored leaf spots.	Check with A. Hagan.
Ajuga	Rhizoctonia Crown & Root Rot	Crowns & roots develop a brown, dry decay.	Sanitation. Cleary's 3336 will provide protective disease control.
	Phytophthora Crown & Root Rot	Dieback. Roots are dying, brown, & soft rotted.	Sanitation. Reduce soil water levels.
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	Sanitation. Reduce soil

<u>Plant</u>	<u>Disease</u>	<u>Description</u>	<u>Control</u>
		rotted.	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.
	Phomopsis Dieback	Sunken, elliptical, necrotic lesions on branches with dieback of distal branch	Sanitation. See the AL Pest Management Handbook.

<u>Plant</u>	<u>Disease</u>	<u>Description</u>	<u>Control</u>
		segments.	
	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.
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 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.

<u>Plant</u>	<u>Disease</u>	<u>Description</u>	<u>Control</u>
	Pythium Root Rot	Foliage turns yellow and dieback follows. Roots become light brown and soft rotted.	See the AL Pest Management Handbook.
Birch, River	Anthraco nose (<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	Remove dying plants; improve soil drainage; reduce water levels in

<u>Plant</u>	<u>Disease</u>	<u>Description</u>	<u>Control</u>
		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.	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.
	<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

<u>Plant</u>	<u>Disease</u>	<u>Description</u>	<u>Control</u>
			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>Criconeoides</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.
	Phytophthora Root Rot	Dieback; roots become brown & wet rotted; roots later dry out.	Remove damaged tree roots & root associated soil. Reduce water levels at the site. Replace some soil with

<u>Plant</u>	<u>Disease</u>	<u>Description</u>	<u>Control</u>
			fresh top soil.
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	Anthracnose	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	Sanitation.

<u>Plant</u>	<u>Disease</u>	<u>Description</u>	<u>Control</u>
		some abnormal foliage development.	
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 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.
Eleagnus	Phytophthora Root Rot	Roots become brown and wet; later dead	Sanitation; remove damaged plants;

<u>Plant</u>	<u>Disease</u>	<u>Description</u>	<u>Control</u>
		roots become dry; plant foliage shows wilt and dieback.	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	Remove damaged plants. Improve soil drainage. Reduce water levels in the soil. See AL Pest Management Handbook if fungicide

<u>Plant</u>	<u>Disease</u>	<u>Description</u>	<u>Control</u>
		only on weakened plants.	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.
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	Colletotrichum Leaf	Brown-black circular	Sanitation. Cleary's 3336 may be used as a

<u>Plant</u>	<u>Disease</u>	<u>Description</u>	<u>Control</u>
Helleri	Spot	spots.	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.
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.
Hydrangea	Anthraxnose	White-cream colored irregular-oval of spots.	See the AL Pest Management Handbook. See ANR-1212.
	Cercospora Leaf Spot	Irregular brown leaf spots.	Sanitation. See the AL Pest Management Handbook.

<u>Plant</u>	<u>Disease</u>	<u>Description</u>	<u>Control</u>
	Powdery Mildew	Patchy leaf areas with white dusty coating. Necrosis develops later.	See the AL Pest Management Handbook. See ANR-1212.
	Possible Armillaria Crown & Root Rot	Dieback. Decay of crown & roots; white layer (thin) of fungal growth under bark or root surface layer; black, thread-like structures may be present above and below bark; brown mushrooms may be present.	Remove plant and all roots.
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

<u>Plant</u>	<u>Disease</u>	<u>Description</u>	<u>Control</u>
			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	Sanitation. Maintain even day-night temperatures if possible. Apply

<u>Plant</u>	<u>Disease</u>	<u>Description</u>	<u>Control</u>
		growth may be present. Some foliage yellowing and browning may be present.	protective sprays of a recommended fungicide. See AL Pest Management Handbook.
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	Improve air circulation. See the AL Pest Management

<u>Plant</u>	<u>Disease</u>	<u>Description</u>	<u>Control</u>
		areas later turn brown.	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 spots develop.	Collect & remove all fallen leaves from the area. Apply Cleary's 3336 or Halt for protective disease control.

<u>Plant</u>	<u>Disease</u>	<u>Description</u>	<u>Control</u>
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	Sanitation.

<u>Plant</u>	<u>Disease</u>	<u>Description</u>	<u>Control</u>
		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.	
	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.
Oak, Water	Dryadeus Root Rot (<i>Inonotus</i>)	In eastern & southern U.S., <i>I. andersonii</i> causes a white rot of heart wood initially. When infection moves out to trunk surface, a sheet-like (20 inches or more) yellow-brown fruiting body may develop under the bark. As a result, the bark will fall off.	Remove tree and all roots.
Oats	Crown Rust (<i>Puccinia coronata</i>)	Bright orange, round to oblong, powdery pustules on leaves, sheaths, stems, and panicles.	Resistant cultivars.

<u>Plant</u>	<u>Disease</u>	<u>Description</u>	<u>Control</u>
	<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 ¼-½ cm.	Sanitation. Daconil or Cleary's 3336 may be used for protective disease control, also ANR-1214.

<u>Plant</u>	<u>Disease</u>	<u>Description</u>	<u>Control</u>
	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 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.

<u>Plant</u>	<u>Disease</u>	<u>Description</u>	<u>Control</u>
	Fabraea (<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	Protective fungicide sprays. See the AL Pest Management

<u>Plant</u>	<u>Disease</u>	<u>Description</u>	<u>Control</u>
		brown and drop. Small black football shaped lesions (1-2 mm long) develop on brown needles.	Handbook.
	Rhizosphaeria Needle Cast	Needles turn brown. Tiny black dots (fruiting 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.

<u>Plant</u>	<u>Disease</u>	<u>Description</u>	<u>Control</u>
	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 dark brown.	Sanitation; protective sprays of Cleary's 3336 may help.
Rose	Downy Mildew (<i>Peronospora</i> sp.)	Yellow, irregular spots that become black with age.	Sanitation as possible. See the AL Pest Management

<u>Plant</u>	<u>Disease</u>	<u>Description</u>	<u>Control</u>
			Handbook.
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	Anthrachnose (<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.

<u>Plant</u>	<u>Disease</u>	<u>Description</u>	<u>Control</u>
	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, sunken cankers. Leaves develop interveinal yellowing-necrosis; plant die.	Check with Ed Sikora.
St. Augustine	Large Patch [Brown Patch] (<i>Rhizoctonia</i>)	See Centipede.	See Centipede.

<u>Plant</u>	<u>Disease</u>	<u>Description</u>	<u>Control</u>
	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	See AL Pest Management Handbook.

<u>Plant</u>	<u>Disease</u>	<u>Description</u>	<u>Control</u>
		periderm and vascular system become black, firm, dry.	
	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	Anthracoze (<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	See the AL Pest Management Handbook.

<u>Plant</u>	<u>Disease</u>	<u>Description</u>	<u>Control</u>
		become black, and orange spore masses may develop during moist conditions.	
	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 1/8 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 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	See the AL Pest Management Handbook.

<u>Plant</u>	<u>Disease</u>	<u>Description</u>	<u>Control</u>
		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	---

<u>Plant</u>	<u>Disease</u>	<u>Description</u>	<u>Control</u>
		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.
	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 & 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.

<u>Plant</u>	<u>Disease</u>	<u>Description</u>	<u>Control</u>
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	Large Patch [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	See AL Pest Management Handbook.

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