

TIMELY INFORMATION

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NOVEMBER PLANT DISEASES FROM THE AUBURN PLANT DIAGNOSTIC LAB

NOVEMBER PLANT DISEASES FROM THE BIRMINGHAM PLANT DIAGNOSTIC LAB

NOVEMBER INSECT REPORT FROM THE AUBURN PLANT DIAGNOSTIC LAB

DISEASE POSSIBILITIES FOR DECEMBER

William S. Gazaway
Interim Diagnostician-Auburn

Jim Jacobi
Extension Plant Pathology Specialist-Birmingham

Charles Ray
Research Fellow IV-Auburn

Auburn Plant Disease Report-November (W. Gazaway)

The Plant Diagnostic Laboratory, as expected, received and processed fewer samples (89) in November 2009 than the preceding summer months. Since most agronomic and horticultural field crops have been harvested, most plant samples received in November came from greenhouses, plant nurseries, and turf farms. The Plant Diagnostic Laboratory continued to screen plant, soil and water samples for *Phytophthora ramorum* that were collected by the State Department of Agriculture and Industry inspectors. As a result of the predominately cool, wet weather in November, most plant diseases identified were caused by fungi and bacteria.

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

<u>Plant</u>	<u>Disease</u>	<u>County</u>
Azalea	Negative for <i>Phytophthora ramorum</i>	*
Azalea, Native	<i>Phytophthora</i> sp. Root Rot	Mobile
Banana-Shrub	Negative for <i>Phytophthora ramorum</i>	*
Blueberry, Rabbiteye	Negative for <i>Xylella fastidiosa</i>	Houston
Boxwood	Cottony Cushion Scale	Marshall
Camellia	Suspect Armillaria Collar Rot	Houston
	Sudden Oak Death	Baldwin
Centipede	Brown Patch (<i>Rhizoctonia solani</i>)	Mobile
	No Disease	Chilton
Chinese Fringe Flower	Negative for <i>Phytophthora ramorum</i>	*
Dogwood	Negative for <i>Phytophthora ramorum</i>	*
Fig	Root-Knot Nematode	Montgomery
Magnolia	Negative for <i>Phytophthora ramorum</i>	*
Magnolia, Southern	Negative for <i>Phytophthora ramorum</i>	*
Maple	Negative for <i>Phytophthora ramorum</i>	*
Oak, Willow	Non-Specific Leafspot	Houston
Peach	Crown Gall (<i>Agrobacterium tumefaciens</i>)	Montgomery
Pecan	Brown Spot (<i>Cercospora fusca</i>)	Calhoun
Pieris	Negative for <i>Phytophthora ramorum</i>	*

<u>Plant</u>	<u>Disease</u>	<u>County</u>
	Sudden Oak Death	*
Pine, Eastern White	Insufficient Sample	Montgomery
Pittosporum, Japanese Rhododendron	Negative for <i>Phytophthora ramorum</i> Negative for <i>Phytophthora ramorum</i>	*
Rose	Armillaria Root Rot	Lee
	Insufficient Sample	Montgomery
Sasanqua Camellia	Negative for <i>Phytophthora ramorum</i>	Baldwin
St. Augustinegrass	Brown Patch (<i>Rhizoctonia solani</i>)	Mobile
	Take-All Patch (<i>Gaeumannomyces graminis</i> var. <i>graminis</i>)	Covington
Turnip	White Leaf Spot (<i>Mycosphaerella capsella</i>)	Conecuh
Viburnum	Negative for <i>Phytophthora ramorum</i>	Baldwin
Yellow Anise	Sudden Oak Death	Shelby
Zoysia	Frost	Calhoun

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

Birmingham Plant Disease Report-November (J. Jacobi)

We typically see a steep drop in sample numbers in November, and this year was no exception. However, the wet, mild weather this fall has allowed turf and ornamental diseases to remain active through November. Some of the problems seen last month included Passalora needle blight (also known as Cercosporidium or Cercospora Needle Blight) on Leyland Cypress, pillbug damage on pansy, and Armillaria root rot on redbud.

One interesting sample last month showed chewing damage to the stems of pansy transplants, with some stems gnawed down to the ground. When I saw the sample, my first thought was that the feeding damage was caused by cutworms or other caterpillars. However, the client was unable to find any caterpillars, but described seeing high levels of pillbugs or “roly-polies” in the soil around the damaged plants. Even the small pansy sample had 10-15 in the soil that surrounded the new transplant. Usually, pillbugs are not a problem, and feed harmlessly on organic matter in the soil. However, periods of heavy rainfall can trigger population explosions of pillbugs that can cause serious damage to garden

vegetables and annuals including pansy, hosta, lobelia, and zinnia. We're not sure if this was an isolated case, but it's another potential pest of pansy to watch, especially during periods of wet weather. For more on pillbugs and control options including pesticides see the following on-line publication <http://citybugs.tamu.edu/FastSheets/Ent-1044.htm>.

Passalora needle blight is a disease of Leyland cypress that we see primarily during years with wet summer and fall weather. After several dry years in a row (2006-2008) this is the first time since 2005 that we have seen widespread damage from needle blight. The disease typically starts in the lower canopy and causes needle blight and defoliation that progresses up the tree and out towards the branch tips. In severe cases, only the newest needles on the branch tips remain green. Repeated infections over several years may result in complete defoliation and tree death. Needle blight can be managed by fungicide sprays unlike canker diseases of Leyland cypress. Fungicides, including chlorothalonil (Daconil and other brand names), azoxystrobin (Heritage), or Mancozeb (Fore and Dithane) provide good control, when applied on a 14 day interval from July-October. For more information on the identification and control of this disease, see the following extension publication on-line (<http://www.aces.edu/dept/extcomm/publications/anr/anr-1196/anr-1196.html>).

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

<u>Plant</u>	<u>Problems</u>	<u>County</u>
Arborvitae	Spruce Spider Mite	Jefferson
Azalea	Azalea Lacebug	Jefferson
Bentgrass	Dollar Spot (<i>Sclerotinia</i>)	*
Cypress, Leyland	Botryosphaeria Canker	Jefferson
	Passalora Needle Blight	Jefferson
Pansy	Pillbug Damage	Shelby
	Pythium Root Rot	Jefferson
Pecan	Pecan Leaf Phylloxera	Jefferson
Redbud	Armillaria Root Rot	Jefferson
Rose	Black Spot	Jefferson
Zoysiagrass	Large Patch (<i>Rhizoctonia</i>)	Bibb

November Insect Report (C. Ray)

County	Host	Category	Identification	Scientific Name
Lauderdale		Miscellaneous	Southern Stripeless Scorpion	<i>Veijova carolinensis</i>

County	Host	Category	Identification	Scientific Name
Mobile	Facility Grounds	Miscellaneous	Red Imported Fire Ant	<i>Solenopsis invicta</i>
Lee	Human	Medical	Moth Pupa and Cocoon with Urticating Hairs	Lepidoptera
Escambia	Home	Household-Miscellaneous	Orchard Spider	<i>Leucage venusta</i>
Marion	Home	Household-Miscellaneous	A 2-Clawed Hunting Spider	Further ID not possible
Calhoun	Home	Household-Miscellaneous	A Crab Spider	<i>Xysticus</i> sp.
Calhoun	Home	Household-Miscellaneous	A 2-Clawed Hunting Spider	<i>Anyphaena</i> sp.
Calhoun	Home	Household-Miscellaneous	A 2-Clawed Hunting Spider	<i>Metatella simoni</i>
Calhoun	Home	Household-Miscellaneous	A 2-Clawed Hunting Spider	<i>Trachelas</i> sp.
Marshall	Boxwood	Ornamental	Cottony Cushion Scale	<i>Icerya purchasi</i>
Jefferson		Ornamental	Black Twig Borer	<i>Xylosandrus compactus</i>
Butler	Paper Storage	Stored Products	A Dermestid Beetle Larva	<i>Trogoderma</i> sp.
Calhoun		Miscellaneous	Mantid Egg Case	Mantidae
Hale	Home	Household-Miscellaneous	Ringlegged Earwig	<i>Euborellia annulipes</i>

Disease Possibilities For December

Our usual December diseases include black rot (*Xanthomonas campestris*) and Cercospora or Cercosporella leaf spots on crucifers in the southern sections of the state. Also, Drechlera and/or Bipolaris leaf spots are seen on small grains and forages including oats, wheat, fescue, rye and also ryegrass. Of course, greenhouse plant diseases develop

every month of the year. Pansy diseases are commonly seen, especially anthracnose, Pythium crown and root rot, and Phytophthora crown and root rot.

The list below includes some common disease problems received in the lab during December of the past few years. Comments on control practices are brief. Refer to the Alabama Pest Management Handbook for details. Also, remember that sanitation is important in most control situations.

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

<u>Plant</u>	<u>Disease</u>	<u>Description</u>	<u>Control</u>
Apple	Botryosphaeria Canker	Sunken, elongated lesions develop on branches and/or trunks. The lesion edges may be cracked at lesions margins. Lesion tissues are brown beneath the branch/trunk bark.	Cankered areas should be pruned out, making cuts 3-5 inches beyond the lesion edge. Disinfest shears between cuts.
Arbor-vitae	Phytophthora Root Rot	Branches dieback; roots become brown and wet rotted. Roots will dry and pull apart easily.	Sanitation. Reduce water levels in the area. See the AL Pest Management Handbook.
Azalea	Cercospora Leaf Spot (Stress Related)	Brown, circular-irregular spots (¼-½ inch, 0.6-1.2 cm diameter) on yellowed or otherwise weakened/ stressed plants.	Remove stress factors; sanitation.
	Phomopsis Canker	Sunken, necrotic lesions on branches; dieback.	Pruning. Protective sprays of Cleary's 3336. See the AL Pest Management Handbook.
	Powdery Mildew (<i>Microsphaeria</i>) [Greenhouse Location]	White, buff-colored dusty coating on leaves.	Apply a protective fungicide (See the AL Pest Management Handbook); Sanitation.
Basil	Rhizoctonia Stem Rot	Stems become brown and dry rotted.	Sanitation. Pruning is recommended to lower humidity; water in morning.
Bedding Plants	Bacterial Leaf Spot (Greenhouse Location)	Wet, water-soaked/black spots become dried and	Sanitation; reduce humidity; increase spacing between plants;

<u>Plant</u>	<u>Disease</u>	<u>Description</u>	<u>Control</u>
		cracked in the centers with water-soaked margins.	See AL Pest Management Handbook.
	Pythium Root Rot (Greenhouse Location)	Roots become brown and water-soaked.	Sanitation; See AL Pest Management Handbook; reduce irrigation schedule.
Bentgrass	Brown Patch (<i>Rhizoctonia</i>)	Brown blotches on foliage; blight	See AL Pest Management Handbook.
	Pythium Blight/Root Rot	Plants yellow and die from root rot phase of the disease.	See AL Pest Management Handbook.
Bermuda, Coastal	Bipolaris Leaf Spot	Small, brown, elliptical spots become irregularly-shaped brown blotches.	----
Bermudagrass 'Tifeagle'	Fairy Ring (<i>Lycoperdon</i>)	Usually grass dieback on a semi-circle pattern with mushrooms forming at the outer edge of the circle.	See ANR-372.
Bermuda, Tifgreen	<i>Bipolaris sorokiniana</i> Blight	Seedling disease & seed rot.	See A. Hagan.
Boxwood	Macrophoma Blight	Foliage turns reddish, yellow or brown with small black dots (about 1 mm diameter) scattered across leaf surfaces.	Remove stress situation; sanitation.
	Phytophthora Root Rot	Roots become brown, water-soaked and later dried. Plants show wilt and dieback, yellowing.	Sanitation. See the AL Pest Management Handbook.
Broccoli	Black Rot (<i>Xanthomonas</i>)	Yellow, V-shaped lesions on leaf edges become darkened and slowly spread down the leaf causing veins to darken. Eventually, tissue rot and decay spreads into the	Crop rotation; seed treatment; see AL Pest Management.

<u>Plant</u>	<u>Disease</u>	<u>Description</u>	<u>Control</u>
		vascular system with the lower center stalk becoming rotted.	
Cedar, Deodar	Phytophthora Root Rot	Foliage dieback beginning with inner and lower foliage. Roots become brown and show a wet rot that later dries out.	Remove damaged trees. See the AL Pest Management Handbook. Reduce irrigation.
Centipede	Brown Patch (<i>Rhizoctonia</i>)	Foliage develops gray-brown spots, blotches; patches of turn brown and die.	Sanitation; apply protective fungicide treatment if grass is not dormant. See AL Pest Management Handbook.
Collards	Black Rot (<i>Xanthomonas</i>)	See Broccoli.	See Broccoli.
	<i>Cercospora brassicae</i> Leaf Spot	Cream-colored irregularly shaped leaf spots.	Sanitation. See the AL Pest Management Handbook.
Citrus	Sooty Blotch	Small or large spots appear as a black sooty fungi print.	Check with Ed Sikora.
Cucumber	Anthrachnose (<i>Colletotrichum</i>)	Light brown angular leaf spots.	Sanitation and protective fungicide sprays. See Handbook.
Cypress, Leyland	Botryosphaeria Canker	Dieback of branches with sunken elongated branch lesions that may have cracked edges.	Prune out damage. Make cuts 3-4 inches beyond the edge of damage.
	Pestalotiopsis Tip Blight	Branches dieback at tips. Tiny black specks may be visible on dieback areas.	Prune out damage. Make cuts 3-4 inches beyond the edge of damage.
Dianthus	Alternaria Leaf Spot	Typically gray, irregular leaf spots.	Sanitation. Cleary's 3336 or Halt may help.
	Anthrachnose (<i>Colletotrichum</i>)	Reddish brown irregular spots on foliage.	Sanitation. Cleary's 3336 may help.
	Oedema	Small, corky, slightly raised spots on lower leaf surfaces sometimes	Reduce watering on cloudy days.

<u>Plant</u>	<u>Disease</u>	<u>Description</u>	<u>Control</u>
		accompanied by yellowish spots on corresponding upper leaf surfaces.	
	Rhizoctonia Shoot Blight	Brown elongated lesions.	Sanitation. See AL Pest Management Handbook.
Elm, American	Powdery Mildew (<i>Oidium</i>)	White, powdery dusted blotch areas on leaves and young twigs. Powdery areas eventually become necrotic. New growth may be distorted.	Sanitation of fallen leaves. See the AL Pest Management Handbook.
Fern	Colletotrichum Leaf Spot/Blight	Circular to irregular brown, water-soaked spots on foliage.	Sanitation; Cleary's 3336 or Halt will provide protective disease control.
	Fusarium Leaf Spot	Circular to irregular brown, dried spots on foliage.	Sanitation. Protective sprays of Cleary's 3336 may be used.
	Phytophthora Root & Crown Rot	Plants develop brown-yellow foliage near the crown area. Roots become brown and water-soaked.	Sanitation. See the AL Pest Management Handbook.
	Phomopsis Leaf Spot	Circular to irregular brown, dried spots on foliage.	Sanitation. Protective sprays of Cleary's 3336 could be used.
Fern, Boston	Rhizoctonia Aerial Blight	Blight areas on fronds.	See AL Pest Management Handbook.
Fescue (Lawn)	Helminthosporium Crown Rot	Leaf blades were yellowed and shriveled. Tissues at the soil-line were brown and decayed.	See ANR-621.
Fescue, Red	Cool-Season Pythium Blight (Root Rot)	Turf areas become thinned, yellowish, and slow-growing.	See the AL Pest Management Handbook.

<u>Plant</u>	<u>Disease</u>	<u>Description</u>	<u>Control</u>
Fescue, Tall (Forage Crop)	Drechslera Leaf Spot (Net Blotch)	Small, brown, elliptical spots become irregularly-shaped brown blotches with uneven internal pigmentation that appears to be in a transverse and longitudinal net-like pattern.	---
Geranium	Botrytis Blight	Spots and blight may develop on leaves, flowers, & stems. When humidity is high, a gray mold will develop.	Sanitation; increase temperatures; increase air circulation to decrease humidity; protective fungicides.
	Phytophthora Stem Rot	Lower stem areas become black and water-soaked.	Sanitation; See Alabama Pest Management Handbook.
Holly	Phytophthora Root Rot	Roots, especially feeder roots, show a wet, water-soaked, rotted condition where the outer layer easily slips off the central cylinder.	Sanitation; See the AL Pest Management Handbook.
Holly, Chinese	Armillaria Root Rot	Lower trunk may show a thin, white mycelial mat beneath the bark; black thread-like fungal structures may be present on the surface of the bark or beneath; honey-brown-colored mushrooms may develop around the holly.	Removal of the plant is necessary.
Indian Hawthorn	Cercospora Leaf Spot	Circular-irregular, brown spots on leaves.	Sanitation. Cleary's 3336 will give some protective disease control.
Ivy, English	Anthracoze (<i>Colletotrichum</i>)	Circular or irregularly shaped brown spots develop. Some orange or black specks are sometimes seen on	Sanitation. See the AL Pest Management Handbook.

<u>Plant</u>	<u>Disease</u>	<u>Description</u>	<u>Control</u>
		surface of spots.	
Jerusalem Artichoke	Fusarium Root Rot	Roots become decayed with a brown, dry rot.	Remove infected plants from the area and do not replant artichokes for 10-15 years.
Juniper	Pestalotia Blight	Inner foliage turns brown.	Investigate stress conditions.
	Phytophthora Root Rot	Roots, especially feeder roots, show a wet, water-soaked, rotted condition where the outer layer slips off the central cylinder.	Sanitation; See the AL Pest Management Handbook.
Kiwi	Phytophthora Crown Rot	Dark brown decay.	Sanitation. Crop rotation. Avoid wet locations.
Kudzu	Cercospora Leaf Spot	Large, circular or irregular brown spots.	--
Lavender	Anthracoese Leaf & Stem Spots	Circular-irregular brown spots and stem lesions.	Sanitation. Protective sprays of Cleary's 3336 or Halt.
Leyland Cypress	Botryosphaeria Canker	Sunken, cracked lesions on branches.	Pruning.
	Seiridium Canker	Slightly sunken, elongated lesions develop on branches and/or trunk. Resin often oozes out onto bark at points along lesion edge. Tissues beneath bark are brown.	Cankered areas should be pruned out, making cuts 3-5 inches beyond the lesion edge. Disinfest shears.
Ligustrum	Cercospora Leaf Spot	Large, brown circular, oval or sometimes angular leaf spots. Sometimes spots have dark brown borders.	Sanitation; protective sprays of Cleary's 3336 or Domain.
Lily, Easter	Pythium Root Rot	Roots become light brown and water-soaked, decayed. Lower foliage turns yellow.	Sanitation. Reduce irrigation.

<u>Plant</u>	<u>Disease</u>	<u>Description</u>	<u>Control</u>
		Plants wilt & dieback follows.	
Liriope	Possible Fusarium Crown Rot; Suspect Secondary	Brown, dry, decay on lower stems. Isolated Fusarium produced negative results for pathogenicity tests.	---
	Phytophthora Crown Rot	Lower stem areas become brown and water-soaked. Areas later dry out.	Sanitation. Reduce irrigation.
	Rhizoctonia Crown Rot	Lower stems become brown and dried.	Sanitation.
Mondograss	Anthrachnose (<i>Colletotrichum</i>)	Brown blotches on leaf blades; blotches may begin at leaf tips or they may be centrally located on the leaf blade.	Cleary's 3336 or Domain; Protective sprays; Sanitation.
Mustard	Cercospora Leaf Spot	Brown, irregular leaf spots. Small gray patchy areas (spores) may develop on spots.	Sanitation. Kocide or Cuprofix Disperss may be used.
Oak	Botryosphaeria Canker	Sunken, elongated lesions develop on branches and/or trunks. The lesion edges may be cracked at lesions margins. Lesion tissues are brown beneath the branch/trunk bark.	Cankered areas should be pruned out, making cuts 3-5 inches beyond the lesion edge. Disinfest shears between cuts.
Oak, Red	Root Rot (<i>Inonotus</i> sp.)	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	Bipolaris Spot Blotch	Brown-black, elongated	See AL Pest

<u>Plant</u>	<u>Disease</u>	<u>Description</u>	<u>Control</u>
		spots (1 cm) on leaf blades.	Management Handbook.
	Drechslera Leaf Spot (Net Blotch)	Small brown flecks become longitudinal strips of dead tissue. Often the uneven blotchy discoloration of the dead tissue gives spots a net-like appearance. Outer edges of the 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.
	Possible Barley Yellow Dwarf Virus	Plants develop yellowing or reddish discoloration that begins at leaf tips and progresses downward. Plants are stunted. Diagnosis is often difficult when plants are small due to low virus concentrations in plants.	Insecticides practical in a few situations.
	Rust (<i>Puccinia coronata</i>)	Foliage develops yellow spots and rusty-orange powdery spore masses; foliage dies.	See Austin Hagan.
Oleander	Cercospora Leaf Spot	Brown, circular or oval leaf spots.	Sanitation.
Onion	Sclerotinia Blight	Water-soaked lesions at soil line/crown area.	---
Pansy	Botrytis Bud Rot	Buds become brown, sometimes with gray over-tones.	Sanitation. See 1998 recommendations.
	Myrothecium Crown Rot	Plants wilt and yellow and dieback. Crowns become brown and limp; sometimes tiny white & black cushions are visible on crowns.	Sanitation. Daconil treatments may give some protective control.

<u>Plant</u>	<u>Disease</u>	<u>Description</u>	<u>Control</u>
	Phytophthora Crown Rot	Lower stems become brown and wet-rotted. Areas later become dried.	Remove damaged plants. Reduce irrigation. See the AL Pest Management Handbook.
	Pythium Crown Root Rot	Dark brown, water-soaked decay at crown area.	Sanitation. See Handbook.
	Thielaviopsis Root Rot	Black lesions on stunted roots. Plants stunted.	Sanitation. See Handbook.
Pine, Loblolly	Sooty Mold	Black, sooty layer develops on needles. Black layer may be powdery or as thin dry sheets on needle surfaces.	Physically remove superficial coatings. Identify and control insects (may be aphids, scales, or other sucking-mouth parts insects).
Plum	Black Knot (<i>Plowrightia</i> -formerly <i>Dibotryon</i>)	Green swellings on branches become black, hard, elongated swellings; dieback develops.	See ANR-1055 or Ed Sikora.
Poinsettia	Botrytis Blight (Greenhouse Location)	Gray-brown blotches on foliage; during humid conditions a delicate fungal wet may be present over blotch areas.	Increase temperatures; decrease humidity; sanitation; see AL Pest Management Handbook.
	Pythium Root Rot (Greenhouse Location)	Roots are brown and water-soaked; outer root tissues slide easily away from inner root core.	Sanitation; See AL Pest Management Handbook.
Pothos	Bacterial Leaf Spot (<i>Erwinia</i>)	Angular, dark, water-soaked spots on foliage.	Sanitation; Do not irrigate over-head.
Rose	Crown Gall (<i>Agrobacterium</i>)	Hard, rough-surfaced galls on the lower cane near the soil-line and on the roots.	Remove infected plants. Keep area free of susceptible plants for 2-3 years. Avoid wounds.
	Powdery Mildew (<i>Oidium</i>)	White, powdery dusting on blotch areas. Eventually the mildew areas become necrotic. Some distorted new	See the AL Pest Management Handbook.

<u>Plant</u>	<u>Disease</u>	<u>Description</u>	<u>Control</u>
		growth may develop.	
Rye	Bipolaris Spot Blotch	Brown, elongated spots on leaf blades.	---
Ryegrass	Bipolaris Leaf Spot	Small, brown elliptical leaf spots.	See AL Pest Management Handbook.
	Piricularia Gray Leaf Spot	Gray-brown, irregularly shaped leaf spots.	See A. Hagan for comments.
	Pythium Blight	Leaf blades yellow and die; roots become discolored brown with a soft, wet rot.	See AL Pest Management Handbook.
	Rhizoctonia Crown Rot	Crown areas develop a brown, dry rot. Plants yellow and dieback.	Sanitation. Protective fungicides. See the AL Pest Management Handbook.
Spruce	Rhizosphaera Needle Blight	Needles become yellow and then brown. Tiny black specks (fungus reproductive bodies) may be seen in rows on the dying needles. Needles may fall.	See the AL Pest Management Handbook.
Southern Magnolia	Algal Leaf Spot (<i>Cephaleuros</i>)	Slightly raised green-reddish brown leaf spots.	Sanitation. See the AL Pest Management Handbook.
Snapdragon	Rhizoctonia Stem Canker	Brown sunken cankers on lower stems.	Sanitation; Cleary's 3336 or Domain.
St. Augustine	Brown Patch (<i>Rhizoctonia</i>)	See Centipede.	See Centipede.
	Take-All Patch (<i>Gaeumannomyces graminis</i> var <i>graminis</i>)	Black lesions develop on roots; foliage dieback.	See the AL Pest Management Handbook and ANR-823.
Strawberry	Anthracoze Crown Rot (<i>Colletotrichum</i>)	Plant wilt. Crowns develop red-brown firm rot.	Sanitation. Use resistant cultivars. Use healthy transplants. See Ed Sikora.
	Bacterial Leaf Spot	Black, water-soaked	Strict sanitation. Avoid

<u>Plant</u>	<u>Disease</u>	<u>Description</u>	<u>Control</u>
	(<i>Xanthomonas</i>)	(when in early stages), angular-shaped leaf spots.	overhead irrigation. See ANR-500A for protective bactericide recommendations.
	Phomopsis Leaf Blight	Red small spots develop into brown v-shaped lesions.	See the AL Pest Management Handbook.
	Phytophthora Crown/Root Rot	Stunted, wilted plants. Roots with reddened core or center. Roots and crowns decay with brown rot.	Avoid wet areas. Use disease free and resistant cultivars. Use protective fungicides when disease has been diagnosed in the area.
Sweet Potato	Fusarium Surface Root Rot	Light to dark brown surface decay that is firm and dry. Infected roots eventually become hard & mummified.	Avoid wounds. Remove infected plants.
	Fusarium Root Rot	Similar symptoms to Fusarium surface rot except rot extends below vascular ring.	Avoid wounds. Remove infected plants.
	Scurf (<i>Monilochaetes</i>)	Dark brown to black, ireegular spots and blotches develop on the root skin (periderm).	Sanitation; crop rotation; protective fungicides. See AL Pest Management Handbook.
Tomato	Anthracoese Fruit Rot	Round, colorless, sunken fruit spot areas become large and wet, watery, rotted.	Sanitation. See AL Pest Management Handbook.
	Sour Rot (<i>Geotrichum candidum</i> and related species)	Greasy, water-soaked lesions develop at wounds or at the edge of the stem scar in green and ripe fruit (See APS Compendium.) Cracks may occur with ripe fruit and a crusty, off-white, yeast-like growth may develop on the surface of cracked	This fungus usually enters the fruit through wounds or natural skin breaks. This is usually a post-harvest problem. Control involves careful handling during harvest. Also storage areas should be thoroughly cleaned prior to storage.

<u>Plant</u>	<u>Disease</u>	<u>Description</u>	<u>Control</u>
		areas.	
	Target Spot (<i>Corynespora casseicola</i>)	Brown, gray, somewhat zonate-patterned oval or irregular spots. Spots are sometimes confused with early blight.	Sanitation. See Ed Sikora for further comments.
Tulip	Penicillium Bulb Rot	Brown blotches on bulb, sometimes with green/gray spore masses.	See AL Pest Management Handbook for dip recommendations.
Tumeric	Root Knot Nematode (<i>Meloidogyne</i>)	Poor plant growth; roots with galls; reduced root system.	Sanitation. Plant root knot resistant crop.
Turnips	<i>Cercospora brassicae</i> Leaf Spot	Small to large, circular-irregular, off-white to pale brown leaf spots.	Sanitation. See AL Pest Management Handbook.
	Colletotrichum Leaf Spot	Cream-colored, round or oval spots.	Sanitation. See AL Pest Management Handbook.
	White Leaf Spot (<i>Cercospora brassicae</i>)	Small-large irregularly shaped, white spots.	See the AL Pest Management Handbook.
Vinca	Phytophthora Root Rot	Roots are brown, water-soaked and the surface tissues will slip easily off the central root cylinder with a small amount of pressure.	Sanitation. See AL Pest Management Handbook.
	Pythium Root Rot	Roots are brown, water-soaked and the surface tissues will slip easily off the central root cylinder with a small amount of pressure.	Sanitation. See AL Pest Management Handbook.
	Thielaviopsis Root Rot	Roots show black lesions and blotches. Tops grow poorly.	Keep potting mix or soil pH on the low side of normal, about 5.5-6.0. Cleary's or Domain drenches may help.

<u>Plant</u>	<u>Disease</u>	<u>Description</u>	<u>Control</u>
Wax Myrtle	Botryosphaeria Canker	Sunken, cracked lesions on branches.	Sanitation. Pruning.
Wheat	Bipolaris Leaf Spot	Brown-black, elongated spots (1 cm) on leaf blades.	See AL Pest Management Handbook.
Zoysia	Rhizoctonia Brown Patch	Small-large patches of turf with leaf spots and blight.	See the AL Pest Management Handbook.

WE ALFA BUILDING PATHOLOGY-ENTOMOLOGY AND DIAGNOSTIC FOLKS WISH YOU ALL A HAPPY AND RESTFUL HOLIDAY SEASON!