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DECEMBER PLANT DISEASES FROM THE AUBURN PLANT DIAGNOSTIC LAB

DECEMBER PLANT DISEASES FROM THE BIRMINGHAM PLANT DIAGNOSTIC LAB

DECEMBER INSECT REPORT FROM THE AUBURN PLANT DIAGNOSTIC LAB

DISEASE POSSIBILITIES FOR JANUARY

PLANT DIAGNOSTIC LAB ANNUAL REPORT

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Auburn Plant Disease Report-December (J. Mullen)

December was unusually busy (We received 63 plant samples.) mostly with soybean samples being checked for soybean rust.

In December we checked 43 soybean samples and found rust to be present in 21 samples from 13 Alabama counties. In all, in November and December, we found soybean rust present in the following counties: Baldwin, Cherokee, DeKalb, Escambia, Etowah, Henry, Lauderdale, Limestone, Madison, Marshall, Monroe, Morgan, Tuscaloosa. The disease appears as red-brown spots which later become white spots. Leaf drop will follow. Pods will not develop.

Ed Sikora has been working to have fungicides (some section 18) ready when needed. Since this disease is highly damaging and since it will develop and spread quickly, it is very important that this disease is detected early so that fungicides may be applied.

Soybean rust will cause disease in soybean, other legumes, and kudzo. It is suspected that this rust will over-winter in some parts of the state on kudzo. The two kudzo samples we received last fall did not contain rust.

The hydrangeas sample received last December contain rhizomorphs which were typical of Armillaria root decay. See ANR-907 for more information.

A leaf spot disease on ryegrass and annual ryegrass was caused by the fungus *Piricularia*. Cool weather or dry conditions would help control the problem.

In addition to the above disease diagnoses, ELISA tests and culture work were continued on camellias, Pieris, hydrangeas, and viburnums received from the Alabama State Department of Agriculture & Industries inspectors in November to survey for *Phytophthora ramorum* in trace-forward plants from an Oregon nursery found to contain some *P. ramorum* (SOD) infected plants. For any positive results found, DNA samples had to be prepared and sent to the Beltsville molecular lab for further testing.

Table 1. 2004 December Plant Diseases Seen In The Plant Diagnostic Lab at Auburn.

<u>Plant</u>	<u>Disease</u>	<u>County</u>
Geranium	Botrytis Blight	*
Hydrangea	Armillaria Root Decay	Montgomery
Hosta	Phytophthora Root Rot	Montgomery
Ivy, Variegated Algerian	Pythium Root Rot	Montgomery
Juniper	Phytophthora Root Decay	
Kudzo	Cercospora Leaf Spot	Mobile
Ryegrass	<i>Piricularia</i> Gray Leaf Spot	Lee
Ryegrass, Annual	<i>Piricularia</i> Leaf Spot	Mobile

Plant	Disease	County
Soybean	Soybean Rust (<i>Phakopsora pachyrhizi</i>)	Baldwin, Cherokee, DeKalb, Escambia, Etowah, Henry, Lauderdale, Limestone, Madison, Marshall, Monroe, Morgan, Tuscaloosa
St. Augustine	Take-All Patch (<i>Gaeumannomyces graminis</i>)	Mobile
Turnip	Cercospora Leaf Spot	Coffee

*Counties are not reported for samples from commercial greenhouse and nursery operations.

Birmingham Plant Disease Report-December (J. Jacobi)

The lab received a total of 24 samples during the month of December. As is typical for this time of year, pansy problems were the most common complaint last month. Pansy root and crown rot can be caused by several different fungi (*Thielaviopsis*, *Pythium*, *Phytophthora*, and *Rhizoctonia*), and above ground symptoms can be very similar. Often the first sign of a problem is yellowing of the lower leaves. Root symptoms are different for each disease, but typically require laboratory study for exact diagnosis. For a complete description of both diseases including control recommendations see ANR-1214, Diseases of Pansy and Their Control (<http://www.aces.edu/pubs/docs/A/ANR-1214/ANR-1214.pdf>).

Media reports of the brown fir longhorned beetle (*Callidiellum villosulum*), being detected in artificial Christmas trees made from wood trunks imported from China, resulted in a few samples of both artificial and live Christmas trees being brought into the lab (http://www.aphis.usda.gov/oa/pubs/sa_phchristrees.html). None of the samples have been found to contain the brown fir longhorned beetle. However, a Frasier fir sample did contain aphids (*Cinara* sp.), which is a relatively common problem based on published reports (<http://www.doacs.state.fl.us/pi/enpp/ento/christmas-tree-aphids.htm>). These aphids are native to the eastern United States and pose no threat to humans or pets.

Table 2. 2004 December Problems Seen in the Birmingham Plant Diagnostic Lab.

<u>Plant</u>	<u>Problem</u>	<u>County</u>
Bermudagrass ‘Tifeagle’	Fairy Ring (<i>Lycoperdon</i>)	Jefferson
Fir, Frasier	Aphid (<i>Cinara</i>)	Jefferson
Magnolia, Japanese	Wax Scale	Jefferson
Magnolia, Southern	Possible Black Twig Borer	Jefferson
Pansy	Phytophthora Crown/Root Rot	Jefferson
	Pythium Root Rot	Jefferson
	Rhizoctonia Crown Rot	Jefferson
	Slug Damage	Shelby
Privet, Chinese	Sooty Mold	Jefferson
Strawberry	Leaf Blight (<i>Phomopsis</i>)	Chilton
Tomato	Sweet Potato Whitefly	St. Clair
Zoysiagrass	Fairy Ring (Unidentified Fungus)	Jefferson

December Insect Report (C. Ray)

County	Crop	Category	Specimen Name
Talladega	Household-Miscellaneous	Office	Hatchling Cockroachs, either smokybrown, brown or Australian
Houston	Household-Miscellaneous	Home	Bark Lice
Tallapoosa	Medical	Human	Bald-Face Hornet
Etowah	Household-Stored Product	Home	Indian Meal Moth

Disease Possibilities For January

In January, we may see rust diseases and barley yellow dwarf virus show up on oats, wheat and related small grains. In the southern sections of the state, fungal and bacterial diseases of vegetables (especially crucifers) and brown patch on turf grasses may be problems. Pythium blight/root rot may occur on cool-season grasses; this is mostly a problem on golf course areas. Black root rot (*Thielaviopsis basicola*) may occur on pansies and container hollies. Botrytis is a common problem on greenhouse crops.

The list below includes some common disease problems received in the lab in January of the past few years. Comments on control practices are brief. Refer to appropriate fact sheets, timely informations, and the 2004 Vol. 2 and 2005 Vol 1 Alabama Pest Management Handbook.

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

<u>Plant</u>	<u>Disease</u>	<u>Description</u>	<u>Control</u>
Alfalfa	Sclerotinia Blight	Plants unthrifty, yellow and die. Shiny, black, irregular resting structures (1-2 mm diam) some-times present on roots and lower stems at the soil line.	Crop rotation.
African Violet	Pythium Root Rot	Roots become brown and wet-rotted.	Sanitation and reduce watering practices.
Azalea	Cercospora Leaf Spot	Medium brown circular-irregular leaf spots (about ¼ inch diam.)	See the AL Pest Management Handbook; Sanitation.
Basil	Botrytis Cutting Rot	Cutting ends become brown and decayed.	Sanitation; increase air circulation and temperature.
Bentgrass	Brown Patch (<i>Rhizoctonia</i>)	Foliage blight in circles or areas of a few inches to a few feet diameter.	See the AL Pest Management Handbook or ANR-342.

<u>Plant</u>	<u>Disease</u>	<u>Description</u>	<u>Control</u>
	Pythium Blight (Root Rot)	Irregular areas become yellowed and eventually grass dies. The disease may develop rapidly if wet conditions with mild temperatures occur.	See the AL Pest Management Handbook or ANR-594.
	Rhizoctonia Stem Rot	Stems become brown decayed, and shriveled.	Sanitation.
Bermuda	Brown Patch (<i>Rhizoctonia</i>)	Foliage blight in circles or areas of a few inches to a few feet diameter.	See the AL Pest Management Handbook or ANR-342.
Boxwood, Common	Phytophthora Root Rot	Plants may be stunted; Lower foliage may turn yellow and/or wilt.	Sanitation. Reduce water in the area. Protective fungicide drenches may be used in greenhouse/nursery situation. See the AL Pest Management Handbook.
	Volutella Blight	Stems develop cankers and dieback.	Prune out the damaged plant parts. Reduce stress conditions. Cleary's 3336 sprays may help.
Broccoli	Downy Mildew	Yellow irregular spots on leaves.	Sanitation. See the AL Pest Management Handbook.
Cabbage	<i>Alternaria brassicicola</i> Leaf Spot	Gray circular, oval or irregular leaf spots.	See the AL Pest Management Handbook.
	Botrytis Damping-Off	Seedlings collapse as a result of soil-line decay.	See Ed Sikora.
Camellia	Anthracnose	(<i>Colletotrichum</i>)	Circular-irregular

<u>Plant</u>	<u>Disease</u>	<u>Description</u>	<u>Control</u>
brown-gray spots on leaves.	Sanitation. Cleary's 3336.		
Camellia, Sasanqua	Edema	Pale yellow leaf spots on upper leaf surfaces; corky, light brown scabby spots on lower leaf surfaces.	Reduce soil water content; especially a problem during cloudy weather.
Centipede	Slime Mold (<i>Phyisarum</i>)	Thin, often ruffled, sheets of jello-like consistently on grass blades and soil; spores cover the grass/soil with a powdery, dusty coating.	No control needed; physical removal.
	Brown Patch (<i>Rhizoctonia</i>)	Foliage blight in circles or areas of a few inches to a few feet diameter.	See the AL Pest Management Handbook or ANR-342.
Cherry Laurel, Carolina	Cercospora Leaf Spot	Irregular-circular brown leaf spots.	Sanitation; Cleary's 3336 or Halt protective sprays.
Coleus	Botrytis Blight	Leaf spots and blotches that are gray-brown.	Sanitation; increase air circulation; increase temperature.
	Pythium Root Rot	Foliage wilt, yellowing, collapse; roots become light brown, watersoaked.	Sanitation; reduce water levels in soil.
Cryptomeria, Japanese	Phyllosticta Needle Blight	Brown needle spots develop.	Sanitation of fallen needles; protective spray of Cleary's 3336 or Halt may help.
Collards	Black Rot (<i>Xanthomonas</i>)	Black V-shaped lesions may develop at leaf edges. Veins leading away from lesions may become dark. Eventually the central core of the	stem becomes black & decayed.

Sanitation; rotate away from crucifers for 2 years.

<u>Plant</u>	<u>Disease</u>	<u>Description</u>	<u>Control</u>
	Oedema	Small, buff, brown colored, corky, slightly raised dots form on the lower leaf surfaces. Corresponding spots on upper leaf surfaces become yellowed.	Reduce irrigation practices on cloudy days.
	Pythium Root Rot	Roots become soft, brown and rotted. The outer root tissues will easily pull away from the central stele or core.	Plant the crop where good drainage exists. Crop rotation.
Euonymus, Winged	Phytophthora Root Rot and Poor Soil Drainage	Dieback; yellowing of lower foliage; root decay.	Improve soil drainage; reduce watering schedule if appropriate; see AL Pest Management Handbook.
Fern	Botrytis Blight	Brown discoloration of fronds and a gray fungal growth when conditions are cool and damp.	Daconil is labelled for use on fern and it will control Botrytis.
	Rhizoctonia Aerial Blight	Brown irregular lesions on fronds.	Sanitation. See the AL Pest Management Handbook.
Fescue	Bipolaris Leaf Spot	Small, brown, or reddish-brown elongated spots (1-6 mm long) on leaf blades.	--
	Rust (<i>Puccinia</i>)	Small, red-orange, powdery spots and blotches form on leaf	blades. Leaves turn yellow and brown.

<u>Plant</u>	<u>Disease</u>	<u>Description</u>	<u>Control</u>
	Pythium Crown & Root Rot	See Bentgrass.	See the AL Pest Management Handbook or ANR-594.
Fescue, Tall	Net Blotch (<i>Drechslera</i>)	Small, often elongated, medium-brown or reddish-brown spots (1-2 mm long). Usually spots are abundantly scattered over leaf blades.	See AL Pest Management Handbook.
	Pythium Blight	See Bentgrass.	See the AL Pest. Management Handbook. or ANR-594.
Foliage Plants	Bacterial Leaf Spot	Small, angular, black, water-soaked spots (1-3 or more mm diam) on foliage. As spots age, centers become dry, papery and may fall apart. Some centers may become light in color. Spots may be surrounded by yellow "halo".	Sanitation. See AL Pest Management Handbook.
Foxglove	Anthraxnose (<i>Colletotrichum</i>)	Brown leaf spots and/or blotches may develop. Spots may follow veins of the leaves. Leaf drop may follow.	Sanitation. Protective sprays of Cleary's 3336 or Halt may help.
Fuchsia	Botrytis Blight	Brown-gray spots/blight.	Sanitation. Cleary's 3336.
Geranium	Bacterial Leaf Spot (<i>Pseudomonas</i>)	See Foliage Plant Description.	Sanitation. See AL Pest Management Handbook.
	Botrytis Blossom Blight	Flowers or young leaves/stems may become spotted and	blighted.

Sanitation. Raise the temperature if possible. Reduce the humidity. Apply labeled protective fungicide treatment such as Heritage, Daconil, or Cleary's.

Control

	<u>Plant</u>	<u>Disease</u>	<u>Description</u>
			See the AL Pest Management Handbook.
	Fusarium Stem & Root Rot	Lower stem and roots become black colored with a dry decay.	Sanitation. Cleary's protective drenches/sprays will help.
	Oedema	Small (1/8 inch diam. or less), light brown, corky slightly raised spots scattered over lower leaf surfaces. Corresponding areas on upper leaf surfaces are yellowed spots.	Reduce watering on cool, cloudy days.
	Pythium Stem and Root Rot	Black cankers (rotting) of lower stem, crown and roots.	Sanitation. See the AL Pest Management Handbook.
Gerbera Daisy	Bacterial Leaf Spot (<i>Pseudomonas</i>)	See Foliage Plants.	See Foliage Plants.
Greenhouse Crops	Botrytis Blight	Gray-brown spots and blotches on the foliage. During moist, cool conditions, this fungus will produce a delicate gray web of fungal growth.	See AL Pest Management Handbook; Sanitation.
		Downy Mildew (<i>Peronospora</i>)	Faded, yellow blotches on upper leaf

surfaces. Lower leaf surfaces showed gray-purple, powdery masses of fungal growth.

Reduce humidity; raise temperatures; refer to the AL Pest Management Handbook.

Greenhouse & Nursery Crops

Pythium/Phytophthora Root Rot

Root tissues become brown and water-soaked. Foliage shows yellowing, wilt and/or dieback.

See AL Pest Management Handbook; sanitation; reduce watering schedules.

Plant

Disease

Description

Control

Holly, Helli

Thielaviopsis Root Rot

Black spots and areas on roots and root tips; foliage yellows, wilts, and/or shows dieback.

Sanitation; Cleary's 3336, Domain drenches may help as a preventative measure. See the AL Pest Management Handbook.

Hydrangea

Powdery Mildew

White powdery dusting on leaves and shoots; dieback; blight.

See the AL Pest Management Handbook.

Indian Hawthorn

Colletotrichum Leaf Spot

Brown circular leaf spots.

Sanitation of fallen leaves. Protective sprays of Cleary's 3336 or Halt.

Irish Potato

Fusarium Rot

Dark brown, soft rot of inner tuber tissue. The rot is not watery.

Sanitation. Maintain cool dry storage conditions.

Rhizopus Rot

A soft, watery, colorless rot develops.

Sanitation. Keep storage conditions cool and dry.

Scab
(*Streptomyces*)

Rough, slight sunken lesions on tubers, usually about 5 mm but size may vary greatly.

See the 2004 AL Vegetable Control Guide.

	Scurf, Black (<i>Rhizoctonia</i>)	Black, hard, slightly raised spots/irregular lesions of variable size but usually about 5 mm diam.	See the 2004 AL Vegetable Control Guide under Rhizoctonia.
	Soft Rot (<i>Erwinia</i>)	Soft, brown or cream-colored watery areas with a foul smell.	Sanitation. Avoid wounding. Keep cool.
Ivy, Swedish	Bacterial Leaf Spot	See Foliage Plants.	See Foliage Plants.
<u>Plant</u>	<u>Disease</u>	<u>Description</u>	<u>Control</u>
Lantana	Bacterial Leaf Spot	Dark brown, angular leaf spots which may be surrounded by a yellow halo develop.	Sanitation; remove diseased plants; do not water overhead.
Lavender	Botrytis Blight	Gray-brown leaf spots & blotches.	Sanitation of fallen leaves; increase air circulation and temperature.
Leucothoe	Colletotrichum Leaf Spot	Reddish-brown irregular spots about ¼ inch diameter.	Sanitation. Cleary's 3336 may help.
	Pestalotia Leaf Spot, usually secondary to cold damage	Large, light gray, irregular spots and blotches.	Sanitation.
Leyland Cypress	Cercosporidium Blight	Foliage blight develops first on the lower limbs and then spreads upward.	Remove completely dead branches. Apply protective fungicide treatments. See the Pest Management Handbook or ANR-1196.
Mondo Grass, Dwarf	Anthraxnose (<i>Colletotrichum</i>)	Tip blight and brown leaf spots & blotches develop.	Sanitation of diseased foliage. Apply protective treatments of Halt or Cleary.

Nandina, Dwarf	Colletotrichum Leaf Spot	Medium brown circular to irregular spots (about ¼ inch diam.).	Sanitation; Cleary's 3336 or Domain may help. (Test on a few plant first.)
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<u>Plant</u>	<u>Disease</u>	<u>Description</u>	<u>Control</u>
Oats	Blotch (<i>Drechslera avenae</i>)	Small brown flecks that become large longitudinal strips and blotches of dead tissue. Outer edges of spots fade into irregular areas of brown, red-brown or yellow.	See AL Pest Management Handbook.
	Crown Rust (<i>Puccinia coronata</i>)	Bright orange-yellow, round or oblong pustules develop mostly on leaves but sheaths, stems and panicles may also have pustules. Plant yellowing and lodging may result from infection.	Plant resistant cultivars.
Oxalis	Rust (<i>Puccinia sp.</i>)	Rusty orange powdery spots develop on leaves; eventually leaves wither and die.	Sanitation.
Pansy	Alternaria Blight	Small, brown, irregular lesions.	Sanitation. Daconil may help.
	Botrytis Blight	Gray or gray-brown circular-irregular	spots/blotches on foliage.

See AL Pest Management Handbook; sanitation or ANR-596a.

	Colletotrichum Leaf Spot	Circular brown leaf spots.	Sanitation of fallen leaves; See the AL Pest Management Handbook.
	Pythium Root Rot	Plants unthrifty, wilt, yellow and die. Roots become brown and watersoaked.	See AL Pest Management Handbook; sanitation or ANR-596a.
	Rhizoctonia Foliage Blight	Spots/blight of brown color.	See AL Pest Management Handbook.
<u>Plant</u>	<u>Disease</u>	<u>Description</u>	<u>Control</u>
	Thielaviopsis Root Rot (Black Root Rot)	Black spots and areas on roots and root tips. Plants wilt, yellow and die.	Sanitation; Cleary's 3336 or Domain drenches, as a preventative measure, may give some control. See AL Pest Management Handbook or ANR-596a.
Pear	Root Knot Nematode (<i>Meloidogyne</i>)	Pear decline. Roots develop irregular galls.	Sanitation. Crop rotation or fallow.
Photinia	Colletotrichum Leaf Spot	Brown, circular leaf spots develop.	Sanitation. See AL Pest Management recommendations for Entomosporium.
	Entomosporium Leaf Spot	Red-black circular-irregular spots on foliage; spots may coalesce; leaf fall will result.	Sanitation; protective fungicide sprays. See AL Pest Management Handbook or ANR-392.
Pittosporum	Alternaria Leaf Spot	Grey, circular-irregular leaf spots.	Sanitation. Cleary's 3336 or Halt may be applied if desired as

protective treatment.

<i>Poa trivialis</i>	Pythium Blight	Foliage becomes brown and water soaked.	Reduce water in the area. Apply protective fungicide treatments. See ANR-594 or the Pest Management Handbook.
Poplar, Yellow	<i>Cylindrocladium clavatum</i> Crown Rot	Sunken, dry decay of lower trunk at soil level.	Sanitation.
Pothos	Anthracnose (<i>Colletotrichum</i>)	Small-large brown lesions.	Sanitation. See the AL Pest Management Handbook.
<u>Plant</u>	<u>Disease</u>	<u>Description</u>	<u>Control</u>
Rye	Spot Blotch (<i>Bipolaris sorokiniana</i>)	Usually on lower leaves, dark brown spots of varying shapes and sizes appear. Spots may coalesce so that large leaf areas are involved. Older lesions are olive colored when spores are present. Severely infected leaves completely die.	See AL Pest Management Handbook.
Ryegrass	Pythium Blight	Roots become brown and water-soaked. Grass blades may also become brown and water-soaked or they may yellow and decline from root rot problem.	See the AL Pest Management Handbook or ANR-594.
Snapdragon	Root Knot Nematode (<i>Meloidogyne</i>)	Irregular galls develop on roots. Plants show reduced growth.	Crop rotation to grasses. See ANR-689.

Southern Magnolia	Algal Leaf Spot (<i>Cephaleuros</i>)	Green or reddish circular spots, usually 3-5mm diam., slightly raised.	See the AL Pest Management Handbook.
Spinach	Pythium Root Rot	Dieback; roots appear brown, rotted, and water-soaked.	Sanitation; reduce soil water content.
St. Augustine	Brown Patch (<i>Rhizoctonia</i>)	Brown blotches develop on grass blades; circular to irregular patches turn brown.	See the AL Pest Management Handbook and Circular ANR-324.
<u>Plant</u>	<u>Disease</u>	<u>Description</u>	<u>Control</u>
	Take-All Patch (<i>Gaeumannomyces graminis</i> pv. <i>graminis</i>)	Patchy areas show scattered plants turning yellow and dying; roots/stolons show black cankers.	See ANR-823.
Strawberry	Phomopsis Blight/Leaf Spot	Brown, V-shaped areas develop at edges of leaves. The blotches may involve a or more of the leaf area.	See the AL Pest Management Handbook or 2004 Ala. Fruit Control Recommendations.
	<i>Phytophthora cactorum</i> Crown and Root Rot	Crowns and roots develop brown, decay areas.	Sanitation; reduce water levels in soil; See the AL Pest Management Handbook.
Sweet Potato	Fusarium Root Rot	Dry, dark brown rotted patches on the surface of the root. Rot area usually does not extend beyond vascular tissues.	Sanitation and careful handling during harvest.

	Scurf (<i>Monilochaetes</i>)	Dark brown to black spots/areas develop on the surface of the roots. Surface cracking may develop.	Sanitation, rotation for 3-4 years, fungicide protective dips (see 2004 Vegetable Control Recommendations).
Thyme	Rhizoctonia Stem Rot	Stems become brown, decayed, and shriveled.	Sanitation.
Tomato	Early Blight (<i>Alternaria solani</i>)	Zonate brown leaf spots develop on lower foliage and stems. Foliage dies. The disease gradually spreads upward.	Sanitation of diseased plant parts. Application of protective fungicide treatments. See ANR-71 or the Pest Management Handbook.
<u>Plant</u>	<u>Disease</u>	<u>Description</u>	<u>Control</u>
	Target Spot (<i>Corynespora cassiicola</i>)	Oval-circular brown spots that may be zonate.	Sanitation of diseased foliage. Check with Ed Sikora for more information.
Turnip	Cercospora Leaf Spot	Light brown or cream-colored irregular spots on foliage.	See the 2004 AL Vegetable Control Recommendations.
Vinca	Botrytis Leaf Spot	Gray-brown blotches on foliage.	Increase the temperatures to 70°F or above. Decrease humidity. Apply protective fungicide treatments.
	Pythium Root Rot	Roots become brown, water-soaked.	Sanitation. See the Alabama Pest Management Handbook.
	Thielaviopsis Root Rot	Black spots and areas on roots and root tips. Plants wilt, yellow,	and die.

Sanitation;
Cleary's 3336 or
Domain drenches may
help.

Wax Myrtle	<i>Botryosphaeria</i> Canker	Sunken, cracked lesions on trunks and branches develop.	Sanitation. Maintain a vigorous plant.
Wheat	Bipolaris Leaf Spot	Tan flecks first appear on both sides of lower leaves. (Later, younger leaves may be infected and spotted). Flecks gradually may become much larger and elongated (up to 12 mm). These spots are generally tan with brown centers and yellow borders. Lesions may coalesce.	Generally no control needed.

<u>Plant</u>	<u>Disease</u>	<u>Description</u>	<u>Control</u>
	Powdery Mildew (<i>Erysiphe</i>)	Gray-white or buff- colored powdery blotches on leaf blades. Distortion and yellowing of new growth.	See the 2004 Small Grains Control Recommendations.
	Rust-Leaf (<i>Puccinia recondita</i>)	Small, dark red dots of spore masses on leaves and leaf sheaths. This disease is commonly seen in Alabama.	See the 2004 Small Grains Control Recommendations.
	Rust - Stem (<i>P. graminis</i>)	Reddish-brown dots or ovals or elongated masses of spores on stems, leaf sheaths and occasionally on leaf blades and spikes. This disease is	occasionally seen in the state.

See the 2004 Small Grains Control Recommendations.

	Rust - Stripe (<i>P. striiformis</i>)	Yellow-orange, narrow stripes of spore masses on leaves and spikelets. Heads may be infected. Disease usually restricted to cool temperatures. This disease is rarely seen, but it was observed in 1990 in one location.	---
	Septoria Blotch	Yellow flecks on lower leaves become elongated lesions (1-5 x 4-15 mm) that change from yellow to red-brown with some spots developing gray centers.	Generally no control needed.
<u>Plant</u>	<u>Disease</u>	<u>Description</u>	<u>Control</u>
	Take-All (<i>Gaeumannomyces</i>)	Lower stem and roots at the soil line become blackened and decayed. Usually this disease does not occur until late in the wheat season, but it occasionally will develop on seedlings.	Crop rotation to oats, corn, or legumes for 1 year.
Yarrow	Pythium Root Rot	Poor growth of plant; yellowing of lower foliage; pale brown root decay as a soft rot.	Sanitation; reduce soil water levels; apply a recommended protective fungicide drench is a greenhouse/nursery situation.

Zoysia

Rhizoctonia Brown
Patch

Irregular areas or
patches become
brown.

If temperatures are
warm and grass is not
dormant, protective
fungicide treatments
are recommended.

The Plant Diagnostic Lab Annual Report

We hope to have it finished and mailed in February. I hope you will find the report useful as a reference for disease occurrences in the state.