

June 21, 2004  
570

PP-

**MAY PLANT DISEASES FROM THE AUBURN  
PLANT DIAGNOSTIC LAB**

**MAY PLANT DISEASES FROM THE  
BIRMINGHAM PLANT DIAGNOSTIC LAB**

**MAY INSECT SAMPLES AT THE AUBURN  
PLANT DIAGNOSTIC LAB**

**DISEASE POSSIBILITIES FOR JUNE**

**COMMENTS**

Jackie Mullen  
Extension Plant Pathology Specialist-Auburn

Jim Jacobi  
Extension Plant Pathology Specialist-Birmingham

Charles Ray  
Research Fellow IV-Auburn

Auburn Plant Disease Report-May (J. Mullen)

May was a busy month in the lab with 156 plant samples received. Tomato spotted wilt virus on tomato was a common problem seen in all sections of the state. (See p. 4-5 for further comments.) Other commonly seen diseases were fire blight on pear, brown patch on turf grasses, Heterosporium (Cladosporium) on Iris, black spot on rose, and early blight on tomato. Moisture levels in May ranged from adequate in some area to slightly below adequate in some areas.

Table 1. Diseases Seen at the Auburn Plant Diagnostic Lab in May.

<u>PLANT</u>	<u>DISEASE</u>	<u>COUNTY</u>
Apple	Fire Blight ( <i>Erwinia amylovora</i> )	Russell
Bermuda	Bipolaris Blight	Jefferson
	Exserohilum Blight	Jefferson, Shelby
	Helminthosporium Leaf Spot/Crown Rot	Marion
	Sting Nematode	Marion
Blueberry, Tifblue	Phytophthora Crown & Root Rot	*
Centipede	Brown Patch ( <i>Rhizoctonia</i> )	Chilton, Lee, Montgomery, Pike
Cherry, Weeping	Botryosphaeria Canker	*
Corn	Bacterial Stalk Rot	Coffee
Cotton	Fusarium Root Rot	Autauga
	Pythium Root Rot	Autauga
Daylily	Suspect Kabatiella Streak	Marshall
Grass	Slime Mold	Tuscaloosa
Holly	Alternaria Leaf Spot	Marshall
Honeysuckle	Anthracnose ( <i>Colletotrichum</i> sp.)	Choctaw
Hydrangea	Anthracnose ( <i>Colletotrichum</i> )	Houston, Mobile
Iris	Heterosporium Leaf Spot	Lee
	Pythium Root Rot	Tallapoosa
Leyland Cypress	Fusarium Root Rot	Lee
<u>PLANT</u>	<u>DISEASE</u>	<u>COUNTY</u>

	Pestalotia Needle Blight	Pike
Mountain Laurel	Pythium Crown/Root Rot	Tallapoosa
Nandina	Pythium Crown & Root Rot	Lee
	Rhizoctonia Root Rot	Lee
Oak	Oak Leaf Blister ( <i>Taphrina</i> )	DeKalb
Oxalis	Rust ( <i>Puccinia</i> )	Lee
Palm	Alternaria Blight	Montgomery
Pea, Blackeye	Rhizoctonia Crown & Root Rot	Choctaw
Pea, Field	Anthracoese ( <i>Colletotrichum</i> sp.)	Autauga
Peanut	Low Soil pH	Dallas
	Pythium Root Rot	Dallas
Pear, Bradford	Fireblight ( <i>Erwinia amylovora</i> )	Russell
Pepper	Fusarium Crown Rot	Cleburne
	Pythium Root Rot	Cleburne
Persimmon, Japanese	Anthracoese ( <i>Colletotrichum</i> sp.)	Marshall
	Botryosphaeria Twig Canker	Marshall
Pine, Loblolly	Coleosporium Needle Rust	Tallapoosa
	Rhizosphaeria Needle Blight	Tallapoosa
St. Augustine	Brown Patch ( <i>Rhizoctonia</i> )	Mobile
	Slime Mold	Choctaw
	Take-All Patch ( <i>Gaeumannomyces</i> )	Jefferson
<u>PLANT</u>	<u>DISEASE</u>	<u>COUNTY</u>

Tomato	Bacterial Wilt ( <i>Ralstonia solanacearum</i> )	Houston
	Buckeye Rot ( <i>Phytophthora nicotiana</i> )	Geneva
	Early Blight ( <i>Alternaria solani</i> )	Choctaw
	Fusarium Crown Rot	Houston
	Late Blight ( <i>Phytophthora infestans</i> )	Pike
	Leaf Mold ( <i>Cladosporium</i> sp.)	Montgomery
	Pythium Crown & Root Rot	
	Rhizoctonia Collar Rot ( <i>Fulvia fulva</i> )	Montgomery
	Tomato Spotted Wilt Virus	Butler, Choctaw, Covington, Elmore, Houston, Montgomery
Violet	Cercospora Leaf Spot	Lee
Watermelon	Fusarium Crown Rot	Choctaw
Zoysia	Brown Patch ( <i>Rhizoctonia</i> )	Montgomery
	Suspect Winter Damage	Jefferson

\*Counties are not reported for greenhouse and nursery samples.

#### Birmingham Plant Disease Report-May (J. Jacobi)

We received 147 samples during May. The three most common problems were fire blight (apples and pears), powdery mildew (crape myrtle, phlox, and rose), and tomato spotted wilt virus on tomato. Some of the other problems seen last month included: four-lined plant bug damage on basil and other herbs, Kabatina tip blight on eastern red cedar, Rhizoctonia stem rot and Pythium root rot on garden impatiens.

In the last three weeks, we have seen an increasing number of backyard tomatoes infected with tomato spotted wilt virus. Early symptoms of spotted wilt on tomato can be hard to diagnose. Initially, leaves in the terminal portion of the plant stop growing, become distorted and turn pale green. In young leaves, veins thicken and turn purple, causing the leaves to have a bronze cast. Often necrotic spots or rings spots occur on infected leaves. As the disease progresses, stems of infected plants often

have purplish brown streaks. See ANR-836, Virus Diseases of Tomato, for more information on diagnosis and control of this disease (<http://www.aces.edu/pubs/docs/A/ANR-0836/ANR-0836.pdf>). In the last few years, several tomato lines have been released with resistance to TSWV. They include Amelia VR, BHN 640, and BHN 555.

Table 2. 2004 May Diseases Seen In The Birmingham Plant Diagnostic Lab.

<u>PLANT</u>	<u>DISEASE</u>	<u>COUNTY</u>
Apple	Fire Blight	Jefferson
	Rosey Apple Aphid	Jefferson
Aster	Powdery Mildew	Jefferson
Azalea	Azalea Bark Scale	Jefferson
	Pythium Root Rot	Jefferson
	Southern Red Mites	Jefferson
Basil	Four-Lined Plant Bug Damage	Jefferson
Bermudagrass	Algae	Jefferson
	Black Layer/Poor Drainage	*
	Dollar Spot ( <i>Sclerotinia</i> )	Shelby
Birch, River	Spiny Witch-Hazel Gall Aphids	Jefferson
Boxwood, American	Boxwood Leaf Miner	Jefferson
	Pythium Root Rot	Jefferson(2)
Butterfly Bush	Spider Mites	Shelby
Camellia, Common	Camellia Dieback ( <i>Colletotrichum</i> )	Shelby
Camellia, Sasanqua	Camellia Leaf Gall ( <i>Exobasidium</i> )	Jefferson
<u>PLANT</u>	<u>DISEASE</u>	<u>COUNTY</u>
Cedar, Eastern Red	Kabatina Tip Blight	Shelby

Centipedegrass	Brown Patch ( <i>Rhizoctonia</i> )	Jefferson
Cherry Laurel	Algal Leaf Spot	Jefferson
Crabapple	Fire Blight ( <i>Erwinia</i> )	Shelby
Crape Myrtle	Powdery Mildew	Shelby
Cypress, Leyland	Botryosphaeria Canker	Jefferson
	Seridium Canker	Jefferson
Forysthia	Phomopsis Dieback	Jefferson
Gardenia	Citrus Whitefly	Jefferson
Garlic	Onion Aphid	Jefferson
Hickory	Downy Leaf Spot ( <i>Microstroma</i> )	Jefferson
	Hickory Shuckworm	Jefferson
	Phylloxera Galls	Jefferson
Holly, Chinese	Cottony Camellia Scale	Jefferson (3)
Holly, Yaupon	Armillaria Root Rot	Shelby
Hydrangea, Bigleaf	Spider Mites	Jefferson
Hydrangea, Oakleaf	Vole Damage	Jefferson
Impatiens	Pythium Root Rot	Shelby
	Rhizoctonia Crown Rot	Jefferson
Juniper	Phytophthora Root Rot	Jefferson
	Pythium Root Rot	Shelby
<u>PLANT</u>	<u>DISEASE</u>	<u>COUNTY</u>
Magnolia, Southern	Algal Leaf Spot ( <i>Cephaleuros</i> )	Jefferson

	Black Twig Borer	Jefferson (2)
Oak, Post	Oak Galls (Cynipid Wasp)	Jefferson
Oak, White	Slime Flux	Jefferson
	Wool Sower Galls	Shelby
Okra	Bacterial Leaf Spot	Jefferson
Parsley	Four-lined Plant Bug Damage	Jefferson
Peach	Bacterial Spot ( <i>Xanthomonas</i> )	Shelby
	Plum Curculio	Shelby
Pear, Bradford	Fire Blight ( <i>Erwinia</i> )	Jefferson
Pecan	Pecan Phylloxera	Jefferson
Pepper	Alternaria Stem Canker	Blount
Persimmon	Phomopsis Dieback	Marshall
Phlox, Garden	Powdery Mildew	Shelby
Photinia	Entomosporium Leaf Spot	Jefferson
Pine, Eastern White	Pine Bark Aphid/Sooty Mold	Jefferson
Pine, Loblolly	Needlecast ( <i>Plioderma</i> )	Jefferson
Plum	Plum Curculio	Shelby
Rose	Black Spot	Shelby
	Powdery Mildew	Jefferson (2)
	Spider Mites	Jefferson
<u>PLANT</u>	<u>DISEASE</u>	<u>COUNTY</u>
	Thrips/Flower Damage	Jefferson
Spruce, Colorado Blue	Bark Beetles	Jefferson

St. Augustinegrass	Fairy Ring	Jefferson
	Gray Leaf Spot	Tuscaloosa
	Slime Mold	Jefferson
Tea Olive	Southern Red Mite	Jefferson
Tomato	Bacterial Spot ( <i>Xanthomonas</i> )	Dale/Jefferson
	Early Blight ( <i>Alternaria</i> )	Shelby
	Tomato Spotted Wilt	Dale/Jefferson (4)
Zoysiagrass	Brown Patch ( <i>Rhizoctonia</i> )	Shelby/Jefferson (3)
	Dollar Spot ( <i>Sclerotinia</i> )	Tuscaloosa
	Leaf Rust ( <i>Puccinia</i> )	Jefferson
	White Grubs	Jefferson
	Zoysiagrass Mites (Eriophyid)	Jefferson

\*Counties are not reported for greenhouse and nursery samples.

Auburn Entomology Report-May (C. Ray)

County	Crop	Category	Specimen Name
Lauderdale	Structure	Household-Miscellaneous	Springtails
Etowah	Crates	Structural-Miscellaneous	Huntsman Spider
County	Crop	Category	Specimen Name
Mobile	Home	Household-Miscellaneous	Moth Fly (=Drain Fly)
Pike	Peach	Wood Boring	Eastern

			Subterranean Termite
Clay	Home	Structure	Drywood Termite Fecal Pellets
Pike	Maple	Ornamental	Cottony Maple Scale
Autauga	Plasticware	Household-Miscellaneous	American Cockroach
Colbert	Home	Ornamental	Dark Winged Fungus Gnat
Escambia	Home	Structural	Eastern Subterranean Termites
Monroe	Household	Structural	Eastern Subterranean Termites
Montgomery	Pampas Grass, Bradford Pear, Maple, Birch	Ornamental	Land Snail
Henry	Daylily	Ornamental	Spider Mites & Scolothrips sp.
DeKalb	Unknown	Miscellaneous	Nymphal Assassin Bug
Cullman	Home	Structural	Eastern Subterranean Termites
Mobile	Azalea	Ornamental	No pest detected
Blount	Pine Bark	Wood Products	<u>Cossonus</u> Weevil
DeKalb	Oak	Ornamental	Gouty? Oak Gall
County	Crop	Category	Specimen Name
Covington	Flowering Planting	Ornamental	Nymphal Stinkbugs
Houston	Annuals and Perennials	Ornamental	A leaf beetle (no common name)

Mobile	Birch	Ornamental	Asian Ambrosia Beetle Bagwood, Tarsonemid Mites
Russell	Magnolia grandiflora	Ornamental	No Pests Detected - Tarsonemid Mites Present
Choctaw	Home	Stored Product	Lesser Grain Borer and Maize Weevil
Baldwin	Drake Elm	Ornamental	No Pest Detected
Autauga	Bahia Sod	Turf	No Pest Detected
Lee	Holly	Ornamental	Mealybugs, Armored Scales, Whiteflies
Morgan	Gardenia	Ornamental	Nymphal Stink Bug

### Disease Possibilities For June

Table 3 lists some of the plant diseases which arrived in our lab during previous Junes. Brief comments on disease symptoms and control recommendations are included. For specific disease control recommendations, see the Alabama Pest Management Handbook or individual 2004 spray guides. Also, remember the importance of sanitation. The following are some of the disease samples we have seen thus far in June: Rust (*Puccinia hemerocallidis*) on daylily, a wide spread occurrence of tomato spotted wilt virus on tomato; brown patch on centipede, zoysia; Phytophthora aerial blight on periwinkle. We saw two cases of late blight on tomato on plants from northern Alabama.

Table 3. Brief Disease Descriptions and Control Recommendations For Diseases Often Seen in June.

<u>PLANT</u>	<u>DISEASE</u>	<u>DESCRIPTION</u>	<u>CONTROL</u>
Apple	Bitter Rot ( <i>Colletotrichum</i> )	Brown circular-irregular spots	develop on fruit. The spots enlarge

internally as cone shaped areas of brown rotted tissues. Masses of spores develop in tiny clumps (sometimes in concentric rings) on the surface of the browned fruit spots. Spores may be cream-colored or salmon-colored. Leaf spots are not commonly seen.

Follow the regular spray schedule as described in the Ala. Pest Management (P.M.) Handbook. Sanitation.

Cedar-Apple Rust (*Gymnosporangium juniperæ-virginianæ*)

Large (3-6mm diam.), bright yellow spots; sometimes tiny black specks can be seen on upper leaf surface of spots; sometimes orange spore bodies can be seen on lower leaf surface spots.

See Ala. P. M. Hand-book for protective spray treatments; collect and destroy all fallen leaves this fall; remove nearby red cedars and other junipers if possible.

Frogeye Leaf Spot (*Botryosphaeria*)

Brown, circular spots with purple margins and brown centers.

Sanitation; protective fungicide sprays.

Arbor-vitae

Phomopsis Dieback

Tip browning and dieback.

Sanitation. See Ala. P. M. Handbook.

Bahia

Dollar Spot (*Sclerotinia*)

Individual grass blades show white spots/blotches with dark borders. Small areas of the field are initially affected.

Maintain proper fertility.

PLANT

DISEASE

DESCRIPTION

CONTROL

Bean, Garden

Alternaria Leaf Spot

Brown circular-irregular reddish brown spots become circular with concentric rings.

Protective fungicide sprays; Sanitation at end of growing season.

Anthracnose ( <i>Colletotrichum</i> )	Reddish, irregular spots of varying sizes on all parts of foliage.	See Ala. Pest Management Handbook.
Bacterial Blight ( <i>Xanthomonas</i> )	Irregular spots (small and large) become dried and light brown in the center and dark, water-soaked on the edge.	Protective spray treatments.
Fusarium Stem/Root Rot	Lower stems/roots become dried and reddish-brown.	Rotation for 7 or more years.
Mosaic Virus	Yellow and green alternating patches on leaves.	Remove damaged plants. Control insects.
Pythium Crown Rot, Root Rot	Tissues become light brown and wet rotted.	Improve soil drainage; see the AL Pest Management Handbook.
Rhizoctonia Aerial Blight	Leaves develop brown spots and blotches. Damaged tissues may dry and fall apart.	Sanitation. See the Ala. Pest Management Handbook for anthracnose control.
Rhizoctonia Stem Rot	Lower stems develop brown sunken lesions.	Rotation; Terraclor or Fumigation.
Root-Knot Nematode ( <i>Meloidogyne</i> )	Galls on roots.	Rotation, solarization or fumigation.
Southern Blight ( <i>Sclerotium rolfsii</i> )	White fungal mat on lower stems near soil line; crowns decay.	Terraclor; Sanitation.

PLANT

DISEASE

DESCRIPTION

CONTROL

Begonia

Pythium Crown Rot

Lower stem tissues brown and soft.

See Ala. P. M. Hand-book.

Bentgrass	Brown Patch ( <i>Rhizoctonia</i> )	Foliage develops brown blotches and circular-irregular brown patches of turf.	See Ala. P. M. Hand-book.
	Pythium Blight	Turf grass develops greasy black spots, blotches on leaves. Foliage dies.	See Ala. P. M. Hand-book.
	Ring Nematode	Roots poorly developed; plant yellowed, stunted.	See ANR-523.
	Rust ( <i>Puccinia</i> )	Foliage develops a red-orange powdery coating on leaf blades.	See Ala. P. M. Hand-book.
Bermuda	Brown Patch ( <i>Rhizoctonia</i> )	Foliage develops brown blotches. Circular-irregular brown patches of turf.	See Ala. P. M. Hand-book.
	Dollar Spot ( <i>Sclerotinia</i> )	White, bleached spots about the size of a silver dollar appear in lawn; individual grass blades show white spots with dark borders.	See Ala. P. M. Hand-book; see Circular ANR-493; collect grass clippings.
	Helminthosporium "Melting Out" ( <i>Bipolaris cynodontis</i> ; <i>Exserohilum rostratum</i> )	Circular-elongate spots with brown centers and purple-black borders. Leaves, sheaths, stems, crowns and roots may be attacked.	Sanitation; protective fungicide sprays. See Ala. P. M. Handbook.
<u>PLANT</u>	<u>DISEASE</u>	<u>DESCRIPTION</u>	<u>CONTROL</u>
	Leaf Rust ( <i>Puccinia</i> )	Leaves are off-color, rusty colored and later brown.	See the Ala. P. M. Handbook.
	Ring Nematode ( <i>Criconemella</i> )	Roots poorly developed; plants yellowed, stunted.	See ANR-523.

	Sting Nematode ( <i>Belonolaimus</i> )	Roots poorly developed; plants yellowed, stunted.	See ANR-523.
	Take-All Patch ( <i>Gaeumannomyces</i> )	Grass yellows and thins with black lesions on roots.	See ANR-823.
Birch, River	Phyllosticta Leaf Spot	Brown, circular leaf spots.	Sanitation. Protective sprays of Cleary's 3336 may be used.
Blackberry	Anthracnose ( <i>Colletotrichum</i> )	Black irregular-circular spots, blotches on leaves, canes; dieback.	See ANR-50.
	Cercospora Rosette	Blossoms are abnormally thickened with pointed petals. Canes develop bunchy growth habit. Fruit does not set.	Sanitation and protective fungicide sprays.
	Crown Gall ( <i>Agrobacterium</i> )	Irregular swollen area (gall) develops on lower branches and crown and roots.	Sanitation; crop rotation; Galltrol.
	Septoria Leaf Spot	Round and irregular round, brown leaf spots.	Sanitation. See the AL Pest Management Handbook under 'Leaf Spot'.

<u>PLANT</u>	<u>DISEASE</u>	<u>DESCRIPTION</u>	<u>CONTROL</u>
Blueberry	Anthracnose Fruit Rot ( <i>Colletotrichum</i> )	Sunken, light blue-brown spots, sometimes with circular, black specks (fruiting bodies).	Sanitation. See the AL Pest Management Handbook.
		Botryosphaeria Blight	New shoots develop brown sunken

cankers; growth beyond the canker dies.	Sanitation; Benlate protective sprays.		
	Botrytis	Gray-brown blotches on leaves and fruit; gray fruit rot.	Sanitation; Benlate protective sprays.
	Phytophthora Root Rot	Brown, water-soaked lesions that become dried.	Ridomil; See Ala. Pest Management Hand-book.
Boxwood	Macrophoma Blight	Leaves and some twigs become yellowed/ brown; affected tissues may contain tiny black specks, the fruiting bodies of the fungus.	Eliminate stress problems; pruning. See Ala. Pest Management Handbook.
	Volutella Blight	Plants show yellowing and dieback. Cankers on stems & some dying leaves develop tiny orange specks, fruiting bodies of fungus.	Eliminate stress problems; pruning. See Ala. Pest Management Hand-book.
Buddlea	Phyllosticta Leaf Spot	Numerous small brown circular spots.	Sanitation. Cleary's 3336 or Domain.
Butterbeans	Pythium Root Rot	Roots are brown and water-soaked.	See Vegetable Spray Guide.
<u>PLANT</u>	<u>DISEASE</u>	<u>DESCRIPTION</u>	<u>CONTROL</u>
Cabbage	Alternaria Leaf Spot	Gray irregular spots.	See Pest Management Handbook.
Cantaloupe	Bacterial Wilt ( <i>Erwinia</i> )	Leaves wilt; this is quickly followed by leaf/stem collapse.	Control cucumber beetles.
	Gummy Stem ( <i>Mycosphaerella</i> )	Elongated, brown, wet lesions on stems; cracking of stem lesions.	Protective fungicide sprays; sanitation in the fall.

	Watermelon Mosaic Virus	Foliage and fruits develop alternating patches of yellow and green tissues. Growth and crop productivity is reduced.	Rogue out infected plants; control insects; control weeds.
Centipede	Brown Patch ( <i>Rhizoctonia</i> )	Foliage develops brown blotches. Circular-irregular patches of turf will turn brown.	See the Ala. P. M. Handbook.
	Dollar Spot ( <i>Sclerotinia</i> )	See Bermuda.	See Ala. P. M. Hand-book.
	Slime Mold ( <i>Physarum</i> )	Black powdery sporangia on grass blades.	--
	Take-All Patch ( <i>Gaeumannomyces</i> )	Dieback and yellowing; black stolon lesions; stress associated.	See the AL Pest Management Handbook and ANR-823.
PLANT	DISEASE	DESCRIPTION	CONTROL
Cherry	Septoria Leaf Spot	Reddish-brown circular-angular leaf spots ( $\frac{1}{4}$ inch diam.).	Sanitation.
Cherry Laurel	Shot Hole ( <i>Xanthomonas</i> )	Reddish spots with dark red or black edges; centers of angular spots may fall out.	Sanitation; See Ala. Pest Management Handbook.
Chrysanthemum	Pythium Crown/Root Rot	Lower stem/crown area becomes water-soaked, brown, rotted.	See Ala. P. M. Hand-book.
Collards	Alternaria Leaf Spot	Gray circular-irregular spots.	--
	Black Rot ( <i>Xanthomonas</i> )		Leaf edges have V-

shaped black lesions; veins become black; inner core of lower stem becomes black.

Rotation for 2-3 years; Fumigation.

Coreopsis

Anthrachnose

Red, brown circular spots, sometimes with white centers.

Sanitation; keep foliage as dry as possible. Protective sprays of Cleary's 3336 may help.

Corn

Bacterial Stalk Rot (*Erwinia*, *Pseudomonas spp.*)

Stalks disintegrated into a soft mass, often with an unpleasant odor.

Maintain balanced fertility, good soil drainage and good air circulation between plants.

Crazy Top (*Sclerophthora*)

Symptoms vary; generally excessive tillering with rolling and twisting of upper leaves; abnormal leafy development of the tassel.

Avoid wet soils; sanitation.

PLANT

DISEASE

DESCRIPTION

CONTROL

Common Rust (*Puccinia*)

Circular-elongate, brown pustules are scattered over upper & lower leaf surfaces. Yellowing & death of leaves and leaf sheaths may occur.

Resistant varieties.

Northern Corn Leaf Blight (*Helminthosporium turcicum*)

Long, elliptical, gray-green or tan lesions, 2.5-15 cm in length develop first on lower leaves. Disease progresses upward.

Resistant varieties.

Southern Corn Leaf Blight (*Helminthosporium-cochliobolus*)

Tan lesions (.25-1.5 inches long) are elongate with parallel sides and brown borders;

yellow halos may be present.

Resistant varieties.

Cotton	Alternaria Leaf Spot	Gray-brown irregular leaf spots.	See Bill Gazaway.
	Ascochyta Leaf Spot	Light brown circular spots with dark brown margins; spots will coalesce to involve large areas of the leaf surface.	See Bill Gazaway.
	Black Root Rot ( <i>Thielaviopsis</i> )	Poor growth; yellowing of lower leaves; black lesions on roots.	See Bill Gazaway.
	Fusarium Lower Stem Rot	Lower stems develop red-brown sunken lesions.	Seed treatment.
	Pythium Root Rot Seedling Disease	Roots become brown, soft, water-soaked. Seedlings may fall over at soil line.	Seed Treatment.

<u>PLANT</u>	<u>DISEASE</u>	<u>DESCRIPTION</u>	<u>CONTROL</u>
	Rhizoctonia Lower Stem/Root Rot	Brown lesions/cankers near soil line.	--
Crabapple	Cedar-Apple Rust ( <i>Gymnosporangium</i> )	See Apple - Cedar-apple rust.	--
Crepe Myrtle	Cercospora Leaf Spot	Brown leaf spots (circular-irregular) of approximately ½ inch diameter.	--
	Powdery Mildew ( <i>Erysiphe</i> )	Leaves show white dusting; yellowing; new growth distorted.	See Ala. P. M. Hand-book.
Cryptomeria	Cytospora Canker	Sunken, elliptical shaped cankers.	Pruning out cankers, making cuts 3-4 inches beyond canker margins.

Cucumber	Powdery Mildew	White powdery dusting on leaves; blight.	See the Ala. Pest Management Hand-book.
	Rhizoctonia Stem Rot	Brown elongated lesions on lower stems.	--
Daisy, Gerbera	Powdery Mildew ( <i>Erysiphe</i> )	Leaves show a white dusting; yellowing followed by browning.	See Ala. P. M. Hand-book.
Daylily	Kabatiella Leaf Spot	Brown leaf spots with a yellow halo sometimes; when there are several leaf spots, the leaf may develop a yellow streak.	Sanitation. Cleary's 3336 protective sprays may help.
<u>PLANT</u>	<u>DISEASE</u>	<u>DESCRIPTION</u>	<u>CONTROL</u>
	Pythium Crown & Root Rot	Lower stems & roots become brown & water-soaked; foliage dieback occurs.	Sanitation; reduce irrigation.
	Root Knot Nematode ( <i>Meloidogyne</i> )	Round-irregular galls on roots.	Crop rotation to grasses or other suppressive plants. See ANR-856.
	Rust ( <i>Puccinia hemerocallidis</i> )	Leaves develop small yellow spots which eventually produce orange spore masses that are visible as orange, powdery spots.	Sanitation; Protective sprays of Banner Maxx, Heritage, Eagle, Immunox or Fertiloam System Fungicides.
Dianthus	Pythium Root Rot	Foliage wilts, yellows; collapses.	Sanitation; Reduce irrigation; improve soil drainage. Plant a different type of bedding plant.
Dogwood	Anthracoze	( <i>Discula</i> )	Small-large irregular

brown spots/blotches often with purple margins. Dieback usually follows.

See the Ala. P. M. Handbook.

Phytophthora Root Rot

Roots become brown and water-soaked. With slight pressure, the outer cortex of the root will slip away from the central root core.

See the Ala. P. M. Handbook.

Powdery Mildew (*Microsphaera*)

White dusting on upper leaf surfaces.

Cleary's 3336 or Domain.

<u>PLANT</u>	<u>DISEASE</u>	<u>DESCRIPTION</u>	<u>CONTROL</u>
	Spot Anthracnose ( <i>Elsinoe</i> )	Small reddish circular spots develop on blossoms and leaves. Defoliation may result when spotting is severe.	See the Ala. P. M. Handbook.
Elm	Dutch Elm Disease	Wilt; dieback; interveinal yellowing of leaves; vascular browning.	Sanitation of dying branches or trees.
Fescue	Brown Patch ( <i>Rhizoctonia</i> )	See Centipede.	See the Ala. P. M. Handbook.
	Helminthosporium Leaf Spot	Small, elongate, reddish-brown spots develop. Spotting may be severe enough to cause total blight (death) of the foliage.	See the Ala. P. M. Handbook.
Fescue, Tall	Pythium Blight	See Bentgrass.	--
Genseng	Fusarium Root Rot	Roots become decayed and dark brown-black. Decay is a dry rot.	Crop rotation for 10 or more years.
Geranium	Alternaria Leaf Spot	Black, small, angular leaf spots.	See Ala. P. M. Hand-book.
	Botrytis Blight	Blossoms and leaves develop brown blotches.	See Ala. P. M. Hand-book.
	Pythium Stem Rot	Dark brown, water-soaked lesions (cankers) develop on stems.	Sanitation.
Grape	Anthracnose ( <i>Colletotrichum</i> )	Brown round-irregular spots (about 1/8 inch or larger) on foliage/stem.	Sanitation; See the Ala. P. M. Handbook.
<u>PLANT</u>	<u>DISEASE</u>	<u>DESCRIPTION</u>	<u>CONTROL</u>

	Black Rot ( <i>Guignardia</i> )	Dark brown circular spots on leaves and fruit.	Protective fungicide sprays; Sanitation.
	Botrytis Blight	Leaves/fruit develop a gray brown blotches/ rot.	See Ala. P. M. Hand-book.
Hawthorne	Entomosporium Leaf Spot	Black spots develop on the foliage. Spot coalescence may occur.	See the Ala. P. M. Handbook.
Holly	Phytophthora Root Rot	Roots are black or brown and water-soaked.	See the Ala. P. M. Handbook.
Hosta	Alternaria Leaf Spot	Gray, brown circular leaf spots.	Sanitation.
Hydrangea	Bacterial Leaf Spot ( <i>Pseudomonas</i> )	Dark brown, angular leaf spots with dark, water-soaked edges.	Sanitation. Do not water over-head. See the AL Pest Management Handbook.
	Colletotrichum Petal Blight	Orange-brown circular spots, blotches.	Cleary's 3336 or Domain.
	Phytophthora Crown Rot	Roots develop a wet brown decay that becomes dried with age.	Sanitation. See Ala. Pest Management Handbook.
Impatiens	Impatiens Necrotic Spot Virus	Black circular spotting occurs on the foliage. New growth becomes stunted.	Control thrips; sanitation.
<u>PLANT</u>	<u>DISEASE</u>	<u>DESCRIPTION</u>	<u>CONTROL</u>
	Pythium Root Rot	Roots become soft, brown and water-soaked.	See the Ala. P. M. Handbook.
	Rhizoctonia Stem Rot	Sunken, brown, dry, lesions.	Sanitation. See the Ala. Pest Manage-

ment Handbook. Iris	Heterosporium Leaf Spot	Small-large brown, oval spots.	Sanitation. See AL Pest Management Handbook.
Ivy, English	Anthrachnose ( <i>Colletotrichum</i> )	Brown circular-irregular spots on the foliage. Spot coalescence may occur.	See the Ala. P. M. Handbook.
	Bacterial Leaf Spot ( <i>Xanthomonas</i> )	Black, angular, water-soaked spots on foliage.	See Ala. P. M. Handbook.
	Rhizoctonia Leaf & Stem Rot	Brown, dry lesions on leaves/stems.	Sanitation; Cleary's protective sprays.
Juniper	Cercospora Blight	Inner sections of branches turn brown and needles drop.	Benlate protective sprays. Sanitation.
	Phoma Needle Blight	Needle Browning.	Sanitation. Fungicides labeled to control Phomopsis should help.
	Phomopsis Blight	Branches dieback beginning at twig tips.	Sanitation; see the Ala. P. M. Handbook.
	Phytophthora Root Rot	Roots become browned, water-soaked.	See the Ala. P. M. Handbook.

<u>PLANT</u>	<u>DISEASE</u>	<u>DESCRIPTION</u>	<u>CONTROL</u>
Leucothoe	Pythium Root Rot; may be secondary	Roots become water-soaked, slightly brown, rotted; foliage yellows; dieback; wilt.	Sanitation; reduce irrigation; improve soil drainage; remove some soil in root zone area of damaged plant before replanting.
Liriope	Anthrachnose	Brown spots, blotches on leaves and leaf tips.	Sanitation; See AL P. M. Handbook.

Maple	Anthracnose ( <i>Kabatella</i> )	Brown circular-irregular spots/blotches occur on leaves; large leaf areas may be involved. Defoliation may result.	Sanitation. See the AL P. M. Handbook.
	Phyllosticta Leaf Spot	Circular (sometimes) irregular leaf spots. Leaf spot borders are often distinctive. Severe spotting will result in defoliation.	Sanitation. See the Ala. P. M. Handbook.
Mondo Grass	Anthracnose ( <i>Colletotrichum</i> )	Brown spots blotches develop on leaves, often at/near leaf tips.	Sanitation. Cleary's or Domain protective sprays or a benomyl product labelled for ornamentals.
Nectarine	Bacterial Spot	See Peach.	See Peach.
	Brown Rot	See Peach.	See Peach.
Oak	Algal Leaf Spot ( <i>Cephaleuros</i> )	Red-green circular spots.	Sanitation.

<u>PLANT</u>	<u>DISEASE</u>	<u>DESCRIPTION</u>	<u>CONTROL</u>
	Anthracnose ( <i>Apiognomonina</i> )	Brown, irregular-shaped and-sized spots/blotches on leaves. Often, blotches will follow along leaf veins. Early leaf drop will occur when disease is severe.	Sanitation of leaves in the fall. See Ala. P. M. Handbook.
	Oak Leaf Blister	( <i>Taphrina</i> )	Brown, puckered

spots (1/2 inch diameter) develop. Spots may merge. Leaf drop will occur when disease is severe.

Sanitation. See Ala. P. M. Handbook.

Xylella Scorch

Oaks develop brown leaf edges; dieback.

Tree removal.

Okra

Rhizoctonia Crown Rot

Brown, dry lesions on lower stems.

Sanitation; crop rotation for 1-2 years.

Paspalum

Brown Patch (*Rhizoctonia*)

Foliage blight in patches.

See Ala. P. M. Handbook in Turfgrass Section.

Pea, Field

Anthracnose

Reddish circular-irregular spots.

See Ala. P. M. Hand-book.

Black Eye Cowpea Mosaic Virus/Other Mosaic Virus

Yellow and green mosaic pattern on leaves; reduced growth.

Plant resistant varieties - 'Mississippi Cream' or 'Pink Eye Purple Hull BVR'.

Charcoal Rot (*Macrophomina*)

Lower stems become dried and off-color. When stem is split, inner tissues are gray and appear as if sprinkled with fine charcoal powder.

Sanitation; crop rotation or fumigation.

PLANT

DISEASE

DESCRIPTION

CONTROL

Fusarium Crown Rot/ Root Rot

Brown or reddish-brown lesions at soil line and on roots.

Long crop rotations.

Fusarium Wilt

Plants become yellow and wilted, starting with lower foliage. Sometimes damage is on one side of plant only. Vascular tissues are brown-streaked.

Rotation for 6-12 years.

	Rhizoctonia Stem Rot	The stem area just above the soil-line becomes browned with a large lesion that often develops on one side of the stem. Eventually the whole stem may become affected.	See the Ala. P. M. Handbook.
	Root-Knot Nematode ( <i>Meloidogyne</i> )	Galls, irregular, on roots.	Rotate to grasses.
Peach	Bacterial Leaf Spot ( <i>Xanthomonas</i> )	Brown or reddish-brown, irregular-circular spots which fall out leaving shot holes; may be yellowing around spots.	Sanitation; spray for commercial growers.
	Brown Rot ( <i>Monilinia</i> )	Twigs may die; fruit develops a gray-brown rot. Gray mycelium & spores of fungus will develop during humid weather.	See Ala. P. M. Hand-book; Sanitation.
	Gummosis ( <i>Botryosphaeria</i> )	Bark becomes sunken and cracked; oozing of sap.	Sanitation.
<u>PLANT</u>	<u>DISEASE</u>	<u>DESCRIPTION</u>	<u>CONTROL</u>
	Rhizopus Soft Rot	Fruit becomes brown, rotted, and watery.	---
	Scab ( <i>Cladosporium</i> )	On the fruit, small (1/16" diam.) olive, velvety spots may develop into large blotches. Spots/blotches are superficial. On twigs small (1/4 inch diam.), slightly raised, green-brown spots develop on	lower leaf surfaces.

Protective fungicide	sprays; sanitation.		
Peanut	Crown Rot ( <i>Aspergillus niger</i> )	Lower stem becomes dry rotted.	See A. Hagan.
	Early Leaf Spot ( <i>Cercospora</i> )	Brown spots with halos develop on lower leaf surfaces.	Protective fungicide sprays; sanitation.
	Rhizoctonia Limb Blight	Brown lesions on stems.	See the Ala. P. M. Handbook.
	Rhizoctonia Seedling Disease	Brown sunken lesions on lower stems.	Seed treatment.
	Tomato Spotted Wilt Virus	Yellow ring-spots and line patterns on foliage; stunted plants.	Sanitation; control thrips.
Pear	Cedar-Hawthorne Rust ( <i>Gymnosporangium globosum</i> )	Cedar cankers with orange urediospores and witches brooms. Pears with yellow leaf spots and orange aecial 'cups' on lower leaf surface and fruit.	See control for cedar apple rust.

<u>PLANT</u>	<u>DISEASE</u>	<u>DESCRIPTION</u>	<u>CONTROL</u>
	Fabraea Leaf Spot	Black circular leaf spots (2-4 mm) develop on the foliage. Severe spotting may cause early defoliation.	Sanitation. The regular spray schedule for apples/pears may give some protective control. For flower-ing pear, see the Ala. P. M. Handbook.
	Fireblight ( <i>Erwinia</i> )	Dieback develops on branches. Dead branches become black. Black spots/ blotches may	develop along the leaf margins.

Prune out damage 10-14 inches	beyond the margin of the damaged	tissue.	
	Frog Eye Leaf Spot ( <i>Botryosphaeria</i> )	Brown circular spots with purple margins.	Sanitation; protective sprays of benomyl. See Ala. P. M. Hand-book.
Peony	Tomato Spotted Wilt Virus	Yellow ring spots & line patterns.	Sanitation; control thrips.
Pepper	Anthracnose Fruit Rot	Black blotches (sometimes with orange spore pustules).	See Ala. P. M. Hand-book.
	Bacterial Spot ( <i>Xanthomonas</i> )	Dark brown, circular to irregular spots; shot holes; leaf yellowing & drop.	Protective fungicide sprays; sanitation.
	Bacterial Wilt ( <i>Pseudomonas</i> )	Plants rapidly wilt while green.	Crop rotation away from tomato, potato, pepper, eggplant for 3-5 years.

<u>PLANT</u>	<u>DISEASE</u>	<u>DESCRIPTION</u>	<u>CONTROL</u>
	<i>Phytophthora capsici</i> Crown Rot	Lower stems become brown and water-soaked.	Sanitation. Solar- ization or fumigation. See handbook.
	Southern Blight ( <i>Sclerotium rolfsii</i> )	The lower stem near the soil line becomes softened and browned and decayed. A white mold will develop during humid warm weather.	See the Ala. P. M. Handbook.
	Tomato Spotted Wilt Virus	Plants stunted. New growth distorted. (Sometimes ring	spots and bronzing are present.)

Sanitation. Control	thrips.		
Petunia	<i>Phytophthora</i> Foliage Blight/Root Rot	Brown, sometimes wet-looking lesions; dieback.	Sanitation; See Ala. P. M. Handbook.
Pine	<i>Lophodermium</i> Needle Cast ( <i>Ploioderma</i> )	Needles turn brown and drop; very small (1-2 mm or 1/32 inch) football shaped, black fruiting bodies.	Protective fungicide sprays during the spring and fall.
Pittosporum	<i>Cercospora</i> Leaf Spot	Brown, circular- irregular blotches about ½ inch diameter.	Sanitation of fallen leaves; protective Daconil or Bravo sprays.
Plum	Bacterial Leaf Spot ( <i>Xanthomonas</i> )	See Peach Bacterial Leaf Spot.	--
	Black Knot ( <i>Dibotryon</i> )	Black, elongated, irregular gall-like tissue on branches; dieback.	See Circular ANR- 217. Only captan and ferbam are available for spray treatments.
	Plum Leaf Scald ( <i>Xylella</i> )	Leaf edges become brown, often zonated-brown. Dieback.	Remove trees to prevent disease spread.
<u>PLANT</u>	<u>DISEASE</u>	<u>DESCRIPTION</u>	<u>CONTROL</u>
Potato, Irish	Late Blight ( <i>Phytophthora</i> <i>infestans</i> )	Brown blotches on leaves/stems.	See Ala. P. M. Hand-book.
	<i>Rhizoctonia</i> Lower Stem Rot	Dry, brown decay.	Sanitation.
	Root-Knot Nematode	Tubers develop knots on skin surface.	Rotation; solarization.
	Scab ( <i>Streptomyces</i> )	Small (0.12-0.25 inch or 5-8 mm diam.) brown lesions which may be sunken or raised.	Crop rotation; Main- tain soil moisture; Avoid over-liming; Maintain soil pH at 5.3-5.5. Use scab tolerant varieties.

	Stem Soft Rot ( <i>Erwinia</i> )	Stems become black, soft, watery, with a foul smell.	Sanitation. Avoid wounding.
	White Mold ( <i>Sclerotium rolfsii</i> )	Plants wilted; a white mold often present at the soil line.	See Ala. P. M. Hand-book (commercial).
Privet	Cercospora Leaf Spot	Medium brown circular spots.	See Ala. P. M. Hand-book.
Rhododendron	Phytophthora Root Rot	Roots become brown and water-soaked.	See the Ala. P. M. Handbook.
Rose	Black Spot ( <i>Diplocarpon</i> )	Black spots with fringed borders develop on leaves. Defoliation will result from severe spotting.	Sanitation. See the Ala. P. M. Handbook.
	Botrytis Blossom Blight	Brown spots and blotches on petals; when conditions are cool and humid, a gray mold is seen.	Sanitation. See the AL Pest Management Handbook.
	Mosaic Virus	Yellow line patterns, mosaics.	Plant removal.
<u>PLANT</u>	<u>DISEASE</u>	<u>DESCRIPTION</u>	<u>CONTROL</u>
	Powdery Mildew	White dusting on leaf surfaces; new growth distortion.	See Ala. P. M. Handbook.
	Rhizoctonia Crown Rot	Brown lesions at soil line.	Sanitation; Cleary's protective drenches.
Rudbeckia	Bacterial Leaf Spot	Dark brown, angular leaf spots with darker, water-soaked edges.	Sanitation. Do not water over-head.
Salvia	Phytophthora Root Rot	Roots brown, water-soaked.	Sanitation. See Ala. P. M. Handbook.
Snapdragon	<i>Phytophthora parasitica</i> Crown Rot	Crowns become water-soaked, brown, rotted.	Sanitation. Avoid excessive irrigation. See Ala. P. M. Hand-book.

Sorghum	Anthrachnose ( <i>Colletotrichum</i> )	Leaves/stems develop black lesions	--
	Rhizoctonia Root Rot	Dry brown rot on roots.	--
Soybean	Bacterial Leaf Spot	Dark, brown, angular spots with darker, water-soaked edges.	See Ed Sikora.
	Cyst Nematode ( <i>Heterodera</i> )	Plants are stunted and yellow. Root systems are reduced and show a low incidence of Rhizobium nodules. White-yellow female bodies and brown cysts about the size of a small pin head may be seen on roots with the aid of a hand lens.	Rotation; resistant cultivars; See Soybean Pest Management, Circular ANR-413.
	Pythium Seedling Disease	Usually lower stem tissues and/or roots become translucent, brown and watery.	Use treated seed.
<u>PLANT</u>	<u>DISEASE</u>	<u>DESCRIPTION</u>	<u>CONTROL</u>
	Rhizoctonia Seedling Disease	Red-brown, dry decay of lower stems and roots.	Use treated seed.
	Root Knot Nematode ( <i>Meloidogyne</i> )	Plants are stunted and yellowed. Roots develop knots or galls of variable shape and size.	Crop rotation; Use of resistant cultivars. See Ala. P. M. Hand-book.
Squash	Bacterial Wilt ( <i>Erwinia</i> )	Individual leaves wilt and turn brown. A sticky ooze will stream out of petiole when it is placed in	warm water.

Control cucumber	beetles; sanitation.		
	Cucumber Mosaic Virus (CMV)	Leaves develop a mottled green-yellow or dark green-light green coloration; new growth is stunted.	Remove affected plants; Control insects and weeds.
	Tobacco Ringspot Virus	Leaves show mosaic, stunting.	Sanitation; crop rotation for 2-4 years.
	Watermelon Mosaic Virus (WMV) II	See comments for CMV.	--
Squash, Zucchini	Mosaic Virus	A somewhat regular pattern of green and light green or yellow-white discoloration.	Sanitation. Control insects.
St. Augustine	Brown Patch ( <i>Rhizoctonia</i> )	Brown leaf spots, blotches.	See the Ala. P. M. Handbook.
	Gray Leaf Spot ( <i>Piricularia</i> )	Gray-brown oval or irregular spots on grass blades; spots may merge.	Protective fungicide sprays; Sanitation.
	Take-All Patch ( <i>Gaeumannomyces</i> )	Plants yellow and die. Stolons, roots develop black lesions.	See ANR-823.
<u>PLANT</u>	<u>DISEASE</u>	<u>DESCRIPTION</u>	<u>CONTROL</u>
Strawberry	Common Leaf Spot ( <i>Mycosphaerella</i> )	Young leaf spots are small, round and deep purple. Older spots are about 1/16 inch diam. with white or brown centers and purple borders. Spots may coalesce.	See Ala. P. M. Hand-book.
Sweet Potato	Fusarium Root Rot	Surface of root becomes browned and shrivelled.	See Ala. P. M. Hand-book.

Sycamore	Powdery Mildew ( <i>Microsphaera</i> )	White coating develops on leaves; new leaves are deformed.	Sanitation of leaves in the fall.
	Xylella Scorch Disease	Leaf edges become browned; dieback.	Tree removal.
Thrift	Rhizoctonia Blight	Leaves develop brown spots and blotches.	Cleary's 3336 or a benomyl labelled for ornamentals will give protective control; sanitation.
Tomato	Alternaria Alternata Leaf Spot	Small, circular, brown leaf spots.	Sanitation. See control comments for early blight.
	Bacterial Canker ( <i>Corynebacterium clavibacter</i> )	Elongate brown, wet-looking lesions or cankers on stems; centers of cankers dry and look white.	Protective sprays; Sanitation. See the AL Pest Management Handbook under bacterial speck/spot.
	Bacterial Speck	Small, dark, greasy irregular spots on leaves and stems. A yellow halo may surround spots. Spots may merge together.	See AL Pest Management Handbook. Strict sanitation.
<u>PLANT</u>	<u>DISEASE</u>	<u>DESCRIPTION</u>	<u>CONTROL</u>
	Bacterial Spot ( <i>Xanthomonas</i> )	Small, dark, greasy irregular spots on leaves and stems. Fruit spots are raised, brown and scabby.	See Ala. P. M. Hand-book. Strict sanitation.
	Bacterial Wilt ( <i>Pseudomonas solanacearum</i> )	Rapid wilting of green plants.	Rotation. Fumigation.
	Blossom End Rot	Hard, black lesions at blossom end of fruit.	See the Ala. P. M. Handbook.

Buckeye Rot ( <i>Phytophthora</i> )	On fruits, spots are pale brown with concentric rings; spots small or large; fruit flesh decomposes.	Keep fruit off soil; Ridomil.
Cucumber Mosaic Virus	Leaves become thin and narrow (strap-shaped). Plants have reduced growth.	Remove damaged plants; control insects, weeds.
Early Blight ( <i>Alternaria solani</i> )	Brown circular-irregular spots with target-like ring pattern.	Fungicide sprays; Sanitation in the fall.
Fusarium Wilt	Lower leaves become yellow and yellowing/ wilting progresses up the plant. One sided effects may occur.	Rotation; Plant varieties resistant to Fusarium wilt.
Late Blight ( <i>Phytophthora infestans</i> )	Brown lesions (blotches) on leaves/ stems.	See Ala. P. M. Hand-book.
Leaf Mold ( <i>Fulvia fulva</i> )	Gray fungal growth in blotches on leaves.	See Ala. P. M. Hand-book.

PLANT

DISEASE

DESCRIPTION

CONTROL

Pith Necrosis ( <i>Pseudomonas</i> )	Dieback, wilt above necrotic stem area. Internally, the stem is hollow with characteristic plant tissue threads across the hollow stem internal areas.	Sanitation. See the AL Pest Management Handbook under bacterial canker.
Potato Virus Y Group	Foliage stunted and mottled.	Sanitation. Control weeds. Control aphids.
Southern Blight ( <i>Sclerotium rolfsii</i> )	White fungal mat occurs at soil line where stem	becomes decayed; plants die due to death of lower stem.

Terracloar; crop	rotation.		
	Tomato Spotted Wilt Virus	New growth becomes abnormally small, small yellow spots appear. Young leaves become bronzed in spots, patches or whole leaf areas involved. Fruit spotted. Plants wilt & die.	Sanitation; Control thrips.
	White Mold ( <i>Sclerotinia</i> )	See Tomato Southern Blight.	--
Verbena	Powdery Mildew	White dusty coating on leaves; leaves yellow and later turn brown.	A benomyl product labelled for ornamentals or Cleary's 3336 or Domain.
Vinca, Catharanthus (Annual Periwinkle)	Anthracnose ( <i>Colletotrichum</i> )	Brown cankers on lower stems.	See Ala. P. M. Hand-book.
	Fusarium Crown Rot	Brown, dry rotting on stem at soil line.	Rotation or solarization.
<u>PLANT</u>	<u>DISEASE</u>	<u>DESCRIPTION</u>	<u>CONTROL</u>
	Phomopsis Stem Blight	A brown canker develops on stems.	Sanitation. Apply protective sprays of Cleary's 3336. See the Ala. P. M. Handbook.
	Phytophthora Foliage Blight	Dark brown lesions on stems and leaves; dieback.	Sanitation. Avoid wet situations. See the Ala. P. M. Handbook.
	Pythium/Phytophthora Crown/Root Rot	Roots become brown, watersoaked.	Sanitation. Avoid wet situations. See the Ala. P. M. Handbook.
	Rhizoctonia Aerial Blight	Leaves become dull green and then brown. Large areas of leaves become browned.	See Ala. P. M. Hand-book.

	Tomato Spotted Wilt Virus	New growth is stunted. Older leaves may show black blotches.	Sanitation. Insecticides to control thrips.
Vinca Minor	Anthrachnose ( <i>Colletotrichum</i> )	Small-large brown blotches on leaves.	See the Ala. P. M. Handbook under perennial vinca.
Watermelon	Anthrachnose ( <i>Colletotrichum</i> )	Roughly circular, black-brown lesions with irregular margins on leaves; black spots occur on fruit; lesions on stems and petioles are tan and elongated.	See the Ala. P. M. Handbook.
	Bacterial Fruit Blotch ( <i>Acidovorax</i> )	Dark brown blotches on fruit.	Sanitation. See Ed Sikora.
	Fusarium Crown Rot	Brown dried lesions near soil line.	Plant Fusarium resistant varieties; crop rotation for 6-12 or more years.
<u>PLANT</u>	<u>DISEASE</u>	<u>DESCRIPTION</u>	<u>CONTROL</u>
	Fusarium Wilt	Vines become yellowed and wilted, beginning with the oldest foliage.	Rotation out of watermelon for 6-12 years.
	Gummy Stem ( <i>Mycosphaerella</i> )	Elongate, brown and wet lesions form on stems; cracking. Brown-black spots may develop on leaves.	Protective fungicide sprays; Sanitation in the fall.
Wheat	Scab ( <i>Fusarium</i> )	Heads covered with pink spores.	Sanitation.
Yaupon, Dwarf	Phytophthora Root Rot	Roots become brown, water-soaked.	Sanitation.
Zinnia	Bacterial Leaf Spot ( <i>Xanthomonas</i> )	Dark, water-soaked, angular spots,	sometimes with a yellow halo around

the spot edges.	Strict sanitation. Do not water overhead.		
Zoysia	Bipolaris Blight, Leaf Spot/Crown Rot (also <i>Exserohilum rostratum</i> )	Small, brown, elongated spots on leaves and crowns.	See Ala. P. M. Handbook; Collect grass clippings.
	Brown Patch ( <i>Rhizoctonia</i> )	See Centipede.	See Centipede.
	Dollar Spot ( <i>Sclerotinia</i> )	See Bermuda.	See Bermuda.
	Rust ( <i>Puccinia</i> )	Red-orange powdery dusting on leaf blades.	Collect grass clippings; Usually fungicides are not needed.

<u>PLANT</u>	<u>DISEASE</u>	<u>DESCRIPTION</u>	<u>CONTROL</u>
	Take-All Patch ( <i>Gaeumannomyces</i> )	Scattered, individual plants yellow & die in an area; sections/areas of turf thin and yellow.	Keep soil pH near 6.0 (or slightly below); use only ammonia-based fertilizers.
Grasses	Slime Molds	White, gray, or brown thin, translucent sheet-like bodies on turf or other areas; turf may be covered by black, gray, or green powdery spores.	Physical removal; See Ala. P. M. Handbook.

### Comments

Please fill out the blue sheet with as much information as possible on the problem. Also, please tell us your name, county, and phone number, including area code. This will help! We hope our new diagnostic and nematode forms will be available soon. The

nematode form is at the printers.