

# TIMELY INFORMATION

## Agriculture & Natural Resources

July 17, 2009

PP-679

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

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

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

**DISEASE POSSIBILITIES FOR JULY**

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[Auburn Plant Disease Report-June \(J. Mullen\)](#)

June was generally hot (90°F and above daytime temperatures) and over-all the state was relatively dry. We received 178 plant samples in June.

Some of the diseases seen in June included rust on alcea; fire blight on apple and pear; *Phytophthora* root rot on azalea; *Alternaria alternata* on rattlesnake garden bean; brown patch on Bermuda grass; dollar spot on Bermuda grass; rust on Bermuda grass; spur blight on blackberry; *Phytophthora* sp. root rot of Rabbiteye blueberry; foliar nematode on butterfly bush; anthracnose on camellia; *Fusarium* wilt and powdery mildew on cantaloupe; common rust, northern corn leaf blight on corn; stubby root nematode on sweet corn; *Fusarium*, *Pythium* cotton seedling root decay; root knot nematode on cotton; *Phytophthora* root rot on Indian hawthorn; *Phytophthora* (not *P. ramorum*) leaf spot on honeysuckle; anthracnose on Hosta; bacterial leaf spot on oak leaf hydrangea; bacterial soft rot & *Heterosporium* leaf spot on Iris; anthracnose on Jasmine; *Colletotrichum* and *Pythium* root rot on lily; anthracnose

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on red maple; CMV & TMV on nandina; Oak leaf blister and Phytophthora (not *P. ramorum*) leaf spot on oak; *Phytophthora* sp. (not *P. ramorum*) on osmanthus; Pestalotiopsis on palm; fire blight on pear; Phytophthora blight on annual periwinkle; Pythium & Phytophthora crown & root rot on phlox; Phytophthora leaf spot (not *P. ramorum*) on rhododendron; downy mildew on rose; powdery mildew on acorn squash; downy mildew on butternut squash; anthracnose on switch grass; bacterial canker, bacterial wilt, Fusarium wilt, root knot nematode, southern blight, & TSWV on tomato; anthracnose, Fusarium wilt, gummy stem blight on watermelon; Phytophthora leaf spot (not *P. ramorum*) on willow.

On June 23, soybean rust was reported on kudzu in Geneva, Covington, and Conecuh counties. The disease was previously detected on kudzu in Baldwin and Mobile counties. It was also previously detected in a Washington County sentinel plot where it was destroyed (E. Sikora). Also see [www.SBRUSA.net](http://www.SBRUSA.net).

Table 1. June Plant Diseases Received at the Auburn Plant Diagnostic Lab.

<u>Plant</u>	<u>Disease</u>	<u>County</u>
Alcea	Rust ( <i>Puccinia malvacearum</i> )	Cherokee
Anis	Phytophthora Leaf Spot; Not <i>P. ramorum</i>	*
Apple	Fire Blight ( <i>Erwinia amylovora</i> )	Lee, Montgomery
Azalea	Phytophthora Root Rot	Houston
Bean, Rattlesnake	<i>Alternaria alternate</i> Leaf Spot	Tallapoosa
	<i>Phoma exigua</i> Leaf Spot	Tallapoosa
Bermuda	Brown Patch ( <i>Rhizoctonia solani</i> )	Madison
	Dollar Spot ( <i>Sclerotinia homeocarpa</i> )	Morgan
	Rust ( <i>Puccinia zoysia</i> )	Morgan
Blackberry	Spur Blight ( <i>Didymella phoma</i> )	Chilton
Blueberry, Rabbiteye	Phytophthora Root Rot	Limestone
Buddleia	Foliar Nematode ( <i>Aphelenchoides</i> sp.)	Madison

<u>Plant</u>	<u>Disease</u>	<u>County</u>
Camellia	Anthrachnose ( <i>Colletotrichum</i> ); Not <i>Phytophthora</i>	*
Cantaloupe	Fusarium Wilt	Elmore
	Powdery Mildew ( <i>Sphaerotheca friligena</i> )	Houston
Corn, Field	Common Rust ( <i>Puccinia sorghi</i> )	Baldwin
	Northern Corn Leaf Blight ( <i>Exserohilum turcicum</i> )	Baldwin
Corn, Sweet	Stubby Root Nematode ( <i>Paratrichodorus</i> )	Coffee
Cotton Seedlings	Fusarium Root Decay	Butler
	Root Knot Nematode ( <i>Meloidogyne</i> )	Butler, Macon
	Pythium Root Decay	Butler
Hawthorn, Indian	Phytophthora Root Rot	Houston
Honeysuckle	Phytophthora Leaf Spot; Not <i>P. ramorum</i>	*
Hosta	Anthrachnose ( <i>Colletotrichum</i> sp.)	*
Hydrangea, Oak Leaf	Bacterial Leaf Spot	Lee
Iris	Bacterial Soft Rot	Crenshaw
	Heterosporium Leaf Spot	Lee
Jasmine	Anthrachnose ( <i>Colletotrichum</i> sp.)	Tuscaloosa
Lily	Colletotrichum Leaf Spot	*
	Pythium Root Rot	*
Maple, Red	Anthrachnose	Montgomery

<u>Plant</u>	<u>Disease</u>	<u>County</u>
Nandina	Cucumber Mosaic Virus	*
	Tobacco Mosaic Virus	*
Oak	Oak Leaf Blister ( <i>Taphrina caerulescens</i> )	Russell
	Phytophthora Leaf Spot; Not <i>P. ramorum</i>	*
Oak, Sand	Suspect Fungal Leaf Spot; Not Phytophthora Leaf Spot	*
Osmanthus	Phytophthora Leaf Spot; Not <i>P. ramorum</i>	*
Palm	<i>Pestalotiopsis</i> sp. Leaf Spot	*
Pear	Fire Blight ( <i>Erwinia amylovora</i> )	Lee (2)
Periwinkle	Phytophthora Blight	Lee
Phlox	Phytophthora Root Rot	*
	Pythium Crown Rot & Root Rot	*
Rhododendron	<i>Phytophthora</i> sp. Leaf Spot; Not <i>P. ramorum</i>	*
Rose	Downy Mildew ( <i>Peronospora sparsa</i> )	*
Squash, Acorn	Powdery Mildew ( <i>Oidium</i> sp.)	Henry
Squash, Butternut	Downy Mildew ( <i>Pseudoperonospora cubensis</i> )	Geneva, Henry
Switch Grass	Anthracnose ( <i>Colletotrichum</i> sp.)	Baldwin
	Pycnidial Fungal Leaf Spot	Baldwin
Tomato	Bacterial Canker	Russell

<u>Plant</u>	<u>Disease</u>	<u>County</u>
	Bacterial Wilt ( <i>Ralstonia solanacearum</i> )	Montgomery, Winston
	Fusarium Wilt	Houston
	Root Knot Nematode ( <i>Meloidogyne</i> sp.)	Autauga, Baldwin
	Southern Blight ( <i>Sclerotium rolfsii</i> )	Houston
	Tomato Spotted Wilt Virus	Russell (2)
Watermelon	Anthrachnose ( <i>Colletotrichum</i> sp.)	Houston
	Fusarium Wilt	Elmore
	Gummy Stem Blight ( <i>Mycosphaerella citrullina</i> )	Houston
Willow	Phytophthora Leaf Spot; Not <i>P. ramorum</i>	*

\*Locations are not reported for nursery, greenhouse, and golf course samples.

Birmingham Plant Disease Report-June (J. Jacobi)

We received 74 samples for the month of June. Like last month the most common disease was oak leaf blister. One unusual disease seen last month was Exobasidium fruit and leaf spot on blueberry. The fungus that causes this problem is related to the fungus that causes leaf gall on azalea and camellia. Symptoms include green spots on fruit and leaves. See the following web site for pictures of this disease (<http://www.blueberries.msu.edu/exobasidium.htm>).

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

<u>Plant</u>	<u>Problem</u>	<u>County</u>
Apple	Fire Blight	Jefferson
	Sooty Blotch	Jefferson
Blackberry	Anthrachnose	Cullman
Blueberry	Botryosphaeria Stem Blight	Cullman

<u>Plant</u>	<u>Problem</u>	<u>County</u>
	Exobasidium Fruit and Leaf Spot	Blount
	Mummy Berry ( <i>Monilinia</i> )	Blount
	Phyllosticta Leaf Spot	Blount
Bugloss, Siberian	Rhizoctonia Crown and Root Rot	*
Centipedegrass	Fairy Ring	Jefferson
Cypress, Leyland	Phytophthora Root Rot	Jefferson
	Seiridium Canker	Jefferson
Dogwood, Flowering	Powdery Mildew	Jefferson
Elm, Winged	Dutch Elm Disease	Jefferson
	Powdery Mildew	Jefferson
Fig, Weeping	Brown Soft Scale	Jefferson
Grape	Black Rot	Lauderdale
Hydrangea, Oakleaf	Armillaria Root Rot	Jefferson(2)
	Phytophthora Root Rot	Jefferson
Indian Hawthorn	Armillaria Root Rot	Jefferson
Maple, Japanese	Phyllosticta Leaf Spot	Jefferson
Oak, Shumard	Spot Anthracnose	Jefferson
Oak, Southern Red	Oak Leaf Blister	Jefferson (5)
	Monochaetia Leaf Blotch	Jefferson (2)

<u>Plant</u>	<u>Problem</u>	<u>County</u>
Oak, Water	Oak Leaf Blister	Jefferson
Oak, White	Oak Leaf Blister	Jefferson
Peach	Bacterial Canker	Jefferson
	Brown Rot ( <i>Monilinia</i> )	Jefferson (2)
	Plum Curculio	Jefferson
	Scab	Jefferson
Pecan	Phylloxera Galls	Jefferson
Pepper	Pythium Root and Stem Rot	Blount
Plum	Brown Rot ( <i>Monilinia</i> )	Jefferson
Tomato	Early Blight	Jefferson
	Fusarium Wilt	Jefferson, Lauderdale
	Leaf Mold	Cullman
	Septoria Leaf Spot	Lowndes
Witch-Hazel	Witch-Hazel Cone Gall Aphid	Jefferson

\*Locations are not reported for nursery, greenhouse, and golf course samples.

Auburn Entomology Report-June (C. Ray)

County	Host	Category	Identification	Scientific Name
Clay	Corn	Row Crops	Sugarcane Beetle	<i>Euethola rugiceps</i>
Lauderdale	Home	Household- Miscellaneous	Mason Wasp	<i>Monobia quadridens</i>
Pickens	Blueberry	Fruits & Nuts	Triton Dagger Moth	<i>Acronicta tritona</i>

County	Host	Category	Identification	Scientific Name
			Caterpillar	
Blount	Home	Household-Miscellaneous	A Midge	Chironomidae
Coffee	Lawn	Household-Miscellaneous	An Ant	<i>Dorymyrmex smithi</i>
Montgomery	Boxwood	Ornamental	Spider Mite Damage	Tetranychidae
Jefferson	Human	Medical	Gallinipper Mosquito	<i>Psorophora ciliata</i>
Coffee	Home	Household-Structural	Formosan Termite	<i>Coptotermes formosanus</i>
Jefferson	Coneflower	Ornamental	An Eumolpine Leaf Beetle	<i>Brachypnoea clypealis</i>
Geneva	Rose	Ornamental	Flatid Planthopper	Flatidae
Geneva	Indian Hawthorne	Ornamental	Flatid Planthopper	Flatidae
Geneva	Holly	Ornamental	Flatid Planthopper	Flatidae
Lauderdale	Rose	Ornamental	Stink Bug Nymphs	Pentatomidae
Montgomery	Lawn	Turfgrass	Lawn Shrimp	Amphipoda
Calhoun	Human	Medical	Lone Star Tick-Adult Female	<i>Amblyomma americanum</i>
Madison	Oak	Ornamental	Obscure Scale	<i>Melanaspis obscura</i>
Cullman	Squash	Row Crops	Yellow-striped Armyworm	<i>Spodoptera ornithogalli</i>
Lauderdale		Miscellaneous	Ivory-Marked Beetle	<i>Eburia quadrigeminata</i>
Franklin	Home	Household-Miscellaneous	Hister Beetle	Histeridae

County	Host	Category	Identification	Scientific Name
Franklin	Home	Household-Miscellaneous	Lesser Mealworm Beetle	<i>Alphitobius diaperinus</i>
Franklin	Home	Household-Miscellaneous	Halloween Click Beetle	<i>Aeolus</i> sp.
Marion	Home	Household-Miscellaneous	Juvenile Female Wolf Spider	Lycosidae
Talladega	Home	Household-Miscellaneous	Grass-Carrying Wasp	<i>Isodontia</i> sp.
Coffee	Pecan Orchard	Fruits & Nuts	Punctured Tiger Beetle	<i>Cicindella punctulata</i>
Fayette	Pecan Firewood	Forest Products	Round-Headed Wood Boring Beetle Larvae	Cerambycidae
Houston	Home	Household-Stored Product	Cigarette Beetle	<i>Lasioderma serricorne</i>
Calhoun	Kudzu	Miscellaneous	Omnivorous Leaf Roller Larvae	<i>Platynota stultana</i>
Calhoun	Kudzu	Miscellaneous	Brown Soft Scale	<i>Coccus hesperidum</i>
Crenshaw	Iris	Ornamental	Fungus Gnat Larvae, Soldier Fly Larvae, Drain Fly Larvae, et al.	Sciaridae, Stratiomyidae, Psychodidae, et al.

### Disease Possibilities For July and August

In July we usually continue to see our 'June'-summer diseases. Table 3 lists some of the diseases which arrived in our lab during previous Julys. Brief comments on disease symptoms and control recommendations are included. For specific disease control recommendations, see the Alabama Pest Management Handbook. Also remember that sanitation is a necessary component of most disease control programs.

Table 3. Brief Disease Descriptions and Control Recommendations for Diseases Often Seen in July.

<u>Plant</u>	<u>Disease</u>	<u>Description</u>	<u>Control</u>
Ajuga	Cercospora Leaf Spot	Brown, circular or irregular leaf spots.	Cleary's 3336.
	Rhizoctonia Aerial Blight	Leaves/stems turn brown. Mycelial webbing may be present.	Cleary's 3336.
	<i>Sclerotium rolfsii</i>	Plant wilt and collapse. Decay of the lower stems with the appearance of a white mold at the soil level when conditions are wet and hot. Small, round, mustard seed sized white-brown-black sclerotia may develop.	Sanitation. Deep turn soil or soil removal if practical. Solarization will help.
Aloe	Fusarium Stem Rot	A dry decay of stem sections.	Cleary's 3336.
Alfalfa	Common ( <i>Pseudopeziza</i> ) Leaf Spot	Small (1-3 mm diameter), circular, brown-black spots with ragged margins; defoliation.	Early harvest.
	Leptosphaerulina Leaf Spot	Small black "pepper" spots or 1-3 mm "eyespot" which have light brown centers and dark brown borders.	---
	Rust ( <i>Uromyces</i> )	Red-brown powdery pustules on leaves, petioles, stems, defoliation.	Regular harvesting.
	Summer Black Stem &	Circular-irregular red-	Regular harvesting.

<u>Plant</u>	<u>Disease</u>	<u>Description</u>	<u>Control</u>
	Leaf Spot ( <i>Cercospora</i> )	brown or brown spots (2-6 mm diameter). When humidity high, spots become gray; defoliation.	
Anise, Florida	Phytophthora Root Rot	Plant wilt and dieback. Roots become brown, and water-soaked and easily pull apart.	Remove diseased plants. Deep turn or replace root area soil. See AL Pest Management Handbook for nursery disease control.
Apple	Apple Blotch ( <i>Alternaria mali</i> )	Brown circular or oval spots which sometimes appear slightly zonate.	See AL Pest Management Handbook.
	Bitter Rot on Fruit ( <i>Gloemerella-Gloeosporium</i> )	Small, circular, light-brown spots on the fruit. Spots enlarge and become sunken in the center. Concentric rings of pink pustules may occur. Rotted flesh is watery but not mushy.	Regular fungicide sprays.
	Black Rot ( <i>Botryosphaeria</i> )	<u>Fruit</u> : a brown spot on fruit that enlarges and usually becomes black; rotted flesh is firm. <u>Leaf</u> : brown or yellowish-brown spots (1/8-1/4 inch diameter) with purple margins and irregular shape. <u>Canker</u> : lesions on branches or trunk are slightly sunken, reddish-brown and show concentric rings of cracked bark.	Sanitation; recommend fungicide treatments.
	Botryosphaeria Canker	Elongated sunken	Pruning.

<u>Plant</u>	<u>Disease</u>	<u>Description</u>	<u>Control</u>
		lesions with usually cracked edges.	
	Cedar Apple Rust ( <i>Gymnosporangium juniperae-virginiana</i> )	Bright yellow spots on apple leaves. Orange (aecial) cups on lower leaf surfaces in yellow spots; defoliation.	See ANR-468.
	Fly Speck on Fruit ( <i>Microthyriella</i> )	Numerous, tiny, circular, black spots appear grouped together on a section of the apple skin.	Regular fungicide sprays.
	Scab ( <i>Venturia inaequalis</i> )	Olive-green to brown, slightly raised circular or slightly irregular spots (which may coalesce) on leaves and fruits; tissue distortion may result; early leaf, fruit drop may result from severe infection.	Follow spray recommendations in spray guide; sanitation.
	Sooty Blotch ( <i>Gloedoes pomigena</i> )	Superficial infection which appears as though someone placed a sooty fingerprint on apple fruit surface.	Regular fungicide sprays.
	White Rot ( <i>Botryosphaeria dothidea</i> )	White or light brown, water rot of fruit.	Sanitation; recommended fungicide treatments.
Ash	Anthracnose ( <i>Apiognomonina</i> )	Irregular brown blotches of variable sizes occur along leaf edges and along leaf veins mostly.	Sanitation.
Aster	Pythium Root Rot	Roots light brown and water-soaked, pull apart easily.	Sanitation; reduce water levels.

<u>Plant</u>	<u>Disease</u>	<u>Description</u>	<u>Control</u>
	Southern Blight ( <i>Sclerotium</i> )	Decay of stem at soil line; white mycelium (sometimes with brown-black mustard-seed-sized sclerotia may be present) often at soil line.	Soil solarization.
Aster, Stokes	Tomato Spotted Wilt Virus	Stunting of new growth; ring spots.	Sanitation; thrips control.
Aucuba	Botryodiplodia ( <i>Botryosphaeria</i> ) Canker/Dieback	Black cankers on stems.	Pruning; Cleary's 3336.
	Phytophthora Root Rot	Roots become water-soaked and a brown color during early stages of disease.	Sanitation. Reduce water in the area. See ANR-571 and the AL Pest Management Handbook.
Azalea	Anthrachnose	Small, circular, brown spots.	Sanitation. See the AL Pest Management Handbook.
	Bacterial Leaf Spot	Black irregular spots; water-soaked spot edges.	Strict sanitation. Do not water over-head.
	Botryosphaeria Canker	Sunken lesion with cracked edges.	Sanitation.
	Colletotrichum Leaf Spot	Small, circular brown leaf spots.	Sanitation; protective sprays of Cleary's 3336.
	Phomopsis Dieback (Stress-Related)	Sunken cankers that cause dieback of individual branches.	Pruning; eliminate stress.
	Phytophthora Root Crown/Rot	Brown, water-soaked areas on crown and roots; outer root cortex	Sanitation; Good drainage; Fungicide drenches.

<u>Plant</u>	<u>Disease</u>	<u>Description</u>	<u>Control</u>
		slips easily away from inner tissues.	
	Powdery Mildew	White powdery dusting on leaf surfaces; some leaf distortion; some necrosis.	Sanitation; See AL Pest Management Handbook.
Bahiagrass	Dollarspot ( <i>Sclerotinia</i> )	Bleached-out lesions with dark borders develop on grass blades; disease begins in small patches which can enlarge.	Maintain adequate fertility.
	Ergot ( <i>Claviceps paspali</i> )	Seed heads replaced with masses of black teleospores.	Sanitation; crop rotation.
Bean, Garden	Alternaria Leaf Spot	Oval-circular brown (sometimes zonate) leaf spots.	Chlorothalonil or maneb product.
	Anthrachnose ( <i>Colletotrichum</i> )	Black, sunken lesions (½ inch diameter) on pods, cotyledons and stems. When spores are produced, the lesions are orange-colored. On leaves, spots are small and reddish-brown. Veins on lower leaf surfaces may be discolored red-brown in sections.	Protective fungicide sprays. Rotation.
	Cercospora Leaf Spot	Irregular, gray-brown spots with red-brown margins; leaf drop.	Regular fungicide sprays.
	Charcoal Rot ( <i>Macrophomina</i> )	Lower stem near soil line becomes	Regular fungicide sprays.

<u>Plant</u>	<u>Disease</u>	<u>Description</u>	<u>Control</u>
		weakened/ shredded. Split stem has tiny black dots sprinkled throughout.	
	Cucumber Mosaic Virus	Green-yellow mottle; abnormally shaped leaves; abnormally small leaves.	Control aphids and cucumber beetles; do not save seed; control weeds.
	Fusarium Crown Rot	Stem at the soil line becomes decayed with a dry-type rot.	A long rotation or soil solarization.
	Fusarium Wilt	Lower leaves turn yellow; plants wilt and grow poorly; brown streaks in vascular system in lower stem.	Rotate out of beans for 6-10 years. Plant resistant varieties.
	Pythium Crown Rot	Lower stem develops a soft, wet, brown rot.	Sanitation; decrease irrigation practices.
	Rhizoctonia Aerial Blight	Brown, necrotic blotches on leaves.	See AL Pest Management Handbook.
	Rhizoctonia Sore Shin	Lower stem develops a dry, brown rot lesion.	Sanitation; See AL Pest Management Handbook.
	Southern Blight ( <i>Sclerotium</i> )	See Aster.	Soil solarization. Crop rotation or deep plowing.
Begonia	Phytophthora Crown & Root Rot	Plant wilt and dieback. Roots become brown and water-soaked.	Sanitation. Improve drainage. Remove root area soil if practical. See the AL Pest Management Handbook for control in greenhouses.
	Pythium Root Rot	Roots become soft, brown and water-	Sanitation; See the AL Pest Management

<u>Plant</u>	<u>Disease</u>	<u>Description</u>	<u>Control</u>
		soaked.	Handbook.
	Rhizoctonia Aerial Blight	Leaves become brown spotted, blighted and shredded.	Cleary's 3336. Domain, benomyl products labeled for ornamentals; sanitation.
Bentgrass	Anthrachnose ( <i>Colletotrichum</i> )	Leaf spot/blight often secondary.	See control recommendations for brown patch.
	Black Layer	Leaves turn yellow and plants dieback; a black soil layer is present about one inch below the soil surface.	Soil renovation is required.
	Brown Patch ( <i>Rhizoctonia</i> )	Foliage Blight	See the AL Pest Management Handbook.
	Curvularia Blight	Yellow spotting of leaves; typically seen during hot, stressful conditions. Usually a minor problem.	Fungicides usually not needed. Remove stressful conditions. Fungicides labeled for control of brown patch may help.
	Dollar Spot	Silver dollar-sized pale yellow or white circular areas in lawn. Individual grass blades usually have white leaf spots that develop as bands across the whole leaf blade. Spots have dark borders.	See ANR-493 and the AL Pest Management Handbook.
	Fairy Ring	Yellow or brown areas that occur in ring-like patterns. Mushrooms may develop at outer sides of ring areas.	See ANR-372.

<u>Plant</u>	<u>Disease</u>	<u>Description</u>	<u>Control</u>
	Nematodes, Stunt, Ring & Sheath	Plants grow poorly, yellow, dieback.	See ANR-523.
	Pythium Root Rot	Plants yellow and dieback. Infected areas may appear wet, water-soaked. In wet conditions, a white fluffy mold may develop.	See ANR-594.
Bermuda	Brown Patch ( <i>Rhizoctonia</i> )	Foliage Blight.	See AL Pest Management Handbook.
	Dollar Spot ( <i>Sclerotinia</i> )	Irregularly shaped bleached patches of grass; white spots with dark borders on grass blades.	Collect grass clippings; Fungicides.
	“Helminthosporium” Leaf Spot & Bipolaris Leaf Spot & Exserohilum Leaf Spots & Drechslera Leaf Spots	Leaf lesions are irregularly shaped and brownish-green. Old lesions become tan or white with dark brown borders.	Sanitation; fungicide treatments.
	Pythium Blight	Foliage develops brown, wet-looking blotches; necrosis.	See ANR-594 and the AL Pest Management Handbook.
	Root-Knot Nematode ( <i>Meloidogyne</i> )	Plant grows poorly.	Culture practices to eliminate root stress. Plant nematode resistant crops; solarization. See AL Pest Management Handbook if golf course or commercial situation.
	Ring Nematode ( <i>Criconemoides</i> )	Plants grow poorly. Yellowing, dead patches may develop in	See AL Pest Management Handbook for commercial or golf

<u>Plant</u>	<u>Disease</u>	<u>Description</u>	<u>Control</u>
		scattered areas.	course situation.
	Rust ( <i>Puccinia</i> )	Leaves become reddish-orange and eventually die.	See ANR-621 or the AL Pest Management Handbook.
	Slime Mold	Black, powdery masses of sporangia.	Conditions dry out.
	Spring Dead Spot ( <i>Gaeumannomyces</i> )	Dead areas in spring.	See AL Pest Management Handbook.
	Sting Nematode ( <i>Belonolaimus</i> )	Plants grow poorly. Yellowing dead patches may develop in scattered areas.	See AL Pest Management Handbook for commercial or golf course situation.
	Take-All Patch ( <i>Gaeumannomyces</i> )	Patchy areas thin out with individual plants becoming yellow and then dieback follows.	See ANR-823.
Blackberry	Orange Rust ( <i>Gymnoconia nitens</i> )	Stunted plants; orange pustules develop on lower leaf surfaces.	Removal of plants.
	Cane Blight ( <i>Leptosphaeria</i> )	Dark red or purple cankers develop around wounds. Old lesions become gray.	Sanitation. Pruning.
	Rosette ( <i>Cercospora</i> )	Shoot proliferation or witches brooms develop. Blossoms become distorted and look double.	Sanitation. See the AL Pest Management Handbook.
Blueberry	Anthracoze	Circular-oval light brown leaf spots.	See the Southeast Regional Integrated Management Guide.
	Botryosphaeria Canker	Sunken, cracked, lesions on branches.	Sanitation.

<u>Plant</u>	<u>Disease</u>	<u>Description</u>	<u>Control</u>
	Crown Gall	Large, wood gall near soil line of trunk.	Sanitation. Crop rotation. Check with Ed Sikora.
	Powdery Mildew	White dusting on leaf surfaces; necrosis develops later.	See the Southeast Regional Integrated Management Guide.
	Xylella Scorch	Plants dieback; some leaf edge scorch may be present.	Remove plants.
Blueberry, Austin, Rabbiteye and High Bush	Phytophthora Root Rot	Dieback of foliage; root decay as a wet rot initially.	Remove damaged plants. Reduce water levels.
Bougainvillea	Anthrachnose ( <i>Colletotrichum</i> )	Light brown, circular leaf spots.	Sanitation. Protective sprays of Cleary's 3336 or Halt may be applied.
Boxwood	Macrophoma Leaf Spot	Brown leaf spots with small black specks in spots. This fungus often develops on weakened plants.	Sanitation of fallen leaves; remove stress situations; Cleary's 3336 may be applied as a protective treatment if desired.
	Phomopsis Leaf Blight	Brown, leaf blotches & brown leaves.	Sanitation; alleviate stresses; Cleary's 3336, if desired as a protective treatment.
	Phytophthora Root Rot	Root decay which appears water-soaked and brown. Plants develop yellowing that begins with older growth. Dieback also occurs.	Reduce water levels in the area. Remove damage plants. See ANR-571 and the AL Pest Management Handbook.
	Pythium Root Rot	Feeder roots decay when conditions are kept continually wet.	Reduce water levels in the area. Remove damaged plants. See AL

<u>Plant</u>	<u>Disease</u>	<u>Description</u>	<u>Control</u>
		Plants develop yellowing that begins with older growth. Dieback also occurs.	Pest Management Handbook.
	Volutella Blight	Leaves and branches dieback from canker lesions on branches; orange masses of spores may be present on cankers.	Sanitation; alleviate stresses; Cleary's 3336, if desired as a protective treatment.
Calla Lilly	Southern Blight ( <i>Sclerotium</i> )	Crown rot, white mold.	Sanitation. Solarization or deep turn soil may help. See A. Hagan.
Camellia	Anthrachnose ( <i>Colletotrichum</i> )	Circular-irregular leaf spots.	Sanitation of fallen leaves. See the AL Pest Management Handbook.
	<i>Phytophthora nicotiana</i> Leaf Spot	Brown leaf spots and blotches.	Sanitation. See the AL Pest Management Handbook.
Camellia	<i>Sclerotium rolfsii</i> Crown Rot	Dieback. Decay of lower trunk at the soil level. A white mold with small, round white-brown-black sclerotia may develop.	Sanitation. Deep turn soil. See the AL Pest Management Handbook.
Cantaloupe	Alternaria Leaf Spot	Circular-oval, sometimes zonate spots.	See the AL Pest Management Handbook.
	Anthrachnose ( <i>Colletotrichum</i> )	Circular brown leaf spots.	See the AL Pest Management Handbook.
	Bacterial Wilt ( <i>Erwinia</i> )	Individual leaves become wilted and die; gradually the whole	Control cucumber beetles.

<u>Plant</u>	<u>Disease</u>	<u>Description</u>	<u>Control</u>
		stem section dies.	
	Cucumber Mosaic Virus	Plants are stunted. New growth is stunted. Leaves show abnormal shape (shoestring) mosaic, and puckering. Symptoms may be mild or severe.	Remove damaged plants. Controlling aphids may help some.
	Fusarium Melon Rot	Melon develops a soft rot; eventually a white fluffy mold develops.	Avoid wounds.
	Fusarium Wilt	Lower leaves yellow and plant gradually wilts from the bottom up.	Rotation or fumigation.
	Papaya Ringspot Virus	See symptoms for CMV.	See CMV control comments.
	Phytophthora Root Rot	Roots become brown and water-soaked.	Ridomil 2E. See Handbook.
	Powdery Mildew	White, powdery layer on upper leaf surface of plants; necrosis follows.	See the AL Pest Management Handbook.
	Watermelon Mosaic Virus	See symptoms for CMV.	See CMV control comments.
Centipede	Brown Patch ( <i>Rhizoctonia</i> )	Irregular or circular patches of grass develop brown blotches on leaf blades or possibly on stolons. Usually a foliage blight.	See AL Pest Management Handbook or ANR-492.
	Dollar Spot ( <i>Sclerotinia</i> )	Small, circular areas the size of a silver dollar become yellowed.	See ANR-493 and the AL Pest Management Handbook.
Cherry, Flowering	Armillaria Root Rot	Dieback; mushrooms	See ANR-907.

<u>Plant</u>	<u>Disease</u>	<u>Description</u>	<u>Control</u>
		may develop.	
Cherry Laurel	Botryosphaeria Dieback	Sunken, cracked lesions on branches.	Sanitation.
	Shot Hole ( <i>Xanthomonas</i> )	Reddish, angular spots develop; centers fall out.	See AL Pest Management Handbook.
Chrysanthemum	Aschocyta Leaf Spot	Buds, flowers, stems develop black rot lesions.	Sanitation. See the AL Pest Management Handbook.
	Bacterial Leaf Spot	Angular, small, black leaf spots.	See AL Pest Management Handbook.
	Fusarium Crown Rot and Wilt	Lower stem becomes brown and dried; plants wilt and die.	Rotate area out of mums for 6-10 years.
	Phoma Leaf Spot/Blight	Brown spots/blotches.	Sanitation. Cleary's 3336 of Halt may help.
	Phytophthora & Pythium Root Rot	Roots become brown with water-soaked decay.	See AL Pest Management Handbook.
	Pythium Stem Rot	Dark brown soft stem rot.	Sanitation. See the AL Pest Management Handbook.
Cloeme	Rhizoctonia Root Rot	Roots develop a brown, dried decay. Foliage wilts, yellows and dies back.	Sanitation; crop rotation; deep turn soil.
Collard	Alternaria Leaf Spot	Round or oval brown spots.	Sanitation. See the AL Pest Management Handbook.
	Black Rot ( <i>Xanthomonas campestris</i> )	Black v-shaped lesions start at leaf edges. Stem becomes black & wet rotted.	See ANR-859. See AL Pest Management Handbook.

<u>Plant</u>	<u>Disease</u>	<u>Description</u>	<u>Control</u>
Cone Flower	Aster Yellow	Green blooms; stunting; deformity.	Sanitation.
Coreopsis	Bacterial Leaf Spot	Angular, black, water-soaked leaf spots.	Sanitation. Do not water overhead.
Corn	Aspergillus Ear Rot	Brown, decay of kernels. Yellow-green spore masses may be present.	Avoid stress. Maintain soil moisture.
	Bacterial Stalk Rot ( <i>Erwinia</i> )	Brown, wet, often foul-smelling areas on stalk.	Maintain balanced fertility; avoid drought stresses early in the growing season.
	Charcoal Rot ( <i>Macrophomina phaseolina</i> )	A dry decay of lower stalks. Inner tissues of lower stalks are gray from the presence of masses of tiny black fungal sclerotia.	Usually this is not a severe problem; hot and dry conditions favor disease; some hybrids show resistance.
	Common Rust ( <i>Puccinia sorghi</i> )	Yellow-orange brown-black dusty pustules scattered over upper and lower leaf surfaces. When disease is severe, leaves yellow and turn brown.	Resistant hybrids.
	Downy Mildew ( <i>Scleroththora macrospora</i> )	Yellow streaks in leaves; crazy top.	Rotation.
	Fusarium Ear Rot	A brown, dry rot of kernels. A pink coloration from spore masses may help.	Sanitation; avoid stress.
	Gray Leaf Spot ( <i>Cercospora</i> )	Gray-colored, elongated leaf spots.	Resistant varieties.

<u>Plant</u>	<u>Disease</u>	<u>Description</u>	<u>Control</u>
	Northern Corn Leaf Blight	Large brown lesions range in size from 2-20 cm.	See the AL Pest Management Handbook.
	Smut ( <i>Ustilago</i> )	A thin, white layer of plant-tissue covers a ball of black, greasy or powdery spores. Abnormal balls (smut balls) (4-5 inches diameter) occur on ears, tassels and nodes.	Resistant varieties; maintain balanced fertility; avoid wounds; destroy galls before they break open.
	Southern Corn Leaf Blight ( <i>Bipolaris maydis</i> )	Small, brown, elongated leaf spots; spots may coalesce to cause a blight.	See Austin Hagan.
	Southern Rust ( <i>Puccinia polysora</i> )	Yellow-golden and light brown pustules are scattered mostly over the upper leaf surfaces. Infected leaves turn yellow and dry out.	Resistant hybrids.
Cotton	Alternaria Leaf Spot	Light or medium brown, irregular-shaped leaf spots develop.	Disease usually not severe enough to require control measures; sanitation.
	Fusarium Root Rot	Lower stems show a brown or red-brown discoloration and decay. Plants wilt and dieback.	Refer to Ed Sikora.
	Phoma, Phomopsis Leaf Spot	Brown, circular-irregular leaf spots.	Refer to Bill Gazaway.
	Pythium Root Rot	Plants collapse. Roots become slightly brown and wet rotted.	See AL Pest Management Handbook.

<u>Plant</u>	<u>Disease</u>	<u>Description</u>	<u>Control</u>
	Reniform Nematode	Poor plant growth, wilts, poor root development.	See the AL Pest Management Handbook.
	Root-Knot Nematode ( <i>Meloidogyne</i> )	Roots develop small-large irregular galls. Plants are stressed.	Refer to Ed Sikora.
Crabapple	Cedar-Apple Rust ( <i>Gymnosporangium</i> )	Large (3-5 mm), bright yellow spots; on underside of leaf spots, orange pustules may be present.	See AL Pesticide Handbook.
	Cedar Quince Rust ( <i>Gymnosporangium claviceps</i> )	Fruit develops white-orange cluster (aecial) cups.	Sanitation. See the AL Pest Management Handbook.
	Fireblight ( <i>Erwinia amylovora</i> )	Rapid dieback.	See ANR-542.
Crape Myrtle	Cercospora Leaf Spot	Red-brown colored, circular leaf spots.	Sanitation; See AL Pest Management Handbook.
	Powdery Mildew	White, powdery coating on upper leaf surfaces mostly; new growth may become distorted; leaf necrosis will follow.	Sanitation; See AL Pest Management Handbook.
Cucumber	Anthrachnose ( <i>Colletotrichum</i> )	Round or irregularly round brown leaf spots.	See the AL Pest Management Handbook.
	Bacterial Wilt ( <i>Erwinia</i> )	Leaf and petiole wilting and eventual death.	Control the cucumber beetle.
	Cercospora Leaf Spot	Irregular, light-brown spots.	See AL Pest Management Handbook.
	Mosaic Viruses	Mosaic pattern of alternating green and	Control aphids; Do not save seed; control

<u>Plant</u>	<u>Disease</u>	<u>Description</u>	<u>Control</u>
		yellow patches on foliage and fruit. Reduced growth.	weeds.
	Powdery Mildew	White, powdery dusting on leaves, stems.	See AL Pest Management Handbook.
Cypress, Arizona	Kabatina Blight	Inner needles turn brown and drop.	---
Daylily	Anthrachnose ( <i>Colletotrichum</i> )	Irregular brown blotches that occur throughout leaf area.	Sanitation; Cleary's 3336 would give protective disease control.
	Kabatiella Streak	Yellow spots and streaks.	Sanitation. Cleary's 3336 will provide some protective disease control.
	Pythium & Phytophthora Crown Rot	Crowns become wet, brown, and water-soaked.	Sanitation. Protective treatments of Subdue may be applied.
	Rust ( <i>Puccinia hemerocallidis</i> )	Reddish brown leaf spots. When severe, entire leaves become blighted.	Sanitation. Protective sprays of Heritage, Banner Maxx or Fertilome System Fungicide.
	Rhizoctonia Crown Rot	Crowns become dried, brown, decayed.	Sanitation. Cleary's 3336 may help give protective disease control.
	Southern Blight ( <i>Sclerotium rolfsii</i> )	Crown rot; white mold at crown.	Sanitation; rotation to turf; solarization. See A. Hagan.
Delphinium	Fusarium Root Rot	Roots become brown and dried.	Crop rotate away from Delphineum, Zinnia.
Dithanus	Fusarium Crown & Root Rot	Roots become brown and dry rotted.	Sanitation. Crop rotation or deep turn

<u>Plant</u>	<u>Disease</u>	<u>Description</u>	<u>Control</u>
			soil.
	Phytophthora Crown & Root Rot	Crowns and roots become dark brown and wet rotted. Plants collapse.	Sanitation. Correct water problem.
	Pythium Root Rot	Roots become brown with water-soaked decay.	Keep area well drained.
Dogwood	Botrytis Leaf Spot/Blight	Brown-gray leaf spots/blotches.	Cleary's, Domain.
	Cercospora & Septoria Leaf Spots	Round-angular, brown spots (2-4 mm).	Sanitation; See AL Pest Management Handbook.
	Powdery Mildew	White powdery coating on leaves, both upper and lower leaf surfaces.	Sanitation of leaves in the fall. Cleary's 3336 sprays may be applied as protective sprays if trees are small.
	Pythium/Phytophthora Root Rot	Root infection begins as water-soaked root decay. Dead roots dry out.	Sanitation. See the AL Pest Management Handbook.
	Septoria Leaf Spot	Brown, small, angular spots.	Sanitation. See the AL Pest Management Handbook.
	Spot Anthracnose ( <i>Elsinoe</i> )	Tiny red spots on bracts & leaves.	See AL Pest Management Handbook.
	Powdery Mildew	White powdery coating on leaves, both upper and lower leaf surfaces. Yellowing and blight follows. New growth may be distorted.	Sanitation of leaves in the fall. Cleary's 3336 sprays may be applied as protective sprays if trees are small.

<u>Plant</u>	<u>Disease</u>	<u>Description</u>	<u>Control</u>
Fatsia	<i>Sclerotium rolfsii</i> Crown Rot	Plant wilt and collapse. Decay of the lower stems with the appearance of a white mold at the soil level when conditions are wet and hot. Small, round, mustard seed sized white-brown-black sclerotia may develop.	Sanitation. Deep turn soil or soil removal if practical. Solarization will help.
Fern	Pythium Root Rot	Brown, water-soaked roots.	See Pest Management Handbook.
Fescue	Anthracnose ( <i>Colletotrichum</i> )	Brown spotting of leaves.	Sanitation. Do not water in the evening. See the AL Pest Management Handbook.
	Brown Patch ( <i>Rhizoctonia</i> )	Brown blight of foliage.	See AL Pest Management Handbook.
Fig	Dollar Spot Limb Blight ( <i>Corticium salmonicolor</i> )	See Centipede. A pink-white mold develops on branches; dieback.	See Centipede. Sanitation.
	Rhizoctonia Blight	Large necrotic blotches on leaves.	Sanitation.
Florida Jessamine	Botryodiplodia Dieback	Elongated, sunken cankers cause dieback. Canker edges are often cracked.	Prune out cankers. Make cuts 4-5 inches from edges of damage.
Gardenia	Phytophthora Root Rot	Roots become wet, brown, and rotted. Dieback begins with lower foliage usually.	Sanitation. Reduce irrigation. See AL Pest Management Handbook.
Geranium	Botrytis Blight	Blossoms become gray-	Sanitation; See the AL

<u>Plant</u>	<u>Disease</u>	<u>Description</u>	<u>Control</u>
		brown and limp.	Pest Management Handbook.
	Phytophthora Root Rot	Roots become brown, water-soaked.	See AL Pest Management Handbook.
	<i>Xanthomonas campestris</i> pv. <i>pelargonii</i>	Leaves develop black spots. Stems develop black rot areas. The bacterial infection will become systemic and eventually plants will wilt.	Sanitation.
Gourd	<i>Alternaria</i> sp. Leaf Spot	Dark gray circular-oval leaf spots.	Sanitation. Check with Ed Sikora.
Grape	Black Rot ( <i>Guignardia</i> )	Medium-dark brown circular spots with darker brown borders on leaves and fruit.	Protective fungicide sprays; Sanitation.
	Downy Mildew	Angular yellow spots that become dark brown.	See the Southeast Regional Integrated Management Guide for Grape.
Hawthorn	Cedar-Hawthorn Rust ( <i>Gymnosporangium</i> )	Bright yellow spots on leaves and fruit of apple, crabapple, hawthorne. Aecial orange cups develop in spots (Cedars develop cankers.)	See ANR-468.
Hawthorn, Indian	Entomosporium Leaf Spot	Red, black circular leaf spots.	See the AL Pest Management Handbook.
Hibiscus	Fusarium Stem/Root Rot	Dark brown, dry stem decay lesion.	Sanitation. Protective treatment spray of Cleary's 3336.
Holly	Phytophthora Root Rot	Dieback. Roots become	See the AL Pest

<u>Plant</u>	<u>Disease</u>	<u>Description</u>	<u>Control</u>
		brown and wet rotted.	Management Handbook.
Holly, Foster	Botryosphaeria Canker	Sunken, cracked lesions; dieback often results.	Sanitation. Avoid stress.
Holly, Helli	Pythium Root Rot	Feeder roots develop a wet, light brown rot.	See AL Pest Management Handbook. Keep area well drained.
	Thielaviopsis Root Rot	Roots show black lesions and often black root tips. Plants grow poorly.	---
Hollyhock	Rust ( <i>Puccinia malvacearum</i> )	Yellow leaf spots; on lower leaf surface, reddish swollen rust spore masses develop.	Sanitation.
Hosta	Pythium Root Rot	Roots become light brown and wet-rotted; pull apart easily.	Sanitation. Reduce water levels in the area; crop rotation; deep turning soil will help.
	Southern Blight ( <i>Sclerotium rolfsii</i> )	Crown rot; white mold at soil level.	Sanitation. See the AL Pest Management Handbook.
Hydrangea	Anthraco	Light brown leaf spots/blotches.	Sanitation. See the AL Pest Management Handbook.
	Armillaria Root Rot	Dieback; a thin white mycelia layer is under the bark; black thread-like rhizomorphs above & below bark; honey colored mushrooms.	Remove damaged plant and remove all roots.
	Bacterial Leaf Spot	Dark, angular leaf spots.	Sanitation.
	Cercospora Leaf Spot	Irregular brown lesions	Sanitation; Cleary's

<u>Plant</u>	<u>Disease</u>	<u>Description</u>	<u>Control</u>
		of variable sizes develop on leaves.	3336 or Domain protective sprays.
	Corynespora Leaf Spot	Oval light brown spots often with a target pattern.	Sanitation.
	Fusarium Wilt	Lower foliage wilts and yellows. Yellowing and dieback progresses up the plant. Vascular browning is present.	Sanitation. Long crop rotation. Resistant varieties.
	Phytophthora Crown Rot	Dieback, wilt. Roots become brown and wet rotted.	Sanitation. Deep turn or soil removal, if practical. See AL Pest Management Handbook.
	Powdery Mildew	White dusting on leaf surfaces; areas become necrotic.	See the AL Pest Management Handbook.
	Pythium Crown & Root Rot	Feeder roots become light brown and soft-rotted.	See AL Pest Management Handbook. Improve soil drainage.
Hydrangea, Oak Leaf	Alternaria Flower Blight	Dark gray leaf spots, circular or angular.	Sanitation.
Impatiens	Impatiens Necrotic Spot Virus	New growth is dwarfed and stunted; foliage may show yellowing spots/ pattern or black spots/ patterns.	Sanitation; Thrips control with insecticides.
	Phytophthora Crown & Root Rot	Medium brown, wet, soft rot of lower stem and roots.	Sanitation; See AL Pest Management Handbook.

<u>Plant</u>	<u>Disease</u>	<u>Description</u>	<u>Control</u>
	Pythium Root Rot	Medium brown, wet, soft rot of lower stem and roots.	Sanitation; See AL Pest Management Handbook.
	Rhizoctonia Crown Rot	Dark brown, dried crown/rot.	Sanitation. See the AL Pest Management Handbook.
Ivy, Algerian	Phytophthora Root Rot	Roots become brown and wet-rotted; tissues pull apart easily.	Sanitation. Reduce water levels in the area; crop rotation; deep turn soil may help.
Ivy, English	Alternaria Leaf Spot	Large, brown-black, sometimes zonate, circular-oval spots (3-5 mm diameter).	See AL Pesticide Handbook.
	Anthraco nose ( <i>Colletotrichum</i> )	Circular or roughly circular, brown leaf spots.	Sanitation. See the AL Pest Management Handbook.
	Bacterial Leaf Spot	Angular, black, water-soaked spots (2-3 mm diameter).	Sanitation; See AL Pest Management Handbook.
	Phyllosticta Leaf Spot	Brown, Circular to oval leaf spots.	See recommendations for Alternaria.
	Phytophthora Root Rot	Brown, water-soaked root decay.	Sanitation. See AL Pest Management Handbook.
Juniper	Pestalotia Blight	Needles become brown.	Sanitation. Locate and correct stress condition.
	Phytophthora Root Rot	Roots become brown, soft, and water-soaked.	Sanitation; See the AL Pest Management Handbook.
	Twig Blight ( <i>Phomopsis</i> )	Brown twig tips; small cankers at base of small twigs.	Sanitation; Cleary's 3336, Domain, or a benomyl fungicide

<u>Plant</u>	<u>Disease</u>	<u>Description</u>	<u>Control</u>
			labeled for ornamentals.
Juniper, Shore	Pestalotia Tip Blight	Branch tips dieback.	See the AL Pest Management Handbook. Remove stress.
	Phomopsis Tip Blight	Tips of branches dieback.	See the AL Pest Management Handbook.
	Phytophthora Root Rot	Roots develop a brown, wet decay.	See AL Pest Management Handbook. Improve soil drainage.
	Pythium Root Rot	Small roots become water-soaked and decayed. Infected roots may be only slightly brown.	See AL Pest Management Handbook. Improve soil drainage.
Kudzu	Cercospora Leaf Spot	Brown, irregular leaf spots.	---
Leyland Cypress	Cercospora Blight	Needles (usually lower limbs affected first) become brown.	Sanitation. See the AL Pest Management Handbook.
	Pestalotia Tip Blight	Tips of branches turn brown. Discoloration progresses from the tip.	Maintain healthy trees.
	Phomopsis Tip Blight	Tips of branches dieback.	See A. Hagan.
	Seiridium Canker	Sunken branch lesions with resinosis.	Pruning.
	Sphaeropsis Dieback	Sunken cankers develop. Dieback of branch occurs from tip	Pruning.

<u>Plant</u>	<u>Disease</u>	<u>Description</u>	<u>Control</u>
		to the canker.	
Ligustrum	Botryosphaeria Canker	Elongated sunken lesions. Edges may be cracked.	Pruning.
	Colletotrichum Leaf Spot	Medium brown circular-irregular leaf spots.	Sanitation. See AL Pest Management Handbook.
	Phomopsis Canker	Small branches may develop (usually) small lesions.	Pruning.
Lilac	Phytophthora Root Rot	Roots become brown and water-soaked.	Subdue 2E may be used as a protective treatment. First test a few plants to be sure phytotoxicity is not a problem.
Liriope	Colletotrichum Leaf Spot	Brown, circular-irregular leaf spots (2-10 mm diameter). When spots coalesce, a large portion of leaf may turn brown and die. Often leaf tips are affected.	Sanitation; Cleary's 3336, Domain, or a benomyl fungicide labeled for ornamentals.
	Fusarium Crown & Root Rot	Dieback; roots & crown become brown & dry rotted.	Sanitation.
	Pythium Root Rot	Foliage dieback; roots become light brown and water-soaked.	Sanitation; reduce irrigation.
	Rhizoctonia Crown Rot	Lower stems become dry rotted and brown.	Sanitation. Cleary's 3336 may be applied as a protective spray treatment.
	Root-Knot Nematode	Plants grow poorly.	Leaves soil fallow for a

<u>Plant</u>	<u>Disease</u>	<u>Description</u>	<u>Control</u>
	( <i>Meloidogyne</i> )	Roots exhibit irregularly-shaped galls.	few years; plant nematode-resistant plants or solarize area (ANR-713).
Magnolia, Japanese	Bacterial Leaf Spot	Brown, irregular leaf spots with water-soaked margins.	Strict sanitation.
	Hypoxylon Canker	Circular or elongated areas on trunk/branches where bark falls off and gray or black fungal growth (stroma) develops in a hard thick layer; dieback eventually develops.	Prune out the infected area. Make cut 5 inches beyond the damage.
	Powdery Mildew	White powdery dusting on twigs and upper surfaces of leaves; infected areas die.	Cleary's 3336 would provide protective control.
Maple	Anthracoze ( <i>Kabatella</i> )	Large, light-brown irregular spots and blotches may kill whole leaves; spots often follow leaf veins.	Sanitation; fungicide sprays.
	Botryosphaeria Canker	Sunken lesions on branches/trunk; cracking at lesion edges may occur.	Sanitation.
	Ganoderma Wood/Root Rot	Dieback; brown wood rot.	Sanitation.
	Phyllosticta Leaf Spot	Spots are circular-irregular, and have brown centers with purple margins ( $\frac{1}{8}$ "- $\frac{1}{2}$ " diameter).	Sanitation; fungicide sprays.
Maple, Japanese	Anthracoze	Brown, circular or	Sanitation of leaves in

<u>Plant</u>	<u>Disease</u>	<u>Description</u>	<u>Control</u>
		roughly circular leaf spots; some irregular blotches that may expand along leaf veins.	the fall.
	Phyllosticta Leaf Spot	Circular, light brown leaf spots.	Sanitation of fallen leaves. See the AL Pest Management Handbook.
	Phomopsis Dieback	Usually small, sunken, oval cankers on branches, twigs.	Prune out cankers. Make cuts about 4 inches beyond the edge of cankers.
Marigold	Botrytis Blight	Flowers & leaves develop brown or gray spots/blotches.	Sanitation. Increased air circulation. Cleary's 3336 protective sprays.
	Phytophthora & Pythium Root Rot	Roots become brown with a wet rot.	See AL Pest Management Handbook.
Mint	Colletotrichum Leaf Spot	Brown circular leaf spots.	Sanitation.
Mondo Grass	Anthracoze ( <i>Colletotrichum</i> )	Brown irregular lesions on leaves.	Sanitation. See AL Pest Management Handbook.
	Pythium Root Rot	Foliage dieback; roots become light brown and rotted.	Sanitation. Reduce irrigation.
	Web Blight ( <i>Rhizoctonia</i> )	Brown blotches and spots develop; when conditions are humid, a light brown webbing will occur.	Sanitation. Cleary's 3336 or Halt will provide protective disease control.
Morningglory	Rust ( <i>Puccinia</i> )	Orange powdery patches on leaf surfaces; infected areas die.	Sanitation.
	White Rot ( <i>Albugo</i> )	White raised patches	Sanitation; reduce

<u>Plant</u>	<u>Disease</u>	<u>Description</u>	<u>Control</u>
		form on leaves; infected areas die.	irrigation.
Mulberry, Weeping	Cylindrosporium Leaf Spot	Small reddish brown angular spots.	Sanitation.
Muscadine	Black Rot ( <i>Guignardia</i> )	Reddish-brown irregular leaf spots with tiny black specks often scattered over surface of spots.	Protective fungicide sprays. See the AL Pest Management Handbook.
Nandina	Virus	Leaves develop red discoloration and/or dark red spots and/or a red and/or yellow mosaic develops.	Sanitation.
Nectarine	Botryosphaeria Dieback	Sunken, elongated cankers with cracked edges.	Prune out cankers making cut 4-5 inches from damage.
Oak	Anthrachnose ( <i>Apiognomonina</i> )	Brown blotches often along leaf veins or leaf edges.	Sanitation; See AL Pest Management Handbook for small oak trees.
	Hypoxylon Canker	Areas on trunk will develop a gray or black hard layer just under the bark; bark will become cracked and fall off.	Sanitation.
	Monochaetia Leaf Spot	White, rough-surfaced irregular leaf spots.	Sanitation of leaves in the fall.
	Oak Leaf Blister ( <i>Taphrina</i> )	Round, slightly, convex-concave light brown leaf spots (4-5 mm diameter).	Sanitation; See AL Pest Management Handbook.
	Phyllosticta Leaf Spot	Circular, brown spots (2-	Sanitation.

<u>Plant</u>	<u>Disease</u>	<u>Description</u>	<u>Control</u>
		4 mm diameter).	
	Powdery Mildew	Leaves and young twigs develop white coating on surfaces. Leaves and twigs may be deformed. Some yellowing and dieback may result. Not usually a serious problem.	Sanitation of leaves in the fall. Protective sprays of Cleary's 3336 may be used.
	Slime Flux	A foul smelling ooze runs down trunk surface. Initially, infection of fungi, bacteria, and yeast develops in wound area.	Sanitation of infection area when it is still localized.
Oak, Blackjack	Hypoxyton Canker	Gray or black hard fungal plate-like body develops under bark which eventually falls off.	Sanitation. Eventual tree removal.
Okra	Alternaria Leaf Spot	Gray leaf spots, large and small; a zonate pattern may be present.	See the AL Pest Management Handbook.
	Botrytis Fruit Rot	Brown-gray blotches on fruit surface.	Sanitation.
	Choanephora Fruit Rot	A wet rot with tiny black hair like structures.	Sanitation.
	Cucumber Mosaic Virus	Plants become stunted. Leaves may be abnormal in shape (shoestring), puckered, with mosaic.	Remove plants. Control of aphid may help some.
	Fusarium Wilt	Wilting, yellowing, stunting of whole plant;	Rotation away from okra for 6-10 years.

<u>Plant</u>	<u>Disease</u>	<u>Description</u>	<u>Control</u>
		vascular system darkened.	
	Rhizoctonia Seedling Disease	Lower stems and roots develop brown, dry lesions.	Sanitation.
	Root-knot Nematode	Large root swellings; poor foliar development.	Crop rotation.
	Southern Blight ( <i>Sclerotium rolfsii</i> )	Lower stem at soil line become brown-black; a white fungal mat present when conditions hot & humid.	Crop rotation; Solarization; Sanitation.
Palm, Sago	<i>Alternaria alternate</i> Leaf Spot	Gray leaf spots.	Sanitation; Cleary's 3336.
Pampas Grass	Piricularia Leaf Spot	Gray-brown circular leaf spots.	Cleary's 3336.
Pea, Field	Anthrachnose ( <i>Colletotrichum</i> sp.)	Brown-orange spots on leaves, pods.	See the AL Pest Management Handbook.
	Fusarium Crown Rot	Lower stem at soil line develops a brown, dry rot.	Long crop rotation or soil solarization.
	Fusarium Wilt	Lower leaves turn yellow; plants wilt; vascular system discolored in lower stem.	Rotate area out of peas for 6-10 years; or solarization.
	Mosaic Virus; Possibly Black Eye Cowpea Mosaic Virus	Green and yellow spots or blotches in a regular pattern on leaves.	Do not save seed; control weeds and insects. Plant resistant varieties--'Mississippi Cream' or 'Pink Eye Purple Hull BVR'.
	Rhizoctonia Stem Rot	Dark brown or brown-	See AL Pest

<u>Plant</u>	<u>Disease</u>	<u>Description</u>	<u>Control</u>
		red dry lesions develop on lower stems.	Management Handbook.
	Southern Blight ( <i>Sclerotium rolfsii</i> )	Dark brown lesion on stem at the soil surface; coarse white fungal threads at soil line plus white, tan or black, tiny "balls" (½" mm diameter).	Rotation; solarization.
Peach	Brown Rot ( <i>Monilinia</i> )	While blossom blight, twig blight and branch cankers occur earlier in the season, brown spots/ areas on the fruit are noticed in July. Grey-brown tufts of spores develop over the rotted areas.	Sanitation; fungicide sprays.
	Bacterial Leaf Spot ( <i>Xanthomonas</i> )	Brown-black circular spots which fall out leaving shot holes; may be yellowing around spots.	Sanitation; sprays for commercial growers.
	Botryosphaeria Dieback; Gummosis	Elongated, sunken canker with cracked edges.	Sanitation. Make pruning cuts 4-5 inches from the edges of cankers.
	Phomopsis Canker	Dieback. Brown elliptical cankers.	Sanitation.
	Phytophthora Crown/ Root Rot	Trunk at the soil level and roots become decayed with a wet-looking characteristic.	Sanitation.
Peanuts	Aspergillus Crown Rot	A dark brown decay develops at soil line.	---

<u>Plant</u>	<u>Disease</u>	<u>Description</u>	<u>Control</u>
		Sometimes black spore structures are seen as tiny black aerial specks.	
	Cylindrocladium Black Root Rot	Black lesions on lower stems (near soil line) and roots. Orange spore masses may cover lesions.	---
	Early Leaf Spot ( <i>Cercospora</i> )	Dark brown, circular leaf spots (3-4 mm) on upper leaf surfaces.	Regular fungicide spray program.
	Late Leaf Spot ( <i>Cercosporidium</i> )	Black circular leaf spots (3-4 mm) on lower leaf surfaces.	Regular fungicide spray program.
	Phoma Leaf Blotch	Oval brown spots.	---
	Phytophthora Crown Rot	Lower stems become dark and water-soaked, decayed.	Sanitation. Reduce irrigation. Check with A. Hagan.
	Rhizoctonia Stem Rot	Dark brown, sunken, dried lesions on stems.	See the AL Pest Management Handbook.
	Tomato Spotted Wilt Virus	Stunted plants; leaves show ring spot patterns; new leaves small and abnormally shortened internodes.	Control thrips.
	White Mold ( <i>Sclerotium</i> )	White fungal strands with tiny white, tan or black associated ball structures (sclerotia) on stems, pegs or pods.	Fungicide treatment; Rotation.
Pear	Entomosporium Leaf Spot ( <i>Fabraea</i> )	Purple or dark-brown spots (¼" diameter) on leaves and fruit. Cankers on current	Sanitation; Pruning; Regular fungicide treatments.

<u>Plant</u>	<u>Disease</u>	<u>Description</u>	<u>Control</u>
		season growth are purple or black.	
	Fireblight ( <i>Erwinia</i> )	In July, black spots/ areas begin at leaf edges. Gradually black leaf areas enlarge until black discoloration moves into the twig and branch.	Sanitation.
	Juniper-Pear rust ( <i>Gymnosporangium</i> )	Orange aecial 'cups' develop on lower leaf surface of pear. Junipers develop a witches-broom in sections of plant with cankers and orange spore pustules.	Sanitation. Removal of alternate host if possible.
	Nectria Canker	Sunken lesions are usually surrounded by swollen callus tissues.	Sanitation. Cut out the canker, making cuts 3-4 inches beyond the edge of the cankers.
Pecan	Scab ( <i>Cladosporium</i> )	Leaf lesions are dark green-brown-black and sometimes slightly raised. Some leaf deformity may occur. Similar irregular spots develop on nut shucks. Spot coalescence is common.	See the AL Pest Management Handbook.
Peony	Botrytis Blight	Brown blotches and spots develop on leaves and possibly blossoms.	Sanitation. See the AL Pest Management Handbook.
	Cercospora Leaf Spot	Circular brown spots.	Sanitation.
	Foliar Nematode	Angular brown spots.	Sanitation. Crop

<u>Plant</u>	<u>Disease</u>	<u>Description</u>	<u>Control</u>
			rotation.
	<i>Sclerotium rolfsii</i> Crown Rot	Lower stem becomes rotted; if warm and wet, a white mold may appear.	Crop rotation. Deep turn soil. See A. Hagan.
Pepper	Anthracnose ( <i>Colletotrichum</i> )	Translucent sunken spots develop on fruit. Eventually spots may develop tiny black or orange specks.	See AL Pest Management Handbook.
	Bacterial Spot ( <i>Xanthomonas</i> )	Irregular, black, greasy spots (2-5 mm diameter) on leaves and stems; some yellow halos around spots; defoliation.	Bactericide sprays; Sanitation.
	Bacterial Wilt ( <i>Ralstonia</i> )	Rapid wilt and death.	Sanitation. Crop rotation from solanaceous plants.
	Cucumber Mosaic Virus	Plants become stunted. Leaves may show abnormal shape, mosaic, puckering. Disease may be mild or severe.	Sanitation. Control of aphids may help some.
	Fusarium Crown/Root Rot	The lower stem and roots become dried with a brown decay.	Sanitation. Crop rotation or deep plow.
	Pythium Crown/Root Rot	The lower stem and roots become rotted with a wet, brown decay.	Sanitation. Improve soil drainage; decrease irrigation.
	Southern Blight ( <i>Sclerotium rolfsii</i> )	Crown rot; white mold.	Deep plow; rotate to cotton, sorghum, or grass; solarization.
	Tomato Spotted Wilt	Plants showed stunted	Control thrips.

<u>Plant</u>	<u>Disease</u>	<u>Description</u>	<u>Control</u>
	Virus	new growth; a mosaic pattern.	
Periwinkle ( <i>Catharanthus</i> )	Anthracnose ( <i>Colletotrichum</i> )	Brown, sunken cankers on stem sections.	Cleary's 3336, Domain, or WP benomyl; Sanitation.
	Phomopsis Blight	Brown, sunken cankers on stem sections.	Cleary's, Domain or WP benomyl; Sanitation.
	Phytophthora Aerial Blight	Dark brown, black cankers encircle stems and cause wilt and dieback.	Sanitation. See AL Pest Management Handbook.
	Rhizoctonia Aerial Blight/Crown Rot	Lower leaves and lower stem near the soil line become browned and decayed.	See the AL Pest Management Handbook; Sanitation.
Persimmon, Asian	Botryosphaeria Canker	Sunken, cracked lesions on branches and trunks; dieback.	Sanitation.
Petunia	Phytophthora Foliage Blight/Root Rot	Foliage develops spots, blight, & collapse. Roots become dark brown and wet rotted.	Sanitation.
	Pythium Crown & Root Rot	Lower stems and roots become light brown and wet rotted.	Remove damaged plants. Correct water problem.
Pine, Loblolly	Pythium Root Rot	Brown, water-soaked roots.	See AL Pest Management.
Pine, Virginia	Pitch Canker ( <i>Fusarium</i> )	Sunken lesions on branches/trunk with resin flow.	Sanitation.
Plum	Bacterial Scorch Disease ( <i>Xylella fastidiosa</i> )	Leaf edges turn brown; often the browned leaf	Sanitation; tree removal.

<u>Plant</u>	<u>Disease</u>	<u>Description</u>	<u>Control</u>
		edge area is zonate. Trees dieback and eventually die.	
	Black Knot ( <i>Plowrightia morbosum</i> )	Black swollen, elongate galls on branches.	See AL Pest Management Handbook.
Poinsettia	Pythium Root Rot	Roots become soft, brown, & water-soaked.	See the AL Pest Management Handbook.
Privet	Anthracoze	Circular or irregular brown (sometimes large) spots.	See AL Pest Management Handbook.
Privet, Japanese	Cercospora Leaf Spot	Circular or irregular brown (sometimes large) spots.	See AL Pest Management Handbook.
Potato, Irish	Fusarium Dry Rot (Tuber)	Dry, brown rot areas develop in tubers. Often rot areas develop cavities in the tuber containing white mycelium.	Avoid wounding tubers at harvest.
	Erwinia Soft Rot ( <i>Pectobacterium</i> )	Soft, dark irregular areas of rotted, watery, foul-smelling tissue.	Avoid wounds and wet conditions.
Pumpkin	Watermelon Mosaic Virus	Green-yellow mosaic; reduced growth.	Sanitation. Control aphids.
Pyracantha	Southern Blight ( <i>Sclerotium</i> )	See Aster.	Solarization. See A. Hagan.
Rhododendron	Botryosphaeria Canker	Sunken, brown, dried, cracked, elliptical lesions develop on branches.	Sanitation. Protective spray of Cleary's 3336 or Domain.

<u>Plant</u>	<u>Disease</u>	<u>Description</u>	<u>Control</u>
	Exobasidium Leaf Gall	Leaves become swollen and white.	Sanitation before leaves become white.
Raspberry	Botrytis Blossom Blight	Blossoms become brown and limp.	Sanitation. See AL Pest Management Handbook.
Redbud	Anthrachnose	White-light brown leaf spots.	Collect and remove all fallen leaves in the fall.
Rose	Black Spot ( <i>Diplocarpon rosae</i> )	Black circular leaf spots with irregular, feathery edges.	See AL Pest Management Handbook.
	<i>Cercospora rasicola</i> Leaf Spot	Circular brown spots.	See AL Pest Management Handbook for black spot.
	Common Canker ( <i>Coniothyrium</i> )	Brown, irregular lesions on canes.	See control comments for black spot in the AL Pest Management Handbook.
Sage	Phytophthora Crown & Root Rot	Lower trunk and roots become wet rotted and brown. Foliage wilts.	Remove damaged plant. Correct water problem.
Satsuma	Fusarium Crown Rot	A dry brown decay develops at soil line.	Sanitation.
Snapdragon	Phytophthora Root Rot	Roots become brown and water-soaked.	See AL Pest Management Handbook.
Sorghum-Sudan	Exserohilum Leaf Spot	Brown, elongated leaf spot (0.2 cm-1 cm).	---
Soybean	Asian Soybean Rust ( <i>Phakopsora pachyrhizi</i> )	Tiny yellow-brown spots. The lower leaf surface of spots becomes covered with powdery light orange	See Ed Sikora.

<u>Plant</u>	<u>Disease</u>	<u>Description</u>	<u>Control</u>
		spores.	
	Bacterial Leaf Spot ( <i>Pseudomonas</i> )	Small, angular brown-black spots, sometimes with a halo.	---
	Charcoal Rot ( <i>Macrophomina</i> )	Lower stem near soil line becomes weakened and shredded. Split stem has tiny black dots sprinkled throughout.	---
	Cyst Nematode ( <i>Heterodera</i> )	Poor plant growth; small, undeveloped root system; white or yellow or brown spherical bodies (½ mm) on roots.	Rotation; Fumigation; Resistant varieties.
	Downy Mildew ( <i>Peronospora manshurica</i> )	Yellow, angular spots on upper leaf surfaces. Older spots become brown-black. A gray mold may develop on lower leaf surfaces when humidity high.	See the AL Pest Management Handbook.
	Frogeye Leaf Spot ( <i>Cercospora</i> )	Circular-irregular spots (1-5 mm) with dark red borders and gray centers; spot coalescence; leaf drop.	Healthy seed; Rotate 2 years.
	Fusarium Root Rot (Sudden Death Syndrome)	Usually a problem only on small plants. The tap root and lateral root system becomes rotted. Plants wilt and die.	Delay cultivation until soil moisture is adequate. Ridge soil around the base of plants to promote adventitious root development. Rotation.
	Rhizoctonia Stem and Root Rot	Lesions on lower stems and roots may be brown or reddish depending on the fungus isolate and	Use fungicide seed protectants. Provide good soil drainage.

<u>Plant</u>	<u>Disease</u>	<u>Description</u>	<u>Control</u>
	Root-Knot Nematode ( <i>Meloidogyne</i> )	soil conditions. Plants may wither and die. Plants grow poorly, are yellowed and/or stunted. Roots have irregularly-shaped galls.	See Soybean Spray Guide.
	Septoria Leaf Spot	Irregular, dark brown spots (1-4 mm diameter) typically on older leaves; leaves turn yellow & fall.	Plow under crop residue; disease free seed; rotation.
	Sudden Death Syndrome ( <i>Fusarium</i> )	Plants rapidly wilt and collapse; tap root becomes dry rotted.	See Ed Sikora.
Squash, Summer	Anthrachnose	Leaves develop circular white-light brown spots.	See the Southeastern Vegetable Extension Workers Handbook.
	Bacterial Wilt ( <i>Erwinia tracheiphila</i> )	Wilt, dieback.	Control cucumber beetles.
	Fusarium Root Decay and/or Crown Rot	Roots and crowns develop a brown, dry rotting. Plant wilt and dieback.	Sanitation. Crop rotation.
	Mosaic Viruses	See comments on cucumber.	See comments on cucumber.
St. Augustine	Brown Patch ( <i>Rhizoctonia</i> )	Irregular areas or patches become blighted. Individual brown lesions on leaves may be evident.	See ANR-492 & the AL Pest Management 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	Patches or areas	See ANR-823 and the AL

<u>Plant</u>	<u>Disease</u>	<u>Description</u>	<u>Control</u>
	<i>(Gaeumannomyces)</i>	become yellowed and thinned as individual plants develop root/stolon lesions and plant foliage dies back.	Pest Management Handbook.
Strawberry	Common Leaf Spot <i>(Mycosphaerella)</i>	Red-brown round or oval spots on leaves, stems. Spots may have light brown centers.	See AL Pest Management Handbook.
Sweet Potato	Fusarium Wilt	Plant wilts with wilt and yellowing beginning at lower foliage and progressing upward. Vascular tissues under the cortex are brown streaked.	Sanitation; long crop rotations (10-16 yrs.).
	Scurf ( <i>Monilochaetes infuscans</i> )	Raised or sunken scabby, rough lesions on roots.	See AL Pest Management Handbook.
Sycamore	Alternaria Leaf Spot	Irregular brown leaf spots.	Sanitation. Collect and remove all fallen leaves this fall.
	Powdery Mildew	White powdery substance on leaves.	See AL Pest Management Handbook.
	Scorch ( <i>Xylella</i> )	Leaves become brown and dried at the margins.	Tree pruning; tree removal.
Syngonium	Phytophthora Root Rot	Roots become brown with a wet decay.	Improve soil drainage. See AL Pest Management Handbook.
Tomato	<i>Alternaria alternate</i>	Black mold on fruit.	Sanitation.
	Anthracoese Fruit Rot	Medium brown spots	Sanitation. See the AL

<u>Plant</u>	<u>Disease</u>	<u>Description</u>	<u>Control</u>
	(Bitter Rot)	and rot in fruit.	Pest Management.
	Bacterial Canker ( <i>Clavibacter</i> )	Elongate, brown, wet-looking lesions or cankers on stems; center of cankers dry and look white.	Protective sprays; Sanitation.
	Bacterial Canker ( <i>Pseudomonas</i> )	Elongate, dark brown, wet looking lesions or cankers on stems; when stems are cut open with a lengthwise cut, inner tissues are seen to be hollow with tissues arranged in a ladder-like structure.	Protective sprays; Sanitation.
	Bacterial Speck ( <i>Pseudomonas</i> )	Gray spots with black centers, sometimes surrounded by wide borders of yellow or white tissue. Spots on upper leaf surfaces may be raised. Fruit spots are small, dark, slightly raised & scabby spots which may be surrounded by an extensive yellow-white halo.	See Vegetable Spray Guide or AL Pest Management Handbook and ANR-71.
	Bacterial Spot ( <i>Xanthomonas</i> )	Small, black, almost circular or angular spots on leaves, often with no halo development. Fruit spots are small, black, and slightly raised.	See Vegetable Spray Guide or AL Pest Management Handbook and ANR-71.
	Bacterial Wilt ( <i>Ralstonia</i> )	Plants wilt rapidly; foliage green when wilt occurs.	Rotation; solarization of soil.

<u>Plant</u>	<u>Disease</u>	<u>Description</u>	<u>Control</u>
	Buckeye Fruit Rot ( <i>Phytophthora parasitica</i> )	Brown, water-soaked spots with dark zonate rings and an indefinite margin.	Ridomil 2E. See Vegetable Spray Guide.
	Cucumber Mosaic Virus	Leaves show deformity, mosaic, stunted growth.	Sanitation. Control aphids.
	Early Blight ( <i>Alternaria</i> )	Black or brown spots (¼-½ inch diameter) on leaves, stems, fruit. Spots often have a concentric pattern.	Fungicide sprays; Sanitation; See Vegetable Spray Guide.
	Fusarium Wilt	Plant foliage turns yellow and die. Often yellowing begins at lower sections of the plant or on one side of the plant. Gradually the whole plant dies. Vascular system is brown.	Resistant varieties; Rotation.
	Gray Wall	Blotchy ripening.	Avoid excess soil moisture, soil compaction, high nitrogen and low potassium.
	Late Blight ( <i>Phytophthora infestans</i> )	Large spreading brown lesions, cankers.	See AL Pest Management Handbook.
	Pith Necrosis ( <i>Pseudomonas corrugata</i> )	Stems may develop adventitious roots and become hollow inside the stem with scattered horizontal tissue strands present.	Sanitation. Copper combination protective sprays may help. See AL Pest Management Handbook under tomato bacterial spot, speck & canker.
	Root-Knot Nematode ( <i>Meloidogyne</i> )	Knotty galls on roots; plants show poor	Rotation; Fumigation; Solarization.

<u>Plant</u>	<u>Disease</u>	<u>Description</u>	<u>Control</u>
		growth.	
	Septoria Leaf Spot	Gray-brown, circular-irregular leaf spots.	See AL Pest Management Handbook.
	Southern Blight ( <i>Sclerotium</i> )	White fungal mat occurs at soil line; plants die due to death of lower stem.	Solarization; rotation; fumigation, Terraclor. See AL Pest Management Handbook.
	Tobacco Etch Virus	Plants become stunted; leaves develop mosaic and puckering.	Sanitation. Control of aphids may help some.
	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 or with ring spots. Plants wilt and die.	Sanitation; Control thrips.
Verbena	Fusarium Crown Rot	Brown lower stem rot.	Cleary's drenches may help.
Viburnum	<i>Phytophthora nicotiana</i> Leaf Spot	Irregular brown spots & blotches.	Sanitation. Reduce irrigation in the area.
Vinca Minor	Anthracoise ( <i>Colletotrichum</i> )	Brown, irregular spots develop leaves.	Sanitation. Cleary's 3336, Domain or a benomyl product labeled for ornamentals.
	Phyllosticta Leaf Spot	Brown leaf spots with darker brown border.	Cleary's 3336 protective sprays.
	Pythium Root Rot	Roots become brown and water-soaked.	Aliette protective treatments or Subdue

<u>Plant</u>	<u>Disease</u>	<u>Description</u>	<u>Control</u>
			2E. (Test a few plants for phytotoxicity.)
Watermelon	Rhizoctonia Stem Blight	Brown lesions near soil line.	Sanitation; Cleary's 3336 or benomyl protective sprays.
	Cercospora Leaf Spot	Circular-irregular pale brown leaf spots with black margins (2-10 mm diameter).	Sanitation; fungicide sprays.
	Cucumber Mosaic Virus or Watermelon Mosaic Virus	Leaves become mottled green-yellow, distorted, wrinkled with curled edges; abnormally shortened internodes.	Control weeds; Control aphids and cucumber beetles; Do not save seed.
	Downy Mildew ( <i>Pseudoperonospora cubensis</i> )	Angular yellow to dark brown angular spots.	See the Southeastern Vegetable Extension Workers Handbook.
	Fusarium Wilt	Lower leaves turn yellow; whole plant wilts; lower stem vascular system is brown.	Rotate 6-7 years and then plant a resistant variety such as Crimson Sweet or Jubilee.
	Gummy Stem ( <i>Mycosphaerella</i> )	Elongate, brown, wet and sometimes cracked lesions; black leaf spots may develop on leaf edges; plant sections beyond cankers die back.	Protective fungicide sprays; Sanitation in the fall.
	Root-Knot Nematode ( <i>Meloidogyne</i> )	Roots develop irregular swellings (galls) plants are stunted.	Solarization. Fumigation sometimes for commercial plantings.
Willow, Weeping	Botryosphaeria Canker	Branch dieback; elongated sunken branch lesions.	Pruning.

<u>Plant</u>	<u>Disease</u>	<u>Description</u>	<u>Control</u>
Wisteria	Bacterial Leaf Spot	Dark brown, angular spots.	Sanitation. Do not water overhead.
Zinnia	Bacterial Leaf Spot ( <i>Xanthomonas</i> )	Dark brown, angular spots.	Sanitation. Do not water overhead.
	Bacterial Wilt ( <i>Ralstonia</i> )	Plants wilt suddenly and quickly die.	Sanitation. Crop rotation.
	Tomato Spotted Wilt Virus	Leaves show a yellow green mosaic.	Sanitation. Crop rotation.
Zoysia	Bipolaris Leaf Spot	Small, brown, elongated spots which may coalesce to cause large area of blight on leaves.	Sanitation. See the AL Pest Management Handbook.
	Brown Patch ( <i>Rhizoctonia</i> )	Irregular areas or patches become blighted. Individual brown lesions on leaves may be evident.	See ANR-492 & the AL Pest Management Handbook.
	Curvularia Blight	Associated with high temperatures and drought and possible other stresses.	See comments for Helminthosporium leaf spot diseases.
	Dollar Spot ( <i>Sclerotinia</i> )	Bleached-out, silver-dollar-sized spots in lawn; spots may merge. Individual grass blade show whitish spots, blotches with dark brown borders.	See AL Pest Management Handbook.
	Fairy Ring	Yellow and later brown areas develop in a ring like pattern. Mushrooms may develop in the fall at the outer edges of the rings.	See ANR-372 and the AL Pest Management Handbook.
	Helminthosporium Leaf	Small, elongated brown	See AL Pest

<u>Plant</u>	<u>Disease</u>	<u>Description</u>	<u>Control</u>
	Spot	spots on leaf blades. Numerous spots cause leaf blight.	Management Handbook.
	Ring Nematode ( <i>Criconeoides</i> )	Yellow-dead patches scattered in lawn.	See AL Pest Management Handbook.
	Rust ( <i>Puccinia zoysia</i> )	Rusty spots on leaves; leaves later dry out and turn brown.	See AL Pest Management Handbook.
	Smut	Seed heads develop masses of black spores.	Keep grass mowed.
	Take-All Patch ( <i>Gaeumannomyces</i> )	Black lesions on roots cause plants to become yellow and dieback.	See ANR-823 and the AL Pest Management Handbook.