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JULY PLANT DISEASES FROM THE AUBURN PLANT DIAGNOSTIC LAB

JULY PLANT DISEASES FROM THE BIRMINGHAM PLANT DIAGNOSTIC LAB

JULY INSECT SAMPLES AT THE AUBURN PLANT DIAGNOSTIC LAB

DISEASE POSSIBILITIES FOR AUGUST & LATE SUMMER

LAB NOTES

Jackie Mullen
Extension Plant Pathology Specialist-Auburn

Jim Jacobi
Extension Plant Pathology Specialist-Birmingham

Charles Ray
Research Fellow IV-Auburn

Auburn Plant Disease Report-July (J. Mullen)

July was hot and dry in most areas of the state. Our number of plant samples submitted was 125, which was lower than normal for July. Tomato spotted wilt virus was a commonly seen problem on tomato and pepper. It was especially common on tomato. Other commonly seen diseases included Phytophthora aerial blight of annual periwinkle and petunia; Rhizoctonia aerial blight of fig and also azalea; cedar apple rust on crabapple and cedar quince rust on quince; and anthracnose leaf spots on a variety of garden and landscape plants. Alternaria and bacterial leaf spots were seen on zinnia. Bacterial wilt was diagnosed on tomato and pepper and southern blight (*Sclerotium rolfsii*) was observed on pepper. We saw one instance of Rhizoctonia lower stem/root rot on cotton.

Tomato spotted wilt virus was a widespread occurrence in July. Symptoms did not always appear as the usual stunting with wilt, leaf spots, leaf upper surface bronzing, ring spots, purple veins, and/or deformity. Some of the tomatoes and peppers exhibited only stunting and some yellowing or mottle and leaf deformity. Disease was confirmed by ELISA testing. Disease control was difficult. Insecticides for thrips control were not effective. Purchase of TSWV resistant varieties was an option. But, this year there have been reports of some loss of resistance in the reportedly resistant varieties. (See information from Ed Sikora and Joe Kemble earlier this summer.)

Phytophthora aerial blight on annual periwinkle and petunia developed as large, brown, water-soaked lesions on leaves and stems. Dieback usually develops when stem lesions are present. Sanitation of damaged plants and a reduced irrigation schedule are usually control methods used in most landscape situations. See the AL Pest Management Handbook for disease control in commercial settings.

Rhizoctonia aerial blight on fig and azalea usually appear as a blight of lower and inner foliage. Leaf spots and branch cankers develop. Leaf drop occurs. Some moisture and/or humidity is needed for disease to spread. Sanitation of blight areas is needed. See the AL Pest Management Handbook for fungicides labeled for Rhizoctonia control on azalea in commercial settings.

Cedar apple rust (CAR) on crabapple and cedar quince rust (CQR) on quince, hawthorn and crabapple was seen in July. The CAR was evident as bright yellow, diffuse leaf spots on crabapple. The cream colored aecial cups were evident on lower leaf surface spot areas. With CQR, yellow spotting was not present, but long cream-colored aecial tendrils developed to cover infected fruit. Orange aecial spores may have been seen as powdery masses on the surfaces of aecial cups and aecial tendrils. The aecial spores of CAR and CQR are carried by wind to infect red cedars and some other junipers. CAR-infected junipers develop woody, spherical galls on twigs and branches after 1½ years. Soft, orange spore finger-like projections develop on galls in the spring. CQR-infected junipers develop sunken canker lesions. After 1½ years, orange, wet masses of spores develop on the canker surface. See the AL Pest Management Handbook for control fungicides. Removal of infected near-by junipers will usually help to prevent continued disease on the apple, crabapple, hawthorn, and quince. Since spores are carried by wind, infected junipers a mile away may be able to cause infection of the apple, etc. host plants (alternate hosts).

Anthracnose leaf spot disease (often *Colletotrichum* sp.) was seen on a variety of plants (garden & landscape). Anthracnose may develop as a primary or secondary disease event. I suspect many anthracnose spots developed after plants were previously stressed by drought.

Table 1. July Diseases Seen At The Auburn Plant Diagnostic Lab.

Plant	Disease	County
Apple	Bitter Rot (*Colletotrichum* sp.)	Chiton
Azalea	Phytophthora Crown & Root Rot	*
	Phytophthora Foliage Blight, Crown & Root Rot	*
	Rhizoctonia Aerial Blight (*R. solani*)	*
Beans, Snap	Rhizoctonia Root Rot (*R. solani*)	Bullock
Bermuda	Bipolaris Foliage Blight	Elmore
	Dollar Spot (*Sclerotinia homeocarpa*)	Franklin
	Exserohilum Blight	Calhoun
	Ring Nematode (*Criconemoides* sp.)	Houston
	Sting Nematode (*Belonolaimus* sp.)	Houston
Blueberry, Austin & Rabbiteye	Phytophthora Root Rot	Washington
Blueberry, High Bush	Phytophthora Root Rot	Washington
Boxwood	Colletotrichum Twig Canker	*
	Root Knot Nematode (*Meloidogyne* sp.)	*
	Volutella Twig Canker	*
Camellia	Exobasidium Gall (*E. vaccinii*)	Lee
Centipede	Take-All Patch & Stress (*Gaeumannomyces graminis* var. graminis)	Henry
Chrysanthemum	Fusarium Wilt (*F. oxysporum*)	Talladega
	Slime Mold (*Physarum* sp.)	*

Plant	Disease	County
Citrus	Root Knot Nematode (*Meloidogyne* sp.)	*
Clematis	Anthracnose (*Colletotrichum* sp.)	Franklin
Cotton	Rhizoctonia Crown Rot	Macon
Crabapple	Cedar Quince Rust (*Gymonosporangium clavipes*)	Crenshaw
Daylily	Daylily Rust (*Puccinia hemerocallidis*)	*
Fig	Aerial Blight (*Rhizoctonia solani*)	Mobile, Washington
	Anthracnose (*Colletotrichum*)	Washington
Gourd	Watermelon Mosaic Virus	Morgan
Grape	Black Rot (*Guignardia bidwellii*)	Chilton
Ivy, English	Anthracnose (*Colletotrichum* sp.)	Franklin
Juniper 'Blue Pacific'	*Phytophthora* Root Rot	*
Leucothoe	Anthracnose (*Colletotrichum* sp.)	*
Peach	Botryosphaeria Canker	Chilton
	Brown Rot (*Monilinia fructicola*)	Chilton
	Phomopsis Canker	Chilton
	Scab (*Cladosporium* sp.)	Chilton
Pear 'Olympic'	Botryosphaeria Canker	Madison
	Fireblight (*Erwinia amylovora*)	Chilton, Madison
Pepper, Bell	Anthracnose (*Colletotrichum* sp.)	Mobile
Pepper, Cayenne	Bacterial Wilt (*Ralstonia solanacearum*)	Lee
Pepper	Bacterial Spot (*Xanthomonas axonopodis* pv. vesicatoria)	Lee

Plant	Disease	County
	Fruit Rot (*Alternaria tenuissima*)	Lee
	Southern Blight (*Sclerotium rolfsii*)	Escambia, Lee
	Tomato Spotted Wilt Virus	Lee
Periwinkle	Phytophthora Aerial Blight (*P. nicotiana*)	Lee, Montgomery (2)
Petunia	Phytophthora Aerial Blight	Lee
Peony	Anthracnose (*Colletotrichum* sp.)	Lee
Rose	*Cercospora roseicola*	*
St. Augustine	Gray Leaf Spot (*Piricularia grisea*)	Covington
	Take-All Patch	Marengo, Montgomery
Tangelo	Suspect Citrus Scab (*Elsinoe fawcettii*)	Covington
Trumpet Creeper	Anthracnose (*Colletotrichum* sp.)	Franklin
Tomato	Bacterial Leaf Spot (*Xanthomonas axonopodis* pv. vesicatoria)	Pike
	Bacterial Wilt (*Ralstonia solanacearum*)	Russell
	Tomato Spotted Wilt Virus	Lawrence, Lee, Madison
Vinca Minor	Anthracnose (*Colletotrichum*)	Limestone
Watermelon	Cercospora Leaf Spot	Marengo
Zinnia	Alternaria Leaf Spot	Escambia, Lee
	Bacterial Leaf Spot	Escambia

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

Birmingham Plant Disease Report-July (J. Jacobi)

We received 90 samples for the month. Although most areas received benefit rainfall to provide temporary relief from the drought, August has begun hot and dry with many lawns, shrubs and trees showing the effects of the drought. The rains during July did provide favorable conditions for at least one case of Phytophthora blight on summer squash and our first case of downy mildew on coleus this year.

Phytophthora blight can cause significant damage to summer squash and pumpkins. The squash sample had lesions at the crown line as well the stems and leaves. Plants often collapse quickly after infection and damage can be severe. Examination of foliar lesions revealed lemon-shaped sporangia typical of Phytophthora. See the following web publications for more on this disease.

http://www.plant.uga.edu/Extension/plants/Vegetable/Squash/sqphytop.htm
http://web.aces.uiuc.edu/vista/pdf_pubs/945.pdf

Table 2. 2007 July Problems Seen In The Birmingham Plant Diagnostic Lab.

Plant	Problem	County
Aucuba	Anthracnose	Jefferson
	False Oleander Scale	Jefferson (2)
	Phytophthora Root Rot	Jefferson
Azalea	Azalea Lacebug	Jefferson (3)
	Phomopsis Dieback	Jefferson
Azalea, Native	Botryosphaeria Canker	Jefferson
Barberry	Botryosphaeria Canker	Jefferson
Bentgrass	Anthracnose (*Colletotrichum*)	*
Bermudagrass	Bipolaris Leaf Spot	Jefferson (3)
	Slime Mold (*Physarum*)	Jefferson (2)
Boxwood, Common	Boxwood Leaf Miner	Jefferson
	Volutella Dieback	Jefferson

Plant	Problem	County
Cantaloupe	Alternaria Leaf Spot	Bibb
Chrysanthemum, Hardy	Pythium Root Rot	Cullman
Coleus	Dodder (*Cuscuta*)	Jefferson
	Downy Mildew	Jefferson
Cypress, Leyland	Phomopsis Twig Canker	Shelby
Dracaena	Alternaria Leaf Spot	Jefferson
Euonymus, Japanese	Euonymus Scale	Jefferson (4)
Hydrangea, Oakleaf	Armillaria Root Rot	Jefferson
Ivy, English	Anthracnose	Jefferson
Juniper	Kabatinia Tip Blight	Jefferson
	Spruce Spider Mite	Jefferson
Mahonia, Chinese	Powdery Mildew	Jefferson
Maple, Japanese	Botryosphaeria Canker	Jefferson
Mondograss	Anthracnose (*Colletotrichum*)	Jefferson
Palm	Brown Soft Scale	Jefferson
Pea, Southern	Fusarium Root Rot	Jefferson
Pepper	Blossom End Rot	Shelby
	Tomato Spotted Wilt Virus	Jefferson
Petunia	Phytophthora Root and Stem Rot	Jefferson
Plum, Purpleleaf	Black Knot	Jefferson
Salvia	Phytophthora Crown Rot	Jefferson
Sedum	Slime Mold (*Physarum*)	Jefferson

Plant	Problem	County
Squash, Summer	Phytophthora Blight	Jackson
Squash, Zucchini	Blossom End Rot	Shelby
St. Augustinegrass	Chinch Bugs	Jefferson
	Fairy Ring	Jefferson
	Take-All Root Rot	Jefferson
Tomato	Early Blight (*Alternaria*)	Jefferson
	Root Knot Nematodes	Shelby
	Tomato Spotted Wilt Virus	Jefferson (2)
Watermelon	Alternaria Leaf Spot	Bibb
	Powdery Mildew	Bibb
Willow	Fusarium Canker	Shelby
Zoysiagrass	Curvularia Blight	Jefferson, Shelby

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

Auburn Entomology Report-July (C. Ray)

County	**Host**	**Category**	**Identification**	**Scientific Name**
Jefferson	Home	Household-Miscellaneous	Springtails	Collembola
Hale	Evergreens	Ornamentals	Bagworms	Psychidae
Calhoun	Human	Medical	Lone Star Tick Adult Male	*Amblyomma americanum*
Mobile	Soybeans	Row Crops	Multi-Colored Asian Lady Beetle	*Harmonia axyridis*
Mobile	Soybeans	Row Crops	A Lady Beetle	Coccinellidae

County	Host	Category	Identification	Scientific Name
Not Available	Not Available	Not Available	Margined Plant Bug Nymph	*Largus succinctus*
Mobile	Impatiens	Ornamentals	A Robber Fly	Asilidae
Limestone	Not Available	Not Available	White-Fringed Beetle	*Naupactus* sp.
Houston	Home	Household-Miscellaneous	Insect Mixture	*Tribolium castaneum, Trogoderma inclusa*, et al
Chilton	Home	Household-Miscellaneous	Moth Fly	Psychodidae
Covington	St. Augustine Grass	Turfgrass	Chinch Bugs	*Blissus* sp.
Choctaw	Garden	Row Crops	False Chinch Bug	*Nysius raphanus*
Lee	Lawn	Household-Miscellaneous	A Walking Stick	*Anisoptera* sp.
Franklin	Morning Glory	Miscellaneous	Flat Mite	Tarsonemidae
Chilton	Turnips	Row Crops	False Chinch Bug	*Nysius raphanus*
Marion	Swimming Pool	Household-Miscellaneous	Flower Thrips	*Frankliniella* prob. *Tritici*
Butler	Sweet Potato	Row Crops	Sweet Potato Weevil	*Cylas formicarius*
Marion	Swimming Pool	Household-Miscellaneous	A Predaceous Diving Beetle	Dytiscidae
Covington	Trap	Miscellaneous	Southern Yellow Jacket	*Vespula squamosa*
Calhoun	Various Ornamentals	Ornamentals	Fuller Rose Beetle	*Pantomorus cervinus*
Baldwin	Condo	Stored Products	Lesser Mealworm Beetle	*Alphitobius diaperinus*

County	Host	Category	Identification	Scientific Name
Marengo	Lawn	Household-Miscellaneous	Bordered Plant Bug	*Largus succintus*
Marengo	Lawn	Household-Miscellaneous	White Fringed Beetle	*Naupactus* sp.
Clarke	Home	Household-Miscellaneous	Burrower Bug	Cydnidae
Clarke	Home	Household-Miscellaneous	A Dung Beetle	*Onthophagus gazella*
Clarke	Home	Household-Miscellaneous	A Dung Beetle	*Dichotomius carolinus*
Mobile	Not Available	Not Available	Hieroglyphic Moth	*Diphthera festiva*
Cullman	Home	Household-Miscellaneous	Flying Ants	Formicinae
Cullman	Home	Household-Miscellaneous	An Ant	*Formica integra*
Montgomery	Nuttall Oak	Ornamental	Cicada Oviposition Damage	
Jefferson	African Violets	Ornamental	Yellow Mites	Tydeidae
Calhoun	Green Beans	Row Crops	Spider Mites	Tetranychidae
Calhoun	Tomatoes	Row Crops	Spider Mites	Tetranychidae
Montgomery	Yaupon Holly	Ornamental	Latania Scale	*Hemiberlesia lataniae*
Chambers	"Flowers"	Ornamental	A Bumblebee	*Bombus* Perhaps *pennylvanicus*

Disease Possibilities For August & Late Summer

So far in August, scattered thunderstorms have brought some moisture to very dry situations. Temperatures have been very hot (days 90's to 100+ºF). Many plant problems we

are receiving relate to drought and heat stress. Late summer is typically a time when we see a large increase of fungal leaf spots on foliage of woody ornamentals.

Table 3. Brief Disease Descriptions and Control Recommendations for Diseases Often Seen in August and Late Summer.

Plant	Disease	Description	Control
Ageratum	*Sclerotium rolfsii* Crown Rot	Dieback, wilt, crown rot; a white mold with brown mustard-seed sized sclerotia present.	Sanitation. (Replace some soil.)
Ajuga	*Sclerotium rolfsii* Crown Rot	Stems collapse at soil line; a white mold with brown mustard-seed sized sclerotia present.	Sanitation; Solarization may help; See the AL Pest Management Handbook.
Apple	Bitter Rot on Fruit (*Colletotrichum*)	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. See the AL Pest Management Handbook.
	Black Rot (*Botryosphaeria*)	Fruit: A brown spot on fruit that enlarges and usually becomes black; rotted flesh is firm. Leaf: Brown or yellowish-brown spots (⅛-¼ inch diameter) with purple margins and irregular shape. Canker: Lesions on branches or trunk are slightly sunken, reddish-brown and show concentric rings of cracked bark.	Sanitation; recommend fungicide treatments.
	Fireblight (*Erwinia*)	During mid to late summer, fireblight bacteria are spread during wet conditions by insects and water droplets from blighted twigs and cankers to the edges of young leaves which develop black V-shaped and circular edge spots which slowly spread downward.	Prune affected areas 14 inches beyond damage. (Streptomycin is only recommended for protection of blossom infections.)

Plant	Disease	Description	Control
	Fly Speck (*Microthyriella*)	Tiny black dots occurring in groups on the surface of the apple skin.	Sanitation; see AL Pest Management Handbook or Fruit Spray Guide.
	Sooty Blotch (*Gloeodes*)	Blotches of gray (sooty appearance) on the apple skin; often associated with fly speck.	Sanitation; see AL Pest Management Handbook or Fruit Spray Guide.
	Southern Blight (*Sclerotium rolfsii*)	Sunken, water-soaked canker at base of the trunk; dieback.	Sanitation; solarization; fumigation; deep plowing to displace sclerotia away from root zone.
Arbor-vitae	Phomopsis Canker	Small brown, sunken lesions on small branches.	Sanitation. Cleary's 3336 or Halt.
	Phytophthora Root Rot	Roots show a wet, brown decay.	Sanitation. See AL Pest Management Handbook.
Arugula	Anthracnose	Small, circular white leaf spots.	Sanitation. (See Ed Sikora.)
Aucuba	Botryosphaeria Canker (Blotch) (*Botryodiplodia* sp.)	Black, large, irregular lesions on leaves and stems; dieback beyond cankers.	Sanitation; Cleary's 3336, Domain, or benomyl labeled for ornamentals.
	Helminthosporium Leaf Spot	Brown, elongate leaf lesion.	Sanitation. Cleary's 3336.
Azalea	Botryosphaeria Canker	Sunken stem lesions which often have cracking around lesion edges.	Sanitation. Cleary's 3336 or Halt.
	Phomopsis Dieback	White, powdery or dusty spots; later, spots are necrotic.	Pruning; See the AL Pest Management Handbook.
	Phytophthora nicotiana Aerial Blight	Brown blotches develop on leaves. Brown lesions may develop on small twigs.	Sanitation. See the AL Pest Management Handbook under Phytophthora Shoot Blight.
	Phytophthora Crown/Root Rot	Crowns/roots become brown and wet or water-soaked.	See the AL Pest Management Handbook.
	Powdery Mildew	White dusty spots; later	See the AL Pest

Plant	Disease	Description	Control
		spots are necrotic.	Management Handbook.
Bahia Grass	Dollar Spot (*Sclerotinia*)	White spots/lesions on leaf blades; whole sections of turf - beginning with dollar spot size areas - may become blighted. A problem during dry periods.	Frequent cutting.
Basil	Rhizoctonia Aerial Blight	Blight of foliage, esp., lower foliage.	-----
Beans, Garden	Anthracnose (*Colletotrichum*)	Circular and irregular reddish spots develop on leaves and pods.	See the AL Pest Management Handbook or Vegetable Spray Guide.
	Fusarium Wilt	Plants wilt easily when water is restricted; yellowing of lower leaves spreads up the plant.	Rotate the area away from beans for 10 years or solarization.
	Root-Knot Nematode (*Meloidogyne*)	Plants are yellowed and stunted. Roots are galled.	Homeowners should use pre-plant treatment of solarization or crop rotation.
Beans, Butter	Anthracnose (*Colletotrichum*)	Reddish brown spots on leaves and pods. Orange spore masses may develop on spot surfaces.	Sanitation. See the AL Pest Management Handbook.
	Mosaic Virus	Regular yellow blotches or patterns on foliage.	Remove diseased plants. Do not save seed. Control insects.
	Rhizoctonia Lower Stem Rot	Dark brown decay of lower stem.	Sanitation. See AL Pest Management Handbook.
Begonia	Pythium Root Rot - Rhizoctonia/Fusarium Lower Stem/Root Rot	Lower stem brown and decayed.	See the AL Pest Management Handbook.
	Ring Nematode (*Criconemoides*)	Areas of turf yellow and die.	Avoid stressful situations. Commercial turf areas may apply treatment.
	Root Knot Nematode (*Meloidogyne*)	Spherical-irregular galls on roots; stunted, non-	Sanitation; crop rotation. See ANR-856.

Plant	Disease	Description	Control
		vigorous plants.	
	Sclerotium rolfsii Crown Rot	Dieback, wilt, crown rot.	Sanitation. (Replace root-associated soil.)
Bentgrass	Anthracnose (*Colletotrichum*)	Leaf spot and blight.	Collect grass clippings; apply protective sprays of Cleary's 3336.
	Dollar Spot (*Sclerotinia*)	Bleached-out, silver dollar-sized spots in lawn; individual grass blades may have white, dark bordered spots that expand to cover the width of spotted leaves.	See the AL Pest Management Handbook.
	Pythium Blight	Grass blades become browned, wet, water-soaked, sometimes greasy-looking.	See the AL Pest Management Handbook.
	Pythium Root Rot	Dieback; root decay.	See the AL Pest Management Handbook.
	Rhizoctonia Brown Patch	Brown, irregular blotches on leaves; dead patches (1 or more feet diameter) in lawn.	See ANR-492 or the AL Pest Management Handbook.
	Ring Nematode (*Criconemoides*)	Areas of turf yellow and die.	Avoid stressful situations. Commercial turf areas may be treated with protective nematicides.
	Sting Nematode Damage (*Belonolaimus*)	Areas of turf yellow and die.	Avoid stressful situations. commercial turf areas may be treated with protective nematicides.
	Stunt Nematode (*Tylenchorynchus*)	High levels of nematode can cause enough root damage to result in yellowing, stunting, and dieback.	Avoid stressful situations. Commercial turf areas may be treated with protective nematicides.
Bermuda	Bipolaris Leaf Spot/ Blight	Small, brown, elongate lesions. When numerous lesions cause entire leaf browning.	See ANR-621.
	Brown Patch	Brown, irregular	See ANR-492 or the AL

Plant	Disease	Description	Control
	(*Rhizoctonia*)	blotches on leaves; dead patches (1 or more feet diameter) in lawn.	Pest Management Handbook.
	Decline (*Gaeumannomyces*)	Thinning out of grass in patches.	Sanitation; Keep pH at 6.0; do not use nitrate fertilizers.
	Dollar Spot (*Sclerotina*)	Silver dollar-sized, bleached-out spots appear in lawn. Spots enlarge. Individual grass blades develop white lesions with brown borders.	See the AL Pest Management Handbook.
	Drechslera Blight	Similar to Bipolaris Leaf Spot & Blight.	See ANR-621.
	Exserohilum Crown Rot	Plants turn yellow and dieback. Crowns become decayed.	See ANR-621.
	Helminthosporium Blight/Leaf Spot	Leaf lesions are irregular shaped and brownish-green; old lesions become tan or white.	Sanitation; See ANR-621.
	Pythium Root Rot	Foliage wilt and dieback; a wet root rot; not usually seen on bermudagrass; may involve other problems.	---
	Ring Nematode (*Criconemoides*)	Areas of turf yellow and die.	Avoid stressful situations. Commercial turf areas may be treated with protective nematicides.
	Spiral Nematode (*Helicotylenchus*)	Areas of turf yellow and die.	Avoid stressful situations. Commercial turf areas may be treated with protective nematicides.
	Take-All Patch (*Gaeumannomyces*)	Yellowing of individual plants followed by dieback; thinning out of grass in patches.	See the AL Pest Management Handbook.
Birch, River	Anthracnose	Brown leaf spots and	Sanitation of fallen

Plant	Disease	Description	Control
		blotches; some times lesions follow along veins.	leaves in the fall.
Blackberry	Cane & Leaf Rust (*Kuehneola*)	Canes & leaves develop yellow blotches and small yellow-orange powdery spots develop on the yellowed tissue areas.	Sanitation. See ANR-50 or the AL Pest Management Handbook.
	Downy Mildew (*Peronospora*)	Yellow leaf spots that will become dark gray or brown. When humidity levels are high, a thin, webby, gray mold appears on the lower leaf surface.	See ANR-50 for homeowner blackberries.
	Septoria Leaf Spot	New infection spots are greenish black and circular-angular. Older spots are gray-white with well-defined margin, 1-2 mm diameter; some shot-hole, defoliation.	Sanitation of fallen leaves; See AL Pest Management Handbook.
Blueberry	Botryosphaeria Canker	Dark, brown-black lesions on current year's growth. Foliage beyond the canker turns yellow and eventually the branch will die.	Pruning; Benlate sprays.
	Phomopsis Cane Canker	Elongated, cracked, sunken cankers.	Prune out cankers, making cut 3-4 inches beyond the lesion edge.
	Septoria Leaf Spot	Small, circular, white-tan spots with purple borders; stem lesions are sunken with tan or gray centers with red-brown margin.	Follow recommendations for anthracnose on blueberry.
	Summer Stress Chlorosis	Plants become yellowed and sometimes leaves develop small red spots.	Increase irrigation and nitrogen application.
Boxwood	Macrophoma Blight	Leaves turn reddish or yellow; small black bodies are scattered on	Pruning; eliminate stress; See the AL Pest Management Handbook.

Plant	Disease	Description	Control
		surface of off color leaves.	
	Phytophthora Root Rot	Roots are cream-colored; outer cortex slips readily away from the central core.	Sanitation. Improve water relations. See AL Pest Management Handbook.
	Pythium Feeder Root Rot	Roots are cream-colored; outer cortex slips readily away from the central core.	Sanitation. Improve water relations. See AL Pest Management Handbook.
	Volutella Blight	Twig and branch cankers develop; dieback; orange masses of spores may be visible.	Sanitation and pruning; remove stress factors; See the AL Pest Management Handbook.
Butterfly Bush	Dodder	A yellow, leafless vine on plant; sometimes small yellow-white flowers are present.	Remove vine before it produces flowers.
Cabbage, Ornamental	Fusarium Wilt	Plants leaves turn yellow; oldest leaves become yellow first. Wilt also occurs.	Remove damaged plants. Do not plant cabbage and related plants for 10 years.
Cactus	Fusarium Crown Rot	Crown area shows brown dried decay.	Sanitation; protective drenches of Cleary's 3336 or Halt.
	Volutella Blight	Sunken elongated lesions on branches of twigs which may be covered by orange fruiting bodies of the fungus.	Improve growing conditions; eliminate any environmental stresses; See AL Pest Management Handbook.
Caladium	Pseudomonas Leaf Spot	Small, black, circular-angular leaf spots.	Sanitation; do not water overhead.
Cantaloupe	Alternaria Leaf Spot	Large circular or irregular gray-brown leaf spots.	Sanitation. See the AL Pest Management Handbook.
	Cucumber Mosaic Virus	Plants are stunted with some leaf mottle, curling, puckering.	Sanitation. Aphid control may help.
	Fusarium Crown & Root Rot	Crowns and roots are brown, shriveled, dry, decayed.	Sanitation. Long crop rotations. Resistant varieties if available.

Plant	Disease	Description	Control
	Fusarium Wilt	Plants yellow and wilt from base of plant up.	----
	Potato Virus Y	Plants are stunted with some leaf mottle, curling, puckering.	Sanitation. Aphid control may help.
	Watermelon Mosaic Virus	Usually a regular mosaic pattern of yellow and green on leaves.	Sanitation. Control of aphids may help some.
	Zucchini Yellow Mosaic Virus	Usually a regular mosaic pattern of yellow and green on leaves.	Sanitation. Control of aphids may help some.
	Exserohilum Blight	See Bermuda with Helminthosporium Blight.	See AL Pest Management Handbook.
	Take-All Patch (*Gaeumannomyces graminis* pv. graminis)	Patches of grass yellow and die; may be stress-related.	See ANR-823; Bayleton is labeled.
Cherry, Flowering	Bacterial Canker (*Pseudomonas*)	Sunken cankers (often with ooze); often a foul smell is associated.	Sanitation.
	Cercospora Leaf Spot	Irregular, brown leaf spots.	Sanitation. This leaf spot often develops during late summer-fall.
	Coccomyces Leaf Spot	Circular or irregular black spots that may become shot holes.	Sanitation. See the AL Pest Management Handbook.
	Septoria Leaf Spot	Medium brown angular spots (about 1 cm diameter).	Sanitation in the fall.
Cherry, Laurel	Botryosphaeria Canker/Dieback	Dry, cracked, sunken lesions on branches and tree trunks.	Pruning.
Cherry, Weeping Higan	Shot Hole (*Xanthomonas*)	Reddish, water-soaked spots develop; centers of older spots fall out.	Sanitation.
Chrysanthemum	Ascochyta Blight	Blossom and leaf brown spots/blight.	Sanitation. See the AL Pest Management Handbook.
	Bacterial Leaf Spot (*Pseudomonas*)	Dark brown/black, small (2-4 mm diameter), angular spots;	Sanitation.

Plant	Disease	Description	Control
		sometimes with water-soaked edges.	
	Botrytis Blight	Brown spots, blotches.	See AL Pest Management Handbook.
	Fusarium Stem Rot and/or Wilt	Yellowing/wilt of leaves, beginning at the bottom of the plant and moving upward.	Sanitation; See the AL Pest Management Handbook; Rotation for 7-10 years or solarization; Reduce irrigation.
	Phytophthora Root Rot	Foliage dieback; roots become brown and water-soaked.	Sanitation; protective fungicide drench; See the AL Pest Management Handbook; Solarization or crop rotation; Reduce irrigation.
	Pythium Root Rot	Foliage dieback; roots become brown and water-soaked.	Sanitation; protective fungicide drench; See the AL Pest Management Handbook; Solarization or crop rotation; Reduce irrigation.
	Watermelon Mosaic Virus	Usually a regular mosaic pattern of yellow and green leaves.	Sanitation. Control of aphids may help some.
	Zucchini Yellow Mosaic Virus	Usually a regular mosaic pattern of yellow and green leaves.	Sanitation. Control of aphids may help some.
Coleus	Phytophthora Crown Rot	Roots become brown & water-soaked.	Sanitation.
Collards	Alternaria Leaf Spot	Dark gray-brown irregular shaped spots.	See AL Pest Management Handbook.
	Black Rot (*Xanthomonas*)	Dark V-shaped lesion at leaf edge; blackening of leaf veins; black vascular ring if stem cut crosswise.	Rotation for 2-3 years; solarization.
	Cercospora Leaf Spot	Tan or whitish circular-irregular spots.	See AL Pest Management Handbook.
Corn	Corn Smut (*Ustilago maydis*)	White fleshy galls on ears and stalks. Older	Sanitation. See ANR-601.

Plant	Disease	Description	Control
		galls crack open and expose black powdery spores within.	
	Gray Leaf Spot (*Cercospora*)	Gray, rectangular spots; may be confused with Helminthosporium-type spots.	Sanitation; deep plow; resistant varieties.
	Southern Corn Leaf Blight (*Bipolaris maydis*)	Brown, elliptical spots, usually less than 3 inches long.	---
	Southern Rust (*Puccinia polysora*)	Orange pustules develop on upper leaf surfaces. Leaves become blighted.	See the AL Pest Management Handbook.
Cotton	Alternaria Leaf Spot	Round brown spots up to ½ inch in diameter. This is usually not a serious problem.	----
	Ascochyta Leaf Spot/Blight	On leaves, light brown, small spots merge to form large irregular areas with dark brown edges. Stems cankers are red-purple or black or gray. If cankers girdle stems, dieback results. Spot or canker tissue may become shredded. Disease not usually serious.	Check with Bill Gazaway.
	Cercospora Leaf Spot	Brown, somewhat circular spots.	---
	Fusarium Wilt (*F. oxysporum*)	Plants begin to yellow on lower sections. Gradually, yellowing spreads upwards and plants wilt.	----
	Phomopsis Canker	Elongated, brown, sunken canker.	Prune out cankers, making cuts 3-4 inches away from edge of lesion.
	Reniform Nematode (*Rotylenchulus*)	Plants stunted, poor growth.	Rotation.
	Root-Knot Nematode (*Meloidogyne*)	Irregular galls present on roots; reduced plant	Sanitation; crop rotation.

Plant	Disease	Description	Control
		growth.	
	Stemphyllium Leaf Spot	Small, circular, brown spots with concentric rings give a target-like pattern.	---
Cottonwood	Septoria Leaf Spot	Irregular, brown spots.	Sanitation.
Cowpea	Bacterial Leaf Spot	Irregular, black spots.	Sanitation
	Cercospora Leaf Spot	Irregular, brown spots.	Sanitation.
Crabapple	Cedar Apple Rust (*Gymnosporangium juniperae-virginianae*)	Bright yellow spots with indefinite margins; tiny black dots may be seen on upper leaf surfaces on spots; pale orange-cream-colored raised cup structures with orange centers may be seen on lower leaf surfaces of spots.	See the AL Pest Management Handbook.
	Scab (*Venturia*)	Olive-brown circular, slightly raised spots (4-5 mm diameter) develop on leaves and fruit.	See AL Pest Management Handbook.
Cucumber	Anthracnose (*Colletotrichum*)	Angular, brown, water-soaked spots on leaves, stems.	See the AL Pest Management Handbook.
	Watermelon Mosaic Virus 1	Yellow-green mosaic pattern; slight reduced growth.	Sanitation.
Cypress, Leyland	Botryosphaeria Canker	Dry, cracked, sunken lesions on branches and trunks.	Pruning.
	Cercosporella Blight (Formerly Cercospora)	Needles of lower, inner branches become brown. Disease may gradually spread through higher branches.	Sanitation. See the AL Pest Management Handbook.
	Fusarium Lower Trunk Decay (Christmas Tree Field Planting-Pot In Pot)	Lower trunk at soil level shows brown decay and sometimes orange spore masses; pathogenicity confirmed.	Plant removal; do not re-use media or soil. (If questions, check with J. Olive.)
	Seiridium Canker	Elongated, sunken	Sanitation; See AL Pest

Plant	Disease	Description	Control
		lesions on branches and trunk; sap (resin) oozes onto bark.	Management Handbook.
Daisy, Gerbera	Phytophthora Leaf Blight/Crown Rot	Leaves develop brown blotches; lower stem develop brown lesions; plants collapse.	See the AL Pest Management Handbook.
Daylily	Kabatiella Leaf Spot	Yellow leaf spots and streaks on leaves. Leaf blight will follow.	Sanitation. Remove damaged foliage. Protective sprays of Cleary's 3336 or Halt will help.
	Phytophthora Root Rot	Plants become non-vigorous and stunted; dieback.	Sanitation. Remove damaged plants and root associated soil. Keep area well drained. Replant with different daylily variety or different plant type.
	Rust (*Puccinia hemerocallidis*)	Yellow-orange small spots on leaves; diseased leaves eventually turn brown and die.	Sanitation. Apply protective sprays of Banner Maxx or Heritage.
	Southern Blight (*Sclerotium rolfsii*)	A wet rot at soil line; sometimes a white mat of fungus at soil line.	Sanitation; Heritage may be used as a protective treatment. Remove root-associated soil.
Dogwood	Cercospora Leaf Spot	Leaf spot on lower leaves of tree; angular to irregular leaf spots (2-6 mm) which are light brown or gray in the center and dark brown or purple on borders.	Sanitation.
	Powdery Mildew (*Phyllactinia*)	Powdery white dusting on leaves; foliage distortion and death.	Sanitation in the fall; See AL Pest Management Handbook.
	Septoria Leaf Spot	Leaf spots on lower leaves of tree; angular to irregular tan or brown spots (2-6 mm) sometimes with faint yellow halos.	Sanitation.
	Spot Anthracnose	Tiny red spots on	Sanitation in fall; See

Plant	Disease	Description	Control
	(*Elsinoe*)	flowers, leaves.	AL Pest Management Handbook.
Eggplant	Early Blight (*Alternaria*)	Brown oval spots on leaves & stems. Sometimes spots have target patterns.	Sanitation. See the AL Pest Management Handbook.
Elm	Bacterial Leaf Scorch (*Xylella*)	Dieback of branches; leaf scorch.	Tree removal.
	Cristulariella Zonate Leaf Spot	Large (¼-½ inch diameter) oval, zonate spots.	Sanitation of leaves in the fall.
Euonymus	Anthracnose (*Colletotrichum*)	Small, whitish spots (1/16 inch diameter) on foliage.	Recommend fungicide sprays. See AL Pest Management Handbook.
Fatsia	Anthracnose	Brown leaf spots and blight.	Collect all fallen leaves; apply protective sprays of Cleary's 3336 or Halt. See label directions.
	Phytophthora Root Rot	Roots become brown, water-soaked, decayed; outer cortex slips easily away from the central core of the root.	Sanitation; improve moisture levels in the soil.
Fern	Rhizoctonia Root Rot	Dark brown, dried, decayed roots.	Sanitation; See AL Pest Management Handbook.
Fescue	Anthracnose (*Colletotrichum*)	Brown spots and blotches develop on grass blades.	See AL Pest Management Handbook for brown patch recommendations.
	Bipolaris (*Helminthosporium*) Crown Rot	Stolons/crowns become browned and dry rotted. Leaf blades become yellowed and then brown.	See the AL Pest Management Handbook.
	Brown Patch (*Rhizoctonia*)	Brown, irregular blotches on leaves; dead patches appear in lawn; patch size after 1-2 ft. diameter.	See ANR-492 and the Alabama Pest Management Handbook.
Fig	Rhizoctonia Aerial Blight	Leaves develop irregular brown lesions that become torn and tattered.	Sanitation.

Plant	Disease	Description	Control
	Phytophthora Root Rot	Recently infected roots are brown & water-soaked; older infection areas are dried and brown. Foliage shows wilt, dieback.	----
	Sclerotium rolfsii Crown Rot	Necrosis at crown with white mycelial mat and mustard sized sclerotia.	Sanitation; See AL Pest Management Handbook.
Floamflower	Anthracnose (*Colletotrichum*)	Brown, circular-irregularly-shaped spots on leaves & stems.	Sanitation. Protective sprays of Cleary's or Halt would help.
Forsythia	Anthracnose	Brown, leaf spots/blotches.	Sanitation. See AL Pest Management Handbook.
	Phomopsis Gall	Hard, woody, spherical swellings on twigs.	Sanitation. Pruning. Make cuts 3-4 inches beyond the gall.
Gomphrena glabosa	Fusarium Crown Rot	Brown, dried, decayed lower stem.	Sanitation; Crop rotation.
Grape	Anthracnose (*Colletotrichum*)	Circular (1-5 mm diameter)-angular lesions have brown-black edges and gray-white centers; lesions may be numerous and coalesce; lesions on shoots may cause cracking. Disease most severe on new growth. Lesions on fruit have a dark brown-black margin and gray center, fruit rot follows.	Sanitation; recommend fungicide sprays.
	Black Rot (*Guignardia*)	Leaves: Reddish-brown spots with black margins (2-5 mm diameter); spots circular or slightly lobed. Shoots, Cane: Purple or black elongated, elliptical lesions; bark splits along lesion length. Fruit: White spots (2-3 mm diameter) with brown edges; spots enlarge and fruit becomes wrinkled,	Sanitation; recommend fungicide sprays.

Plant	Disease	Description	Control
		black, rotted.	
	Pierce's Disease (*Xylella festidiosa*)	Twig dieback; leaf edge scorch with older foliage affected first; eventual branch dieback.	Remove plants.
Hawthorn	Cedar Quince Rust (*Gymnosporangium clavipes*)	Fruit develops yellow spots with small black spots in center and orange-cream colored short, thin tendrils (2-3 mm long) around spot edges.	---
Hawthorn, Indian	Entomosporium Leaf Spot	Red-black, circular-irregular shaped spots.	See the AL Pest Management Handbook.
Holly, Japanese	Black Root Rot	Poor growth; dieback; plants stunted; lower foliage yellowing; root segments are black.	Sanitation. Remove damaged plants. Do not replant holly for approximately 3-5 years.
	Botryosphaeria Canker	Elongated, sunken, cracked cankers.	Sanitation.
	Phytophthora Root Rot	Roots become brown and water-soaked; plants become yellowed with dieback.	See the AL Pest Management Handbook.
Holly, Hybrid	Phytophthora Root Rot	Roots become brown, water-soaked, pull apart easily.	Sanitation; reduce water levels in the area. See AL Pest Management Handbook.
Hosta	Foliar Nematode (*Aphelenchoides*)	Angular yellow leaf spots that becomes black.	Sanitation.
	Impatiens Necrotic Spot Virus	Yellow ring spots on leaves; plants become stunted.	Sanitation. Control thrips.
	White Mold (*Sclerotium rolfsii*)	Lower trunk or stem is rotted and generally soft and limp.	Sanitation; possibly solarization.
Hydrangea	Anthracnose (*Colletotrichum*)	Brown, irregular leaf spots and sometimes cankers. Leaf spots may follow along leaf veins.	Sanitation. See the AL Pest Management Handbook.

Plant	Disease	Description	Control
	Armillaria Root Rot	Hydrangea dies suddenly. Thin white fungal may be seen under the bark; black thread-like rhizomorphs may be seen on or under bark; honey-colored mushrooms may develop.	Sanitation; See ANR-907.
	Bacterial Leaf Spot	Water-soaked, dark, angular leaf spots.	Damaged leaves should be removed. Do not water overhead.
	Cercospora Leaf Spot	Brown, circular or angular leaf spots.	Sanitation. See AL Pest Management Handbook.
	Colletotrichum Blossom Blight	Blossoms become covered with brown spots.	Sanitation. Cleary's 3336 may be applied for protective disease control.
	Corynespora Leaf Spot	Brown, oval, zonate leaf spots.	Sanitation.
	Phytophthora Root Rot	Roots become brown water-soaked and pull apart easily.	Sanitation. See the AL Pest Management Handbook.
	Powdery Mildew	White powdery dusting on leaf & stem surfaces.	Sanitation. See AL Pest Management Handbook.
	Pythium Crown/Root Rot	Wet, water-soaked brown lesions on crowns and roots.	See the AL Pest Management Handbook.
Impatiens	Phytophthora Root Rot	Wet, water-soaked brown lesions on roots.	See the AL Pest Management Handbook.
	Rhizoctonia Crown and Root Rot	Crowns and roots become brown and dry rotted.	Sanitation; solarization may help.
Ivy, English	Anthracnose	Irregular or circular dark brown or black leaf spots.	Sanitation; See AL Pest Management Handbook.
	Bacterial Leaf Spot	Dark brown-black angular leaf spots.	Sanitation. Do not water overhead. See AL Pest Management Handbook.
	Colletotrichum Leaf	Brown leaf spots that	See the AL Pest

Plant	Disease	Description	Control
	Spot	are circular or irregular.	Management Handbook.
	Dodder (*Cuscuta* sp.)	A yellow vine with small white flowers; vine attaches to stems of ivy.	Sanitation.
	Edema	Yellow spots with indistinct borders develop on leaves; corresponding spots on lower leaf surfaces contain light brown corky lesions.	Reduce water levels.
	Phomopsis Canker	Brown, gray lesions on stems; dieback.	Sanitation; Cleary's or benomyl protective sprays.
	Phyllosticta Leaf Spot	Round, brown spots, usually with a dark brown border.	Sanitation.
	Phytophthora Root Rot	Roots become brown and water-soaked.	See the AL Pest Management Handbook.
Juniper, Blue Rug	Armillaria Root Rot	Dieback; crown & root decay; white mycelial mat under the bark.	Remove plant.
Juniper	Pestalotiopsis Needle Blight	Needles turn brown in patchy areas on branches.	Sanitation; see AL Pest Management Handbook; avoid stress.
	Phomopsis Tip Blight	Tips of lower branches dieback.	See the AL Pest Management Handbook.
	Phytophthora Root Rot	See Holly, Japanese.	See Holly, Japanese.
Kiwi	Phytophthora Root Rot	Roots become brown and water-soaked; foliage shows yellowing and dieback.	Sanitation.
Kudzu	Asian Soybean Rust	Small, yellow-dark leaf spots; rust spores develop on upper leaf surfaces.	---
Laurel, Cherry	Blumeriella Leaf Spot	Brown, roundish leaf spots that often fall out.	Sanitation. Remove all fallen leaves.
Lantana	Foliar Nematode Blight (*Aphelenchoides*)	Angular, yellow to brown leaf spots.	Remove the damaged plants. Replace soil in

Plant	Disease	Description	Control
			the area if possible.
Liatris (Blazing Star)	Southern Blight (*Sclerotium rolfsii*)	Crown rot develops & causes plant to dieback.	Sanitation; Solarization; root-associated soil removal.
Ligustrum, Japanese	Cercospora Leaf Spot	Brown, slightly angular leaf spots.	Collect all fallen leaves this fall. See the AL Pest Management Handbook under leaf spot.
Liriope	Colletotrichum Crown Rot	Brown-rot decay develops at lower stem and soil level.	Sanitation; eliminate stress factors suspected.
	Fusarium-Associated Crown Rot	Brown rot decay develops at lower stem and soil level; orange spore masses sometimes present; pathogenicity NOT confirmed.	Sanitation – remove plants; do not plant liriope in same soil or media; eliminate stress factors or other disease problems. (Check with J. Olive if questions)
	Phytophthora Crown Rot	Crowns become brown and wet rotted. Plants wilt, turn yellow, and die.	Remove plants. Remove soil associated with roots. Improve soil drainage.
	Rhizoctonia Crown Rot	Brown rot decay develops at lower stem/soil level.	Sanitation – Remove plants; rotate to different plant type in this area or replace soil in immediate area of damage or check with A. Hagan.
Magnolia	Algal Leaf Spot	Brown-red, circular, slightly raised leaf spots.	Sanitation. Prune to reduce humidity. See the AL Pest Management Handbook.
Mandevilla	Pythium Feeder Root Rot	Foliage dieback; small feeder roots develop a light brown, water-soaked rot.	Remove plant; correct excess soil water situation.
Maple	Anthracnose (*Kabatiella*)	Small-large brown blotches develop on leaves, often following along veins &/or leaf edges.	See the AL Pest Management Handbook.

Plant	Disease	Description	Control
	Phyllosticta Leaf Spot	Small (4-8 mm diameter) leaf spots develop with brown-purple borders and brown-cream centers.	See the AL Pest Management Handbook, under 'Leaf Spot'.
Maple, Japanese	Anthracnose (*Kabatiella*)	Small-large brown blotches develop on leaves, often following along veins &/or leaf edges.	See the AL Pest Management Handbook.
	Botryosphaeria Canker	Sunken, cracked lesions on branches.	Sanitation.
Maple, Red	Anthracnose (*Colletotrichum*)	Irregular brown spots/blotches on leaves which may follow along veins.	Sanitation. Gather & remove all leaves this autumn.
	Cristulariella Zonate Leaf Spot	Brown, oval, zonate leaf spots.	Sanitation of leaves in the fall.
	Phyllosticta Leaf Spot	Round brown leaf spots with dark brown margin.	Sanitation.
Maple, Sugar	Armillaria Root Rot	Dieback; crown rot & root rot; white mycelial mat under bark.	Remove tree.
	Monastichella hysterioidea Leaf Spot	Brown irregular spots.	Sanitation.
Marigold	Alternaria Leaf Spot	Black irregular spots 0.5-2 mm diameter. When spots numerous, plant death may result.	See AL Pest Management Handbook, under 'Leaf Spot'.
Mondograss	Anthracnose (*Colletotrichum*)	Gray, brown spots on leaves.	Sanitation; See AL Pest Management Handbook.
Morning Glory	Rust (*Coleosporium*)	Yellow spots; white and orange spore masses on upper leaf surface.	Sanitation.
Muscadine	Black Rot (*Guignardia*)	Reddish-brown leaf spots, irregular circular with tiny black specks on spots, bordering the outer edge of the spots.	Sanitation; See the AL Pest Management Handbook.
Oak	Anthracnose (*Apiognomonia*)	Small to large brown blotches develop on leaves, often following	See the AL Pest Management Handbook.

Plant	Disease	Description	Control
		along veins &/or leaf edges.	
	Baceterial Scorch Disease (*Xylella*)	Leaf edge turn brown in scattered locations in tree; gradual dieback over 2-3 years.	Remove tree.
	Hypoxylon Canker	Dark gray to black, hard fungal layer develops under and at level of the bark on tree; dieback.	Pruning; improve tree vigor.
	Monochaetia Leaf Spot	Light cream-colored, flat, irregular blotches & spots.	Sanitation of fallen leaves this fall.
	Oak Leaf Blister (*Taphrina*)	Light brown leaf spots that are circular and concave-convex.	Sanitation; See AL Pest Management Handbook.
	Powdery Mildew	White powdery areas on leaves; areas eventually become necrotic.	Sanitation.
Oak, Black	Hypoxylon Canker	Gray-black hard stroma develops under the bark and causes the bark to crack and fall off.	Sanitation.
Oak, Chestnut	Slime Flux	Slightly sunken areas on trunks with sap oozing.	No remedy. Maintain healthy trees. Installation of drain pipe.
Oak, Laurel	Hypoxylon Canker (*H. atropunctatum*)	A gray-brown stroma develops under the bark which falls off; branch dieback; associated with stress.	Remove severely damaged trees.
Oak, Pin	Bacterial Leaf Scorch	See under “Oak”.	
Oak, Post	Tubakia Leaf Spot	Black, irregularly shaped, hard, slightly raised leaf spots.	Collect and remove all fallen leaves this fall.
Oak, Red	Bacterial Leaf Scorch	See Under “Oak”.	
	Monochaetia Leaf Spot	Brown, roughly circular, flat leaf spots.	Collect and remove all fallen leave this fall.
Oak, Shumard	Anthracnose (*Colletotrichum* or	Brown blotches on leaves; spots may	Sanitation of fallen leaves.

Plant	Disease	Description	Control
	Apiognomonia)	develop along veins.	
	Bacterial Leaf Scorch (*Xylella fastidiosa*)	Leaf scorch begins on oldest leaves; dieback.	Tree removal.
	Hypoxylon Canker (*H. atropunctatum*)	A hard, flat, thick fungal mass (stroma) develops under the bark in the canker area; bark falls off; branches dieback.	Tree removal.
Oak, Water	Hypoxylon Canker (*H. atropunctatum*)	See Oak, Laurel.	See Oak, Laurel.
Okra	Root Knot Nematode (*Meloidogyne* sp.)	Irregular galls on roots.	Sanitation; grow nematode resistant vegetable variety; crop rotation to some grasses, marigolds, etc. See ANR-856.
Pachysandra	Volutella Blight	Stems develop sunken cankers and leaves may develop spots; orange spore masses may cover cankers and leaves; branch dieback.	Sanitation of damage. See the AL Pest Management Handbook.
Pansy	Bacterial Spot	Shot hole spots on leaves, often with a reddish border; sunken dark brown spots on fruit.	Sanitation. See AL Pest Management Handbook.
	Pythium Root Rot	Roots become brown and water-soaked; plants become yellowed and finally die.	See the AL Pest Management Handbook.
Pea, Field	Fusarium Stem & Root Rot	Dry, brown, decay of stem and roots.	Sanitation. Long crop rotation away from peas & beans.
	Mosaic Virus	Yellow spots & blotches (mosaic pattern) on puckered and sometimes distorted leaves.	Sanitation; Control insects.
	Charcoal Root Rot (*Macrophomina*)	The major tap root at and just below the soil-line becomes dry, shredded and sprinkled with tiny black pepper-sized spots. These bodies of the fungus are	Sanitation. Rotation.

Plant	Disease	Description	Control
		a diagnostic sign. The "pepper spots" are present on the root surface and scattered throughout the inner tissues. Spots are usually very numerous and give the root a gray-black appearance. This is a problem during dry periods.	
	Fusarium Root Rot	Red-brown lesions on lower stems, upper root areas; dieback wilt.	Rotation for 10-15 years.
Peach	Bacterial Spot (*Xanthomonas*)	Small red, angular spots develop into shot holes.	See the AL Pest Management Handbook.
	Brown Rot (*Monilinia fructicola*)	Sunken lesions on twigs; brown fruit rot.	Sanitation. See the AL Pest Management Handbook.
	Phony (*Xylella*)	Trees are stunted with bunchy growth.	Tree removal.
	Scab	Dark brown, small, round, slightly raised and soft leaf spots.	See the AL Pest Management Handbook.
Peanut	Cylindrocladium Root Rot	Stems near the soil-line are black; orange minute dots may be evident on decay area.	Crop rotation; See A. Hagan.
	Diplodia Collar Rot	Wilt, dieback, crown and root rot.	See Austin Hagan.
	Early Leaf Spot (*Cercospora*)	Brown spots, often with a yellow halo; spores are produced on the upper leaf surfaces of spots.	See AL Pest Management Handbook; also Folicur.
	Late Leaf Spot (*Cercosporidium*)	Brown to dark-brown spots; spores are produced on the lower leaf surface.	See Alabama Pest Management Handbook; also Folicur.
	Rhizoctonia Stem Rot and Pod Rot	Dark brown, sunken, dried lesions on stems and pods.	Folicur.
	Root Knot Nematode	Irregular swellings of pods and roots.	See ANR-393.

Plant	Disease	Description	Control
	Southern Blight (*Sclerotium*)	Stems at the soil line become brown-decayed and soft. A white, fan-shaped mycelial growth may develop at the soil line.	See the AL Pest Management Handbook; also Folicur.
	Tomato Spotted Wilt Virus	Stunted plants; leaves show ring spot patterns; new leaves small; internodes abnormally shortened.	Control thrips.
Pear	Entomosporium Leaf Spot (*Fabraea* Leaf Spot)	Black circular spots (4-6 mm diameter) develop on leaves, fruit and shoots. A small black pustule often develops in the spot centers.	Sanitation of leaves/fruit in the fall. Follow spray guide recommendations in ANR-50.
	Fireblight (*Erwinia*)	Prune out dieback; make cuts 14 inches beyond damage.	Blossom blight; dieback, cankers.
Pear, Bradford	Alternaria Leaf Spot	Brown, roughly circular or oval leaf spots.	Collect and remove all fallen leaves this fall.
	Fabraea Leaf Spot	Dark brown circular leaf spots.	Collect and remove all fallen leaves this fall. See ANR-50.
Pecan	Fungal Leaf Scorch	Brown or gray-brown lesions begin at the base of the leaflet and spread toward the leaflet midrib. Early leaf drop follows.	See fungicides recommended for scab control.
	Powdery Mildew	White, dusty spots on leaves; necrosis develop later.	See the AL Pest Management Handbook.
	Scab (*Cladosporium*)	Leaves: Slightly, elevated, olive-brown, circular spots. Nuts: Slightly elevated, olive-brown, circular to irregular spots.	Sanitation; recommended fungicide sprays.
Peony	Cladosporium Leaf Blotch	Irregular brown leaf spots/blotches.	Sanitation.
Pepper	Anthracnose (*Colletotrichum*)	Fruit develops water-soaked, sunken areas;	Sanitation; see the AL Pest Management

Plant	Disease	Description	Control
		black dots (fruiting bodies of the fungus) may develop in sunken area.	Handbook.
	Bacterial Leaf Spot (*Xanthomonas*)	Dark, angular spots with water-soaked edges; spot centers may dry out; leaf drop.	Sanitation.
	Cucumber Mosaic Virus	Foliage mottled; new growth stunted.	Sanitation. Control aphids.
	Fusarium Wilt	Plants turn yellow and wilt with symptoms beginning at lower sections of plant.	Sanitation; long rotation away from peppers and other solanaceous crops.
	Pythium Root Rot	Roots become brown and water-soaked.	Rotation; improve water drainage.
	Tomato Spotted Wilt Virus	Foliage mottled; new growth stunted.	Sanitation; control thrips.
Periwinkle	Anthracnose (*Colletotrichum*)	Brown, sunken cankers on stem sections.	Sanitation; Cleary's 3336, Domain, or a benomyl WP labeled for ornamentals.
	Phytophthora Aerial Blight	Dark brown lesions appear on stems; dieback.	Sanitation; Aliette.
	Phytophthora Root Rot	Roots become dark brown decayed and water-soaked; foliage shows yellowing/ dieback.	Sanitation; solarization.
	Pythium Root Rot	Roots become light brown and water-soaked, decayed, pull apart easily.	Sanitation. Reduce water levels. Protective treatments of Subdue may be used in commercial situations.
	Rhizoctonia Aerial Blight	Lower stems and leaves become browned and dry rotted. Some mycelial webbing may occur. Whole plants will eventually die.	Sanitation. Protective sprays of Cleary's 3336, Domain, or a benomyl WP labeled for ornamentals.
	Rhizoctonia/Fusarium	Dried, brown lesions on	Cleary's drenches will

Plant	Disease	Description	Control
	Crown Root Rot	lower stem and roots.	help provide some protection.
	Tomato Spotted Wilt Virus	Plants are stunted; yellow mottle may be present.	Sanitation. Control thrips.
Petunia	Phytophthora & Pythium Root Rot	Roots brown and water-soaked, & rotted.	Sanitation. See AL Pest Management Handbook.
Pine, Seedlings	Pythium Root Rot	Plants are stunted, yellowed, die; roots are light brown and wet decayed.	Sanitation. See the AL Pest Management Handbook.
Pine, Virginia	Fusarium Pitch Canker	Sunken lesions that ooze sap.	Sanitation.
	Lophodermium (*Ploioderma*) Needle Cast	Last year's needles become spotted and browned; eventually they drop. Needles have tiny football-shaped, hard black bodies scattered over their surfaces.	See the AL Pest Management Handbook.
	Rhizosphaeria Needle, Twig Blight (Suspect Stress Related)	Needles and twigs become brown and dead.	Apply Bravo 720 at rate of 5½ pints per 100 gallons or Bravo 500 at 8 pints per 100 gallons after shearing when growth is 2 inches long.
Plum	Bacterial Scorch (*Xylella*)	Leaf edges of (often) older leaves become scorched. Leaves die and remain on the tree; branches dieback; eventual tree death.	Infected trees should be removed.
	Botryosphaeria Canker	Sunken, cracked dry, dead area on branch or trunk.	Pruning. Make cuts 3-4 inches beyond the edge of the lesion.
Poinsettia	Bacterial Stem Rot (*Erwinia*)	Lower stem becomes blackened and rotted; usually occurs on small plants.	Sanitation.
	Fusarium Root Rot	Roots become dry and decayed. Symptoms may be confused with	Sanitation; Cleary's 3336 protective sprays/ drench.

Plant	Disease	Description	Control
		Rhizoctonia.	
	Pythium Root and Crown Rot	Roots water-soaked, decayed.	Sanitation; protective drenches fungicides; See AL Pest Management Handbook.
Poplar	Alternaria Leaf Spot	Brown, irregular spots (8-15 mm diameter) develop on leaves.	Sanitation. Chemical treatment not usually recommended.
Potato, Irish	Root-Knot Nematode (*Meloidogyne*)	Irregular galls on roots and on tuber surfaces.	Sanitation; crop rotation to nematode suppressive crops; resistant varieties; See ANR-856.
	Scab (*Streptomyces scabies*)	Rough, circular, irregular lesions on tubers.	See the AL Pest Management Handbook.
Pumpkin	Cucumber Mosaic Virus	Leaves may develop a mosaic, mottle, puckering, distorted shapes, curling.	Sanitation. Weed Control; Insect Control; See ANR-809.
	Downy Mildew (*Pseudoperonospora*)	Yellow diffuse spots on upper leaf surface; gray mold on corresponding lower leaf surface.	See AL Pest Management Handbook.
	Plectosporium Blight	Raised, corky, brown, irregularly shaped lesions on stem, petioles, leaves, and fruit surfaces.	Sanitation. See Ed Sikora.
	Watermelon Mosaic Virus I	Leaves and fruit show a yellow-green mosaic pattern; new growth is stunted.	Sanitation; control insects and weeds.
Red Cedar	Phomopsis Blight	Tips of branches become brown with damage spreading into the lower sections of the branches.	See the AL Pest Management Handbook.
Rose	Aerial Blight (*Rhizoctonia*)	Brown, irregular blotches on leaves.	Sanitation; Cleary's 3336 would give protective control.
	Black Spot (*Diplocarpon rosa*)	Black feathery-edged leaf spots.	See AL Pest Management Handbook.

Plant	Disease	Description	Control
Rosemary	Fusarium & Pythium Root Rot	Dried, decayed roots.	Sanitation; avoid environmental stresses.
	Phytophthora Root Rot	Brown, water-soaked roots become dried.	Sanitation. Reduce irrigation.
	Web Blight (*Rhizoctonia*)	Small-large brown blotches on leaves.	Pruning; Cleary's 3336, Halt, or OHP 6672.
	Web Blight (*Rhizoctonia*)	Small-large brown blotches on leaves.	Pruning; Cleary's 3336, Halt or OHP 6672.
Salvia	Phytophthora Root Rot	Lower leaves turn yellow, dieback; wilt; roots become brown with a wet rot.	Sanitation; reduce irrigation schedule; improve soil drainage.
	Root Knot Nematode (*Meloidogyne* sp.)	Plant is stunted; lower leaves may become yellow; plant may wilt and/or show dieback; root system is small with galls.	Sanitation; soil solarization may help; See ANR-713.
Sesame	Fusarium, Pythium Wilt/ Root Rot	Brown water-soaked rots.	----
	Fusarium Associated With Stem Cankers	Brown dried, elongated cankers.	----
	Leaf/Pod Blotch (*Colletotrichum*, *Fusarium*)	Brown circular, oval spots.	Sanitation.
Smoketree	Powdery Mildew	White powdery dusting on leaves; leaf blight.	Sanitation; Cleary's 3336 protective sprays if desired.
Sorghum	Anthracnose (*Colletotrichum*)	Small to large circular lesions with yellowish centers and red, black or brown edges. Spots may coalesce. Stalk rot shows bleached surface lesions with reddish edges; head rot may also occur.	Rotation. Plow under crop residues.
	Charcoal Rot (*Macrophomina*)	See comments for field pea. This is usually a dry weather problem.	Rotation. Plow under crop residue.

Plant	Disease	Description	Control
	Rhizoctonia Crown & Root Rot	Lower stems and roots develop a dry, brown decay.	Rotation. Plow under crop residue.
Soybean	Aerial Blight Root Rot (*Rhizoctonia*)	Lesions may appear on leaves, stems and pods usually beginning on the lower or middle sections of the plant. At first the spots or blotches appear water-soaked and black. Soon the spots appear greenish-brown or reddish-brown. Older spots and blighted areas become tan, brown or black. Older lesions often become dried and fall apart.	See AL Pest Management Handbook or Soybean Pest Management Circular ANR-413.
	Anthracnose (*Colletotrichum*)	Irregularly shaped brown lesions on stems, pods, petioles. In late stages of disease black fruiting bodies with minute black spines may be seen covering the lesions. (Usually a hand lens is needed to view the fruiting bodies.)	Rotation. Plow under crop residues.
	Bacterial Leaf Spots (*Pseudomonas*)	Small, black, raised or sunken, angular spots. Yellow halos may be present.	---
	Bacterial Pustule (*Xanthomonas* sp.)	Dark brown-black leaf spots are somewhat circular and slightly raised; leaf spot edges may be water-soaked.	---
	Charcoal Root Rot (*Macrophomina*)	See comments for field pea. This may be a problem when conditions are dry.	Rotation. Deep plow.
	Cyst Nematode (*Heterodera*)	Plants are stunted and yellow. Root systems are reduced and show a low incidence of Rhizobium nodules. White-yellow and brown cysts about the	Rotation; resistant cultivars; See Soybean Pest Management, Circular ANR-413.

Plant	Disease	Description	Control
		size of a small pin head may be seen on roots with the aid of a hand lens.	
	Downy Mildew (*Peronospora*)	Yellow spots develop on upper leaf surfaces. On corresponding areas of lower leaf surfaces, gray-purple tufts of mycelium/spores develop.	See the AL Pest Management Handbook or Soybean Pest Management, Circular ANR-413.
	Frogeye Leaf Spot (*Cercospora*)	Leaves: Circular-angular spots with a dark red-brown border. Stems: Elongated gray lesions with red-brown margins. Pod: Circular to irregular, slightly sunken gray spots with dark red-brown borders.	See AL Pest Management Handbook and ANR-413.
	Fusarium solani Root Rot	Tap root becomes brown and dried.	Crop rotation for 10-15 years.
	Nematode, Sting (*Belonolaimus*)	Plants become yellowed and stunted. Roots first develop dark sunken lesions at root tips or on young roots. Lesions often cause root breakage which gives root ball a stubby appearance.	See AL Pest Management Handbook or ANR-413.
	Nematode, Stunt (*Tylenchorhychus*)	Plants are yellowed, stunted, unthrifty; roots are abnormally shortened.	See AL Pest Management Handbook.
	Pod & Stem Blight (*Diaporthe*)	Pods and stems develop blight areas. Black fruiting bodies of the fungus develop in straight lines on the infected tissue areas.	Rotation. See the AL Pest Management Handbook.
	Root-Knot Nematode (*Meloidogyne*)	Plants are stunted and yellowed. Roots develop knots or galls of variable shape and size.	Crop rotation; Use resistant cultivars. See AL Pest Management Handbook.
	Rust, Asian Soybean	Very small yellow spots	Protective fungicides.

Plant	Disease	Description	Control
		become necrotic. Light orange-white spore masses develop on lower leaf surface side of spots.	See E. Sikora.
	Stem Canker (*Diaporthe*)	Small, red-brown lesions at nodes develop into large longitudinal gray-brown cankers with red-brown margins. Leaves develop interveinal browning.	Crop rotation.
	Southern Blight (*Sclerotium rolfsii*)	A wet rot of the crown area. Tissues become brown and wet rotted. A white mold may develop at the soil line.	Deep plow.
	Sudden Death Syndrome (*Fusarium solani*)	The tap root becomes brown and dry-rotted. Small feeder roots may also become decayed. Foliage develops interveinal browning.	Rotation.
	Target Spot (*Corynespora cassiicola*)	Brown, irregular or circular shaped spots that sometimes show a target pattern.	See Ed Sikora.
Squash	Microdochium (*Plectosporium*) Blight	Cream-colored, slightly raised, corky spots on fruit and stems mostly.	Sanitation. See Ed Sikora.
	Mosaic Virus	Leaves develop a mottled green-yellow or dark green-light green mosaic or regular patterned coloration; new growth is stunted.	Remove affected plants; Control insects and weeds.
	Powdery Mildew	White dusting evident on foliage.	See AL Pest Management Handbook.
	Pythium Crown Rot	Lower stems become soft and water-soaked, rotted.	Sanitation. Reduce irrigation if appropriate, avoid low, wet areas.
St. Augustine	Brown Patch (*Rhizoctonia*)	See Centipede.	---
	Dagger Nematode	Plants stunted; roots	Solarization or crop

Plant	Disease	Description	Control
	(*Xiphenema* sp.)	poorly developed, stunted.	rotation.
	Gray Leaf Spot (*Piricularia*)	Gray spots and blotches on grass blades.	See the AL Pest Management Handbook.
	Root Knot Nematode (*Meloidogyne*)	Areas grow poorly and become stressed easily.	Avoid stressful situations. Commercial turf situations may apply protective treatment.
	Take-All Patch (*Gaeumannomyces*)	Patch areas thin and individual plants turn yellow and die; affected plants show dark brown/black lesions on roots/stolons.	Adjust soil pH to 5.5-6.0; Use only ammonium-based nitrogen in fertilizers.
Strawberry	Common Leaf Spot (*Mycosphaerella*)	Reddish-bordered spots with gray centers.	Sanitation. See the AL Pest Management Handbook.
	Phomopsis Leaf Spot	Brown blotches that often develop along leaf edges. Spots usually have purple-red edges.	Sanitation. See the AL Pest Management Handbook.
Sweet Gum	Cercospora Leaf Spot	Oval, irregular brown leaf spots.	Sanitation.
	Phyllosticta Leaf Spot	Circular leaf spots with dark borders.	Sanitation of leaves this fall.
Sycamore	Anthracnose (*Discula*)	Brown irregular blotches develop along leaf veins and/or along leaf edges. Defoliation may follow.	See the AL Pest Management Handbook.
	Scorch (*Xylella*)	Leaf edges become browned. Foliage dies but usually remains on the tree. The following year leaves may be smaller than normal, some dieback may occur. Leaf edge browning occurs mid-late summer.	Remove diseased trees.
Tomato	Anthracnose (*Colletotrichum*)	Fruit spots begin as small sunken colorless spots but they develop into larger sunken areas	See the AL Pest Management Handbook or Vegetable Spray Guide.

Plant	Disease	Description	Control
		with blackish centers where fungal spores (orange) develop.	
	Bacterial Canker (*Clavibacter*)	Elongate, brown, wet-looking lesions or cankers on stems; center of cankers dry and look white.	Protective sprays; Sanitation.
	Bacterial Leaf Spot (*Xanthomonas axonopodis* pv. campestris)	Very small, brown or black angular leaf spots; outer edges of spots may appear wet or water-soaked.	Sanitation; See the AL Pest Management Handbook.
	Bacterial Wilt (*Pseudomonas solanacearum*, *Ralstonia solanacearum*)	Green healthy plants wilt and collapse rapidly.	Sanitation.
	Cristulariella Zonate Leaf Spot	Relatively large (¼ inch diameter and larger), light brown zonate spots.	Sanitation.
	Cucumber Mosaic Virus Complex	Plants become stunted; new growth become stunted; foliage shows mosaic, twisting, curling, shoe-string deformity on leaves.	See Ed Sikora. Control aphids and weeds.
	Early Blight (*Alternaria*)	Black or brown spots (¼-½ inch diameter) on leaves, stems, fruit. Spots often have a concentric pattern.	Fungicide sprays; Sanitation.
	Fusarium Wilt	Plant foliage turns yellow and dies. 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.
	Phoma Fruit Rot	Fruit develops dark brown or black sunken spots which may involve	Sanitation. See the AL Pest Management Handbook or Ed Sikora.

Plant	Disease	Description	Control
		large areas of the fruit. Lesions are leathery and may contain black speckled areas (of pycnidia).	
	Pith Necrosis (*Pseudomonas*)	Sometimes brown cankers are evident and sometimes they are not present. Dieback. When stem cut longitudinally, pith is hollow with step like strands present.	Sanitation.
	Potato Virus Y	Foliage mottled, distorted; new growth stunted.	Sanitation; control aphids.
	Pythium Root & Stem Rot	Lower stem and roots become dark and wet looking. Dead tissues dry out.	Sanitation. Reduce irrigation.
	Septoria Leaf Spot	Small (2-3 mm) gray, circular leaf spots with dark borders. Wet weather and moderate temperatures favor disease.	Apply protective fungicide sprays. Rotation.
	Southern Blight (*Sclerotium*)	White fungal mat occurs at soil line; plants die due to death of lower stem.	Terraclor and/or deep turn the root area soil.
	Tomato Spotted Wilt Virus	New growth becomes abnormally small; yellow spots appear. Young leaves become bronzed in spots, patches or whole leaf areas involved. Fruit spotted or with ring spots. Plant wilt and die.	Sanitation; Control thrips.
Viburnum	Southern Blight (*Sclerotium rolfsii*)	Plants wilt, dieback. A white mold may develop at the soil line.	Sanitation. Deep plow.
Vinca Minor	Alternaria Leaf Spot	Dark brown angular leaf spots; leaf blight.	Sanitation; Chipco 26019.

Plant	Disease	Description	Control
	Rhizoctonia Aerial blight	Leaves or stems become blighted, spotted.	Sanitation; Cleary's or benomyl protective treatments.
	Sclerotium rolfsii Crown Rot	Brown lesion at the lower stem; white mold may develop with brown, small spherical sclerotia.	Sanitation. Replace root associated soil.
Violet, African	Phytophthora Crown & Root Rot	Crowns and roots develop brown, wet, rotted tissues.	Sanitation. Reduce water levels. See the AL Pest Management Handbook.
Watermelon	Anthracnose	Black circular spots on leaves, stems; dieback.	Sanitation; See AL Pest Management Handbook.
	Blossom End Rot	Blossom ends of fruit develop black, hard, sunken areas.	Apply irrigation to keep the soil evenly moist. Apply calcium chloride sprays.
	Cercospora Leaf Spot	Circular-irregular pale brown leaf spots with black margins (2-10 mm diameter).	Sanitation; fungicide sprays.
	Cucumber 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.
	Fusarium Wilt	Lower leaves turn yellow; whole plant wilts; lower stem vascular system is brown.	Rotate 7-12 years and then plant a resistant variety such as Crimson Sweet or Jubilee.
	Gummy Stem (*Mycosphaerella*)	Elongate, brown, wet and sometimes cracked lesions; black leaf spots may develop on leaf edges; plant sections beyond cankers dieback.	Protective fungicide sprays; Sanitation in the fall.
	Watermelon Mosaic Virus I (Papaya Ringspot Virus)	See comments for Cucumber Mosaic Virus (CMV).	Sanitation.
	Watermelon Mosaic Virus II	See comments for CMV.	Sanitation.

Plant	Disease	Description	Control
Weeping Mulberry	Anthracnose (*Colletotrichum*)	Brown spots and blotches on leaves; often blotches develop along leaf veins.	Sanitation of fallen leaves.
Weeping Willow	Crown Gall (*Agrobacterium tumefaciens*)	Rounded, woody gall on lower trunk and possibly large roots.	Sanitation; solarization. Root zone soil replacement; control soil insects.
Willow, Curly	Cercospora Leaf Spot	Oval-irregular brown leaf spots.	Sanitation.
Wisteria	Phomopsis Stem Blight	Dieback and brown, dried sunken lesions.	Sanitation; Cleary's 3336.
Zelcova, Japanese	Cercospora Leaf Spot	Oval-irregular brown spots.	Sanitation.
Zinnia	Alternaria Leaf Spot	Circular to irregular dark gray spots.	Sanitation; see the AL Pest Management Handbook.
	Choanephora cucurbitarum Blossom Spots	Brown spots on blossoms, sometimes covered with a gray-black airy mold.	Sanitation; reduce humidity.
Zoysia	Bipolaris Leaf Spot and Crown Rot	Brown, small elongated leaf spots; yellowing and dieback.	See ANR-621 and the AL Pest Management Handbook.
	Curvularia Blight	Foliage develops brown leaf spots and blight.	See Austin Hagan.
	Dollar Spot (*Sclerotinia*)	Silver dollar-sized, bleached-out spots appear in lawn. Spots enlarge. Individual grass blades develop white lesions with brown borders.	See the AL Pest Management Handbook.
	Exserohilum Crown Rot	Yellowing and dieback. Crown areas become brown and dry decayed.	See ANR-621 and the AL Pest Management Handbook.
	Fairy Ring	Circular or half circular rings of dead grass develops.	See ANR-372.

Plant	Disease	Description	Control
	Rhizoctonia Brown Patch	Brown blotches on leaves; roughly circular patches (1 or more feet diameter) turn brown in lawn.	See ANR-492.
	Ring Nematode Damage (*Criconemoides*)	Poor root system; poor top growth; dieback.	See ANR-523.
	Rust (*Puccinia*)	Grass blades show chlorotic areas on one side of leaf and orange, rusty powder (spores) on the other side.	Sanitation; recommend fungicide sprays in some situations.
	Take-All Patch (*Gaeumannomyces graminis* pv graminis)	See St. Augustine grass.	Cultural practices; fungicides including Bayleton.

LAB NOTES

Remember that August-early October is the best time to sample for soil nematode analysis. The charge for nematode analysis is $10 per sample. Remember to enclose the soil in a plastic bag. Remember to tell us what crop is to be grown! Please use current submission forms with the correct ($10) charge and correct address noted.