

TIMELY INFORMATION

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MAY PLANT DISEASES FROM THE AUBURN PLANT DIAGNOSTIC LAB

MAY PLANT DISEASES FROM THE BIRMINGHAM PLANT DIAGNOSTIC LAB

MAY INSECT SAMPLES AT THE AUBURN PLANT DIAGNOSTIC LAB

DISEASE POSSIBILITIES FOR JUNE

COMMENTS

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Auburn Plant Disease Report-May (J. Mullen)

We received 186 plant samples during May. Conditions around the state have been very dry, especially in the southern half of the state. Consequently, our numbers of plant diseases were lower than is normal for May.

We received 74 turf samples in May. Very few showed disease problems. We suspect most of the damage to centipede related to abiotic problems involving spring cold damage after an early spring warm-up followed by a temperature drop to near freezing (D. Han). We have seen some disease on Bermuda including brown patch and Helminthosporium blight and crown rot. Ring nematode problems were seen on centipede in Baldwin, Elmore, and Pike and on zoysia in a commercial setting. Take-all

patch was observed on St. Augustine in locations scattered around the state. This is a stress related disease.

We have received tomato samples with tomato spotted wilt virus from areas in southern Alabama. Samples with bacterial wilt and Fusarium wilt have also been noted on tomato and pepper.

A sample of wild rocket (arugula) (a salad green) was received with small, round, dark leaf spots. Cultures produced bacteria and non pathogenic fungi. The bacteria was identified (using the gas chromatography of fatty acid method) as *Pseudomonas syringae* pv. *syringae*, which is reported to cause a leaf spot disease of arugula. Control of bacterial leaf spot disease is difficult. Strict sanitation is usually recommended.

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

<u>Plant</u>	<u>Disease</u>	<u>County</u>
Azalea	Botryosphaeria Leaf Spot	*
	Phytophthora Root Rot	*
Bahia Grass	Take-All Patch (<i>Gaeumannomyces graminis</i> var. <i>graminis</i>)	Lee
Bermuda	Brown Patch (<i>Rhizoctonia solani</i>)	Colbert, Shelby
	Helminthosporium Blight	Russell
	Helminthosporium Crown Rot	Jefferson
	Possible Ring Nematode (<i>Criconemoides</i>)	Jefferson
Bermuda, Coastal	Rust (<i>Puccinia</i>)	Elmore
Camellia	Anthracnose (<i>Colletotrichum</i>)	Cullman
Cantaloupe	Cercospora Leaf Spots	Geneva
Centipede	Anthracnose (<i>Colletotrichum</i>)	Barbour
	Ring Nematode Problem (<i>Criconemoides</i>)	Baldwin, Elmore, Pike
	Suspect Ring Nematode	Barbour

<u>Plant</u>	<u>Disease</u>	<u>County</u>
	Take-All Patch (<i>Gaeumannomyces graminis</i> var. <i>graminis</i>); Suspect Stress	Jefferson
Cotton	Sore Shin (<i>Rhizoctonia solani</i>)	Tallapoosa
Cucumber	Sore Shin (<i>Rhizoctonia solani</i>)	Cullman
Daylily	Streak (<i>Kabatiella</i>)	?
Green Bean	Fusarium Stem Rot	Montgomery
Hydrangea	Alternaria Leaf Blotch	Tallapoosa
Hydrangea, Oak Leaf	Bacterial Leaf Spot	Lee
Impatiens	Botrytis Foliage Blight	Lee
Iris	Fusarium Root Rot	Calhoun
Irish Potato	Bacterial Soft Rot, Fusarium Surface Rot, Silver Scurf (<i>Helminthosporium</i>)	*
Juniper	Phytophthora Root Rot	Jefferson
Kiwi	Anthracnose	Lee
Leyland Cypress	Cercosporidium Blight	Montgomery
Loripetalum	Botrytis Leaf Spot	*
Maple, Japanese	Phytophthora Crown & Root Rot	*
Marigold	Botrytis Flower/Foliage Blight	Lee
Oak, Shumard	Fusiform Rust Suspect (<i>Cronartium quercum</i> f. sp. <i>fusiforme</i>)	Geneva
Pepper	Bacterial Leaf Spot (<i>Xanthomonas</i>)	Conecuh
	Bacterial Wilt (<i>Ralstonia solanacearum</i>)	Elmore

<u>Plant</u>	<u>Disease</u>	<u>County</u>
	Fusarium Wilt	Elmore
Petunia	Phytophthora Crown & Root Rot	Lee
Rose	Powdery Mildew	*
St. Augustine	Take-All Patch (<i>Gaeumannomyces graminis</i> var. <i>graminis</i>)	Baldwin, Cullman, Greene, Mobile, Montgomery
Strawberry	Phytophthora Crown & Root Rot	Chilton
Tomato	Bacterial Wilt (<i>Ralstonia solanacearum</i>)	Mobile, Russell
	Fusarium Crown Rot	Covington
	Fusarium Wilt (<i>Fusarium oxysporum</i>)	Washington
	Tomato Spotted Wilt Virus	Conecuh, Covington, Elmore
Torenia	Powdery Mildew	Calhoun
Wild Rocket	Anthracnose (<i>Colletotrichum</i>)	*
	<i>Pseudomonas syringae</i> pv. <i>syringae</i> Leaf Spots	*
Zoysia	Ring Nematode Damage (<i>Criconemoides</i>)	*

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

Birmingham Plant Disease Report-May (J. Jacobi)

May was abnormally dry throughout the Birmingham area. Rainfall was about half of the monthly average. Several communities in Shelby County have instituted watering restrictions over the past few days because of the dry weather, leading to

concerns about lawn and landscape maintenance and installations. Hopefully, we don't have a repeat of the problems encountered during the summer of 2000.

We recorded 96 samples during the month of May. Some of the problems seen last month were root and crown rots on begonia (caused by Pythium, Phytophthora, and Rhizoctonia), cane blight on blackberry, bacterial leaf spot on hibiscus and rosemary, Armillaria root rot on oakleaf hydrangea, and tomato spotted wilt.

Bacteria leaf spot and blight (suspect *Pseudomonas*) was seen for the first time on rosemary. Symptoms included small dark lesions that were typically on the leaf margins. In addition, blighting of damaged stems starting at the tips of the branches was also noted. A similar disease of rosemary has been described previously, caused by bacteria belonging to the genera *Pseudomonas* or *Xanthomonas*. Bactericides have shown some ability to control this disease, but to my knowledge none are labeled for rosemary used as an herb. The following web page provides more information on bacterial diseases of perennials: www.chaseresearchgardens.com/pdfs/bdp.pdf.

Table 1. 2006 May Plant Problems Seen In The Birmingham Plant Diagnostic Lab.

<u>Plant</u>	<u>Problem</u>	<u>County</u>
Azalea	Azalea Lacebug	Jefferson(2)
	Leaf Gall (<i>Exobasidium</i>)	Jefferson
	Phytophthora Root Rot	Etowah
	Powdery Mildew	Jefferson
Begonia	Phytophthora Root Rot	Jefferson
	Pythium Root Rot	Jefferson
	Rhizoctonia Crown & Root Rot	Jefferson
Bentgrass	Herbicide Injury	*
	Pythium Root Dysfunction	*
Birch, River	Spiny Witch Hazel Gall Aphids	Jefferson(2)
Blackberry	Botryosphaeria Canker	Chilton
	Cane Blight (<i>Leptosphaeria</i>)	Perry
Boxwood, Common	Boxwood Psyllid	Jefferson

<u>Plant</u>	<u>Problem</u>	<u>County</u>
	Phytophthora Root Rot	Jefferson
	Pythium Root Rot	Jefferson
Camellia, Common	Aphids	Jefferson
Camellia, Sasanqua	Tea Scale	Jefferson
Crabapple	Fire Blight (<i>Erwinia</i>)	Jefferson
Centipedegrass	Large Patch (<i>Rhizoctonia</i>)	Etowah
Cherry, Yoshino	Cherry Leaf Spot (<i>Blumeriella</i>)	Jefferson
Cowpea	Aphids	Jefferson
	Cercospora Leaf Spot	Jefferson
Cucumber	Anthracnose (<i>Colletotrichum</i>)	Jefferson
Cypress, Leyland	Cercosporidium Leaf Blight	Jefferson
Euonymus	Euonymus Scale	Jefferson
Ginger	Rhizoctonia Crown Rot	Jefferson
Hemlock	Spruce Spider Mite	Jefferson
Hibiscus	Bacterial Leaf Spot	Jefferson
Hickory	Phylloxera	Jefferson
Holly, Inkberry	Phytophthora Root Rot	Jefferson
Hosta	Anthracnose (<i>Colletotrichum</i>)	Jefferson
Hydrangea, Bigleaf	Powdery Mildew	Jefferson
Hydrangea, Oakleaf	Armillaria Root Rot	Jefferson(2)
	Four-Lined Plantbug	Jefferson
Magnolia, Southern	Algal Leaf Spot	Jefferson

<u>Plant</u>	<u>Problem</u>	<u>County</u>
	Yellow Poplar Weevil	Jefferson
Mahonia, Leatherleaf	Leaf Spot (<i>Phyllosticta</i>)	Chilton
Maple, Red	Cottony Maple Leaf Scale	Jefferson
Mondograss	Anthrachnose (<i>Colletotrichum</i>)	Shelby
Mulberry	Cylindrosporium Leaf Spot	Jefferson
Muscadine	Black Rot (<i>Guignardia</i>)	Jefferson
Nandina	Cercospora Leaf Spot	Jefferson
Oak, Red	Fusiform Rust	Etowah
	Tubakia Leaf Spot	Etowah
Pear, Callery	Fireblight (<i>Erwinia</i>)	Shelby
Pecan	Phylloxera	Jefferson
Petunia	Phytophthora Blight	Jefferson
	Pythium Root Rot	Blount
Rose	Botrytis Blight	Jefferson
Rosemary	Bacterial Leaf Spot & Blight	Jefferson
Ryegrass, Perennial	Foliar Anthracnose (<i>Colletotrichum</i>)	Shelby
	Rust (<i>Puccinia</i>)	Shelby
Spirea	Cylindrosporium Leaf Spot	Shelby
St. Augustinegrass	Large Patch (<i>Rhizoctonia</i>)	Jefferson
Tomato	Tomato Spotted Wilt	Tuscaloosa, Jefferson(2)
	Yellow-Striped Armyworm	Tuscaloosa
Willow, Weeping	Leaf Rust (<i>Melampsora</i>)	Jefferson

<u>Plant</u>	<u>Problem</u>	<u>County</u>
Zoysiagrass	Large Patch (<i>Rhizoctonia</i>)	Jefferson
	Leaf Rust (<i>Puccinia</i>)	St. Clair
	Zoysiagrass Mite	Jefferson

*Locations are reported for nursery, greenhouse, and golf course samples.

Auburn Entomology Report-May (C. Ray)

COUNTY	CROP	CATEGORY	SPECIMEN NAME
Coosa	Chinese Persimmon	Fruit Crops	Camphor Shoot Beetle (<i>Xylosandrus mutilatus</i>) Damage
Montgomery	Home	Household- Miscellaneous	Southern House Spider, <i>Filistata hibernalis</i>
	River Birch	Ornamental	Spiny Witch-Hazel Gall Aphid, <i>Hammaelistes spinosus</i>
Washington	Chinese Persimmon	Fruit Crops	Clay-Colored Leaf Beetle, <i>Anomoea laticlavata</i>
Mobile	Croton	Ornamental	Greenhouse Thrips, <i>Heliothrips haemorrhoidalis</i>
Montgomery	Centipede Grass	Turfgrass	Bermuda Grass Scale, <i>Odonaspis ruthae</i>
Choctaw	Concord Grape	Fruit Crops	Grape Tomato Gall or Grape Tumid Gallmaker, <i>Janetiella brevicauda</i>
Baldwin	Lawn	Miscellaneous	Snapping Ant, <i>Odontomachus brunneus</i>
Jefferson	Home	Household- Miscellaneous	Male Wolf Spider, <i>Lycosidae</i>
Geneva	Earthworms	Miscellaneous	Springtails (<i>Collembola</i>) and Brown Earthworm Mites (<i>Uropoda agitans</i>)
Marengo	Pecan	Nut Crops	Noctuid Larvae, possibly Catocaline
Dallas	Horse Nettle, Solanum	Miscellaneous	False Colorado Potato Beetle Larvae, <i>Leptinotarsa juncta</i>
Limestone	Pin Oak	Ornamental	Assassin Bug Nymphs, <i>Reduviidae</i>
Coosa	Cemetery	Miscellaneous	Andrenid Bee
	Home	Household-	Small Hive Beetle

COUNTY	CROP	CATEGORY	SPECIMEN NAME
Colbert		Miscellaneous	Larvae, <i>Aethina tumida</i>
Tuscaloosa	Home	Medical	Tropical Rat Mite, <i>Ornithonyssus bacoti</i>
Calhoun	Home	Household-Miscellaneous	Black Carpet Beetle Larva, <i>Attagenus unicolor</i>
Sumter	Irish Potatoes, Sweet Potatoes	Row Crops	Horn Worm Pupa, <i>Sphingidae</i>
Dallas	Oak	Ornamental	Wounded Tree Beetle, <i>Nosodendron unicolor</i>
Lamar	Home	Household-Miscellaneous	Phantom Midge, <i>Chaoboridae</i>
Houston	<i>Magnolia grandiflora</i>	Ornamental	False Oleander Scale, <i>Pseudaulacaspis cockerelli</i>
Cullman	Oak Cabinet	Household-Structural	A Death Watch Beetle, <i>Nicobium castaneum</i>
Dale	Home	Household-Miscellaneous	German Cockroaches, <i>Blatella germanica</i>
DeKalb	Winged Elm, <i>Ulmus alata</i>	Ornamental	Woolly Aphid, <i>Georgiaphis ulmi</i>
Mobile	Potato	Row Crops	Sweet Potato Weevil, <i>Cylas formicarius</i>
Baldwin	Bradford Pear	Ornamental	Asian Ambrosia Beetle, <i>Xylosandrus crassivuculus</i>
Greene	Hickory	Ornamental	Hickory Petiole Gall, <i>Phylloxera caryaecaulis</i>
Wilcox	Boxwood	Ornamental	Yellow Mites, <i>Tydeidae</i>
Wilcox	Boxwood	Ornamental	Cottony Cushion Scale, <i>Icerya purchasi</i>
Cullman	Home	Household-Miscellaneous	Non-biting Midge and Spider
Cullman	Daylily	Ornamental	Plant Bug, <i>Lopidea</i> sp.
Cullman	Lawn	Miscellaneous	Digger Bees, <i>Apidae</i>
Lee	Collards	Row Crops	Imported Cabbage Worm (<i>Pieris rapae</i>) and Cross-Striped Cabbage Worm, <i>Evergestis rimosalis</i>
Bullock	Sawtooth Oak	Ornamental	Case-making Leaf Beetle Larvae and a Leaf Beetle, <i>Demotina modesta</i>
Mobile	Sweet Potato/Morning Glory	Row Crops	Sweet Potato Weevil, <i>Cylas formicarius</i>
Mobile	Japanese Beetle Trap	Miscellaneous	Spangled Flower Beetle, <i>Euphoria sepucralis</i>
Washington	Japanese Beetle Trap	Miscellaneous	Spangled Flower Beetle, <i>Euphoria sepucralis</i>
Mobile	Home	Household-Structural	A Subterranean Termite
Russell	Unknown	Miscellaneous	Nymphal Leaf-Footed Bugs, <i>Coreidae</i>

COUNTY	CROP	CATEGORY	SPECIMEN NAME
Lee		Ornamental	Green House Thrips, <i>Heliothrips haemorrhoidalis</i>
Montgomery	Daylily	Ornamental	Flower Thrips, <i>Frankliniella</i> sp.
Limestone	Driveway	Miscellaneous	Dark Southern Subterranean Termite, <i>Reticulitermes virginicus</i>
Jefferson	Home	Household-Structural	Dark Southern Subterranean Termite, <i>Reticulitermes virginicus</i>
Bullock	Tomato	Row Crops	Tobacco Thrips, <i>Frankliniella fusca</i>
Tuscaloosa	Wooden Structure	Household- Miscellaneous	Mason Wasp, <i>Monobia quadridens</i>
Mobile	Euonymus	Ornamental	Euonymus Scale, <i>Unaspis euonymi</i>
Montgomery	Loquat	Fruit Crops	Coccinellid Larvae
DeKalb	Cherry	Ornamental	Shothole Borer, <i>Scolytus rugulosus</i>

Disease Possibilities For June

Table 3 lists some of the plant diseases which arrived in our lab during previous Junes. Brief comments on disease symptoms and control recommendations are included. For specific disease control recommendations, see the Alabama Pest Management Handbook or individual 2006 spray guides. Also, remember the importance of sanitation.

As with May, the first half of June has been very dry, and disease incidence has been reduced.

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

<u>PLANT</u>	<u>DISEASE</u>	<u>DESCRIPTION</u>	<u>CONTROL</u>
Alfalfa	Spring Black Stem & Leaf Spot (<i>Phoma medicaginis</i>)	Black spots on stems and leaves.	---
Amaryllis	Stagnospora Leaf Spot (<i>Stagnospora</i>)	Dark red, elliptical leaf spots.	Sanitation.
Apple	Bitter Rot (<i>Colletotrichum</i>)	Brown circular-irregular spots develop on fruit.	Follow the regular spray schedule as described in

<u>PLANT</u>	<u>DISEASE</u>	<u>DESCRIPTION</u>	<u>CONTROL</u>
		The spots enlarge internally as cone shaped areas of brown rotted tissues. Masses of spores develop in tiny clumps (sometimes in concentric rings) on the surface of the browned fruit spots. Spores may be cream-colored or salmon-colored. Leaf spots are not commonly seen.	the AL Pest Management (P.M.) Handbook. Sanitation.
	Cedar-Apple Rust (<i>Gymnosporangium juniperæ-virginianæ</i>)	Large (3-6mm diameter), bright yellow spots; sometimes tiny black specks can be seen on upper leaf surface of spots; sometimes orange spores bodies can be seen on lower leaf surface spots.	See AL P.M. Handbook for protective spray treatments; collect and destroy all fallen leaves this fall; remove nearby red cedars and other junipers if possible.
	Fire Blight (<i>Erwinia amylovora</i>)	Dieback of branches until canker forms at base of dieback.	Pruning 10-16 or more inches from edge of dieback. Streptomycin sprays in commercial situation.
	Frogeye Leaf Spot (<i>Botryosphaeria</i>)	Brown, circular spots with purple margins and brown centers.	Sanitation; protective fungicide sprays.
Arbor-vitæ	Phomopsis Dieback	Tip browning and dieback.	Sanitation. See AL P. M. Handbook.
Aucuba	Botryosphaeria Canker	Sunken, cracked branch lesions.	Pruning 4-5 inches from edge of damage.
	Phytophthora Root Rot	Lower foliage becomes yellowed; dieback of select branches; roots become water-soaked and brown rotted.	Remove damaged plants; improve soil drainage & reduce irrigation.
Azalea	Phomopsis Dieback	Branches dieback; at the base of dieback, small cankers are present.	Prune out damage making cut 3-4 inches beyond the damage edge.
	Phytophthora Crown & Root Rot	Lower trunk and roots become brown and	Sanitation. See the AL Pest Management

<u>PLANT</u>	<u>DISEASE</u>	<u>DESCRIPTION</u>	<u>CONTROL</u>
		water soaked; foliage dieback.	Handbook.
Bahia	Dollar Spot (<i>Sclerotinia</i>)	Individual grass blades show white spots/borders. Small areas of the field are initially affected.	Maintain proper fertility.
Bean, Garden	Alternaria Leaf Spot	Brown circular-irregular reddish brown spots become circular with concentric rings.	Protective fungicide sprays; Sanitation at end of growing season.
	Anthracnose (<i>Colletotrichum</i>)	Reddish, irregular spots of varying sizes on all parts of foliage.	See AL Pest Management Handbook.
	Bacterial Blight (<i>Xanthomonas</i>)	Irregular spots (small and large) become dried and light brown in the center and dark, water-soaked on the edge.	Protective spray treatments.
	Fusarium Stem/Root Rot	Lower stems/roots become dried and reddish-brown.	Rotation for 7 or more years.
	Mosaic Virus	Yellow and green alternating patches on leaves.	Remove damaged plants. Control insects.
	Pythium Crown Rot, Root Rot	Tissues become light brown and wet rotted.	Improve soil drainage; see the AL Pest Management Handbook.
	Rhizoctonia Aerial Blight	Leaves develop brown spots and blotches. Damaged tissues may dry and fall apart.	Sanitation. See the AL Pest Management Handbook for anthracnose control.
	Rhizoctonia Stem Rot	Lower stems develop brown sunken lesions.	Rotation; Terraclor or Fumigation.
	Root-Knot Nematode (<i>Meloidogyne</i>)	Galls on roots.	Rotation, solarization or fumigation.
	Southern Blight (<i>Sclerotium rolfsii</i>)	White fungal mat on lower stems near soil line; crowns decay.	Terraclor; Sanitation.
Begonia	Pythium Crown Rot	Lower stem tissues brown and soft.	See AL P.M. Handbook.

<u>PLANT</u>	<u>DISEASE</u>	<u>DESCRIPTION</u>	<u>CONTROL</u>
Begonia, Angel Wing	Bacterial Leaf Spot (<i>Xanthomonas</i>)	Dark brown, angular spots with water soaked edges.	Sanitation. Do not water over-head.
Bentgrass	Brown Patch (<i>Rhizoctonia</i>)	Foliage develops brown blotches and circular-irregular brown patches of turf.	See AL P.M. Handbook.
	Pythium Blight	Turf grass develops greasy black spots, blotches on leaves. Foliage dies.	See AL P.M. Handbook.
	Ring Nematode	Roots poorly developed; plant yellowed, stunted.	See ANR-523.
	Rust (<i>Puccinia</i>)	Foliage develops a red-orange powdery coating on leaf blades.	See AL P.M. Handbook.
Bermuda	Brown Patch (<i>Rhizoctonia</i>)	Foliage develops brown blotches. Circular-irregular brown patches of turf.	See AL P.M. Handbook.
	Dollar Spot (<i>Sclerotinia</i>)	White, bleached spots about the size of a silver dollar appear in lawn; individual grass blades show white spots with dark borders.	See AL P.M. Handbook; see Circular ANR-493; collect grass clippings.
	Helminthosporium "Melting Out" (<i>Bipolaris cynodontis</i> ; <i>Exserohilum rostratum</i>)	Circular-elongate spots with brown centers and purple-black borders. Leaves, sheaths, stems, crowns and roots may be attacked.	Sanitation; protective fungicide sprays. See AL P.M. Handbook.
	Leaf Rust (<i>Puccinia</i>)	Leaves are off-color, rusty colored and later brown.	See the AL P.M. Handbook.
	Ring Nematode (<i>Criconebella</i>)	Roots poorly developed; plants yellowed, stunted.	See ANR-523.
	Sting Nematode (<i>Belonolaimus</i>)	Roots poorly developed; plants yellowed, stunted.	See ANR-523.
	Take-All Patch (<i>Gaeumannomyces</i>)	Grass yellows and thins with black lesions on roots.	See ANR-523.

<u>PLANT</u>	<u>DISEASE</u>	<u>DESCRIPTION</u>	<u>CONTROL</u>
Birch, River	Phyllosticta Leaf Spot	Brown, circular leaf spots.	Sanitation. Protective sprays of Cleary's 3336 may be used.
Blackberry	Anthrachnose (<i>Colletotrichum</i>)	Black irregular-circular spots, blotches on leaves, canes; dieback.	See ANR-50
	Cercospora Rosette	Blossoms are abnormally thickened with pointed petals. Canes develop bunched growth habit. Fruit does not set.	Sanitation and protective fungicide sprays.
	Crown Gall (<i>Agrobacterium</i>)	Irregular swollen area (gall) develops on lower branches and crown and roots.	Sanitation; crop rotation; Galltrol.
	Septoria Leaf Spot	Round and irregular round, brown leaf spots.	Sanitation. See the AL Pest Management Handbook under 'Leaf Spot'.
Blueberry	Anthrachnose Fruit Rot (<i>Colletotrichum</i>)	Sunken, light blue-brown spots, sometimes with circular, black specks (fruiting bodies).	Sanitation. See the AL Pest Management Handbook.
	Botryosphaeria Blight	New shoots develop brown sunken cankers; growth beyond the canker dies.	Sanitation; Benlate protective sprays.
	Botrytis	Gray-brown blotches on leaves and fruit; gray fruit rot.	Sanitation; Benlate protective sprays.
	Mummy Berry (<i>Monilinia</i>)	Fruit becomes small & shriveled; twig cankers and blossom blight may also develop.	Remove all plant debris in the fall. Prune protective sprays of fungicide such as Captan.
	Phytophthora Root Rot	Brown, water-soaked lesions that become dried.	Ridomil; See AL Pest Management Handbook.
Boxwood	Macrophoma Blight	Leaves and some twigs become yellowed/brown; affected tissues may contain tiny black	Eliminate stress problems; pruning. See AL Pest Management Handbook.

<u>PLANT</u>	<u>DISEASE</u>	<u>DESCRIPTION</u>	<u>CONTROL</u>
		specks, the fruiting bodies of the fungus.	
	Volutella Blight	Plants show yellowing and dieback. Cankers on stems & some dying leaves develop tiny orange specks, fruiting bodies of fungus.	Eliminate stress problems; pruning. See AL Pest Management Handbook.
Buddlea	Phyllosticta Leaf Spot	Numerous small brown circular spots.	Sanitation. Cleary's 3336 or Domain.
Butterbeans	Pythium Root Rot	Roots are brown and water-soaked.	See Vegetable Spray Guide.
Cabbage	Alternaria Leaf Spot	Gray irregular spots.	See Pest Management Handbook.
Camellia	Anthracnose (<i>Colletotrichum</i>)	Large, brown, roughly circular leaf spots; orange spores in a zonate pattern on leaf spot surface.	Sanitation of fallen leaves. See the AL Pest Management Handbook.
	Leaf Gall (<i>Exobasidium</i>)	Soft flesh swellings (galls) on twigs, flowers, and leaves. Green galls turn white.	Sanitation before galls become white.
Campanula	Phytophthora Crown Rot	Lower stem becomes brown and water soaked.	Sanitation. Reduce irrigation. Crop rotate to ageratum, perennial salvia, verbena, lantana, marigold, or basil.
Cantaloupe	Bacterial Wilt (<i>Erwinia</i>)	Leaves wilt; this is quickly followed by leaf/stem collapse.	Control cucumber beetles.
	Gummy Stem (<i>Mycosphaerella</i>)	Elongated, brown, wet lesions on stems; cracking of stem lesions.	Protective fungicide sprays; sanitation in the fall.
	Watermelon Mosaic Virus	Foliage and fruits develop alternating patches of yellow and green tissues. Growth and crop productivity is reduced.	Rogue out infected plants; control insects; control weeds.
Cedar, Deodara	Rhizoctonia Root Rot	Roots become dry rotted and brown.	----

<u>PLANT</u>	<u>DISEASE</u>	<u>DESCRIPTION</u>	<u>CONTROL</u>
Centipede	Brown Patch (<i>Rhizoctonia</i>)	Foliage develops brown blotches. Circular-irregular patches of turf will turn brown.	See the AL P. M. Handbook.
	Dollar Spot (<i>Sclerotinia</i>)	See Bermuda.	See AL P.M. Handbook.
	Slime Mold (<i>Physarum</i>)	Black powdery sporangia on grass blades.	---
	Take-All Patch (<i>Gaeumannomyces</i>)	Dieback and yellowing; black stolon lesions; stress associated.	See the AL Pest Management Handbook and ANR-823.
Cherry, Flowering	Phyllosticta Leaf Spot	Pale brown leaf spots with dark edges.	Sanitation of fallen leaves.
	Septoria Leaf Spot	Reddish-brown circular-angular leaf spots ($\frac{1}{8}$ - $\frac{1}{4}$ inch diameter).	Sanitation.
Cherry Laurel	Shot Hole (<i>Xanthomonas</i>)	Reddish spots with dark red or black edges; centers of angular spots may fall out.	Sanitation; See AL Pest Management Handbook.
Chrysanthemum	Pythium Crown/Root Rot	Lower stem/crown area becomes water-soaked, brown, rotted.	See AL P.M. Handbook.
Collards	Alternaria Leaf Spot	Gray circular-irregular spots.	---
	Black Rot (<i>Xanthomonas</i>)	Leaf edges have V-shaped black lesions; veins become black; inner core of lower stem becomes black.	Rotation for 2-3 years; Fumigation.
Coreopsis	Anthrachnose	Red, brown circular spots, sometimes with white centers.	Sanitation; keep foliage as dry as possible. Protective sprays of Cleary's 3336 may help.
Corn	Bacterial Stalk Rot (<i>Erwinia</i> , <i>Pseudomonas</i> spp.)	Stalks disintegrated into a soft mass, often with an unpleasant odor.	Maintain balanced fertility, good soil drainage and good air circulation between plants.
	Crazy Top (<i>Sclerophthora</i>)	Symptoms vary; generally excessive tillering with rolling and	Avoid wet soils; sanitation.

<u>PLANT</u>	<u>DISEASE</u>	<u>DESCRIPTION</u>	<u>CONTROL</u>
		twisting of upper leaves; abnormal leafy development of the tassel.	
	Common Rust (<i>Puccinia</i>)	Circular-elongate, brown pustules are scattered over upper & lower leaf surfaces. Yellowing & death of leaves and leaf sheaths may occur.	Resistant varieties.
	Northern Corn Leaf Blight (<i>Helminthosporium turcicum</i>)	Long, elliptical, gray-green or tan lesions, 2.5-15 cm in length develop first on lower leaves. Disease progresses upward.	Resistant varieties.
	Southern Corn Leaf Blight (<i>Helminthosporium cochliobolus</i>)	Tan lesions (.25-1.5 inches long) are elongate with parallel sides and brown borders; yellow halos may be present.	Resistant varieties.
Cotton	Alternaria Leaf Spot	Gray-brown irregular leaf spots.	See Bill Gazaway.
	Ascochyta Leaf Spot	Light brown circular spots with dark brown margins; spots will coalesce to involve large areas of the leaf surface.	See Bill Gazaway.
	Black Root Rot (<i>Thielaviopsis</i>)	Poor growth; yellowing of lower leaves; black lesions on roots.	See Bill Gazaway.
	Fusarium Lower Stem Rot	Lower stems develop red-brown sunken lesions.	Seed treatment.
	Pythium Root Rot Seedling Disease	Roots become brown, soft, water-soaked. Seedlings may fall over the soil line.	See treatment.
	Rhizoctonia Lower Stem/Root Rot	Brown lesions/cankers near soil line.	---
Crabapple	Cedar-Apple Rust (<i>Gymnosporangium</i>)	See Apple - Cedar-Apple Rust.	---

<u>PLANT</u>	<u>DISEASE</u>	<u>DESCRIPTION</u>	<u>CONTROL</u>
Crepe Myrtle	Cercospora Leaf Spot	Brown leaf spots (circular-irregular) of approximately ½ inch diameter.	---
	Powdery Mildew (<i>Erysiphe</i>)	Leaves show white dusting; yellowing; new growth distorted.	See AL P.M. Handbook.
Cryptomeria	Cytospora Canker	Sunken, elliptical shaped cankers.	Pruning out cankers, making cuts 3-4 inches beyond canker margin.
Cucumber	Anthracnose	Small (about ¼ inch), cream-colored leaf spots. When spores are produced, a zonate pattern of orange acervuli may develop.	Sanitation of damaged plant parts. For a protective fungicide, see the AL Pest Management Handbook.
	Powdery Mildew	White powdery dusting on leaves; blight.	See the AL Pest Management Handbook.
	Rhizoctonia Stem Rot	Brown elongated lesions on lower stems.	---
Cypress, Arizona	Kabatina Blight	Blight of older, inner foliage.	Sanitation.
Daisy, Gerbera	Powdery Mildew (<i>Erysiphe</i>)	Leaves show a white dusting; yellowing followed by browning.	See AL P. M. Handbook.
Daylily	Kabatiella Leaf Spot	Brown leaf spots with a yellow halo sometimes; when there are several leaf spots, the leaf may develop a yellow streak.	Sanitation. Cleary's 3336 protective sprays may help.
	Pythium Crown & Root Rot	Lower stems & roots become brown & water-soaked; foliage dieback occurs.	Sanitation; reduce irrigation.
	Root Knot Nematode (<i>Meloidogyne</i>)	Round-irregular galls on roots.	Crop rotation to grasses or other suppressive plants. See ANR-856.
	Rust (<i>Puccinia hemerocallidis</i>)	Leaves develop small yellow spots which eventually produce orange spots masses that are visible as orange, powdery spots.	Sanitation; Protective sprays of Banner Maxx, Heritage, Eagle, Immunox or Fertiloam System Fungicides.

<u>PLANT</u>	<u>DISEASE</u>	<u>DESCRIPTION</u>	<u>CONTROL</u>
Delphinium	Bacterial Stalk Rot (<i>Rectobacterium</i> [formerly <i>Erwinia</i>] <i>carotavorum</i>)	Dark brown-black, water-soaked stem decay.	Strict sanitation.
Dianthus	Pythium Root Rot	Foliage wilts, yellows; collapses.	Sanitation; Reduce irrigation; improve soil drainage. Plant a different type of bedding plant.
Dogwood	Anthracnose (<i>Discula</i>)	Small-large irregular brown spots/blotches often with purple margins. Dieback usually follows.	See the AL P. M. Handbook.
	Phyllosticta Leaf Spot	Light brown circular leaf spots with dark borders.	Sanitation of fallen leaves.
	Phytophthora Root Rot	Roots become brown and water-soaked. With slight pressure, the outer cortex of the root will slip away from the central root core.	See the AL P. M. Handbook.
	Powdery Mildew (<i>Microsphaeria</i>)	White dusting on upper leaf surfaces.	Cleary's 3336 or Domain.
	Spot Anthracnose (<i>Elsinoe</i>)	Small reddish circular spots develop on blossoms and leaves. Defoliation may result when spotting is severe.	See the AL P. M. Handbook.
Elm	Dutch Elm Disease	Wilt; dieback; interveinal yellowing of leaves; vascular browning.	Sanitation of dying branches of trees.
Elm, Winged	Botryodiplodia Canker	Elliptical sunken lesion with cracked edges.	Sanitation. Make pruning cuts 4-5 inches from edge of damage.
	Dutch Elm Disease	Wilt; dieback; interveinal yellowing of leaves; vascular browning.	Sanitation of dying branches or trees.
Fern, Boston	Rhizoctonia Blight	Sections of fronds develop spots and blight. Cut out damaged	Sanitation. Cleary's 3336 or Halt will provide protective

<u>PLANT</u>	<u>DISEASE</u>	<u>DESCRIPTION</u>	<u>CONTROL</u>
		areas, remove all clippings from the area. Apply a protective fungicide according to the AL Pest Management Handbook.	disease control.
Fescue	Brown Patch (<i>Rhizoctonia</i>)	See Centipede.	See the AL P. M. Handbook.
	Helminthosporium Leaf Spot	Small, elongate, reddish-brown spots develop. Spotting may be severe enough to cause total blight (death) of the foliage.	See the AL P. M. Handbook.
Fescue, Tall	Pythium Blight	See Bentgrass.	---
Fig	<i>Corticium salmonicolor</i> Blight	Pink mycelial mat develops on stem cankers.	Pruning.
Genseng	Fusarium Root Rot	Roots become decayed and dark brown-black. Decay is a dry rot.	Crop rotation for 10 or more years.
Geranium	Alternaria Leaf Spot	Black, small, angular leaf spots.	See AL P. M. Handbook.
	Botrytis Blight	Blossoms and leaves develop brown blotches.	See AL P. M. Handbook.
	Pythium Stem Rot	Dark brown, water-soaked lesions (cankers) develop on stems.	Sanitation.
Grape	Anthraxnose (<i>Colletotrichum</i>)	Brown round-irregular spots (about 1/8 inch or larger) on foliage/stem.	Sanitation; See the AL P. M. Handbook.
	Black Rot (<i>Guignardia</i>)	Dark brown circular spots on leaves and fruit.	Protective fungicide sprays; Sanitation.
	Botrytis Blight	Leaves/fruit develop a gray brown blotches/rot.	See AL P. M. Handbook.
Hawthorne	Entomosporium Leaf Spot	Black spots develop on the foliage. Spot coalescence may occur.	See the AL P. M. Handbook.
Holly	Phytophthora Root Rot	Roots are black or brown and water-soaked.	See the AL P. M. Handbook.

<u>PLANT</u>	<u>DISEASE</u>	<u>DESCRIPTION</u>	<u>CONTROL</u>
Hosta	Alternaria Leaf Spot	Gray, brown circular leaf spots.	Sanitation.
Hydrangea	Bacterial Leaf Spot (<i>Pseudomonas</i>)	Dark brown, angular leaf spots with dark, water-soaked edges.	Sanitation. Do not water over-head. See the AL Pest Management Handbook.
	Cercospora Leaf Spot	Circular-irregular, light brown spots about ¼ inch diameter or larger.	Sanitation of all damaged leaves. See the AL Pest Management Handbook.
	Colletotrichum Petal Blight	Orange-brown circular spots, blotches.	Cleary's 3336 or Domain.
	Phytophthora Crown Rot	Roots develop a wet brown decay that becomes dried with age.	Sanitation. See AL Pest Management Handbook.
	Pythium Root Rot	Poor growth of foliage; root decay.	Remove & destroy all damaged plants. Reduce watering; improve drainage. Subdue drenches may be used following label directions.
Impatiens	Impatiens Necrotic Spot Virus	Black circular spotting occurs on the foliage. New growth becomes stunted.	Control thrips; sanitation.
	Pythium Root Rot	Roots become soft, brown and water-soaked.	See the AL P. M. Handbook.
	Rhizoctonia Stem Rot	Sunken, brown, dry, lesions.	Sanitation. See the AL Pest Management Handbook.
Iris	Heterosporium Leaf Spot	Small-large brown, oval spots.	Sanitation. See AL Pest Management Handbook.
Ivy, English	Anthrachnose (<i>Colletotrichum</i>)	Brown circular-irregular spots on the foliage. Spot coalescence may occur.	See the AL P. M. Handbook.
	Bacterial Leaf Spot (<i>Xanthomonas</i>)	Black, angular, water-soaked spots on foliage.	See AL P. M. Handbook.
	Rhizoctonia Leaf & Stem Rot	Brown, dry lesions on leaves/stems.	Sanitation; Cleary's protective sprays.

<u>PLANT</u>	<u>DISEASE</u>	<u>DESCRIPTION</u>	<u>CONTROL</u>
Juniper	Cercospora Blight	Inner sections of branches turn brown and needles drop.	Benlate protective sprays. Sanitation.
	Phoma Needle Blight	Needle browning.	Sanitation. Fungicides labeled to control Phomopsis should help.
	Phomopsis Blight	Branches dieback beginning at twig tips.	Sanitation; see the AL P. M. Handbook.
	Phytophthora Root Rot	Roots become browned, water-soaked.	See the AL P. M. Handbook.
Juniper, Shore	Phytophthora Root Rot	Roots become brown and water soaked.	See the AL Pest Management Handbook.
Kudzu	Bacterial Leaf Spots (Suspect <i>Pseudomonas</i>)	Circular yellow spots with dark centers.	----
Leucothoe	Pythium Root Rot; may be secondary	Roots become water-soaked, slightly brown, rotted; foliage yellows; dieback; wilt.	Sanitation; reduce irrigation; improve soil drainage; remove some soil in root zone area of damaged plant before replanting.
Leyland Cypress	Pestalotia Tip Blight	Foliage tips become brown.	Eliminate stress.
	Sphaeropsis Dieback	Twigs dieback. Cankers develop.	Pruning.
Liriope	Anthrachnose	Brown spots, blotches on leaves and leaf tips.	Sanitation; See AL P. M. Handbook.
Lilac	Powdery Mildew	A white dusting appears on upper leaf surface. Eventually, leaf tissue becomes necrotic where the mildew was.	Sanitation of fallen leaves. See the AL Pest Management Handbook for protective fungicide use.
Magnolia, Saucer	Powdery Mildew	White dusting on leaf surface; leaf surface become brown.	See the AL Pest Management Handbook.
Magnolia, Southern	Algal Leaf Spot (<i>Cephaleuros</i>)	Green-red, slightly elevated, circular spots with wavy leaf spot edges.	Sanitation of fallen leaves.
Maple	Anthrachnose (<i>Kabatiella</i>)	Brown circular-irregular spots/blotches occur on leaves; large leaf areas	Sanitation. See the AL P. M. Handbook.

<u>PLANT</u>	<u>DISEASE</u>	<u>DESCRIPTION</u>	<u>CONTROL</u>
		may be involved. Defoliation may result.	
	Phyllosticta Leaf Spot	Circular (sometimes) irregular leaf spots. Leaf spots borders are often distinctive. Severe spotting will result in defoliation.	Sanitation. See the AL P. M. Handbook.
Mondo Grass	Anthracnose (<i>Colletotrichum</i>)	Brown spots blotches develop on leaves, often at/near leaf tips.	Sanitation. Cleary's or Domain protective sprays or a benomyl product labeled for ornamentals.
Nectarine	Bacterial Spot	See Peach.	See Peach.
	Brown Rot	See Peach.	See Peach.
Oak	Algal Leaf Spot (<i>Cephaleuros</i>)	Red-green circular spots.	Sanitation.
	Anthracnose (<i>Apiognomonina</i>)	Brown, irregular-shaped and sized spots/blotches on leaves. Often, blotches will follow along leaf veins. Early leaf drop will occur when disease is severe.	Sanitation of leaves in the fall. See AL P. M. Handbook.
	Oak Leaf Blister (<i>Taphrina</i>)	Brown, puckered spots (1/8-1/2 inch diameter) develop. Spots may merge. Leaf drop will occur when disease is severe.	Sanitation. See AL P. M. Handbook.
	Xylella Scorch	Oaks develop brown leaf edges; dieback.	Tree removal.
Okra	Rhizoctonia Crown Rot	Brown, dry lesions on lower stems.	Sanitation; crop rotation for 1-2 years.
Palm	Graphiola Leaf Spot	Yellow leaf spots that develop small black, raised bodies.	Remove and destroy spotted leaves.
Paspalum	Brown Patch (<i>Rhizoctonia</i>)	Foliage blight in patches.	See AL P. M. Handbook in Turfgrass Section.
Pea, Field	Anthracnose	Reddish circular-irregular spots.	See AL P. M. Handbook.

<u>PLANT</u>	<u>DISEASE</u>	<u>DESCRIPTION</u>	<u>CONTROL</u>
	Black Eye Cowpea Mosaic Virus/Other Mosaic Virus	Yellow and green mosaic pattern on leaves; reduced growth.	Plant resistant varieties- 'Mississippi Cream' or 'Pink Eye Purple Hull BVR'.
	Charcoal Rot (<i>Macrophomina</i>)	Lower stems become dried and off-color. When stem is split, inner tissues are gray and appear as if sprinkled with fine charcoal powder.	Sanitation; crop rotation or fumigation.
	Fusarium Crown/Root Rot	Brown or reddish-brown lesions at soil line and on roots.	Long crop rotations.
	Fusarium Wilt	Plants become yellow and wilted, starting with lower foliage. Sometimes damage is on one side of plant only. Vascular tissues are brown-streaked.	Rotation for 6-12 years.
	Rhizoctonia Stem Rot	The stem area just above the soil-line becomes browned with a large lesions that often develops on one side of the stem. Eventually the whole stem may become affected.	See the AL P. M. Handbook.
	Root-Knot Nematode (<i>Meloidogyne</i>)	Galls, irregular, on roots.	Rotate to grasses.
Peach	Bacterial Leaf Spot (<i>Xanthomonas</i>)	Brown or reddish-brown, irregular-circular spots which fall out leaves shot holes; may be yellowing around spots.	Sanitation; spray for commercial growers.
	Brown Rot (<i>Monilinia</i>)	Twigs may die; fruit develops a gray-brown rot. Gray mycelium & spores of fungus will develop during humid weather.	See AL P. M. Handbook; Sanitation.
	Gummosis (<i>Botryosphaeria</i>)	Bark becomes sunken and cracked; oozing of sap.	Sanitation.

<u>PLANT</u>	<u>DISEASE</u>	<u>DESCRIPTION</u>	<u>CONTROL</u>
	Rhizopus Soft Rot	Fruit becomes brown, rotted, and watery.	---
	Scab (<i>Cladosporium</i>)	On the fruit, small (1/16" diameter) olive, velvety spots may develop into large blotches. Spots/blotches are superficial. On twigs small (1/8-1/4 inch diameter), slightly raised, green-brown spots develop on lower leaf surfaces.	Protective fungicide sprays; sanitation.
Peanut	Crown Rot (<i>Aspergillus niger</i>)	Lower stem becomes dry rotted.	See A. Hagan.
	Early Leaf Spot (<i>Cercospora</i>)	Brown spots with halos develop on lower leaf surfaces.	Protective fungicide sprays; sanitation.
	Rhizoctonia Limb Blight	Brown lesions on stems.	See the AL P. M. Handbook.
	Rhizoctonia Seedling Disease	Brown sunken lesions on lower stems.	Seed treatment.
	Tomato Spotted Wilt Virus	Yellow ring-spots and line patterns on foliage; stunted plants.	Sanitation; control thrips.
Pear	Cedar-Hawthorne Rust (<i>Gymnosporangium globosum</i>)	Cedar cankers with orange urediospores and witches brooms. Pears with yellow leaf spots and orange aecial 'cups' on lower leaf surface and fruit.	See control for cedar apple rust.
	Fabraea Leaf Spot	Black circular leaf spots (2-4 mm) develop on the foliage. Severe spotting may cause early defoliation.	Sanitation. The regular spray schedule for apples/pears may give some protective control. For flowering pear, see the AL P. M. Handbook.
	Fireblight (<i>Erwinia</i>)	Dieback develops on branches. Dead branches become black. Black spots/blotches may develop along the leaf margins.	Prune out damage 10-14 inches beyond the margin of the damaged tissue.

<u>PLANT</u>	<u>DISEASE</u>	<u>DESCRIPTION</u>	<u>CONTROL</u>
	Frog Eye Leaf Spot (<i>Botryosphaeria</i>)	Brown circular spots with purple margins.	Sanitation; protective sprays of benomyl. See AL P. M. Handbook.
Peony	Tomato Spotted Wilt Virus	Yellow ring spots & line patterns.	Sanitation; control thrips.
Pepper	Anthracoese Fruit Rot	Black blotches (sometimes with orange spore pustules).	See AL P. M. Handbook.
	Bacterial Spot (<i>Xanthomonas</i>)	Dark brown, circular to irregular spots; shot holes; leaf yellowing & drop.	Protective fungicide sprays; sanitation.
	Bacterial Wilt (<i>Pseudomonas</i>)	Plants rapidly wilt while green.	Crop rotation away from tomato, potato, pepper, eggplant for 3-5 years.
	<i>Phytophthora capsici</i> Crown Rot	Lower stems become brown and water-soaked.	Sanitation. Solarization or fumigation. See handbook.
	Southern Blight (<i>Sclerotium rolfsii</i>)	The lower stem near the soil line becomes softened and browned and decayed. A white mold will develop during humid warm weather.	See the AL P. M. Handbook.
	Tomato Spotted Wilt Virus	Plants stunted. New growth distorted. (Sometimes ring spots and bronzing are present.)	Sanitation. Control thrips.
Persimmon, Asiatic	Botryosphaeria Canker	Elliptical, sunken lesions with cracked edges.	Pruning.
Petunia	<i>Phytophthora</i> Foliage Blight/Root Rot	Brown, sometimes wet-looking lesions; dieback.	Sanitation; See AL P. M. Handbook.
Pine	Lophodermium Needle Cast (<i>Ploioderma</i>)	Needles turn brown and drop; very small (1-2 mm or 1/32 inch) football shaped, black fruiting bodies.	Protective fungicide sprays during the spring and fall.
Phlox	Pythium Root Rot	Small roots become stunted, water-soaked,	Remove damaged plants. Reduce watering

<u>PLANT</u>	<u>DISEASE</u>	<u>DESCRIPTION</u>	<u>CONTROL</u>
		and a light brown. Plants yellow, wilt and dieback.	schedules; improve drainage.
Pittosporum	Cercospora Leaf Spot	Brown, circular-irregular blotches about ½ inch diameter.	Sanitation of fallen leaves; protective Daconil or Bravo sprays.
Plum	Bacterial Leaf Spot (<i>Xanthomonas</i>)	See Peach Bacterial Leaf Spot.	---
	Black Knot (<i>Dibotryon</i>)	Black, elongated, irregular gall-like tissue on branches; dieback.	See Circular ANR-217. Only Captan and Ferbam are available for spray treatments.
	Plum Leaf Scald (<i>Xylella</i>)	Leaf edges become brown, often zonated-brown. Dieback.	Remove trees to prevent disease spread.
Potato, Irish	Late Blight (<i>Phytophthora infestans</i>)	Brown blotches on leaves/stems.	See AL P. M. Handbook.
	Rhizoctonia Lower Stem Rot	Dry, brown decay.	Sanitation.
	Root-Knot Nematode	Tubers develop knots on skin surface.	Rotation; solarization.
	Scab (<i>Streptomyces</i>)	Small (0.12-0.25 inch or 5-8 mm diameter) brown lesions which may be sunken or raised.	Crop rotation; Maintain soil moisture; Avoid over-liming; Maintain soil pH at 5.3-5.5. Use scab tolerant varieties.
	Stem Soft Rot (<i>Erwinia</i>)	Stems become black, soft, watery, with a foul smell.	Sanitation. Avoid wounding.
	White Mold (<i>Sclerotium rolfsii</i>)	Plants wilted; a white mold often present at the soil line.	See AL P. M. Handbook (commercial).
Privet	Cercospora Leaf Spot	Medium brown circular spots.	See AL P. M. Handbook.
Rhododendron	Cercospora Leaf Spot	Circular, oval, or irregularly shaped brown leaf spots.	Sanitation. See the AL Pest Management Handbook.
	Phytophthora Root Rot	Roots become brown and water-soaked.	See the AL P. M. Handbook.

<u>PLANT</u>	<u>DISEASE</u>	<u>DESCRIPTION</u>	<u>CONTROL</u>
Rose	Black Spot (<i>Diplocarpon</i>)	Black spots with fringed borders develop on leaves. Defoliation will result from severe spotting.	Sanitation. See the AL P. M. Handbook.
	Botrytis Blossom Blight	Brown spots and blotches on petals; when conditions are cool and humid, a gray mold is seen.	Sanitation. See the AL Pest Management Handbook.
	Mosaic Virus	Yellow line patterns, mosaics.	Plant removal.
	Powdery Mildew	White dusting on leaf surfaces; new growth distortion.	See AL P. M. Handbook.
	Rhizoctonia Crown Rot	Brown lesions at soil line.	Sanitation; Cleary's protective drenches.
Rudbeckia	Bacterial Leaf Spot	Dark brown, angular leaf spots with darker, water-soaked edges.	Sanitation. Do not water over-head.
Salvia	Phytophthora Root Rot	Roots brown, water-soaked.	Sanitation. See AL P. M. Handbook.
Shamrock, Purple (Oxalis)	Rust (<i>Puccinia sorghi</i>)	Small yellow spots on upper leaf surfaces; orange powdery spots on corresponding lower leaf surfaces.	---
Snapdragon	<i>Phytophthora parasitica</i> Crown Rot	Crowns become water-soaked, brown, rotted.	Sanitation. Avoid excessive irrigation. See AL P. M. Handbook.
Sorghum	Anthrachnose (<i>Colletotrichum</i>)	Leaves/stems develop black lesions.	---
	Rhizoctonia Root Rot	Dry brown rot on roots.	---
Soybean	Bacterial Leaf Spot	Dark, brown, angular spots with darker, water-soaked edges.	See Ed Sikora.
	Cyst Nematode (<i>Heterodera</i>)	Plants are stunted and yellow. Root systems are reduced and show a low incidence of Rhizobium nodules.	Rotation; resistant cultivars; See Soybean Pest Management, Circular ANR-413.

<u>PLANT</u>	<u>DISEASE</u>	<u>DESCRIPTION</u>	<u>CONTROL</u>
		White-yellow female bodies and brown cysts about the size of a small pin head may be seen on roots with the aid of a hand lens.	
	Pythium Seedling Disease	Usually lower stem tissues and/or roots become translucent, brown and watery.	Used treated seed.
	Rhizoctonia Seedling Disease	Red-brown, dry decay of lower stems and roots.	Used treated seed.
	Root Knot Nematode (<i>Meloidogyne</i>)	Plants are stunted and yellowed. Roots develop knots or galls of variable shape and size.	Crop rotation; Use of resistant cultivars. See AL P. M. Handbook.
Squash	Bacterial Wilt (<i>Erwinia</i>)	Individual leaves wilt and turn brown. A sticky ooze will stream out of petiole when it is placed in warm water.	Control cucumber beetles; sanitation.
	Cucumber Mosaic Virus (CMV)	Leaves develop a mottled green-yellow or dark green-light green coloration; new growth is stunted.	Remove affected plants; Control insects and weeds.
	Phytophthora Crown Rot	Lower stem tissues become brown and wet.	Sanitation. Correct wet soil situations. Crop rotate.
	Tobacco Ringspot Virus	Leaves show mosaic, stunting.	Sanitation; crop rotation for 2-4 years.
	Watermelon Mosaic Virus (WMV) II	See comments for CMV.	---
Squash, Zucchini	Mosaic Virus	A somewhat regular pattern of green and light green or yellow-white discoloration.	Sanitation. Control insects.
St. Augustine	Brown Patch (<i>Rhizoctonia</i>)	Brown leaf spots, blotches.	See the AL P. M. Handbook.
	Gray Leaf Spot (<i>Piricularia</i>)	Gray-brown oval or irregular spots on grass	Protective fungicide sprays; Sanitation.

<u>PLANT</u>	<u>DISEASE</u>	<u>DESCRIPTION</u>	<u>CONTROL</u>
		blades; spots may merge.	
	Take-All Patch (<i>Gaeumannomyces</i>)	Plants yellow and die. Stolons, roots develop black lesions.	See ANR-823.
Strawberry	Common Leaf Spot (<i>Mycosphaerella</i>)	Young leaf spots are small, round and deep purple. Older spots are about 1/16 inch diameter with white or brown centers and purple borders. Spots may coalesce.	See AL P. M. Handbook.
	Phytophthora Crown & Root Rot	The crowns and roots become brown and wet.	Sanitation. See the AL Pest Management Handbook.
Sunflower	<i>Xanthomonas axonopodis</i> pv. <i>zinniae</i>	Dark, water-soaked lesions (cankers) on stems; dieback.	Remove damaged plant; do not water by overhead sprinklers.
Sweet Potato	Fusarium Root Rot	Surface of root becomes browned and shriveled.	See AL P. M. Handbook.
Sycamore	Powdery Mildew (<i>Microsphaera</i>)	White coating develops on leaves; new leaves are deformed.	Sanitation of leaves in the fall.
	Xylella Scorch Disease	Leaf edges become browned; dieback.	Tree removal.
Thrift	Rhizoctonia Blight	Leaves develop brown spots and blotches.	Cleary's 3336 or a benomyl labeled for ornamentals will give protective control; sanitation.
Tomato	<i>Alternaria alternate</i> Leaf Spot	Small, circular, brown leaf spots.	Sanitation. See control comments for early blight.
	Bacterial Canker (<i>Corynebacterium clavibacter</i>)	Elongate brown, wet-looking lesions or cankers on stems; centers of cankers dry and look white.	Protective sprays; Sanitation. See the AL Pest Management Handbook under bacterial speck/spot.
	Bacterial Speck	Small, dark, greasy irregular spots on leaves and stems. A yellow halo may surround	See AL Pest Management Handbook. Strict sanitation.

<u>PLANT</u>	<u>DISEASE</u>	<u>DESCRIPTION</u>	<u>CONTROL</u>
		spots. Spots may merge together.	
	Bacterial Spot (<i>Xanthomonas</i>)	Small, dark, greasy irregular spots on leaves and stems. Fruit spots are raised, brown and scabby.	See AL P. M. Handbook. Strict sanitation.
	Bacterial Wilt (<i>Ralstonia solanacearum</i>)	Rapid wilting of green plants.	Rotation. Fumigation or solarization.
	Blossom End Rot	Hard, black lesions at blossom end of fruit.	See the AL P. M. Handbook.
	Buckeye Rot (<i>Phytophthora</i>)	On fruits, spots are pale brown with concentric rings; spots small or large; fruit flesh decomposes.	Keep fruit off soil; Ridomil.
	Cucumber Mosaic Virus	Leaves become thin and narrow (strap-shaped). Plants have reduced growth.	Remove damaged plants; control insects, weeds.
	Early Blight (<i>Alternaria solani</i>)	Brown circular-irregular spots with target-like ring pattern.	Fungicide sprays; Sanitation in the fall.
	Fusarium Wilt	Lower leaves become yellow and yellowing/wilting progresses up the plant. One sided effects may occur.	Rotation; Plant varieties resistant to Fusarium wilt.
	Late Blight (<i>Phytophthora infestans</i>)	Brown lesions (blotches) on leaves/ stems.	See AL P. M. Handbook.
	Leaf Mold (<i>Fulvia fulva</i>)	Gray fungal growth in blotches on leaves.	See AL P. M. Handbook.
	Pith Necrosis (<i>Pseudomonas</i>)	Dieback, wilt above necrotic stem area. Internally, the stem is hollow with characteristic plant tissue threads across the hollow stem internal areas.	Sanitation. See the AL Pest Management Handbook under bacterial canker.
	Potato Virus Y Group	Foliage stunted and mottled.	Sanitation. Control weeds. Control aphids.

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

<u>PLANT</u>	<u>DISEASE</u>	<u>DESCRIPTION</u>	<u>CONTROL</u>
Vinca Minor	Anthrachnose (<i>Colletotrichum</i>)	Small-large brown blotches on leaves.	See the AL P. M. Handbook under perennial vinca.
Watermelon	Anthrachnose (<i>Colletotrichum</i>)	Roughly circular, black-brown lesions with irregular margins on leaves; black spots occur on fruit; lesions on stems and petioles are tan and elongated.	See the AL P. M. Handbook.
	Bacterial Fruit Blotch (<i>Acidovorax</i>)	Dark brown blotches on fruit.	Sanitation. See Ed Sikora.
	Fusarium Crown Rot	Brown dried lesions near soil line.	Plant Fusarium resistant varieties; crop rotation for 6-12 or more years.
	Fusarium Wilt	Vines become yellowed and wilted, beginning with the oldest foliage.	Rotation out of watermelon for 6-12 years.
Wax Myrtle	Gummy Stem (<i>Mycosphaerella</i>)	Elongate, brown and wet lesions form on stems; cracking. Brown-black spots may develop on leaves.	Protective fungicide sprays; Sanitation in the fall.
	Botryosphaeria Canker	Elliptical, sunken lesions with cracked edges.	Pruning.
Weeping Willow	Sphaeropsis Canker	Dieback to sunken lesions on branches.	Pruning.
Wheat	Scab (<i>Fusarium</i>)	Heads covered with pink spores.	Sanitation.
Yaupon, Dwarf	Phytophthora Root Rot	Roots become brown, water-soaked.	Sanitation.
Zinnia	Bacterial Leaf Spot (<i>Xanthomonas</i>)	Dark, water-soaked, angular spots, sometimes with a yellow halo around the spot edges.	Strict sanitation. Do not water over-head.
Zoysia	Bipolaris Blight, Leaf Spot/Crown Rot (also <i>Exserohilum rostratum</i>)	Small, brown, elongated spots on leaves and crowns.	See AL P. M. Handbook; Collect grass clippings.
	Brown Patch (<i>Rhizoctonia</i>)	See Centipede.	See Centipede.

<u>PLANT</u>	<u>DISEASE</u>	<u>DESCRIPTION</u>	<u>CONTROL</u>
	Dollar Spot (<i>Sclerotinia</i>)	See Bermuda	See Bermuda.
	Rust (<i>Puccinia</i>)	Red-orange powdery dusting on leaf blades.	Collect grass clippings; Usually fungicides are not needed.
	Take-All Patch (<i>Gaeumannomyces</i>)	Scattered, individual plants yellow & die in an area; sections/areas of turf thin and yellow.	Keep soil pH near 6.0 (or slightly below), use only ammonia-based fertilizers.
Grasses	Slime Molds	White, gray, or brown thin, translucent sheet-like bodies on turf or other areas; turf may be covered by black, gray, or green powdery spores.	Physical removal; See AL P. M. Handbook.

Comments

Please fill out the diagnostic sheet with as much information as possible on the problem. Also, please tell us your name, county, and phone number, including area code. This will help!