

Hawaii: Top Crops, Top Diseases (draft Dec. 2008) - by Scot C. Nelson and Brian C. Bushe

Crops	Disease name	Pathogen(s)	Site(s) of Infection	Symptoms	Management*
Anthurium	Anthurium blight	<i>Xanthomonas campestris</i> (bacterium)	Root, Leaf, Petiole	Foliar chlorosis and necrosis, wilting, leaf and plant decline and death	Sanitation, rogue diseased plants, use sterilant to disinfect shears between cuts
	Anthracnose (blacknose)	<i>Colletotrichum gloeosporioides</i> (fungus)	Spadix	Necrotic spots on spadix (actual flowers)	Sanitation, harvest early, fungicidal sprays
	Radopholus root rot	<i>Radopholus similis</i> (nematode)	Root	Root necrosis, plant chlorosis, plant stunting and decline	Avoidance, sanitation, crop rotation
	Root knot	<i>Meloidogyne</i> spp. (nematodes)	Roots	Above ground- chlorosis, stunting; below ground- stubby roots	Preplant fumigation, avoidance, crop rotation, composting
	Root rots	<i>Phytophthora</i> , <i>Pythium</i> , and <i>Rhizoctonia</i> spp. (fungi and fungus-like organisms)	Roots	Root necrosis, plant chlorosis, plant stunting and decline	Ensure good drainage of soil or media, crop rotation, do not over-irrigate
Aglaonema	Algal leaf spot	<i>Cephaleuros virescens</i> (alga)	Leaves	Leaf spots on both leaf surfaces	Increase plant vigor; open canopy
	Bacterial Leaf Spot	<i>Pseudomonas cichorii</i> ; <i>Erwinia</i> spp.; <i>Xanthomonas</i> sp. (bacteria)	Leaves	Water-soaked, dark brown to black leaf spots with chlorotic halo.	Sanitation, rogue diseased plants, use sterilant to disinfect shears between cuts
	Foliar Blight/Crown Rot	<i>Fusarium subglutinans</i> (fungus)	Leaf, stem spots; stem/collar rots	Large leaf spots with extensive yellowing; stems rot completely	Sanitation, Increase plant aeration, fungicides
	Magnesium deficiency	none	Foliage	Yellow-orange color appears at leaf margins, plant stunting and poor growth	Fertilize plants, choice of planting location
	Root Rot	<i>Pythium</i> spp. (fungus like organism), <i>Rhizoctonia</i> sp. (fungus)	Roots	Above ground- chlorosis, stunting, wilting, death; below ground- root rot	Sanitation, improve drainage, fungicides
	Areca palm	Gliocladium blight	<i>Gliocladium vermoeseni</i> (fungus)	Roots, basal stems	Root and basal stem rots showing pinkish fungal coloration
Leaf spots		<i>Bipolaris</i> and <i>Exserohilum</i> spp. (fungi)	Leaves	Spots on leaves, may be surrounded by yellow halos	Irrigation management (reduce periods of leaf wetness), sanitation, fungicide sprays, choice of planting location, increase plant aeration
Avocado	Anthracnose	<i>Colletotrichum gloeosporioides</i> (fungus)	Fruit	Fruit drop, rot; reduces shelf life	Pruning canopy; pre/post harvest fungicidal treatments
	Algal Leaf Spot	<i>Cephaleuros virescens</i> (alga)	Leaves	Leaf spots on both leaf surfaces	Increase plant vigor; open canopy
	Phytophthora cankers	<i>Phytophthora</i> spp. (pseudofungus)	Crown, collar	Canker on trunk, bark discoloration, whitish exudate	Resistant cultivars

	Phytophthora root rot	<i>Phytophthora cinnamomi</i>	Roots	Gradual decline, dieback, death	Resistant cultivars, virgin soil
Azalea	Algal leaf spot	<i>Cephaleuros virescens</i> (alga)	Leaves	Leaf spots on both leaf surfaces	Increase plant vigor; open canopy to increase canopy aeration (pruning)
	Cercospora leaf spot	<i>Cercospora</i> sp. (fungus)	Leaves	Gray - tannish circular leaf spots	Sanitation, increase plant aeration, fungicides
	Gray blight	<i>Pestalotia</i> sp. (fungus)	Leaves	Brown - silver gray leaf blotches	Sanitation, increase plant aeration, fungicides
	Gray mold	<i>Botrytis cinerea</i> (fungus)	Leaves, blossoms	Tannish leaf/petal blotches	Sanitation, increase plant aeration, fungicides
	Phomopsis twig blight	<i>Phomopsis</i> sp. (fungus)	Stem, twigs	Brown stems, twigs	Sanitation, increase plant aeration, fungicides
	Root knot	<i>Meloidogyne</i> spp. (root-knot nematodes)	Roots	Above ground- chlorosis, stunting; below ground- root galls	Preplant fumigation, avoidance (prevent seedling infections in nurseries)
	Root Rot	<i>Pythium</i> spp. (pseudofungus), <i>Rhizoctonia</i> sp. (fungus)	Roots	Foliar chlorosis, plant stunting, wilting, plant death, root necrosis and rot	Sanitation, improve drainage, fungicides
Bamboo	Rust	<i>Dasturella divina</i> (fungus)	Leaves	Chlorotic leaf spots	Resistant cultivars
Banana (<i>Musa</i> spp.)	Anthracoise	<i>Colletotrichum gloeosporioides</i> (fungus)	Fruit	Large, brown spots on fruits	Sanitation, Pruning, De-trashing, promote good soil drainage, plant spacing, plant nutrition
	Black leaf streak	<i>Mycosphaerella fijinesis</i> (fungus)	Leaves	Streaks, spots	Sanitation, pruning, fertilize plants, fungicide sprays
	Boron deficiency	none	no infection	Foliar deformity, stunting of plants	Fertilize plants
	Bunchy top	<i>Banana bunchy top virus</i> (virus)	Leaf, Petiole, Pseudostem	Reduced internode distance between leaves ("bunched up"), stunting of plants, Morse code, mottled petioles, green hook sin leaf veins	Rogue diseased plants, control banana aphid vectors
	Calcium deficiency	none	no infection	Foliar deformity, stunting of plants	Fertilize plants (add lime to soils)
	Crown rot	<i>Fusarium</i> (fungus)	Fruit	Necrosis of severed crown on hand of fruits	Field sanitation and harvesting practices
	Fusarium wilt, Panama disease	<i>Fusarium oxysporum</i> (fungus)	Root, xylem (pseudostem)	Plant wilting and death, foliar yellowing, plant stunting, poor yield	Cultivar selection, choice of planting location, sanitation
	Marasmiellus stem rot	<i>Marasmiellus inoderma</i> (fungus)	Root, Pseudostem	Plant wilting and death, foliar yellowing, plant stunting, poor yield	Plant in fertile and well-drained soils, fertilize plants
	Potassium deficiency	none	no infection	plant stunting, foliar necrosis	Fertilize plants with banana fertilizer such as 13-3-39

	Radopholus root rot	<i>Radopholus similis</i> (burrowing nematode)	Root, Corn	Root necrosis, plant toppling and death	Choice of planting location, sanitation of planting material, maintain good crop fertility, stabilize or support bunch-bearing plants, maintain good soil drainage
	Root knot	<i>Meloidogyne</i> spp. (root-knot nematodes)	Root	Galls on roots, unthrifty plant growth, toppling	Prop up diseased plants, divert water from draining rough field, fallow
Basil	Fusarium wilt	<i>Fusarium oxysporum</i> (fungus)	Roots (all)	Chlorosis, wilting	Sanitation, provide good drainage, resistant varieties
	Leaf spots	<i>Colletotrichum</i> spp., <i>Corynespora cassicola</i> (fungi)	All aerial organs	Necrotic leaf spots	Sanitation, eradication, reduce foliar wetness
	Root knot	<i>Meloidogyne</i> spp. (root-knot nematodes)	Roots	Above ground- chlorosis, stunting; below ground- stubby roots	Preplant fumigation, avoidance, crop rotation, composting
Bird of Paradise	Bacterial wilt	<i>Ralstonia solanacearum</i> (bacterium)	Roots	Wilting	Rogue, prevent spread, avoidance (choice of planting location)
	Decline	<i>Radopholus similis</i> (burrowing nematode)	Roots	Above ground- chlorosis, stunting; below ground- stubby roots	Preplant fumigation
	Leaf spot/blight	<i>Cylindrocladium pteridis</i> (fungus)	Leaves, petiole	Small dark leaf spots expanding to large necrotic blotches encompassing whole leaf/petiole	Rogue, sanitation, prevent spread, fungicides
Blueberry	Rust	<i>Naohedimycetes vaccini</i> (fungus)	Leaves	Powdery, rust-colored spots on leaf undersides, leaf necrosis, defoliation	Choice of planting variety, cultivar selection, fungicide sprays
	Anthracnose	<i>Colletotrichum gloeosporioides</i>	Fruit, leaves	Rot, leaf spots	Sanitation, moisture management, fungicides
	Botrytis Blight	<i>Botrytis cinerea</i>	Young twigs, leaves, blossoms, fruit	Chlorosis, necrosis, rot	Sanitation, moisture management, fungicides
	Twig blight	<i>Phomopsis</i> sp. (fungus)	Leaves, fruits, twigs	Leaf spots, fruit rots, young twig dieback	Choice of planting variety, cultivar selection, fungicide sprays
Bougainvillea	Alternaria Leaf Spot	<i>Alternaria</i> (fungus)	Leaves	Spots on leaves, defoliation	Sanitation, leaf wetness control, intercropping, fungicides
	Bacterial leaf spot	<i>Burkholderia andropogonis</i> (bacterium)	Leaves	Spots on leaves	Sanitation, leaf wetness control, intercropping, bactericides
	Cercosporidium leaf spot	<i>Cercosporidium</i> (fungus)	Leaves	Spots on leaves	Sanitation, leaf wetness control, intercropping, fungicides

	Root rots	<i>Phytophthora</i> , <i>Pythium</i> , and <i>Rhizoctonia</i> spp. (pseudofungi and fungi)	Roots	Necrosis of roots, foliar chlorosis and death	Choice of planting location, sanitation and rogueing, fungicides, avoidance or wet soil locations
Cabbage	Black rot	<i>Xanthomonas</i> <i>campestris</i> pv. <i>Campestris</i> (bacterium)	Leaves	Marginal leaf necrosis, black veins in leaves, leaf blight	Crop rotation, intercropping, choice of planting location
	Club Root				
Crucifers	Black rot	<i>Xanthomonas</i> <i>campestris</i> pv. <i>Campestris</i> (bacterium)	Whole plant	Chlorosis, black vascular tissue, soft rot	Sanitation, crop rotation
	Alternaria Leaf Spot	<i>Alternaria</i> spp.	Leaves	Small dark leaf spots expanding to large necrotic blotches encompassing whole leaf/petiole	Resistant cultivars, planting disease free seed
	Black leg	<i>Leptosphaeria</i> <i>maculans</i> (fungus)	Stem, foliage	Damping off, blackened stem; vein restricted leaf spots	Seed borne, crop rotation, eliminate weed hosts, resistant cultivars
	Clubroot	<i>Plasmodiophora</i> <i>brassiccae</i>	Roots	Root swelling	Resistant cultivars, liming
	Downy mildew	<i>Peronospora</i> <i>parasitica</i> (fungus)	Foliage	Chlorosis, necrotic leaf spots	Crop rotation, eliminate weed hosts, fungicides
	Wirestem, bottom rot	<i>Rhizoctonia solani</i> (fungus)	Basal stems, roots	Stems darkened and girdled; leaves rot at base progress to head rot	Sanitation, remove leaf litter, fungicide applications
	Root Knot Nematodes	<i>Meloidogyne</i> spp. (root-knot nematodes)	Roots	Above ground- chlorosis, stunting; below ground- root galls	Preplant fumigation
Canna lily	Rust	<i>Puccinia thaliae</i> = <i>Puccinia cannae</i> (fungus)	Leaves	Orange colored rust pustules on lower leaf surface	Sanitation, fungicide applications
Citrus	Melanose	<i>Diaporthe citri</i> (fungus)	Foliage, stem, fruits	Tear-streaked lesions on fruit; shoot dieback	Properly timed fungicide applications
	Foot rot	<i>Phytophthora</i> spp.	Roots, trunk near soil	Gummosis, root rot, dieback	Tolerant root stocks, fungicides
	Greasy spot	<i>Mycosphaerella citri</i> (fungus)	Foliage, fruit	Slightly raised blisters on lower leaf and fruit surface; defoliation	Sanitation, remove leaf litter, fungicide applications
	Scab	<i>Elsinoe fawcettii</i> (fungus)	Foliage, fruit	Raised, warty, cracked yellowish brown to dark gray	Properly timed fungicide applications
	Tristeza	<i>Citrus tristeza virus</i> (virus)	Whole plant	Foliar chlorosis, stem dieback, plant decline, stem pitting	Avoidance, sanitation
Coconut	Heart rot	<i>Phytophthora</i> <i>katsurae</i> (pseudofungus)	Whole plant	Wilting, discoloration, death of youngest leaf.	Rogue infected trees, nuts; disinfect pruning tools
	Root rot	<i>Phytophthora</i> sp. (pseudofungus)	Roots	Root necrosis, rotting, foliar chlorosis, plant wilting and death	Avoid over-irrigation or wet locations or heavy growth medium, fungicides

	Stem bleeding disease	<i>Chalara (Thielaviopsis paradoxa)</i> (fungus)	Roots, trunk, leaf, terminal	Slow decline, dark trunk lesions, bleeding; necrosis of lowest leaves, eventual defoliation	Avoid trunk wounding, disinfect pruning tools, avoid contact of irrigation water with wounded areas of stems
	Nutrient deficiencies	Calcium, boron, potassium, magnesium	Foliage	Various foliar abnormalities, including chlorosis, necrosis and deformity	Fertilize plants
Coffee	Cercospora Berry Blotch/Leaf Spot	<i>Cercospora coffeicola</i> (fungus)	Leaf, Berry, Cherry	Leaf spot	Maintain good plant nutrition, choice of planting location, avoid plant stress, fungicides
	Root knot ("Coffee nematode decline")	<i>Meloidogyne konaensis</i> (root-knot nematode)	Root	Galls on roots, root cracking and rot, foliar chlorosis and decline, plant death	Grafting onto nematode-tolerant 'Fukunaga' rootstock, avoidance, sanitation, nematode-free seedlings, fallow
Corn	Maize mosaic	<i>Maize mosaic virus</i> (virus)	Leaf	Foliar chlorosis (mosaic)	Cultivar selection, vector control via insecticides, rogue infected plants
	Southern rust	<i>Puccinia polysora</i> (fungus)	Leaf	Rust-colored spotting on leaves	Cultivar selection, fungicides
	Helminthosporium leaf blight	<i>Helminthosporium (Exserohilum) turcicum</i> (fungus)	Leaf	Leaf spots and blight, defoliation, poor yield	Cultivar selection, fungicides
	Kernel rot	<i>Fusarium moniliforme</i> (fungus)	Ear, Kernel, Seedling	Necrosis and rot of kernels, seeds and seedlings	Cultivar selection, seed treatment with fungicides, irrigation management, choice of planting location
	Maize dwarf mosaic	<i>Maize dwarf mosaic virus</i> (virus)	Leaf	Foliar chlorosis (mosaic), plant stunting	Cultivar selection, vector control via insecticides, rogue infected plants
	Bacterial leaf blight	<i>Pseudomonas avenae</i> subsp. <i>avenae</i> (bacterium)	Leaf	Leaf blight	Choice of planting location
	Common rust	<i>Puccinia sorghi</i> (fungus)	Leaf, stem	Rust-colored spotting on leaves	Cultivar selection, fungicides
Cucumber	Powdery mildew	<i>Sphaerotheca fuliginea</i> (fungus)	Leaves, petioles	Whitish, powdery growth on leaf surface, foliar necrosis and defoliation	Fungicides
Cucurbits	Anthracnose	<i>Colletotrichum orbiculare</i> (fungus)	Foliage, stem, fruit	circular light brown to reddish, centers dry and crack	Resistant cultivars, sanitation, fungicides
	Gummy stem blight	<i>Didymella bryoniae</i> (fungus)	Foliage, stem, fruit	Circular, tan to dark brown spots leading to blights, wilting of vines	Treated seed, crop rotation, fungicides
	Powdery mildew	<i>Sphaerotheca fuliginea</i> ; <i>Erysiphe cichoracearum</i> (fungi)	All aerial organs	Whitish powdery growth, distortion, leaf drop	Resistant cultivars, sanitation, fungicides
	Target leaf spot	<i>Corynespora cassicola</i> (fungus)	All aerial organs	Circular, gray, centers drop out give shot-hole or shredded leaf appearance	Resistant cultivars, sanitation, crop rotation, fungicides

	Cucumber Mosaic	<i>Cucumber mosaic virus</i> (virus)	Whole plant	Young leaves curl down and become mottled, distorted, wrinkled and reduced in size	Resistant cultivars; eliminate weed hosts
	Root Knot Nematodes	<i>Meloidogyne</i> spp. (root-knot nematodes)	Roots	Above ground- chlorosis, stunting; below ground- root galls	Preplant fumigation
Daylily	Daylily rust	<i>Puccinia hemerocallidis</i> (fungus)	Foliage	Raised pustules on either leaf surface	Resistant cultivars
Dieffenbachia	Anthrachnose	<i>Colletotrichum gloeosporiodes</i>	Foliage	Tan, circular leaf spots with bright chlorotic halo	Sanitation, avoid overhead watering, fungicidal sprays
	DsMV	<i>Dasheen Mosaic Virus</i>	Foliage	Localized feathering, severe distortion, reduction in leaf size.	Rogue
	Myrothecium leaf spot	<i>Myrothecium roridum</i> (fungus)	Foliage	Necrotic leaf spots along leaf margins	Sanitation, avoid overhead watering, fungicidal sprays
Dracaena	Decline	<i>Pythium graminicola</i> , <i>Pythium splendens</i> (pseudofungi)	Root	Severe root rot	Harvest cuttings high above soil line, fungicide applications
	Root rots	<i>Phytophthora</i> (pseudofungus) and <i>Rhizoctonia</i> spp. (fungus)	Root	Root rot and discoloration	Sanitation, choice of planting location or method, fungicides
	Stem rot	<i>Fusarium</i> spp. (fungus)	Stem	Irregular lesions, tan to reddish brown with chlorotic border	Keep foliage dry, fungicides
Eggplant	Phomopsis canker and blight	<i>Phomopsis vexans</i> (fungus)	All aerial organs	Clearly defined circular spots enlarging to blights	Sanitation, fungicidal sprays
	Bacterial wilt	<i>Ralstonia solanacearum</i> (bacterium)	Whole plant	Wilting	Rogue, prevent spread, choice of planting location, sanitation
Flowering Ginger	Bacterial wilt	<i>Ralstonia solanacearum</i> (bacterium)	Whole plant	Wilting	Rogue, prevent spread, choice of planting location, sanitation
	Basal rot	<i>Marasmius</i> sp. (fungus)	Rhizome, roots	Wilting, dieback	Rogue, prevent spread, fungicides
	Burrowing nematode	<i>Radopholus</i> sp. (burrowing nematode)	Rhizome, roots	Above ground- chlorosis, stunting; below ground- root rot	Preplant fumigation
	Rhizome, root rot	<i>Pythium</i> spp. (pseudofungus)	Roots, corm	Roots rotted; corm soft, mushy rot	Select disease free huli; resistant cultivars, fungicides
	Root knot	<i>Meloidogyne</i> spp. (root-knot nematodes)	Roots	Above ground- chlorosis, stunting; below ground- root galls	Preplant fumigation
Ginger (edible)	Bacterial wilt	<i>Ralstonia solanacearum</i> (bacterium)	Whole plant	Wilting	Rogue, prevent spread
	Root knot	<i>Meloidogyne</i> spp. (root-knot nematodes)	Roots	Above ground- chlorosis, stunting; below ground- root galls	Preplant fumigation
	Root rot/wilt	<i>Fusarium oxysporum</i> (fungus)	Whole plant	Wilting	Rogue, prevent spread
Grapefruit	Melanose	<i>Diaporthe citri</i> (fungus)	Fruit	Spots or streaks	Sanitation, pruning, fungicides

	Blight, Crown/Foot/Root rots	<i>Phytophthora</i> spp. (pseudofungus)	Roots, stems	Root decay, stem decay, plant dieback and death	Phosphorous acid fertilizers or fungicides, avoid over-irrigation
Guava	Fruit rots	Various fungi	Fruit	Spots and rots of fruits	Choice of planting location (avoid wet areas), fungicides, post-harvest handling
	Algal leaf spot	<i>Cephaleuros parasiticus</i> (alga)	Fruit, leaves	Spots on fruits and leaves	Choice of planting location (avoid wet areas)
Hibiscus	Cercospora leaf spot	<i>Cercospora</i> spp. (fungus)	Foliage	Restricted, chlorotic leaf spots; drop	Reduce foliar wetness, fungicides
	Root knot	<i>Meloidogyne</i> spp. (root-knot nematodes)	Roots	Above ground- chlorosis, stunting; below ground- root galls	Preplant fumigation; chicken manure
	Bacterial leaf spot	<i>Pseudomonas</i> spp. (bacteria)	Foliage	Water-soaked necrotic lesion with bright yellow margin	Sanitation, reduce periods of foliar wetness
Jackfruit	Rhizopus rot	<i>Rhizopus</i> spp. (fungus)	Flowers, fruit	Soft, watery spots which expand quickly on flowers, young fruit	Favored by hot, humid weather; sanitation
Kava	Kava dieback	<i>Cucumber mosaic virus</i> (virus)	Leaf	Foliar chlorosis, mosaic and necrosis, stem dieback, plant death	Rogue infected stems and plants, vector control (aphids)
	Root rot	<i>Pythium splendens</i> (pseudofungus)	Root	Decay of roots, plant wilting and death	Rogue diseased plants, choice of planting location (avoid wet areas or very heavy soils), crop rotation
	Root knot	<i>Meloidogyne</i> spp. (root-knot nematodes)	Roots	Above ground- chlorosis, stunting; below ground- root galls	Preplant fumigation
	Shot hole	<i>Phoma</i> sp. (fungus)	Leaf, Stem	Small spots on leaves that have centers which fall out, stem lesions, defoliation, stem dieback	Sanitation
Koa	Koa wilt	<i>Fusarium oxysporum</i> f. sp. <i>koa</i> (fungus)	Root, stem vasculature	Root rot, plant wilting, stem dieback, plant death	
Lemongrass	Rust	<i>Puccinia nakanashakii</i> (fungus)	Leaves	Rust-colored spotting on leaves	Sanitation
Lettuce	Cercospora leaf spot	<i>Cercospora longissima</i> (fungus)	Foliage	Small, tan, irregular spots pm older leaves first	Crop rotation, good drainage, fungicides
	Bottom rot	<i>Rhizoctonia solani</i> (fungus)	Whole plant	Small, rust colored lesions on lower leaves first	Crop rotation, good drainage, fungicides
	Downy mildew	<i>Bremia lactucae</i> (fungus)	Foliage	Light green, slightly chlorotic, angular	Resistant cultivars, fungicides
	Root knot nematodes	<i>Meloidogyne</i> spp. (root-knot nematodes)	Roots	Above ground- chlorosis, stunting; below ground- root galls	Preplant fumigation
	Soft rot	<i>Erwinia carotovora</i> subsp. <i>carotovora</i> (bacterium)	Whole plant	Rapid, slimy rot of outer leaves	Crop rotation, good drainage
	Tomato spotted wilt	<i>Tomato spotted wilt virus</i> (virus)	Whole plant	Marginal wilting, chlorotic/necrotic spotting on leaves and petioles	Crop rotation, control of vectors

	Varnish spot	<i>Pseudomonas cichorii</i> (bacterium)	Whole plant	Inner leaves, shiny, dark-brown, firm, necrotic spots	Crop rotation, good drainage
Lime	Elsinoe scab	<i>Elsinoe fawcetti</i> (fungus)	Leaves, fruit	Scablike lesions on fruits and leaves	Sanitation, fungicides
	Tristeza	<i>Citrus tristeza virus</i>	Foliage	Leaf yellowing, stem dieback, stem pitting, plant decline and death	
Longan	Algal leaf spot	<i>Cephaleuros virescens</i>	Leaves	Leaf spots on both leaf surfaces	Increase plant vigor; open canopy
Macadamia	Quick decline		Roots (?)		
	Slow decline		(Roots ?)		
	Raceme blight	<i>Phytophthora capsici</i>	Racemes (flowers)	Blight and blackening of flowers	Choice of planting location, use of phosphorous acid fertilizer
Mango	Powdery mildew	<i>Oidium mangiferae</i> (fungus)	Panicle, Flower, Leaf, Fruit	Whitish grey growth on leaves, panicles and young/small fruits, deformity and death of leaves, panicle necrosis and death	Fungicides, choice of planting location
	Anthracnose	<i>Colletotrichum gloeoporioides</i> (fungus)	Panicle, Flower, Leaf, Fruit	Begins as minute dark spots which coalesce and blight inflorescence	Sanitation, fungicides
	Algal Leaf Spot	<i>Cephaleuros virescens</i> (alga)	Leaves	Leaf spots on both leaf surfaces	Increase plant vigor; open canopy
	Gray Leaf Spot	<i>Pestalotiopsis mangiferae</i> (fungus)	Leaves; fruit	Irregular leaf spots; on both leaf surfaces	Increase plant vigor; open canopy
Mock orange	Powdery mildew		Leaves	Whitish, powdery growth on leaf surface, foliar necrosis and defoliation	
Naupaka	Wilt	<i>Verticillium dahliae</i> (fungus)	Whole plant	Branch/plant wilting	
Noni	Black flag	<i>Phytophthora morindae</i> (pseudofungus)	Leaf, Stem, Petiole, Bract, Fruit	Black-colored blight of leaves, green stems and fruits	Foliar sprays of phosphorous acid fertilizers
	Root knot	<i>Meloidogyne</i> spp. (root-knot nematodes)	Root	Galls and swellings on roots, root crackign and rotting, foliar chlorosis, plant stunting and death	Avoidance, nematode-free planting media
Ohia	Ohia dieback	<i>unknown</i> (physiological 'cohort senescence')	Forest decline	Plants of a certain generation dieback stripping forest.	Field - no control; nurseries - fungicides and sanitation
	Rust	<i>Puccinia psidii</i> (fungus)	Foliage	Distorted terminal growth; orange, powdery pustules on leaves	Field - no control; nurseries - fungicides and sanitation
Orange	Elsinoe scab	<i>Elsinoe fawcetti</i> (fungus)	Leaves, fruit	Scablike lesions on fruits and leaves	Sanitation, pruning, fungicides
	Melanose	<i>Diaporthe citri</i> (fungus)	Fruit	Spots or streaks	Sanitation, pruning, fungicides
	Root rot, stem canker	<i>Phytophthora</i> sp. (pseudofungus)	Root, stem	Root rot, stem decay, plant dieback, plant death	Avoid over-irrigation or wet locations or heavy growth medium, fungicides or phosphorous acid fertilizer

Orchids	Bacterial leaf blight	<i>Burkholderia gladiolii</i> (bacterium)	Leaves, bulb	Leaf spots/blights	Reduce foliar wetness; increase interplant aeration, rogue infection
	Bacterial soft rot	<i>Erwinia carotovora</i> (bacterium)	Bulb	Bulb rot	Reduce foliar wetness; increase interplant aeration, rogue infection
	Blossom Rot	<i>Alternaria alternata</i> ; <i>Bipolaris</i> spp.; <i>Botrytis cinerea</i> ; <i>Colletotrichum</i> sp.; <i>Phyllosticta capitalensis</i> ; <i>Exserohilum rostratum</i> (fungi)	Blossom; foliage	Necrotic flecks, spots, blights	Reduce foliar wetness; increase interplant aeration, rogue infection, fungicides
	Cymbidium mosaic	<i>Cymbidium mosaic virus</i> (virus)	Whole plant	Foliage- chlorotic - necrotic spots, flecks; flowers- necrotic flecks	Rogue from growing area
	Foliar Nematode	<i>Aphelenchoides fragariae</i> (nematode)	Whole plant	Necrosis, distortion, bud blasting	Rogue, reduce foliar wetness, insecticide applications
	Fusarium Leaf Spot	<i>Fusarium</i> spp. (fungus)	Foliage, stem, blossom	Raised necrotic spots, distortion	Rogue from growing area, fungicides
	Phyllosticta Leaf Spot	<i>Phyllosticta capitalensis</i> (fungus)	foliage, blossom	Sunken, black leaf spots; leaf chlorosis, drop	Rogue from growing area, fungicides
	Ontoglossum ringspot virus	<i>Ontoglossum ringspot virus</i> (virus)	Whole plant	Foliage- chlorotic - necrotic spots, streaks and rings; flowers- streaks of dark pigment	Rogue from growing area
Palms	Algal leaf spot	<i>Cephaleuros virescens</i>	Leaves	Leaf spots on both leaf surfaces	Increase plant vigor; open canopy
	Anthracnose	<i>Colletotrichum gloeoporioides</i>	Foliage	Tan to black leaf spots with bright yellow halo	Reduce foliar wetness; rogue infection
	Bipolaris leaf spot	<i>Bipolaris</i> spp.	foliage	Reddish to dark brown lesions coalesce to blight	Reduce foliar wetness; rogue infection
	Pestalotiopsis leaf spots	<i>Pestalotiopsis palmarum</i>	foliage	Small blacks spots later become gray with dark border	Reduce foliar wetness; rogue infection
	Phytophthora diseases	<i>Phytophthora</i> spp.	Whole plant	Root rot, leaf spots/blight, die back	Careful seed selection, sanitation
	Pink Rot	<i>Gliocladium vermoeseni</i> (fungus)	Bud, petioles, leaf blades and trunks	Stem rot	Avoid wounding, sanitation
	Pseudocercospora leaf spot	<i>Pseudocercospora rhapsicola</i> (fungus)	Foliage	Leaf spots on both leaf surfaces	Sanitation, eradication, reduce foliar wetness
	Pseudomonas blight	<i>Pseudomonas avenae</i>	Foliage of <i>Caryota mitis</i>	Leaf spots/blights on both leaf surfaces	Sanitation, eradication, reduce foliar wetness
	Stem Bleeding Disease/Bud Rot	<i>Chalara (Thielaviopsis) paradoxa</i> (fungus)	Roots, trunk, leaf, terminal	Slow decline, dark trunk lesions, bleeding; necrosis of lowest leaves, eventual defoliation	Avoid trunk wounding, disinfect pruning tools
Papaya	Root rot	<i>Pythium</i> , <i>Phytophthora</i> (pseudofungi)	Roots	Root rot, plant yellowing and wilting	Avoid waterlogged soils, crop rotation, fungicides
	Phytophthora blight	<i>Phytophthora parasitica</i> (pseudofungus)	Roots, stem, fruits	Root rot, stem blight, fruit blight	Sanitation, fungicides, crop rotation

	Phytophthora fruit and root rot	<i>Phytophthora palmivora</i> (pseudofungus)	Whole plant	Water-soaked lesions that exude milky latex	Fungicide applications; virgin soil technique
	Black spot	<i>Aperisporium caricae</i> (fungus)	Leaves, fruits	Tiny black spots on leaves and fruit, leaf yellowing and necrosis and premature defoliation	Sanitation, fungicides
	Papaya ringspot	<i>Papaya ringspot virus</i> (virus)	Whole plant	Fruit- dark green, slightly sunken rings; Leaves- chlorosis, oily streaks on stem	Rogue from growing area
	Powdery mildew	<i>Oidium caricae</i> (fungus)	Stem, flowers, fruits, and leaves	Whitish powdery growth	Foliar applications of wettable sulfur sprays or other fungicides
	Anthraco nose	<i>Colletotrichum gloeosporiodes</i> (fungus)	Fruits	Round, water-soaked, sunken spots	Protective fungicides, sanitation, choice of planting location, refrigeration after harvest
	Post-harvest fruit rots	various fungal species	Fruits	Rots of fruits	various pre- and post-harvest treatments, choice of planting location
	Root knot	<i>Meloidogyne</i> spp. (root-knot nematodes)	Roots	Above ground- chlorosis, stunting; below ground- root galls	Soilless planting media; pre-plant fumigation
Passion fruit	Anthraco nose	<i>Colletotrichum gloeosporiodes</i> (fungus)	All aerial organs	Small, oily, dark brown, irregular spots	Sanitation, improve aeration, fungicides
Pikake	Anthraco nose	<i>Colletotrichum gloeosporiodes</i> (fungus)	Foliage	Circular leaf spots	Sanitation, improve aeration, fungicides
	Root Rot	<i>Pythium</i> spp. (pseudofungus), <i>Rhizoctonia</i> sp. (fungus)	Roots	Above ground- chlorosis, stunting, wilting, death; below ground- root rot	Sanitation, improve drainage, fungicides
	Root knot	<i>Meloidogyne</i> spp. (root-knot nematodes)	Roots	Above ground- chlorosis, stunting; below ground- root galls	Soilless planting medium; pre-plant fumigation
	Southern Blight	<i>Sclerotium rolfsii</i> (fungus)	Stem base	Girdling, wilting, death	Soilless planting medium; pre-plant fumigation
Pineapple	Mealybug wilt	<i>Mealybug wilt closterovirus</i> (virus)	Foliage	Wilting, necrosis, plant death	Disease-free planting material, vector management (mealybugs)
	Root knot	<i>Meloidogyne</i> spp. (root-knot nematodes)	Roots	Galls and swellings on roots, root crackign and rotting, foliar chlorosis, plant stunting and death	Pre-plant fumigation, crop rotation
	Root rot	<i>Pythium</i> spp., <i>Phytophthora parasitica</i> , <i>Phytophthora cinnamomi</i> (pseudofungi)	Roots	Root necrosis, plant chlorosis, wilting and death	Avoid planting in wet or low-lying areas, crop rotation
	Butt rot	<i>Chalara paradoxa</i> (fungus)	Basal tissues of crown	Rot of newly planted crown	Curing of crowns before planting, fungicides
	Fruit rot	<i>Chalara paradoxa</i> (fungus)	Fruit	Extensive soft rot	Fungicides

	Heart rot	<i>Phytophthora parasitica</i> (pseudofungus)	Heart of plant	Foliar necrosis and rot, plant death	Cultivar selection, fungicides
Plumeria	Rust	<i>Coleosporium plumeriae</i>	Foliage	Initially faint chlorotic, angular leaf spots; pustules develop on lower leaf surface	Sanitation, fungicides
	Powdery mildew	?	Foliage, terminal, blossoms	Distortion, discoloration, whitish, powdery growth	Wettable sulfur
Poinsettia	Gray Mold	<i>Botrytis cinerea</i>	All aerial organs	Lesions have fuzzy, gray-brown appearance (spores)	Sanitation, improve aeration, increase Calcium levels, fungicides
	Powdery mildews	<i>Oidium</i> spp.	Foliage, terminal, blossoms	Whitish powdery growth; blossom, leaf drop	Increase air movement, fungicides
	Root Rot	<i>Pythium</i> spp., <i>Rhizoctonia</i> sp.	Roots	Above ground- chlorosis, stunting, wilting, death; below ground- root rot	Sanitation, improve drainage, fungicides
	Scab	<i>Spaeloma poinsettiae</i>	All aerial organs	Raised brown spots with chlorotic halos; distortion	Select disease free cuttings; fungicides
Potato	Sore shin	<i>Rhizoctonia solani</i>	Stems	Brown lesions on stem, foliar chlorosis, wilting and plant death	Choice of planting location
	Tomato spotted wilt	<i>Tomato spotted wilt virus</i>	Whole plant	Marginal wilting, chlorotic/necrotic spotting on leaves and petioles	Crop rotation, control of vectors
	Late blight	<i>Phytophthora infestans</i>	All aerial organs	Rapidly enlarging pale green to brown leaf blights	Sanitation; eliminate alternate hosts, crop rotation, fungicides
Protea	Gray Mold	<i>Botrytis cinerea</i> (fungus)	All aerial organs	Lesions have fuzzy, gray-brown appearance (spores)	Sanitation, improve aeration, increase Calcium levels, fungicides
	Root Knot Nematodes	<i>Meloidogyne</i> spp. (root-knot nematodes)	Roots	Above ground- chlorosis, stunting; below ground- root galls	Soiless planting medium; pre-plant fumigation
	Root Rot	<i>Pythium</i> spp. (pseudofungus), <i>Rhizoctonia</i> sp. (fungus)	Roots	Above ground- chlorosis, stunting, wilting, death; below ground- root rot	Sanitation, improve drainage, fungicides
	Root rot	<i>Phytophthora cinnamomi</i> (pseudofungus)	Roots	Rapid plant death	Proper drainage, exclusion, fungicide applications
	Leaf spot	<i>Leptosphaeria</i> spp. (fungus)	Foliage	Tan to brown, irregular, sunken lesions	Sanitation, fungicides
Rambutan	Fruit rot	<i>Gliocephalotrichum simplex</i> ; <i>G. bulbilium</i> ; <i>Lasmenia</i> sp.	Fruits	Light brown, water-soaked rind lesions becoming dark brown as they enlarge	Sanitation, fungicides
Rose	Black spot	<i>Diplocarpon rosae</i> (fungus)	All aerial organs	Circular with feathery margins; chlorosis, drop	Resistant cultivars, sanitation, fungicides
	Common canker	<i>Coniothyrium fuckelii</i> (fungus)	Stems	Wounds necessary for infection	pruning cuts made directly above nodes
	Crown rot	<i>Agrobacterium tumefaciens</i> (bacterium)	Crown	Galls on stem, primarily on crown near soil line	Sanitation, buy clean plants, resistant cultivars, avoid wounds

	Downy Mildew	<i>Peronospora sparsa</i> (fungus)	Leaves, stems, blossoms	Leaves develop purplish red to brown irregular spots, abscission	Resistant cultivars, sanitation, fungicides
	Canker				
	Powdery mildew	<i>Sphaerotheca</i> spp. (fungus)	All aerial organs	Whitish powdery growth, distortion, leaf drop	Resistant cultivars, sanitation, fungicides
	Root Rot	<i>Pythium</i> spp. (pseudofungus)	Roots	Above ground- chlorosis, stunting, wilting, death; below ground- root rot	Sanitation, improve drainage, fungicides
Rose apple	Rust	<i>Puccinia psidii</i> (fungus)	Foliage	Distorted terminal growth; orange, powdery pustules on leaves	None
Squash	Anthrachnose	<i>Colletotrichum gloeosporiodes</i> (fungus)	Fruit	Sunken spots on fruit, rot of fruit	Fungicides, sanitation
Sweetpotato	Black rot	<i>Ceratocystis fimbriata</i> (fungus)	Root, Stem	Firm, black, dry rot, round or circular spots or areas of necrosis on surface	Sanitation, fungicides, crop rotation, choice of planting location, careful harvesting to prevent wounding, post-harvest handling and treatment, curing
	Java black rot	<i>Diplodia gossypina</i> (fungus)	Roots (the sweetpotato is a storage root)	Decay of storage roots, mummification, raised, warty spots on surface that are black in color and powdery	Sanitation, fungicides, crop rotation, choice of planting location, careful harvesting to prevent wounding, post-harvest handling and treatment, curing
	Rhizopus soft rot	<i>Rhizopus</i> spp. (fungus)	Root (the sweetpotato is a storage root)	Post harvest; soft, moist, stringy rot	Sanitation, fungicides, crop rotation, choice of planting location, careful harvesting to prevent wounding, post-harvest handling and treatment, curing
	Root knot	<i>Meloidogyne</i> spp. (root-knot nematodes)	Root	Above ground- chlorosis, stunting; below ground- root galls	Preplant fumigation, crop rotation
	Scurf	<i>Monilochaetes infuscans</i> (fungus)	Root	Small, greyish lesions on surface of storage roots	Crop rotation
Syngonium	Bacterial leaf blight	<i>Erwinia</i> sp.; <i>Xanthomonas</i> sp. (bacteria)	Foliage	Interveinal water-soaking, chlorotic halo	Sanitation, increasing plant spacing
	Myrothecium Leaf Spot	<i>Myrothecium roridum</i> (fungus)	Foliage	Necrotic leaf spots along leaf margins	Sanitation, avoid overhead watering, fungicidal sprays
Tangelo	Elsinoe scab	<i>Elsinoe fawcetti</i> (fungus)	Leaves, fruit	Raised, scablike lesions on surface of leaves and fruits	Sanitation, fungicides
Tangerine	Elsinoe scab	<i>Elsinoe fawcetti</i> (fungus)	Leaves, fruit	Raised, scablike lesions on surface of leaves and fruits	Sanitation, fungicides
Taro	Leaf blight	<i>Phytophthora colocasia</i> (pseudofungus)	Leaf (all)	Water-soaked, dark brown to purplish leaf spot expanding to leaf blight; clear to amber fluid exudes from lesion	Sanitation, increasing plant spacing; fungicides

	Root knot	<i>Meloidogyne</i> spp. (root-knot nematodes)	Root	Chlorosis, root galls	Select nematode free huli
	Corm/root rot	<i>Pythium</i> spp. (pseudofungus)	Roots, corm	Roots rotted; corm soft, mushy rot	Select disease free huli; resistant cultivars, fungicides
	Pocket rot	<i>Phytophthora</i> sp. (pseudofungus)	Corm	Depressions in corm	Crop rotation, fallow, fungicides
	Dasheen mosaic	<i>Dasheen mosaic virus</i> (virus)	Leaf	Chlorotic mosaic	None
Tea	Algal leaf spot	<i>Cephaleuros virescens</i> (alga)	Foliage	Leaf spots on both leaf surfaces	Increase plant vigor; open canopy
	Leaf spots	<i>Colletotrichum</i> sp.; <i>Pestalotia</i> sp.; <i>Phyllosticta</i> sp. (fungi)	Foliage	Small spots to large blights	Increase plant vigor; open canopy; resistant cultivars
Ti	Bacterial leaf blight	<i>Xanthomonas campestris</i> (bacterium)	Foliage	Water-soaked, vein delineated, chlorotic streaks	Sanitation
	Cercospora leaf spot	<i>Cercospora</i> sp. (fungus)	Foliage	Chlorotic, rusty spots on upper/lower leaf surfaces	Sanitation, fungicides
	Phytophthora blight	<i>Phytophthora nicotianae</i> (pseudofungus)	All	Leaf spots, blights, rots	Sanitation, fungicides
	Root knot nematodes	<i>Meloidogyne</i> spp. (root-knot nematodes)	Roots	Above ground- chlorosis, stunting; below ground- root galls	Soilless planting medium; pre-plant fumigation
	Root rots	<i>Phytophthora</i> , <i>Pythium</i> , and <i>Rhizoctonia</i> spp. (pseudofungi and fungi)	Root/crown	Dieback	Sanitation, improved drainage, fungicides
Tomato	Anthracoise	<i>Colletotrichum</i> sp. (fungi)	Fruit (all)	Most apparent on ripe fruit; large, necrotic spots with concentric rings	Sanitation, crop rotation, eliminate alternate hosts
	Bacterial wilt	<i>Ralstonia solanacearum</i> (bacterium)	Whole plant	Flaccidity in leaves; wilting	Crop rotation, pre-plant fumigation, resistant cultivars
	Early blight	<i>Alternaria solani</i> (fungus)	All aerial organs	Brownish black spots with concentric rings; leaf drop	Sanitation, crop rotation, eliminate alternate hosts, resistant cultivars, fungicides
	Fulvia leaf spot (Leaf mold)	<i>Fulvia fulva</i> (fungus)	Leaves	Older leaves exhibit pale green or yellowish spots; death	Sanitation, lower humidity, fungicides
	Gray mold	<i>Botrytis cinerea</i> (fungus)	All aerial organs	Lesions have fuzzy, gray-brown appearance (spores)	Increase Calcium levels; fungicides
	Late blight	<i>Phytophthora infestans</i> (pseudofungus)	All aerial organs	Rapidly enlarging pale green to brown leaf blights	Sanitation; eliminate alternate hosts, crop rotation, fungicides, choice of planting season (avoid wet season)
	Powdery mildew	<i>Leveillula taurica</i> , <i>Oidium neolycopersici</i> (fungi)	All aerial organs	Whitish powdery growth, distortion, leaf drop	Resistant cultivars, sanitation, fungicides

	Root knot	<i>Meloidogyne</i> spp. (root-knot nematodes)	Roots	Chlorosis, root galls	Preplant fumigation
	Root rots	<i>Pythium</i> spp.; <i>Rhizoctonia solani</i> ; <i>Phytophthora</i> spp. (pseudofungi and fungi)	Roots	Root necrosis and rot, foliar chlorosis, plant dieback or death	Minimize stress, improve plant health/vigor/drainage; fungicide drench
	Tomato spotted wilt	<i>Tomato spotted wilt virus</i> (virus)	Whole plant	Marginal wilting, chlorotic/necrotic spotting on leaves and petioles	Crop rotation, control of vectors
Turfgrass	Anthraco-nose	<i>Colletotrichum graminicola</i> (fungus)	Foliage, stem, roots	Chlorosis, death	Minimize stress, improve health/vigor
	Bipolaris diseases	<i>Bipolaris</i> spp.	Foliage, stem, roots	Irregular patches of thinning turf	Minimize stress, improve health/vigor
	Curvularia diseases	<i>Curvularia</i> spp. (fungus)	Foliage	Chlorosis, thinning, irregular patches	Minimize stress, improve health/vigor
	Fairy rings	various fungi	Not infectious	rings of mushrooms or fungal sporophores, hydrophic dead or dying spots in turf and lawns	Site preparation, fertility management
	Root rots	<i>Phytophthora</i> (pseudofungus) and <i>Rhizoctonia</i> spp.(fungus)	Roots/crown	Chlorosis, death	Minimize stress, improve health/vigor/drainage; fungicide drench
	Root knot	<i>Meloidogyne</i> spp. (root-knot nematodes)	Roots	Chlorosis, root galls	Preplant fumigation
Vireya	Algal leaf spot	<i>Cephaleuros virescens</i> (alga)	Leaves	Leaf spots on both leaf surfaces	Increase plant vigor; open canopy
	Botryosphaeria dieback	<i>Botryosphaeria</i> sp. (fungus)	Stem, collar	Wilting, dieback	Rogue, prevent spread, fungicides
	Cercospora leaf spot	<i>Cercospora</i> sp. (fungus)	Leaves	Gray - tannish circular leaf spots	Sanitation, increase plant aeration, fungicides
	Gray blight	<i>Pestalotia</i> sp. (fungus)	Leaves	Brown - silver gray leaf blotches	Sanitation, increase plant aeration, fungicides
	Gray mold	<i>Botrytis cinerea</i> (fungus)	Leaves, blossoms	Tannish leaf/petal blotches	Sanitation, increase plant aeration, fungicides
	Phomopsis twig blight	<i>Phomopsis</i> sp. (fungus)	Stem, twigs	Brown stems, twigs	Rogue, increase plant aeration, vigor; fungicides
	Root knot	<i>Meloidogyne</i> spp. (root-knot nematodes)	Roots	Above ground- chlorosis, stunting; below ground- root galls	Preplant fumigation
	Root rot	<i>Pythium</i> spp. (pseudofungus), <i>Rhizoctonia</i> sp. (fungus)	Roots	Above ground- chlorosis, stunting, wilting, death; below ground- root rot	Sanitation, improve drainage, fungicides
Watercress	Aster yellows	<i>Aster yellows</i> (phytoplasma)	foliage	plant stunting, yellowing of foliage	Sanitation, vector management

Note: this table is not yet complete and must be reviewed before its publication.