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Pathogenic Flower Diseases

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Pathogenic Flower Diseases

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Diseases	Host(s)	Symptoms	Control	
			Cultural	Chemical
Bacterial leaf spot <i>Pseudomonas</i> sp. (Bacteria) <i>Xanthomonas pelargonii</i> (Bacteria)	Begonia, English Ivy, Geranium	Angular spots on leaves dry out and crack; lesions spread to stems	Keep foliage dry	Spray with copper fungicides
Bacterial soft rot <i>Erwina carotovora</i> (Bacteria)	Hyacinth, Iris, other bulbs, tubers and rhizomes	Starts in rhizomes, progresses to stems Plants may fall over	Avoid overwatering Disinfect tools when cutting rhizomes Rotate with non-susceptible plants if damage is severe	None
Black leg <i>Pythium</i> sp. (Fungus)	Geranium	Roots discolored and rotting Plants decayed at the base Leaking or oozing stems	Avoid overwatering Avoid wounding roots Disinfect or treat cuttings with hot water to propagate plants	None
Botrytis blight <i>Botrytis cinera</i> (Fungus)	Begonia, Coleous, Geranium, Other Flowers	Leaf and stem rot Flower and leaf spots Profuse brownish-gray mold	Avoid overwatering and poorly drained soils	Treat with copper or other registered fungicides
Bud Rot	Many plants	Flower buds turn black Mold or decay may attack Damage may occur before or after buds open	Bud rot can be caused by many fungi or bacteria Avoid overwatering	None
Crown gall <i>Agrobacterium tumefaciens</i> (Bacteria)	Geranium	Wart-like growth at stem base Poor growth on plants Leaves yellow and drop	Cut off galls Remove severely infected plants Avoid overwatering Improve soil drainage	None recommended for flowers
Crown rot <i>Rhizoctonia</i> sp. (Fungus)	Many plants	Root and stem rot Leaves yellow and drop Widespread disease	Avoid overwatering Improve soil drainage	Treat with registered fungicides
Damping Off	Many plants	Severe die-back of newly germinating seedlings	Allow soil surface to dry out slightly between waterings Do not start seeds in high nitrogen soil Wait for warm soil to seed	Treat with registered fungicides
Die-back	Vinca minor	Blackend stems stunt plants or allow them to fall	Avoid overwatering Improve soil drainage	None
Downy mildew <i>Peronospora</i> spp. (Fungus)	Snapdragon	White, downy growth on undersides of leaves Yellowing leaves Plant die-back	Avoid overwatering Remove weeds Water early in the day Remove plant debris	Treat with registered fungicides

Diseases	Host(s)	Symptoms	Control	
			Cultural	Chemical
Dry root rot <i>Fusarium sp.</i> (Fungus)	Peony, Other plants with tubers, rhizomes, or bulbs	Plant die-back Rotted roots are dry and papery	Discard affected bulbs Primarily a storage problem, so keep bulbs dry during storage	None

Diseases	Host(s)	Symptoms	Control	
			Cultural	Chemical
Dry root rot <i>Fusarium sp.</i> (Fungus)	Peony, Other plants with tubers, rhizomes, or bulbs	Plant die-back Rotted roots are dry and papery	Discard affected bulbs Primarily a problem in storage so keep bulbs from getting wet during storage	None
Fungal leaf spot Several fungi	English Ivy, other flowers	Large brown spots on upper and lower leaf surfaces. May enlarge to cover entire leaf	Avoid working around wet plants	Treat with registered fungicides
Gray Mold	Many plants	Brown spots and blotches of leaves and stems Fuzzy brown or gray mold on infected tissues Soft and rotting stems	Remove old flowers and infected leaves Remove plant debris and destroy Avoid wetting foliage	Treat with registered fungicides
Powdery mildew <i>Sphaerthea pannosa</i> (Fungus) <i>Erysiphe cichoracearum</i> (Fungus)	Begonia, Pansy, Zinnia, Many other flowers	Gray powdery growth on leaves and stems	Increase air circulation Increase plant spacing Avoid planting susceptible species	Treat with registered fungicides
Rhizome rot <i>Botrytis convoluta</i> (Fungus)	Iris	Leaf and stem rot Flower and leaf spots Profuse brownish-gray mold	Avoid overwatering Improve soil drainage	Treat with copper or other registered fungicides
Root-knot nematode <i>Meloidogyne spp.</i>	Geranium, Petunia	Infested plants are weak and grow slowly Roots are stubby and dark and may have nodules	Plant disease resistant varieties	None Not a major problem in Northern Utah
Rust <i>Puccinia</i> and other species (Fungus)	Geranium, Hollyhock, Snapdragon and others	Uniform orange or brown spots on backsides of leaves Yellow spots on upper surface	Water in early morning Remove and destroy infested plants in the fall Rotate out of susceptible annuals every other year	Treat with registered fungicides
White mold <i>Sclerotinia sclerotiorum</i> (Fungus)	Marigold, Petunia, Snapdragon, Other flowers	Die-back of entire plants among healthy plants Sclerotia or fruiting bodies resemble mouse pellets. May be inside or attached to the stems	Remove affected plants -- roots and all	Treat with registered fungicides at planting time
Wilt <i>Verticillium spp.</i> (Fungus)	Many plants	Blackened, wilted leaves with discolored vascular tissue	Avoid stressing plants Use resistant species Solarize soil	None
Yellowing <i>Fusarium oxysporum</i> (Fungus)	Gladiolus	Yellowing leaves, or decayed stems Plants may wilt and die	Rotate plants Use resistant varieties Avoid heavy, poorly-drained soils	None
Virus Diseases	Many May be transported by insects	Viruses cause a wide variety of damage to plants including: twisted foliage, leaf mosaic, discoloration	In general, the only control is to remove infested plants	None