

Plant Diseases, Pests and Problems

DISEASES

Caused by fungi:

Verticillium wilt – wilted leaves, discolored vascular tissue, flagging branches

Seiridium canker – dead branches, cracks and cankers in bark with resin, characteristic spores

Comandra rust- wildflower hemiparasite of oak roots, stem cankers on *Pinus edularica*

Leaf spots - self-limiting usually circular lesion on leaf

Ganoderma butt and root rot - infection occurs at wounds, white-mottled rot is usually concentrated in large roots and basal area of trunk, fruiting bodies called conks may be present

Cytospora canker – necrotic often sunken lesion on stem, branch, or twig; occurs in stressed trees

Blue stain – caused by microscopic fungi, infect sapwood, do not cause decay, stain wood blue or gray

Heart rot – decay in the center of the trunk of a living tree

Juniper rust - bright red and orange leaf spots and orange gelatinous galls are formed on different hosts

Corn smut - galls on all above-ground parts of corn species

Caused by bacteria:

Crown gall - tumor-like growth or gall on the infected plant, often at the junction between the root and the shoot

Fire blight – rapid killing of leaves flowers and stems, pears most susceptible, occurs in rose family

Caused by nematodes:

Root knot nematode - nematode larvae infect plant roots, causing the development of root-knot galls

Caused by parasitic plants:

Leafy mistletoe - dieback, swelling, formations of witches' broom and weakened branches on hardwood trees

Dwarf mistletoe - have very reduced shoots and leaves, parasitize members of pine and cypress families

Dodder – yellow spaghetti-like growth on host plant, twines around stems, has reduced leaves, morning family

INSECT PEST PROBLEMS

Flat head borer damage - wood borer beetle larvae tunnel into wood

Twig galls - simple bumps, fruit-like structures or complicated growths caused insects, mites, nematodes, fungi, bacteria, or viruses

Bagworms - construct cases out of silk and environmental materials, feed on plant leaves

Gall wasp damage - induce galls on plants for larval development

Tent caterpillars – moth larvae secrete silk tents on branches, feed on leaves

WILDLIFE DAMAGE

Sapsucker damage - neat rows of ¼" holes

Pocket gopher damage - in-ground holes lead to below ground burrow, mounds of soil the burrowing process and deposited around the gopher hole, feed on plant roots, chew marks may be present on large roots and stems

Rabbit damage – eat succulent tissue, can eat bark and girdle woody plants

Deer damage – rub bark or eat leaves and twigs

OTHER PROBLEMS

Fasciation - abnormal growth in the apical meristem (growing tip), becomes elongated perpendicularly to the direction of growth, producing flattened, ribbon-like, crested, or elaborately contorted tissue; possible causes include hormonal, genetic, bacterial, fungal, viral and environmental causes.