4-H FORESTRY JUDGING TEAM
SECTION III
DISEASES OF TREES

Annosus Root Rot

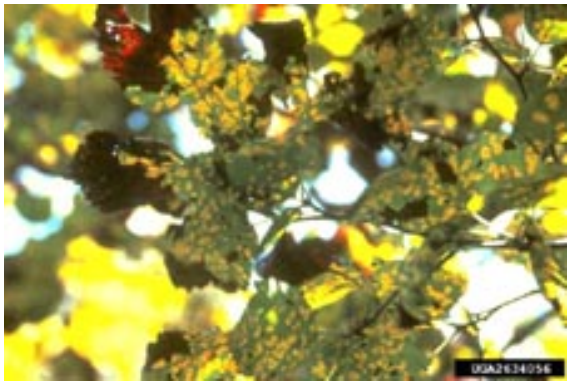
Annosus root rot is a major disease problem of pines and other conifers. Severely affected trees may have thin, light green to yellow crowns. Look for trees toppled over by the wind as a sign of root rot. Fungal conks (they look like mushrooms on the trunk) are usually small and difficult to find. Spores are released from these conks to infect the soil & other trees through root contact & wounds. Infected stumps show the typical symptom of stringy white decay.

Black Knot on Cherry

Black knot is characterized by irregular black swellings on black cherry stems, branches and twigs. Infection occurs during the spring where the swelling become overgrown with black fruiting bodies of the fungus. The fungus often is coved with a white fungus prior to hardening off into the knots we typically see on trees in the forest.

Cedar Apple Rust

The fungus forms golfball-sized galls on redcedar which are harmless to the cedar tree. The rust also forms leaf spots on apples causing foliage loss, growth loss, reduced quantity & quality of fruit & sometimes tree death. On cedar trees the galls look like long tendrils or “horns” in the spring. To control remove the galls & use fungicides on apple trees.



Fusiform Rust

Identify fusiform rust by looking for the orange spores on the surface of fusiform-shaped pine galls. These spindle shaped galls develop on branches or on the main stem causing death or weakening of the tree & a reduction in lumber value.

Hypoxylon Canker

The fungus is easily identified by looking for a definite fruiting layer of fungus that has dislodged the bark. Fruiting layers vary in color. The fungus invades the trees inner bark or cambium layer, thereby weakening the tree. Once infected the trees must be removed to ensure safety from falling trees or limbs.

Mistletoe

Mistletoe is a perennial, broadleaf, evergreen plant that is actually a parasite of other trees such as oaks. Mistletoe seeds are dispersed by birds or animals. Animals pick up the sticky seeds while in the trees on their wings or fur. The seeds of this parasitic plant germinate quickly and the peglike root system quickly seeks to rob the host tree of valuable nutrients & water.

Nectria Canker

The fungus can be identified by looking for the creamy-white fruiting structures that appear on cancers soon after infection. The well defined localized areas of infected bark, cambium, and underlying wood are killed by the fungus leaving concentric, annual callus ridges to develop around the expanding canker. After several years the canker resembles a target.

Pine Needle Rust

Needle rust is most important in young trees. It doesn't seriously damage the tree & control is unnecessary unless you are a Christmas tree farmer or nurseryman. To identify pine needle rust look for white-orange blisters on the needles. These are the fruiting structures of the fungus.

Sooty Mold

Usually found in association with aphids – a brown/black powder or mold on the leaves.