

## SOME FOREST DISEASES

| Disease & Hosts  | Main Symptoms   | Control Measures  |
|--|---|---|
| <b>Anthracnose</b><br><i>Gloeosporium spp.</i><br><i>Gnomonia spp.</i><br>Hardwoods, especially oaks, maples, & sycamores                | Leaves & twigs die in the spring. Repeated attacks are fatal.   | Chemicals; none practical in forest management.   |
| <b>Armillaria Root Rot</b><br><i>Armillariella mellea</i><br>"Shoestring" rot.<br>Hardwoods and softwoods.                               | Kills previously stressed trees. Leave dwarfing. Crown yellow & thin, eventually dies.  | None practical in forest setting. Common fungus in most soils.  |
| <b>Black Knot of Cherry</b><br><i>Apiosporina morbosa</i><br>Cherries, plums, esp. black cherry.   | Black swellings on twigs, branches and stems. Heavy infection can kill trees, esp. young ones.  | Some chemical treatment success. Sanitized pruning.   |
| <b>Dieback</b><br>Ash, Maple, and other hardwoods  | A catch-all term; a dying back of branches in the crown. May be from a virus, drought, nutrient deficiency (esp. copper), root damage, or some combination.                 | None practical in forest setting. Remove affected trees and utilize.  |
| <b>Dutch Elm Disease</b><br><i>Ceratocystis ulmi</i><br>All species of native elms.  | Leaves may dwarf, yellowing and dropping of leaves or branches or entire crown, usually fatal if untreated.   | Injections available for shade trees but impractical in forests. Prompt removal and burning.  |
| <b>Eutypella Canker</b><br>Sugar & red maple   | Lesions, or tree sores, on trunk or branches, a slow build-up of concentric callus-like tissue.   | Removal of infected trees.  |
| <b>Fomes annosus</b><br>Conifers   | A root rot that eventually kills trees. Entry is through fresh stumps from thinnings, etc., then spreads from root contact with live trees.                                 | Treat fresh stumps with borax. Commercial root dips available for seedlings at time of planting.  |
| <b>Heart Rots</b><br><i>Phellinus spp.</i> , <i>Inonotus spp.</i> , and others<br>All species of mature trees.                           | Swellings, cankers, or "conks", or open "sores" with soft wood inside.  | Control is through good forest management, usually will not affect vigorous trees. Remove or leave for wildlife.  |
| <b>Hypoxyton Canker</b><br><i>Hypoxyton mammatum</i><br>Aspen.   | Yellow or brownish indentations around a wound. Eventually oblong cankers. Vertical cracks in bark. Breakage.   | Removal of infected trees.  |
| <b>Nectria Canker</b><br><i>Nectria spp.</i><br>All hardwoods, especially sugar & red maple, walnut, birches, beech, and bigtooth aspen. | Open or "target-like" cankers on trunk.   | Removal of infected trees.  |
| <b>Oak Wilt</b><br><i>Ceratocystis fagacearum</i><br>All native oaks, esp. red & black.  | Leaves dry, turn brown and drop beginning at top of crown.  | Killing or removing oaks within 100 foot radius of infected trees. Trenching.   |
| <b>Scleroderris Canker</b><br><i>Gremmeniella abietina</i><br>Red, jack, Scots pine  | Needles turn orange, then brown, from base of needles. Branches may die before tree. Greenish stain under bark of infected stem.  | No practical treatment. Avoid planting in frost pockets.  |
| <b>White Pine Blister Rust</b><br><i>Cronartium ribicola</i><br>White pines.   | Within 2 years, yellow or orange lesions, later becoming cankers. In spring and summer, cankers bear blisters containing orange spores. Cankers eventually girdle and kill. | Plant genetically resistant seedlings or avoid white pine in problem areas. Eradicate species of <i>Ribes</i> (currants, gooseberries) within at least 900 feet of pines. |