

Forest Insects and Diseases: Dwarf Mistletoe



Dwarf mistletoe, (*Arceuthobium vaginatum*), is a leafless, parasitic flowering plant that typically infects ponderosa pine and lodgepole pine trees (Jacobi and Swift 1999). Mistletoes can kill their host plant by slowly robbing it of water and nutrients. Damage to trees includes a reduced growth rate, diminished wood quality, poor tree form, reduction in seed production, predisposition to insect and disease infestations and increased mortality due to drought. Mistletoes are spread by birds that consume seeds and by explosive discharge of seeds from the parent plant. Seeds stick to surfaces they strike and germinate on susceptible trees. Mistletoe seeds are dispersed in August and early

September. Mistletoes spread slowly, typically moving through a forest at 1 to 2 feet per year in dense stands. This rate can increase to 30 feet per year in open stands where seeds are able to travel further in the air. Dwarf mistletoe grows into the bark and phloem of an infected tree where root-like “sinkers” become embedded in the wood. Dwarf mistletoes have a relatively long life cycle which takes 6 to 8 years between infection and seed production. This allows for the implementation of long term management strategies (Jacobi and Swift 1999).

Look for: The first symptom of infection is a slight swelling of the bark at the infection site. As the parasites’ sinkers become more extensive, a distorted branching habit or witches broom becomes apparent. Infected trees will also display yellow foliage, reduced foliage, and branch mortality. The parasite forms green or yellow twig like structure at the site of infection (above).

Treatment: Because mistletoes spread slowly, (typically only several feet per year), long-term management options are effective. Management options include the pruning of infected branches, removal of infected trees, isolating pockets of heavy infestation with a 50’ treeless buffer and propagating resistant tree species (Jacobi and Swift 1999).