

Forest Disease Management Notes

United States
Department of
Agriculture

Forest Service
Pacific Northwest
Region



Lodgepole Pine Dwarf Mistletoe

Lodgepole pine dwarf mistletoe, *Arceuthobium americanum* infests 42% of the lodgepole pine type in the Pacific Northwest. Severe infestations cause growth loss, wood quality reduction, and tree killing. Dwarf mistletoe is the most serious disease affecting lodgepole pine.

Hosts: Lodgepole pine.

Recognition: Leafless, yellow to olive-green dwarf mistletoe shoots (about 2.5 in. long) a pear on infected branches and stems; basal cups of old, detached shoots remain on branches; branch and stem swellings, witches'-brooms, branch and top death.

Disease Spread: Dwarf mistletoe seeds are sticky and forcibly discharged from fruit for distances up to 50 feet in the fall; seeds germinate in the spring, infection occurs on thin bark wood; spread is most rapid in multi-storied stands; spread in single-storied stands averages 1-2 feet per year; spread is faster in open than dense stands; dwarf mistletoe is a true parasite, dying with host death.

Management: Clearcut severely infested stands, remove the infested overstory if a manageable susceptible understory is present; remove severely infected trees in lightly infested stands; favor non-hosts in mixed stands; maintain even-aged stands in single species forests; prune witches'-brooms in recreation sites to prolong tree life.

May be Confused With: Simulation brooms produced when suppressed trees are released. Simulation brooms do not have dwarf mistletoe shoots.

A. americanum plants on lodgepole



Witches'-broom caused by dwarf mistletoe