

# Forest Disease Management Notes

United States  
Department of  
Agriculture

Forest Service  
Pacific Northwest  
Region



## Douglas-fir Dwarf Mistletoe

Douglas-fir dwarf mistletoe, *Arceuthobium douglasii*, is probably the most damaging disease of Douglas-fir in eastern Washington and eastern and southern Oregon. It infests 42% of the Douglas-fir type on the East Side. Infection causes growth loss, wood quality reduction, top-killing, and tree killing.

**Host:** Douglas-fir.

**Recognition:** Leafless, olive-green shoots about 1/4 to 1/2 in. long) on infected branches in witches' brooms; branch and stem swellings, witches'-brooms that can reach massive sizes, dead tops, and dead trees.

**Disease Spread:** Seeds are sticky and forcibly shot from fruits in the fall; most seeds travel less than 10 feet; seeds germinate in spring, infection occurs on thin bark wood. Disease spread is most rapid in multistoried stands; spread in single-storied stands averages 1-2 feet per year.

Death of host results in death of dwarf mistletoe. Infections are systemic (spread internally) in Douglas-fir.

**Management:** Clearcut severely infested stands; remove infested overstory if a manageable susceptible understory is present. Remove severely infected trees in lightly infested stands; favor non-hosts in mixed stands.

May be **Confused With:** Brooms caused by viruses or genetic abnormalities.



Douglas-fir stand severely infested with dwarf mistletoe



Dwarf mistletoe plants on Douglas-fir