

# Forest Disease Management Notes

United States  
Department of  
Agriculture

Forest Service  
Pacific Northwest  
Region



## Cytospora Canker

Cytospora cankers are caused by several species of fungi in the genus *Cytospora*. This disease is usually associated with environmental stress. It occurs sporadically in the Pacific Northwest, but with the exception of the dwarf mistletoe - *Cytospora* association, it seldom causes serious damage.

**Hosts:** Weakened conifers; *Cytospora abietis* frequently is found on dwarf mistletoe-infected true firs, and an unidentified *Cytospora* has been found causing stem cankers on sapling and pole-size Douglas-fir.

**Recognition:** Slightly sunken, gradually enlarging cankers on branches or stems, heavy resin flow on Canker face, death of branches; occasionally, death of trees.

Small pimple-like fruit pustules (pycnidia) on dead bark; large numbers of spores ooze from these fruit bodies in mild wet weather, forming yellow-orange tendrils.

**Disease Spread:** Spores are carried by wind, insects, and birds, or rain splash; new hosts are infected through wounds or dead twigs; the fungus only affects weakened trees, trees on poor sites, injured trees, and especially drought-weakened trees; *Cytospora abietis* on true firs commonly infects dwarf mistletoe-infected branches; *Cytospora* species are most successful when bark is relatively thin; predisposes trees to bark beetle attack and possibly root diseases.

**Management:** Maintain a vigorous stand; control dwarf mistletoe; avoid wounding trees; use local seed source stock; remove trees with severe flagging and low live-crown ratios.

**May be Confused With:** Fir broom rust, animal damage, environmental damage.

Branch canker associated with  
*Cytospora abietis* and dwarf mistletoe on  
Pacific silver fir



*Cytospora* canker on  
Douglas-fir



*Cytospora* spore tendrils