

Forest Disease Management Notes

United States
Department of
Agriculture

Forest Service
Pacific Northwest
Region



Spruce Broom Rust

Spruce broom rust is caused by the fungus *Chrysomyxa arctostaphyli*. It is occasionally seen in Pacific Northwest spruce stands, but seldom causes damage.

Hosts: Primary hosts- spruces; alternate host -kinnikinnick.

Recognition: Causes conspicuous witches'-brooms; with profuse short twigs; needles on witches'-broom twigs are yellow in summer, die, and are shed in fall, leaving brooms to appear dead during winter; heavy infection results in spike-tops, dead branches, bole deformation, growth loss, and, occasionally, tree mortality; causes a purple-brown leaf spot on kinnikinnick.

Whitish-yellow spore pustules (aecia) occur in great numbers on foliage of witches'-brooms in summer; brooms appear yellow; orange-brown spore pustules (telia) occur on the undersides of kinnikinnick in late spring.

Disease Spread: Both hosts are required for completion of the life cycle; spores that infect both hosts are windborne, and moist conditions favor infection.

Management: Brooms could be pruned from ornamental trees; seldom serious enough in Pacific Northwest forest stands to justify control.

May be Confused With: Dwarf mistletoe, which rarely infects spruces.



Chrysomyxa arctostaphyli broom
on spruce