Forest Disease Management Notes

United States Department of Agriculture

Forest Service
Pacific Northwest Region

Red Band Needle Blight

Red band needle blight is caused by the fungus *Dothistroma pini*. It is occasionally damaging to pines in the Pacific Northwest. Damage seems to be most severe on off-site trees.

Hosts: Most commonly infects lodgepole and ponderosa pine; other pine species are occasionally infected.

Recognition: Yellow to tan watersoaked spots and bands begin to appear on infected needles in July; these turn reddish brown with time, and the ends of the needles die; infected needles drop in late summer, fall, or, in some cases, spring of the following year; infected trees have a scorched appearance and may exhibit a "lion's tailing" effect with a few healthy needles concentrated at the outer ends of branches or near tops.

Inconspicuous (stromata) black fruit bodies containing spores form in the center of the red bands under the needle epidermis, which splits open at spore release.

Disease Spread: Spores are released from May to November, are windborne, and can infect needles of all ages; considerable moisture is necessary for germination and infection, and spores are usually released during periods of rainfall; the fungus completes its entire life cycle in 1 year; trees under 10 years old are most susceptible.

Management: None usually warranted except for nursery or ornamental trees. When necessary, control can be attained with two applications of a copper fungicide, once just before needles emerge and again shortly after; pine clones resistant to the disease can be planted in areas where the pathogen is especially damaging.

May be Confused With: Lophodermella needle casts, Elytroderma needle blight, environmental damage, root diseases.

"Lion's Tailing" on a severely infected tree

Red-band symptoms on needles infected by *Dothistroma pini*