



## Prairie Shelterbelt Program Disease Leaflet

# LOPHODERMIIUM NEEDLECAST

*Lophodermium spp.*

### Hosts:

Spruce and Pine

### Distribution and Disease Cycle:

*Lophodermium* infections can cause extensive defoliation in spruce and pine, which can stunt young trees or with severe infections, lead to death. Infection in older trees is generally not fatal, but defoliation can lead to sparse looking branches. Two main species of the fungus are present in western Canada; *Lophodermium picea*, a pathogen of spruce and *L. pinastri*, a pathogen of pine. Infection occurs on current year's needles in later summer, with symptoms not appearing until the following spring. Spores erupt from infected needles during moist weather in late summer or fall, spreading by wind and rain to infect the current year's needles.



*Lophodermium* needlecast on Scots pine  
Photo credit: Natural Resources Canada,  
Canadian Forest Service

### Symptoms and signs:

Yellow or reddish brown spots with yellow margins appear on infected needles in late winter or spring. Eventually the entire needle turns yellow, then reddish-brown, with severely infected needles appearing scorched. In younger trees, infection usually occurs throughout the crown, while in older trees, symptoms typically appear in lower branches first.

### Control:

There are no effective cultural control methods known for this pathogen. Fungicides containing copper oxychloride or chloratholonil are registered for controlling infections in **spruce**, while those containing chloratholonil or mancozeb are registered for infections in **pine**. Apply fungicides as per the label instructions beginning in early August before infection occurs, and continue applications at 3-4 week intervals until conditions no longer favour disease development.



*Lophodermium* infection on Scots pine needles  
Photo credit: Andrej Kunca, National Forest Centre -  
Slovakia, Bugwood.org

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