

# Needle Cast Information



## Needle cast in Conifer trees:

Needle cast is a broad group of fungal diseases that cause conifers to shed needles. The symptoms of needle cast first appear on needles as light green to yellow spots, which eventually turn red or brown. Growth of the fungal pathogen from the spots on the needle will cause the death of the entire needle. This shedding of needles can be more serious to conifers than losing leaves is to deciduous hardwoods. There are over 40 kinds of needle casts in North America.



## How do you recognize this?

Infected needles usually turn red to brown from their tips beginning in winter or early spring. By mid to late spring the death of infected needles is well advanced giving diseased trees a red to brown "fire-scorched" appearance. Tiny black fruiting bodies (spore producing structures) form on the surface of the needles before or after the infected needles are shed.



## Caused by

The fungus *Rhizosphaera kalkhoffii*

## Symptoms

Needle discoloration: yellow to reddish-purple to brown

Premature defoliation

Premature death

Black pycnidia (fruiting bodies) develop on infected needles.

## Disease conditions

Warm (60-75°F), wet weather

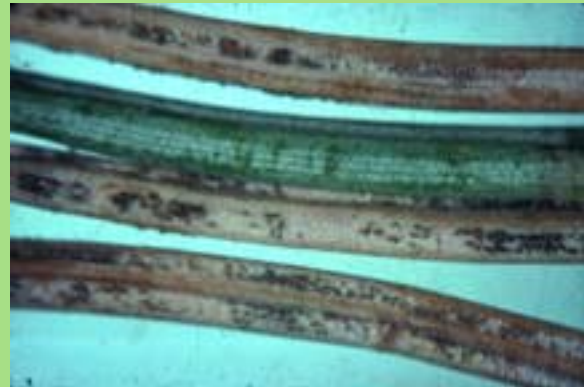
## Disease management

Plant only healthy trees.

Avoid planting monocultures ( all of one tree) vary your specie types.

Avoid planting new trees next to established trees.

Sterilize pruning shears between cuts.



Promote good air circulation around trees by open spacing, selective pruning, and removing brush and grass around trees. Apply fungicide.

**Treatment** for the spore is controlled by spraying a fungicide. The first application should be done in the spring when the new shoots (green candles) pop out. The second application should be made three to four weeks later.

This process should be done for a minimum of two consecutive years .

This disease is an air born pathogen that spreads easily when the wind blows around making it a difficult pathogen to treat. If your neighbors don't treat their trees you will probably need to continue annual applications. because it will come back again.

If you think you have this problem give Precision Landscape & Irrigation LLC an opportunity to diagnose your tree problems so we can develop a custom made plan for your home.