

*Fact Sheet #23*

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# Laminated Root Rot



Above: Dying trees with thinning foliage in crowns



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# Laminated Root Rot

## Plants Affected

Conifer Species: Highly susceptible - Douglas fir, Mountain hemlock, white fir, and grand fir. All Hardwoods are highly immune

## Symptoms/Damage

### Crown

Laminated root rot is the most destructive root decay of Douglas firs in the N.W. Trees that have blown over and have roots that are decayed and stubbed off. On standing trees foliage in the crown will thin and turn yellow or chlorotic. An abnormally heavy crop of cones may be produced. Crown symptoms are usually not seen until at least half of the root system is affected.

### Cross Section of wood

The decayed wood separates readily (delaminates) at the annual rings with pitting evident in the wood. Reddish brown “whiskers” of the fungus known as setal hyphae may be found in infected tissue.

## Life Cycle

The fungus is spread by root to root contact from one tree to another. The fungus does not grow through soil. It can survive up to 50 years in large roots and stumps of dead trees and infect other trees that come in contact with infected wood

## Management

- There is no chemical cure.
- Removal of infected stumps and roots.
- Removal of all symptomatic trees
- Replant with resistant species. All hardwood species are immune.

Laminated root rot can pose a serious hazard in developed areas due to risk of wind throw and resulting injury from falling trees. Affected trees should be removed as soon as possible.



Above: Dark, stained areas indicate presence of laminated root rot

Below: Wood delaminating, pitting and red setal hyphae



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