

How does white pine blister rust spread into our forests?

By the transport of infected plants including currants and gooseberries, and 5-needle pines. By airborne spores traveling long distances in the wind.

Damage to currants and gooseberries includes leaf spotting and premature defoliation.



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White Pine Blister Rust

What you can do to slow the spread



Currants and Gooseberries

The currants and gooseberries are low growing, usually small, deciduous shrubs. They have simple, alternate leaves that are palmately lobed (like maple leaves). Fruits are smooth or glandular berries produced in the fall. Stems are smooth or armed with spines and bristles. Generally, most gooseberries have spines and bristles and most currants don't.



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What is white pine blister rust?

White pine blister rust is an exotic, invasive disease of 5-needle white pines. The disease causes cankers that usually kill the stem above or to the outside of the canker and often lead to tree mortality.

White pine blister rust requires an alternate host (currants and gooseberries) to complete its life cycle. Spores produced on the alternate host infect pines.

White pine blister rust is present throughout Idaho and western Wyoming. The disease was thought to be only present in the western part of Nevada until recently. Isolated infestations were discovered in northeastern Nevada in the Ruby Mountains in 2003 and in the Jarbidge Mountains in 2001. The disease was discovered for the first time ever on Rocky Mountain bristlecone pine in Colorado in 2003, and Intermountain bristlecone pine is at risk throughout its range.

Signs and symptoms of white pine blister rust are not always present or evident on infected plants and are often difficult to distinguish from other causes. Because of this, it is crucial that 5-needle pines and currants and gooseberries are not moved because they may be infected.

What can you do to help?

- Learn to identify 5-needle pines and currants and gooseberries and **DO NOT** move plants from the forest.
- **DO NOT** plant commercial nursery stock unless it is certified disease-free.
- Report blister rust sightings to Forest Health Management!



Stem cankers are often resinous. They usually kill the portion of the tree above the canker.



Branch flagging (death) is a common symptom of the disease.



Cankers may produce orange pustules of spores in the spring that infect the alternate host.



Cankers swell and become roughened as a result of past fruiting.



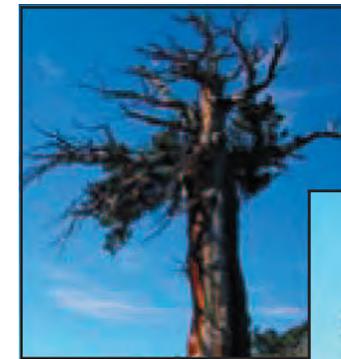
Rodents often gnaw the bark off around cankers.

Identifying Susceptible Pines



White pines are easy to identify because they have 5 needles per bundle as opposed to lodgepole

pine, Jeffrey and ponderosa pine, which have 2 and 3 needles per bundle. Susceptible species present in the central Rocky Mountains include limber pine, whitebark pine, southwestern white pine, and bristlecone pine. The 5-needle white pines are relatively short with upward-reaching or spreading branches. They often grow in clumps and are usually found on dry, rocky ridges at high elevations. These pines are long-lived, and often have a weathered appearance.



Limber pine

Bristlecone pine

