

Where to start:

- This is a quick , visual estimate. It should take only a minute or two to rate a plot.
- Focus on the ORIGINAL overstory.
- Look on the ground for evidence of trees missing from the canopy.
- Look for evidence of infected, live trees.
- To train your eye, look at the range of impacts from the disease, from as little as you can find, to the most severe.



Of primary interest is the overstory cohort that would have originated after the last stand-replacement disturbance such as a fire or timber harvest (in the red box). **What portion of the site is still fully stocked with these original trees?**

Dead and downed trees and infected stumps are important in determining the root disease severity.

The presence of live, young trees in the understory contributes far less to the severity rating .

Why do it?

Root disease severity rating is a tool to estimate the relative cumulative effects of root disease in forest stands. It is the factor that most reliably predicts stand mortality rates in the next 20 to 30 years.

Root disease mortality varies greatly year to year but sites with a history of active root disease are most likely to experience a similar or somewhat higher level of activity over subsequent years, as long as there are live, susceptible trees present.



For more information: Forest Health Protection

www.fs.fed.us/r1-r4/spf/fhp/

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Root Disease Severity Rating

On ground plots



Just How Bad Is It? — A Guide for rating

Root Disease Severity in forest stands

Prepared by Susan Hagle

Live canopy of the overstory

- Canopy loss from root disease is progressive
- Canopy declines rapidly between classes 4 and 6
- Disease-tolerant trees in the overstory limit disease severity



Appearance of the forest floor varies greatly depending on site productivity, how fast the mortality has occurred, and whether trees, shrubs or forbs fill in after the overstory trees are killed.

0	1	2	3	4	5	6	7	8	9
No evidence of root disease visible within 50 feet of plot.	Root disease present within 50 feet of plot but no evidence of disease on plot.	Minor evidence of root disease such as a suppressed tree killed, or minor part of overstory showing symptoms. Little reduction in canopy or volume.	Usually one co-dominant tree dead on otherwise fully stocked site. In absence of mortality, numerous trees showing symptoms of root disease.	20-30% reduction. Dead, and downed trees removed as well as live trees with advanced symptoms of disease contribute to impact.	At least half of ground area of plot showing evidence of root disease-killed trees.	50-75 percent reduction in canopy with most of ground area considered infested as evidenced by symptomatic trees.	There are very few of the original overstory trees remaining although the infested ground area often has densely stocked regeneration of the susceptible species.	The entire plot falls within a definite root disease patch with only one susceptible overstory tree present. Stands with disease-tolerant overstory rarely reach 8 or 9.	The entire plot falls within a definite root disease patch with no overstory trees present.