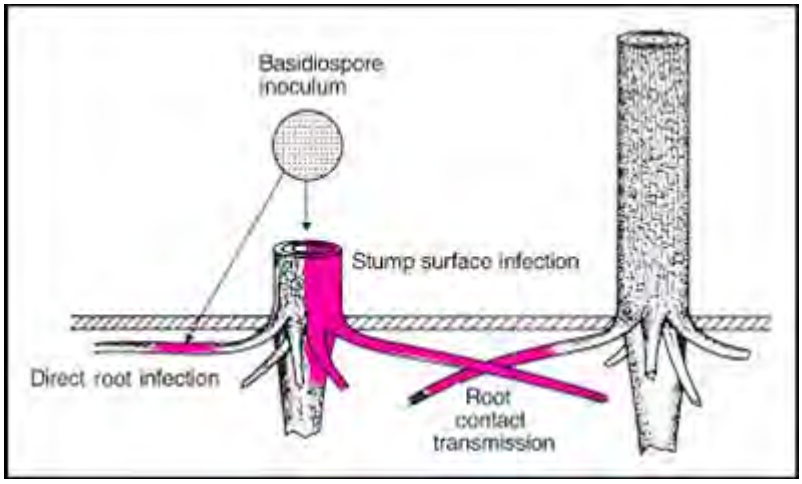
ANNOSUS ROOT ROT

Although the pulpwood prices are high right now, thinning pine trees located in an area that is at risk of developing Annosus root rot can mean tree losses in the future. The Insect and Disease section has recently received many calls from foresters wanting to thin trees located in areas that are at high risk of developing Annosus root rot—these are deep sandy and sandy-loam soils from the sandhills to the coast (see risk map). Winter thinning is not recommended on these sites because this is the time of year when the fungus' reproductive structures (mushrooms or conks) are actively producing spores.



Annosus root rot generally enters a stand after a thinning. Airborne spores land on a freshly cut stump, germinate, and grow into the stump and the roots, rotting the roots as the fungus grows. The infection becomes a problem when the infected root of the cut tree is in contact with the roots of a healthy standing tree. The fungus will grow into the standing trees' roots and the tree will flood the infected root with resin to wall off the fungus. If enough roots of the standing tree are infected, the tree will die. Infection can also start through wounded roots due to firebreak plowing, food plot maintenance, or wild hog feeding.

The Annosus root rot fungus is slow growing, typically growing less than 1 meter per year. Tree loss due to Annosus typically will last 7 years after the thinning. We generally see the most losses from 3-5 years after thinning and the disease is typically inactive after 10 years.

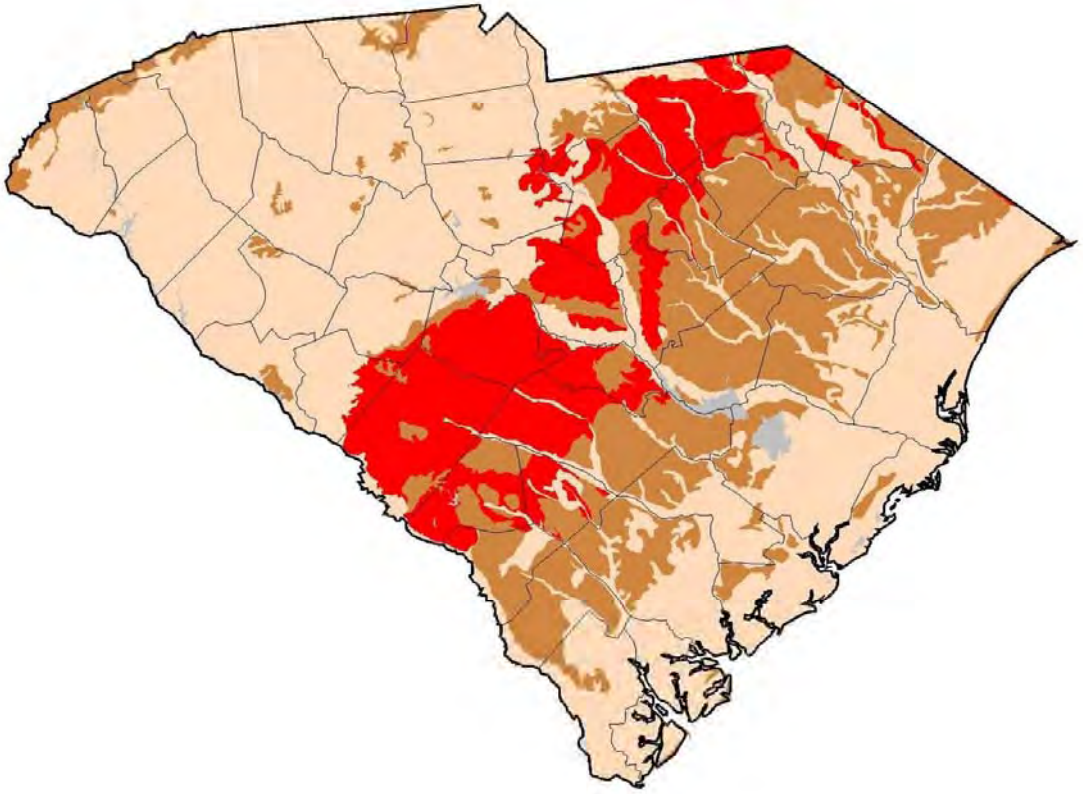
Pine stands in moderate to high hazard sites that were formerly in agriculture (ex. CRP stands) are more susceptible to losses due to Annosus than stands that historically have been forested. This is due to the differences in soil factors in the upper 7-10 inches of soil and due to the prevalence of root-to-root contact in old field sites.

The recommendation for stands in Annosus prone areas is for all thinning operations to occur in the summer, preferably in July and August, when there are few spores being produced. If thinning is to occur in the winter months, we recommend the application of a borax product labeled for Annosus root rot (ex. Sporax or Cellu-treat) on the freshly cut stumps. These stumps should be completely covered with the borax product as soon as possible and within 24 hours of cutting.

If you have any questions, please call the I&D section for more information.

Annosus Root Rot - Hazard Rating by Soils

State of South Carolina



Low Hazard
Moderate Hazard
High Hazard
Not Rated

USDA Forest Service
Forest Health Protection
Asheville Field Office

April 29, 1999