



A Spot that is a Pocket (Infection Center): Southern Pine Beetle vs. Annosus Root Rot

Annosus root rot, caused by *Heterobasidion annosum* (Fr.) Bref., is one of those diseases that is sometimes confused with southern pine beetle (SPB) spots. Often there will be a group of trees that die as illustrated here. If it is from the activity of the SPB it is referred to as a spot. If it is from the activity of a pathogen that has developed into a disease such as annosus root rot it is referred to as an infection center or pocket. The end result is the same in either case trees growing adjacently are killed.

mortality occurring within eight years of thinning.

Primary hosts of this disease are loblolly, slash, shortleaf, and longleaf pines as well as eastern

it is always a good practice to check on currently registered products for use in each setting. Borax **must be** applied to the stump surface immediately after the tree is cut. Some cutting heads have been modified to apply treatment at the time the cutting takes place.



Figure 1: Group of trees that die - Is it Annosus Root Rot or Southern Pine Beetle?

Prevention and control strategies for annosus root rot include stump treatment, timing of thinning, prescribed burns, and the manipulation of planting

Annosus root rot is primarily a problem following thinning. The fresh cut stumps provide infection courts for this fungus where upon the spores germinate. After germination the fungus spreads through the stump and into the roots. Within the roots the fungus spread to residual trees through root grafts. Thinning and yellowing of the crown may precede mortality. Some trees may fade quickly and die with few symptoms. Within two to three years following infection the residual trees begin to die with most

white pine in the southern United States. The disease is more common in pine stands that are located on sandy, well-drained soils but are not confined to these conditions and can be found in some seed orchards and recreation areas. **High hazard** sites are sites with 12 inches or more of sand or sandy loam above clay subsoil in a soil with good internal drainage.

Management in areas affected includes stump treatment. One stump treatment available is treating cut stumps **immediately** with borax to prevent infection. It

density. To select the most appropriate strategy consultation with a forest health specialist is recommended. General information about the disease can also be obtained by doing an internet search using the scientific or common name of disease to begin the search.

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