



TEXAS A&M FOREST SERVICE

Forest Health: Hardwood Decay

Diseases cause 45% of all mortality and wood decay in forests. Heart rot is the single most important disease of merchantable hardwood timber in the South, causing 75% of these losses. Heart rot can affect all parts of the tree, but frequently occurs in the butt log where its impact on the value of the tree is greatest. In the earlier stages, damage is in degraded wood. Advanced decays cause hollows, tree breakage, and mortality.

Identification:

Damage from heart rot is easily observed through physical evidence of hollows, rotten wood, irregular or lumpy stems, cankers, catfaces, scars, and fungus fruiting bodies on stems. Most begin at basal injuries, like those caused by fire and logging damage. Old branch stubs are also a common infection site for decay.

Wounds caused by insects, weather, fire, animals, and human activity such as logging predisposed trees to various decay fungi. Rate of decay and spread of decay fungi can be greatly influenced by tree species and overall forest health.

Prevention:

Minimize decay by growing species adapted to the site and by preventing wounding. Carefully supervise fire control and prevention, road building, logging, and other forest activities. When total harvesting for coppice regeneration, stumps should be as close to the ground as possible.

Control:

Prevention is the best control, because once the decay process begins, there is no control. When thinning hardwood stands for regeneration, remove all diseased trees. If this is uneconomical, cut the tree and leave it on the ground to reduce inoculum dispersal. This also allows decay fungi to be over-taken by decomposing fungi. Never put tree wound sealant over existing scars, because this may promote additional decay by trapping moisture inside the tree.

