

Most Costly Insects & Diseases Of Southern Hardwoods

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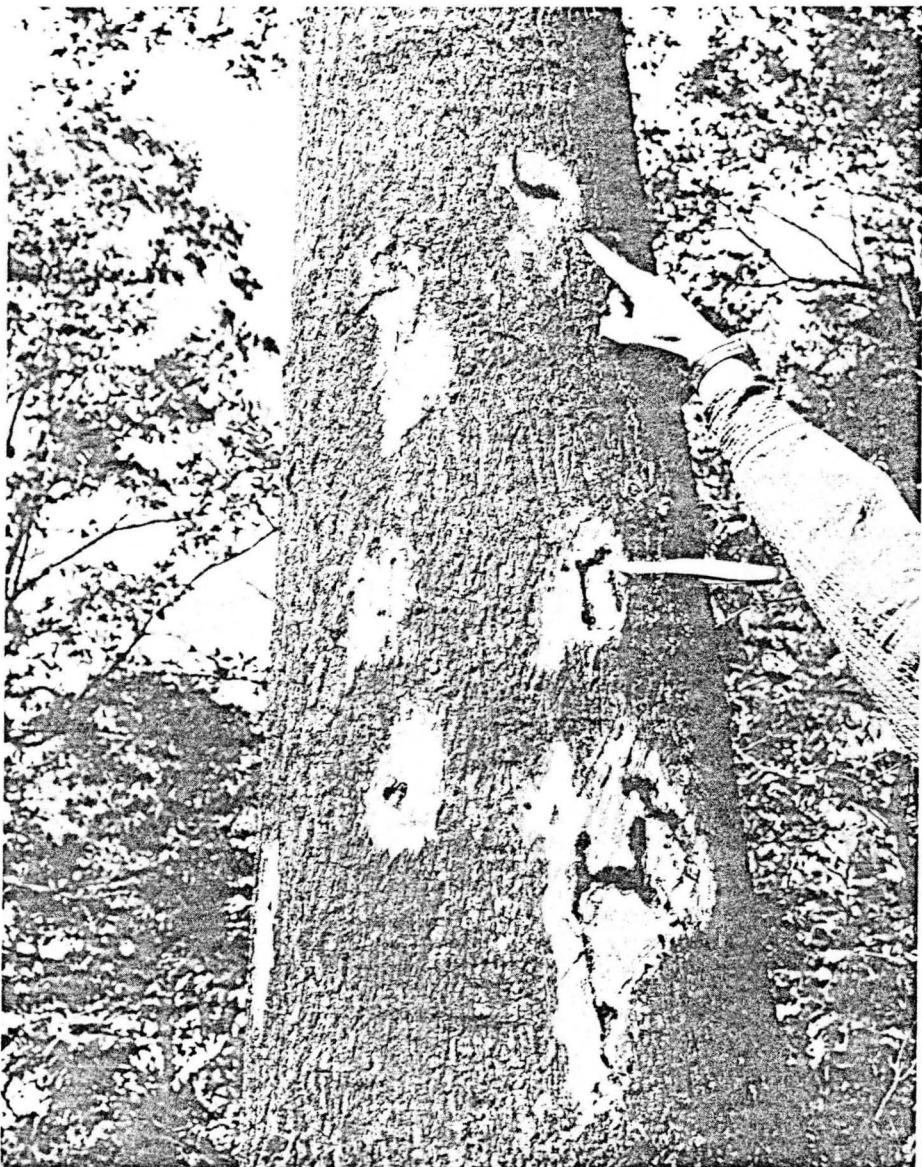
Insect borers, especially carpenter worms and red oak borers, cause degrade in oaks, an average of \$45 per thousand board feet, and an annual loss of \$112 million in the 2.5 billion board feet of oaks cut annually.

Because of the cryptic nature of insect borers, few people ever see the borers or their damage. Only when the tree is cut and sawn into lumber does the damage become evident; thus, the Tree Farmer often does not see the damage — only the mill operator. The timber processor cannot do anything about the defects which already occurred in the living tree. Therefore, Tree Farmers who grow and manage the trees need to know how to recognize borer attacks on their trees. They also need to be made aware of alternatives for managing borer populations to minimize losses at harvest time.

When insect borers attack the trunks of trees, they leave their "calling cards" in the form of bark indicators that can be used to recognize and evaluate borer infestations. Current borer attacks will be evident on the bark surface from the presence of egg niches, sap spots, wet bark, sap-stained bark, entrance holes, exit holes, and sawdust and insect droppings. Previous borer attacks show up as bark scars that are usually irregularly oval to elongate with a median seam. These scars may remain for 10 to 20 years or longer as evidence of past borer attacks.

Timber stands should be checked regularly. Three or more borer-caused bark scars in one area of the standing tree indicates a moderate borer population. Where the management goal is production of veneer logs and No. 1 saw logs, action against borers should be taken.

Leaf diseases and insect defoliators are the most damaging invaders of young hardwood trees. Severe defoliation will retard growth and, more importantly, predispose trees to diseases such as Hypoxylon, Nectria, and Botryodiplodia cankers. These canker fungi only colonize the sapwood, but the presence of Hypoxylon canker on trunks indicates the tree is under stress and should be harvested before the tree dies.

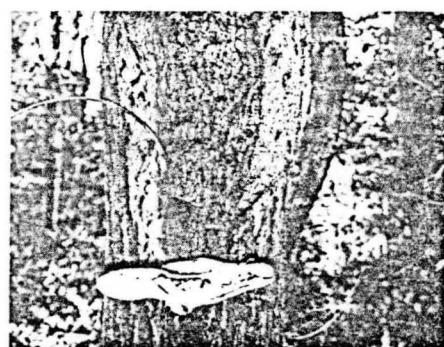


Brood tree with bark shaved to show repeated attacks by beetles.

The most damaging canker rot is *Hispidus* canker, which causes extensive decay. Cankered trees are quickly reduced to culls and should be harvested or cut to reduce the spread of spores to healthy trees.

Hardwood declines also are becoming a common problem in the South. Dieback of limbs and thin crowns are the first symptoms. A tree with more than half its crown infected should be cut.

For more information, Tree Farmers should contact a forest pathologist or entomologist in their state. ♦



Hispidus canker with fruiting structure on tree bole.