

HARDWOOD CORNER

By James P. Jeter, Statewide Hardwood Specialist, Alabama Forestry Commission

One of the most common causes of mortality in hardwood trees under stress from drought is hypoxylon cankers.

Hypoxylon cankers affect most oak species in North America, as well as other hardwoods. Fungi in the genus generally cause a white rot of hardwood slash, but there are some species that cause severe cankering of stressed, living hardwoods. Cankering caused by this fungus contributes to the premature death of trees stressed by drought, construction damage, or other problems. Rapidly rotting tissue leads to structural weakening, causing serious hazards to people or property in high-use areas.

Identifying the Fungus

The fungus is usually visible as a definite fruiting layer that has dislodged the bark. Fruiting layers vary in color. Hundreds of small, black fruiting bodies are imbedded in this layer.

Identifying the Injury

The fungus invades the tree's cambium and the fruiting layer exerts sufficient pressure to dislodge the bark. Careful observation is sometimes needed to see the fruiting layer, since it can resemble the bark of some trees, such as hackberry.

Biology

Weakened trees are most often attacked by *Hypoxylon* spp. The fungal spores enter wounds, germinate, grow into the cambium, severely cankering and often girdling the tree very quickly.

Concurrently, white rot of the sapwood under the canker begins. Fruiting structures eventually cover the cankered area and rupture the bark. Spores are produced at a rapid rate and are windborne to new hosts.

Control

Disease prevention can be achieved in high value trees by keeping the tree vigorous and unwounded. Fertilize high value trees and water them during drought periods. Once the infection has occurred, remove infected limbs or trees

because they rapidly become hazardous to people and property. (Source: *Insects and Diseases of Trees in the South*)

On another note, these trees make poor firewood as they are usually pithy and soft. BTU output is poor. This is also a good reason not to make intermittent cuts in hardwood stands during extreme drought conditions. Trees wounded by logging operations make excellent candidates for this fungus. ☹

Editor's Note: Jim Jeter now holds the dual role of Hardwood Specialist and BMP Forester/Coordinator. According to Mr. Jeter, the two jobs actually go hand-in-hand, as most SMZs (streamside management zones) and riparian zones consist of some, if not all, hardwood species. The maintenance of these stands in a healthy manner and their regeneration continues to be a major concern not only of forest industry, but also of the general public. He will address these issues in future editions of Alabama's TREASURED Forests magazine, as well as answer most frequently asked questions pertaining to hardwoods. Contact him with your questions at this address:

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