

Hypoxylon Canker Oak Disease ***(AKA Sudden Oak Death)***

Northeastern Oklahoma is home to sixteen native varieties of oak tree. These beautiful trees are an important part of our landscape, our ecology, and our history. As mighty as the oak may be, it is susceptible to a mighty foe, Hypoxylon Canker or Sudden Oak Death.

Hypoxylon Canker, also known as Biscogniauxia, is caused by the *Biscogniauxia atropunctata* fungus. It occurs throughout the U.S. and particularly in Oklahoma, Arkansas, North Texas, and the mountain west. It occurs in forests, pastures, cities, new housing developments, and older residential areas as well.

The fungus colonizes healthy trees and lives in the bark and sapwood without damaging the host tree. When a tree is stressed and its natural defenses are no longer able to resist, the fungus colony will grow and begin living off the nutrients of the tree, thus contributing to its eventual death. *Biscogniauxia atropunctata* fungus thrives in hot, dry weather so drought is the most common oak stressor here in Oklahoma. The fungus feeds on dry wood depleting the tree's ability to move water, which further dries the wood and encourages the growth of more fungus. Visible symptoms often develop within a year after a drought. Root damage, soil compaction, physical injuries, chemical injury and animal and insect damage also create pathways for the fungus to enter the tree.

Yellowing and wilting leaves are early symptoms. The leaves turn brown as the tops of the branches die. The fungus will progress

down to the trunk and around the tree. It causes a girdling canker, one that encircles the tree, thus preventing water and nutrients from flowing upward which eventually starves the crown (i.e., top of the tree). The entire tree will turn brown.

This process takes several weeks to several months but appears to happen very quickly, hence the name - Sudden Oak Death. When diseased branches die, the fungus will form a cushion-like mat under the bark called a stroma causing the bark to slough off the tree. The exposed stroma produces spores that are carried by wind, rain, and animals to nearby trees. Trees with more than fifteen percent of their crown infected should be cut to the ground and burned because the fungus stays active on deadwood and continues to produce spores. Trees with less disease may benefit from pruning. Remove and destroy all diseased and damaged limbs. Be sure to clean your tools after pruning with one part bleach to nine parts water to kill the fungus and avoid spreading it. Make sure the tree gets adequate water, especially during drought.

There is no cure for Hypoxylon Canker and the dieback it causes. The best defense is a healthy, thriving tree. Remove any damaged limbs and avoid injuring the tree or compacting the soil around it. Provide adequate water all year long, especially during our long, hot summers.

Fertilizer can help, too. For the best fertilizer results, have your soil tested. Complete soil testing instructions are available on our website, www.tulsamastergardeners.org. Click the Lawn and Garden tab and choose Soil.

Trees add beauty, value, and shade to our lives and provide homes for birds and other wildlife. Care taken today will reward you and generations to come.

You can get answers to all your gardening questions by visiting our website, www.tulsamastergardeners.org, by calling the Tulsa Master Gardeners Help Line at 918-746-3701 or by emailing us at mg@tulsamastergardeners.org, or come see us at our Diagnostic Center at 4116 E 15th St., Tulsa, OK.

Sources:

[OSU Extension Service “Biscogniauxia \(Hypoxylon\) Canker and Dieback of Trees” EPP-7620](#)

[Texas A&M Cooperative Extension “Major Oak Diseases and Their Control”](#)

[Texas A&M AgriLife Extension “Understanding, Recognizing and Keeping Hypoxylon Canker of Oaks at Bay”](#)