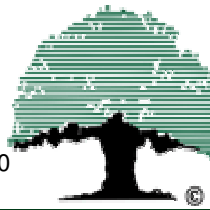


Arborilogical[™] Services, Inc.

16 Steel Road • Wylie, TX 75098
Dallas 972.442.1524 • Ft. Worth 817.849.1160
Toll Free 866.55.ARBOR



www.arborilogical.com

The Tree Care Experts

Ganoderma lucidins, the varnish fungus, is a pathogen that enters openings in root systems of many tree and shrub species. In our region, Red Oak, Cedar Elm, Pecan, Live Oak, Pears, and Photinia have all been reported to be species commonly infected by this fungus.

The entry points can be from any activity that damages or severs a plants root system. The fungus lives in the soil as a saprophyte, that is to say, it can live on dead organic matter with no ill effects until it encounters live roots that have been cut.

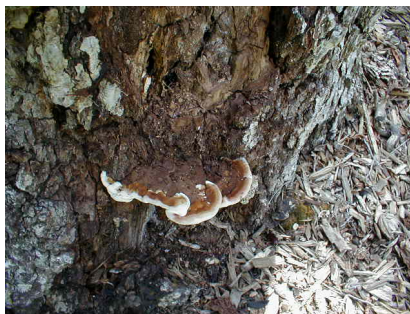
Published literature, archaic as it may be, suggests the fungus colonizes a plants root system slowly and may take several years, 10-20 has been proposed, to finally kill a tree or shrub. Some have theorized that is might just be a natural component of many old tree species. We feel that it may be quite a bit more aggressive than first thought. Regardless of the pathogens history, it causes significant damage to our shade trees by destroying a trees structural root system.





Trees have two primary root systems. The structural root system is responsible for anchoring a tree to the earth. A trees fine feeder root system is responsible for the daily demands of moisture and nutrients. Once the structural root system has been compromised, a trees stability becomes quite a concern. Often, trees that fail during storms show evidence of colonization by Ganoderma sp.

The fungus will produce a fruiting structure, a fungal conk, near the base of the tree. It is a shelf like structure that varies in color from a rusty orange-red to a dark red with cream coloration almost always shiny in appearance. The concern is that once the fruiting structure is evident, the fungus has often destroyed a large part of the trees ability to stay anchored to the earth, thus creating a high potential for failure and a potentially dangerous situation.





The difficulty is that above ground signs can mimic other problems. Trees infected with *Ganoderma* sp. often leaf out in the spring with significant dieback and large dead branches with no changes in the trees environment. Tree owners will often report that the tree looked fine last fall. Even at this stage of the infection, there may be no visual evidence, a fungal conk, apparent at the base of the tree. There is also the opposite scenario in that a trees canopy looks perfectly fine, but fruiting structures have developed. In either case, further investigation may be recommended. These recommendations should never include anything that is proposed to help or control the infection. Recommendations should be to immediately investigate a portion of the trees below ground structural root system to determine the extent of structural root loss.

The sad conclusion is that there is no prevention or control once a root system has been colonized. There is obviously the avoidance of root damage of any type, which is very unlikely in the urban environment. The positive aspect is that after investigation, immediate removal is not always necessary. It does give your Certified Arborist a baseline mark to make appropriate recommendations regarding a potential timeline for removal and replacement.

This is not anything new to our urban forest, nor is it any type of epidemic that all susceptible tree and plant species will die from. It is a serious concern if a large.

by Kevin Bassett and Russell N. Peters