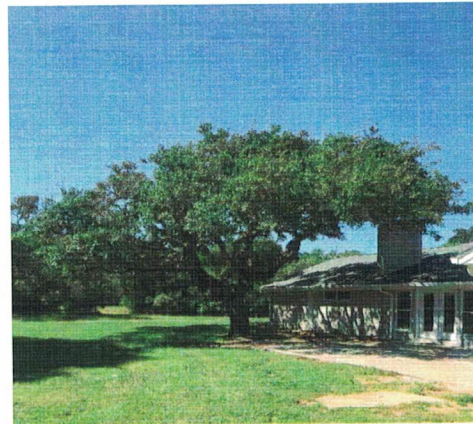




These are examples of leaves from trees with active Oak Wilt, compared to a tree which had active oak wilt. This is after treatment.



**Oak wilt** is a [fungal disease](#) affecting [oak](#) trees caused by the fungus *Ceratocystis fagacearum*. Symptoms vary by tree species, but generally consist of leaf discoloration, wilt, defoliation, and death. The fungus spreads from diseased to healthy trees from insects or by connections between tree roots. Management of the disease historically meant preventing infection by avoiding tree wounds, removing diseased trees and breaking root connections with vibratory plows, trenchers/rocksaws or hoes. Present methods focus on the area of monocultures and restoring correct ecosystems using soils. Fungicide treatments, used in urban areas, are available and are mostly preventative as well.

The oak wilt fungus spreads in two basic ways: transfer of spores from diseased to healthy trees by insect vectors and movement of the fungus from a diseased tree to a healthy tree through [root grafts](#). Transmission via root graft is the most common means of spread, as trees within as much as 50 to 200 feet of a diseased tree can be infected. Oak wilt usually moves from diseased trees to healthy trees through roots that have become interconnected (root [grafts](#)). In this case, spores (also endoconidia) that have been produced inside the tree travel through the vascular tissue.

Traditionally, there have been only two methods of treating and quarantining oak wilt. The first is direct injection of fungicide into the tree, which has had some success with oak wilt in Texas. The second method involves trenching around the infected tree(s), thereby shutting off transmission of the oak wilt fungus via the roots. This second method is successful only so far as the surrounding trees haven't already been infected. It also pretty much isolates the affected trees, allowing them to either die or survive, usually to die.

Biogreen Tree Care's method is much different from the traditional methods, but actually accomplishes both with the same treatment. Biogreen's proprietary formula is absorbed into the tree through its roots. Without going into a long discussion of molecular biology, the product, comprised of billions of archaea, literally removes the food source of the oak wilt fungus from the tree, starving it out. While doing that,



there is a by-product of the process, which allows the tree itself to better absorb necessary nutrients and minerals needed. It is not unusual to see 10-15% new growth within about 7-14 days. More severely affected trees may see significant re-foliage during the next season, as the oak wilt is overcome.

The product, by being introduced into the ground surrounding the affected trees, literally spreads into any other trees connected by their roots. This action prevents the spread of oak wilt into other trees, and helps keep the surrounding trees healthy.