

# OAK WILT



## WHAT IS THE THREAT:

Oak wilt (*Bretziella fagacearum*) is a fungal vascular disease that is spread through root grafts from nearby infected trees by sap beetles carrying fungal spores. Oak wilt affects all oak species, but affects red and white oak groups differently.

## WHERE IS THE THREAT:

Oak wilt occurs in 24 states in the US but is most frequently found in oaks in the Midwest, Eastern United States and Texas. Red oaks are very susceptible to oak wilt and can die within weeks or months, while white oaks can languish over 2-5 years before declining and possibly dying. Affected red oaks include red, scarlet, black, pin, and Texas live oaks; while affected white oaks include white, and to a lesser extent, swamp white, and bur oaks.

## SYMPTOMS:

Initial symptoms of oak wilt are browning leaves, beginning at the leaf tip and moving downward and inward toward the stem. As the disease progresses, limbs will die off. Fungal mats may develop under the bark, pushing the bark out and causing cracks. Untreated, the tree will die, sometimes within a matter of months.

Symptoms in white oaks are scattered throughout the canopy and may be nonuniform. Red oaks typically show leaf symptoms in the upper part of the canopy. Over a period of 4 weeks, major defoliation can occur, leaving many trees dead by the end of the season. In Texas live oaks, leaf veins become yellow while the rest of the leaf is green. If you see possible oak wilt symptoms, contact your local extension agent to confirm.

## WHAT TO DO ABOUT IT:

Trunk injection with Propizol® can provide protection for up to two years and should be part of an oak wilt management plan. Trees within 30 feet of a positive infection are at great risk of root graft infection. If possible, provide root separation by trenching to a depth of 5 feet between the infected and healthy trees. As beetles are attracted to volatiles from pruning cuts, avoid pruning susceptible oaks during peak flight season (April - June) and wait until the dormant period. Contact your local extension agent to find out when removal is your best option.



Fungal mat in red oak



Advanced stage of oak wilt on large oak tree



Yellowing veins of Texas live oak leaves

Header Image taken by: Minnesota Department of Natural Resources Archive, Minnesota Department of Natural Resources, Bugwood.org, Fungal mat taken by: USDA Forest Service Archive, USDA Forest Service, Bugwood.org Oak wilt tree taken by: Steven Katovich, USDA Forest Service, Bugwood.org, Pine Oak wilt leaf taken by: Paul A. Mistretta, USDA Forest Service, Bugwood.org