

# OAK WILT

(*Ceratocystis fagacearum*)

## DESCRIPTION

Oak Wilt is a disease caused by the fungus *Ceratocystis fagacearum* that is specific to oaks (*Quercus* spp.). The fungus is spread through root grafts between neighboring trees and by insects. Red Oaks are particularly susceptible to Oak Wilt. The infection causes leaf discoloration, defoliation and death in a very short period of time (from two months to one year). Fungal mats will form under the bark and force outwards, cracking the bark of the tree. White oaks are more tolerant of Oak Wilt infection. Fungal mats will not form and it will take much longer for the tree to succumb to the disease. White oaks will show infected annual rings when viewed in cross section.

## 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.

## TREATMENT

Arborjet recommends a trunk injection of Propizol™ Fungicide (propiconazole 14.3%). Propiconazole is a systemic fungicide that will suppress *Ceratocystis fagacearum*. Because Oak Wilt is spread through root grafts and insect carriers, Arborjet recommends the treatment of non-infected oaks in close proximity to the infected trees to slow the spread of the disease. Oak Wilt is an aggressive vascular wilt disease; treat trees when the disease has been diagnosed in your area. Applying Propizol Fungicide in advance of infection will greatly reduce or eliminate likelihood of infection. When treating multiple trees, it is recommended to disinfect drill bits and injection equipment between trees.

## PHOTOS

- A. Oak leaves showing typical tip down pattern of browning from Oak Wilt.
- B. Fungal mat in red oak.

Photos A taken by: Minnesota Department of Natural Resources Archive, Minnesota Department of Natural Resources, Bugwood.org

Photo B taken by: USDA Forest Service Archive, USDA Forest Service, Bugwood.org



# OAK WILT

## WHEN TO TREAT

When treating proactively in non-infected trees, inject after June 15 to avoid attracting disease carrying beetles to the tree. If treating therapeutically or for an existing infection, it is best to treat immediately.

Generally, the best seasons for injection are fall and spring, as uptake occurs when trees are transpiring. The environmental conditions that favor uptake are adequate soil moisture and relatively high humidity. Soil temperature should be above 40°F for trunk injection. Hot weather or dry soil conditions will result in a reduced rate of uptake, so trees should be watered if applications are made when soil is extremely dry. If treating trees in the summer, inject in the morning for the quickest uptake. Tree health will affect treatment efficacy, so assess tree health prior to treating. For example, a declining tree (>50% canopy dieback) is a poor candidate for treatment.

## WHAT TO EXPECT AFTER TREATMENT

Tree recovery with Propizol will be proportional to the severity of the infection at the time of treatment. Trunk injection of propiconazole will kill and suppress *Ceratocystis fagacearum* and allow the tree to re-leaf. Residues will persist in the tree for approximately one to two years. Trees should be re-evaluated for retreatment every 12-36 months.

## WORLD CLASS FORMULATIONS

For treatment of Oak Wilt use Propizol™ Fungicide.

**Propiconazole** is a systemic fungicide widely recognized as the leading treatment for Oak Wilt. Propizol will stop or inhibit the spread of Oak Wilt and allow the infected tree to recover. Applied pro-actively, Propizol can prevent infection.

Our products can be purchased at your local Arborjet distributor. For a distributor near you visit [arborjet.com/distributor](http://arborjet.com/distributor)



## QUIK-JET INJECTION

## TREE I.V. INJECTION



## ARBORJET DELIVERY SYSTEMS

Arborjet's delivery systems are designed to be fast, affordable and effective. Contact us today to determine the right system for your needs. To find a distributor near you, go to [www.arborjet.com](http://www.arborjet.com).



QUIK-jet Kit



TREE I.V. 2-Pack Kit



QUIK-jet Air Kit



TREE I.V. Pro Kit

781-935-9070 • Visit us on the web at [www.arborjet.com](http://www.arborjet.com)

99 Blueberry Hill Road, Woburn, MA 01801 Arborjet, Inc. All Rights Reserved 2015

