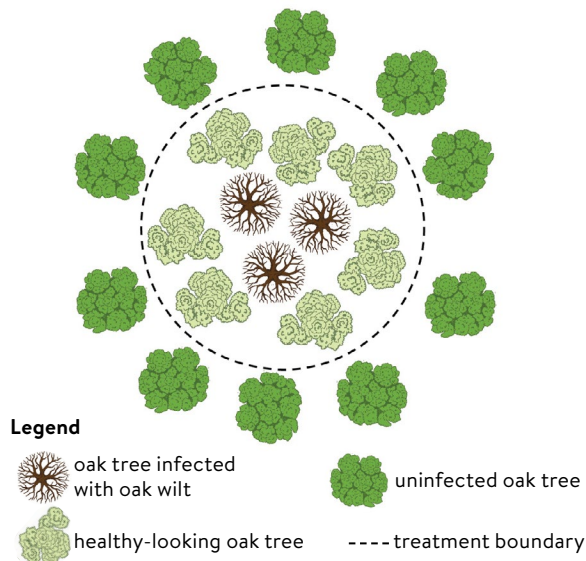


CONTROL

Oak wilt control is complicated. Consult experienced professionals to ensure you are using the correct procedure.

Two steps are needed to control oak wilt. The first and most crucial step is to stop the **underground spread** from roots of infected oaks (brown trees in graphic below) connected to roots of nearby oaks. Healthy-looking oaks (light-green trees) next to infected oaks may be infected but do not yet show symptoms, so a treatment boundary must be created between potentially infected trees and healthy trees.

You may choose from a few different methods to create the treatment boundary, which will protect uninfected oaks (dark green trees). The type and placement of the treatment boundary depend on several factors such as tree size, soil type, and topography of your land. Refer to the Minnesota DNR Oak Wilt Guide for options and instructions for controlling underground spread.



Step two stops the **above-ground spread** of oak wilt by sap beetles. The oak wilt fungus can produce spores on infected red oak wood after the trees die. Sap beetles carry the spores to fresh wounds on healthy oaks, especially in the spring, potentially infecting them with oak wilt. To prevent new infections, remove all the red oaks (brown trees) that could potentially produce spores after creating the treatment boundary. A preferred option in a woodland setting is to reduce further spore spread by removing healthy-looking red oaks (light green trees) that are inside the treatment boundary.

Treat wood from infected trees carefully to prevent spreading oak wilt spores. Refer to the Minnesota DNR Oak Wilt Guide for details on safely treating and handling wood.

For five years following control, monitor the area to spot potential future oak wilt infections. Contact a professional if you see symptoms of oak wilt.

Summary of oak wilt control steps:

1. Create a treatment boundary in the fall.
2. Cut down infected trees and properly handle wood before next April.
3. Optional: cut down healthy-looking oaks inside treatment boundary before next April.
4. Monitor control area for at least five years.

FOR ASSISTANCE


If your woods has oak wilt and you want to manage it, contact a private forester or your local DNR stewardship forester for management advice (find the nearest DNR stewardship forester at mndnr.gov/foreststewardship). Financial assistance may be available to help with controlling oak wilt.

FOR MORE INFORMATION AND OAK WILT GUIDE

mndnr.gov/oakwilt

The Minnesota DNR prohibits discrimination in its programs and services based on race, color, creed, religion, national origin, sex, marital or familial status, disability, public assistance status, age, sexual orientation, and local human rights commission activity. Individuals with a disability who need a reasonable accommodation to access or participate in DNR programs and services or to request this document in an alternative format, please contact the DNR ADA Title II Coordinator at info.dnr@state.mn.us, 651-296-6157. We welcome calls from Telecommunications Relay Service (TRS) users. For assistance in other languages, please call 651-296-6157 or 888-MINNDNR (646-6367). Discrimination inquiries should be sent to Minnesota DNR, 500 Lafayette Road, St. Paul, MN 55155-4049.

©2022, State of Minnesota, Department of Natural Resources
Minnesota DNR is an equal opportunity employer.

 Printed on recycled paper containing a minimum of 10 percent post-consumer waste and vegetable-based ink.



FORESTRY

500 Lafayette Road
St. Paul, MN 55155-4040
888-MINNDNR or 651-296-6157
mndnr.gov



OAK WILT

IDENTIFICATION, PREVENTION, AND CONTROL





Carpet of freshly fallen leaves below an infected oak in summer, before normal leaf drop in autumn.

Joseph OBrien, USDA Forest Service, Bugwood.org

TREATING OAK WILT SAVES TREES AND YOUR PROPERTY VALUE

Oak wilt is a non-native disease of oaks and can quickly kill them. If left unmanaged, it can devastate an oak forest and promote conversion to buckthorn and maple.

Oak wilt can be controlled, but control may be expensive, so preventing an infection is extremely important and the first line of defense for your oaks.

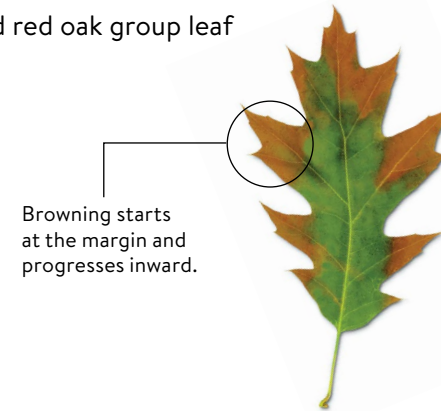
Oak wilt infects fresh wounds made on oak trees from April through July. After the initial infection, it can spread from oak to oak through connected roots up to 25 feet per year.

IDENTIFY

First, know which type of oak(s) you have. Oaks in the red oak group have leaves with pointed tips. Oaks in the white oak group have leaves with rounded tips.

Oak wilt leaf symptoms

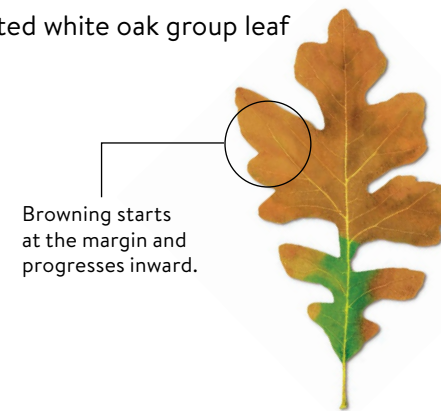
Infected red oak group leaf



Browning starts at the margin and progresses inward.

Oak wilt will kill red oak trees in a few months after infection. A key identifier is the rapid and near total loss of leaves from the entire tree in one to two months, starting at the ends of branches. If you're seeing a carpet of freshly fallen oak leaves on the forest floor or your yard from June through mid-September, it could be due to oak wilt. Some fallen leaves are green with bronzed or browned edges; others are totally green or totally brown.

Infected white oak group leaf



Browning starts at the margin and progresses inward.

Oak wilt on bur and white oaks is challenging to identify because trees in this group often take a few years to die (bur oaks dying more quickly than white oaks). Like red oaks, infected bur and white oak branches rapidly shed leaves in one to two months, but only from a few outer-canopy branch ends. In many cases, getting laboratory confirmation of oak wilt is best. Visit the University of Minnesota Plant Disease Clinic website at pdc.umn.edu or call 651-625-1275.

PREVENT

Don't wound oaks from April through July when the risk of oak wilt is high.

Oak wilt can largely be prevented by not wounding oaks in any way from April through July. Even tiny wounds can be infected if an oak wilt infection is nearby. During this period, avoid thinning or cutting in oak forests as well as any other activity that can damage oak trees.

Do not move oak firewood and logs that came from a dying oak within one year of death, and properly handle infected wood (see Minnesota DNR Oak Wilt Guide at mndnr.gov/oakwilt for options).



Initial wilting and leaf loss in late June in two red oaks.



Total wilt and near total leaf loss in the same trees two months later in late August.

REPORT

To prevent the spread of oak wilt in Minnesota, report oak wilt if you find it north or at the edge of the current range of oak wilt in Minnesota (as of May 2022, north of Hinckley, Mora, and Little Falls and west of Little Falls and St. Cloud). Report it using the Great Lakes Early Detection Network app (download at apps.bugwood.org/apps/gledn) or by calling your nearest Minnesota Department of Natural Resources (DNR) Forestry office (locate your nearest office at mndnr.gov/contact/locator.html).