Oak Wilt

Department of FOREST RESOURCES
UNIVERSITY OF MINNESOTA

DEPARTMENT OF NATURAL RESOURCES

The Fungi and Insect Vectors

Ceratocystis fagacearum is the fungus responsible for Oak Wilt and it mainly spreads through root grafts between roots. Sap-feeding beetles of the *Nitidulidae* family and oak bark beetles are also vectors of the fungus[1]. Oaks in the red oak group are affected more than white oaks[2].

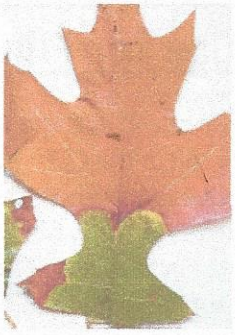

Figure 1. Oak wilt symptoms on leaves.

Figure 2. Oak wilt symptoms in canopy.

https://www.na.fs.fed.us/spfo/pubs/fidls/oakwilt/oakwilt.htm

Signs & Symptoms

- Wilting at the top of tree crown, progressing downward as infection spreads
- Reddish-brown discoloration of leaves
- Complete wilting and leaf loss, leading to tree death
- Fungal mats beneath bark
- Infected trees can die in as little as 1 to 2 months, but typically within a year

Risk of Infection by Time of Year

April--Mid-July: **High** See Note!

Mid-July—October: **Low**

November—March: **Safe**[2]

Implications for Minnesota

The highest density of oak wilt in Minnesota is in Sherburne, Anoka, Isanti, and Dakota county. Oak wilt has been particularly destructive in neighboring Wisconsin, where some areas have seen a 50% mortality rate in oaks[1]. Similar death rates could be seen in Minnesota without proper controls in place.

Management & Control Considerations

- Destroy root grafts between oaks
- Avoid wounding or pruning oaks in the spring and early summer
- Do not move firewood from areas with the disease into other areas
- Remove and destroy infected oaks immediately

Note: WOL HOA Considers April – October High Risk! Please do not trim or cut oak trees until November. If concerns about spread of oak wilt, contact the Sherburne County Arborist for advice. And notify ACC Committee about proceeding with any removal of trees.

Sources

1) https://www.fs.usda.gov/Internet/FSE_DOCUMENTS/fsbdev2_043443.pdf

2) https://extension.umn.edu/plant-diseases/oak-wilt-minnesota