Urban Forestry Research & Outreach (UFOR) Nursery & Lab



Department of Forest Resources

University of Minnesota **Driven to Discover®**

Oak Wilt

The Fungi and Insect Vectors

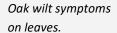
Ceratocystis fagacearum is the fungus responsible for Oak Wilt and is spread by sap-feeding beetles of the Nitidulidae family and oak bark beetles¹. Oaks in the red oak group are affected more greatly than white oaks².

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 1-2 months, but typically within a year.

Risk of Infection by Time of Year

April--Mid-July: High
Mid-July--October: Low
November--March: Safe²





Oak wilt symptoms in canopy.

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

Implications for Minnesota

Oak wilt has been particularly destructive in neighboring Wisconsin, where some areas have seen a 50% mortality rate in oaks¹. 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.

Sources

- 1) https://www.na.fs.fed.us/spfo/pubs/fidls/oakwilt/oakwilt.htm
- 2) http://www.extension.umn.edu/environment/trees-woodlands/oak-wilt-in-minnesota/

