

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: **Safe**²



Oak wilt symptoms on leaves.



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/>