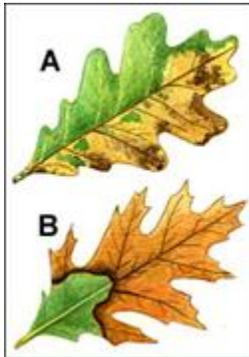


Oak Wilt

What is oak wilt?



Symptoms of oak wilt in

A. white oak and

B. red oak.

Oak wilt is a disease that affects oak trees. It is caused by *Ceratocystis fagacearum*, a fungus that develops in the xylem, the water carrying cells of trees. All oaks are susceptible to the fungus, but the red oak group (with pointed leaf tips) often die much faster than white oaks (rounded leaf tips). Red oaks can take from a few weeks to six months to die and they spread the disease quickly. White oaks can take years to die and have a lower risk of spreading the disease.

- [View the oak wilt fact sheet \(PDF, 300 KB\)](#)
- [How to Identify, Prevent and Control Oak Wilt \(PDF, 2 MB\) - a US Forest Service publication](#)
- [Winter Pruning Video: Oak Wilt Prevention \(2 minutes\)](#)
- [Oak wilt protective zone fact sheet \(PDF, 490 KB\)](#)
- [NYS Oak Wilt Response 2016 Annual Report \(PDF, 2 MB\)](#)

Why is oak wilt a problem?

The oak wilt fungus blocks the flow of water and nutrients from the roots to the crown, causing the leaves to wilt and fall off, usually killing the tree. Red oaks (scarlet oak, pin oak, black oak, etc.) can die within a few weeks to six months, and the disease spreads quickly from tree to tree. White oaks (bur oak, scrub oak, etc.), however, often take years to die and the disease usually cannot spread to additional trees.

Where does it come from?

Oak wilt was first discovered in Wisconsin in 1944, but where it originated is still unknown. It has spread throughout the Midwest and Texas, killing tens of thousands of trees.

Where is it found in New York State?

In 2008, a small infection was discovered in Glenville, NY. It was quickly dealt with to prevent further spread. The disease resurfaced in the same location in 2013, and additional steps were taken to eradicate the infection. In 2016, oak wilt was discovered in Islip, Riverhead, and Southold in Suffolk County; Brooklyn in Kings County; and Canandaigua in Ontario County. [View maps showing current infection locations. \(PDF, 880 KB\)](#) View the emergency orders that establish Protective Zones around the infections and **prohibit the movement of oak and firewood out of the infected areas:**

- [Brooklyn Protective Zone Order \(PDF, 850 KB\)](#)
- [Canandaigua Protective Zone Order \(PDF, 800 KB\)](#)
- [Suffolk County Protective Zone Order \(PDF, 750 KB\)](#)
- [Glenville Protective Zone Order \(PDF, 230 KB\)](#)

What is a Protective Zone?

An oak wilt Protective Zone is a quarantine area put in place around a neighborhood, town or county, after oak wilt is confirmed there. The goal of an oak wilt Protective Zone is to prevent the spread of the disease by prohibiting the movement of potentially infected oak wood. Oak wilt Protective Zones have been established in the towns of Canandaigua and Glenville, the borough of Brooklyn, and all of Suffolk County.

Prohibited from leaving the protective zone

- Oak logs or branches
- Wood pieces less than 29 inches long, no matter the species

Allowed to leave the protective zone

- Chipped wood
- Wood pieces 29 inches long or greater from trees other than oak.

How does it spread?

There are two main ways oak wilt is spread: 1) above ground by beetles, and 2) below ground through tree roots.

Fungal spore mats form just under the bark of infected red oaks after they have died from the disease. During the warmer months, these spore mats emit a sweet odor that attracts sap-feeding beetles and bark beetles, which can pick up fungal spores as they crawl around. The beetles are also highly attracted to fresh wounds in other trees-often caused by pruning. In this way, they spread the fungus from infected trees to healthy trees sometimes miles away. Infected firewood and other wood materials also pose a threat because they can harbor the fungus and/or beetles that can spread the disease. Spread underground occurs when roots of nearby red oaks graft to each other (fuse together), creating a connection through which nutrients and the disease can move. In the Midwest, large blocks of red oak forests have died from the disease in a single season due to their vast network of interconnected roots. In contrast, white oaks are much less likely to create root grafts, and spore mats rarely form under their bark, significantly reducing the chance of spread from these trees.

Symptoms

Symptoms of oak wilt infection are often very noticeable in red oak species, but aren't easily seen in white oaks.

- Brown coloration develops on leaves starting at the outer edge and progressing inward toward the mid-vein of the leaf.
- Branch dieback starts at the top of the tree's canopy and progresses downward.
- Leaves suddenly wilt in the spring and summer and may fall while there is still some green on them.
- Fungal spore mats may develop under the bark of infected trees.

What is being done?

- During the growing season, DEC will take samples from oak trees around the infection sites to determine the extent of the disease.
 - These areas will continue to be monitored for at least five years using aerial and ground surveys.
- Established Protective Zones will prohibit the movement of potentially diseased oak wood including firewood.
- DEC is attempting to eradicate the disease in Canandaigua and Brooklyn using methods similar to those used in Glenville.
 - Oak-free zones will be established where infected and surrounding oak trees will be removed.
 - Where possible, trenching will be used to break root connections to lower the chance of spread.

- In Suffolk County, DEC will only attempt to contain the disease due to the number of infection sites and distribution across Long Island. Only infected trees will be removed. Homeowners with infected trees have been contacted by DEC staff to discuss tree removal. Infected trees will be removed by contractors hired by DEC by the end of March 2017. To ensure that infected trees do not continue to spread the disease, they will be chipped and incinerated. During summer 2017, DEC will take samples in and around the Protective Zone to better determine the extent of the disease. DEC will continue to revise the management strategy and activities based on sampling results.

What can I do?

- Learn to recognize the symptoms of oak wilt including leaf discoloration, branch dieback, and fungal spore mats. If you think your tree is infected with oak wilt, contact [DEC Forest Health](#) or call 1-866-650-0652. Please provide photos of the symptoms.
- Avoid pruning or wounding oak trees in the spring and summer, when spore mats are present and beetles are the most active. If an oak wound occurs during spring or summer, it should be sealed immediately with wound dressing. This will slow wound recovery but also deter beetles from landing on those areas - which will reduce the risk of oak wilt spreading.
- Use tree care professionals. Read more about [how to select an arborist or tree service](#).
- If you prune, [learn how to do it properly \(PDF, 380 KB\)](#).
- Adhere to the [NYS firewood regulation](#) which limits firewood movement to no more than 50 miles and obey the rules of the Protective Zones which prevent firewood or oak wood from leaving those areas.