Treeways

2021-2

Our Experience Fighting Oak Wilt

Our neighbor, Kay Halvorsen, author

My family has lived near the east end of Sunfish Lake for 33 years. I would like to share our experience with Oak Wilt in the hope that it might be helpful to other community members. First, a brief introduction to explain there are two groups of oak species in Minnesota; the Red Oaks which include Red, Pin and Black, and the White Oaks which include White, Bur and Swamp White. Red oaks can be successfully treated with fungicide only if done prior to infection. Once a tree from the Red Oak group has Oak Wilt, it is no longer treatable and will die quickly. Trees in the White Oak group may tolerate Oak Wilt for a considerable time after becoming infected and, therefore, may be treated successfully even after the onset of disease. We are fortunate to have a Forester in Sunfish Lake who provided me with this information and is always available if you suspect your trees have become infected.

An Oak Wilt infection started on the steep slope along the north shore of Sunfish Lake more than ten years ago. Due to the inaccessibility of the steep slope location the infection center could not be contained. Oak Wilt infection spreads in two ways: above ground by sap beetles and below ground through roots that have grown together, called root grafts. (www.dnr.state.mn.us, source.)

In 2013, our neighbors removed several Red Oaks lost due to Oak Wilt. Simultaneously, we noticed two diseased oaks on our property. The tell-tale symptoms were leaves that started turning brown and wilting from the outer edges inward. Then the trees started losing leaves as if it were autumn and the progression of the disease was quite rapid.

We decided to take quick action and Adam Gerber, from Premium Tree Protection, helped us create a plan implemented in the fall of 2013. Our City Forester also had additional recommendations. We decided to leave the two diseased trees standing initially, because removal at the wrong time can accelerate the spread of Oak Wilt. Vibratory plowing is one form of treatment and involves a machine that cuts a narrow slit, 54 inches deep, into the soil to sever the root grafts through which the oak wilt fungus spreads. Plow lines could not be easily used on our property due to the location of our trees so we injected a total of 21 Red Oaks, 13 across the front and 8 in our driveway island, with a fungicide called Propiconazole. This treatment was accomplished by drilling small holes into each tree's vascular tissue slightly below the soil line where the roots flare. Tubing from a pressurized tank was connected to the holes and the solution was pumped into the tree's vascular system to spread throughout the canopy. Pricing for this form of treatment is based on the diameter of each tree injected. Since the fungicide, Propiconazole, does not prevent root graft infections, it is usually necessary to inject trees every two years. Consequently, in September of 2015 we had 18 of our Red Oaks injected a second time.

In late Spring of 2020 we noticed a newly diseased Red Oak along the front of our property. This time we chose not to inject the Red Oaks in the island area of our driveway but treated 8 red oaks across the front of our property. This winter we will have the diseased Red Oak and the untreated Red Oaks around it removed. Please check with our City Forester as to how to remove infected tress and properly

dispose of the wood to prevent above ground spread. The remaining 8 Red Oaks will be injected with Propiconazole again in 2022. We have not treated our White Oak trees during this time, since it is much less common for them to contract Oak Wilt via root grafts and if they do become infected they can still be treated successfully.

It has been quite a journey with the fungicide injections and one in which our strategy evolved depending on how the trees responded to each treatment. Our long-term goal is to preserve the beauty of our stately and mature oaks. They shelter our home and give our property the wooded character we love so much in Sunfish Lake.