



The Plant Doctor's LANDSCAPE TIPS

By Dr. David L. Roberts, The Plant Doctor LLC a.k.a. The Tree Doctor

OAK WILT (MIS)MANAGEMENT

INTRODUCTION

Oak Wilt is a lethal fungal disease that spreads overland via insects to fresh wounds and underground through root grafts to nearby trees (Photo 1A). The disease is not only destructive, costly, and damaging to Michigan's oak population, but it can be very difficult to manage. Various aspects of the disease including biology and management options have been summarized over the years in many articles I have published in *the Landsculptor*. Most of these articles are available for review and download on my websites: www.plantdoctorllc.com and www.oakwilt.info.

Briefly, Oak Wilt can be managed by several general methods: 1) Avoidance, 2) Root Graft Disruption (RGD), 3) Tree Injections with Propiconazole, 4) Girdle-Herbicide, and 5) Various combinations of the preceding methods. It is important for arborists to thoroughly understand these management methods so they can properly advise their clients on the most prudent procedures that will be effective at stopping Oak Wilt while adhering to the allotted budget. It is also important that arborists (and the public) understand that within a general management method, RGD for example, there are models that are very costly and destructive to landscapes, woodlands, and forests . . . and other models that are far less costly and result in maximum tree preservation.

Some of the "officially" recommended practices by the Michigan Department of Natural Resources (DNR) and ISA-Michigan (ISA-MI) are far more destructive to Michigan's oak populations than Oak Wilt. As another example, many readers of my articles know that I have been experimenting with Girdle-Herbicide techniques since 2008, resulting in the created Glyphosate/Stump Cup Method as my preferred Girdle -Herbicide choice. Other scientists and I have demonstrated that Triclopyr herbicide (preferred by the DNR and ISA-MI) and herbicides other than Glyphosate are not effective at containing Oak Wilt, even though many scientists, organizations, and government entities continue to recommend these herbicides.

During the summer of 2024, I had the unpleasant experience of being contacted by various arborists and the public about disreputable practices administered by some apparently unscrupulous arborists who seemed more interested in bilking the public of their hard-earned cash than enacting effective methods for properly managing Oak Wilt. You are welcome to follow along as I present several examples of Oak Wilt Mismanagement by two arborists who promote themselves as Oak Wilt Experts because they have completed the Oak Wilt Qualifications Program (OWQ) administered by the DNR and ISA-MI.

ARBORIST #1

Golf Course: I was contacted by an arborist to review an Oak Wilt site on a Michigan golf course (Photo 1A) where Arborist #1 had already made recommendations. Arborist #1 supplied two options to a very knowledgeable and highly educated superintendent. Those options included: 1) cutting the diseased tree down and removing the stump, or, 2) waiting until winter to remove the diseased tree (leaving the stump). Arborist #1 promoted Option #2 because with Option #1, he would have

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Photo 1A

Photos 1A & 1B: The large declining oak tree on this Michigan Golf Course contracted Oak Wilt via overland spread, likely from a gold ball injury. Arborist #1 proposed cutting it down in the winter without any further remediation efforts. Simply removing trees is not a recommended or effective practice to contain and eradicate Oak Wilt. The author stands next to the tree for disclosure of trunk diameter (Photo 1A Inset). A shallow trench was placed around the tree by the Superintendent to ensure that copious transfer of Glyphosate would not occur to nearby trees (Photo 1B, this trench was likely unnecessary but adds further insurance); note the many roots that cannot transmit Oak Wilt or Glyphosate within the top two feet of the soil horizon (Photo 1B Inset). The Glyphosate will translocate and destroy any remaining roots that are not severed, no matter how deep.



Photo 1B



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to rent a large excavator to pull the stump. The cost difference was staggering. According to text messages to the Golf Course Superintendent, Arborist #1 wrote, "In the winter we could cut it to a low stump and call it a day". The Superintendent didn't trust the recommendations by Arborist #1, the reason he contacted another arborist who asked for my assistance in this situation. It is important to understand that Arborist #1's advice to simply remove the tree in the winter would not stop the spread of Oak Wilt through root grafts to other nearby grand old oaks in subsequent years, resulting in more valuable oak losses and exorbitant expenses to this popular golf course.

Because this tree (Photo 1A) was newly infected in 2024 from Overland Spread, likely as the result of a golf ball injury to the tree (believe it or not), I recommended the Glyphosate/Stump Cup 'Chaser' as the primary procedure to stop Oak Wilt. The 'Chaser' would likely stop the Oak Wilt "cold" without any further efforts, and hence, would not necessitate removal or treatment of any other nearby oak trees. As an additional option presented to the Superintendent, a normal practice of providing the gamut of options, I suggested shallow trenching (due to utilities), which would not stop the transmission of Oak Wilt via root grafts but which would prevent the translocation of large amounts of

concentrated Glyphosate to nearby healthy trees - I generally do not encounter serious injury to nearby trees from Glyphosate if only one or two trees are treated with the Glyphosate/Stump Cup procedure. But I recommended the shallow trench as an added insurance measure if the Superintendent chose to do so (Photo 1B). Because this is a very sandy site and roots can penetrate soils well below 5-6 feet, the Glyphosate would infiltrate the massive root system (beyond the RGD trench) to any depth and kill all roots, thus hopefully preventing the transmission of Oak Wilt through roots. The Superintendent not only endorsed the Glyphosate/Stump Cup treatment and accompanying RGD (trenching), but he also assumed the 'Cadillac' approach by having nearby, valuable oak trees on this highly visible public location injected with propiconazole, as added insurance.

Maple trees were trimmed by Arborist #1 at a private property; the pruning activity resulted in damage to several nearby oaks. Arborist #1 was made aware of the injury to nearby oaks but shrugged it off. One to two months later, the injured oak trees exhibited the telltale symptoms of Oak Wilt, confirmed by lab tests. The property owner became livid with Arborist #1's negligence.

Subdivision Oak Wilt: I was contacted by an HOA President who had attended a two-hour Oak Wilt program I delivered five years previous. He wanted to access my expertise on an Oak Wilt outbreak currently affecting two residents in his community (Photo 2). Arborist #1 had already visited the site and provided his recommendations/estimates. Arborist #1 had simply recommended removing dead/dying trees on both residential sites with no recommendations of additional measures for stopping the disease. Apparently, Arborist #1 planned to allow Oak Wilt to continue to spread so he could have a revenue source

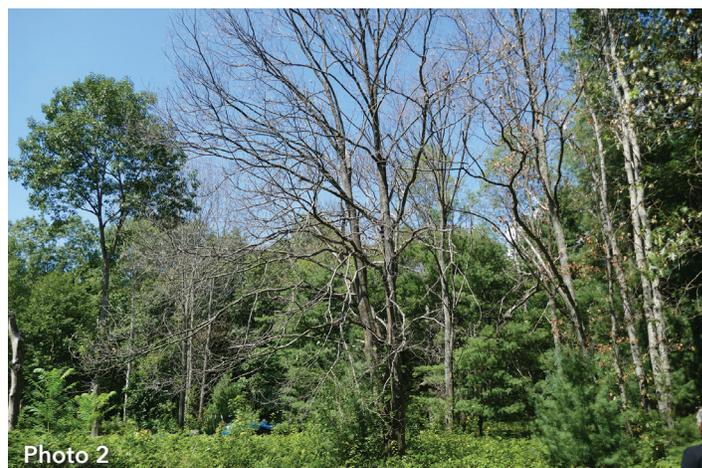


Photo 2

Photo 2: This large Oak Wilt epicenter is now covering two properties and is on its way to invading other properties in this subdivision community. Arborist #1 proposed cutting down dead and dying trees, offering no additional remediation efforts to stop the disease. Arborist #1's recommendations ensure he'll have plenty of contractual work in the future as he follows the disease through the community. If he is lucky enough to continue his grifting, he should garner sufficient funds to make his yacht payments.

into the foreseeable future, just as he had on the Golf Course site. The HOA President didn't trust the recommendations by Arborist #1, based on his recollections of my public program five years earlier. I recommended another arborist who is very knowledgeable and follows the practices I recommend. We recommended the Glyphosate/Stump Cup 'Chaser' and/or the Glyphosate/Stump Cup 'Tier Tree Model' combined with Tier Tree Trunk Injections. Perhaps some Tier Tree Model trenching might also provide some benefit. Based upon this example plus others, the HOA President warned all residents in the community to not utilize Arborist #1, despite his business location only a couple miles distance.

Lakeside Residence: Arborist #1 had already performed tree injections to many trees at a lakeside residence in 2020 and 2022. He was due to apply the recommended 3rd treatment in 2024, but his prior treatments had resulted in catastrophic failure to contain Oak Wilt and protect remaining trees on the property (Photo 3). The property owner felt 'taken' after investing so much money with Arborist #1 over the last several years. She contacted another arborist who requested my assistance given such widespread distribution of the disease that threatened most oaks on the property. Upon visiting the site, we discovered that Arborist #1 had placed injection portals too high on the trunks of trees and too widely spaced. Due to the catastrophic failure of the injections to even slow down the disease, we also suspected that Arborist #1 did not use the proper rate of propiconazole. This site is under further review, but it is very likely we will recommend further "effective" tree injections with propiconazole as well as Glyphosate/Stump Cup treatments on dead and dying trees.



Photo 3

Photo 3: Arborist #1 began injecting oak trees every two years at this site in 2020. He had removed the original Oak Wilt-infected trees in 2020. The third treatment was due in 2024, but his remediation efforts were so dismal that the property owner called another arborist. The trees in Photo 3 as well as many others on site were dying from Underground Spread of Oak Wilt despite the fungicide injections by Arborist #1. We determined that the injection sites by Arborist #1 were too high on the trees' trunks and too widely spaced. We also suspected he did not use the correct rate of fungicide.

Through experimentation, I have found that "dead trees" (dead 1-2 years) will still absorb and transmit Glyphosate through root systems provided the bark is still tight on the tree.

ARBORIST #2

Township Lakefront Park: It is estimated that most Oak Wilt spreads underground through root grafts. The experience of a township park in Michigan supports this notion. Arborist #2

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was summoned by the Township Authority several years ago to address an Oak Wilt outbreak in the park. The primary method employed by Arborist #2 was to simply cut trees down as they died. As of 2024, over 60 oak trees have been removed, a very lucrative business arrangement for Arborist #2. When I arrived at the park in August, two very large red oaks had just been removed, with painted stumps left behind (Photo 4A). The two Oak Wilt-diseased trees that had just been removed resided in the township park directly adjacent to oaks on private property; no effort was made by Arborist #2 to inform the private property owners of the impending doom, including expenses and tree losses they are about to experience. Thirty-three healthy oaks remain at the township park, and Arborist #2 apparently hopes to reap further income and job security by following the disease's advancement through the remainder of the park. Arborist #2 has offered no economical, practical means to stop the spread of Oak Wilt except for one tree; tree injections were recommended for a large 30", centrally located, and highly visible tree in the park (Photo 4B) at a cost of \$5,600 for three treatments over six years . . . price gouging if there ever was such a thing. Little wonder that the township authorities became frustrated with Arborist #2. The Township Trustees finally became so frustrated with all the continuing expenses, tree losses, and failure to stop Oak Wilt spread that they contacted another arborist who asked me to make recommendations. As a result of the Township's frustration and the high incidence of Oak Wilt in this region, they are planning to invite me to give a public presentation on Oak Wilt.

DISCUSSION

Over the years, I have worked with many arborists on Oak Wilt and other projects. For the most part, I find that the majority of arborists are highly ethical and are committed to their clients' best interests. After all, the arborists' and their companies' reputations are on the line.

Unfortunately, I have encountered way too many people in our profession who are unscrupulous and treat the public as nitwits who are to be taken advantage of. These kinds of business models place our entire industry on par with disreputable and seedy livelihoods like used car salespersons. Interestingly, you might like to know the credentials of Arborist #1 and Arborist #2. With the examples provided herein, and there are many more, Arborist #1 and Arborist #2 are both ISA certified. Apparently, they have never heard of ISA's Code of Conduct. Furthermore, both Arborists are Oak Wilt Qualified, the program being administered by the DNR, ISA-MI, and the Michigan's Oak Wilt Coalition. These entities have expunged scientists and arborists who do not follow their agenda; I have no way to advance my experience, research, and knowledge except by other avenues such as the highly supportive Michigan Green Industry Association, which invites participation by all members of our great industry . . . as it should be.

What does it really mean to be Oak Wilt Qualified? Does it mean you pay your money for a course so that you can be added to a preferred list of "experts" so that you will have an advantage



Photo 4A



Photo 4B

Photos 4A & 4B: At this Township Lakefront Park, over 60 trees had been removed by Arborist #2 over a period of years as he followed the disease through the park. He had not offered the Township Trustees any economical, practical means for Oak Wilt containment and eradication. Another arborist invited me to review the situation. Just prior to my arrival, Arborist #2 had removed two very large oak trees near the boundary of the park (Photo 4A), having not warned private property neighbors of the imminent disaster that is about to befall them; note the two painted stumps (yellow arrows). Paint will not prevent the development of Oak Wilt pressure pads beneath the bark of these two stumps, an indication of Arborist #2's lack of understanding of Oak Wilt biology, even though he is "Oak Wilt Qualified". As a further indication of the pursuit of the almighty dollar, Arborist #2 recommended trunk injections for the centrally located and highly visible large 33" oak at the cost of \$5,600 (Photo 4B)!

over other arborists to bilk the public? Sometimes that appears to be the case. For example, I documented the propensity of the promoters of the OWQ to advance logging as a desired Oak Wilt management goal; please see the article, *Can We Log Our Way Out of Oak Wilt?*, the *Landscape*, April 2024, pages 17 - 21.

I have worked with many OWQ Arborists and non-OWQ Arborists who are excellent at what they do. Many Arborists refuse to become OWQ because they see it as a ruse. Many of these non-OWQ arborists are far more qualified, far more ethical, and much more professional than Arborist #1 and Arborist #2. That being said, many qualifications are valid and good. The lesson here is to just be wary of any "qualifications" that seem to benefit any entity more than the industry. 🌱

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