The Plant Doctor's LANDSCAPE TIPS

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OAK WILT AND LINE CLEARING: IS IT HIGH NOON AT THE OK CORRAL?

Photo 1: Trees threaten our reliable, safe supply of electrical power. Hence, line clearing operations represent an important activity by power companies.

Photo 2: In the late 1980s, I documented this tree death from Oak Wilt as the result of line clearing operations in Birmingham, Michigan.

INTRODUCTION

Power companies have a daunting task of providing a low cost, safe and reliable power supply to us as consumers. One of the biggest challenges for the power companies and their contractors/subcontractors is the threat that trees pose to the above-ground electric utilities (Photo 1). High winds, ice storms and invasive pests and diseases such as Dutch Elm Disease and Emerald Ash Borer, continually threaten the mission of the power companies. In my opinion, for the most part, power companies and their contractors do an admirable job.

Over the past 35+ years, I have witnessed many new outbreaks of Oak Wilt (caused by the invasive fungus, Ceratocystis fagacearum) from pruning at the optimal time for "overland" transmission of the deadly fungus to fresh wounds on oak trees by sap beetles. The optimal time for overland transmission of Oak Wilt is the spring through early summer. Overland transmission may occur to any fresh wound whether it is created by a storm, pruning, climbing gaffs, etc.

Photo 3: During line clearing efforts on Old Mission peninsula in the mid 1980s, many large trees died from root graft transmission of Oak Wilt from small "cleared" oaks under power lines to large trees in property owners' back yards. This represented a significant loss to property owners.

OAK WILT & LINE CLEARING OPERATIONS

Every year, I document new Oak Wilt outbreaks associated with line clearing operations (Photos 2, 3, 4, 5, 6 & 7). With respect to line clearing operations, I have witnessed a fairly dramatic change in attitude regarding oaks and Oak Wilt. In the mid 1980s, power companies and their contractors/subcontractors generally would not recognize the existence of Oak Wilt and/or would firmly deny that they contributed to the problem. Fast forward to more recent times, many of the power companies have adopted Oak Wilt policies . . . . or more specifically, policies designed to mitigate Oak Wilt outbreaks due to their pruning/tree removal operations. Unfortunately, some of these entities do not follow their own policy.

Recently, I received the following email from an arborist who was assisting a concerned citizen in regards to Oak Wilt caused by a line clearing event during the spring of 2017:

> *"Loaded up with info from articles and met with the electric company (and contractor) at the infection site this morning. They had their consulting arborist there to defend their actions. He basically said that there is no defense on stopping this disease, very similar to Chestnut Blight and Dutch Elm Disease. That it is a waste of taxpayers money to try and contain this outbreak because it is in every woodlot across Michigan. They contend a limb break, birds, squirrels or some other insect vector could have caused it and they don't feel responsible. There could be as many as 40 trees to remove and others to treat as well as replanting. Big money involved. Need your opinion on this travesty."*

When reading the above email, I was immediately horrified. My initial thought

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Photo 4: Within the past couple of years, this Oak Wilt epicenter developed from apparent power line clearing operations. I write "apparent" because the purported time of tree pruning (right side of photo) around the power lines occurred well outside the traditional April-July period for overland transmission. Oak Wilt is currently moving into adjacent oaks via root graft transmission at this northern Michigan golf course.

Photo 5: A pruning wound on the tree (right) in Photo 4; the pruning of this tree likely started the Oak Wilt epicenter. Note the lack of callus formation at the edge of the wound, an indication that the tree died quickly after pruning, most likely from an Oak Wilt infection.

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was that this sentiment would be analogous to some police commissioner or politician saying, "Rape and murder are common; you're just going to have to get used to it" (Please excuse my analogy, it may be somewhat crude or unjustified when compared to Oak Wilt . . . then again maybe not). Either way, I doubt that the police commissioner or politician would retain their position if they made such flippant statements.

Photo 6: Another view of the developing Oak Wilt epicenter in Photo 4.

Photo 7: Oak Wilt is now moving down the steep slope in Photo 6, destroying seedling oaks as the disease continues to spread. Seedling oaks (center of photo) can transmit the fungus and/or maintain the disease in the area for some time. Due to the steep slope, containment and eradication of Oak Wilt will be very challenging at this site.

CORRECTIONS PLEASE

It is important that I correct false statements made by "their consulting arborist", who apparently does not understand the science behind the various tree maladies. First, Oak Wilt is very dissimilar to Chestnut Blight even though both are caused by fungi. Chestnut Blight is caused by a fungus that moves passively overland by spore dispersal and infection; it does not require a vector (insect transmitter) or a wound. Both Oak Wilt and Dutch Elm Disease are similar in that they can move underground to nearby trees via root graft transmission. While the "overland" transmission of DED and Oak Wilt are performed by insects, the similarities end there. What makes DED so much more deadly is that the fungus is transmitted by elm bark beetles, which feed on healthy elm trees; no wounding is required for overland spread of DED. Obviously, wounding is required for "overland" transmission of Oak Wilt – this is a huge factor for the development of new Oak Wilt sites. It is true that "limb breaks" during the optimal time of Overland transmission may lead to Oak Wilt; then again, in Michigan at this time, on average (risk), a limb break will likely NOT result in an Oak Wilt outbreak. And, it has NOT been documented that Oak Wilt outbreaks may occur from squirrels, birds, etc. And a most important correction to "their consulting arborist" claims is that Oak Wilt IS DEFINITELY NOT IN EVERY WOODLOT IN MICHIGAN; however, with the sort of dismal attitudes displayed by some individuals, Oak Wilt may become an increasing threat to most, if not all, property owners in Michigan and beyond.

THEY CAME FOR ME AND NO ONE SPOKE UP

The following poem was written by German Lutheran Pastor Martin Niemoller

during the "Holocaust" of World War II. The poem was designed to criticize German intellectuals who did not speak up against the atrocities perpetuated by the Nazis.

First they came for the Socialists,
and I did not speak out—
Because I was not a Socialist.

Then they came for the Trade
Unionists, and I did not speak out—
Because I was not a Trade Unionist.

Then they came for the Jews, and I
did not speak out—
Because I was not a Jew.

Then they came for me—and there
was no one left to speak for me.

While the comparison of the above poem and associated occurrences during WWII with today's Oak Wilt dilemma might be a stretch, I think it has some relevance. Thousands to 100,000s of consumers will complain about not having power during power outages from storms etc. However, because Oak Wilt is very spotty throughout Michigan, many fewer property owners are affected by line clearing operations that result in Oak Wilt. Even though affected individuals may be faced with many $10,000s of property value loss and Oak Wilt remediation efforts, their voice is almost insignificant when compared to those voices during a major power outage . . . essentially the squeaky wheel phenomenon. Every property owner who is afflicted with Oak Wilt promoted by line clearing crews must fight the "city hall" or large corporate interests on their own. Perhaps one of the main questions is, if we do not take Oak Wilt seriously now and minimize its destruction of our natural and urban forests, will we arrive at a point in the future when we may have wished we had done more in the past to prevent its spread and destruction of our oak forests?

OAK WILT & LITIGATION

First and foremost in regards to the following discussion, I am not an attorney. But, I have some experience with legal issues. Oak Wilt is without doubt the most litigious plant-related issue I have ever encountered. We as property owners cannot sue someone because of "overland" spread of EAB & DED. But, because Oak Wilt requires wounding of oak trees for overland spread, it is a completely different animal. I have been involved in a number of court cases involving Oak Wilt; in every case with my involvement, property owners have successfully sued "tree trimmers" who do not recognize the "No Pruning Period".

Now, let me offer some logic in regards to Oak Wilt and pruning. If an owner of a particularly aggressive dog does not restrain that dog to his/her property and that dog harms a neighbor's pet or child, I think most of us understand that that owner of the aggressive dog can be held liable for any damage. Likewise, I have always warned property owners who do not contain (and eradicate) Oak Wilt to their property, like the aggressive dog, they can be held accountable for root graft transmission of Oak Wilt to neighbor's trees . . . but not overland spread. In regards to line clearing operations, it would logically make sense that if power companies and/or their contractors purposely ignore the "No Pruning Period", shouldn't they be made accountable for their unprofessional activities that resulted in property losses to Michiganders (Photo 8)? In such cases, it is also important to confirm Oak Wilt and differentiate the disease from other problems (Photo 9 and Inset).

THE MICHIGAN OAK WILT COALITION

Within the past couple of years the Michigan Oak Wilt Coalition was formed to provide information about Oak Wilt to the public. Entities involved with The Michigan Oak Wilt Coalition include representatives from Universities, State Departments, various associations in Michigan, power companies, various contractors and other interests and stakeholders, etc. Although there is widespread disagreement among the participants, it is hope that some standard policies or options for preventing and managing Oak Wilt can be developed and promoted through the organization.

The author, MSU and MGIA do not endorse any particular products. If using pesticides, be sure to read and follow label directions.

Photo 8: This Oak Wilt outbreak on the shores of Bear Lake, near Kalkaska, developed when a power company employee pruned (the affected) trees while moonlighting on the weekends to earn extra money. Now neighbors on either side of the affected property are threatened with destruction of their trees by Oak Wilt.

Photo 9: Although the oak trees in this photo were affected by "line clearing operations," the "apparent" death of these trees was due to herbicide applications of Imazapyr and Triclopyr, not Oak Wilt. The herbicides were applied to small trees and shrubbery under the power lines but apparently leached into the root zones of the larger trees. At the time of this photo, all affected trees showed live cambium tissues (inset); it is hoped that they may recover with time. Live cambium tissues would not be evident with Oak Wilt.