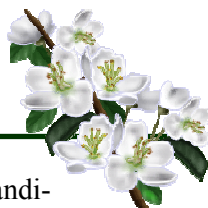


Dutch Elm Disease



A lot of us have oak trees on our properties. A smaller number enjoys the presence and shading canopy of a spreading elm. But even that smaller number is significant . . . significant enough to talk about how to hold on to those elms and the benefits and amenities they provide.

Like oaks, elms come in a variety of flavors. And it's the native American elms that are most susceptible to *Ceratocystis Ulmi*, a vascular wilt disease more commonly known as Dutch Elm Disease. This imported disease first came into this country through Europe in the early 1930's. Over the next several decades it devastated huge populations of majestic native elms.

The usual first sign of Dutch Elm Disease (DED) is the visible random branch yellowing (flagging) and then death in various spots around the upper crown. This flagging is usually spotty and does not initially impact the entire canopy at once. The disease pathogen is introduced into the tree by the feeding of the Elm Bark Beetle as it inoculates various branches and twigs with its fungus infected mouth parts. The beetle galleries can be found between the bark and the wood in the trunk and larger limbs of infected trees.

An exception to this upper canopy flagging may occur when the fungal pathogen is introduced by way of root grafting. In this case it is usually the lower

limbs that first become symptomatic. Root grafting is less common and occurs only when groups of elms grow in close proximity. An tree infected with DED



needs to be removed before the pathogen can travel through the roots to adjacent elms.

If the entire canopy appears to wilt or yellow all at once, DED is probably NOT the culprit. In this case it is more likely to be a mycoplasma disease called phloem necrosis (formerly "elm yellows") or some entirely different environmental problem.

Because the DED pathogen is persistent and because damaged vascular tissue is not easily restored, an elm that is more than 15-20% symptomatic may be a poor patient for treatment. The key word is prevention, not cure. Also, trees that become symptomatic early in the season usually will die within one year if not treated in a timely manner.

There are now several treatment options available. In early symptom trees

that are still candidates for treatment, the best program will a) arrest the vascular wilt and b) eradicate the beetle population. For recommended preventative treatments in non-symptomatic elms, a fungicide alone to suppress any potential introduction may be sufficient. "An ounce of prevention is worth (more than) a pound of cure."

It may also be worth noting that the most popular treatment protocols for this problem incorporate a closed system application, which eliminates the hazard of spray drift and makes the application largely weatherproof.

It may be some time yet before classic Americana's canopied "Elm Street" will again be as true to its



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An elm-lined street in Detroit in 1971 (top), and the same view in 1984 after a Dutch elm disease pandemic.

name as it once was in Andy Hardy's town. But native elms today are no longer doomed to fall prey to this insidious disease. Effective preventatives have been and are available.

