Leaflets News and Information for the Arborists of Michigan

Dormant Pruning:

Some Advantages of Pruning Trees and Shrubs in the Winter. . . Especially for Oak Wilt Management

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Dormant pruning has many positive characteristics. From a business standpoint, it helps to keep our employees busy and earning revenue, often providing jobs year round, even after the busy warm season is done. Another benefit is that dormant pruning enables us to correct disease problems which would be more risky during the summer season. For example, it is very difficult to prune Fireblight from trees or shrubs during the highly infectious spring and early summer times without spreading the disease to other limbs or to other plants. During the winter, bacterial populations in cankered branches are lower and dormant, and hence, less likely to be transmitted via our pruning utensils. Oak Wilt has become a disease of major significance in Michigan because of the pruning connection, which is that open wounds during the warm season attract insects which carry the deadly fungal spores. The red oaks and members of like family are often killed within a month or two after coming into contact with the oak wilt fungus while members of the white oak family may succumb in several years.

Oak Wilt Management through Winter Pruning

While many professional plant health care providers are aware of Oak Wilt and its potentially lethal effects on oaks in our landscapes, some are either unfamiliar with or ignore the potential for oak wilt. Pruning during the summer months can actually promote disease transmission and the development of disease epicenters which can then devastate stands of oaks. The mechanism of disease transmission is that insect vectors (primarily sap beetles, including pic-

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nic beetles) are attracted to wound sites, and they carry fungal spores from infected trees or dead logs to recently pruned trees.

In the late eighties and early nineties, when I first proposed that we need to cease pruning during the warm season, my comments were met with mixed reviews and even some controversial remarks. The fact is, we need to make sure our industry is providing services aimed at improving the health of plants and not aimed at their destruction. Luckily, some companies have instituted a winter pruning program, sometimes advertised through various ingenious avenues, aimed at oak wilt management as well as management of other diseases. I think these efforts are very worthwhile, and I have even been thanked on occasion with comments about how winter pruning has actually expanded their businesses.

What is the Best Time for Pruning Oaks?

From my perspective the safest and most appropriate time to prune oaks during the dormant period, from late October to early March. Obviously, this time will vary from year to year depending on weather conditions. During early March in 2000, experts in Minnesota reported picnic beetle activity on March 1st. During most years, we would not expect much if any picnic beetle activity during the first week of March or perhaps even through the entire month of March. It is wise to keep in mind that during freezing or near freezing conditions, transmission of oak wilt is almost impossible. Unusually warm climatic periods during dormancy may be conducive for oak wilt spread.

I have often been asked why my recommendations are different from some others' recommendations which suggest only the cessation of pruning during April, May and June. Many of the oak trees being pruned are large, at least 100 years old and are in very prominent locations. They are simply irreplaceable. Although I am certain that the likelihood of oak wilt transmission declines sharply after the three primary months, most scientists admit that we do not understand all of the mechanisms or vectors of oak wilt transmission. No one will admit that the transmission of oak wilt is impossible, for example, during the month of August. In an USDA bulletin, the authors suggested that oak bark beetles may also transmit oak wilt. I believe it is wise, when the value of these trees is considered, to avoid any possibility of oak wilt by limiting our pruning period.

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Sanitization and Pruning

It is not likely but nevertheless possible that the oak wilt fungus could potentially be transmitted via pruning utensils because of the transfer of fungal material residing in saw dust or chips. If there is a chance of this style of transmission, it would probably occur during the warm season when fungal growth is at its maximum. However, there is probably little chance of spreading oak wilt during the dormant season; however I'd still recommend sanitizing equipment between trees, particularly if dead or declining oak trees are involved. There is probably no need to sanitize utensils between cuts on the same tree because the tree is either infected or its not, and the transfer of the fungus between branches of the same tree will probably not greatly impact a tree already infected.

The Benefits of Pruning Oaks During the Dormant Season

The occurrence of dead wood is a common reason to prune oaks. Unfortunately, I think in most instances it is not possible to prune dead wood without the exposure of live tissue-the reason why "dead wooding" should be done dormantly and not during the spring and summer months on oaks. Proper pruning of trees can make them more storm resistant as well, whether the storm threat is from ice damage or from high winds. Pruning is often regarded as a proactive, health maintenance insurance plan to guard against potentially serious problems, analogous to the ever more popular and wise preventative care in human health plans.

Good luck!