## **Tree Wounds and Decay**

## A Talk With The Expert By WALTER E. MONEY, Guardian Tree Experts

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Recently, members of the Maryland Arborist Association visited Dr. Alex Shigo, plant pathologist with the U.S. Forest Service, at the Northeastern Forest Experiment Station in Durham, N.H. In two successive one and one-half day seminars, the arborists were able to go into a detailed study of the decay process associated with wounding in trees.

Shigo used a host of specimens that he has collected over the years to punctuate his explanations that wounds are the number one problem of trees - even Dutch elm disease begins with a wound by the feeding of the elm bark beetle - and that trees attempt to compartmentalize or seal off a wound and heal themselves over a period of time. His detailed descriptions that proper pruning and fertilizing are several of the key ingredients in this healing process were the dollars and cents ideas that the tree experts were able to take home with them.



Dr. Alex Shigo explains to Walt Money of Guardian Tree Experts why proper pruning of old stubs is so critical in the healing process of trees.

Throughout the discussions, Shigo was able to logically, and with strong evidence, shoot holes into some of the "sacred cow" ideas that have come down to tree men over the years, such as: a second growth stump sucker is not supposed to be trusted to become a structurally sound, mature tree. However, under certain circumstances, this tree should be as safe as a tree grown from seed. Also, that it probably would hinder rather than help a tree to flush cut the heal callous of an old stub that had almost healed and thereby break the natural barriers that the tree has set up to control decay.

The need for proper pruning was emphasized in that poor pruning and jagged stubs act as a "wick" to carry infection to the center of the tree, and that judicious pruning and feeding can be analogous to "immunization" shots to help a tree better withstand more severe shocks to it system, such as wind and ice breakage.

The one- to two-hour programs that Shigo has presented on this subject around the country have not been long enough to go into what many professional arborists consider to be some of the most exciting information to hit their industry in many years. For this reason, the "mountains went to Mohammed" in New Hampshire for a more detailed program. Of particular benefit to men who make their livelihood from the care of shade trees were the ideas that they took home to use in for-



Ed Hogarth steadies a tree section as Alex Shigo drills a small hole in preparation for a demonstration of the "Shigometer," an electrical probe that can measure the advance of decay in a living tree.

mulating more logical sales presentations to tree owners.

In a day when we are more aware than ever of government programs and spending, it is refreshing to know that the Forest Service is an agency that returns more revenue to the treasury by the management of our forests than it spends to maintain itself. Many more questions remain to be answered, but we are sure that with gifted researchers such as Shigo, and with the positive attitude displayed by the Forest Service, we are on the way.



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