

VEGETATION MANAGEMENT

By Roger Funk, Ph.D., Davey Tree Expert Co., Kent, Ohio

Q: Is it possible for a girdled tree to live and continue growing? A client has a large walnut tree that was girdled by vandals last year and, although we expected it to die, the tree has begun leafing out normally this spring. Is there anything we can do to help save the tree? (California)

A: If a strip of bark is removed completely around the trunk, the tree will die.

Sugars produced in the leaves are translocated downward to the roots in the inner bark (phloem). The root cells add mineral elements absorbed from the soil solution to these sugars to produce other compounds required for growth and development. When the supply of sugar is interrupted by girdling, the available sugar and stored carbohydrates are gradually depleted and the roots die.

The tree may die the same year it is girdled, but there are many reported cases of girdled trees continuing to grow for two years and then failing to leaf out the third year.

You could try grafting to bridge the girdled section of the trunk, or a technique called INARCHING, where established seedlings or suckers near the base of the trunk are decapitated and the sharpened tip inserted under the bark above the girdled area. Both practices should be done when the buds begin to swell in the spring. If you are unfamiliar with the techniques, contact a local plant propagator, or contact me at our headquarters in Kent, Ohio.

Q: When is the best time to transplant dogwoods? (Tennessee)

A: I have been told that some nurserymen prefer to transplant dogwood during the bloom period, but I have not seen any research to substantiate this practice. According to the literature, the best time is while the trees are dormant, preferably from February through March in your area.

There is a greater chance for survival if dogwoods are root pruned one year before transplanting.

Q: How can rabbits be kept out of a garden? I have tried everything, including fences which they simply dig under. (Pennsylvania)

A: Put up 36" width chicken wire and bend the bottom and top 6" outward. These "fenders" will prevent rabbits from digging under or hopping over the fence. I am told it also works for raccoons.

Q: What herbicide can I use to get rid of pigweed in beds of alyssum and dianthus? Everything I have tried injured the bedding plants.

A: The pre-emergent herbicide, Treflan (Trifluralin), will control pigweed and is safe on the two perennials you mentioned. It should be incorporated into the soil about two to three inches.

Q: Recently I attended a symposium on the Mauget Tree Injection System. Is this a widely accepted mode of tree fertilization and pesticide application in the landscape industry? How effective, convenient and expensive (other than the initial cost of the kit) is it on a long-range basis? (Pennsylvania)

A: Several tree care companies are using Mauget capsules, but our research department has not been sufficiently satisfied with the results to recommend the Mauget method to our field personnel.

We have tested various injection systems to determine the apparent injury to the trunk and the rate of uptake, distribution and effectiveness of the chemicals injected. Although response varied with the species, age and condition of the trees as well as the environmental conditions and nature of the chemical, the results summarized below were fairly consistent throughout the tests.

1) When no chemical was added, Mauget injectors resulted in minimal wood and cambial dieback compared to larger injectors.

2) Many injected chemicals caused columns of discolored wood and cambial dieback regardless of the injection technique.

3) The rate of chemical uptake through injectors seated in drilled holes was at least 10 times faster than through a Mauget insertion tube of the same diameter.

4) Distribution and uptake was greatly enhanced by an injection pressure of 40 psi compared to a gravity system or the low pressure in the Mauget method.

5) Trunk injections have not been effective for trunk or stem-infesting insects such as borers and scale.

We are continuing our research to evaluate trunk injections for diseases and leaf-feeding insects. At the present time our policy is to trunk-inject only if other corrective procedures such as spraying or soil fertilization is either not effective nor practical under existing conditions.

Q: Is it OK to hydroseed crownvetch? (Maryland)

A: Hydroseeding has become a common method of establishing crownvetch on slopes. The normal procedure is to apply limestone, fertilizer, seed (crownvetch and companion grass), inoculant and cellulose pulp followed immediately by an application of mulch.

Q: Could you tell me where the American Rose Society is headquartered?

A: American Rose Society, P. O. Box 30,000, Shreveport, Louisiana 71130.

The following question, which appeared in this column last October, has caused some confusion because of our error in labeling the two types of bentgrass. Here is the corrected version.

Q: What is the best way my men can tell nimblewill from bentgrass in clients' lawns?

A: Both nimblewill and the bentgrasses have a membranous ligule. However, the ligule for nimblewill is short and jagged. Also, nimblewill has long hairs at the edges of the collar.

Send your questions or comments to: Vegetation Management c/o WEEDS TREES & TURF, 757 Third Avenue, New York, NY 10017. Leave at least two months for Roger Funk's response in this column.