

For Tree Tips column on March 25, 2004  
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### Update on Pine Wilt

Welcome to the first Tree Tips column for 2005. This past winter has been pretty mild and comfortable for our trees and dormant plants outdoors. It is somewhat dry, but with warmer weather now, watering is recommended if we do not start getting some spring showers. With the “nice” winter we have had, not many tree concern questions have come into the office during the last several months. One question that has come in is about what people are hearing or reading about with pine wilt. There have been some articles in the Omaha and Lincoln papers in the last six to 12 months about this problem that is mostly affecting Scotch and Austrian pine trees. Before we get busy into the tree care articles and current issues of the Tree Tips column this year, I wanted to give an update on pine wilt and what we have seen (or more correctly, lack of it) here in northeast and north central Nebraska.

Over the last several years, a disease called pine wilt has killed many mature Scotch pine trees in southeastern Nebraska with isolated cases in other sites mostly in central Nebraska.. One estimate is that over 70% of the Scotch pine have been or will be killed in the next several years. Pine wilt is caused by the pinewood nematode, a microscopic, worm-like animal, which is moved from infested to non-infested pine trees by the pine sawyer beetle. The nematode numbers populate extremely fast and quickly plug up the transportation routes in the tree that move the water, sugar and starches from the roots to the needles and back. Pine Wilt typically kills Scotch pine within a few weeks to a few months during late summer after the pine sawyer introduces the nematode to the pine. The needles initially turn grayish green, then tan, then brown. The entire tree may turn brown all at once. In the Midwest, over 90 percent of the trees killed by pine wilt have been Scotch pine. Austrian pine appear to be the next most susceptible.

Sanitation is the most important management practice to prevent or slow the spread of pine wilt. Currently, no chemicals are available to control the nematode or the beetle. To limit the spread of pine wilt to nearby healthy trees, diseased trees must be removed and destroyed before the beetles emerge from the wood. From May 1 to October 1 dead and dying pines should be cut down and burned, buried or chipped. Do not hold the wood for firewood.

To confirm the presence of pinewood nematode in a dying or dead pine, it is necessary to extract the nematode from the wood. A wedge-shaped sample of wood should be taken from the lower trunk or the base of large lower limbs. Alternatively, a disk of wood, 1 inch thick can be taken from a branch 3 inches or greater in diameter near the trunk. Samples should be placed in a zip lock freezer bag and kept cool. The samples can be taken into a local UN-L Cooperative Extension office to be mailed or the homeowner can quickly ship the sample to the : Plant and Pest Diagnostic Clinic UN-L; 448 Plant Science Hall; P.O. Box 830722; Lincoln, NE 68583-0722. The charge for a pine wilt assay is \$10.00.

Although none of the numerous samples I sent into Lincoln last year from northeast

Nebraska came back positive with pine wilt, we are on the watch for this problem. There is hope that here in the northeast since we are in a different hardiness zone (colder) environment, that the pine wilt will not be a serious threat to our Scotch pine trees. However as a precaution, when planting new windbreaks and landscape trees, remember the possibility of the problem and incorporate diversity with spruces, firs, cedars and other evergreens recommended by a local landscaper, nursery or UN-L Cooperative Extension office.