

PROBLEM MANAGEMENT

Can wells be too close to trees?

Problem: *We have several maple trees showing sparse crown with smaller leaves. There is quite a bit of dead wood. Last year there was some construction, and builders put soils around one side of these trees, about two to three feet high. We believe the problem is related to the stress from the fill. We are interested in removing the excess soil and putting in a well. How far back from the trunk do we need to build the well? The crown diameter is about 20 feet. Can we build the well three to four feet from the trunk? (Ohio)*

Solution: The problem appears to be related to fill damage. Generally, most trees are sensitive to any new soil placed over the root area. Some trees can't tolerate even a half-inch of new soil around the root system. The fill causes compaction and affects aeration and water tables. As a result, affected trees begin to show various degrees of symptoms and decline over a period of one to four years. They often die.

The construction of a tree well to minimize the stress from fill is often recommended. The problem we see is that often these wells are constructed very close (one to two feet) from the tree trunk. Ideally, to protect the roots, particularly the absorbing roots, the well should be constructed alongside the foot outside the dripline.

Otherwise, if the fill is placed within the dripline and a small well constructed near the trunk, in my opinion, it is not going to be effective unless an elaborate aeration system is installed beneath the fill soil.

In your case, since the soil was put on the root area a year ago, the damaging effect of fill probably has already started. Try to remove as much fill soil as possible and then aerify. Make sure this operation is not going to hurt any roots growing into the new soil. If large numbers of roots are already growing into the new soil, leave them as is and then aerify.

Deep root fertilization with slow-release nitrogen and proper watering should help stimulate the growth and development of absorbing roots and improve plant health. Consider pest management as needed.

Anthracnose on sycamores

Problem: *We have been having severe problems with anthracnose disease on sycamore. Is it true that we can inject Arbotect 20S fungicide to manage sycamore anthracnose? (Pennsylvania)*

Solution: The American sycamore is planted extensively in many urban areas throughout the U.S. Anthracnose is a common fungal disease caused by *Gnomonia platani* on sycamore trees during early spring. Because of the monoculture of sycamore in many areas, the disease can spread rapidly from tree to tree and become very unsightly.

Four distinct stages of sycamore anthracnose have been identified; however, all stages may not develop in a single year:

Twig blight: small, one-year-old twigs are killed before the leaves emerge in the spring. Affected twigs may have canker around buds.

Bud blight: symptoms appear when buds expand in the spring. Buds are generally killed by cankers.

Shoot blight: is more visible than bud blight. In this case, shoots and young leaves die suddenly. The symptoms often mimic frost injury and are difficult to diagnose.

Leaf blight: small lesions appear on leaves which eventually become large and produce necrotic angular lesions along the veins. Brown fruiting bodies of the fungus develop in diseased leaf tissue. The affected areas become discolored and the entire leaf becomes defoliated.

The anthracnose disease is favored by cool and moist conditions during spring and fall. Reports indicate that disease severity, particularly shoot blight, is determined by the mean temperatures during the two-week period following budbreak. The disease is usually more severe when the average mean daily temperature for the period is 50 to 55 degrees F. As the temperature increases above that range, disease severity decreases.

Arbotect 20S can be trunk-injected to manage sycamore anthracnose. Reports indicate that one injection of Arbotect 20S in the fall before leaf abscission can help manage the disease for three growing seasons. An alternative approach is to manage the anthracnose disease by treating the foliage with recommended fungicides such as Benomyl or Cleary's 3336.

Follow label specifications for better results.

Does Polycote protect buds?

Problem: *A product representative claims that Polycote will protect buds and twigs. What is your opinion? (Illinois)*

Solution: We at Davey Tree are researching water-absorbing polymers of liquid gels which are marketed as having the ability to improve soil aeration and increase water holding capacity. I'm not sure if you mean protection of buds and twigs from direct application or from their alleged ability to prevent desiccation by improving soil water retention. It is always a good practice to request research data to support any claims made about a product.

It would be premature to comment on our research, which is in the preliminary stage of a three-year study.



Balakrishna Rao is Manager of Technical Resources for the Davey Tree Co., Kent, Ohio.

Questions should be mailed to Problem Management, LANDSCAPE MANAGEMENT, 7500 Old Oak Boulevard, Cleveland, OH 44130. Please allow 2-3 months for an answer to appear in the magazine.