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NEWS RELEASE

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TREE AND SHRUB PROBLEMS

Some of the more common questions I get at the Extension Office involve helping homeowners and landowners diagnose problems they find with their trees and shrubs. Sometimes the problem is not due to a disease or insects. It is due to an environmental stress, or something that the owners unintentionally did to stress the tree or shrub. Brian Hudelson, the director of the UW Plant Disease Diagnostic Clinic, gives the following overview of the more common non disease and insect problems that we, in Extension, encounter when helping homeowners address problems with trees and shrubs.

Plant the right tree in the right location. Many tree problems diagnosed have to do with use of trees that are not well-adapted to the sites where they are planted. For trees to be successful, I can't emphasize enough how critical it is that the site conditions (e.g., soil pH, light, temperature, moisture) match with the conditions preferred by the particular tree that is to be grown at the site. I constantly see trees such as pin oaks and red maples planted in locations where the soil pH is too high, leading to problems with chlorosis.

Start small. People seem to want an instant "finished" landscape filled with mature, full-sized trees. While planting large trees is easy to do (or at least easy to have done professionally), keeping these trees alive after planting is another issue. I can't tell you how many times I have chatted with folks who have planted large trees, only to have them die. They then replace these trees with other full-sized trees, only to have these replacements die as well. And on and on and on. What people don't realize is that when a tree is dug at a nursery, a large percentage of its root system (up to 60%) is left behind. This root loss puts a tree under incredible stress. The bigger the tree is, the bigger the stress and the lower the probability that the tree will survive transplanting. Personally, I don't like transplanting trees much over four feet tall. I have found that smaller trees survive better. Often by starting small, you can end up with a well-established, large tree in the same time period as transplanting and replacing multiple, full-sized trees.

Prepare transplants properly. Many people end up buying balled and burlaped trees, and a big mistake they make is to not remove the burlap, underlying wire basket and wires/cords/strings on these plants. Burlap and wire baskets do not break down rapidly (as is often the claim) and can interfere with proper root growth. Burlap exposed above ground can wick water away from trees, leading to water stress. Wires, cords and strings can girdle trunks, eventually killing trees.

Plant at the correct depth. I have seen numerous trees that have been planted too deeply. The trunks of these trees look like telephone poles as they enter the ground. Ideally, the root flare (i.e., the part of the trunk that widens to form the roots) should be visible just above the soil line. With many balled and burlaped trees, removing soil from the top of the root ball will be necessary to expose the root flare.

Overly deep planting increases the likelihood of girdling roots. These are roots that instead of growing outward from the trunk, grow around the trunk. If girdling roots form and are left in place, the trunk will eventually come into contact with these roots, and the roots will compress the water-conducting tissue under the trunk's bark. This will inhibit water movement from the roots into the branches, leading to canopy thinning, branch dieback and tree decline. Stress from girdling roots can also make trees (particularly maples) more prone to frost cracks, the vertical cracks that are often found on the southeast sides of tree trunks. Frost cracks can provide entry points for wood rot fungi that do additional damage and structurally weaken trees, making them more prone to snapping off or blowing over in high winds.

Bare-root trees, are often easier to plant properly. You can easily see the root flare (and get it positioned properly), and can orient roots at planting to prevent formation of girdling roots.

Mulch properly. I often see trees with grass growing right up to the trunk. Grass is very efficient at taking up water and preventing it from getting to trees. I suggest removing turf out to the drip line of a tree (i.e., the edge of where the branches extend) and mulching this area with a high quality mulch (e.g., shredded oak bark mulch or red cedar mulch). Use one to two inches of mulch if you have a heavier (e.g., clay) soil, and three to four inches if you have a lighter (e.g., sandy) soil. Keep the mulch about four inches away from the trunk.

Water, water, water. Homeowners often water new transplants for a few weeks, but then believe the trees are well-established enough that they no longer need to water. In reality, new transplants need LOTS of water for a LONG time. I typically recommend that new transplants (anything planted within roughly the past three years, maybe even longer for larger transplants) receive about two inches of water per week from the time they bud out in the spring, through the summer and into the fall up until they start to turn their normal fall color (for deciduous trees) or until the ground freezes or there is a significant snowfall (for evergreens). If Mother Nature doesn't cooperate, I suggest watering at the drip lines of trees using a drip or soaker hose.

Ask for help. Hopefully, the pointers above will help you successfully transplant trees and keep them healthy and vigorous. If you run into disease problems or other issues as you grow your trees, and need help diagnosing these problems (or problems of any other kind of plant for that matter), feel free to contact your local County Extension Office. We often start with asking for pictures via e-mail, especially during the current times, and go from there. Sometimes we will need you to send samples in to the UW diagnostic labs for accurate verification of the problem so the best correction can be implemented.

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