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The Grapevine

UPCOMING EVENTS

Virtual 70th Kansas Turfgrass Conference

The **70th Kansas Turfgrass Conference program** is in place and will be held online over four days: December 7 to 10, Registration for the conference is a single fee that allows participants to attend whichever conference sessions they like. Presentations each morning this year focus on pesticide recertification under the Kansas Department of Agriculture categories 3A (ornamentals) and 3B (turf).

You can register for the conference online at https://2020turfconference.eventbrite.com

Join us, support K-State turfgrass research, and learn new information! We look forward to having you at this year's conference!

Reminders

1. Remove annual flowers killed by frost.
2. Can still plant spring-flowering bulbs.

Water Landscape Plants Before Winter

Watering now is important if soils are dry to help alleviate moisture stress.

A good, deep watering with moisture reaching at least a foot down into the soil is much better than several light sprinklings that just wet the top portions of the soil. A deep watering will help ensure that the majority of roots have access to water. Regardless of the watering method used, soil should be wet at least 12 inches deep. Use a metal rod,
wooden dowel, electric fence post or something similar to check depth. Dry soil is much harder to push through than wet.

Although all perennial plants benefit from moist soils before winter, it is especially important for newly planted trees and shrubs due to limited root systems. Even trees and shrubs planted within the last 2 to 3 years are more sensitive to drought than a well-established plant. Evergreens are also more at risk because moisture is lost from the foliage.

Trees or shrubs planted within the last year can be watered inexpensively with a 5-gallon bucket. Drill a small hole (1/8") in the side of the bucket near the bottom. Fill the bucket and let the water dribble out slowly next to the tree. Refill the bucket once more, and you have applied 10 gallons. Very large transplanted trees and trees that were transplanted two to three years ago will require more water. A perforated soaker hose is a good way to water a newly established bed or foundation plantings. However, soaker hoses are notorious for non-uniform watering. In other words, you often receive too much water from one part of the hose and not enough from another. Hooking both the beginning and the end of the soaker hose to a Y-adapter helps equalize the pressure and therefore provide a more uniform watering. The specific parts you need are shown in the photo above and include the soaker hose, Y-adapter and female to female connector. It is also helpful if the Y-adapter has shut off valves so the volume of flow can be controlled. Too high a flow rate can allow water to run off rather than soak in.

On larger trees, the soaker hose can circle the trunk at a distance within the dripline of the tree but at least ½ the distance to the dripline. The dripline of the tree is outermost reach of the branches. On smaller trees, you may circle the tree several times so that only soil which has tree roots will be watered. If using a soaker hose, note the time watering was started. Check frequently to determine the amount of time it takes for water to reach 12 inches. From then on, you can water “by the clock.” Use a kitchen oven timer so you remember to move the hose or shut off the faucet. If you are seeing surface runoff, reduce the flow, or build a berm with at least a 4-foot diameter around the base of the tree to allow the water to percolate down through the soil, instead of spreading out. If we have a normal winter, watering once before spring should be adequate. However, if the winter is warm and dry, watering once a month may be needed (Ward Upham)

Natural Needle Drop on Spruce, Arborvitae and Pines

We are seeing very noticeable natural needle drop on some evergreens such as arborvitae, pines and especially spruce. This is a process where 2- to 4-year-old interior needles turn yellow, then brown, and eventually drop off. Those who aren't familiar with this process often are concerned about the health of the tree. This is a natural phenomenon that occurs every year and does not hurt the tree. However, some years it is much more noticeable than others especially if trees have been under stress. In most summers, the stress is due to heat and drought but this may vary depending on the year.

Be sure to check that only the older needles are affected --the needles on the tips of the branches should look fine--and that there is no spotting or banding on the needles that are turning yellow. If spotting or banding is noted, take a sample to your local county extension office for diagnosis. You can find the location of your local office at

http://www.ksre.k-state.edu/about/stateandareamaps.html (Ward Upham)

Amaryllis Culture

Now is the time to start amaryllis if you wish to have them in bloom for Christmas. The amaryllis is a tender bulb that is ready to bloom when purchased. The genus name for this plant is Hippeastrum, which means "horse star," an appropriate name for a plant that produces massive blooms as much as 8 to 10 inches across. These plants can produce 3 to 4 blooms on a 1- to 2-foot stem. Often, a second flower stalk follows the first at about the time the flowers on the first stem fade. The leaves usually start to appear when the flowers begin to open. Amaryllis bulbs can be huge – approaching the size of a grapefruit. The larger the bulb, the larger the flowers and the more expensive the bulb. Regardless of size, amaryllis likes tight quarters. Place in a pot only 1 to 2 inches larger in diameter than the bulb. About half of the bulb should remain exposed. Hold the bulb so the roots hang down into the pot, and add potting mix. Firm the mix around the roots carefully so that they are not snapped off. Water thoroughly and place the plant in a warm, sunny location. Amaryllis likes day temperatures in the 70s and night temperatures in the 60s. The flower bud may start to appear right away or the plant may remain dormant for a period of time, but eventually all mature bulbs do bloom. Move the plant to a cooler location and out of direct sunlight when the flower buds begin to show color so the flowers last longer. Amaryllis can remain in bloom for about a month.

Flowers should be cut off after blooming to keep the plant from expending energy to form seeds. Place the plant back in a sunny location until it is warm enough to be placed outside. Sink the pot in the soil in an area that has dappled shade. The plant can be gradually moved to sunnier locations until it receives full sun for a half day. Continue to fertilize with a balanced houseplant fertilizer as you would a normal houseplant. Bring the pot in before first frost and place in a dark location. Withhold all water so the leaves have a chance to dry completely. Leaves can then be cut off close to the top of the bulb. Amaryllis can often be left in the same pot for several years but will eventually need repotting. Again, choose a pot that is only 1 to 2 inches larger in diameter than the bulb and repeat the process described above. Offsets are normally produced by amaryllis and can be given their own pots if desired. These small bulbs have a concave side when removed but develop a round shape when given their own space. They grow quickly and can be mature enough to flower in a couple of years. (Ward Upham)

Sharp Drop in Temperature Again This Year be a Cause for Concern for Trees

This is the second year in a row where portions of Kansas suffered a quick drop in temperature after a warm fall. Unfortunately, some trees were not hardened off before this happened. Some trees will very likely be affected by this sharp drop in temperature. The first sign that a tree has been affected is marcescence in which trees that normally drop their leaves in the fall, don't. Leaves don't drop because they didn't have enough time to develop an abscission layer at the base of each leaf that allowed it to fall. Though marcescence itself does not harm the tree, it is a clue that further damage may have occurred. Notice I said "may." Trees that exhibit marcescence may be perfectly fine. Also, portions of the state that did not suffer this extreme drop in temperature should be good. It is possible that trees that show evidence of marcescence, may also have suffered damage to the living tissue under the bark. The sharp drop in temperature may damage at least a portion the phloem and the cambium. Remember the phloem carries food made in the leaves to all parts of the plants including the roots. The cambium produces new phloem. If the phloem and cambium are killed, the cambium cannot produce new, living phloem, and, therefore, the roots don't receive the food needed to survive and eventually starve to death. Trees so affected will not die immediately. First of all, a healthy root system has stored energy reserves that it can use to keep the tree alive. When those reserves are depleted, the tree will die very quickly. Usually this occurs during the summer following the year the damage occurred. However, there is more to the story. Doesn't a tree also need water? Since the living portion of the trunk was killed, wouldn't this stop water flow? Actually, it would not. Xylem is the structure in the tree that carries water from the soil throughout the plant. The reason the tree can still distribute water to the top portion of the tree is due to how a tree grows and, specifically, how xylem works. Even in perfectly healthy trees, most of the xylem is dead. Portions of this dead xylem forms hollow tubes that carry the vast majority of water and nutrients throughout the plant. Though there are living xylem cells, the contents of those cells make them inefficient in moving water. Therefore, the functional portion of the xylem wasn't hurt by the freeze because it was already dead. Since this xylem system still works and provides water for the tree, the tree can live for quite a period of time until the roots starve. Remember, as stated before, trees with marcescence may be fine. Even if there was also damage to tree tissues, it all depends on how much of the living tissue under the bark was killed. If only a small portion is killed then the tree may recover. If the entire circumference is killed, the tree is done for and there isn't anything you can do to save it. Any portion of the trunk where the bark comes off and the underlying layer is brown, is dead.

So, is there anything we can do now to help the trees? Since we don't know the extent of the damage, if any, we need to insure there is no further stress. Primarily, that means to water the tree as needed. Keep the soil moist but not waterlogged until freezing temperatures are here to stay. (Ward Upham)