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THE GRAPEVINE

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WATERING NEWLY PLANTED TREES AND SHRUBS

Newly planted trees have not established the extensive root system needed to absorb enough water during hot, dry, windy summers. Even trees two or three years old should receive special care. Deep, infrequent watering and mulching can help trees become established. Newly transplanted trees need at least 10 gallons of water per week, and on sandy soils they will need that much applied twice a week. The secret is getting that water to soak deeply into the soil, so it evaporates more slowly and is available to the tree's roots longer. One way to do this is to drill a 1/8" hole in the side of a 5-gallon bucket and fill it with water. The hole should be near the bottom of the bucket. Let the water dribble out slowly next to the tree. Refill the bucket once after moving it to the opposite side of the tree. After this bucket empties, 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 or drip irrigation can be used to water a newly established bed or foundation planting. In sunbaked soil, you may need to rough up the surface with a hoe or tiller to get water to infiltrate easily. It may be helpful to set the 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. Regardless of 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.

Watering Fruit Plants During the Summer

When temperatures exceed 90 degrees F, fruit plants lose water quickly. When this happens, moisture is withdrawn from the fruit to supply the tree. Stress from high temperatures, along with a moisture deficit in the root environment, may cause fruit to drop or fail to increase in size. The stress may also reduce the development of fruit buds for next year's fruit crop. If you have fruit plants such as trees, vines, canes, and such, check soil moisture at the roots. Insert a pointed metal or wood probe such as a wooden dowel, piece of rebar or a electric fence post to check the depth of watering. Even a long screwdriver works well for this. Push these into the soil with the goal of reaching 8 to 12 inches. This may not be possible if the soil is hard and dry. If you cannot reach the recommended depth, the plants should be irrigated to prevent drooping and promote fruit enlargement. Water can be added to the soil using sprinklers, soaker hose, drip irrigation, or even a small trickle of water running from the hose for a few hours. The amount of time you irrigate should depend upon the size of plants and the volume of water you are applying. Add enough moisture so you can easily penetrate the soil in the root area to the recommended depth. When hot, dry weather continues, continue to check soil moisture at least once a week. Strawberries have a shallow root system and may need to be watered more often - maybe twice a week during extreme weather. Also, newly planted fruit trees on sandy soils may also need water twice a week.

Euonymus Scale

Euonymus scales look like small white cottony spots on affected euonymus foliage. Leaves eventually turn yellow and die as feeding continues. Males are white and elongated, and females are brown and oval shaped and about 1/16-inch long. Large numbers congregate on the undersides of leaves, twigs, and stems. About 60 days are required to complete a generation. In Kansas, there are several generations per year. Multiple

treatments may be needed for good control. The crawler stage (young scale that have recently hatched) is when euonymus scale is most easily controlled. Therefore, check to be sure crawlers are present before treating. Since there are multiple generations per year, check for crawlers now. Spraying when crawlers are not present is ineffective. Double-sided tape or electrical tape smeared with petroleum jelly can be used to capture crawlers making them more easily seen. Use a magnifying lens to identify the very small crawlers. If nothing is moving, crawlers are not active yet. Labeled insecticides that are effective for the crawlers include malathion and acephate (Hi-Yield Acephate or Ortho Systemic Insect Killer), permethrin (Hi-Yield 38 Plus Turf Termite and Ornamental Insect Control, Hi-Yield Indoor/Outdoor Broad Use Insecticide and Lawn & Garden Insect Killer, Fertilome Indoor\Outdoor Multi-Purpose Insect Spray) or cyhalothrin (Spectracide Triazicide, Bonide Caterpillar Killer). Dormant oil can also be used for control in February to March to control overwintering scale. Temperatures need to be at least 40 degrees so the spray has a chance to dry before freezing. Overwintering females lay eggs that hatch in mid- to late- May or early June for the first generation. Crawlers move to leaves and stems and begin to feed by sucking plant juices. Maturing males prefer leaves and females congregate on stems. Control is probably impossible for euonymus that has been heavily attacked and is in very poor health.

Wood Chips as Mulch

With many municipalities and tree service companies having wood chippers now, gardeners often are able to get chips free. We are sometimes asked our opinion about whether these make a good mulch. Some people have heard that these chips will tie up nitrogen so that the garden plants won't grow as well. If wood chips are used as a mulch, there is no cause for concern. However, if the chips are mixed with the soil, there can be a problem during the breakdown process. The microorganisms that break down the chips need a certain amount of nitrogen during the process. With most green material, there is enough nitrogen in the material itself to meet the needs of the microorganisms. However, nitrogen levels in wood chips are so low, the microorganisms must borrow it from the surrounding soil. This results in less nitrogen being available to the plants. However, when the raw organic material has been digested, the microorganisms die and release the nitrogen. Therefore, the nitrogen is not lost but is simply unavailable for plant use for a period of time. Again, this is only a concern if the wood chips are mixed into the soil. There is no problem with nitrogen tie-up if the chips are used as a mulch. However, one point should be kept in mind. These chips can be used by foraging termites as a bridge to homes and other structures. Termites are light and heat sensitive and will not bother the chips themselves if they are 3 inches deep or less. Therefore, watch the depth of these chips near the house or other buildings. Also leave a bare area several inches wide next to the house so that any termite activity is noticeable.

Don't forget about the Master Gardener Program!

Just a quick reminder about the upcoming fall Master Gardener class. This year's class will start on September 12th and end on December 12th. If you are interested come by the Extension office at 206 N. Griffith, El Dorado (across from the Dairy Queen), or you can give us a call at (316) 321-9660. Or you can access our website <http://www.butler.k-state.edu/> and follow the horticulture link to a printable copy of the application form. Applications accepted until August 30st this year.

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