

THE GRAPEVINE

July 30th, 2020

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Reminders

- o Seed beets, carrots and beans
- o Never fertilize warm-season grasses such as zoysia, bermuda and buffalo after August 15
- o Remove sucker growth and watersprouts from fruit trees, especially apples

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 When this happens, moisture is withdrawn from the fruit to supply the tree.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 sited on sandy soils may also need water twice a week.

Inexpensive Method of Watering Trees

We mentioned in an accompanying article about using a soaker hose to water trees. We thought it might be helpful to provide more details. 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. On small trees, circling the tree several time with the soaker hoses will even out the amount of water applied but this isn't practical for larger trees. 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. 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. Soil should be wet at least 12 inches deep as 80% of a





trees roots are in the top foot of soil. 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 and your probe will stop when it hits dry soil. How long it takes water to reach a 12-inch depth varies depending on the rate of water flow and soil. Record the amount of time it takes to reach 12 inches the first time the tree is watered. After that, simply water for that same amount of time.



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.

Cicada Killer Wasps

These large (1-1/3- to 1-5/8-inch long) wasps fly slowly above the ground. Cicada killers have a black body with yellow marks across the thorax and abdomen. Wings are reddish-orange. Although these wasps are huge, they usually ignore people. Males may act aggressively if they are threatened, but are unable to sting. Females can sting, but are so passive that they rarely do. Even if they do sting, the pain is less than that of smaller wasps such as the yellow jacket or paper wasp and is similar to the sting of a sweat bee. The cicada killer is a solitary wasp rather than a social wasp like the yellow jacket. The female nests in burrows in the ground. These burrows are quarter-size in diameter and can go 6 inches straight down and another 6 inches horizontally. Adults normally live 60 to 75 days from mid-July to mid-September and feed on flower nectar and sap. The adult female seeks cicadas on the trunks and lower limbs of trees. She stings her prey, flips it over, straddles it and carries it to her burrow. If she has a tree to climb, she will climb the tree so they can get airborne and fly with cicada back to the nest. If not, she will drag it. She will lay one egg per cicada if the egg is left unfertilized. Unfertilized eggs develop into males only. Fertilized eggs develop into females and are given at least two cicadas. Cicadas are then stuffed into the female's burrow. Each burrow normally has three to four cells with one to two cicadas in each. However, it is possible for one burrow to have 10 to 20 cells. Eggs hatch in two to three days, and larvae begin feeding on paralyzed cicadas. Feeding continues for four to 10 days until only the outer shell of the cicada remains. The larva overwinters inside a silken case. Pupation occurs in the spring. There is one generation per year. Cicada killers are not dangerous, but they can be a nuisance. If you believe control is necessary, treat the burrows after dark to ensure the female wasps are in their nests. The males normally roost on plants near burrow sites. They can be captured with an insect net or knocked out of the air with a tennis racket during the day. Permethrin may be used for control.

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