**MULCHING:**

Mulch can be very beneficial to trees while they are becoming established. Acting as an insulator, mulch reduces fluctuations in soil temperature. Serving as a barrier, it softens the blow of intense wind and sunlight; keeping soil moisture more consistent. A three to four-inch layer of mulch will choke out the weeds that might otherwise compete with trees for water and nutrients. Mulch also protects trees from their caretakers by shielding their roots and barricading their trunks. Weed whip and mower injuries to trees can be overtly fatal. Open wounds may also serve as entrance points for insects, diseases and fungi.

Despite all of the benefits of mulch, plenty of wise people recommend against it. Too much of a good thing can definitely be a bad thing. Mulch “volcanos” create the perfect habitat for molds and fungi. Stick with a three to four inch layer of mulch and apply it at an even depth. Cover the entire planting area and seal the edges. Use your hand to drag mulch back, so that it does not directly touch the trunk. Keep in mind that certain insects and small creatures enjoy the temperate microclimate that wood chips and bark shreds provide. Most of them pose no threat to humans or trees.

Rock mulches behave quite differently from wood mulches. The thermo-conductive nature of minerals within the rocks can cause their temperatures to fluctuate quite drastically with changes in weather. On the converse, wood mulches help keep soil temperatures more consistent. Rocks are heavy to move. Tasks like expanding flower beds and dividing perennial flowers are more difficult to achieve in rocked areas. The weight of rock mulch can compact soil, making it more difficult for water to percolate through. Rock is generally less absorbent than wood, so it is less effective at stabilizing soil moisture. Many people prefer to mulch with rock because it is a semi-permanent option that stays where it’s put. Rock doesn’t break down and require refreshing. However, it doesn’t accomplish some of the other roles of mulch as well as bark and wood. Probably the least appealing aspect of rock mulch is the idea of removing and replacing it. For that reason alone, it is not a bad idea to give wood a chance.

**WATERING**

Proper watering is paramount to tree health. That said it is also one of the most misunderstood aspects of tree care. People always want to know how often and how much to water. Unfortunately, there are no easy answers to those questions.

What you should always do, is saturate the entire root zone when you water. A 20-gallon potted tree will require an equal volume of water to adequately hydrate its root system. One good tip is to set your hose at a gentle trickle and time how long it takes to fill a container of known volume. If it takes you 45 seconds to fill a 5-gallon pail, it will take you about 3 minutes to water a 20-gallon tree at that same flow rate. Don’t depend on the rain to help a whole lot. An inch of rain will only saturate the top six inches of soil. Many B&B trees and potted trees have root balls that are 20 inches high or taller. Therefore, it would take a three to four inch soaker to thoroughly moisten the soil around their roots.

What you should never do is water too frequently. Roots need to breathe. When they sit in water, they can’t get any oxygen and they often suffocate and rot. Furthermore, roots with constant access to water are not stimulated to grow. They will reach for moisture if it is not immediately available and the result will be a bigger, stronger root system. Wilting is not the end of the world as long as it is not allowed to happen too often.

Clay soils hold water longer than sandy soils. Peat moss can be added to soils of either extreme to improve how water moves through them. A [percolation test](https://www.bartlett.com/resources/Soil-Drainage.pdf) should be performed before planting if you are unsure about the drainage in your planting area. This basically involves digging a hole and filling it with water until the water stays put. After that you can time how long it takes for the water to drain and roughly determine what your irrigation frequency should be. Mulch can be used to keep the sun and wind from drying out the soil surface when the sub soil is still damp.

Keep in mind that plants will use more water when they are actively growing, flowering and fruiting than they will when they are dormant. Plants should still be watered thoroughly in late fall, just less frequently after temperatures cool and leaves drop. Always soak the soil right before the ground freezes, even if that doesn’t happen until December and your hose is put away. Water insulates and protects tree cells, helping them endure the extremes of winter.

Water trees evenly at their bases. There is no benefit to spraying water on the foliage. Doing so can cause fungus problems and other issues. Try to water early in the morning whenever possible. Early evening works too. Just avoid watering during the heat of the day to prevent moisture loss through evaporation.

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