



How to Water Your Trees

Summer heat often prompts us to wonder how our trees can survive when too little rain falls to keep the grass alive. Healthy, large trees have an expansive root system and, depending on the species, can transpire hundreds of gallons of water into the atmosphere on a hot summer day. In fact, an 18 degree increase in air temperature can effectively double the amount of water a tree uses during a 24 hour period (Coder, 1999). Smaller growing species of trees, in full sun, suffer in the summer heat as well.

During the hot summer months, trees “lose” water to the surrounding atmosphere as a way to dissipate heat and as part of the photosynthesis process. Should significant water resources not be available for root uptake to replace what is lost through the leaves, the tree could actually “bake” during the day. If you look at trees in the landscape during summer, they generally look better in the early morning than in the late evening. That is because trees take up much of the water expended during the day after the sun goes down.

How to do it

The best time to water trees is between 10 p.m. and 6 a.m. and the most efficient way to water is with a soaker hose. This method limits evaporation and gets more water where it’s needed. The key is to water the area from the drip line to one-third of the way towards the trunk. This is where most of the shaded water-absorbing roots are located. Watering in the shade reduces evaporation. Make sure the area is mulched to help maintain soil moisture and periodically move the hose around to cover as much area as possible.

How Much

Depending on how hot it gets, between one and two inches of water should be enough to keep your tree in the maintenance mode. That’s at least five gallons of water for every square yard of soil surface area, which should be sufficient to provide water equal to a one-inch rainfall. It is important to know the rate at which your soaker hose dispenses water over a given amount of time. Placing a one-inch deep container (a tuna can works well) under the hose and timing how long it takes to fill will give you a general idea of your hose’s rate. Try to water one to two times a week, moving the location of the hose each time so more of the soil gets covered. Water through the summer and fall when weekly rainfall rates fall below the required amount.

New Trees

Recently planted trees have somewhat different requirements than established trees. Nursery stock is often watered three or four times a week, and sometimes every day. Your planted tree will need between five and seven-and-a-half gallons of water a week for every inch of trunk caliper (measured 6” above the soil line). That means a newly planted two-inch caliper tree will need 10-15 gallons of water every week throughout the growing season. Make sure to mulch around the tree (at least two feet in diameter) with a light organic mulch material.