

# Tree Watering

Tree watering is a key part of tree care and it is difficult to recommend an exact amount due to a variety of circumstances including climate, soil, drainage, tree species and others. But a few guidelines will help you to water your trees properly.

## Watering newly planted trees

Watering a newly planted tree depends on things like the amount of rainfall you get in your area, wind conditions, temperatures and what season it is, how well the soil holds water and drainage. Further, how developed the roots are to the tree (how long ago you actually planted it) will also let you know how much and often to water the tree.

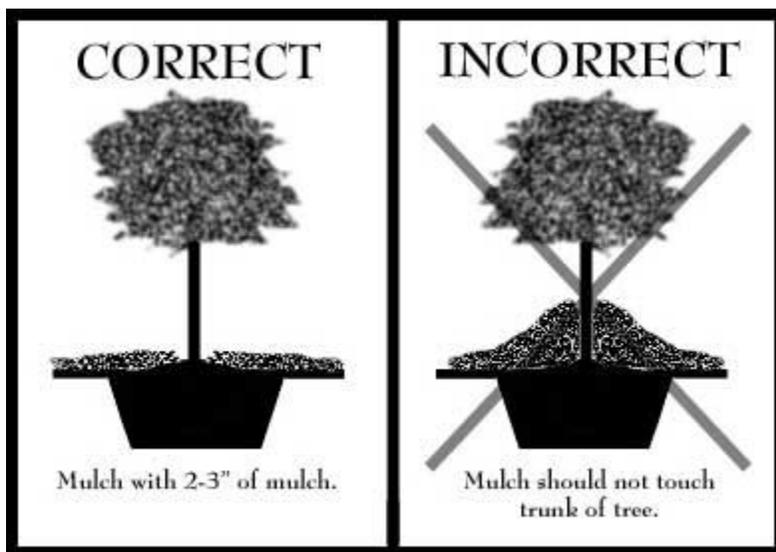
In general, water a tree once a day for the first two weeks and after that, once a week for a year as long as the tree is not dormant (without leaves).

When trees are newly planted, their watering requirements are high. Transplanted tree watering requirements might include heavy moisture during the first full growing season so that the root ball can get established. Remember that the root growth is slow in too wet or too dry soil, so you don't want to over water, but if you underwater you are also doing the tree an injustice.

Therefore, during the first year you have the tree in your yard, you should make sure you water it often enough to keep the soil moist yet not soaked. Pay close attention during the dry season so that you can ensure that the tree receives enough water. Transplanted tree watering requirements are high so long as the root ball is still a ball. Once the roots start to extend beyond the root ball, you know they are establishing themselves and the tree will no longer require much of your care as the environment can take care of the tree instead.

## Watering trees during the first 2 years

A lot of energy is being expended trying to get its roots established in the soil, especially during the first few summer months of the new trees life. You can help a tree maintain moisture by adding a 3 inch layer of bark mulch around the base of the tree. Deep watering can help speed the root establishment. Deep watering consists of keeping the soil moist to a depth that includes all the roots.



### **How much water and when**

Not enough water is harmful for the tree but too much water is a bad idea as well. Over-watering is a common tree care mistake. Note that “moist” is different than “soggy”, and you can judge by feel of the ground around the tree. A damp soil that dries for a short period of time will allow adequate oxygen to permeate the soil. As a general rule of thumb, your soil should be moist. Usually 30 seconds with a steady stream of water from a garden hose with a diffuser nozzle per newly planted tree is sufficient. Mulching is key to retaining moisture in the soil.

Pay close attention during the dry season so that you can ensure that the tree receives enough water. You should not only think about how to water newly planted trees, but when to water them. Try watering them later in the evening, after the heat of the day has subsided. This way, the water will not evaporate immediately and the roots get a good chance at absorbing some of that moisture. If you can't be available to water the tree in the evening there are a couple options. The use of a tree water bag can provide adequate water for newly planted and the two years following. In most cases, they are a zippered bag with a water refill opening in the top. Another idea is to simply take a plastic 5-gallon bucket and drill 2 or 3 small holes in the bottom (the size of a finishing nail), evenly spaced in a triangle shape. Fill the bucket with water and place it at the base of the tree. Be sure that each time you refill the bucket you move it to another location around the base of the tree.



### **Watering trees after the first 2 years**

After your tree has been established in your yard for two years the roots will be established. This will allow your tree to withstand a wider range of water conditions including the ability to stand on its' own because it has a proper root structure. As a general rule continue watering your tree 5 gallons once per week plus 5 gallons for every additional inch caliper of the trunk at 4 feet off the ground. If you have a 4 inch caliper tree, add 5 gallons plus an additional 15 gallons. Keep in mind though, you don't want to over water.

Some tree species require more water than others, depending on several factors including; the origin of tree and nursery, the hardiness zone, the type of soil (alkaline versus acidic), and its natural range of growth. For example, a southern magnolia may not survive very well in the desert southwest.

## Soil moisture measuring and monitoring

Whatever the annual precipitation may be, trees and shrubs will always benefit from proper mulching and watering. There are a couple ways to make sure the soil in the roots and surrounding area are obtaining the right amount of moisture. The use of a soil moisture sensor is an ideal way to get an accurate reading. Most moisture sensors will give you a percent soil moisture or the more expensive meters will give you a digital number. Another, less expensive way to detect moisture is through the use of a dowel rod. This method will also be useful if the soil moisture meter should fail. Simply cut  $\frac{1}{4}$ " to  $\frac{1}{2}$ " dowel rod into 12" to 14" lengths. Sharpen one end of the rod and push one or more of them into the root ball leaving about 2" to 4" exposed. After a day or two pull the rod out. If the stick is still moist then there is adequate moisture. If the stick is dry, then the root ball is not getting enough water. Remember, the idea is to keep the roots moist without overwatering.



## Drought tolerant tree species

If your area constantly deals with drought you will want to consider trees listed as drought tolerant. The label on the tree at the nursery should tell you if it is drought tolerant. These trees are adapted to sites in their native habitat that regularly experience prolonged dry spells. Although they are native to drought and more tolerant than others the first few years of life is critical to the survival of any tree and following the steps above will help your trees to grow successfully.

### Some drought tolerant tree species

Honeylocust - shademaster, skyline, and imperial (zones 3 to 9)

Kentucky Coffeetree (zones 3 to 8)

Chinese Elm (zones 5 to 9)

Prairie Expedition Elm (zones 4 to 7)

Colorado Blue Spruce (zones 3 to 7)

Rocky Mountain Juniper (zones 4 to 9)

Canada Red Chokecherry (zones 2 to 6)

Common Hackberry (zones 3 to 9)

Bur Oak (zones 4 to 8)

Spring Snow Flowering Crabapple (zones 4 to 8)

**For more information on other tree health care and maintenance issues please visit the City website under the Parks Department tab and look for the specific article of interest.**