

Forest Facts

Watering Trees—Water is the life blood of trees.

Planting a tree can be a very rewarding experience. It is also a gift to the future of Carmel's urban forest. Unfortunately, many trees do not live out their natural life span. One reason for trees not becoming healthy and long lived is improper watering. Water is such a key factor in tree health that a great majority of tree problems can usually be traced back to too little or too much water.

Fortunately for many of us here in the Carmel forest, most of our trees, our native oak, cypress or pine, do not need supplemental watering to do well. However, supplemental, deep watering once or twice a month during the summer does help our Monterey Pine fight bark beetle attacks. Volunteer native seedlings will thrive with occasional watering.

The same cannot be said for many of the non-native trees planted in our urban forest. They do need supplemental water even if they are "established." Many non-native trees will survive, but will not thrive unless watered. Two trees, southern magnolia and coast redwood, will survive here because of our foggy summer weather, but come from regions that receive much more rainfall, hence need more water. Other trees like Myoporum and Victorian Box, which come from climates similar to ours, do very well here without supplemental water.

Since we don't have an endless supply of water, we should make an effort to plant trees that are native to the area or from similar climates.

Newly Planted Trees

When planting trees, careful attention must be given to the soil moisture in the root ball for the first two years. Since all of the tree's water-absorbing roots are in that root ball, water applied outside the root ball does not help the tree. Many newly-planted trees die or become stunted because irrigation was not applied directly above the root ball. This is why a berm around the root ball and not just the planting hole is a good practice.

The single most common mistake in watering trees is applying the water too fast. A slow, deep watering is best for

trees to develop deeper roots. The water must be given time to sink into the soil. A rate of less than 2 to 3 gallons per minute is good. A foolproof method of watering small trees is to use a 5-gallon bucket with two 1/8" holes drilled in the bottom. The slow trickle from a garden hose or a soaker hose is also effective for larger trees.

It is difficult to say when and how much to water trees, because the type of tree, soil moisture and the weather determine how much water trees need. But as a general rule, planted seedlings 3 to 10 inches in height need about one gallon of water per week for a year. Larger planted trees need about 5 gallons of water plus 5 gallons for every inch of diameter per week for two years. Always check soil moisture before watering trees. Care should be used when using sprinklers. Trees can develop root collar (trunk base) diseases when sprinklers regularly spray the trunk.

Mulch

A two to three inch deep layer of coarse mulch can be greatly beneficial for the establishment of newly-planted trees and is a good practice for all trees. Mulch helps conserve soil moisture and promotes the growth of absorbing roots, plus the breakdown of organic mulch helps to provide nutrients to the soil. Root density after two years in mulched trees is up to four times that of similar trees without mulch. Mulch more than three inches deep can inhibit oxygen from getting to roots and can be detrimental to tree health.

Gardening beneath Oaks

Since our mature oaks will not tolerate frequent summer watering, care must be taken to select landscaping that is in harmony with the established oak environment. A ground covering of lawn, ivy or any other vegetation requiring regular summer watering can promote oak root fungus and water mold disease. If plants require watering, they don't belong there. There are many native and non-native plants that do not require summer watering which can be planted under oaks. Although not tolerated by many gardeners, oak leaves are the best mulch for oak trees.