

Tree Care

By Diana Ruiz with assistance from the Inland Empire Urban Forest Council.
Reviewed by Mark Porter, Dave Roger, Deborah Day, Susan Sims and Fred Roth, PhD.

Help! I'm Thirsty!

Since we live in a unique climate zone with little or no water during the hottest months of the year, make sure that your trees aren't "left out to dry".

A tree will decline if it doesn't get its minimum requirement of water, becoming susceptible to pests and disease. Signs of water stress include wilting, curling, yellowing leaves, browning of leaf edges, dieback of twigs and branches, and lack of new growth and shoot lengthening in spring.

Because we attempt to grow trees that are not native to our local climate, it's important to learn about your trees and learn their watering needs. Check websites and/or refer to the *Sunset Western Garden Book* for specifics about your type of tree/s. Most trees will benefit from summer watering, although a few natives might suffer if watered too frequently. It's important to continue watering into the fall, until the arrival of winter rains or dormancy. Increase watering during periods of drought, because trees get less water from rainfall.

Here's how you can quench your tree's thirst.

Water deeply.

What is deeply? It means getting moisture to the rootzone, not just in the top 6-12 inches, as you would for a lawn. (Lawn irrigation is designed to wet only a few inches of soil.) Apply enough water to moisten the soil throughout the rooted area, which depends on the tree size. Before you begin, check the soil under your tree to verify that it needs watering. For mature trees, dig down, or use a soil probe to 18-24 inches to feel for moisture. For young trees, check for moisture 6 inches into the soil on the sides of the rootball.

For mature trees, don't apply water on or near the trunk, but about half way between the trunk and the drip line (the outer edge of the canopy) out to 10-15 feet beyond the drip line. Water until the soil is moist, not mushy.



Photo courtesy of Aaron Escobar.

Water regularly.

What is regularly? Water every two-three weeks during the dry season, which varies each year, but approximately May-November. Young trees require more frequent watering; water the rootball area deeply once per week to encourage the growth of deep roots; more often, if needed. Avoid frequent, light waterings, which encourages shallow roots.

Water-loving trees need more frequent watering, so please, only plant drought-tolerant trees in the future.

If you don't have a separate irrigation line for your tree, there are simple ways you can deeply water the entire rootzone:

- Simply let a hose drip for a few hours, moving it around below the tree canopy.
- Coil soaker hose under the tree beyond the drip line and run for a few hours.
- For young trees, build a circular earth berm and fill the basin with water a few times.

After watering, verify that the water has infiltrated to at least 18-24 inches by digging down and feeling the soil.

Protect Your Trees

Buffer zone

Create a buffer zone at the base of a tree's trunk with no lawn or vegetation. By eliminating the need for grass trimming, tender bark will be protected from damage by string trimmers. Irreversible string trimmer damage can happen in a matter of seconds. Cuts in bark interrupt the transport of nutrients and water and expose the tree to infection, disease and pests. By keeping the base of the tree free of lawn, weeds, and other plants, the tree will not be competing for water and nutrients.

Mulch

Place a layer of wood chips, leaves or partially decomposed compost 2-5 inches deep on the soil surface, under the canopy, but not touching the trunk. The tree's own leaf litter can serve as mulch. Do not mix the mulch into the soil, unless it is fully composted. Otherwise, the decomposing material will use the available nitrogen, which the tree needs. Do not use stones, weedcloth or plastic sheeting under trees. Organic mulches conserve moisture, protect roots from drying, and promote a healthy underground environment.

Stake

Stake young trees by holding the tree upright and placing tree-ties 6 inches above where the tree will stand straight. Allow for some trunk movement.



This young tree is properly staked and tied with rubber tree-ties. The original nursery stake has been removed. The young tree is able to move with the wind, without breaking.



Don't let this happen!

Studies have shown that if a tree can move a little in the wind, it will develop a stronger trunk. Remove the original nursery stake, as it is too close and attached too tightly to the young tree.

Remove tree-ties and stakes when roots are developed enough for the tree to stand alone, usually one year, or less. If left around the tree too long, tree-ties will restrict and girdle the trunk.

This young tree has been bent and damaged because it was improperly staked. Instead of removing the original nursery stake upon planting, it was left and a tree-tie was attached too tightly.



Prune

Remove suckers (shoots from the base of the tree), and prune with care. The best time to prune a non-native tree is just before spring. A tree coming out of dormancy is able to heal quickly from pruning cuts and nesting birds will not be disturbed. The first five years of a tree's structural development are the most important for long-term success. Trees that receive the appropriate pruning while they are young will require little corrective pruning when they mature. Proper pruning is essential in developing a tree with a strong structure and desirable form.

In most cases, mature trees are pruned as a corrective or preventive measure. Routine thinning does not necessarily improve the health of a tree. Because each cut has the potential to change the growth of the tree, no branch should be removed without a reason, such as to remove dead branches, to remove crowded or rubbing limbs, to eliminate hazards, or to increase light and air penetration to the inside of the tree's crown or to the landscape below. Rarely should you ever cut a main branch to a stub.

Learn About Tree Hazards

Why do trees break apart? Why do trunks uproot? Why do branches suddenly tumble to the ground? Learn about tree hazards at: <http://ucanr.org/treeposter>. The master gardener poster describes the seven most common structural defects in trees. The defects include: lean, multiple trunks, weakly attached branches, cavities and decay, trunk and branch cracks, hanging or broken branches, and dead branches. A detailed tip sheet on inspecting trees and a list of tree failure resources are available to download. More information about tree failure is available in a UC Agriculture and Natural Resources publication titled *Recognizing Tree Hazards: A Photographic Guide for Homeowners*, by Costello. The 10-page publication may be purchased for \$4 from the ANR online catalog, <http://ucanr.org/treehazards>.

Don't Top Trees

Many people mistakenly “top” trees because they grow into utility wires, interfere with views, or simply grow so large that they worry the landowner. The topping process is usually self-defeating because it creates ugly, bushy, weakly attached limbs, which often grow back higher than the original branches.

Use the 1/4 and 1/3 Rules for Pruning

National Arbor Day Foundation

Do not remove more than 1/4 of a tree's crown in a season.

Where possible, try to encourage side branches that form angles that are 1/3 off vertical (10:00 or 2:00 positions). Ideally, main side branches should be at least 1/3 smaller than the diameter of the trunk. If removal of a main branch is necessary, cut it back to where it is attached to another large branch or the trunk. Do not leave a stub. For most deciduous (broadleaf) trees, don't prune up from the bottom any more than 1/3 of the tree's total height.



How to Make a Pruning Cut

National Arbor Day Foundation

Large Limbs:

A: Make a partial cut from beneath.

B: Make a second cut from above several inches out and allow the limb to fall.

C: Complete the job with a final cut just outside the branch collar.

Small Branches:

Make a sharp clean cut, just beyond a lateral bud or other branch.

Contact a local certified or consulting arborist for professional pruning or guidance. Find one in the tree service section of your phone directory.

Web extras

Find excellent resources online about proper tree care, pruning, and more at:

The International Society of Arboriculture: www.treesaregood.com or www.isa-arbor.com

The National Arbor Day Foundation: www.arboday.org

Tree websites:

<http://actrees.org>

www.americanforests.org

www.californiareleaf.org

www.canopy.org

Tree database websites:

www.calflora.org

<http://plants.usda.gov>

<http://selectree.cagr.calpoly.edu>

www.BeWaterWise.com (Garden Guide)