



GARDEN INFORMATION SERIES



The University of California prohibits discrimination against or harassment of any person on the basis of race, color, national origin, religion, sex, physical or mental disability, medical condition (cancer-related or genetic characteristics), ancestry, marital status, age, sexual orientation, citizenship, or status as a covered veteran (special disabled veteran, Vietnam-era veteran or any other veteran who served on active duty during a war or in a campaign or expedition for which a campaign badge has been authorized).

University Policy is intended to be consistent with the provisions of applicable State and Federal laws.

Inquiries regarding the University's nondiscrimination policies may be directed to the Affirmative Action/Staff Personnel Services Director, University of California, Agriculture and Natural Resources, 1111 Franklin, 6th Floor, Oakland, CA 94607-5200 (510) 987-0096

University of
California

Cooperative
Extension



GARDEN INFORMATION

TREES

THEIR SELECTION, PLANTING, AND CARE



TREES

THEIR SELECTION, PLANTING, AND CARE

Trees are the most important and valuable element of the home yard and landscape. Forming the superstructure or the garden or landscape, they provide a stage upon which the shrubs, groundcovers, vines, and color plants play out their various, supporting roles. Trees also enhance the environment, provide numerous amenities, convey a sense of warmth, hospitality, and serenity, and add significantly to the dollar value of your property. To realize fully the potential amenities and benefits trees can provide, though, one must select, plant, and maintain them with the utmost care.

SELECTION

It is most important to select the right tree for the right place in the home yard or landscape. When selecting a tree, know its ultimate size, growth form and characteristics, and adaptability to a particular environment, and be sure they are compatible with the intended site and use. Give trees enough space so that when they reach full size, branches and roots are not clashing with adjacent structures, trees,

pavement, utility lines, and other plants. Select a tree with growth characteristics desired to fit the intended use, whether it is for shade, parkway, screen, windbreak, or landscape accent. Although most trees are tolerant of a wide variety of environmental conditions, such as temperature, wind, soil, humidity, water, pests, and fire, some have unusually limited conditions in which they will grow well.

When selecting trees in the nursery, look for healthy, not overly vigorous individuals with a well formed crown in proportion to the size of trunk and container-not too large, not too small. Future main branches should be well spaced up and down the trunk and attached at wide angles. The trunk should be widest at the base and gradually taper toward the top. Ask the nursery person to remove the container so you can inspect the roots. The root system should fill most of the entire container without being root bound. Avoid selecting trees with diseased, damaged, or severely kinked, circling, or girdling roots.

PLANTING

Dig the hole to a depth about two inches less than that of the soil in the container or root ball but at least twice as wide (Fig. 1). Carefully remove the plant from the container and

place it in the hole. Use the same soil from the hole to backfill around the root ball without any added amendments. Water thoroughly to firm the backfill and remove large air pockets. Avoid compacting the soil. Mound excess soil to form a water basin three inches high and at least as wide as the hole. Place a two-inch layer of mulch in the basin and water thoroughly. Keep the root ball and surrounding soil moist but not wet for 6 to 12 months. Keep grass and weeds away from the stem and root ball.

Remove the nursery stake at planting. If the tree stands without support, do not restake. If it tends to lean, try thinning out the crown to reduce weight and wind resistance. If it still leans after thinning the crown, it must be staked. Use two, sturdy stakes, one each on opposite sides of the trunk, positioning them so that a line drawn between them would be at right angles to the prevailing wind (Fig. 2). Make the stakes as short as possible, barely high enough to hold the tree upright under calm conditions. The tree should return to vertical after the wind has bent the top. Loosely tie the trunk to each stake so that it is allowed to move a little.

To determine the proper point at which to tie a tree, hold the trunk in one hand, pull the

top to one side, and release. The height at which the trunk will just return to upright when the top is released is the point at which to attach the ties. Ties should have a broad surface to minimize rubbing or girdling and have some elasticity to provide greater flexibility as well as support. As the tree grows and becomes better established, remove or lower ties and shorten the stakes so they do not rub against the trunk and cause rubbing or girdling injury. Remove stakes as soon as possible, probably by the end of the second growing season.

Plant most containerized trees anytime in mild winter areas of Southern California. Plant heat-loving subtropicals in late spring so they can take advantage of the long summer growing season. In winter, a variety of deciduous trees is usually readily available as bare-root plants. They are normally less expensive than containerized trees and grow just as well if handled and planted properly. For bareroot trees, make the hole large enough to spread the roots out evenly without bending or crowding, and plant as you would for container-grown trees.

IRRIGATING

When to water and how long to water depends on the weather and type of tree and

soil. Trees vary from species to species in their water needs. Also, they generally need more water during the warmer months when growth is most active and water loss is greatest. However, even in the cooler months it might be necessary to water if rains are insufficient. A tree will require about the same amount of water regardless of the type of soil in which it grows. However, lighter, more frequent applications are necessary on sandy soils while heavier but less frequent applications are called for on a clay soil. The general rule of thumb is to water established trees as deeply but as infrequently possible, usually when the soil one to two inches deep dries out. Apply enough water each time to wet the soil at least 12 inches deep. Use a shovel or probe to check water infiltration if necessary. Once established, trees in lawns or flower and shrub beds usually survive adequately on the water given to the surrounding grass and other plants.

FERTILIZING

Most healthy, mature, well established trees need little fertilizer. However, fertilizer is usually beneficial to promote more rapid growth and faster establishment in newly planted trees or if older trees are showing deficiency symptoms.

Evenly broadcast a high-nitrogen but complete fertilizer (15-5-15, 11-4-8, etc.) at the recommended label rate over the soil surface at least out to the drip line of the tree. Follow label rates, or 1/3 to 1/2 pound of nitrogen per inch diameter of the trunk. Fertilize newly planted trees after planting. Fertilize older, established trees with one-half the total amount desired in spring prior to most rapid growth and then again with the remaining one-half in mid summer. Irrigate thoroughly after fertilizing to move the nutrients into the soil.

MULCHING

Mulch is beneficial to trees and most other plants. Fallen leaves from trees and other plants can remain on the ground to form a natural mulch where possible and practical, or apply an organic, commercially available mulch.

Ask your nursery or garden center professional for additional information and assistance about trees and their care.

The author is Donald R. Hodel, Environmental Horticulturist, University of California Cooperative Extension, Los Angeles.