

**UC MASTER GARDENER PROGRAM
OF SAN LUIS OBISPO COUNTY**

The UC Master Gardener Program is a public service and outreach program under the University of California Division of Agriculture and Natural Resources (UC ANR), administered locally by participating UC Cooperative Extension offices (UCCE). Our mission is to extend research based knowledge and information on home horticulture, pest management, and sustainable landscape practices to the residents of California.

CITRUS: Cultural Practices

Citrus trees can be a wonderful part of a home garden, with evergreen foliage, pretty flowers and colorful, nutritious fruit. The information in this document will provide guidelines on the general care of citrus and will facilitate successful growth of the citrus trees in your yard.

PLANTING

The best time to plant citrus is after the danger of frost is over and before the onset of hot weather. For optimal fruit production, choose a location with full sun throughout the day, protected from the wind and preferably south or west facing exposure. Planting in a lawn is not recommended. The planting hole should be the same depth as the root ball and at least twice the diameter. Adjust the depth of the hole so the surface of root ball or container soil is one inch above the surrounding ground. Manure or fertilizer should not be placed in planting holes as it can injure the roots. Amended soil is not recommended unless there are extreme conditions such as heavy adobe clay. Water immediately; do not let root ball dry out or get soggy. To protect young trees from sunburn, paint the trunk with white indoor latex paint diluted with an equal amount of water.

IRRIGATION

Proper water management is the most important factor in establishing a new tree and keeping a mature tree healthy. The soil should be kept moist, but not soggy. An irrigation schedule is determined by the age of the tree, soil type and weather. New trees need to be irrigated every 3 to 7 days, depending on soil type and weather. More frequent irrigation is needed with sandy soils or hot weather, and less frequently with clay soil or cool weather. Don't let the root ball of a new tree dry out, and place emitters near but not adjacent to the trunk, one on each side. If emitters are spray type, direct spray outward and do not wet the trunk. After the first year, move the emitters away from the trunk, water a larger area around the tree as it grows and irrigate every 10 to 14 days. One of more common mistakes in citrus tree care is over watering which results in waterlogged roots that cannot function properly. Overwatering is one of the causes of yellow citrus leaves. A soil moisture probe can be very helpful to help gauge soil moisture and time the irrigation for your soil type and weather conditions. If the top inch of soil is dry, don't water, but if the top several inches of soil are dry, water. Keeping the soil moist to a depth of two feet is best. It is not recommended to place a citrus tree on automatic watering timer with other plants that have different irrigation requirements.

FERTILIZATION

Young non-bearing trees in the first two years have different nutrient needs than mature trees. Nitrogen is the main nutrient that needs to be supplied, usually in the form of ammonium sulfate, ammonium nitrate or urea. The general recommendations are: for one to two-year-old trees, 2 tablespoons of nitrogen fertilizer spread under a tree three to four times a year from early spring through late summer, prior to irrigation. The amount of nitrogen fertilizer is increased to 4-5 tablespoons for three-year-old trees, and 8 tablespoons for four-year-old trees applied three to four times a year. Mature fruit bearing trees will need from one and half to 3 pounds of fertilizer per year divided over three to four applications. Most gardeners fertilize trees between February and August, in 3 to 4 evenly divided applications. Nitrogen fertilizer should not be applied after late summer, as this promotes new growth which is susceptible to frost injury and citrus leafminer damage. Some arborists recommend not fertilizing oranges and grapefruits during summer months as this may contribute to thick rinds. If this is a concern, a single application of the yearly fertilizer requirements can be applied in late December to February. Lemons, however, do well with summer fertilization. As trees mature, transition to a slow release fertilizer formulated for citrus- always read the label and follow manufacturer's instructions. In addition, mature trees may benefit from micronutrient sprays or chelated iron to prevent various patterns of leaf yellowing.

PRUNING

Citrus trees need little to no pruning in first 2 to 3 years. In young trees, pruning is limited to removal of suckers which arise below the graft union and trimming of vigorous shoots in order to maintain overall canopy balance. For mature trees, pruning can be done in late spring to summer to remove dead, damaged, diseased, crossing or weak branches. Prune the lower branches off the ground to eliminate as easy access point for ants. It is not necessary to use pruning sealants on pruning wounds. Wait until May to remove any frost damaged wood.

MULCHING

Apply mulch in a two-inch-thick layer matching the circumference of the tree canopy, but 6 inches from the trunk. Mulch reduces weeds and eliminates the need for cultivation around shallow citrus tree roots. It conserves water, improves soil conditions, reduces soil temperature fluctuations and prevents root rot fungi. Yard waste such as wood chips, leaves, and grass clippings provide excellent citrus mulch. As an added benefit, organic mulches such as alfalfa straw can reduce ground water nitrate contamination by providing a continuous but slow release of nitrogen.

PESTS AND DISEASES

Good cultural care is the primary defense against pest and disease problems. Whitefly and leafminer are the primary pests of citrus in our county. Aphids, scale, mealybugs, slugs and snails can also be a problem. Citrus leafminer usually needs no treatment except to discourage vigorous new leaf growth during the leafminer's peak lifecycle. Leafminer is typically most abundant when citrus is flushing in the summer and fall. Scale insects are most sensitive to pesticide treatment during their crawler stage, from spring to late summer. The most important action a homeowner can take to prevent honeydew producing pests - such as aphids, scale, mealybug and whiteflies - is ant control. Check trees regularly for ants climbing up the tree trunk. Ants feed on the honeydew and they protect the pests from beneficial insect predators. Control ants by trimming branches off the ground and applying Tanglefoot on the tree trunk. The most serious threat to California citrus trees is the Asian citrus psyllid (ACP). ACP can spread the deadly disease huanglongbing (HLB). There is no cure for the disease; therefore, the best line of defense is to manage the psyllid. Homeowners are asked to regularly check their trees for signs of this ACP. This insect is small, about the size of an aphid, and prefers the tender new growth. If you suspect you have ACP, call the CDFA hotline at 1-800-491-1899. For more information and photos of ACP, visit <http://ucanr.edu/sites/acp/>

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GARDENING QUESTIONS? ASK THE MASTER GARDENERS AT HELPLINE: 805-781-5939



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