



# FRUIT TREE SELECTION PLANTING AND CARE

STARNOTE 500  
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## *How to select and grow the very best*

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Southwest deserts provide excellent climates for growing many kinds of fruit. Many of the most common fruit trees originated in desert or semi-desert regions and, with a little help, will grow as well here as anywhere. Some of the best to grow are almonds, apricots, figs and pomegranates. Also grown successfully are apples, nectarines, peaches, pears, pecans, pistachios, plums and scores of lesser known fruits. Choosing the correct, desert adapted varieties is important with these fruits. The "Sunset Western Garden Book" can help with these decisions as can StarNote 505, *Fruit Trees for Desert Climates*. Some fruit trees like peaches and nectarines can be purchased in dwarf form and are ideal for container and patio gardening.

Cherries, as well as citrus varieties, are much more difficult to grow in our climate. Cherries have a difficult time with our summer heat and we seldom have sufficient "chill hours" for them to set a good crop. Citrus fruits are very frost sensitive and will require protection or a mild winter climate to thrive and produce. The dwarf varieties we recommend and stock can be more easily protected or successfully grown as container plants and relocated in winter for protection. See StarNote 510, *Growing Citrus in our Climate*, for popular selections.

**SELECTING FRUIT TREES:** Fruit trees can be purchased in containers. In our climate, container-grown stock can be successfully planted nearly anytime. The best time to plant is from late fall through mid spring. Bare rootstock is much riskier and should only be planted from December through mid February. Later planting of bare root fruit trees is usually unsuccessful. Roots don't have enough time to establish before the tree is hit by summer heat. The resulting stress is usually fatal. For best results, prepare the soil in advance and plant immediately after purchase. Avoid purchasing bare rootstock that is showing leaf or flower bud activity.

Select trees with undamaged trunks and good branch structure. A tree that looks well balanced in its pot will look even better in the ground. A tree firmly rooted in its container will transplant more easily and successfully than a loose, wobbly one. Check the "American Standard for Nursery Stock" for more selection criteria.

**SOIL PREPARATION:** Dig a hole at least twice as wide and the same depth of the pot or root ball of your tree. The wider the hole, the better your fruit tree will do. The area chosen should be free of tree and shrub roots. Check drainage by filling the hole with water. If water remains in the hole for more than 3 hours, you must correct the problem. Making a soil mound, or "berming" the plant is often the easiest. Another option is to dig a "chimney" tunnel deeper until the water drains. Remove or fracture hardpan or caliche with a digging bar or pick. If these options are not practical, consider a new location. Bad drainage causes root rot and weak, spindly, short lived trees. If placing the tree in a lawn, a slight slope or berm is best. The tree can accept more frequent lawn water since the drainage will be better.

Our native soils have virtually no organic matter. Improve it by thoroughly blending equal amounts of organic planting mix like *Paydirt™* and a cup of *Dr. Q's® Gold Dust Starter Fertilizer* with the native soil.

**PLANTING A CONTAINER FRUIT TREE:** Remove plant from the container and examine the roots. If the roots are girdled (in a dense, circular mass), lightly score all sides of the root ball with a sharp knife. Trim off any broken, tangled or crushed tips. Place enough prepared soil in the hole so the top of the root ball is about 1/2 inch above ground level after planting. Place the root ball in the hole and add remaining soil mixture. Use soil to build a border-berm for reservoir around the tree 2 to 4 feet in diameter. Cover any exposed roots with soil mixture and firm lightly. Add a prepared root stimulator like *Dr. Q's® Plant Tonic* and water thoroughly.

Examine the tree after planting. If it is dormant, you can prune 1 or 2 feet from the top to encourage new lower branches that will make fruit harvesting easier later on. If the tree has already leafed out, it's best not to prune it at all the first year. New growth contains hormones necessary for root development. Excessive pruning of a newly planted tree will result in poor root growth and stunting.

**CARE AFTER PLANTING:** Mulch the reservoir area to conserve moisture, lower soil temperature and control weeds. Sprinkle 2 tablespoons of *Ammonium Sulfate* (21-0-0) on the mulch to replenish nitrogen lost to microorganisms decaying the organic matter.

**FERTILIZING ESTABLISHED FRUIT TREES:** Nitrogen, phosphorus and potassium are the major nutrients needed in larger amounts to produce abundant, tasty fruit. Potassium is a key nutrient in developing fruit sweetness. Trace elements such as iron, magnesium, manganese, boron, zinc and sulfur are also essential. Use a packaged, complete specialty fertilizer like *Dr. Q's® Fruit & Nut Tree Food* for best results. An all-purpose balanced fertilizer like 15-15-15 combined with trace element supplements like *Ironite®* can also be used. For the first feeding in late January to early February, use ingredients listed in StarNote 610, *Fertilizer Mixture for Established Fruit Trees*. This formula provides rapid leaf development, stimulates new branch growth and provides essential nutrients for strong roots and tasty fruit. For the last application in September, use a fertilizer low in nitrogen and high in phosphorus. Your trees need phosphorus to make fruit buds during the dormant winter season.

Spread fertilizer evenly over soil starting 6 inches from the trunk and ending 12 inches beyond the tree drip line (area defined by tree branch spread). Lightly scratch nutrients into soil to avoid injury to shallow feeder roots. Water before and after fertilizing to prevent burning. When using any fertilizer, always read the label and follow package directions.

**IRRIGATION:** Proper irrigation is always necessary to produce quality fruit in desert climates. Even though it's hot and dry, more water is not necessarily better. Light, frequent watering causes shallow root growth leading to summer stress. It also keeps soil salts in solution around the roots leading to alkali burn and wimpy, non-productive trees. Deep, infrequent irrigation allows air to return to the soil between waterings, encourages roots to grow deeply, avoids root rot and flushes away salts. As always, frequency of irrigation depends on plant location and soil conditions. Is the area on a slope or flat surface? Is the soil sandy, loamy or is there lots of heavy clay? Use a *moisture meter* to probe the soil at various depths to make sure you are giving your trees deep, even moisture.

**DISEASES AND INSECTS:** Our warm, dry climate makes a favorable environment for many disease and insect pests. Here are some you'll most likely encounter:

**Gumming** or appearance of sap along trunk, or branches of fruit trees can indicate a response to a variety of problems. It frequently signals invasion by borers but can also be caused by environmental stress such as prolonged windy conditions, sudden severe temperature changes or erratic moisture conditions. Gum often appears naturally at pruning cuts, and points of branching from the main trunk. If sap is clear and uncolored, then disease probably doesn't exist. Be sure to check for borers as mentioned below.

**Shothole and other fungi** can affect fruit tree leaves some years, looking as if someone shot BBs through them. Damage from Shothole is cosmetic and won't affect the fruit. There are others like Apple Scab fungus (quite common) that will severely damage the fruit, and if not treated quickly can cause the loss of the entire crop. Your best bet is to prevent the problem by treating in winter with a combination spray of *Dormant Disease Control* products. **Warning**—don't use a sulfur-based spray on apricots. It may retard fruit production. Use a copper based product instead. If you missed treating your trees in the winter, you can use a fungicide like Chlorothalonil found in Garden Tech's Daconil® or Monterey's Fruit Tree Fungicide, during the spring or early summer to save the fruit that has not yet been infected.

**Borers** are probably the worst enemy's fruit trees encounter. They are larvae of various moths and beetles that invade the trunk and branches of fruit and other ornamental trees. Borers eat the nutrient bearing layers, under the bark causing branch die back and eventual death of the entire tree. Symptoms include holes in the bark accompanied by beads of sap and sawdust with peeling bark. Frequently shallow channels or depressions can be felt under the bark when running your fingers over the surface of the affected area. Since borers normally attack stressed trees rather than healthy ones, proper plant maintenance of watering, fertilizing, pruning and cleanup, will usually keep them away. Another preventative tool is white, latex (water base) paint. Painting trunks of trees, especially young ones, will protect them from sunburn and summer stress that leads to borer attack. Once borers are in the tree, there is very little you can do to get them out. Prune out affected areas, get rid of the infected wood, and protect with paint or pruning seal.

**Sour Fruit Beetles** invade fruit and spoil it for use. Stone fruits ripen from the inside out and the smell may attract beetles before the fruit is completely ripe. Inspect your crop frequently. At the first sign of damage like sap beads on fruit, shallow holes or actual insect sightings, treat with *Liquid Sevin*<sup>®</sup> or a similar insecticide every 2 weeks or so.

**Aphids** are soft bodied insects that suck plant juices. They are among our most common pests and affect almost all plants including some fruit trees. While their damage is seldom fatal, they make a mess and can reduce production or cause misshapen fruits. These insects appear in clusters on the undersides of newly emerging leaves and shoots. They leave behind sticky honeydew which attracts ants. Spray trees with a strong jet of water, use insecticidal soaps or choose from many commercial insecticides. During the winter spray with Volck Oil to stop over wintering. Lady Bugs and Lacewings provide effective biological control, especially on larger, harder to reach, fruit trees. When using these natural predators, don't spray with insecticides (other than Volck Oil)!

**Green Fig Beetles (June Bugs)** are large, shiny green, dive bombing insects common in summer around fruit trees and willows. In most cases they cause little damage and keep cats busy, but you can avoid them to some degree by practicing good garden hygiene. There is no chemical control.

**Cicadas** are noisy, unpleasant looking bugs which can cause some damage to young fruit trees by making small cuts in twigs and branch tips where they lay eggs. The damage isn't serious which is good since there is no effective chemical or biological control.

**MONTHLY CARE OF FRUIT TREES:** The warm winters and hot, dry summers encountered in the desert southwest put a great deal of stress on fruit trees. Use the following calendar to lessen that stress and increase production. Each year attempt to expand the root system by extending the placement of drips away from the base.

**January.** An excellent time to plant container and bare root fruit trees. Do maintenance pruning and branch thinning now. Don't prune off the little fruit spurs on trunks and branches or you'll have little or no fruit next spring! Spray with *Dormant Oil* and *Dormant Disease Control* to lessen insect and fungus problems during growing season.

**February.** Apply *Dr. Q's Fruit & Nut Tree Food (13-7-7)* early in the month. Apply one cup at the drip line of young trees. Otherwise, apply one cup for each 1½ inches of trunk diameter. Always water trees thoroughly before and after fertilizing. If possible, apply a 2-3 inch layer of mulch after fertilizer application.

**March, April and May.** Continue to fertilize with *Dr. Q's<sup>®</sup> Fruit & Nut Tree Food*. Apply iron chelates like *KeRex<sup>®</sup>* or *Ironite Plus<sup>®</sup>* as needed to correct iron chlorosis. If fruit set is heavy, thin the fruit to prevent branch breakage from excess weight. Fewer fruits mean larger fruits as well. Paint trunks from ground to beginning of canopy with white water-based paint to prevent sunburn and lessen chances of borer infestation. Treat trees with signs of fruit scab early with *Daconil<sup>®</sup>*

**June, July and August.** Fertilize at 1/2 the normal rate. Watch for iron chlorosis, it could indicate an iron deficiency but more likely means too much water. Water longer, but decrease the frequency. Turn off timers when summer rains occur! Watch for bird damage on fruit. Birds are a pretty good indicator that it is harvest time. In late August, thin out excessive growth but don't cut into hard wood.

**September and October.** Fertilize with low nitrogen, high phosphorus fertilizer, or add a cup of bone meal to your regular fertilizer to set up trees for a good crop next year. With the onset of cooler weather and shorter days, extend the time between irrigations.

**November and December.** Irrigation can be reduced to one good soaking every two weeks. Longer times between watering may be accomplished when it rains. This helps the trees enter their dormant period and gather strength for next spring. Evaluate all your fruit trees. This is the best time to plant new ones!