Deciduous fruit trees, whether standard or semi dwarf, planted for shade, bloom for fruit, are affected by elevation. At lower elevations, lack of winter chilling may cause erratic spring bloom and poor fruit set. At the upper end of the elevation scale, near 3,500 feet, spring frosts may damage bloom and small fruit on many varieties. The spring frost hazard varies widely by site and from season to season. Air drainage is the most important variable during potential frost periods. Deciduous fruits in general are not salt tolerant, particularly to chlorides or boron. Water over 900 parts per million (ppm) of total soluble salts should not be used. Not long-lived, all varieties are prone to disease. Ten to 20 years is about as long as you should expect them to live.

CHOOSING A VARIETY

For landscaping, some non-fruiting or minimum fruit-bearing types such as flowering peach and Hollywood or Vesuvius plums may be better than fruit-bearing varieties. However, since most people want both spring color and fruit, these variety recommendations take both capabilities into account. Most of these recommendations are based on experiences of commercial growers in Maricopa, Pinal and Pima counties, and since some of the varieties only recently have been released for propagation, they may not yet be readily found in retail nurseries. Patented varieties do not always mean more or better fruit, unless otherwise indicated, recommended varieties are fully or partially self-pollinating, so individual trees will normally bear adequate crops.

PEACHES

**Desertgold:** A strong growing, excellent quality, semi-freestone, yellow peach. Early bloom restricts its use to Maricopa, Yuma and warmer areas of Pinal and Pima counties. Produces large fruit when thinning is adequate. It has a low chilling requirement and ripens in May.

**Loring:** Yellow, freestone peach, ripens in late July and early August in Tucson area. Good quality. Better adapted to 2,500-3,500 foot elevations. An early ripening selection available as a mail order item.

**Red Haven:** Good quality, red-blush skin peach, ripens in early to mid-July in the Tucson area. Better adapted to 2,500-3,500 foot elevations.

**“Delicious” Peach:** Patented variety, selected from the July Elberta, produces good quality fruit in 2,500-3,500 foot elevations. Currently available through mail order only.

**Bonanza:** A semi dwarf yellow peach generally proven adapted to southern Arizona. Under good growing conditions, will reach 8-10 feet. Can be planted in large containers to restrict size. Because of growth habit, fruit is less susceptible to bird damage. Fruiting habit is somewhat erratic. Ripens in June.

**Kim Elberta:** A high-quality strain of Elberta, better adapted to 2,500 and 3,500 foot elevations. Ripens in early August in Tucson area.

**Mid-Pride:** Good quality, yellow freestone type, patented variety from California, ripens in mid-to late June. Somewhat higher chilling requirement than Desertgold, but has done well in yard situations in southern Arizona.

**Earli Grande:** A well adapted, semi freestone, yellow flesh peach. Early bloom makes it more suitable to Maricopa, Yuma and warmest areas of Pima and Pinal. Fruit size and maturity are similar to Desertgold. Ripens in May.

**Florida Prince:** A well-adapted variety not yet widely available in retail trade. Early bloom also makes it more suitable for Maricopa, Yuma and warmest areas of Pima and Pinal. Yellow flesh, semi freestone, early to mid May maturing. Fruit size and maturity are similar to Desertgold. Ripens in May.

NECTARINES

Nectarines are very susceptible to thrips injury. The lack of suitable thrips control makes nectarines a marginal recommendation.
APRICOTS

Because of open, spreading growth habit, apricots are well adapted for shade use in yard landscaping.

Royal or Blenheim: Good quality, semidry fruit, considered the standard of the early apricots. Ripens late May to June. Generally produces well in minimum chilling areas.

Katy: Relatively new variety with a low chilling requirement. This variety has produced good quality fruit in the few seasons it has been grown in southern Arizona. The fruit is attractive dark-blush color, ripening in early June. Fruit thinning need not be practiced to induce adequate fruit size at maturity.

Caselton: A good quality apricot that seem well adapted to Tucson areas.

Keeves and Tilton: Later blooming and ripening varieties, generally more suitable for 2,000 to 3,000 foot elevation range, but excellent crops have been produced in colder areas of Maricopa and Pinal counties.

PLUMS

Trees grow upright when young, then branching spreads out with age.

Santa Rose: Recommended for both commercial and home yard plantings. A high quality, purple plum that bears consistent crops. Ripens in June to early July.


Laroda: A dark-skinned, yellow-fleshed plum. Semidry, this high quality plum bears well under minimum chilling conditions if cross-pollinated with Santa Rose. Ripens in late August and early September for extended harvest. Excellent for drying or plum leather.

PEARS

Pears are upright in their growth when young, spreading into attractive, stately older trees. Recommended for 1,200 feet or higher, they may be marginal fruit producers throughout this elevation range in some years. Fruit bearing is more consistent on mature trees. All pears are susceptible to fire blight disease.

Barlett: The most consistent bearing pear variety, with medium-sized fruit of good quality. Ripens from September to October. Partially self-pollinating. Will generally not bear in elevations below 1,200 feet.

Keifer: Generally larger and somewhat drier than Bartlett. Individual trees have produced crops at 1,200-3,000 foot elevations. Ripens October to November. Pears do not ripen well at low elevations, fruit should be wrapped in paper and stored for several weeks.

ASIATIC PEAR

Nurseries and catalogs sometimes call it “apple pear.” This leads many to believe it is a cross between apple and pear, which it is not. A descendant of two old-line Asiatic pears, this pear has gained popularity for American gardeners in recent years. The pear varies from the more common European pears in its shape and texture. Typically the fruits are round with a crisp-to-hard texture. The trees are more precocious than European pears, bearing the second year. Varieties for lower elevations have a limited track record for suitability. The Shinseiki and Twentieth Century have not been impressive in fruit size or quality.

FIGS

These are wide spreading, vigorous growing trees in southern Arizona with dense, heavy, summer foliage. Figs do well throughout the lower elevation range, normally bearing two crops each year. Fig trees are often subject to iron chlorosis and some high temperature leaf burn. Mature trees of all varieties are highly susceptible to root rot fungus. Because fig trees grow vigorously and with an irregular growth pattern, they have a form more like that of a large shrub than of a tree, having either an open center or central leader. Because mature fig trees will occupy more space in most yards than is reasonable, they should be pruned annually in January to maintain smaller tree size. This practice will result in less, but larger-sized fruit. Fig trees are self-pollinating and grow on their own root with budding.

Black Mission: The best known and best adapted, particularly in lower elevation range. They’re self-pollinating. The purple-black fruit is of good quality. One late spring, one summer crop.

Brown Turkey: Is well adapted, particularly in 2,000 to 3,000 foot elevations. Not as prolific as Mission, but produces good size and quality fruit.

Kadota: A white fig not recommended for low elevations because of erratic ripening characteristics.
Caudata: A white fig not recommended for low elevations because of erratic ripening characteristics.
Canadria: A white fig of good quality, capable of producing under minimum chilling conditions. Less susceptible to sour fruit beetle than Mission. High fruit drop in low humidity.

ALMONDS
The discussion of a nut crop in this publication may be somewhat out of place, but almonds fit into most home yard planting schemes as a complement to or replacement for deciduous fruit trees. With a relatively low chilling requirement, almonds will produce in the same areas as low chill deciduous varieties. Most common almond varieties require cross-pollination. The Ne-Plus Ultra, Price and Carmel are suggested as a pollinizer for the Nonpariel varieties to produce satisfactory crops. A self-fertile variety call the All-In-One is available and appears to be well adapted to low elevation conditions. This variety also can be used as a pollinizer for Nonpariel and Mission. Piercing type insects such as stink bugs and leaf-footed plant bugs often limit the quality of almonds by piercing the almond nut early in the season, resulting in the excretion of gum material late as nut filling takes place. The kernel quality of these injured nuts is very low. No adequate control has been developed for these insects.

APPLES
With several years information available, the best adapted apple varieties for low elevations appear to be the Anna and Dorsett Golden varieties. Anna is acceptably self-pollinating. Dorsett Golden, as a pollinator, can aid the fruit set of Anna, and yields well as a fruiting tree. Check with your Cooperative Extension office for information on local experience and recommendations. The Early Summer Red, Ein Sheiner and Tropical Beauty apples have also fruited in the Salt River Valley, but have been less impressive in size and quality than the Anna. The Gordon variety has not fruited well in Phoenix.

MINOR DECIDUOUS FRUIT VARIETIES
Pomegranates, quinces and persimmons are other deciduous fruit possibilities. The Yellow Papershell or Wonderful pomegranates, Pineapple quince, Hachiya or Fuyu persimmon and Transcendent crabapple varieties all have produced satisfactory crops between 1,200 and 3,500 foot elevation.

PLANTING THE YOUNG TREE
Although some varieties of deciduous fruit trees come in containers, a large selection is available during the bare-root season in January and early February. All varieties required good subsoil drainage. Any “caliche” or hard pan should be shattered and amended to permit salt leaching and normal root development. Even under good soil conditions, the planting hold should be 2 feet deeper and 2 feet wider than the tree root system and backfilled with a soil-organic matter mix. In poor soil conditions, a hold as large as 5 feet by 5 feet will lensure better growth. Sand is a useful additive in soils that drain poorly. No manure should be put in the planting hole. Manure can be sued as “Pills” of fertilizer that release nutrients slowly also are available and safe to use at planting time. If Texas root rot fungus has been identified on other plants in the area, soil preparation should be as described in the bulletin, Root Rot in Trees and Shrubs, available from your local Cooperative Extension office.

Water thoroughly at planting time and on a weekly basis through the first season after new growth begins. The young tree should be cut back to a trunk height of 18-36 inches at planting time. This height will determine scaffold lim form. Where lawn maintenance activity is not required around the base of the tree, lower scaffold limbs will facilitate easier fruit picking, pruning and tree care. In yards where flood irrigation is not available, a watering basin should be maintained around the tree and expanded in size as the tree roots grow. Bermuda grass should be controlled to allow maximum root development. Any exposed bark should be protected from sunburn with white was or water-based white paint. Place a cardboard for newspaper wrap around the trunk to prevent mechanical injury.

IRRIGATION
Young trees need watering weekly in medium-to-heavy textured soils and twice weekly in sandy soils after leaf growth has started and throughout the summer months. As trees age, watering intervals can be lengthened but with more waste applied per application. Four to six inches should be applied at each irrigation as the trees reach bearing age.

Irrigation intervals can be lengthened after fruit maturity and sharply reduced during the fall months. In dry winters, one watering may be
applied in early January. Salt burn and tree defoliation may result if sprinkler water is allowed to contact tree foliage. Evaporative cooler drain water should NOT be used. Drip or trickle irrigation on deciduous fruit is practical but the system should be run for longer periods during fruit sizing and additional emitters added as tree size increases.

**FERTILIZATION**

Nitrogen in some form is the major element required to grow deciduous trees and fruit. It can be supplied in the form of ammonium sulfate or any balanced fertilizer, manure can be used as a nutrient on deciduous fruit but should be applied only during the winter dormant season. Control of Bermuda grass around the base of the young tree will result in better response to fertilizer. A few spoonfuls of fertilizer will be needed two or three times during the second growing season and gradually increased with tree age. From ½ to one pound of actual nitrogen per tree per season should be enough for bearing-age trees if surrounding grass is adequately fertilized. To get the number of pounds of any fertilizer needed to supply one pound of actual nitrogen, divide the percentage of nitrogen of that fertilizer into 100. Example: five pound of a 20 percent nitrogen material will give one pound of actual nitrogen. Apply most of the fertilizer of deciduous fruit before bud break in the winter or early spring, with a light application in sappy soil after fruit thinning. When applying nitrogen fertilizer, broadcast the recommended amount within the area from trunk to the outer branch area and deep-water into the soil. Composted manure may be used for the organic benefits, and does supply a portion of the nitrogen requirement and enough phosphate for normal growth where phosphate deficiencies have been identified. Apply manure during the late fall and winter months. Some varieties, particularly peaches, are susceptible to iron deficiency, indicated by yellow leaves with green veins. Where possible, reduce the frequency of water and apply chelated iron compounds to correct the condition.

**PRUNING DECIDUOUS FRUIT**

Some annual pruning is necessary for a strong tree structure, to reduce the amount of fruiting wood, force vegetative growth and to keep tree size suitable for yard use. All peach, plum and apricot trees are pruned to a spreading lateral from in which the center of the tree is kept open to sunlight; lateral fruiting limbs are “headed back" to promote bud break and limit tree height.

Prune most other varieties to an upright central leader, with lateral fruiting branches evenly spaced but tipped back to restrict tree size. No drastic pruning is recommended on genetic dwarf varieties, but some thinning out of crossing limbs is recommended. Pruning guides are available from each county Extension office.

**FRUIT THINNING**

With most peach, plum, apricot and apple varieties, the usual number of fruit set will severely limit the size of individual fruit at maturity. If you want larger size fruit, considerable thinning must be done early in the season. For individual yard trees, do this when fruit are pea-to-marble size and spaced 608 inches apart. If the total number of fruit is reduced to two per fruiting spur or twig, much better quality mature fruit can be expected.

**INSECT CONTROL**

Annual application of insecticide is recommended for control of peach twig borer on peaches, plums and apricots when damage has appeared as wilting of branch tip growth or worm feeding around the fruit pit.

Other insects that may require control on a seasonal basis include aphids, mites and stink bugs.

Sour fruit beetles are a troublesome problem in ripening figs and other deciduous fruit. Some reduction in beetle populations can be achieved by keeping any bird-pecked or overripe fruit picked off the tree. Picking the fruit slightly green each day and allowing it to ripen at room temperature will reduce beetle activity. Remove any unusable fruit from the tree and pick up any fruit that has fallen on the ground.

Flatheaded wood borers, a whitish-yellow larvae, which bores directly into the trunk or major scaffold limbs, are a serious problem where bark has been sunburned. Remove any borer-affected limbs and apply water-based white paint to any summer sun-exposed bark.

**DECIDUOUS FRUIT DISEASES**

Two major disease problems of deciduous fruit at low elevations are Texas root rot and crown gall. Deciduous fruit varieties in the peach, plum and apricot group are particularly susceptible to Texas root rot fungus and crown gall bacteria problems.
Texas root rot fungus and crown gall bacteria problems. Texas root rot caused by a fungus *Phymatotrichum omnivorum* causes rapid wilting and tree death during high temperature periods on trees two years or older. If Texas root rot has been identified on field crops or other landscape material in a particular area, peach, plum and apricot trees should not be planted. Citrus is not susceptible and can be substituted where climatic conditions permit. Prompt treatment of trees suspected of root rot infection will sometimes produce a regrowth response. The symptoms and treatment of root rot are discussed in a publication available from your local Cooperative Extension office.

Crown gall bacteria, *Agrobacterium tumefaciens*, may be present in desert soils or may be carried on the tree roots at planting time. The bacteria always will be present in sites where gall-affected trees have died. From the microscopic bacteria in the soil or carried on the tree roots at planting time, a series of corky superficial galls – 1/4 inch to 3 inches in diameter – grow below the ground in the crown area or root system of the tree. Young galls are tan in color, darkening with age. Invasion is usually associated with injury or wounds in the root system. Yellowing of foliage followed by gradual dieback of limbs usually results in the loss of the tree in a two- or three-year period. Gum oozing through the bark on the trunk or scaffold limbs has often been associated with the presence of crown gall. No effective soil fumigants are available for treating gall-bacteria infected soils, so replanting citrus or non-susceptible shade trees is recommended. Where it is necessary to replant stone fruit in the same location, soil should be removed in an area 3 feet by 3 feet and new soil used as replant backfill material.

**BIRD CONTROL**

No chemical repellents are currently registered or effective in keeping birds away from ripening fruit. Fastening stuffed toy animals in trees and moving them frequently may help. Birds soon become accustomed to them if they are left in a stationary position. Corded nylon netting available at retail outlets can be draped over relatively small trees. This should be tied at the bottom. Fruit can be picked hard ripe before it is highly attractive to birds and ripened at room temperature.

**Original Revision 1/90**

**RG/vac**

**THE UNIVERSITY OF ARIZONA**
**MOHAVE COUNTY COOPERATIVE EXTENSION**
**101 E BEALE STREET SUITE A**
**KINGMAN AZ 86401-5808**
**(928) 753-3788 / 753-1665 (F)**

**Email:** mohavece@cals.arizona.edu

**Website:** http://extension.arizona.edu/mohave

---

Issued in furtherance of Cooperative Extension work, acts of May 8 and June 30, 1914, in cooperation with the U.S. Department of Agriculture, James A. Christenson, Director, Cooperative Extension, College of Agriculture & Life Sciences, The University of Arizona.

The University of Arizona is an equal opportunity, affirmative action institution. The University does not discriminate on the basis of race, color, religion, sex, national origin, age, disability, veteran status, or sexual orientation in its programs and activities.