

Establishing Fruit Trees in the Home Orchard

Cooperative Extension Service
College of Agriculture and
Home Economics



Guide H-316

Esteban Herrera, Extension Horticulturist

This publication is scheduled to be updated and reissued 5/06.

Getting off to a good start is essential to growing a healthy, long-lived fruit tree. A stunted tree seldom develops into a desirable one. Weak growth and poor foliage let the sun burn the trunk and branches, making the tree more susceptible to attacks by insects and diseases. Success in establishing fruit trees in a home environment improves when some cultural practices are followed.

Preplanting care. Keep the tree in a cool place and the roots moist until planted. For better success, bare roots may be soaked in a bucket of water for a few hours or overnight before planting, but no longer.

Digging a hole. Make the circumference and depth large enough to accommodate most of the roots.

Pruning. Remove broken roots of deciduous trees and shorten all others so they do not touch the sides of the hole. Do not bend roots to force the root system into a planting hole. Roots of containerized trees should be pruned by cutting vertically up the sides of the root ball to sever tangled roots.

Prune one-third to one-half of the tops of bare-rooted trees. This can be done by shortening the main leader, removing some side branches, and shortening others. This reduces the amount of foliage the root system has to support as the tree begins to grow.

Plant the tree no deeper than it grew in the nursery. Nursery-grown trees have a distinct line that marks the depth where they grew in the nursery. Plant trees about one inch deeper than the soil line mark. After the soil settles in the planting hole, the tree will be established at the right depth. Fill around the roots with well pulverized soil. Put the tree in the planting hole first, then fill half the hole with soil.

Water to settle the soil, then add more soil and more water. Peat is often added in sandy soils. Make sure it is moist and mixed well with the soil before filling the hole.

Add no manure or fertilizer in the planting hole. Development of new roots depends primarily on moisture, and contact with high fertilizer concentrations can cause injury, resulting in burning around the edges of leaves (salt burn).

Water. If the tree is planted in late winter or early spring, water often enough to keep the soil moist. After growth starts, more frequent irrigations will be needed, usually every 7 days during the first growing season. Container trees that are growing when planted may need more frequent irrigations until the roots have grown out of the soil ball.

The second season, after the tree becomes established, irrigations may be less frequent. However, more water is needed as the tree grows. The small basin originally left for watering will no longer be big enough. Enlarge the basin and water thoroughly, well past the drip line of the tree. It's better to apply deep irrigations. Frequent, light applications of water promote shallow root systems.

Fertilizers. No fertilizer should be needed the first season. In sandy soil or if trees are actively growing, a small amount may be beneficial if applied once or twice during the season, followed with plenty of water. Never apply fertilizer to dry soil. Irrigate and wait until the next regular irrigation before applying. Apply more fertilizer as the tree grows older.

Nitrogen is the main element needed after the second year. A general rule is to apply 3/4 pound of ammonium sulfate annually, or the equivalent amount of other nitrogenous fertilizers, for each year of age or

inch of trunk diameter. Apply uniformly on the soil starting 18 inches from the trunk and going well past the drip line. Split applications are less likely to damage the roots, especially in heavy soils, and less nitrogen is lost through leaching in sandy soils. Divide the total annual amount by two or three and apply at monthly intervals. Do not fertilize after June 30.

High pH in New Mexico soils usually make minor elements unavailable for tree use. Iron and zinc deficiencies are most common. Iron deficiencies cause leaf yellowing between leaf veins. Grape vines, peaches and apple trees are most susceptible. Two or three sprays of iron sulfate per year helps alleviate the problem. Iron chelates (sequestrene 137) need to be used if soil applications are to be made. Zinc deficiency is characterized by small leaves and short internodes (space between leaves). This occurs in new shoot growth, causing the typical rosette appearance. Small leaves and dead spots between the veins may also occur in severely zinc-deficient trees. Pecan trees and apple trees tend to show zinc deficiency symptoms. To prevent this problem, apply 2 to 4 zinc sprays early in the season when new shoots and young leaves are actively growing.

Young trees in lawns. Trees planted in established lawns require special attention. Young trees do not compete well with grass for water and mineral nutrients. Also, lawns are usually irrigated frequently, but lightly, so water does not reach the bulk of the tree's root system. Keep grass from around a tree out to the drip line. If grass is not removed, extra water and fertilizer will be needed. After the tree is older, it competes much better.

Winter sun scald. Summer sun may can burn the bark of weak trees; however, winter sun is equally as injurious, even to healthy trees. During warm winter days, the sun warms the exposed bark of the trunk and main branches on the southwest side. At night, Temperatures then can fall rapidly below freezing. This alternate cooling and warming injures the bark tissues. The tree weakens and becomes vulnerable to insects and diseases. Paint trunks of young trees with exterior white latex paint (not oil base) to reflect the winter sun. Maintain temporary branches on the lower part of the trunk to shade the southwest side. Remove temporary branches when higher main branches extend far enough to shade the trunk in winter.

