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Planting, Pruning, and Training a young fruit tree

By Mark S. Brunell

Fall has arrived and many gardeners will soon be thinking about planting shrubs and trees. Fall is a great time to consider planting a young fruit tree. Most fruit trees consist of a rootstock, which forms the roots and the lowest part of the trunk, and the scion that forms the shoot of the desired fruit tree. The graft union is where the rootstock and scion are connected, and will appear swollen and crooked.

Selecting the tree

Young fruit trees can be purchased bare-root or in preferably in containers. Select trees that are sturdy, with a trunk diameter (just above the graft union) of one-half to five-eighths inch. Avoid trees with tightly bound or coiled roots; prune off such roots (note that a highly kinked, coiled root system is not repairable). A young tree is usually called a “whip”, which comes either unbranched or branched.

Planting the tree

Choose a planting site that receives lots of sunlight, with well-drained soil, and away from a lawn. If the fruit tree must be placed in a lawn, clear the lawn away from the trunk as much as possible and keep the trunk base dry.

Dig the planting hole. How the hole is dug will vary with the soil type. For heavy clay soils with poor drainage, moisture accumulating around the base of the tree is a prelude to disease. To prevent this, leave a central pedestal of undug soil, and dig the hole around it. Trees have very shallow, but wide, root systems, so the planting hole should be dug 3 – 5 times wider than the root ball of the tree. Since roots will only penetrate soil that is friable, the soil should be loosened as deeply as possible. For good, fast draining soils, simply dig the hole about 2 ½ times wider than the root ball, and to the depth of the root mass. For all holes, rough up the side walls to give roots a chance to penetrate laterally.

Place the tree on the soil pedestal, carefully spreading the roots. Then backfill the hole with the original, unamended soil so that the tree’s uppermost roots (root crown) are sitting 1 – 2 inches above grade level, with the graft union well above the soil. After adding the soil, you should be able to see the uppermost roots just above the ground. Firm the soil but don’t compact it, and mulch the soil around the tree, just up to but not touching the trunk.

While preparing the planting hole for bare-root trees, prevent the roots from drying out by soaking in a bucket of water. If you need to wait longer before planting you could temporarily plant it in some moist soil or mulch.

The best means of watering is drip irrigation or a doughnut-shaped basin that can be filled with water, but make certain that the trunk base stays dry. On heavy soils, be careful not to water-log the soil, which will damage roots.

Initial Pruning

The two basic types of pruning cuts are heading cuts, which shorten a shoot, and thinning cuts which remove entire shoots. The first step is to head the tree at 18 – 36 inches from the ground. This will stimulate lateral shoot growth just below the cut. These branches will be used to develop the framework of the tree. If you have a branched whip, choose three to four lateral branches, well spaced vertically on the trunk, and head them back to 3 – 8 inches. Also, the lateral branches should radiate around the trunk evenly, in all directions. The angle between the lateral branches and the trunk should be about 45 to 60 degrees; do not select laterals with a narrow V-angle. All other shoots should be removed or greatly reduced in length. If you purchased an unbranched whip, you will need to wait for lateral branches to grow the following spring. At that point lateral branch selection can occur.

The tree is now ready to grow next spring. If flowers form, remove them. If placed in a favorable location and given plenty of moisture, the tree should make a lot of growth the first year. Continued pruning will be required to develop a strong framework for the tree. Patience is important as fruiting should generally start in the third year.

Mark S. Brunell is a Master Gardener. For more information on Alameda County Master Gardeners, go to <http://acmg.ucdavis.edu>. Contact the Plant Doctor hot lines at 510-639-1371 or 925-960-9420. For more gardening information, go to the California Master Gardener Web site, <http://camastergardeners.ucdavis.edu>.



Vertical shoots grow after a heading cut.