

Pruning Fruit Trees

by Julie Segerstrom

Fruit tree pruning is both a science and an art according to Master Gardener Gary Fowler. Understanding basic principles is the science; applying the principles to your home fruit tree is an art that develops through experience, knowledge of local conditions and a clear set of objectives.

Nature prunes ruthlessly using shade, wind, fruit overload, ice and snow. These natural operations often destroy the tree, allowing decay to enter. Human efforts can enhance beauty, form, and fruit production, strengthen structure, and prevent wounds and disease, ultimately extending the tree's health and life.

Proper pruning shapes the tree to allow good sun exposure. This encourages optimal photosynthesis. Sunlight actually strengthens the fruiting wood; shading inhibits growth.

“Open center” and “central leader” systems are two pruning methods the gardener can choose.

“Open center” is designed to produce a smaller tree. The fruit can be harvested without a ladder and pruning is done from the ground. Three to four strong scaffold (or main structural) branches are chosen, evenly distributed around the trunk. The total height is below 6 feet. This creates a more open tree, increasing fruit quality by allowing greater light penetration and air circulation, which discourages disease and insects.

“Central leader” produces a taller tree, allowing a larger harvest and more shade. A central branch becomes dominant, and the lower scaffolding branches are chosen to grow evenly below and around the leader.

You may be asking which branches to cut first. The easiest way to see the tree's framework is in the winter without the leaves. Walk around the tree and plan how you are going to prune it. Once the system is decided upon, pruning should be done in February or March after severe winter weather is over. Never prune on a wet day as fungal disease spores are spread by water. Tools should be sharp, of high quality, so that cuts will be clean (not tearing the wood jaggedly).

First cut branches that are broken, dead or diseased. Branches growing straight down, straight up or directly into another branch can also be removed. If there are suckers around the bottom of the trunk, remove them. Remove small branches before larger branches are selected. Next, choose the structure or scaffolding branches, usually 3 or 4, to be evenly distributed around the trunk. Pruning during the first 4-5 years establishes framework and is called training.

Cuts made at the main trunk are called thinning. The branch should be removed just above the wrinkled “shoulder” where it attaches, making the smallest cut possible. Wounds left after the cut should not be covered with ointment or paint. Natural drying seals the tree from infection.

Cuts, made at a lateral outward-facing bud, are called heading back, and encourage growth in a specific direction. Each bud allowed to remain will swell into growth, ultimately becoming a branch. This determines which way growth proceeds. It is important to cut just above the bud, leaving only ¼ inch. Otherwise, an unsightly dead stub will develop which may allow entrance of disease.

Pruning is essential for quality fruit. Sun-exposed wood produces the best fruit. Some fruit is produced on longer-lived spurs or branches. This influences whether pruning should be light or heavy. Cherry, European plum and pear trees bear on long-lived spurs, so retain most spurs for fruiting. They should be lightly pruned which means removing approximately 20% of the branches. Apple trees can be pruned a bit more. Apricot, peaches, nectarine, fig and Japanese plum bear on one-year growth, so pruning can be heavier, up to 50%. If a tree lacks vigor, it should be heavily pruned while dormant to encourage new growth. If a tree is overly vigorous, pruning can be done in the summer in addition to winter to reduce the volume of leaf growth.

Resist the urge to spray pesticides on your fruit trees since beneficial insects will be destroyed before pollination can occur. Bees are an integral part of the life cycle of flower to fruit. However, now is the time to spray the entire tree with dormant oil to suffocate over-wintering pests, but don't spray when temperatures are below 40 degrees

For more information on pruning, attend the UCCE Tuolumne County Master Gardener Open Garden Day on Saturday, February 6. Starting at 10:30, Master Gardeners will demonstrate pruning fruit trees—both young and large, mature trees—and roses.

Julie Segerstrom has been a Master Gardener since 1996. She has had practice pruning both fruit trees and roses.