

Pruning Fruit Trees WORKshop Details and Tips

Background

While pruning a fruit tree is not necessary for the tree to survive, it can extend the life of a tree by preventing the access and spread of disease throughout the tree. Pruning is mainly performed to promote our human desire for luscious fruit. Pruning encourages the development of fruiting buds on the tree and increases the proportion of energy spend towards fruit development relative to vegetative growth. Maintaining an open canopy enables sunlight to reach inner fruit, promoting sugar development in the fruit.

I am interested in teaching about pruning fruit trees because I believe perennial crops are a critical component of sustainable agriculture. In contrast to annual crops, tree crops require much less soil disturbance and therefore greatly reduce the potential for soil erosion. I also get more personal fulfillment out of interacting with trees that I know have been planted by previous generations, and knowing that the trees which I am planting will be handled by other people many years from now. While pruning and maintaining tree crops, I feel less like a master of the crop and more like a temporary caretaker.

Learning objectives Expanded

The three main pruning tools used on a tree are one-handed pruning shears, two-handed loppers, and the pruning saw. One-handed pruning shears are useful for making precision cuts, such as when a branch segment is pruned back to a bud to direct future vegetative growth. In general, one-handed pruning shears are used on twigs thinner in diameter than the user's pinky finger. The two-handed loppers are used for pruning back larger diameter branches, up to the diameter of one's thumb. They are also useful for pruning branches higher up on the tree. Dead wood is more difficult to cut than live wood. Saws are more effective for removing dead wood than two-handed loppers. Saws are also used for removing large branches. Use a three part cut when you won't be able to support the weight of the target limb in one hand. To perform the three part cut, first make an undercut into the bottom of the branch about six inches away from the crotch. Move the saw away from the crotch and make a downward cut to remove the branch. The undercut should prevent the branch from tearing cambium off the tree as it falls. Make a final cut at the crotch to remove the branch stump.

The **four D's** of pruning is a memory tool to remember which material should be removed from a tree. **Dead/dying:** You can scratch the bark to determine if a branch is alive. If dead, the cambium will be brown and dry instead of green and smooth. Also, the buds on dead branches will often be shriveled and dehydrated. **Diseased:** Diseases will often begin at the tip of a branch and work inward towards the tree. Symptoms of disease are case specific, but branch ends will often shrivel as the tips die. **Damaged:** Cut broken branches back to a crotch. Insects and animals will damage branches by consuming branch tips and killing sections of cambium.

Equipment and machinery can also destroy sever cambium when they rub against branch segments. **Dumb Branches:** The last category consist of the branches that do not meet the orchardist's focus of maximizing sunlight in the center of the tree and preventing branches from contacting one another. Examples of dumb branches include vegetative sprouts that grow from interior buds, branch segments that grow inward towards the tree, crotch angles that differ from the rest of the branches, and branches that grow closely together. The final category is a rather abstract set of criteria that the orchardist develops over years as he/she gains experience.

Tips:

Avoid wearing sunglasses when instructing if possible. The sunglasses prevent others from being able to make eye contact with you and inhibit the connection between you and the participants. Some people also find the anonymity associated with shielding your eyes to be intimidating. Instead, look for a hat with a nice brim that is appropriate for the activity. If you need to wear sunglasses, take a minute to explain so at the beginning of the activity.

If the trees are far apart, consider forming small groups focused around people who may have previous experience. Ask the audience if anyone has any previous experience and encourage them to form groups with those who have never pruned before.