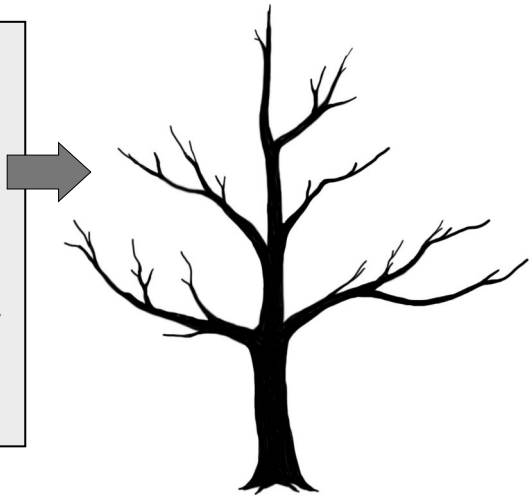
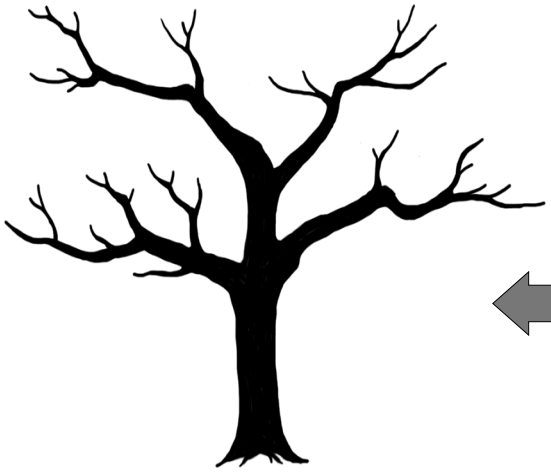
Pruning & Training of Fruit Trees

Most fruit trees require regular pruning to establish good structure and enhance fruit quality. A well-pruned tree allows air and light penetration, which help with disease prevention and fruit ripening. Different types of fruit trees require specific pruning practices due to their growth and fruit bearing habits. Please refer to the table on the reverse for specifics.

The tree form you choose depends on the tree's natural growth habit and your preferences. There are three main forms commonly used for fruit trees: *central leader*, *open center*, and *modified central leader*. The framework for each form should be established when the tree is young. Goals for this framework include strong branches to support heavy fruit, allowing good light distribution, avoiding crossing branches.

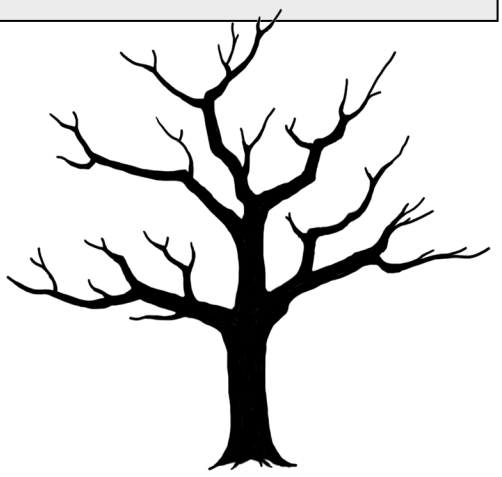
A **central leader** form has a leader (the main trunk which grows upright in the center) with lateral branches, called scaffolds, growing off the leader in three or four well-spaced layers. The top layers are shorter than the bottom, forming an oval or pyramidal shape. This form is best suited to trees that naturally grow upright with a central trunk. You can encourage scaffold branching during winter pruning by cutting off a third of the previous season's growth of the central leader. Usually the uppermost bud develops into a new vertical leader. If two leaders develop, keep the stronger and completely remove the other.





In an **open center** form, the young tree's central leader is headed back to the top of a whorl of branches, eventually resulting in three to five scaffolds that start three to four feet from the ground. Growth continues outwards, along the scaffolds. As lateral branches develop, prune out branches which cross or shade each other. This form is good for trees with a natural vase shape, such as peaches and plums, and can help keep a tree shorter.

A **modified central leader** tree combines the two forms discussed above. Five to six scaffolds are established in a whorl. At about six feet from the ground, head back the central leader to the point where a strong scaffold is growing outward. The tree is then treated like an open center.



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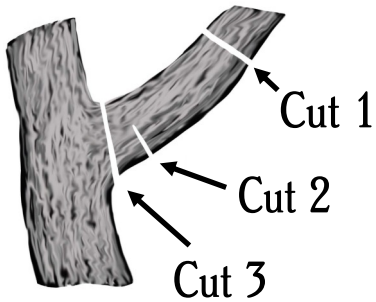
FRUIT TYPE & DEGREE OF PRUNING	FORM	BEARING HABIT
APPLE Little needed	Central leader, open center, modified central leader	Spurs on 2 yr old wood or older
APRICOT Moderate	Open center, modified central leader	1-3 yr old stems
CHERRY-SOUR Severe or Moderate depending	Open center, modified central leader	1 yr stems and spurs on older stems produce for 3-8 yrs
CHERRY-SWEET Little needed	Central leader, modified central leader	Near the base of one year old stems and spurs on older stems
FIG Severe or Moderate depending on variety	Open center	Depends on variety
PEACH & NECTARINE Severe to Moderate depending on variety	Open center	One yr old stems
PEAR-ASIAN Little needed	Central leader, open center	Spurs from 2-6 yr old branches
PEAR- EUROPEAN Little needed	Central leader, modified central leader	Long lived spurs
PERSIMMON Little needed	Central leader, open center	I yr old wood
PLUM-EUROPEAN Discouraged!	Central leader, modified central leader	Spurs
PLUM-JAPANESE Moderate	Open center	1 yr stems, short lived spurs on older stems

When to prune: most references say winter, when trees are dormant, the structure is clear, and there aren't too many other orchard tasks to do. However, winter pruning encourages growth, so watch for water sprouts (upright vegetative shoots which never bear fruit) in spring, and prune them off when they appear. If you are trying to limit the size of your tree by pruning, you can prune them in summer after the wood has hardened (June or July). Summer pruning enhances fruit and results in less of a vegetative response. When pruning in the summer, be sure to do it in the cooler parts of the day, and follow with a deep watering.



There are two main types of pruning cuts: thinning and heading. Thinning cuts remove an entire branch to its point of origin. The majority of pruning cuts are thinning cuts. Heading cuts remove a portion of a branch back to a healthy bud, which can promote more vegetative growth. All cuts should be made at an angle so water does not collect and promote disease. Make sure your pruners and saw are sharp, use a saw when the branch is thicker than your thumb, and always make the cleanest cut you can. If removing a large branch, use three cuts to avoid tearing the bark (see left). If disease is present, clean your blade with rubbing alcohol between cuts or between trees.

If removing a large branch use three cuts to avoid tearing the bark. (see left)

Mature trees are pruned to maintain their form, remove weak, diseased, or broken branches, and promote fruit quality. If you are looking to renovate an old, neglected fruit tree, plan on doing it over the course of three to five years to avoid more water sprouts than you can imagine. First remove all dead wood. You can safely remove one-third to one-half of living branches in a year, so gradually remove poorly structured, crossing, and low growing limbs, approaching one of the basic forms.

A good book on pruning and training can be a valuable ally in this process – and you can always stop by our Information Desk.

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