Backyard orchard culture is NOT the same as commercial orchard culture. When planting fruit trees commercially the goal of a fruit tree orchard is to maximize volume of harvest per tree and harvest a single variety over a short amount of time. Homeowners, on the other hand, prefer to have as long a harvest time as possible, with the most varieties possible in their limited space. Commercial orchards also are spaced to accommodate tractors and require the use of 12’ picking ladders. Homeowners can plant much more densely and through summer pruning, keep trees to heights harvestable without the use of ladders.

Backyard orchard culture is the practice of high density planting of successive ripening varieties using summer pruning to control size of trees. High density can mean planting more than one tree (2, 3, or 4) per planting hole, planting several trees in a hedgerow, planting multiple grafted trees, planting espaliers or any combination of these techniques. Planting four varieties in one hole will give you 10-12 weeks of harvest (instead of 2-3 weeks) in the space of a single tree.

Close (high density) planting also has the benefit of restricting trees’ vigor which also helps keep their size under control. Another benefit is better cross pollination which means better fruit production of apples, pears, cherries, and plums. Close planting works best when rootstocks of similar vigor are planted together. For example, for a four-in-one-hole planting, four trees on Citation would be easier to maintain than a combination of one on Mazzard, one on Lovell, one on Citation and one on M-27.

Small trees yield crops of manageable size and are easier to spray, thin, net and harvest than large trees. Plus, small trees can be planted more closely together affording the opportunity for more trees and longer harvests. Do not depend on rootstocks to control size. Rootstocks are chosen for their soil or climate adaptation, their disease or pest resistance or their tendency to induce early fruit bearing.

The best way to keep your fruit trees less than 10’ is by pruning especially summer pruning. Do not let pruning intimidate you. Summer pruning is most effective in controlling size. Reducing the tree’s canopy in summer reduces the photosynthesis, which reduces the tree’s capacity for regrowth. Summer also reduces the total amount of food energy stored in the root system in the fall to fuel growth in the spring. Winter pruning is effective in maintaining shape of tree but stimulates vigorous regrowth. Summer pruning preserves and stimulates development of fruiting wood. Summer pruning is actually best done when thinning fruit. You can see where the fruit is setting which helps you make better pruning decisions.
Pruning Tips for New Fruit Trees:

Pruning is most important in the first three years because this is when the size and shape of tree is established. When planting a bare root tree, cut side limbs back by at least two thirds to promote vigorous new growth. Then two or three times per year, cut back or remove limbs or branches to accomplish the following:

1. First year:
   a) At planting time, bare root trees may be topped at fifteen inches to force very low scaffold limbs, or higher (up to four feet) depending on existing side limbs and desired tree form. After the spring flush of growth, cut the new growth back by half (late April/early May). In late summer (late August/mid September) cut the subsequent growth back by half.
   b) When selecting containerized trees in spring or summer, look for well-placed low scaffold limbs. Cut back new growth by half and then again in late summer.
   c) 2/3/4 trees in one hole. At planting time, cut back all trees to the same height. Cut back new growth by half in spring again in late summer as above. In the first two years especially, cut back vigorous varieties as often as necessary. Do not allow any variety to dominate and shade out others.

2. Second year: Pruning is same as first year- cut back new growth by half in spring and late summer. For some vigorous varieties, pruning three times a year may be the easiest way to manage size – spring, early summer and late summer.

3. Third year: Chose height and don’t let the tree get any taller. Tree height is the decision of the pruner. When there are vigorous shoots above the chosen height cut them back or remove them.

4. When pruning, remove any broken limbs and cut back diseased limbs well below any signs of the disease.

5. The smaller one, two and three year old branches that bear fruit should have at least 6 inches of free space all around. This means that where two branches begin close together, then grow in the same direction, one should be removed. When limbs cross one another, one or both should be cut back or removed.

6. When removing large limbs, first saw part way through the limb on the under side so it won’t tear as it comes off. Don’t make the cut flush with the trunk, be sure to leave a collar (a short stub).

7. To develop an espalier, ran or other tow-dimensional form, simply remove everything that doesn’t grow flat. Selectively thin and train left to space what’s left to space the fruiting wood.

8. Don’t let pruning decisions inhibit you. There are always multiple acceptable decisions – no two people would prune a tree exactly the same. You learn to prune by pruning!

Two other important influences on tree size are irrigation and fertilization practices. Fruit trees should not be grown with lots of nitrogen and lots of water. Some people grow their fruit trees the same way they do their lawn, then wonder why their trees are so big and don’t have fruit. High density planting and summer pruning enable you to plant more trees, setting the stage for a longer harvest season. Choose early, mid and late ripening varieties to maximize your harvest.