



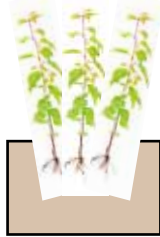
## Plant Several Trees In One Hole

Many families have less space for fruit trees, less time to take care of them, and they do not enjoy harvesting and storing them, than in the past. Small, backyard gardens should be planned and managed differently than those in large yards. The main objective of planting several trees in one hole is to add variety to the yard, and to extend the harvest of tree-ripe fruit, in a small yard. This means planting several varieties of fruit trees close together, which may ripen at different times.



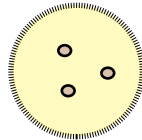
There is a sense of accomplishment and satisfaction in growing your own fruit, in growing new varieties of fruit, in producing fruit that is sweet and tasty, and in having fresh fruit during the summer and fall.

Many homes have less space available for fruit trees. If you want to grow a wide variety of 'tree-ripe fruit' in your small yard, you can accomplish this by planting two, three, or even four different varieties of the same type of fruit tree; all in the same hole.



Plant early, mid-season and late peaches together to extend your harvest season.

Plant 3 different varieties of apples together and enjoy more of a selection to eat.



Plant 3 different varieties of plums together for best pollination, without taking up the entire yard.

Don't plant different types of fruit trees together, it just doesn't work. Apple trees and peach trees have different growing and pruning practices. Cherry trees and plum trees have different growth habits. Pear trees and apricot trees require different spraying procedures.

### Combination Fruit Trees



Another option is to plant a single tree that has several different varieties grafted on the same trunk.

It's great fun to grow a tree with several varieties. Astound your friends with a tree that has different colors of fruit on the same tree.

Compared to single-variety fruit trees, multiple-variety trees require some special pruning practises.

- Spring Pruning: Cut back the strongest growing branches by two thirds. Cut back the weaker branches by one third. Do not prune the weakest branches at all.

- Do Not let one variety take over - or one or more of the others branches may die.

- Summer-prune regularly to let the sunlight reach all the developing branches. Prune back the more aggressive limbs in mid to late summer to stop unwanted suckering.

- Watch the growth-rate of the smaller limbs to determine if pruning is necessary. If the weakest variety is 1/2 the size of the others, it's best not to cut it back.

- The primary reason for the failure of combination fruit trees is letting one variety take over, which can cause the other branches to fail. This is most often due to lack of summer pruning, not spring pruning. Remember to allow sunlight to be reach all the developing branches.



- When older, maintain the multiple-variety tree so that each fruit-variety grows in balance with the other varieties. Older trees may require less spring pruning and more summer pruning to keep them in shape.

### Which is Best?

If you want the strongest trees, with the largest crop of fruit, and the easiest to care for, it is better to plant several trees in one hole than to plant one tree with multiple varieties. Each individual tree has its own root system. You will know which branches to prune and which branches to leave. Your trees will live longer than combination trees, and you will harvest more fruit.



### High Density Planting

Having three or four trees, instead of one, means you can harvest fruit for ten to twelve weeks instead of only harvesting fruit for two or three weeks.

Close-planting offers the additional advantage of restricting a tree's growth - trees won't grow as large when they are competing with other trees close by. However, you must monitor the trees closely, and prune them regularly, to help maintain their proper shape and ultimate size.

Planting several varieties can mean better cross-pollination. Pears, apples, plums and cherries, all produce better when a pollinizer is near by. Better pollination means a larger, more consistent harvest.

Keeping your trees small is the most important part of a successful backyard orchard. The goal is to maintain the



height of the tree low enough that you don't need a ladder for pruning or picking fruit. It does require a little more maintenance, but it's much easier to care for your trees, and you won't need a ladder.



## Planting Tips

Close planting works best when root stocks of similar types are planted together. For example, four trees having semi-dwarf root stock are easier to maintain than having one tree on a dwarf root stock, two trees on semi-dwarf rootstock and one tree on a standard rootstock.

Plant the trees 18" to 24" inches apart in either a triangle or square pattern. Plant the trunks slightly tilted away from each other

## Small Trees

Small trees produce smaller crops of full-size fruit. They are much easier to spray, thin, prune, cover with a net, and to harvest, than large trees. If trees are kept small, it is easy to plant a greater number of trees, affording the opportunity to plant more kinds of fruit, and to extend your fruit season.



Photo by: Starkbros-com-columnar-fruit-trees.jpg

Most semi-dwarfing root stocks do not control the fruit tree size as much as people expect; pruning is still a major part of keeping trees the size you want.

Different root stocks help trees adapt to soil conditions and climates. They help trees adapt to pest and disease conditions. They help increase the tree's longevity, and they make propagation much easier. No root stocks have been developed which do all these things, plus keep the tree extra small.

***"The more you want to control the size of your tree, the more effort it will take to maintain it"***

Keep your trees small - no taller than 6 or 8 feet. Trees are trained as "fruit bushes" rather than "fruit trees".

To keep the trees small, it is important to train them to the right size and shape when they're young. It is extremely important to maintain them by regular pruning; every year.

Promote scaffold branches close to the ground (12-18"). The most important time for this is when planting; head a tree 18-24" high to get it started right.

Open the interior of the tree to allow air and light to penetrate, the air helps promote good health, and light is needed for fruit to set and mature.

Summer pruning is necessary to control the tree size.



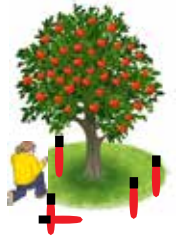
## Pruning

The only way to keep most semi-dwarf fruit trees under ten to twelve feet tall is by **PRUNING**. The most important method of pruning is **SUMMER PRUNING**.

When you plant several trees in one hole, the ultimate tree size is determined by you. Choose the height and

width you want and don't let the tree get any bigger.

A 'good height' is subjective. You might consider a 'good height' to be the height you can reach for thinning and picking while standing on the ground, or while standing on a low stool. A 'good width' should be determined by the size of your yard and the type of trees you plant.



Two very important influences on tree size are your irrigation and fertilization practices. Do not give fruit trees too much fertilizer, or extra amounts of water, when you are trying to keep them small. The rate of growth is directly related to the amount of fertilizer and water they receive. Some people grow their fruit trees the same way they grow their lawn; lots of fertilizer and lots of water. Then they wonder why their trees are so big, and why they don't have any fruit!

## Reasons For Pruning

Most kinds of fruit trees require pruning to stimulate new fruiting wood, to remove broken and diseased wood, to space the fruiting wood, to allow good air circulation, and to allow sunlight to penetrate through the canopy.



Pruning is most important during the first three years, because that is when the shape and size of a fruit tree is established. It's much easier to keep a small-tree small right from the beginning, than it is to make a large-tree small again.

A second pruning, at the same time as you are thinning your crop, is also recommended. By pruning when there is fruit on the tree, you can see the kind of wood that sets the fruit (one year old wood, two year old wood, spurs, suckers).

A basic rule of thumb is, '**Dormant Pruning (early in the spring) stimulates a lot of new growth; Summer Pruning does not; it helps to slow down growth new growth**'.

## Summer Pruning

There are several reasons why summer pruning is the best way to keep fruit trees small. Reducing the canopy by pruning in the summer reduces photosynthesis, thereby reducing the capacity for new growth. Summer pruning stops sucker growth. Summer pruning also reduces the total amount of food materials and energy available to be stored in the root system in late summer and fall. This controls amount of growth the following spring, since strong spring growth is stimulated by its stored foods and energy.



Basic summer pruning is: Cut the new growth by half in mid-spring and again in mid-summer. Do not prune late summer or fall - this may stimulate an unwanted late spurt of growth that will be tender, and may suffer from winter injury.

## Steps Of Pruning

Fruit tree pruning does not need to be complicated or confusing; pruning is simple. When planting a tree, cut the side limbs back about two-thirds to promote vigorous new growth. Then, two or three times per year, cut back or remove aggressive limbs and branches.

Prune each tree individually but keep the overall shape of your clump of trees in mind as you prune. Always try to keep each tree evenly balanced in relation with the other trees in the group.

**First year pruning.** When selecting containerized trees for planting, select trees with well-placed low scaffold limbs. These are usually trees that were cut back to force low growth. Cut back the new growth by half when you plant them, and then again in late summer.

Young trees may be topped at 18 to 24 inches to force very low scaffold limbs; or they may be topped up to four feet tall, depending on the existing side limbs, and the desired tree height and shape.

At planting time, be sure to cut back all trees to the same height. After the spring flush of growth, cut the new growth back by half (mid to late June). Cut back vigorous new growth in each tree as often as necessary, especially in the first two years. Do not allow any one variety to dominate and shade the others.

**Second year pruning** is the same as the first year; cut back new growth by half in spring and again in late summer. For some vigorous varieties, pruning three times may be the easiest way to manage the tree: spring, early summer and late summer.

**Third year.** Choose a 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 back or remove them in late spring or early summer; do not wait to dormant prune them in the early spring. Pinch back all new growth that follows; mid-summer and late-summer.

Size control and the development of low fruiting wood is very important now. The smaller one, two, and three-year old branches that bear the fruit should have at least six inches of free space all around them. This means that where two branches begin close together and grow in the same direction, one should be removed. When limbs cross one another, one or both should be cut back or removed.

If you start pruning while the tree is young, you should not have to do major pruning later.

**Fourth Year.** Try not to prune in the early-spring. Wait until after the flush of new growth and then remove as much new growth as needed to maintain the size and the shape of the trees. Pruning at least twice each year is the best way to keep trees to the size and shape you want, without stimulating excessive new growth.



To develop an espalier, fan, or other two dimensional form, simply remove everything that doesn't grow flat. Selectively thin and train what's left to space the fruiting wood. Again, it is essential that monthly inspection and pruning is done every year to maintain the size and shape of your trees.

Don't let the pruning decisions slow you down. There are always multiple ways to prune - no two people will prune a tree exactly the same way. You learn how-to-prune by pruning!

Remember, **'NO PRUNING is worse than INCORRECT PRUNING.'**

## Tree Ripe Fruit

'Tree-ripened' is the way to go for juicy, delicious, fruit! There is a special anticipation and excitement in growing-your-own, and tasting different varieties of tree-ripe fruit.

It can come from a brand new variety you just planted, or, it can be from an older tree you have grown for years, "This is the best Red Haven peach I've ever tasted".

Some plums and apricots don't ripen off the tree very well. The flavor, and the superb acid vs sugar balance of a tree-ripen Satsuma Plum, is well worth the effort to grow your own. The intense, uniquely flavored, high sugar, plum-apricot hybrids, (Pluots and Apriums) are hard to find anywhere but in a home orchard.

Pears are one of the few fruits which are best ripened off the tree. Even still, home grown summer pears, winter pears, and Asian pears taste better when you grow-your-own.

Many other varieties are also great for growing in small home gardens: True-Dwarf Bush Cherry Trees; Columnar Apple Trees; Peacotums (Peach, Apricot, Plum Hybrid); Genetic Dwarf Apple, Nectarine, or Peach; Plumcots; Cherry-Plums; Necta Plum; and Pluerry (Plum, Cherry hybrid) just to name a few.

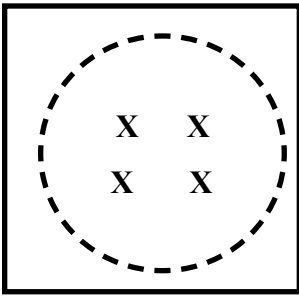
Please read our **'Fruit Tree Description Information Sheet'** for more information about the varieties of fruit trees you can choose.

## Rewards

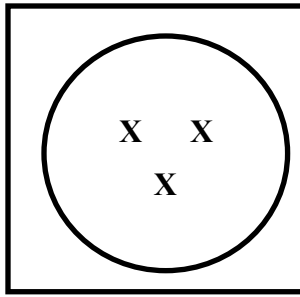
There is a definite sense of accomplishment and satisfaction, a special pleasure in growing your own fruit, in growing new varieties of fruit, in producing fruit that is unusually sweet and tasty, in having fruit over a long season, and in sharing your tree-ripe fruit with others.

These are the rewards of learning and experimenting with new cultural practices and techniques; the rewards of becoming an accomplished backyard fruit grower.

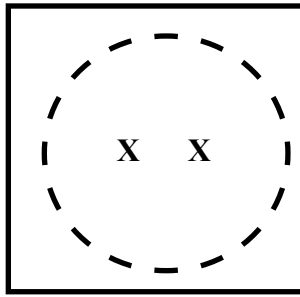




10' x 10' area. Four Trees in one hole. Plant 18" to 24" Apart



10' x 10' area. Three Trees in one hole. Plant 18" to 24" Apart



8' x 9' area. Two Trees in one hole. Plant 18" to 24" Apart

### More Resources:

Information Sources:

"What Is Backyard Orchard Culture?" Dave Wilson Nursery

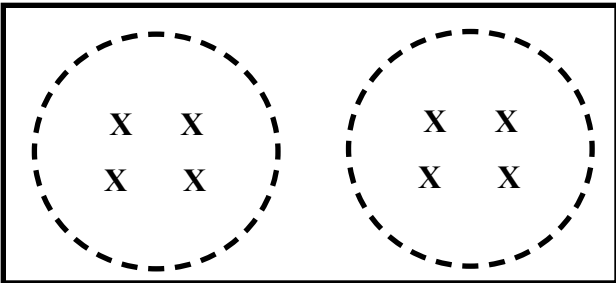
[http://www.davewilson.com/homegrown/whatis\\_BOC\\_09.pdf](http://www.davewilson.com/homegrown/whatis_BOC_09.pdf)

<http://www.davewilson.com/home-gardens/backyard-orchard-culture>

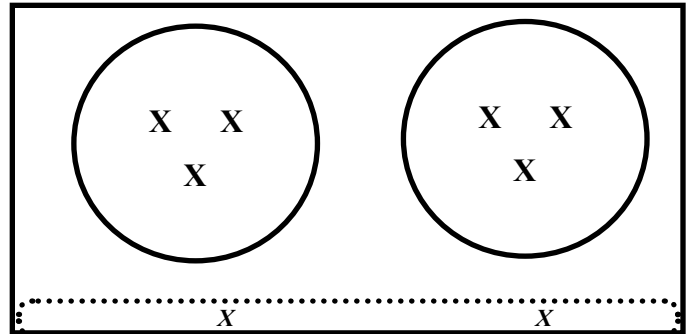
<http://www.davewilson.com/home-gardens/backyard-orchard-culture/high-density-planting>

[http://homeorchard.ucdavis.edu/The\\_Big\\_Picture/Harvest\\_&\\_Postharvest/](http://homeorchard.ucdavis.edu/The_Big_Picture/Harvest_&_Postharvest/)

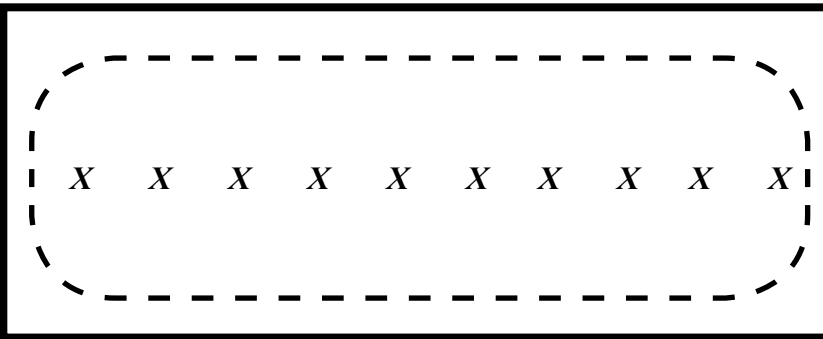
<http://extension.wsu.edu/maritimefruit/pages/harvestandstorage.aspx>



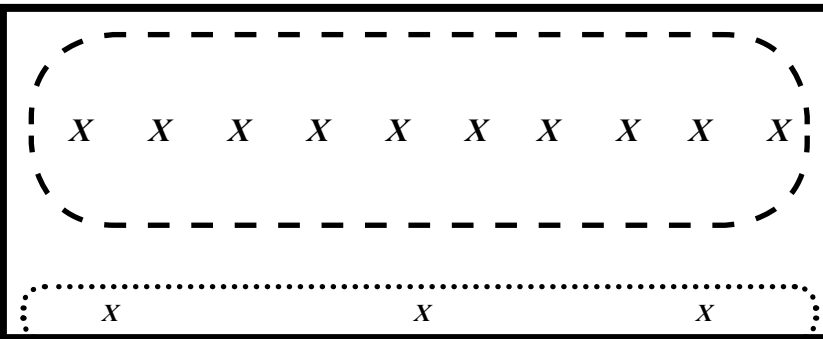
10' x 20' area. Four Trees in one hole. Plant 18" to 24" Apart in hole. Plant clumps 10' to 15' apart.



10' x 20' area. Two sets of Four Trees in one hole, plus 2 espaliered trees. Plant 18" to 24" Apart in hole. Plant clumps 10' to 15' apart. Plant espaliered trees 4' to 6' apart.



10' x 30' area. Plant 10 to 12 trees 3' to 4' apart as a hedge row. Or, plant 3 groups of Four Trees in one hole.



12' x 30' area. Plant 10 to 12 trees 3' to 4' apart as a hedge row plus three espaliered trees.

