

Pruning Grapevines in the Home Garden

Training the Young Grapevine

A young grapevine may have several shoots at planting time; do not prune these shoots off, but allow the plant to grow freely the first growing season. The first dormant season after planting, save the best shoot and cut all the others off. Begin training the shoot as a trunk by tying it to a support (arbor post, trellis post). Use flexible tape or other non-girdling material to tie the trunk. During the second growing season, when new shoots reach about 12 inches long, again select the most vigorous one and cut the others off at the trunk; continue tying the shoot to the support post. When the shoot reaches a point where you want it to branch (arbor top, trellis wire), pinch the top bud to force branching. While there are many variations in the way grapevines may be trained, two common and easy to maintain systems are the *bilateral cordon* system and the *head* system.



Bilateral Cordon System

At the level of the trellis wires, let two strong branches grow in opposite directions, and pinch any others at 8 to 10 inches long. During the third dormant season, cut off all side shoots, leaving only the trunk and the two major branches (called cordons); tie the branches to the arbor top or trellis wire, with the ends of the branches pointing up. During the third growing season, let the vine grow; pinch off the tips of shoots that grow along the trunk. After this, you will begin pruning to produce a crop, using either the long cane or spur method (see Figure 2).

Head System

When the trunk has reached the appropriate height—usually just below the trellis wires—save four shoots that are growing at nearly the same level for permanent branches. Cut these shoots back so that they are approximately the same height as the trellis wires. Cut off all other shoots. During the third dormant season, cut off the side shoots, leaving only the trunk and the four major branches (like the cordons described above, these branches become permanent extensions of the trunk). Continue to support the trunk by tying it to the trellis post. After this, you will begin pruning to produce a crop, using either the long cane or spur method (see Figure 1).

(Note: the training process may take more or less time than described above, depending upon the vigor of the vine and the height of the trunk).

Pruning to Produce a Crop

Grapevines need to be pruned each year to produce large, good-flavored fruit and to maintain vigorous growth. You should normally prune your vines in winter, after they have lost their leaves and are in a dormant condition. If you are in an area where spring frosts are common, you may want to wait until the new growth just starts. Pruning at this time delays growth of the remaining leaves and shoots, and may help to prevent frost damage and disease infection.

Grapevines bear their fruit on one-year old canes that grew last season. They are easy to identify because they have smooth bark and a light yellowish-brown color. The older wood on your vines is covered with rough, dark brown bark.

Some new canes grow directly from the old wood. These are called "suckers" or "water sprouts" and should be cut off as close to the old wood as possible.

There are several methods of pruning grapevines, depending upon the grape variety. The most common method used in home gardens is the *long cane* method, because it can be used on such popular garden varieties as Thompson Seedless, Black Monukka and Concord. The other method, called *spur* pruning, is used for many wine grape varieties and some table grape varieties such as Emperor and Flame Seedless.

Long Cane Method

Using the long cane method, your first step is to select several new fruiting canes (one-year old canes) to bear next year's crop. The number of fruiting canes you leave on your grapevine should be determined by the age and vigor of the vine. If your vine is young or weak, save only one or two canes; leave three canes on vines of intermediate vigor, and four to six canes on the most vigorous vines. In order to keep your vine compact, try to select fruiting canes that originate close to the main trunk. Cut the ends off the canes you've selected, leaving 10 to 14 buds on each cane. Near the base of each cane you chose for fruiting, find another good cane. Cut off most of it, leaving it only two or three buds long. These are called "renewal spurs", and they will produce fruiting canes that you will be able to use next year. Your last step is to cut off everything else that remains on the vine.

When you have finished, you should have a vine with two to six canes about three feet long apiece, each having 10 to 14 buds. It should also have an equal number of short renewal spurs, each two or three buds long. If you are using wire trellis, wrap the fruiting canes around the wires and tie them near the ends.

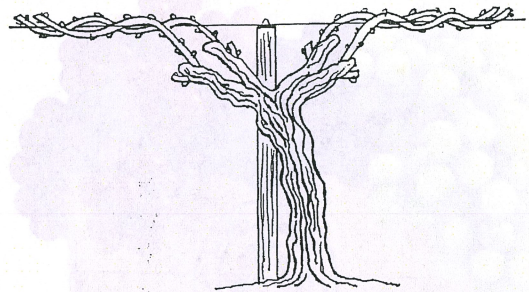


Figure 1. Grapevine trained to head system and pruned using the long cane method (note the renewal spurs at the base of the fruiting canes).

Repeat the same process each year afterward. Select new fruiting canes and renewal spurs from canes that grew on the renewal spurs you left this winter. Use the uppermost canes on these spurs for the new fruiting canes, and cut back the lower ones to form renewal spurs.

You can also use the long cane method if you grow grapes on top of an arbor. Train the main trunk up the side of the arbor. Save up to six canes on top of the arbor, as well as two to six renewal spurs.

Spur Method

For this method, cut a number of fruiting canes (one-year old canes) back to short spurs, with two buds on each spur. Space the spurs six to ten inches along the cordons. Keep a total of 12 to 28 buds on mature vines.

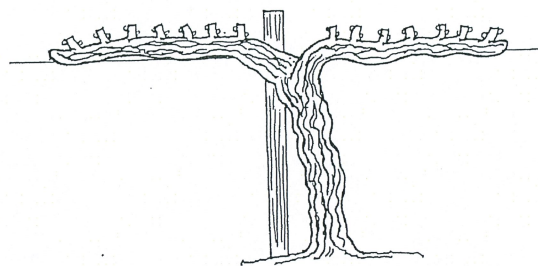


Figure 2. Grapevine trained to bilateral cordon system and pruned using the spur method

Fruit Thinning

If you do not remove enough fruiting canes and spurs the previous winter, you'll have too many bunches of small, low quality grapes. You can improve berry size and rate of ripening by removing some fruit clusters in the early summer. Thin the number of clusters to one per shoot when the grapes reach the size of a match head.

Variety	Type of Pruning	No. of Spurs or Canes per Vine	No. of Buds per Spur or Cane
Black Monukka	Cane	4-6	12-14
Cardinal	Spur	12-14	1
Concord	Cane	4-6	12-14
Emperor	Spur	12 (24 on old vines)	2
Flame Seedless	Spur	12-14	2
Muscat	Spur	12-14	2
Perlette	Spur	12-14	2
Ribier	Spur	12-14	1
Thompson Seedless	Cane	4-6	10-14

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