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Pruning and Training Grapes in Oregon



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Pruning and Training Grapes in Oregon

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The productivity of grape plants depends to a great extent on correct pruning and training. No other single practice is more important!

Before You Prune

Before pruning or training, one should understand the fruiting habit of grapes and have a clear understanding of the objectives of pruning. Grape clusters grow on current-season leafy shoots that arise from buds which are borne laterally on woody canes produced the previous season. Thus, the fruit produced is dependent on the vegetative growth of the previous year as well as sufficient current season growth to nurture the fruit to maturity.

The purpose of pruning is to regulate fruit production and keep it in balance with the foliage and wood growth. In general, the more cane growth that is produced, the larger the potential fruit yield the following year. Conversely, the larger the fruit yield, the smaller the amount of vegetative growth and the smaller the fruit potential for the following year.

Training involves manipulating or directing plant growth to the desired shape or form. Whereas commercial growers are primarily concerned with high yield and quality, the home gardener may be concerned also with the aesthetic value of the grape plant. Proper pruning and training will assure a consistent yield of high-quality fruit as well as improving its use as an ornamental plant.

Pruning and Training Starts at Planting

Pruning and training should start at planting in order to speed development of the plant and lessen the problems of training the mature vine. At the

time of planting, the top growth of rooted cuttings should be pruned back to two buds. The top growth that occurs the first year will need little attention—the main objective is to develop a well-established root system.

Before the second-year growth starts, supporting stakes or trellis wires should be in place (see figure 1). If a training system of trellis wires is to be used, then it is most convenient to erect a trellis at this time and train the young vines up a string attached to the wire. If stakes are used, they should be sufficiently durable to last six to eight years, since it takes this long for the plant to become self-supporting. During February or early March, before the growth starts the second year, top growth should again be pruned back. Leave two well-formed buds on the most prominent new cane.

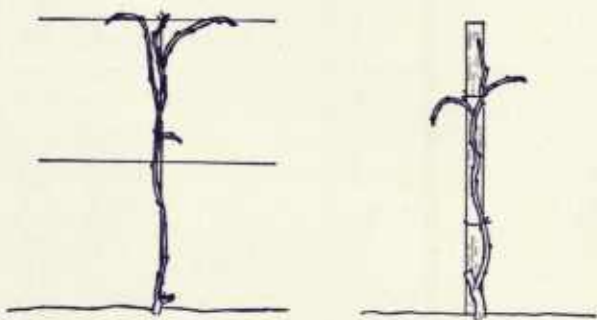


Figure 1

During the second growing season, secondary shoots and side growth should be pruned away to encourage development of a single dominant shoot, later to become the main trunk of the plant. When the main shoot reaches the desired height, its tip should be pruned off to encourage lateral growth. This stage of development is normally reached in the second or third year. From this point on, it is a matter of selective pruning and shaping the vine to the desired system.

Select an Appropriate Pruning System

There are a number of different pruning and training systems, each with its advantages and disadvantages, depending on variety and location.

The following discussion is restricted to the most common ones.

1. *The Four-Cane Kniffin System*

The four-cane Kniffin system is commonly used for American bunch grape varieties such as Concord, Campbell Early, Buffalo, Fredonia, Van Buren, Delaware, and others. In this system, one-year-old canes are trained on two wires, as indicated in figure 2.

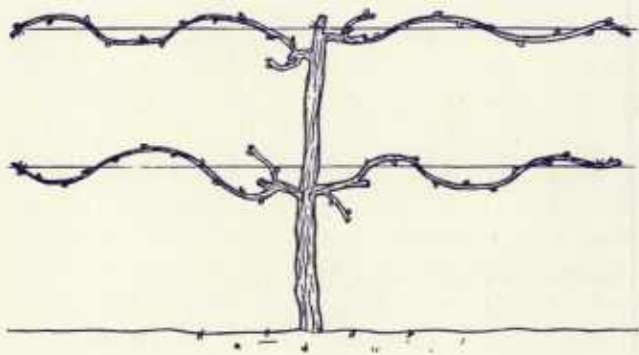


Figure 2

Select canes that originate on or near the trunk and are approximately the diameter of a common lead pencil. Select canes that are uniform in diameter and free from pest or mechanical injury. A mature plant with vigorous growth can support canes with up to 60 buds, 15 on each of the four canes. For young or less vigorous vines, leave shorter canes with fewer buds. Four renewal spurs with two buds each should be left to assure a good supply of well-spaced canes the following year.

2. *The Umbrella System*

The umbrella system is also used for American bunch grapes. Two to four one-year-old canes from the upper part of the trunk are bent over the top wire and tied to the bottom wire, as shown in figure 3. The same varieties and general considerations discussed for the Kniffin system are applicable for the umbrella system. One advantage of this system is that it uses canes originating near the top of the plant, which are normally the most productive.

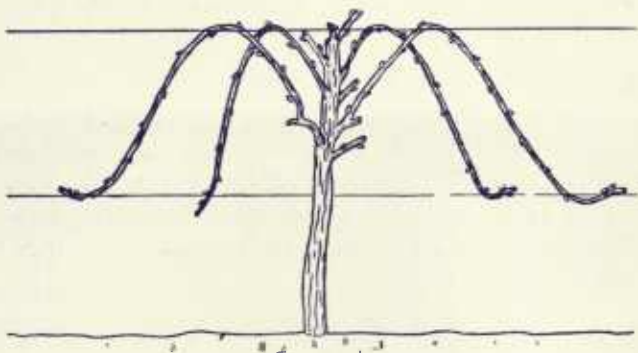


Figure 3

3. *Cane Pruning System*

Cane pruning is a commonly used method of pruning European wine grape varieties. Cabernet Sauvignon, White Riesling Sauvignon blanc, Pinot noir, and Thompson Seedless are varieties that respond well to this pruning system. A single trellis wire is used to support two to four canes with a total of 20-30 buds. Two well-spaced canes should be cut back to two buds forming renewal spurs for cane growth the following year (see figure 4).



Figure 4

4. *Spur Pruning*

Spur pruning is a system also used with European varieties. Spur pruning is best adapted to varieties that bear most of their fruit near the base of the canes, such as Zinfandel, Grenache, and Pinot blanc. Leave three to six spur canes at the top of the vine with two to four buds each.

Larger, more vigorous spur canes will support the larger number of fruit buds. (See figure 5.)

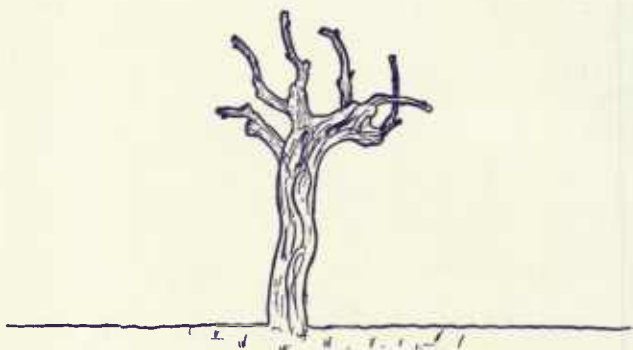


Figure 5

As a Landscape Plant

Grapes are effectively used on arbors and as ornamental vines on supports such as fences and lattice frames. The primary objective of pruning and training such plants is to develop the plant to a shape or form which creates the desired landscape effect. The considerations suggested for the above pruning systems should be followed only when it is consistent with the plant's landscape function. It is most important that the vines be pruned annually, otherwise, an unsightly and unproductive maze of brush develops!



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