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Table grapes for the home garden

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Quick Facts

- Grapes may be grown in Colorado if care is taken to select hardy varieties.
- American table grapes (Concord) and their hybrids are relatively winter hardy.
- European grapes generally are less winter hardy and are suited to Colorado's mildest areas such as the Grand Valley.
- Grapes require fewer nutrients and less water than turf, fruit trees or garden plants.
- Certified clean stock, free of viruses and phylloxera (a root insect) and on their own roots (not grafted) should be used.
- Fruit is borne on shoots arising from buds on canes grown from the previous season; proper training and pruning are essential for annual fruit quality.

Grapes of various types may be successfully grown in parts of Colorado although their general care is different than many other plants. Colorado's climate is not especially favorable for grape production thus care must be taken in selection of a particular variety for a particular locale.

Types

The native American grape species (*Vitis labrusca* and others) are relatively winter hardy as are many hybrids with partial American parentage. The European grape species (*Vitis vinifera*) exhibits a wide range of winter hardiness but is more tender than American types. They are suited only to the mildest climates in Colorado such as that in the Grand Valley.

Varieties

There are many varieties of grapes available.

The following represents a few choices for Colorado home gardens listed in approximate descending order of winter hardiness. Those followed by the letter E might ripen early enough to be usable in parts of the state with shorter growing seasons.

American and hybrids: Beta, Valient, Concord, Himrod, Interlaken (E), Golden Muscat, Suffolk Red, Lakemont.

European: Muscat (various types), Flame Seedless, Thompson Seedless, Perlette (E).

Site Selection

Grapes will do best if planted on deep (3 to 5 feet) well drained soils with moderate salt levels. The optimal site receives full sun and is on sloping ground to avoid frosts. Grapes require fewer nutrients and less water than turf, fruit trees or garden plants and thus should be planted so that they do not accidentally receive the same treatments as these other crops. Fertilization often is unnecessary in normal soils and is best added only in response to symptoms should they appear. Before planting, any hardpan soil should be broken and trellis supports should be in place.



Planting

It is easiest to plant one-year-old, dormant, own-rooted vines available from nurseries or propagated from cuttings. Vines should not be grafted to other rootstocks since the vine will re-

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grow from below ground on its own rootstock if winter kill should occur in the above-ground wood. Use only certified clean stock, free from viruses and phylloxera (a root insect).

A mature vine easily can utilize 72 to 100 square feet of ground. Dig a sufficient sized hole to accommodate the root system and place the vine so that the bulk of the roots begin 12 to 14 inches below ground. Shallow planting leads to winter killing because grapes change hardiness based on soil temperature. Planting is most successful between March and May, before high temperatures occur. The first season, young vines should be watered consistently with an emphasis on deep water penetration; they should not be kept wet, however. The first year's growth is needed to form a good root system. After leaf fall the vine is pruned to two buds and covered with mulch for the winter.

Training

During the second season, a strong shoot should be selected for training along a sturdy upright stake as it grows. The other shoots and subsequent suckers should be removed. It is critical that the trained shoot be straight so that the mature vine will be able to support its crop. When the shoot reaches 12 inches above the desired height (usually 3½ to 4 feet) it should be cut through a node and securely tied to the stake at that swelling. During this second season, watering should be similar to the previous season except that the soil should be allowed to become fairly dry in the late summer to harden off the shoots. Depending on the vigor of the vine, two to eight two-bud spurs can be left at pruning time (March-April).

Maintenance

Beginning the third year, fruit will be borne on shoots arising from buds on canes from the previous season. The number of buds left at pruning varies but should be around 50 to 60 on a vine of average vigor. Most varieties do well if two or three 15-bud canes are retained and attached to trellis wires or other lateral supports. The same number of short renewal spurs should be retained (two to three buds each) to produce canes for the following season. See Figure 1.

Grapes will have the best winter survival if they are given enough water to grow well in the early season, are dried somewhat near harvest (but not severely stressed) and then given a final irrigation after the first frost to prevent winter dessication.

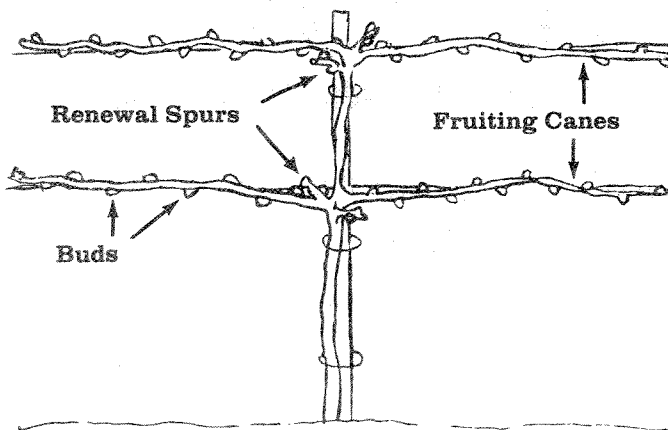


Figure 1: Grape trellis showing a dormant vine trained to a 4-arm kniffen system.

Diseases and Insects

Powdery mildew (*Uncinula necator*) is the most important disease of grapes in Colorado affecting yield and winter hardiness. Early season applications of sulfur as a dust or spray at 6, 12 and 24 inches of shoot growth, followed by additional sprays concentrating on the fruit every two weeks will prevent this damaging disease. One-year-old and two-year-old vines of susceptible varieties also should be sprayed. The variety Concord and several American type grapes do not suffer from the disease and should not be sulfured.

The grape berry moth occasionally is a problem, especially on American grapes. Individual berries shrivel when penetrated by this small moth larvae. Diazinon insecticide will control the pest. See label for specific recommendations.

Yield

Depending on variety, grapes will yield 10 to 40 pounds of fruit per vine. Time of harvest is best gauged by fruit color and taste.