Grape Culture in Oregon

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Growing grapes in Oregon is not big business when you consider the number of acres involved. It is very hard to add up the small plantings, but they probably would not exceed 300 acres. Grapes, for commercial or domestic use, have not been grown extensively in Oregon because of our cool weather. Most grape varieties mature best in a hot, dry climate where the nights are warm.

We do have thousands of home plantings of grapes, involving two or three plants up to an acre, where the interest is in some fresh fruit, juice, jelly, jam, wine, or possibly a cool arbor planting.

The European grapes (Vitis vinifera) are best grown in areas where winter temperatures run 350 to 50° F. and summer temperatures 70° to 85° F.

The American grapes (Vitis labrusca) are more suited to Oregon climate; the early, more hardy varieties are grown for our limited production.

Nursery stock

Oregon nurseries usually grow or at least carry a stock of desirable grape varieties. Some of the better varieties for use of Oregon growers are:

Dark red varieties
- Alden—Large, reddish-black grape with mild flavor
- Athens—Large, blue grape; similar to Concord in flavor
- Hamburg—A purple grape of mild flavor and sugar content
- Van Buren—An early Concord type

White grapes
- Muscat Otonell—Mild flavor, medium acid and sugar content
- Perle De Couno—High sugar and low acid content, early ripening
- Siebel 13342

Red grapes
- Black Prince—Rich red color and high sugar content
- New York 12997—A good-quality dessert grape with sweeter flavor
- Red Charlotte—A pink grape of mild flavor
- Siebel 8746, 8745, and 13053—Similar to red grapes

Golden grapes
- Muscatella—A good dessert grape
- Red Mountain—Good for jam and jelly

First-year, top-quality plants are the most desirable to use. A well-rooted, medium-sized plant is equal to a large plant and better than a small one. Healthy roots and tops are essential for a rapid start and for growth of the grape plant.

Propagation

Most vines of American bunch grapes are grown on their own roots. Plants are started by rooting cuttings made from the previous season's growth. Mallet cuttings or those made using a small heel of the previous season's growth will root readily and make good nursery stock.

Cuttings are made into small bundles, with buds all pointing in the same direction. Prior to planting, store bundles in a well-drained trench or cool cellar; cover them with sand, sawdust, or other material to prevent them from drying out.

The nursery soil should be well prepared, fertilized, and free of weeds. Cuttings are planted in the early spring 4 to 6 inches apart in a row, leaving one bud above ground.

Sometimes strong rootstocks are used and budding or grafting done. Nematode, phylloxera, or weak growth might be a problem. This might be a way to lessen injury. The whip and tongue, cleft graft, or bud graft are used.

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Planting grapes

The fertility and depth of soil and the availability of water will largely determine the space given and the vigor of the vines planted. Yield increases until the plants start to compete with each other for space, nutrients, and water. Slow-growing plants are usually set 8 to 10 feet apart, the weaker ones 7 to 8 feet apart.

Plant only strong, healthy plants and set them at about the same depth as they were in the nursery or slightly deeper. Prune to a single cane with two or three buds.

Supporting the vines

It is normal to set posts twice as far apart as the grapes are planted. Setting the posts between the plants rather than next to them is desirable. Posts are usually treated, and the treating materials often are detrimental to grape plants. Posts must be strong and durable because of the weight involved and also because of the wind resistance offered by the foliage.

Two heavy wires are normally used. The top one is about 44 to 5 feet high (No. 9 wire is desirable). The lower wire should be about 30 inches high (No. 11 wire can be used).

Training and pruning

The most popular system for training American grapes is called the Kniffin system. It gives a good production, is simple to use, and requires no tying during the summer. This system consists of a standard with four canes. Two canes on opposite sides of the trunk are left at the 30-inch level and two at about the 44- to 5-foot height.

In pruning, the idea is to limit the number of fruit-producing buds. This, in turn, limits the number, size of the clusters and the quantity and quality of the fruit.

The middle buds on a grape cane produce more fruit than those at either end. The medium-sized canes will produce more and better fruit than the weak or excessively strong cane. Fruit is produced on the growth of the current season.

Pruning should be done in the late winter or early spring after danger of severe freezing has passed. This would usually be late February to early March in western Oregon, and somewhat later in the colder, colder areas of the state.

The amount of water which will vary with the vigor of the vines. A good method to guide pruning is: leave 30 to 40 buds left on the first pound of the past season’s wood removed. If irrigation is available and the amount of canes can be greatly restricted to bring the new wood into production. The old trunk can be removed during the third winter, and there need be little loss of production.

Treatment of frost-injured vines

Late frosts may injure the new growth of grapes. When this occurs, remove all new growth once Grape buds are a compound; when something happens to the first growth and it is removed, a second bud develops in an internal bud of the cane. If a second bud forms, this new growth is often short. A single crop is possible than if growth is long. If the primary injury is slight, it may be left on, little or no crop will be produced. When only part of the growth is injured, it only partial stripping is done, the uninjured parts will carry a large and an ishaped vine will develop. These plants are hard to prune properly the pruned wood. Part of the shoots are severely injured, it is necessary to remove all shoots and get a secondary growth capable of producing a good partial crop.

When the growth is long and only the tender terminals are injured, the flowers may open in an apparent normal manner but will shed with only a small set. When this happens, leaving the injured growth alone would probably be just as satisfactory as stripping all new growth and getting a partial crop from the secondary growth.

Cultivation

Grapes respond to cultivation, especially during the early part of the season. Do not work the soil more than 3 or 4 inches deep or there will be excessive root damage which is detrimental to the vines.

Fertilization

Nitrogen fertilizers stimulate weak vines and should be used in large enough quantities to get a strong, healthy growth. If nitrogen is used in excessive amounts, the plants are weakened and fruit set will be light and poor in quality.

Disease control

Powdery mildew is the main thing that needs to be controlled on grapes in Oregon. To do this, turn under or destroy old leaves before new growth appears. Spray the vines, while dormant, with one part lime sulfur to nine parts of water. Use sulfur dust or spray with wettable sulfur as new shoots are 6 to 10 inches long, just prior to blooming. Just after blooming, after berries set, when berries are half-grown, and just before they ripen.