

Growing Table Grapes in Cool Summer Climates

If you would love to grow grapes for eating, juicing or making into raisins, all you need is a little room and lots of sun. In our cool summer climate, there are many varieties that perform quite well, ripening from September through October. Some considerations for growing grapes are the same for table or wine grapes:

Soils - Grapes prefer well-drained, sandy or gravelly soils. In generating the heat that grapes need to be productive, air temperature is not the only factor. Soil heat retention ability plays a major part in the ripening process. As a general rule, heavier soils are colder soils, and it is well worth the effort to increase your soil's heat retention ability if you can. To maximize your soil's heat retention ability, mound up the soil for each plant, 4"-6" in elevation; either in a 3' mound or down the grape row in a domed raised bed 4"-6" tall and 2'-3' wide. If your only choice is to plant in heavy soil, choose early ripening varieties such as Interlaken, Canadice, Lynden Blue and Jupiter. Our catalog lists the general ripening order. Remember, the later ripening varieties will require the warmer sites.



Mulches - Grapevines will not compete with grass or heavy weed pressure in their early years. If you want to mulch your vines here are a few things to consider. Organic mulches are unsuitable for grapes, as they cool the soil. Dark colored landscape fabric mulches will help warm your soil up as well as keep weeds down, but can provide cover for field mice, which can girdle the plants. If using landscape cloth under plants during the growing season, removing it late fall should minimize rodent impacts. Dark gravel mulches will also work. If you have rocky ground, piling the rocks under the plants will help hold the heat throughout the growing season. Do not underplant grapes with groundcovers, as they also will cool the soil.

Nutrition - Grape plants will grow typically with high vigor in our climate. The reason is high organic matter in soils and adequate water through the growing year. Shearing canes once will typically keep the vines in optimal position. Use only very low rates of nitrogen fertilizers after the first year.



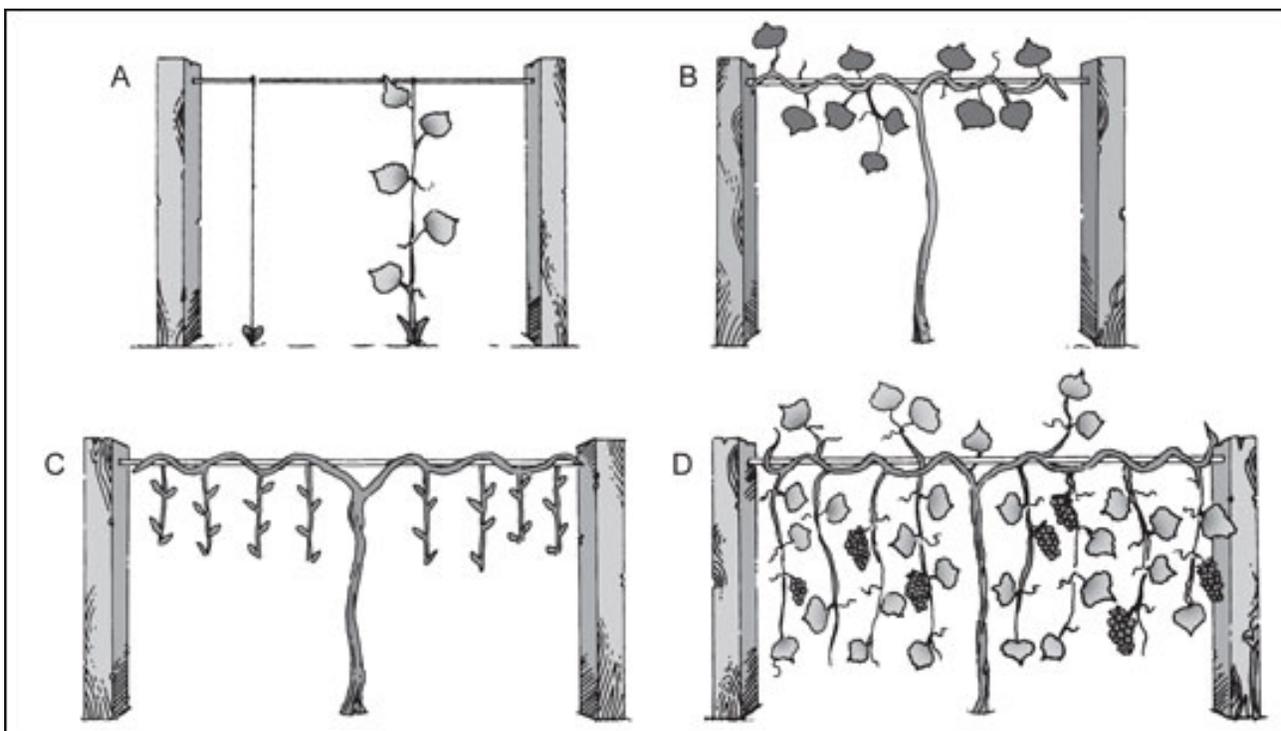
Dormant grapevines

Because of their aggressive growth habits, grapes will create nutrient demands on the soil. Annual applications of lime and Azomite or Sulpo-mag with micronutrients are going to be important for successful cropping. Grapes grow best with a soil pH of 6.8 or higher, so liming annually is a must in our climate. Irrigation is important mainly in the first year. Most sites do not need irrigation after the first year. If terminals (tips of shoots) are actively growing, the plants do not need water.

Training Systems

Most table grapes are grown on their own roots and are very vigorous. They benefit from a training system that produces more older wood than straight cane pruning.

One of the easiest training systems for table grapes is the **Single Curtain System**. Immediately after planting a dormant vine, remove all but the straightest cane (shoot). This remaining cane will be the foundation of the vine's trunk, so selection of the straightest, upright cane will be beneficial. Cut this remaining cane back, leaving only two to four buds. Use a rigid stake placed alongside off the plant and tall enough to tie to the load wire, or tie a string from the base of the plant, near the soil surface, to the load wire.



Single Curtain System year 1-4

Vine Establishment

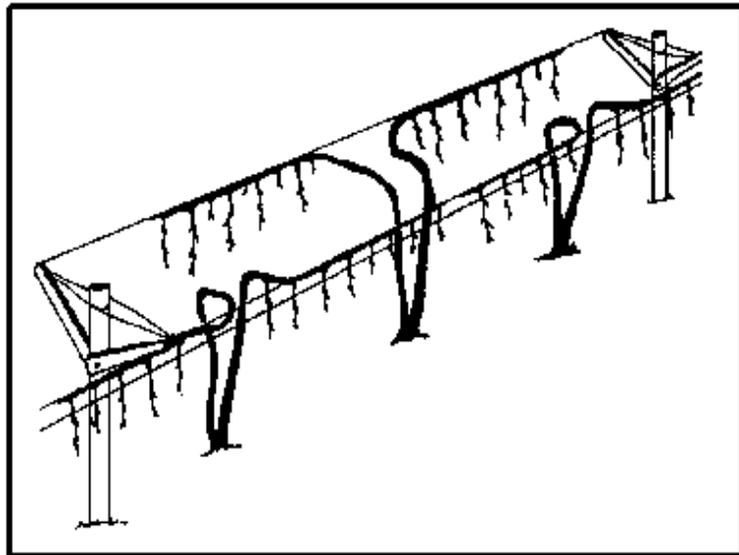
- a) In the first year, train the strongest 2 shoots up the string or stake and remove all other shoots. When the vine reaches the trellis load wire in year one or two, allow the shoots to grow upward through the end of the year. Wait to tie shoots down to the wire until the dormant season. Our recommendation is to prune your vines in late winter, mid-January or February. Grape vines break dormancy and their sap begins to flow early in the year, so pruning later in the spring will lead to sap "bleeding". When your vines reach the load wire (5'-6') prune or pinch the terminal of the shoot you plan to keep 3"-4" below the load wire. This will allow more or less equally vigorous terminals (shoots) to push and fill in the allocated space on the wire. Train and tie the two lateral branches to the wire to form two cordons. Wrap the canes loosely around the wire beginning with the first wrap going over the top of the wire. This is so the wire is holding the

weight needs few ties. Usually with wrapped canes only one tie is needed at the end of the cane. Remove all flower clusters in year two.

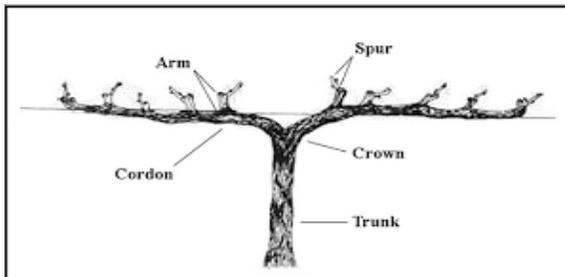
- b) During the next dormant season, in early March, prune the lateral growth on the cordons. Select 1-year-old canes spaced 6 to 12 inches apart along the cordon to form the spurs. You do this by cutting canes back to three to four buds.
- c) In later years leave renewal spurs when you can (these are shoots that push from the basal bud the year before). Cut each renewal spur back to two to four buds. After the danger of frost has passed, growth from one or two buds per spur can be removed leaving 1-2 floriferous canes per spur if vines are growing vigorously and were undamaged by low temperatures. Remember maintaining a curtain of 3-5 canes per foot will give you the best results. Generally, during the third growing season, growth from the lateral-growing cordon produces the "curtain".
- d) If vines are spaced 8-12 feet apart, each cordon should be maintained at a 4-6-foot length. Position the growth from the cordons downward during the growing season, and allow only one cluster of fruit to set per cane during this year. In following years, eliminate the old spurs during dormant-season pruning and use renewal spurs to develop the curtain.

Another promising system that could be more productive is the **Geneva Double Curtain, GDC**, developed decades past by Cornell University. Geneva Double Curtain or GDC trellis design consists of a horizontally divided canopy. The goal of the GDC system is to manage a dense canopy by dividing it in two, allowing more sunlight to reach the fruit renewal zone.

With this system, grapevines are trained from the trunk to bilateral cordons and pruned to retain short canes originating preferably in the lower 180 degrees of the cordon. Shoots are also positioned downward creating a canopy that has the appearance of two "curtains" on each side. Cross arms, usually four feet in width, separate the cordon support wires. This division in the canopy increases sunlight exposure while reducing canopy density. Proper shoot positioning must be maintained to keep the canopies separated and to allow sunlight to reach the fruiting region.



Geneva double curtain training system



Upright spur cordon

Some varieties of table grapes, including Jupiter, can also be grown with an upright cordon spur pruning method. In this system, cordons are trained along a low wire, with upright spurs. These spurs are two to four buds each. When the shoots emerge each spring, they are thinned to no more than 3 shoots per running foot of cordon. Usually the outer buds on each spur are more productive than the inner buds. The shoots are trained upright, and catch wires hold them in position.

Managing canopy and grape clusters

- a) Going through your vines pre-bloom to reduce the number of clusters is important. Poor fruit set occurs for a number of reasons
 - a. Rain during bloom can play havoc on cluster fullness. Many varieties that we offer seem to set full clusters no matter the weather.
 - b. Leaving too many clusters on your plants will delay the ripening times in all varieties. Start by leaving 1 cluster per cane and see when the ripening time occurs- this will give you guidance in future years on what is an appropriate cluster set per plant for your site .
- b) Cane growth every spring will push hard and in most years your canes will begin to extend to the point gravity will prevail and force the canes to droop towards the ground. You can encourage this by carefully bending these shoots in a downward direction. It is important that the shoots have the capacity to grow 4'-5' each year. We summer prune our vines to keep the canes 12" above the ground. This pruning is usually done in July or early August.
- c) Just after fruit-set by several weeks and then again at the beginning of veraison (berry color change) we go through and untangle canes and make sure all clusters are free of being tangled up with other clusters and canes. This exercise will give you beautiful clusters during harvest.
- d) Leaf Stripping is done to maximize sun exposure on the grapes. The warmer the cluster the earlier the fruit ripens. Full sun exposure also brings out the "true" fruity character of the variety, where grapes grown in the shade will often highlight the more undesirable vegetative flavors. Strip all leaves that are shading the grape clusters as soon after fruit set as possible. It will seem like a lot of leaves, remember the vines will grow more.
- e) Pest Management- The wonderful thing about growing table grapes is there aren't significant diseases or insects that bother grapes grown in Western Washington. Birds and raccoons are the biggest pests, so netting the grapes as they approach ripeness is important.
- f) The cordons require periodic renewal, especially if one has been severely injured by low temperatures, insects or disease. Simply train another well-positioned shoot that arises near the base of the old cordon on the trunk, grow the new shoot for a year, and remove the old cordon the next year.

Final Grape Growing Tips:

- a) Shoot thinning is very important to reduce foliage and increase air circulation and light penetration in the canopy. There should be no more than 3-5 shoots per foot of cordon.
- b) Berry set per cluster declines as number of clusters increase. Each site will vary in its abilities to set crop size. For this to work clusters should be thinned when they reach 8"-10" long.
- c) Cluster thinning is done well before bloom, thinning happens during rachis development (cluster). Thin to 1-2 clusters per shoot. When thinning clusters out, save the basal cluster and prune out those higher up on the cane.
- d) Reducing cluster size will also play into improving crop and shorten the ripening period.
- e) With large clusters cut out shoulders or even tail of the cluster. With varieties that have problems with berry set this will improve fruit set significantly. Timing for this is thinning activity is when fruits are smaller than peas.
- f) Prune back the vigorous canes that touch the ground or are shading the grapes during the summer. As the season for ripening approaches, you may also want to remove some of the foliage to allow sun to reach the fruit.
- g) In cool years, rigging a high tunnel with hoops and greenhouse poly over your grape trellises can hasten ripening and also prevent rain from splitting the ripening fruit.