

Trellis Construction to Grow Fruit

Culture of grapes in the Northeast requires a sturdy trellis for the support of the vines and fruit. The growth of other fruit, such as dwarf apples and pears, can benefit from training on a trellis as well. A trellis supporting a grape vine or other fruit tree can be very attractive. Further, it provides an alternative to a fence frequently found dividing properties and it can create attractive and private areas within the landscape. Many types of trellises can be constructed ranging from the simple to the very complex. The purpose of this article is to give instructions for the construction of an effective and simple vertical trellis that can be used to support grapes or to train and support dwarf fruit trees.

Construction of a conventional trellis is similar to constructing a farm fence. The trellis structure must be substantial enough to support the vine or tree with a heavy crop and withstand strong winds near harvest.

Time of construction

A trellis can be constructed at any time of the year. However, since vines or fruit trees should be supported soon after they are planted, the trellis should be in place prior to spring planting. The fall is an ideal time to plan and construct a trellis.

Trellis components

Line posts. The minimum height of a trellis is 6 feet. Generally posts are selected that are 2.5 to 3 inches in diameter and they are set in the ground 2 to 3 feet deep. Therefore, a post 8 to 10 feet long should be purchased. We recommend that only pressure treated posts should be used. Untreated posts will rot after several years. It would be very difficult to reconstruct a trellis that is supporting mature vines or trees.

End posts. End posts bear the greatest amount of weight and therefore we recommend that they should be at least 3 to 3.5 inches in diameter. Like the line posts, we suggest that they be 8 to 10 feet long and be pressure treated.

Anchor. End posts frequently loosen under the weight of vines or trees. We suggest that an anchor should be used. Auger types are commercially available but cinder blocks buried in the ground or pressure treated posts set at an angle in the ground are less expensive alternatives. The end post should be attached to the anchor with no. 11 galvanized wire.

Wire. Generally two wires but occasionally three are used. The top wire supports the greatest weight and should be the heaviest. Number 11 galvanized wire is suggested for this top wire. The second and third wires support less weight so a smaller diameter no. 9 wire is recommended.

Trellis construction

Usually 3 grape vines or dwarf trees spaced 7 to 8 feet apart are planted between posts. Therefore, interior posts are placed between 20 and 24 feet apart. It is important that these post are set deep enough so that they will provide solid support for vines or trees. Wire is installed in one of two ways. The first way is to attach the wire to the post with fence staples. If this option is selected, it is important to put the staples in on the side of the prevailing wind so that the wire is

pushed into the post during times of heavy wind. It is equally important not to pound the staple all of the way into the post so that there is space for the wire to move as it expands and contracts with changes in the temperature. The second method of attachment is to drill holes in the posts and pass the wire through the posts. The lowest wire is placed 3 feet above the ground and the second is placed 5.5 to 6 feet above the ground. If 3 wires are used the lowest is set 30 inches above the ground, the top is placed at 6 feet and the third is intermediate between.

Trellis maintenance

Maintaining proper wire tension is important. Each spring, wire should be tightened. Turnbuckles or ratchet tensioners sold in hardware stores, and installed as part of the trellis, make this chore easy. After harvest, wires should be loosened so that contraction of the wires during the cold winter months will not damage the end posts.

In some locations, posts will be pulled out of the ground in late winter and early spring due to alternate freezing and thawing of the soil. Recently, we have found that placing bark mulch around posts will minimize or eliminate this problem.

Construction of a trellis is as easy as building a fence. We recommend that you construct a trellis in the fall so that you will be ready to plant either grapes or dwarf fruit trees as soon as the ground can be worked in the spring. Early planting is a key to success.

UMass Extension Agriculture and Landscape Program 4/12