

Site Selection and Soil Preparation for Table Grape

By:

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A vineyard can be planted in a flat or sloped ground. Generally, in a vineyard with a southern slope, grapes could mature earlier than a one on a flat ground or in a site with northern slope. However, since late season table grape production is one the primary objectives for growers in Idaho and the PNW, a northern slope can be used for vineyard. However, a western or southern slope can also be used for vineyard in the region. Growers or home gardeners should try to select the warmest site with the least chance of extreme winter and spring cold injury. Spring frost damage can be as important as the winter injury in Idaho and the PNW. Sap movement in the vines start during early spring (usually mid to late March) under Southwest Idaho conditions. Pruning shoots during the sap movement will result in “bleeding” the sap. Although this practice does not kill the vine, it is better to finish pruning before bleeding starts. Grapes vines start their active shoot growth in early May under Southwest Idaho conditions. As the vines come out of dormancy, they become more susceptible to frost injury. Thus, vines can receive different levels of frost injury during the start of the sap movement through the early stages of shoot development. Therefore, it is important to avoid planting grapes in the bottom of draws and hills where there is more chance of cold air accumulations. A gentle slope with high drainage capability is a good site for planting. A spring frost can cause a split in the bark, particularly on the southwest side of the trunk. This split become s the site of entry for gall bacteria which will cause enlargement of the upper part of the trunk while the bottom part stays extremely thin, and cause a permanent damage to the vine. Any mechanical injury such as a wound caused by a hoe or tractor when weeding can become a site of entry for crown gall bacteria. Thus, both spring frost and physical injury should be reduced or eliminated.

The vineyard soil should be ripped down to 24 inches or more at different directions (north-south and then east-west) and the disked before planting. Grape

vines can be grown in a wide variety of soils type but they do best on deep sandy loam soils with a pH of 6.5-8, similar to those in southern Idaho.

Soil needs to be tested for its physical and chemical properties as well as for nematode and other parasites in a reliable laboratory. Most soils in southwest Idaho would benefit from a pre-plant application of phosphorous. However, one should be careful that over application of P could induce zinc deficiency in the future.

Vineyard soils may need to be fumigated if the laboratory recommends so. This is particularly true when the site was previously planted with a plant that had nematode infestation. One should make sure that no residual fumigants remains in the soil at the time of planting. There are rather simple tests that certain laboratories including the Nematology Laboratory at the University of Idaho Pram Research and Extension Center and Western Laboratory in Parma, Idaho can perform to determine if the soil is safe to plant after a fumigant is applied to the soil.