Improving Size and Quality of Seedless Grapes

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Guide H-311

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Seedless grape varieties are popular in southern New Mexico home gardens. They are prized for being seedless, but excessive fruit load often causes other quality characteristics, such as berry size, to be poor. Overloading weakens the vine, and the fruit matures late, with poor color, poor size, and low sugar content. Removing or thinning the fruit is usually recommended to increase quality when vines are overloaded. The use of any one of the following practices will improve fruit size and quality. For maximum results, several combinations are recommended.

Pruning

Pruning will reduce crop load. Follow recommended pruning practices for the variety. If you plan to use additional practices, leave an additional amount of fruiting wood. This will ensure sufficient fruit in years when fruit set is low. It also permits selection of better clusters at thinning time (fig. 1).

Cluster Thinning

Seedless varieties, such as 'Thompson Seedless' and 'Black Monukka', often produce more clusters than the vine can properly mature. Simply remove some of them. This allows the foodstuff produced by the leaves to better nourish the remaining clusters. This practice will also benefit seeded varieties. Vigor of the vine and previous experience would determine number of clusters left per vine. After the berries have set (the shatter stage, when flower parts are falling), remove clusters that are undersized, oversized, or misshapen. *This is probably the most important step in improving quality.*

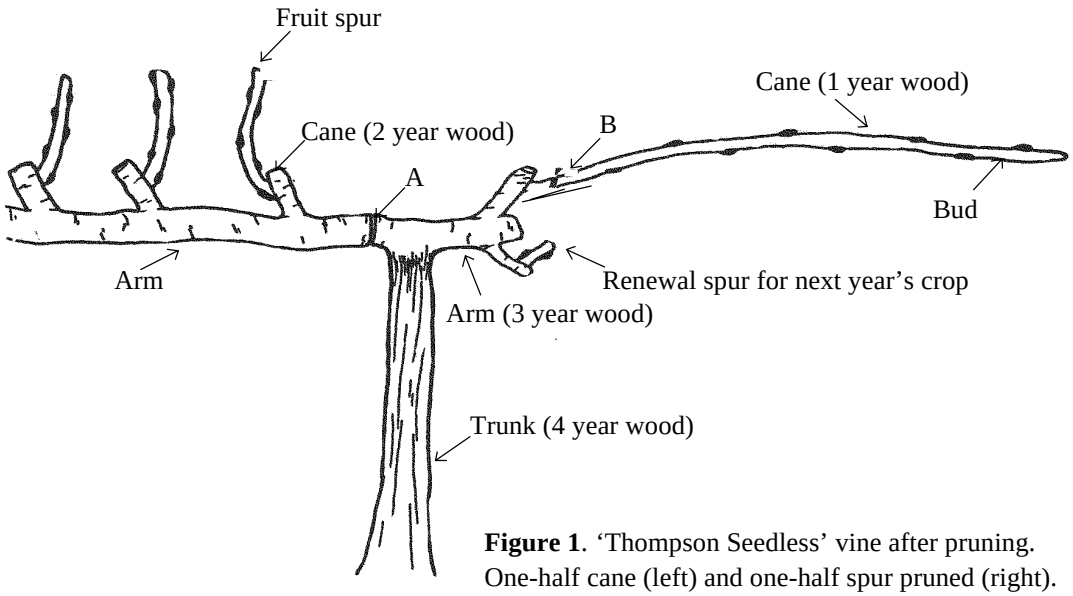

Figure 1. 'Thompson Seedless' vine after pruning. One-half cane (left) and one-half spur pruned (right). A and B indicate places for ringing (girdling).

Berry Thinning

For additional fruit quality improvement of 'Thompson Seedless', 'Black Monukka', and other varieties that produce very large or compact clusters, remove parts of the remaining clusters soon after cluster thinning. Remove about one-half of each cluster (the lower part of the main stem), leaving four or five branches near the cluster's base. The lower part of the cluster is usually compact, and the berries ripen later than those on the upper part (figs. 2 and 3).

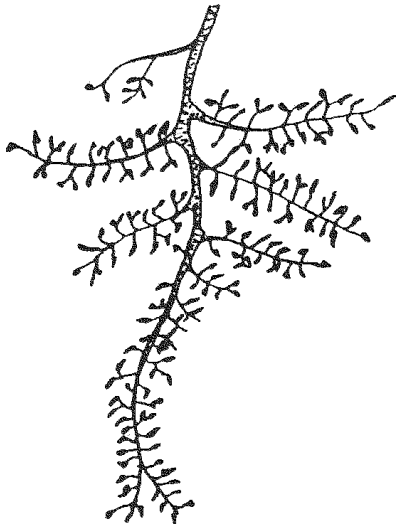

Figure 2. Stage for berry thinning of cluster.

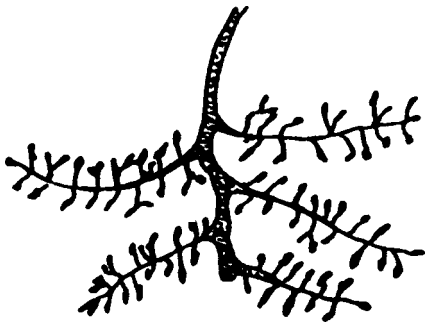

Figure 3. Cluster after berry thinning.

Girdling

The removal of a ring of bark $^1/_8$ to $^1/_4$ inch wide from an arm or cane may result in increased berry size if done soon after the shatter stage. Food will remain in the area above the ring and will be available for berry growth (figs. 1 and 4).

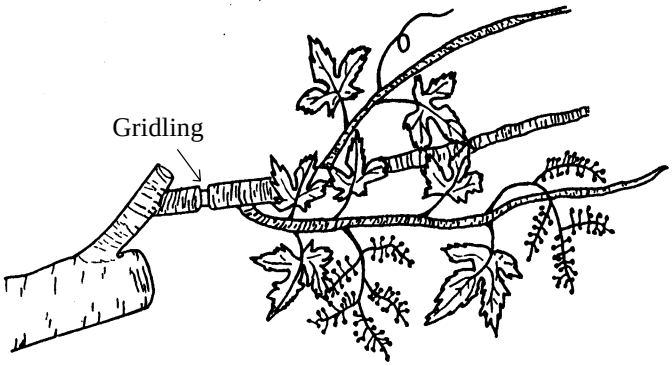

Figure 4. A gridle cane showing current season's shoots with berry-thinned clusters.

Gibberellin

'Thompson Seedless' grapes produced commercially for table grapes are usually treated with this plant hormone to increase berry size. If the practices listed above are followed, large berries of good quality should be produced. If larger berries are desired, a single spray of 30 parts per million (ppm) of the material may be applied when the berries are $^3/_{16}$ inch in diameter, or about June 1 in the Las Cruces area. Direct the spray as close to the clusters as possible. For treatment of a few vines, the clusters may be dipped in the solution in a wide mouth container. Gibberellin may not readily be obtained locally in small quantities but is available from pharmaceutical companies.

Parts per million can be determined as follows: If the material is 1 percent gibberellin, .264 gallon (1 liter) of such a material in a liter of water will make 10,000 ppm. To make 30 ppm the amount of water can be increased or the chemical material in the solution can be decreased: i.e., 10.1 fluid ounces (.3 liter) in 26.5 gallons (100 liters) of water will make 30 ppm; or 1 fluid ounce (.03 liter) in 2.64 gallons (10 liters) of water will also make 30 ppm.

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