



GROWING GRAPES

Soil Fertility Management

Soil fertility in the vineyard may be best maintained by the use of barnyard manure if sufficient amounts are available. If not, some form of commercial fertilizer should be used. Nitrogen is generally the element lacking, hence marked responses will be obtained by applications of such common nitrogen carriers as nitrate of soda, sulphate of ammonia, or ammonium nitrate. Cost per unit of nitrogen should determine the selection of the form used. A 200-300 pound application to established vineyards of sulphate of ammonia per acre (about one-half pound per vine) made in the spring is an average recommendation. Little direct benefit will be derived from the use of fertilizers that contain phosphorus or potash. However, since they promote cover-crop growth, they may be used as directed in the discussion on cover crops. A fertilizer such as sulphate of ammonia should be broadcast uniformly in a circular area around each vine starting a few inches from the trunk and extending out to a distance of several feet. As the vines get older, the fertilized area should be increased.

Grapevines, as with other fruit crops, are definitely affected by competing weeds. Therefore, to get the early vine growth needed for best yields, cultivation should be the initial practice in the vineyard. The first cultivation should be made when the buds swell. Disc, harrow, or plow with a vineyard plow to a depth of three inches. Cultivation should be frequent enough throughout the season to keep down weed growth, particularly near the vines. A grape hoe may be used to clean out the rows, but a final hand-hoeing may be necessary to remove all competing plants. Herbicides are often used commercially to control weeds in the row.

Cultural Recommendations

There are two accepted methods of soil management generally in use: (1) cultivation between the rows during the growing season with a cover crop over winter; (2) maintenance of a permanent sod cover between the rows. In both systems, weed growth is controlled beneath the trellis by chemical or tillage systems.

Vineyards planted on light, nearly level sites often respond favorably to the cultivation plus cover crop system. Those planted on heavier soils and/or sloping sites usually respond better to the permanent sod cover between the rows method which aids in controlling erosion.

When the cultivation system is used, the recommended cover crops are ryegrass, rye alone, or a rye and vetch combination. The cover crop is usually planted after the last cultivation in August or early September. Incorporating the cover crops in the spring aids in maintaining the humus levels in the soil. Barnyard manure, when available, should periodically be added.

When cover crop establishment is poor, follow soil test recommendations for small grains. These would normally be 100-250 lb/A of a 10-20-10 fertilizer.

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