

# Fruit and Nut Review:

## *Bunch Grapes*



Bunch grapes reside in the Vitaceae family of plants and within the subgenus *Euvitis*. They have fruit that forms clusters and can be harvested as a uniformly ripe unit.

The South does not have the ideal climate for bunch grapes. Bunch grapes prefer long, warm, dry summers and mild winters; however, with proper cultivar selection and management practices, growing bunch grapes in the South is possible.

The primary threat to successfully growing bunch grapes in Mississippi is Pierce's disease, a bacterial disease vectored by sharpshooter insects, which shortens the life or kills the plants. Muscadine grapes have a natural resistance to Pierce's disease. Some bunch grape cultivars have resistance to this disease.

### Soil and Climate

Bunch grapes grow best in deep, well-drained, sandy loam soils. Soils that impart too much vigor can lead to excess vegetative growth and reduced fruit yields and quality. Shallow, heavy clay soils will not produce the vine vigor, tonnage, or fruit quality of better-drained soils. In general, bunch grapes require a long growing season, relatively high summer temperatures, low atmospheric humidity, a ripening season free from rain, and mild winter temperatures.

### Planting and First Year's Growth

Plant the vines in January or February, 7 to 8 feet apart in rows spaced 10 to 12 feet apart. Set the vines the same depth they grew in the nursery. If vines are grafted, the graft union should be 2 inches above the final soil level. Spread the roots in all directions in the planting hole.

After planting, cut back the vine to leave two or three buds. Place posts, bamboo stakes, or string at each plant to train and support the vine. When the new shoots begin to grow, select the most vigorous and tie it loosely to a stake. Remove all the other shoots. In some cases, it may be possible to train the vine onto the trellis in year one. If not, cut back the vine to a point where substantial growth has occurred, then retrain in the following year. Spindly growth will likely be killed during winter months, so it should not be retained.

### Second-Year Training

During the second growing season, train the vines on the trellis if not done in year one. Use 9- or 12-gauge smooth galvanized wire for the trellis wire. There are many trellis options. The easiest is to use two horizontal

wires on the trellis at 12 and 72 inches above the ground. Large support posts are needed every 12 vines down the row, with T-posts at every one to two vines. The ends of the trellis must be well anchored.

If the vine (trunk) is long enough, loosely secure it to the top wire and cut it off about 2 inches above the wire. Tie a cane to the upper wire on each side of the trunk.

### Pruning Mature Vines

Prune according to the vigor of the vine and its production potential. You should do this in the dormant season. Remove canes that bore fruit the previous year except for one or two buds. These are called spurs. Spurs are canes that will produce fruit the following year. Remove all other canes close to the trunk.

The properly pruned grapevine will have a trunk, two arms (cordons), and eight to ten one- or two-bud spurs (depending on vine vigor) on each arm. Proper pruning may remove 90 percent of the wood.

Aggressive pruning is necessary in grapevine culture. Allowing too much growth by not pruning enough will inhibit fruit production and fruit quality because of resource allocation and excess shading.

### Cultural Practices

Fertilizer is not a serious limiting factor in young vines. Apply ½ pound of complete fertilizer (such as 13-13-13) per vine, split into two equal applications 6 weeks apart. Make the first application when vines begin to grow (budbreak) in spring.

Drip irrigation is excellent for grape culture. The irrigation line should be attached to the 12-inch wire. Apply 1 gallon of water a day per vine per year of age until you are applying 5 gallons of water per day for young plants. Mature vines can tolerate some dry conditions.

Grapes will begin to acclimate for the cold winter by slowing growth in August after harvest. This is in response to shorter daylengths and cooler temperatures. Stop using the drip system in early August to help with this natural process.

### Harvesting

Grape harvest usually begins in mid-July and continues into August in much of Mississippi. Mature bunch grape vines can produce as much as 25 pounds or more per year.

Color is a poor indicator of maturity in bunch grapes. Many cultivars change color long before they are fully ripe and become sweeter and less acid as they mature.

Maturity can be determined by taste or by the color of the seeds, as they change from green to brown. If the fruit will be used for processing (juice, wine, jam, jellies, etc.) testing the sugar and acid levels will help in deciding the best time to harvest.

If vines are allowed to overproduce, the sugar content of the fruit will be low, the color will be poor, and the maturity of both fruit and wood will be delayed. Immature wood is susceptible to freeze damage, and the next year's crop may be reduced. In the case of severe overcropping, the entire vine may be winter-killed; therefore, balancing the reproductive to vegetative growth of the vine is important. This is typically done through proper pruning techniques.

## Cultivars

The choice of cultivars is important and complicated. The cultivars listed below are best for growing in Mississippi and are resistant to or tolerant of Pierce's disease. Many of the cultivars listed here are difficult to find in the nursery industry. Seek out other bunch grape growers to obtain plant material. Although this is not the best practice, it may be the only option in some cases.

**Black Spanish (Lenoir)** — A red wine grape. Grown in Texas. Likely lacks the highest fruit quality for wine production but can be an important piece of a wine or juice product portfolio. Susceptible to black rot and downy mildew.

**Blanc du bois** — A high-quality white wine grape that is grown extensively in the Gulf Coast region of Texas. It is highly susceptible to anthracnose and only constant spraying will keep this disease at bay. Extremely vigorous vine growth. Harvest from late July to early August.

**Conquistador** — A multipurpose bunch grape that yields well but has problems with uneven ripening. Recommended for wine, juice, and jelly, as well as table use. Susceptible to anthracnose and root-knot nematodes.

**Cynthiana (Norton)** — A deep red wine grape. Slow to get established and has light production early in life, but this will improve with age. Tolerant of Pierce's disease but will do much better in north Mississippi. Resistant to most diseases. Later harvest than most cultivars listed here.

**Daytona** — A pink bunch grape recommended for fresh fruit consumption. The large clusters of grapes cling to the vine clusters, allowing handling without losing berries. Susceptible to anthracnose and root-knot nematodes.

**Favorite** — Very similar to Black Spanish and managed in the same manner. May have higher fruit quality.

**MidSouth** — Resistant to Pierce's disease but highly susceptible to root-knot nematodes when grown in infected soil. Dark-blue grape good for eating fresh and making jellies. Fruit has high acid levels when not fully ripe. Harvest dates are from late July to mid-August.

**Miss Blue** — A dark-blue grape with open clusters. Highly susceptible to anthracnose. Harvest dates are from late July to mid-August. Recommended for juices and jellies.

**Miss Blanc** — White to green in color, sweet, mild, and pleasantly flavored. Fruit may be suitable for blending for juice and wine production. Fruit ripens in late July to mid-August.

**Orlando Seedless** — A seedless bunch grape that has good flavor, large attractive bunches, early ripening, and vigorous vines. Very difficult to find sources for this cultivar. It is the only seedless bunch grape cultivar for the Deep South. It is susceptible to anthracnose and root-knot nematodes.

**Suwannee** — A vigorous, early-ripening cultivar with large berry size. Good for wine or for fresh fruit. It blooms later, but its large berries ripen early. Susceptible to anthracnose and root-knot nematodes.

**Victoria Red** — A new table grape that produces large clusters. Non-slipskin with a neutral flavor. Susceptible to anthracnose. Appears to be tolerant of Pierce's Disease. Ripens in early to mid-August.

**Villard Blanc** — A good, all-purpose white bunch grape cultivar. It can be consumed fresh or used in wine production. It tolerates Pierce's disease but, with time, will succumb to the disease. However, areas of north Mississippi will find this a suitable cultivar.

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