

# Fruit and Nut Review

## MUSCADINES

Muscadines are native to Mississippi and grow wild throughout the state. The muscadine is a popular home crop across the South because of its natural adaptability, resistance to diseases and insects, and long vine life.

Muscadines can be included in home plantings on fence-rows or homemade trellises. The fruit is used for unfermented juices, wines, jams, jellies, and pies.

### Varieties

Muscadines have vines that produce imperfect flowers (only female flower parts) and vines that produce perfect flowers (male and female flower parts). One vine of a perfect-flowered vine can pollinate eight surrounding imperfect-flowered vines; but in a single-row planting, every third vine should be a pollinator.

**Black Beauty**—Purple, crunchy skin, large size, excellent flavor; female; good yields, extended harvest, excellent vigor; excellent for fresh fruit.

**Black Fry**—Purple, large, good vigor; medium-tough skin, excellent flavor, excellent for fresh fruit; female.

**Carlos**—Bronze, tough skin, medium size, good flavor; self-fertile; excellent for juice, jelly, and wine; high yields.

**Darlene**—Bronze, large fruit, medium-tough skin, good flavor, poor vigor; female; good for fresh fruit.

**Dixieland**—Bronze, medium-large; excellent flavor, medium-tough skin, self-fertile; unpredictable yields and size; good for fresh fruit.

**Doreen**—Bronze, tough skin, medium size, good flavor; self-fertile, high yields; excellent for juice, wine, and jelly.

**Fry**—Good flavor, medium-large size; bronze, crunchy skin; female; must spray for disease control; cold-sensitive, poor vigor; good for fresh fruit.

**Fry Seedless**—Must be sprayed with gibberellic acid; skin moderately tough; light purple; good flavor; small fruit; makes excellent raisins.

**Granny Val**—Bronze, medium-tough skin, large size; late maturing, good flavor; self-fertile, uniform ripening; sensitive to cold weather; good for fresh fruit.

**Hunt**—Purple, medium size, good flavor, medium-tough skin; female; good for juice, wine, and jelly.

**Ison**—Purple, medium-large size, strong muscadine flavor, medium-tough skin; self-fertile; uniform ripening, good pollinator, good yields; good for fresh fruit.

**Jane Bell**—Bronze, medium-large size; tough skin; good, sweet flavor, uneven ripening; self-fertile; good for fresh fruit.

**Jumbo**—Purple, large size, good flavor, tough skins; female.

**Magnolia**—Bronze, tough skin, medium size, good flavor; self-fertile; excellent for juice, wine, and jelly.

**Noble**—Small, purple, good flavor, tough skin; self-fertile; excellent for juice, wine, and jelly.

**Scuppernong**—Bronze, tough skin, medium size, good flavor; female; good for juice, wine, and jelly.

**Sterling**—Bronze, tough skin, medium size; self-fertile; excellent for juice, wine, and jelly.

**Sugargate**—Medium-large size, purple, inconsistent yield; good flavor, medium-tough skin; female; good for fresh fruit.

**Summit**—Bronze, medium-large fruit, excellent flavor; high sugar content, medium-tough skin; female; susceptible to disease and insect problems; good for fresh fruit.

**Supreme**—Purple, large fruit, good flavor, medium-tough skin, heavy yield; female; good for fresh fruit.

**Sweet Jenny**—Bronze, large size, excellent flavor; crunchy skin; female; good for fresh fruit.

**Triumph**—Bronze, medium-tough skin, medium-large size; good muscadine flavor; self-fertile; nonslip skin, dry scar, good for fresh fruit.

**Watergate**—Bronze, large size, good flavor, medium-tough skin; uneven ripening; female; good for fresh fruit.

### Soil and Climate

Muscadines are native to fertile, well-drained, sandy loam soils that are relatively acidic and well-aerated. Alkaline soils produce vines with reduced vigor, lower production, and leaf chlorosis.

Muscadines require relatively warm winters. They cannot be grown in areas where the temperature drops below 10°F. When grown on well-drained soils, muscadines can withstand high levels of annual precipitation. However, water must be in consistent supply. Use drip irrigation for supplemental watering during dry periods.

## Trellises

Trellises in home plantings have a simple design. The most popular is a single horizontal wire attached at a height of 5½ feet above the ground to posts 20 feet apart. Commercial growers use a more sophisticated trellis.

## Spacing and Planting

Plant muscadines from November through February. Space the plants 20 feet apart, which allows the main arms on each plant to grow 10 feet in each direction on a horizontal trellis. Closer spacings may work for some varieties, but any closer than 15 feet apart is not recommended. Space the rows 12 feet apart.

Make the planting hole large enough to let the roots spread naturally. Firm the soil around the root system. With container-grown plants, do not let the top of the root ball stick out of the soil, because it acts as a wick, and moisture is pulled away from the roots. Cut the top of the vine back, leaving two to four buds. At its base, the vine should be at least as large as a pencil.

## Training the Plants

When the shoots are about 1 foot long, choose the strongest shoot, and remove the rest. Tie this shoot to a stake. Under good growing conditions, the shoot should get to the wire in one season. When the shoot reaches the wire, pinch out the terminal.

This forces two or three lateral buds. Select the two strongest laterals and tie them to the wire, one on each side of the main shoot. Train the laterals (arms) down the wire until they reach a length of 10 feet.

## Pruning

Healthy muscadine plants produce a lot of growth each growing season and must be pruned to keep the plant fruiting. If you don't prune the plants annually, production is reduced and, in some cases, plants do not produce at all.

Prune any time the plant is dormant—usually from December through February. Late pruning causes the new cuts to “bleed,” which has not been shown to be harmful. Late pruning also delays bud break a few days, which may help plants escape late-frost growth.

The basic muscadine plant has a trunk and cordons (lateral fruit arms). The fruiting units (spurs) develop on the cordons. During the dormant season, cut back all the previous year's growth to spurs 2 to 4 inches long; this leaves about two buds on each spur. Remove shoots that are not needed for spurs. On young vines, spurs should be spaced 6 inches apart on the cordons. As the vine ages, each spur becomes a spur cluster.

Spur thinning may become necessary. If a cordon becomes weak or diseased, remove as much as necessary and train a shoot to replace it. Watch for tendrils wrapped around the cordons; remove them because they may girdle the cordon.

## Harvesting

Harvest muscadines from late August to October, when fully ripe. Remove each berry by hand as the berries ripen. Unlike grapes that ripen in clusters and hold in the cluster when harvested, muscadines produce fruit in clusters but are removed as individual berries when fully ripe. If you have a large planting, place a catch frame under the vine and bump the arms, causing ripe fruit to fall onto the frame.

## Fertilizing

Apply ½ pound (1 cup) of 8-8-8 (or its equivalent) fertilizer per plant in the early spring of the first growing season. Broadcast the fertilizer over an area 2 feet in diameter, taking special care to avoid placing fertilizer within 6 inches of the trunk. Additional nitrogen, applied in late May and early July, helps growth the first season. Sidedress with ⅓ pound of ammonium nitrate (33 percent nitrogen), or its equivalent, per vine.

In the second year, make three applications of fertilizer. Use the same timing and method of application as you did the year before; however, double the rate and increase the diameter of the broadcast circle to 3 feet.

A significant increase in amount of fertilizer is needed once the plants begin bearing a sizeable crop. If the vines have grown well and you expect a crop the third growing season, apply 2 pounds of 8-8-8 (or its equivalent) per vine in March, plus 1 pound of 8-8-8 per vine in May. Apply this fertilizer along the row or broadcast in a 6-foot circle around each vine.

To fertilize an established vine, apply 3 to 5 pounds of 8-8-8 (or its equivalent) per plant in March of each year. Apply ½ pound of ammonium nitrate (or its equivalent) after fruit set. Check the soil pH periodically to see if liming is needed. If necessary, use a dolomitic source because muscadines have a high requirement for magnesium.

## Pests

Insects and diseases may occasionally be a problem on muscadines. Applications of pesticides may be necessary from time to time. Check with your local MSU Extension office for recommendations.

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