

TIMELY INFORMATION

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SELECTING MUSCADINE GRAPE CULTIVARS FOR YOUR VINEYARD

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Cultivar selection is the key factor to be considered when planning a new vineyard. Why this is such an important decision? Generally long-term, large scale investments are required for vineyard establishment or re-planting. Many of the marketing and management strategies you are going to implement in the years to come will be predetermined by this single choice. On the other hand, over hundred muscadine grape cultivars are currently available on the market. As a result, the proper cultivar selection is a critical and complex process. A proper cultivar selection can considerably contribute to sustainability of grape production by lowering the economic costs and reducing the harmful environmental impacts.

Some of the most important considerations when planning a vineyard should include your marketing approach. For example, if you plan on establishing a "Pick your own" operation, it would be a good idea to plant cultivars with a range of maturity that will provide an extended harvest season and keep your customers coming back. This will also spread the labor requirements to harvest the grapes over several weeks. In case you plan to mechanically harvest your crop, it would be a good idea to plant fewer cultivars with a uniform fruit maturity.

Another important plant characteristic is the type of flowers produced by the particular vine. There are two types of muscadine vines: producing pistillate (female) flowers (only the female parts of the flower are developed), and producing perfect (self-fertile) flowers (both male and female parts developed). Pistillate-flowering plants require a perfect-flowered muscadine for pollination.

Cultivar cropping potential and cropping consistency, disease resistance, fruit quality, and the potential to adapt to a given microclimate in the growing location should be taken into consideration when selecting the cultivars for your vineyard.

Muscadine grapes have a short storage and shipping life, because mature berries usually do not adhere to the stems. That is why characteristics of the resulting stem scar are important in determining muscadine berry quality and storage life. Generally, a wet stem scar may develop when the cap stem or pedicel does not clearly separate from the berry. Consequently, wet stem scars will exude their juice onto the fruit surface and provide an ideal environment for the growth of spoilage organisms. There are two major factors known to affect the percentage of berries with wet scar. Berries that are fully mature when harvested usually have a dry stem scar, whereas those harvested before they are fully ripe will tend to have a wet stem scar. Also, some cultivars are prone to produce higher percentage of berries with wet stem scar than others. Hence, the proper selection of muscadine cultivars for your vineyard depends on the projected crop use.

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Here are a few up to date comments on muscadine grape cultivars performance in Alabama that can be used in selecting a cultivar for planting.

Fresh Market Muscadine Cultivars

Early Fry - This is a bronze colored cultivar with very early ripening season in Central Alabama. Early Fry is a highly productive muscadine and has a large berry size. It has a very good flavor, high sugar content and 53% wet berry scar in 2009. Flowers are pistillate and require a pollinizer. Early Fry is prone to black rot disease.



Sugargate – A black colored muscadine grape with very large berries. Sugargate matures early in the season and has high sugar content and 34% wet berry stem scar. This is a pistillate cultivar and requires a pollinizer.



Fry Seedless – An early to mid season ripening cultivar with small seedless berries which ripen uniformly on the cluster and make this grape suitable for compressed harvesting. Unlike other muscadine grapes, the entire cluster could be harvested at once. Berries have a dry stem scar, which makes this grape very suitable for the fresh market. The flowers are self-fertile and the cropping potential is moderate to low. Gibberellin sprays are used to increase berry size and yield of Fry Seedless.



Pam – Pam is a very highly productive mid season muscadine grape with very large berries. The percentage of berries with dry stem scar (92% in 2009) makes this cultivar very suitable for retail outlets. Berries are sweet with an excellent flavor. The vine is vigorous and has female flowers.



Black Beauty – This is a mid season, black colored and productive muscadine grape with very large and attractive berries. Black Beauty fruit has an excellent flavor with high sugar content. Forty-one percent of its berries had wet stem scar. Flowers are pistillate and the vine is vigorous.



Janet – This bronze colored cultivar has a mid season ripening and produces very high yield. The berries are large, flavorful, and have high sugar content. Janet has a good vigor, 60% wet stem scar and pistillate flowers.



Black Fry – It is a large, female, black colored, mid season muscadine cultivar. Crop production is good and the vine is moderately vigorous. Black Fry berries had 41% wet stem scar in the 2009 season.



Darlene – The crop of Darlene matures mid- to late season. Berries are large, high in sugar content, very attractive, with an excellent flavor. The yield is high and vine is very vigorous. Darlene has pistillate flowers and needs a pollinizer.



Processing Muscadine Grapes Cultivars

Noble – Noble is a self-fertile, vigorous, late season black colored muscadine cultivar primarily used for juice and wine production. It is a highly productive, vigorous grape which ripens late in the season and produces small berries.



Carlos – A very vigorous, productive, late season self-fertile cultivar with uniformly ripening berries, suitable for mechanical harvesting and processing into juice, jelly and wine.



Ison – This is a multi purpose, self-fertile black colored cultivar with early- to mid season ripening. It has medium size berries with dry stem scar. The percentage of berries with dry scar in the 2009 season was 79. Ison is highly productive and has good vine vigor.

