



Yancey County News

To be a voice, and to allow the voices of our community to be heard.

+ Your Voice in Yancey + All the news + Exploring Yancey! + Fun in Yancey + Land Transfers

Specialist says muscadine could be big business in Yancey

By Jonathan Austin
Yancey County News

A man who has made wines and viticulture an important focus in his life says that our Appalachian mountains are ripe for growing one of the most popular and beneficial grapes in the world.

"The 600-million-year-old Appalachian Mountains provide us with a unique grape-growing environment," says Chuck Blethen, a popular speaker on wines and winemaking and the author of "The Wine Etiquette Guide - Defense Against Wine Snobbery."

When Blethen and his wife moved to Madison County he says he looked around and was amazed at the amount of south-facing slopes that would be perfect for growing grapes.

"Most of the local farmers claimed that the weather is too cold or the altitude is too high to grow grapes in this region," Blethen has written. But he countered: "Grapes will grow at high altitudes - like the grapes growing in the French, Swiss, Austrian, Italian and German Alps at 5,000-8,000 feet. One vineyard in Argentina is producing fantastic grapes (and wine) at 9,800 feet! The secret is to select the right grape to grow in these conditions."

Others have seen the potential in the soils of the Tar Heel state, going back to the 1500s, when French explorer and navigator Giovanni de Verrazano discovered muscadine grapes growing in the Cape Fear River Valley. According to the North Carolina Department of Commerce, Thomas Jefferson noted North Carolina taking the lead with wine culture in the 1800s, estimating its "wine would be distinguished on the best tables in Europe, for its fine aroma, and crystalline transparency."

The 1840 Federal Census listed the state as the number-one wine producer in the U.S.; it remained one of the highest-ranked until Prohibition in the early 1900s.

In the last two decades, grape growing has returned, exploding in the piedmont of the state, but fear of failure due to elevation and temperature seems to have kept mountain farmers wary of investing their property and time in grapes.

Blethen, now the executive director of the Southern Appalachian Viticulture Institute (SAVI), says the cold hardy variety of muscadine eliminates those doubts, though he admits the soil needs treatment and disease must be controlled for our hills to become plentiful with vineyards.

According to SAVI, "Most of the soils in the mountain counties of North Carolina are residual soils from 600 million years of weathering granite. These soils tend to be low pH, high in aluminum ions, and be either hard-pan red clays or extremely rocky residual soils. 'Rich soils,' those dark soils with lots of humus, tend to occur in bottom land and are not particularly good for grapes because the low lands are also where cold air accumulates and causes frost damage to vines. The best farm sites for grapes are on the south or southeast facing slopes - not on the bottom of the valleys or on the top of the mountains," he says.

And if the right grape is grown, SAVI says "the mountains of Western North Carolina represent an ideal location for propagation of vineyards and wineries. The job creation possibility is large and the potential for agri-tourism income and tax revenue for the state is significant."

Adam McCurry, an agriculture technician with the Yancey County Extension Service, said the agency can't recommend growing muscadine "until its been proven," but added: "I hope (Blethen) does great with it. He seems to have his ducks in a row. He seems to be the type of person who can do it, if anyone can."

Such diversification in agriculture is what will spell the future for Yancey and other counties that once were heavily supported by the tobacco crop. "It's going to take a multi-versed plan to replace tobacco," McCurry said. "If this is part of it, fantastic."

Blethen has put his money where his mouth is. "I began propagating the wild mountain muscadines using a little-known viticulture technique called greenwood cuttings," where the vine is cut in June and the cutting grown in temperature controlled greenhouses. "It worked. We sold some of our propagated grapevines to local farmers who wanted to see if they could successfully grow them at their respective altitudes, too. If they survive this coming winter, these farmers plan to start serious acreages of the wild mountain muscadine."

Blethen put in two 200 foot rows of muscadine at his Marshall home in 2009. "If all goes as planned, we will have brought to the forefront a native grape ... that is perfect for the mountains - a high-altitude, cold-hardy, disease-resistant grape that can be grown naturally, organically or bio-dynamically. The potential for a wide range of products is exciting - juice, wine, grape

seed oil, preserves, pies, table fruit, raisins, balsamic vinegar and other value-added products," he said.

"The unique thing we have going here is native, cold-hardy muscadine that we are propagating in our greenhouse. These are disease resistant; perfect for organic farms."

Another bonus is that muscadine vines produce many more grapes than other traditional European variety. "Most of the other grapes you plant, you put in 450-500 vines per acre," he said. "Out of that acre you typically get 3.5 to 4.5 tons per acre. But with muscadine, you only plant 200 vines per acre, and you typically get 8 to 18 tons per acre."

But the biggest benefit may be what is inside the grapes and the leaves. That's where scientists have found resveratrol, a chemical produced naturally by the plant when under attack by pathogens such as bacteria or fungi.

Canadian researchers recently reported in the journal *Diabetes* that low-birth weight baby mice fed diets rich in resveratrol were significantly less likely to develop metabolic syndrome, a condition marked by insulin resistance, high blood pressure and cholesterol, and excess belly fat. The condition is a well known risk factor for type 2 diabetes.

According to Blethen and several highly regarded online sources, muscadines have 40 times the amount of resveratrol as other red grapes. Anti-cancer, anti-inflammatory, lower blood sugar and other beneficial cardiovascular effects of resveratrol have been reported, though most of these results have yet to be replicated in humans.

"It's definitely a very healthy fruit," said John McIntyre, who works with muscadine growers at the Duplin County Agriculture Extension office.

"Here in Duplin we have a group creating a muscadine smoothie" that they hope to get on the market in the near future. Not only does the smoothie have the resveratrol, he said, but a 15.2 ounce serving contains 16 grams of protein.

"Resveratrol and other oxidants are going to be in the seed and skin" of the grape, McIntyre said, "but the highest levels are going to be in the leaf. An area of interest might be in drying the leaves, grinding them up and incorporating them into a food product. That could really boost the oxidants," he said. "I think there's still a lot to be uncovered out there about muscadine." Research here in North Carolina suggests that the muscadine contains oxidants that might be weapons in the fight against a variety of cancers.

Dr. E. Ann Tallant and Dr. Patricia E. Gallagher, researchers at Wake Forest, have published a study suggesting that "extracts from muscadine grape seeds and muscadine grape skins inhibit the growth of human lung, colon, prostate, breast, skin, brain and leukemia cells in vitro, suggesting that further studies are warranted to investigate their potential use in the prevention or treatment of cancer."

So there are a variety of markets for muscadine-based products. Which brings us back to one simple question: Can muscadine grapes be a sustainable crop in Yancey?

Blethen is upbeat, saying his vines survived the last three winters with temperatures in the single digits.

"It's been growing here for thousands of years, in the mountain counties," Blethen said. "It takes four to five years to get production, but if you maintain the vines, they will produce for 150 years."

He was emphatic: "Once you get the vineyard established, it can be something of value that you will be able to pass on to your children and grandchildren."

The Yancey County News - 132 W. Main St., Burnsville, NC 28714 - 828-678-3900

Content copyright 2011. YANCEYCOUNTYNEWS.COM (Yancey County News LLC). All rights reserved.

mediaowners
Who Owns The American Media?