### Winemaker 'Glories' Abound In Southeast Pennsylvania Vineyard

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and continue to about mid-October, depending on the season's growing conditions. The harvester uses fiberglass rods that "slap" the vines. The picked berries are conveyed to a wood bin.

The word is out on the best methods for harvesting. While Chien noted that growers have accepted this mechanical method, Elkner, Penn State horticulture agent, noted that some vineyard managers "don't want any mechanical harvesting," he said. Some believe it can directly affect the quality of the pressed grapes and the wine itself.

The picking machine fills a bin, which holds about a ton of grapes. When full, the bins of grapes are immediately brought to the winery for processing, according to Nissley. They are removed from the wagon by a forklift, weighed, and then emptied into a device called the "crusher-destemmer," which removes the stems and crushes the berries. From there they are transfered to the fermentation tank. After all the sugar is converted to alcohol, the remaining skins are shoveled into the wine press and the last wine is squeezed out.

The best wine — called "free run" — comes out first, before the wine press is activated. Some wineries separate this juice from the rest and market it as premium wine.

After the doors lock in place, the fruit is pressed still further. The juice, collected in a stainless steel holding pan, is

pumped to storage tanks, where the wine is fermented.

The leftover material, or pomace, is transported to a simple manure spreader. The material is spread at the vineyard. While the nutrient value is low, according to Elkner of the extension office, the organic material makes a good soil additive.

Some of the material that settles in the tanks, called lees, can be further processed using a complex Lees Filter. The material is pressed through the filtering system to obtain additional wine.

For most wine, fermentation takes about 7-12 days. Smaller wineries use oak barrels. Nissley uses many different grades and sizes of oak chips to aid in the flavoring process.

During fermentation, a lot of carbon dioxide is released. Other grape juices can be added and mixed to get the appropriate color, taste, and other wine qualities. The grapes go from 21 percent sugar with no alcohol to zero percent sugar and about 12.5 percent alcohol. The wine is filtered and bottled, capped (using plastic), and labeled.

Some of the smaller wineries, to age the wine, use barrels made of French oak, American oak (mostly from Missouri), or Yugoslavian oak, noted Chien. All provide a distinct, unique flavor

During the mid-October tour, Cabernet Franc, a dry red wine, was being pressed.

The wine is bottled and sold at the Nissley tasting room or at

one of five different satellite locations in malls throughout southeast Pennsylvania. The store is open for customers — and all wines can be tastetested. Regular, seasonal events are scheduled at the winery, including concerts on the grounds from early July through early September. The store is open year-round.

Much of winemaking involves sanitation and cleaning up. It's a very messy process with juice and skins everywhere, Chien noted.

Nissley operates up to two dozen press cycles per day, or about 2,500 gallons of juice for wine

In a typical year, the winery processes about 40,000 gallons of juice. The winery uses milk storage tanks for the fermentation process. The process tanks for delivery to the crusherstemmer are customized stainless steel conching tanks from a chocolate factory in Scranton, noted Gulvin, the winemaker.

The 1999 vintage could be the "vintage of the century," said Gulvin, simply because of the drought. "It could be the best vintage I've ever had.

"The crop estimates we have indicates this is the second largest Vidal crop coming off the vineyard," Gulvin said. "The picking parameters are by far the best I've ever seen."

In a dry year, more sun creates more sugars in the crop. The ripening potential increases and disease pressure, because of dry conditions, drops. This was the first year the winery irrigated the

vineyard.

"We put down 3-4 inches of water in the month of July," Gulvin said, using a big-gun broadcast irrigator. "Everything perked right up."

Bird pest damage was small. Birds were absent or minimal, with no big "murmurations" (clusters of blackbirds) to mar the grapevine quality.

Japanese beetle control is critical to the vines. But with two summer droughts in a row, the vineyard provided ready control. The vineyard survived those droughts simply because grapes are suited to a dry climate and have a very extensive root system.

Out of the 40,000 gallons come 15,000 or so cases of wine.

And the sweet wines and native American wines "sign three out of four of my paychecks," Gulvin said.

"The most important thing you make in the winery is money," he said. "If you're not making money, you won't be making wine for very long."

Some grape varieties you can grow but "you can't farm them," said Gulvin, for any marketable winemaking.

The native American grapes provide an "order of magnitude" of different varieties that will grow well and be made into wine that appeal to consumers, according to Gulvin. It's the glory of winemaking in the East—the native varieties available.

The climate also is good for growing red-type grapes for wine overall. "Cabernet Franc appears to be the best overall for this climate," said Gulvin.

In November, Nissley was planning to release the Cabernet Franc, a dry red wine, in bottles for the first time.

Nissley's also makes two types of cherry wines, apple wines, and raspberry.

Gulvin said the company pays \$9,000 a ton for fresh raspberries to make into wine. Labor costs to harvest the raspberries are high, which can affect bottle price. The price "works financially" for the company, Gulvin said.

Some other favorite wines: Rose' white, Candlelight (a blush Rose'), and Naughty Marietta (a medium-boded red), popular semi-dry wines.

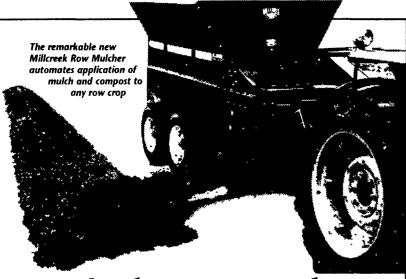
But for the consumer, the fact is, taste is subjective — which is why the winery offers free taste-testing. "There's only one judge of taste," said Gulvin: the consumer.

A sweet, fruity wine on the dinner table, made and packaged well — those are the kinds of things southeast Pennsylvania rural customers want, noted the winemaker.

### Berks County Farm Market Map Available

LEESPORT (Berks Co.) — Penn State Cooperative Extension has published a comprehensive map of Berks County farm markets just in time for the fall harvest. This new fold-

out map includes a harvest calendar and information about each individual market such as products available, market hours, and seasonal special



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The map was produced by contacting farmers throughout the county and requesting their participation in the project. There was no charge to farmers for a listing on the map. More than 65 farm markets are featured offering home-raised products from honey to wine, Christmas trees to pick-your-own strawberries, and free range poultry to prime beef.

The map is just one of many efforts that Penn State Cooperative Extension has spearheaded to support agriculture in Berks County. Extension Agents John Berry and Judy Schwank developed the map. Copies are available through the Reading and Berks County Visitor Bureau outlets or by contacting Penn State Cooperative Extension Berks County at (610) 378-1327.