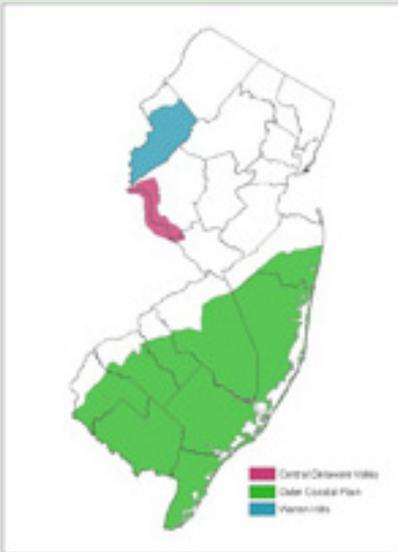


What's in Season from the Garden State

Seasonal Highlights from Cooperative Extension, a unit of Rutgers New Jersey Agricultural Experiment Station

October, 2011



The Three Most Important Things about Growing Winegrapes: Location, Location, Location

The old adage about location, location, location is more vital to successful winegrape growing than to commercial real estate. We call this "vineyard site selection". The winemakers' art relies on the cultivation of select varieties of well-adapted grapes that thrive under sets of conditions unique to every site. The French have a single vocabulary word, "terroir", to describe this broad set of interacting factors that includes the soils, their orientation, grape variety, farming practices, climate, local microclimate, wine making culture and technology. Guess what, New Jersey winegrowing has terroir!

These are the areas with the right combination of sunshine, rain, temperature, and exposure for the grapes to get enough sunlight, not freeze in the fall, and not burn in the summer. Within these regions, certain geographical features such as soil come into play, and many of these lie within range of a coast, because coasts moderate conditions over land. New Jersey lies within this optimal region, and while not widely known for its wines, New Jersey is home to wineries both historic and award winning.

The next level of location is the micro-regions within the broader regions that are best suited for grape growing. New Jersey has three such regions, each an official American Viticultural Area (AVA).

The **Central Delaware Valley AVA** was designated in 1984. It is located in Central New Jersey and shared with Southeastern Pennsylvania along the Delaware River just north of Philadelphia.

The **Warren Hills AVA** was designated in 1988. It is located entirely in Warren County, along New Jersey's hillier northwestern edge bordering Pennsylvania.

The **Outer Coastal Plain AVA** was designated in 2007 and is located in Southeastern New Jersey and includes all of Cumberland, Cape May, Atlantic, and Ocean counties.

This brings us to the third tier aspect of location, which is site specific. Jack Rabin, Rutgers NJAES associate director for farm services, explains, "Family vineyards, and the wines they make, are one of the most site specific agricultural products. No other farm product comes close to the relationship fine wines have with specific field - a specific plot of land - with its own special characteristics. And 'site specific' farming practices are one of the hallmarks in defining sustainability in agriculture."

So how does one evaluate a specific location for its suitability for winegrape growing? Knowledge of key site features have been refined and passed down through the ages. This knowledge may be ingrained in established winegrape growers such as the many long standing wineries that have existed in New Jersey, even as far back as colonial times. But many new winegrape growers are fresh to the field. Some may be established farmers that want to maximize the economic potential of their acreage, such as New Jersey peach farmers who face stiff competition in the wholesale peach market, while grapes thrive under similar

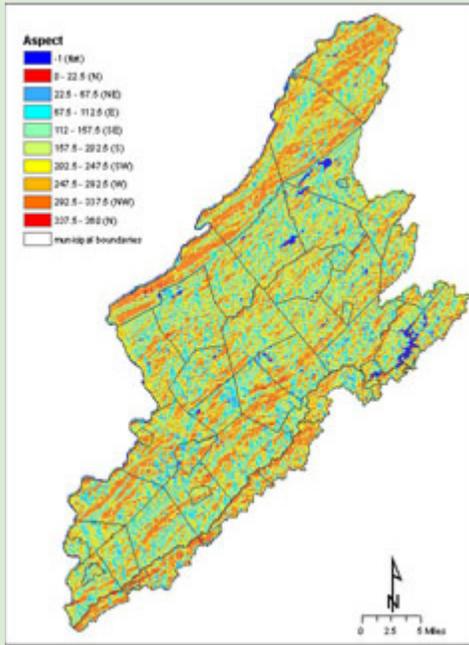
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AVA	# total acres	Color on map
Warren Hills	189,225	blue
Central Delaware Valley	95,162	purple
Outer Coastal Plain	2,109,073	green

New Jersey Department of Agriculture's Jersey Fresh Availability Report
Week of 10/31/11

Apples	Lettuce - Romaine
Beets	Parsley
Broccoli	Pumpkins
Brussels sprouts	Radishes
Cabbage	Spinach
Cauliflower	Squash - Winter
Collards	Sweet potatoes
Cranberries	Swiss Chard
Dandelions	Turnips
Escarole & Endive	White potatoes
Leeks	

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This map shows the “aspect”, or direction a slope faces for the Upper Delaware watershed, which is located in northwestern New Jersey, within parts of Hunterdon, Morris, Sussex, and Warren counties. This southern part of this watershed falls within the Warren Hills AVA.

If one studies vineyard sites in important marginal wine growing areas of the world, the data might show that over long periods of time, the sites that emerge with the best vineyard reputations - the best “terroir” - would be sites with east-southeast aspect. If the slope faces southeast, leaves catch early morning warming sun when cool and turgid, at their best for photosynthesis. If a slope faces northwest, unprotected exposure to prevailing harsh winter winds and storms can injure the vines.

growing conditions. Others may be newcomers to agriculture, who come out of technical industries and train themselves in a new career, bringing new vitality to the field.

There now is a tool available for existing and potential winegrape growers to evaluate New Jersey sites for suitability. Dr. Dan Ward, Rutgers NJAES extension specialist in pomology, has completed some fascinating research modeling New Jersey land suitability for growing winegrapes. He has studied each of the three AVAs and each county. Parameters include frost-free days, growing degree-days (the number of degrees that the average temperature is above a baseline value. Every degree that the average temperature is above the baseline value becomes a growing degree day), soil drainage, slope, and the direction a slope faces. Ward, working with Dr. Marilyn Hughes, GIS consultant, created detailed online GIS-based maps of the climate and soils relevant to viticulture in New Jersey, overlaying them with each of the parameters. The maps for all New Jersey watershed areas can be seen here at <http://njvines.rutgers.edu>. This research sheds light on the enormous winegrape growing potential in our state in terms of how much of our land is suitable for growing winegrapes and where the most suitable parcels are located – a boon to not only winegrape growers, but to land use planners as well.

Creation of the grape suitability maps and the GIS site assessment tool were made possible with funds from a Department of Agriculture Specialty Crop Block Grant. The grant and the creation of the site suitability maps are the result of a collaboration between the Outer Coastal Plain Vineyard Association and Rutgers NJAES. Additional support was provided by the Garden State Wine Growers Association and technical expertise from Rowan University.

A Grape Year and a not so Grape Year

Growing winegrapes can be a most rewarding and a most challenging endeavor and it takes a both a sophisticated grower and winemaker to successfully ride the waves and make a quality product even under unfavorable conditions. 2010 was an excellent year for New Jersey winegrapes and the 2010 vintage white wines are coming out this year, while the reds will follow from one and a half to three years after harvest.

2011 was a challenging year for agriculture in general, and winegrape production was no exception. While grape growers prefer a dry year for optimum sugar development, what was most challenging in 2011 was the disease pressure from all the rain. Dr. Ward notes that the best New Jersey growers were up to the challenge. Ward explains, “Highly skilled winemakers will pull out all the stops to use techniques to assure quality production. In a year like this sorting the grapes becomes an important facet ensuring the quality of wine through careful sorting on the vine, then sorting while harvesting, and then sorting in the winery using bounce tables to eliminate damaged fruit.”

It will be another year until we can start to see how well New Jersey’s world class winemakers succeeded in producing top quality wines out of a challenging year. In the meantime, November is New Jersey Wine Month, so it’s a good time to start looking for 2010 New Jersey white wines. For more information on New Jersey wines, go to Garden State Wine Growers Association at <http://www.newjerseywines.com>.

For more information on growing winegrapes in New Jersey, go to <http://njsustainingfarms.rutgers.edu/winegrapes.html>.

Where to find Jersey Fresh? Ask for it where you shop or dine or go to: <http://www.jerseyfresh.nj.gov>

To receive these reports by e-mail: njfarmfresh@njaes.rutgers.edu

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For your county Rutgers Cooperative Extension office go to:

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