



WINE GRAPE INFORMATION FOR PENNSYLVANIA AND THE REGION

From Penn State Cooperative Extension

<http://pawinegrape.com/>

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Check the [2012 Regional Events Calendar](#) for upcoming meetings, including PWQI Level 2 (four PA locations) and Virginia field meetings.

Pennsylvania Research Symposium: The Pennsylvania Wine Research and Marketing Program (PWMRP) is the marketing order for the wine industry administered by the Pennsylvania Department of Agriculture and paid for by a mandatory program charge on all wines made in Pennsylvania. It has funded viticulture and enology extension and research (and marketing and promotion projects) for over ten years, and much of the work has been done by Penn State faculty. The research committee (Brad Knapp, Pinnacle Ridge Vineyard, chair) is offering a program that presents current research findings and recommendations to the wine industry. In addition to Penn State researchers, we have invited [Dr. Tony Wolf](#) (Virginia Tech) and Drs. [Tim Martinson](#) and [Anna Katherine Mansfield](#) (Cornell viticulture and enology, respectively) to talk about their recent research efforts. This is an excellent opportunity to get up to date on the latest in V&E research from around the region. Symposium topics include: controlling vine vigor in the Eastern US, YAN and fermentation, cold climate viticulture practices, spotted wing drosophila and grape berry moth, sensory and wine chemistry research at Penn State, and a tasting of wines from the wine grape variety trial. The meeting will be at the **Penn State main campus (State College) in Room 244 of the Food Science Building (directly above the creamery, for those whom ice cream matters), from 8:30 AM to 5:30 PM on Wednesday, May 23rd**. Click this link to access a [full program and meeting information](#). Cost is \$25 and registration is now available through Cvent at <http://www.cvent.com/d/2cqp0t> (click the red “register” button at the lower right on the web page). If you cannot pay by credit card, please click the “fees” tab and contact Denise or me.

Dizzy Viticulture: Slow, then fast, then slow again, then fast . . . the seasonal gyrations are as frustrating as driving on the Washington beltway, but this has been the pattern of changes between warm and dry, cool and wet, warm and wet and every possible condition inbetween that Eastern wine growers have faced in recent years. After such a wet fall it is amazing how dry it is as we begin the new season. After a burst of warm weather it has cooled considerably which can cause new and emerging shoots to stall, leaving them susceptible to damage from insects and diseases, and early spring nutrient deficiencies. Growers should be able to scout for all of these and know what’s going on. This appears to be a normal pattern now, early bud break, extended frost season, wait-wait-wait, then a burst of warmth and the

shoots grow a mile a minute. It all makes early season vineyard management tremendously difficult, it's sort of the "hurry up and wait" school of vineyard management. But when the warm weather arrives, growers should be ready.

Clean and ripe fruit, that is all the wine makers are asking for from their growers. In most years, with aggressive and anticipatory viticulture, clean and ripe is within our grasp. Diseases and insects play such a prominent role in the management of Eastern vineyards. It's not a part of vineyard management we enjoy but it is essential for fine wine production. In a way, it's a game that growers play each year, trying to outguess Mother Nature, and she's like a casino in Vegas, it's very tough to beat her odds. Playing the disease game is very much, too, about risk management and each growers' tolerance for risk. For example, organic and biodynamic growers are trained accept losses as part of their management philosophy. Most conventional growers have a very low threshold for accepting imperfect fruit. An integrated pest management plan should be designed around your risk tolerance.

It's a good thing for us that there is a wealth of outstanding grape ipm management material available to help growers to plan their programs. It's almost information overload but it is helpful, if not wise, to compare and weigh the recommendations from different grape pathologists in different wine areas. I still believe that the [NY-PA Pest Management Guidelines for Grapes](#) is the foundation resource for the wine grape growers in these two states (order a hard copy of the book). It is regularly supplemented by annual disease and insect updates by Dr. Wayne Wilcox and Dr. Greg English-Loeb, respectively from Cornell University. I also found these IPM resources to be very helpful:

- [Developing an Effective Fungicide Spray Program for Wine Grapes in Ohio](#), by Dr. Mike Ellis at Ohio State University. It is concise and easy to understand with excellent comments on resistance management and new fungicide products.
- [Workbook for Developing a Successful Fungicide Spray Program for Wine Grapes in Virginia 2012](#). Dr. Mizuho Nita is the grape pathologist at Virginia Tech. Dr. Nita presented at the 2011 grape IPM workshop in Pennsylvania. Like Mike, he offers extremely practical and effective recommendations for developing a sound spray program. He includes a pesticide inventory spread sheet and a template for spray program based on vine growth. Mizuho also hosts the [Virginia Grape Diseases Update](#) blog which he updates regularly. Since Virginia is a bit of a crystal ball for conditions that may develop in Pennsylvania, his blog is well worth monitoring.
- When it comes to diseases and pests that affect *vinifera* wine grapes, there is no one better than Alice Wise, Cornell Cooperative Extension on Long Island. Her weekly grapes column in the *Long Island Fruit and Vegetable Update* is an invaluable resource on every practical aspect of vineyard management with special emphasis on integrated pest management. An e-mail subscription costs \$15 and you can sign up by contacting Linda Holm at 631-727-7850 x341.
- The coastal regions of the western states have bumped into a couple of serious La Nina years recently and that has meant levels of powdery mildew and botrytis that they are unaccustomed to – send in the master of grape diseases, [Dr. Wayne Wilcox](#) (Cornell University) to the rescue! I have seen his name on the program of just about every significant grape conference this past winter. His disease IPM information is as good as it gets, and no matter how much you think you have powdery mildew covered, he's got something new for you. In the recent *Practical Winery and Vineyard* (Spring, 2012), he offers an outstanding update on [Controlling Powdery Mildew](#). In the same issue, he writes about *Overcoming fungicide resistance* and there is an excellent article about the use of horticultural oils in Chardonnay (Laura Breyer, Breyer's Vineyard IPM Service).
- Also in New York is the Lake Erie Regional Grape Program, which includes Tim Weigle, the [NY IPM](#) extension specialist and Bryan Hed, the Penn State grape pathologist in Erie. Their weekly updates in the Electronic Crop Update provide valuable insights into the disease and pest conditions in the Erie region. Pennsylvania grape growers need to contact Andy Muza in the [Erie extension](#) office to sign up for the newsletter.
- Along with the NY-PA guide, I think that VineSmith's [Vineyard Pest Management Tool Kit](#) ranks among the top IPM necessities for the serious commercial wine grower in the East. Jeanette Smith was just voted the "[Grower of the Year](#)" by the Virginia Vineyards Association so we know that she is well respected and liked in Virginia. More to the point, she has over 30 years of experience growing wine grapes in the East as an extension agent, grape grower and vineyard

liaison for a major Virginia winery. The tool kit includes fungicide, insecticide and herbicide posters, and the outstanding “Planning a Vineyard Pest Management Program” booklet.

- I’ll call out again the new [Ontario Grape IPM](#) website as an excellent resource for Eastern N. American wine growers. Growing conditions may be a little cooler in Ontario but many of the IPM issues are the same as wine areas to the south, pay careful attention to differences in chemical names, registered products and measurements.

Virginia and Ohio are close in conditions to certain areas in Pennsylvania so we can glean a lot of information from their updates and resources. Despite these vast resources, we are no where near complete control of the vast array of disease and pest challenges. Persistent problems like yellow jackets, sour rot, crown gall, grapevine yellows, frost and freeze appear almost beyond the reach of any management strategy. Yet, in warm/dry vintages like 2007 and 2010, IPM may seem almost easy. Despite all the tools in the IPM toolbox, the BIG 5 fungal diseases can cause problems in almost any year.

Pennsylvania wine grape growers have just suffered another serious setback in the research arena. Dr. Henry Ngugi partially filled the grape pathology void left when Dr. Jim Travis, and has acted as supervisor to Bryan Hed in Erie and Dr. Noemi Halbrendt at FREC in Adams County. Henry left PSU in March. In the meantime, Noemi and Bryan continue to provide outstanding support for the wine industry. Supervision for their work has been assigned to Dr. Fred Gildow, the plant pathology department chair. We find ourselves tremendously under-resourced, a growing industry without either research pathology or viticulture support. We can only hope this situation will improve in the future. Until then, we will rely heavily on the hard work and generosity of our neighbors for information and support.

BIG Research: The new model for viticulture and enology research in the US is large scale, big budget, multi-region and trans-disciplinary projects funded by the [USDA-NIFA Specialty Crops Research Initiative \(SCRI\)](#). In the East, there are currently two significant projects underway. Tony Wolf at Virginia Tech is the project director for a large scale eastern viticulture survey titled: [Improved grape and wine quality in a challenging environment: An eastern US model for sustainability and economic vitality](#), and Dr. Tim Martinson at Cornell is the director of research that supports viticulture in cold climates called [Northern grapes: Integrated viticulture, winemaking, and marketing of new cold hardy cultivars supporting new and growing rural wineries](#). Pennsylvania’s wine growers will benefit from both of these projects since our diverse growing areas and conditions fall easily into either or both of these projects – Dr. Rob Crassweller and extension enologist Denise Gardner are involved with the USDA NE -1020 wine grape variety trial with experimental vineyards in Erie and Adams counties. Even after only a year out of the starting gate, there are tangible benefits from their efforts. The Northern Grapes Project has been broadcasting [monthly webinars](#) featuring outstanding speakers addressing topics of immediate relevance and concern to wine producers in cold climates (e.g. managing acidity in wines, nuts and bolts of canopy management, grape disease management (emphasis on anthracnose). I did not understand the full breadth and scope of Tony’s project until I read the [Year 1 progress report](#). It is not easy to manage a collaboration between Cornell, NC State, Virginia Tech, Penn State, Univ of MD, and the Connecticut Ag Expt Station (with additional cooperators in Ohio, Massachusetts and elsewhere), but many of the researchers will be names that Eastern wine growers are familiar with, since they have been pushing wine quality for many years. For example, objective #1 is no less a challenging goal of “developing applied means of achieving vine balance under variable conditions.” This must be considered the Holy Grail of Eastern viticulture. The use of cover crops are at the center of this work but Justine Vanden Heuvel and Alan Lakso (Cornell) are trying to understand the complex relationships between light and temperature, and canopy and yield metrics, to “design” the ideal balanced vine that has the best opportunity to produce high quality wine grapes. This is something I have always wanted to understand better, especially in light of work done by John Gladstones in Australia. Our conditions are much more challenging than most, make grape maturity a moving target, much like trying to shoot a dangling pie pan in a gale force wind. If you are a curious wine grower and-or maker, then you need to spend some time reading this material that is trying to understand the essence of what you practice in the vineyard each day.

FYI – The Northern Grape Project will host these upcoming webinars: 5/8 “Keeping a cork in it: Stabilizing sweet wines; and 6/12 “Winery Sanitation” You can pre-register for these free webinars on their website. You can also view archived webinars from the website.

e-Viticulture: The National Viticulture and Enology Extension Leadership Conference is all of the extension folks in vines and wines across the country who are helping people to grow and make better wines. We just met in Geneva, NY and, if nothing else, it is amazing that we had an educator from Door County, Wisconsin, present which says just how much wine production is spreading to every nook in the country. Dr. Eric Stafne (then of OK State, now of Mississippi State) received a SCRI grant to develop an “E”-xtension Grape Community of Practice and the practical result for grape growers is the [e-Viticulture website](#), a collaboration of all of the viticulture extension educators to place our collective knowledge and experience in one place. It is a prodigious resource that, to date, has been under-utilized by almost all wine regions across the country. We would like to get e-Viticulture onto your favorites list as one of your key “go to” resources when you have a question about what’s going on in your vineyard (try [Ask an Expert](#)) or just want information about something viticultural. There are production articles in Spanish and the “Grape Doctor” diagnostic tool will soon be introduced. There are links to [state viticulture extension resources](#) in almost every state. Please take the time to browse through e-Viticulture and get to know its products. When you are done, it would be really helpful if you could take a few minutes to fill out a [survey](#) about the website – it should only take a few minutes and the results are strictly confidential.

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