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Agricultural Sciences

WINE GRAPE INFORMATION FOR PENNSYLVANIA AND THE REGION
From Penn State Cooperative Extension

http://pawinegrape.com/

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a. Post-Veraison Grape IPM: A wine grape integrated pest management workshop was recently held in Lancaster. The goal was to focus on late season challenges to grape quality. In recent years, like the 2011 debacle in many parts of the Mid-Atlantic region with Irene and Lee, fruit quality was greatly diminished due to a variety of environmental and biological degradations. For growers, it is difficult to battle all the way through the season and lose fruit quality and-or quantity just weeks, or even days, before grapes reach maturity and can make fine wine. Front end investment of integrated pest management is essential because no one knows what the back end of the season will bring. It calls for proper choice and timing of pesticides and rigorous canopy management, especially in *vinifera* varieties and many hybrids. There appears to be significant evidence of downy mildew resistance to Pristine, an important pre-bloom fungicide. I have noticed early season problems of fungal infections on inflorescence and early clusters, and downy mildew, phomopsis and botrytis are ready to infect in wet spring conditions. Warm and dry mid-summer conditions have helped in the past 3 years, especially by limiting methoxypyrazine accumulation in red varieties, but then if the weather degrades in August and September, trouble can ensue, especially in the form of foliar downy mildew, and fruit rots including botrytis, sour, bitter, and ripe rots - all will compromise fruit and wine quality. Maintaining berry skin integrity is a key element of avoiding fruit rots and fractures caused by splitting (rain), bird pecks, wasp, grape berry moth, spotted wing drosophila, and even diffuse powdery mildew, all can snowball into mushy, smelly fruit. Other problems such as frost, poor fruit set, bunch stem necrosis, berry shrivel and others have conspired to reduce yields. The bottom line of all these problems is higher costs (more

chemicals, sorting, lower yields, declassifying wines, etc. for growers, and much more effort to produce high quality wines. Galen Troxell summarized his experience at Galen Glen Vineyards in eastern Schuylkill County. GGV has been making outstanding aromatic white wine such as Gruner Veltliner and a groundbreaking Zweigelt. Galen was right when he said these conditions take the fun out of growing grapes, and let's face it, most of you are trying to enjoy growing wine. I encourage readers to look at Galen's talk because it's a good summary of the objectives of most conscientious wine growers. Dr. Joe Fiola, University of Maryland small fruit and grape specialist talked about management strategies for Brown Marmorated Stink Bug, which has hit Maryland orchards particularly hard. Joe has been testing sensory thresholds for BMSB taint, which is the same compound as found in the herb cilantro, in white and red wines. There's a bit of good news here that even at very high numbers of stink bugs in the processing stream, the aroma and flavor compounds seem to dissipate or bind during fermentation. Most growers have been frustrated by wasp damage in grapes in recent years. They are primary and secondary invaders that cause juicing of fruit, which leads to fruit fly proliferation and fruit rots. Dr. Jody Gangloff-Kaufmann, is a community IPM specialist at Cornell and she presented an overview of the wasp pests and some ideas about how to manage them around vineyards. There are no silver bullet solutions for this problem, or any of the threats presented at this meeting, just the ponderous diligence needed to minimize them from the very beginning of the growing season. Libby Tarleton, Cornell research technician at LIHREC in Riverhead on Long Island talked about their research on different types of bird netting. Not all net materials are the same and the type and style of net, weave, pattern and other characteristics make a difference. In fact, some vineyards on LI have begun to double net vines to thwart the birds. Alice Wise, extension viticulturist at LIHREC (with help from Dr. Wayne Wilcox) presented excellent information about late season downy mildew and fruit rot management, including the dreaded sour rot. Downy hits the leaves and rots knock out the fruit. All of the speaker presentations made at the IPM workshop are posted on the PWGN website. As we head into this new vintage, it would be very prudent to think about the harvest season now.

b. Grape Disease Webinar from MSU: As part of their Spring-Summer 2013 Webinar Series, the Michigan State University Grape and Wine Program is offering an early season disease management webinar by Dr. Annemiek Schilder of the MSU Dept of Plant, Soil and Microbial Sciences. It is Wednesday, April 17th from 1:30 to 2:30 EDT. You must pre-register for the webinar (deadline is 5:00 PM, Tuesday, April 16) in order to receive link information - you will be taken to the Chateau Chantal website where you can "purchase" the webinar online, just follow the usual steps. On June 26, Dr. Rufus Isaacs will offer a grape berry moth workshop. He gives an excellent talk. Please mark this on your calendar!

c. Learn About Grapevine Red Blotch Virus: If you have vinifera vines that were planted in the past five years that have displayed reddening of leaves, particularly late in the season, they may be infected by the Red Blotch virus. The symptoms are similar to leafroll and growers should study fact sheets to tell the two apart. Red Blotch can severely affect a vine's abillty to ripen its fruit. A National Clean Plant Network and Cornell University webinar (YouTube) titled Grapevine Red Blotch Disease: An Emerging Issue was presented on March 27th and includes Dr. Marc Fuchs, Rhonda Smith and Deborah Golino Red blotch has affected vinifera grape varieties in the Mid-Atlantic region and growers who have planted vinifera recently or will soon plant vines should be aware of the symptoms and effects of this virus. How and where you source materials is critical to avoiding the problem. Dr James Stamp wrote an excellent article titled The Impact of Grapevine Red Blotch Virus in a recent Wine Business Monthly article.

d. Grape Fungicide Update from Ohio State University: Sometimes it seems that diseases and insects rule the lives of grape growers in the Eastern U.S. and 20 spray applications in vinifera vineyards was not

uncommon last year. That's a lot of time and money going into protecting the leaves and fruit. Every vineyard has unique disease and pest challenges so there is no template for management so each grower has to develop his or her own management plan. We are fortunate to have excellent grape pathologists in the region, and Dr. Mike Ellis, recently retired from Ohio State but still helping the wine industy, delivers practical, no nonsense disease control recommendations. His recently released fact sheet title "A Description of Currently Available Fungicides for Grape Diseases" brings growers up to date on fungicide products. Dr Ellis covers powdery mildew, downy mildew, black rot, botrytis, and anthracnose and addreses resistance issues also.

e. The 2013 New York and Pennsylvania Pest Management Guidelines for Grapes is now available on-line and as a spiral-bound, laminated manual. Edited by NY grape IPM specialist Tim Weigle, this is the bible of IPM for grapes in the East and should be considered an essential resource for all commercial grape growers, wine and otherwise. It covers grape diseases, insect pests and vineyard weed control but also has information about sprayers and sprayer calibration. Since IPM is so critical to grape quality and profitabilty, this guide cannot be ignored. When combined with information from pathologist such as Dr. Mizuho Nita's Virginia Tech grape disease blog, and Dr. Wayne Wilcox's annual grape diseases update (see 2012) it greatly increases the likelihood that no matter how the weather goes during the growing season, there is a good chance to harvest disease-free grapes.

Here We Go Again is an annual preview of the growing season. What a difference a March can make! In 2012 we had the warmest March ever. This year it seems like spring will never arrive. *Here We Go Again* is a practical guide to starting a new vineyard season with tips about disease control, frost protection, weed management, equipment maintenance, grape contracts, wine evaluation and more. Click HERE to read it on the PA Wine Grape Network website.

Upcoming Meetings: If you are a grape grower or wine maker in the southwest Pennsylvania area you should attend the vineyard and winery workshop at Greendance Winery and Sandhill Berries in in Mt. Pleasant, PA. Denise Gardner and Mark Chien, and also Lee Stivers, Penn State horticulture extension, will be available to answer questions. There will be a vineyard and winery tours, and a sprayer calibration session (1 core credit). For information, please contact Lee Stivers at 724-228-6881 or click HERE for registration and information.

Registration is now open for the PSU-PWMRP Wine and Grape Research Workshop on May 22 in the Food Science Building at University Park (State College). Following on the heels of last year's successful research meeting, Virginia Smith, a food science major who has worked with Denise Gardner and recently completed an internship at Two Hands in Australia, will talk about her experience as a student and intern. Dr. Justine Vanden Heuvel, research viticulturist at Cornell will present research about the impact of crop yield on fruit and wine quality. Denise will present her research wines from the USDA NE-1020 wine grape variety trials in Erie and Adams counties. Cost is $25 and includes breakfast and lunch.

Viticulture and Enology On-line Classes at Harrisburg Area CC: Registration is open for new students on April 15th for FALL semester classes in enology and viticulture at HACC. Courses available to new students include: ENVI 100 General Viticulture; ENVI 161 Fundamental of Enology and ENVI 164 Wine Chemistry and Microbiology. Courses offered for existing students or experienced industry members

include: ENVI 253 Sensory Evaluation II and ENVI 261 Clarification and Packaging. Courses are offered on-line. ENVI 164 and ENVE 253 include two weekend camps on campus for practical experience. All courses may be taken for credit to complete a certificate or associate degree, or can be audited for no credit. For more information, contact Bob Green at ragreen@hacc.edu or call 814-860-1452. It is still possible to register for ENVI 140 Summer Vineyard Operations which starts on May 20th. This course focuses on summer vineyard management tasks and includes 2 weekend camps. For information please contact Joyce Rigby, viticulture instructor at 717-357-0313.

Developing a Wine Vineyard (Long Island-style): There are different ways of developing a vineyard. In the East the method is more traditional, the vineyard owner plants and tends the vines. But in places like Napa, the blank check method is more common, i.e. the land owner hires a design and development company to install the vineyard - he writes a check and a vineyard magically appears. The closest service I know of that can do that is Mudd Vineyards Ltd on the North Fork of Long Island. Dave and son Steve have been developing vineyards since, well, I was on Long Island so you know they've been doing it for a long time! In fact, I think they have planted half of the 2,500 or so acres on Long Island. Their work is really the standard of viticulture for Long Island's premium vinifera wine industry – 8x4, VSP, everything looks perfect. Almost any vineyard has a hope of producing high qulaity wine if it looks this good. So if high quality vinifera wine is your goal, it is instructive to know what it costs to develop a Mudd-style vineyard. In a recent Ohio Grape Electronic News(letter), Dave Scurlock published Prospective Vineyard Owner's Worksheet: a 3-year estimate for establishing your own vineyard utilizing a vineyard management company, a report from Maryland sponsored by the Upper Shore Regional Council where Steve had visited and gave his insights into the Maryland wine industry and outlined his company's vineyard development costs. I thought it was fascinating to see how Steve breaks down his services and how much vine density can affect development costs. I always look for benchmarks to establish a qualitative reference point, and when it comes to vineyard development in the East, Steve and his vineyards are fine examples for anyone who wants to develop a high quality wine vineyard. I am grateful to Dave Scurlock at Ohio State University for sharing this OGEN article with me.

An Update on the Oregon Wine Industry: I was recently invited to give a couple of lectures at the Oregon Wine Research Institute at Oregon State University. I always leave Oregon with some very strong impressions of the wine industry and research community. Oregon continues to be a model for other emerging wine regions to follow. In its sixth decade, it continues to grow, improve quality and demonstrate progressive leadership. Click HERE to read my notes.

Viticulture Instructor Position at Surry Community College: Surry CC has one of the longest operating V&E vocational training programs in the country. It is located in Dobson, NC. It hosts and excellent teaching vineyard and instructional center. Candidates (bachelor degree minimum, masters preferred) must facilitate student learning in curriculum courses as well as other usual faculty duties. The course load may include both day and evening classes on multiple campuses as well as Information Highway, hybrid, and online classes. Teaching courses related to grape growing; vineyard establishment and development; grape and wine science; grape pests, disease and disorders; and basic vineyard operations; advising students in the area of viticulture and enology; recruiting, marketing and conference planning; primary responsibility for Surry Community College's five acre teaching vineyard; working with the enology instructor for grape processing at Surry Community College's state-of-the-art bonded winery. For more information, please contact Ashley Myers Bond, Science Division Chair at

bonda@surry.edu or 336-386-3510 or visit
http://www.surry.edu/Programs/ViticultureandEnologyTechnology.aspx

The Power of Wine Glasses: Friends and colleagues know that over the years I have become a bit of a stemware snob, believing that the size and shape of a wine glass can dramatically alter the wine sensory experience. As many ways as we try as growers and wine makers to improve wine quality in the vineyard and cellar, it can be potentially negated or improved by the glass. I would argue that this applies to all wines, but in particular those with more delicate aromatic and flavor qualities. It is not something I have any data to support, other than my own nose and tasting experience, and the work by glass manufacturers like Riedel. But a recent encounter with an unsual wine glass led me to consider the potential of the glass to influence our wine appreciation experience. I also believe strongly in the necessity of wine professionals both in production, service and education to taste benchmark wines (in good glasses) in order to develop a contextual framework for wine quality within the varieties you are producing. No, not every car enthusiast gets to drive a Ferarri, but wine is more accessible. Click HERE to access my musings on this topic.

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