



Wine Grape Information for Pennsylvania and the Region From Penn State Cooperative Extension

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NOTE: To the best of my ability I will post all newsletter attachments on the Pennsylvania Wine Grape Network as PDF files. You can view them at <http://pawinegrape.com/>

In the Vineyard: In the aftermath of Irene I spent the past few days in vineyards in SE PA and just thought I should share some observations with you. Particularly at this time of year, growers tend to stay on their farm and may not be aware of what is going on around them. I can wander around and get a little sense of the bigger picture and direction of the vintage. First of all, you are NOT the only vineyard with sour rot in the Pinot Gris. I was struck by how the birds and bees have had a laser-like focus on PG, probably because of advanced ripening but perhaps some volatile aromatic quality as well as color. The damage in some vineyards has been dramatic and specific to PG and highlights the voracious behavior of birds this season. Collectively we'll have to adopt the Long Island practices of bird protection, more activist and using spacers to push nets away from the clusters (see Alice's bird net comments below). Once again, I stress that bird control is not a passive activity. You need to be out there moving them, at least as long as they will budge, and move your cannons and bird guards too. As far as what to do about sour rot, the book (i.e. Sutton, Wilcox, et al.) says there is no fungicide that will control this witches brew of fungi, yeast and bacteria that cause the formation of ethyl acetate and other insulting aromas in the vineyard, and ruins wines. So far the best strategy is prevention that starts with a very sound IPM program with particular attention to rot sprays. At this point in the season, only dry weather and a stiff breeze will really help to arrest its development, and continued diligence in preventing damage from birds and bees. Oddly, given the conditions in August – we have areas in SE PA that received all-time records of 18" of rain, leaves and fruit are amazingly free of disease with only the expected downy mildew on new lateral growth on the top of VSP canopies and some powdery mildew, but strangely no botrytis. I attribute this mostly to very competent IPM and some helpful heat spikes in July. I may suggest that sprayer calibration can be modified to more effectively control DM on canopy tops by adjusting nozzle direction and output to better cover the upper area of the canopy – remember individual nozzle volume can be selected. This applies for fruit zone directed sprays as well, where coverage is so critical to effective control with fungicides. I observed that growers using tunnel sprayers appear to get better overall control than air blasts, but there could be a lot of reasons for this other than just the sprayer. It's a thought, especially if you have disease problems. One of our best growers who strives for sustainability in his vineyard made an incredibly simple but true statement – he said that he just works as hard as possible to get light and air into the canopy and fruit. Also notable was the relative lack of any bug problems. In visiting a dozen vineyards I did not see a single Brown Marmorated Stink Bug, and Japanese Beetle damage this summer was minimal, as were reports of grape berry moth injury. These are all good signs for us, again that careful IPM works. We have a number of growers who are tracking degree day information to indicate when to spray for GBM using information from Penn State and Cornell. I have had one unconfirmed report of Spotted Wing Drosophila in a vineyard. This is a new pest for growers to ID and scout. Canopy management and balance has been, for the most part, of very high quality this year and kudos to growers who kept up

with the blast of growth after the long cool spring turned into a heat wave. Dense canopies definitely cause more disease and hinder fruit ripening so seeking the holy grail of vine balance is a worthy goal. We are definitely picking better vineyard sites but need to continue to work with those in less than ideal soils.

Now is the best time of the year to critically examine your vines and fruit and figure out what you have done right and wrong during the season and plan for next year or other changes that can help to improve fruit quality. By this time of year my lawn and garden look pretty rough, some would say nasty, from the cumulative effects of summer (and my lack of attention) but there is a lot of truth and lessons both in the garden and vineyard to be learned. Observe the size and color of leaves and shoots, internode length, the density of the canopy, the quality of fruit set, amount and extent of lateral growth, the uniformity (or lack of it) of ripening, all of these are indices of vine performance. It's difficult to make mid-stream adjustments in a vineyard but we have lots of options. I have seen some overly-vigorous vineyards, which is largely a site effect but there are tools such as cover crop, root pruning, training and trellis systems that can help to bring the vine into balance (see Tony Wolf's research on vine vigor). It begins by understanding the balance right now and then balance pruning this winter and figuring out how to distribute the growth evenly and appropriately within the box the vine has been given. If the vine is too big, it may need a bigger box. Too small, it may need a boost or more company in the row.

We still do not crop estimate. I'm pretty certain I'm the only person in the Eastern US who still believes this is a worthwhile practice given the importance of yield to quality. I did it religiously as a grower and I'm certain it helped me grow better Pinot Noir. Maybe I just wasted a lot of time and effort. Under our conditions, if fine wine is the goal, correct crop is critical to success. If you can find time to go to a movie or watch tv, you can get out into the vineyard and estimate yields.

Crown gall continues to be a significant problem in new vineyards. It is so disheartening to see. Somehow, someday, we need to remedy this. See the story on Vineyard Problems below for more news related to chronic vine problems. This is also a good time to find and mark vines that need closer attention or removal due to crown gall, leafroll virus, winter injury, grapevine yellows, etc. Growers should be able to ID all of these problems. Do not wait until the leaves drop or they will be impossible to find.

Many vineyards suffered blown-down rows. As far as I can tell, this was completely random within the vineyard, although Irene came from the north and any E-W rows took the brunt of the wind. For the second consecutive year, a vineyard using notched, steel stakes experienced failure at the first (lowest) notch that takes the most stress from canopy, crop and wind. It's a tremendous hardship to put upright fully loaded vines but it can be done with temporary stakes.

I have no sense whatsoever where this vintage is headed. Mother Nature is rocking us now, from earthquakes to hurricanes, she is in a bad mood. That doesn't bode well for agriculture in general. And it's not just vineyards, I have seen acres upon acres of corn blown down in Lancaster County. Whites may start coming off in the next few weeks but reds need to hold on for 4-6 weeks. Right now that seems like an eternity but growers need to have a plan to keep the fruit and canopies clean and sound, that means continuing to chase birds and spray judiciously, mostly for PM and DM. Leaf removal can be more aggressive now as temperatures begin to cool. I feel confident with some good stretches of sunshine a fine vintage could be at hand but it will take some cooperation from above to get there.

More on Bird Netting from Long Island (from Alice Wise and Libby Tarleton, Cornell Cooperative Extension): We have three types of side net out: a narrow mesh but is not lock-stitched and narrow mesh and lock-stitched, black and white. The lock stitched fine mesh net seems to be the most effective at keeping out both birds and wildlife. We like side net as it is easy to apply/remove and it affords us the opportunity to continue hedging as needed. This is particularly important for us as we put our nets out so early, usually in late July. It also avoids the shoot crowding of over the row net. This sometimes aggravates downy mildew in the upper part of the canopy. Some people ask about shading – the finer mesh nets range between 10-15%. However, the side nets are centered on the fruit zone. The younger more photosynthetically active leaves in the upper half of the canopy are still fully exposed to sunlight. (AW)

Harvest: The birds are reminding us that harvest is getting nearer. Harvest is a mess of emotions including the exhilaration of finally picking the fruit, the anger at birds, the worrying about the weather, the exhaustion of long work days and the underwhelming relief of finishing another vintage. Harvest is managed chaos and in my experience the better the planning and preparation the less chaotic the actual event. So even though we are weeks away, many for some red varieties, it sure can't hurt to start getting ready, emotionally, logistically, spiritually, whatever it takes! When I was a grower in Oregon I worked with Dr. Ed Hellman, the extension viticulturist to write a chapter about harvest for *Oregon Viticulture*. We tried to focus on the practical application of harvest and what it takes to get the grapes into the cellar. I think this is a good review for experienced growers and a helpful primer for new grape growers. See [attachment: Harvest](#)

Botrytis and Wine Making: It sure is nice having an extension enologist! I mentioned above that I haven't seen much botrytis YET, but it is surely lingering and almost certainly will be an issue for wine grapes this vintage. Denise Gardner, Penn State extension enologist, has put together a fact sheet on how to deal with botrytis in the winery. Of course, the best remedy is to get clean fruit. But just in case that doesn't happen, her recommendations will be very helpful. Please contact Denise if you have any questions at dxg241@psu.edu. See [attachment: Fermenting with Botrytis 101](#)

Grapevine Problems: Ever since I arrived here in 1999 I have been acutely aware of the challenges to successful and sustainable wine growing in the East. There are just a lot of threats nipping at the heels of grapevines in this difficult environment. Fortunately, we have all manner of viticultural tools available to help to overcome the obstacles and so far it has worked. But some reach beyond our technology and force us to adapt to the challenges they present. I considered some of the problems currently facing commercial vineyards and hope that we can find solutions to them in the future. See [attachment: Grapevine Problems](#)

Nice Vineyard!: It's one of my great pleasures to see a well executed vineyard – a good site, appropriate design and competent development, and I have no doubt that there are many out there that I have not seen or know about. I got to see one fine example recently in Mt Joy, near Lancaster, and it encouraged me that the people who get into this business are motivated and know what they are doing. It's all about filling the knowledge gap and those who do it well tend to have nice vineyards. See [attachment: Vineyard at Grandview](#)

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