

WINE GRAPE INFORMATION FOR PENNSYLVANIA AND THE REGION

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Vintage Summary: I went back and read my vintage update on [August 9](#) and was amazed how this vintage turned on a dime, thankfully for the better for most wine growers in the Mid-Atlantic region. The following is a summary of the growing season with some observations made along the way...

Octoraro Cellars is harvesting their Cabernet Sauvignon today so I think it's safe to close out this vintage.

This was my 15th vintage in the Mid-Atlantic and I can state with certainty that no two are alike and I am unable to describe what might be considered a normal or average wine growing year in the East. I've come to believe that proximity to the ocean has a profound effect on the ability and consistency of fine wine production, and also quality of site, depending on the goals for the wine, are paramount. Vinifera production is extremely hazardous, and natives and hybrids make a lot of sense for a variety of reasons in our climate (and marketing) conditions. But when vintage conditions cooperate, all of the wines produced can be outstanding.

Following another relatively mild winter with minimal winter injury to vines, a cool spring with late bud break was punctuated in some areas by frost events in May, with some vineyards losing up to half of their crop. With primary crops gone, vines produce a delayed secondary crop, which can wreak havoc all the way to harvest – in one case a vineyard reported Merlot and Cabernet Franc ripening ahead of Chardonnay. Despite the losses, quality can still be very good from frosted vines. I believe that viticultural issues related to yield may be the most significant economic challenge to vineyards in the region, especially independent vineyards (not part of an estate winery). One grower told me that he plans to install micro-jet overhead irrigation to protect his crop, a tried and true method in areas affected by frost in California. In the East, site selection and quality, or the ability to afford active frost protection measures is an essential response to increased frost risk. I plan to convene a discussion group of growers to identify frost mitigation options for the area, from KDL and late pruning, to wind machines and overhead irrigation.

Yield losses were exacerbated on red varieties this season by early and late bunch stem necrosis and berry shrivel, with some vineyards losing up to 20% of their crop due to these mysterious maladies, which are thought to be physiological or nutritional disorders, with no known remedy. Dr. Tony Wolf conducted an interesting experiment at the AREC research vineyard in Virginia comparing the incidence of LBSN on shoots of varying length (vigor) but not able to find any clear correlation. It is most often associated with a possible imbalance between potassium and magnesium in vines. In August, Dr. Baskhar Bondada from Washington State University addressed the assortment of berry maladies in a seminar hosted by the Pennsylvania Quality Assurance group. I hope that we can have recommendations for treatments of these maladies in the near future.

In 2011 and 2012, the summers were defined by a droughty July. This year the summer afternoon thundershowers never ceased. While the regular events were mostly minor and total rainfall less than annual averages, the constant wetting of the ground, canopy and fruit created lengthy infection periods

in vineyards and greatly complicated fungal disease management. However, growers responded heroically under these dire conditions, tightening up spray programs and keeping fruit and foliage clean. I thought it remarkable how clean canopies and fruit were deep into the harvest season, with only late season downy mildew appearing as spray programs ended, and some vineyards were partially defoliated, but some vineyards were clean right to the end. Growers are getting much more savvy about reading the conditions and adjusting their IPM programs in real-time in response to those conditions. I wondered where powdery mildew has gone? It has not been a major problem in vineyards for the past few years. Not that we miss it. But downy mildew must be managed because every leaf is valuable in the East, not just for fruit ripening, but for proper wood maturity and cold hardiness. I have lingering concerns about the quality of canes going into the winter since I have seen a lot of green shoots, even this late in the season. Growers should prune carefully this winter, paying particular attention to cane selection and looking for punky wood, especially on thin canes. I think the delayed maturation may be due to moist soils well after veraison.

Another area in which growers excelled was vineyard floor management. Anyone from another wine region would scratch their heads and wonder why vineyards looked so messy, but I believe that vigorous cover crops in row middles and under-row helped to manage soil moisture and keep vine vigor in check, allowing for some degree of balance in a wet season. Even after veraison the degree of “broccoli canopy tops” was not as severe as in recent seasons past. As the season dried out in September, covers were mowed down. I did not see a rash of fat and lazy canopies during or at the end of the season, not that they were lean and mean, but within the necessary window of balance.

Correct amount of leaf removal was important this year. As the wet summer extended, more leaves were removed to open the fruit zone, this is an important judgment call depending more on intuition than anything else. While I saw some sunburn, there were very few heat spikes during the summer, and August was one of the coolest on record in Pennsylvania. The open fruit zones allowed for more light and spray penetration, and this probably helped to lessen the amount of fruit rots. By harvest, many fruit zones were completely open with cluster exposed, but protected by bird netting. I prefer the side nets which allow for continued equipment access in the vineyard for late sprays, especially on red varieties, but because these nets have to be pinned so tightly, it makes any activity in the fruit zone, and especially sampling, more difficult.

It was also critical to manage crop balance this season, especially on red varieties. Growers sensed that it would be a difficult season and crops were adjusted accordingly, but the key was timing. Clusters are a significant resource sink and can be used to manage vine vigor. More than a few growers delayed thinning to use the crop as an anchor to slow vegetative growth. Managing crop is a critical aspect to successful Eastern wine growing. I still wish that more growers would employ lag phase crop estimation to statistically adjust their crops, instead of using the eyeball method.

I had two memorable events leading to the turn-around of the vintage in late August. At this time, everyone was feeling pretty glum about the prospects for a good harvest. About the last week of August I spoke with Gino Razzi at Penns Wood Vineyard in Chaddsford and asked him what was necessary to make his fine Meritage wine in 2013. He replied instantly and definitively, “If it stops raining today. Not tomorrow. Not the day after tomorrow. Today.” Well, as a matter of fact, it still rained a little bit but the rain stopped a few days later and Gino got his wish. At RdV I stood in the vineyard with their technical director, Josh Grainer, looking at vines that were perhaps a bit more robust than they would normally wish them to be in late August but we both agreed that everything viticulturally possible had

been done to manage the canopy and crop and to set the vineyard up for success if the weather changed, and it did, and recent reports from RdV about the vintage are very promising.

Even after the fickle weather conditions in Oregon I have never experienced as quick and complete a reversal of fortune in a vintage as this year in the Eastern U.S. Every cool and humid region needs to know how late it can extend unsatisfactory growing conditions and still pull a vintage wine out of a hat, and I think we found out what the limit is this year. It was exceptionally fortunate not to have a big weather event (hurricane, low pressure system) that could hamper the ripening progress, because every hour of clear sky was necessary to get the late season reds to full maturity. I remember after the summer rains stopped and the skies cleared, breezy days helped to dry out canopies and soils. These were the best possible conditions any wine grower could wish for! As it turned out, and may have been regardless, the white wines from 2013 will be outstanding. This clearly demonstrates the wonder and practicality of whites, that they as a group are more forgiving and malleable in difficult conditions than red varieties. I heard a few growers talking about focusing more on whites than reds in the future, and for that matter consider disease resistant hybrids over the sensitive European varieties, ideas that make sense north of the Mason-Dixon. The only significant event was the system that swirled briefly over much of Pennsylvania on October 11 and 12, dumping as much as 8" of rain in places. This was not welcome for those who still had reds hanging, but the fruit I saw afterwards remained in remarkably sound condition, I did not see a single split berry. This highlights the remarkable fact that very little of the fruit rots appeared this year, though some botrytis and sour rot where berries were damaged by birds, bees or wildlife.

Speaking of bees, where were they? One grower told me that the rain during the summer drowned the yellow jackets in their subterranean nests. I saw very few this year. Birds, also, were less present than in past years. Wildlife, in particular raccoons, caused the most losses during harvest. This was reported across the region. Why all of a sudden raccoons would take an interest in grapes is a mystery to me but deer fences should be extended underground and 2' forward of the fence line to exclude burrowing animals.

This vintage proved the value of the last six weeks of the vintage. The sun and breezes can have a profound impact on the quality of grapes in the vineyard, assuming it has been carefully managed. While sugars did not move very fast or high, physiological ripeness and the assortment of quality parameters seemed mostly within range and specification to make very good wines. The breeze has a magical way of keeping the canopy and clusters dry and relatively disease-free. The cooler temperatures of a late vintage along with cool night temperatures helps to suppress botrytis and allow fruit to slowly mature. Dr. Jean-Philippe Roby from Bordeaux said that the slow ripening under cool conditions is essential for complex flavor and phenolic profiles, and that the window in the Mid-Atlantic for Bordeaux reds is mid- September to mid-October, a period of high risk for weather events, but he said it's a necessary risk for the region. It is interesting to note that Bordeaux is having a very Mid-Atlantic harvest season with regular rain events. Perhaps most importantly, the mood of growers and wine makers during a sunny vintage is much better than the gloomy ones in 2011 and 2012. Everyone is optimistic and feeling positive about the wines, and the whole physical and mental process of making wine is easier and more pleasant, and also less expensive.

You would not guess the latter from the number of people I saw on sorting conveyors this season. I think wine makers thought this was going to be a major sorting vintage so they prepared for it with ample crush help. For me, this may have been the most significant difference and improvement from past vintages. Small wineries like Galer Estate and large ones like Boordy, have committed considerable

time and expense to harvesting (especially reds) into small lug boxes, gentle dumping systems and pumps or various gravity-assisted systems, high quality destemmers, shaking tables and conveyors manned by many people who are trained to remove stem jacks, unripe berries and other unwanted material from the production stream. It's a huge commitment because it slows down processing but the results are almost without a doubt better quality wines (someone please do a barrel of side-by-side sort vs. no sort wine to prove this point). I do not believe that the same quality can be achieved by sorting in the field, it is too difficult to evaluate whole clusters, versus individual berries on a conveyor. This practice, if it becomes widespread in the region, will greatly raise the quality of fine wines.

Chronic trunk diseases like red blotch, leafroll, tomato ringspot viruses, grapevine yellows continue to vex wine growers across the region, are usually the result of infected nursery plants. They are mysterious inhabitants of the vine, growers report less symptomatic grapevine yellows vines this season, and in some cases vines that have displayed varying amounts of red blotch last year but not this year. These viruses coming from commercial nurseries represent a tragedy for wine growers at many levels. For example, one vineyard that had a two-acre plot of Semillon completely affected by virus had to declassify the fruit from a Bordeaux white blend to a fruity wine that costs ten dollars less per bottle. The total losses for each of the years they have had to redirect these grapes is over \$50,000 in wine revenue. When, and how, will this ever end? Growers should be able to identify trunk diseases and understand how to properly manage them, whether to apply an added measure of TLC to the vines or pull them out to prevent further spread of the disease.

In my wanderings I continue to see two factors that contribute to the advancement of grape and wine quality: the use of consultants, traveling for viticulture experience and knowledge, and formal education and training in viticulture and enology. I have seen graduates from the 4-yr undergraduate viticulture and enology program at Cornell having an immediate impact on their winery businesses, and graduates and students from the certificate and degree programs at Harrisburg Area CC and others like Surry and Finger Lakes are placing skilled professionals, and training those without prior formal education, into the industry and positioning them to succeed and improve their wines. This is very exciting to see across the region. Consultants can play an important role in the progress of quality and development at a vineyard and winery. It is important that the consultant's knowledge, skills and temperament are a good match for those of the winery and/or vineyard. One of the best wine growers I know told me that if he had known what he didn't know in the early years of his vineyard and winery business, and had hired his consultant at that time, his time to arrive at fine wines would have been cut in half. Why wait? Consultants bring a fresh perspective to

Growing wine in the East is a challenging way to make a living but we have more people than ever before doing it. Growth of vineyards and wineries continues unabated, and arguably the wines being made are better than ever. But I've always believed and said that an added measure of skill, knowledge, passion and experience are necessary here compared to any other wine region if consistently high quality wines are to be made, and this vintage, even a fine one, affirms this view of growing fine wines in the Eastern U.S.

I'd like to thank grape growers and wine makers who hosted my visits during the vintage and answered all of my questions. Hanging around the vineyard and crush pad with their myriad of sights, sounds and aromas certainly made me miss being in wine production. I look forward to tasting the wines in the spring!

Harvest ends but the work in the vineyard doesn't. It's not too early to be preparing the vineyard for winter, or for next year. Click [HERE](#) to read a checklist of post-harvest activities in the vineyard.

Happy Halloween!

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