

PENNSYLVANIA STATE UNIVERSITY



College of
Agricultural
Sciences



Annual Summer Vineyard Walk Around
with Richard Smart
Waltz Vineyard, Manheim, PA

About 130 growers along with people from Penn State, state legislators, PDA officials, members of the press, industry association members gathered at the vineyard of Jan and Kim Waltz in Manheim to learn about the fine art and real science of canopy management from one of its principle founders, Dr. Richard Smart. It was a beautiful, sunny, clear and cool morning in an almost perfect vineyard. Jan and his vineyard manager, Jeff Zick, keep the vineyard in fine shape. In Pennsylvania it is time to stop qualifying remarks about vineyards and wines with, "...good by PA standards." This vineyard is excellent by international standards.

We began the tour in the perfectly balanced white wine vineyard with Dijon clones of Chardonnay, Sauvignon Blanc and Semillon. I tried wines made by Penns Wood Winery earlier and the Sauvignon is classic in the white Bordeaux style, not the more herbal, straw of New Zealand but a richer, more concentrated, buttery style. It took about 30+ minutes for the fruit to blossom from the glass. It is a remarkable wine and Sauvignon Blanc may have a significant place in Pennsylvania viticulture. The Chardonnay, as I wrote earlier, was compared quite favorably to a Corton-Charlemagne, very rarified company indeed. It isn't hard to see how the results appear in the glass. With yields in the 4 ton range, the white grapes excel here on a slight north slope with east-west rows. The canopies here are thin, well-positioned and in balance. The only detectable problem was a bad case of Japanese Beetles in some places. Shoot tips had terminated and shoots were beginning to lignify at the base, despite a rainy season so far, a sure sign of fine soil drainage.



Richard was emphatic in stating that good canopy management helps you to make more money, especially for red varieties. It helps to get the fruit ripe which makes better wines and reduces disease (especially powdery mildew and botrytis), which saves on spray materials and makes better wines. He asked the audience, "why, would a grower not put forth every effort to succeed with canopy management?" Yet, far too many growers are "canopy poor", lacking in a good effort and quality. Most growers know what to do, they just do not execute. The disadvantage of canopy management is it takes time and requires labor inputs up front. But the potential dividends are too significant not to make the investment. On VSP he claimed labor inputs of 10 hrs/ac with 2-3 passes necessary during the season. A well-positioned vineyard will increase sunlight interception by 30-40% and since the canopy is nothing more than a solar panel this is what we strive for – optimal capture of sunlight.

Besides the well-manicured canopy, Waltz Vineyard may be most notable for its vineyard floor management practices. Even in a wet year like this one, there are no weeds in the vine row, yet

no herbicides are used, ever. Instead, 4-5 passes per season with a Braun grape hoe keep the weeds away. Straight trunks are required so good training work is necessary to allow for efficient and effective equipment operations.



Richard explained a few of his Golden Rules (visit his book, “Sunlight into Wine” for the whole list and much more). 15 shoots per meter can be the starting point for a balanced canopy. His general test for adequate canopy density is the ability to discern the color of the shirt of a person on the other side of the canopy. That’s an easy test! 30 buds per kilogram of fruit or about 0.6 kg/m of trellis are also key balance indicators.

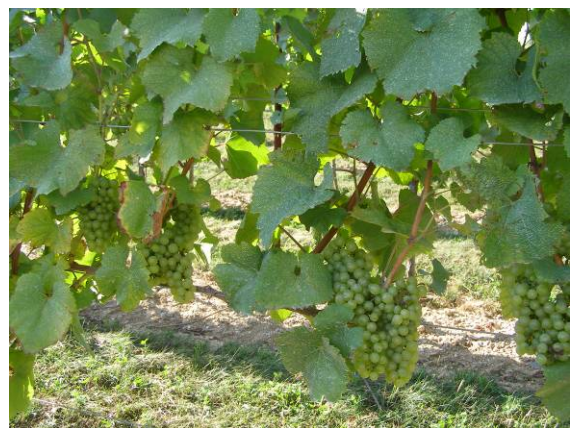
It was stressed that now is the time, at or just before veraison for shoot growth to stop and shoot

lignifications to begin. These are signs that the vine is slowing down growth and focusing on fruit ripening processes. Rain during this period is not helpful and he acknowledged the challenges presented by our summer and harvest season rainfall averages, along with the occasional hurricane, hail, frost, etc. Cane size is a good measure of relative vigor in the canopy. If canes are excessively long and weigh 60-70 grams there is too much vigor. Target cane weights are 30-40g.

Richard commented on the pale, greenish-yellow leaves in the white grapes and wondered if this might be a sign of some nitrogen deficiency. His concern was not just for the vines but for the quality of primary fermentation as well as potential atypical aging problems in wines. He said that basal leaves turning yellow and senescing prematurely is bad for wine quality. A grower with these conditions may consider a dressing of N around 50 kg/ac. But he stressed not to over-fertilize, especially in areas of high rainfall.

Leaf removal should be done after fruit set on the north and east side of the vines with 50-60% cluster exposure. Removing basal laterals is an effective way to open up the fruit zone. Excessive leaf removal, such as stripping the entire fruit zone, is not ever recommended.

Jan emphasized that every season is different and growers must be ready to respond, either with the necessary labor to shoot position after a spring flush of growth. Foliar and soil-applied fertilizers should be used in accordance with test results and critical observations during the growing season.



Richard, like Olivier Humbrecht, is not a big fan of thinning grapes. He thinks growers should build vines according to site capacity that self-regulates its crop and we should not interfere in that process. The less is better philosophy is a myth. If a vine has the proper form and balance, it will ripen the fruit we leave on it at pruning. While I agree with this approach, it is difficult to

achieve and thinning grapes on certain varieties under certain conditions at the proper time and amount can offer benefits to wine quality.

Jan and Jeff had converted a large field of Merlot from Scott Henry to VSP. The conversion was well executed and the vines looked in balance, if not a bit on the vigorous side. Jan carefully monitors vine size, balance and yields and can adjust his vines back and forth between VSP and SH on his trellis. This is an ideal example of how viticultural tools can help to grow better wine.

Other key ratios: Pruning weights 0.3-0.5 lb/ft. 5:1 fruit/pruning wt.

Ed Boyce (Black Ankle Vineyard, Mt Airy, MD), Brad Knapp (Pinnacle Ridge Vineyard, Lehigh Valley), Jim Quarella (Bellview Vineyards, southern NJ), Galen Troxell, (Galen Glen Vineyard, Lehigh Valley), and Richard Smart were on the panel. The panel started out by answering the question, “What are you doing now in the canopy and fruit zone?” To a person they said, basically, nothing. By this time of the season, the work is done with minor touch up according to conditions. If it gets wet, more leaves might come off. No one mentioned any additional fruit thinning. Concerns were expressed about the prevalence of downy mildew this season. New lateral growth after hedging encourages the “broccoli top” look of VSP. Nets are going up. They were asked about replants in a mature vineyard... “...leave the ground fallow for 1-2 years and then plant a healthy vine and keep its neighbors at a distance, judicious fertilizer and adequate water and keep the weeds around it under control.” Training of one-year old vines (second leaf) elicited some in-depth discussion. The focus should be on establishing the roots. Training can start if vines are vigorous. They should be cut back to minimum pencil diameter in the winter. Training stakes should be used to insure straight trunks. Ed mentioned the eerie lack of JBs this year after a couple of very bad ones. Like the birds, we all puzzle over the inconsistency of their presence.

Wines:

We had a wonderful dinner with 24 growers joining Richard and Venessa at Gibraltar. An amazing array of wines appeared on the tables and much swapping of wines occurred throughout the evening. One veteran wine maker said that he used to be nervous about attending these dinners because some-to-many of the wines would be flawed or just bad but now the quality is vastly improved and it is possible to relax and enjoy them. I concur. I tasted no wines with any technical flaws and most are very good to excellent. If anything, I would like to see a little more ripeness in both white and red wines, giving them more depth, concentration, mid-palate and length. The reds are noticeably better but still with an acid twang on the finish. It is fair to note that many of the reds were from 2006, a challenging late vintage for sure. We tried three Pinot Noirs and all had amazing purity and expression of varietal fruit character, straight out of Burgundy like a very fine Volnay. Not the depth of Vosne-Romanee or Chambourcin but a lighter and complex style. Among the whites were a drop-dead gorgeous Albarino from Central Maryland that, after resting in the glass for an hour, developed the most remarkable assortment and layers of tropical and fruit flavors. I was amazed. A true Vidal ice wine was unctuous with nice viscosity and classic honey, apricot flavors and a finish that stretched on forever. The wine grower describes the grape as bullet-proof for our climate with small, loose, clusters with thick-skinned berries that never rot. Coincidentally, Eric Asimov wrote of Albarino in this weeks “Wines of the Times” column -

<http://events.nytimes.com/2008/08/13/dining/reviews/13wine.html?ref=dining>. In the cool hills

of the Lehigh Valley a producer makes a vibrant, green apple, zesty and bracing Gruner Veltliner (pronounced groo-ner felt-lee-ner), a white variety from Austria that seems to adapt well to our higher, cooler sites in the Lehigh Valley. Viognier is another white variety that I think we can do well in warmer areas, as long as the exotic tropical flavors are allowed to fully develop and not masked by wood. We tasted two fine examples from NJ and Chester County. And for better or worse, I think we can do excellent Chardonnay in the region. The Dijon clones appear to be well adapted to our climate and produce a wine with good acidity, flavors and concentration. The red wines were notable for their LACK of green, vegetal flavors which is a very positive development. To achieve a more international style, acids need to be lower and wine makers will have to overcome a fear of high pH in finished wines. Merlot while tooty-fruity, spicy, peppery and delicious, are less complex than their blended brethren, but they are definitely gaining weight and concentration. As you know, I am a big proponent of blending and think we need to make improvements in this critical area of achieving balanced wines in a difficult climate. There were comments about the importance of primary fermentation and extraction and the need to sort grapes (i.e. only use clean, ripe fruit to make wine).

It takes the help of so many people to make a workshop go. Thanks to whoever controls the weather for a gorgeous day and to everyone who attended the workshop, some of you drove a long way to get to it. Richard Smart, however, beat everyone by traveling 10,205 miles from Tasmania to Lancaster. Thank you for coming to help us, Richard! I could not do my job without the support of growers like Jan and Kim Waltz. They have made their vineyard the default teaching vineyard in Pennsylvania and are always, with their parents Nancy and Ray, the consummate hosts. Thanks to our panelists – Ed, Galen, Jim and Brad, I wish we had another 2 hours to field questions. I am grateful to all wine growers who support the wine grape program. I would like to thank the Pennsylvania Wine Marketing and Research Program for its generous support of this workshop. Also, the Pennsylvania Wine Association for its sponsorship of the lunch. This was the summer walk around for the Pennsylvania Association of Winegrowers. I am grateful to the board for their help with this meeting. The prep work for these meetings is largely done by the crack administrative staff in the Lancaster County Extension office. Without them, I'm out of business. Thank you!

Reference resources:

- Richard Smart's web site includes information and publications:
<http://www.smartvit.com.au/>
- You can order "Sunlight into Wine" at <http://www.practicalwinery.com/bookshelf.htm>

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