PENNSTATE

Cooperative Extension
*College of Agricultural Sciences*

# Update from Oregon

**Biodynamic Pinot Noir at Bergstrom Vineyards**

Over 20,000 acres. That's the number that stuck in my head. When I left Oregon in 2000 there were about 3000 acres. And the amount of acres isn't the most impressive part of the growth - it's the quality of those acres. The standard of Oregon viticulture is very high, almost standardized near 8x4, VSP but the site selection, design, development and management is all at a very high level. They have reached that lofty position, like other well-heeled wine regions because it's really not possible to establish a vineyard unless you achieve this standard because no winery, or customer, would buy your grapes or wine. I would say the word that best describes it all is consistency, of both vineyard and wine quality.

Oregon continues in its push for quality. It begins with visionary leadership, well-capitalized businesses, the Oregon Wine Board, which is a commodity order that generates over $1M for marketing and research, and terroir that is particularly well-suited for Pinot noir but also a range of other varieties. Using its own funds, the wine industry established the Oregon Wine Research Institute at Oregon State University to advance viticulture and enology research and education. There are now two very robust vocational educational programs at Chemeketa CC's Northwest Viticulture Center and Umpqua CC's Southern Oregon Wine Institute, both are a pipeline for trained professionals to enter the wine industry.

I was invited by my friend and colleague Dr. Patty Skinkis to give a couple of lectures at OSU, but I had some time to do some exploring. As a reminder, I was a wine grower for 16 years at Temperance Hill Vineyard in the Eola-Amity Hills AVA (EA) prior to arriving in Pennsylvania. The resources at OSU are impressive and the USDA Agricultural Research Service in Corvallis has three great scientists working on grapes including:

Dr. Bob Martin is a plant virologist who works on the newly arrived Red Blotch virus, and old enemies such as leafroll, Dr. Walt Mahaffee has developed a spore trap that can be used to detect the presence of powdery mildew and allow growers to more effectively and efficiently time their spray applications, and Dr. Paul Schreiner is a plant physiologist who works on arbuscular

mycorrhizal fungi and vine nutritional issues. There are also ARS scientists working on grapes in Washington and Idaho. It's hard to explain how significant the contribution of these individuals can be to the regional wine industry.

I was impressed by the blend of youth and experience among these research and extension personnel. Dr. Patty Skinkis is doing research on a host of viticulture matters such as yields, leaf removal, and cover crop. Dr. Laurent Deluc is doing fascinating work on finding the genetic mechanism of fruit ripening – trying to solve the problem of asynchronous berry ripening. Dr. Elizabeth Tomasino and Dr. James Osborne lead the enology team. They all teach in the undergraduate V&E program which has attracted significant attention from students, as well developing collaborations with SOWI and NWVC. I was also very impressed by the caliber of graduate students in viticulture, some have expressed an interest in working in extension.

Evening Land is an impressive new winery in the Eola-Amity Hills that also makes wine in Burgundy and Sonoma. Isabelle Meunier is the wine grower and Dominique Lafon is their consultant. The core of the wine is from the famed Seven Springs Vineyards, the foil on to THV located on the warmer east side of the hills. Only some minor modifications have been made to the 30+ year old vines that are on 12x4 spacing, including changing the training system from the old "hanging" (fruit wire at 50") to VSP. Oregon growers are among the most creative and curious I know and are always tinkering with their terroir. Isabelle showed me an amazing vine density experiment – half an acre of vines planted at 7200 vines/ac (2x2), 3-2 bud spurs, with canes trained up a stake a la the Mosel or Cote Rotie. If you want to see how vine density and root competition affects fruit and wine quality, this is how to do it. The winery is a non-descript warehouse in West Salem with no sign to help lead the curious wine consumer to the treasure trove within. The wines are uniformly expressive of the EA terroir, with that delicate sensibility that is the hallmark of fine Burgundy.

Temperance Hill has been much changed since I left under the direction of Dai Crisp it is now certified organic and continues to sell to some of the best wineries in the valley. The main south slope above Bethel Heights is no longer Chardonnay clone 4 but a variety of Pinot clones on close spacing with low fruit wire. Josh Bergstrom makes a vineyard designated THV and it is a prodigious wine. His own vineyards are farmed using biodynamic practices. During my visit I had a spirited conversation with USDA colleagues about the relative merits of organic and BD systems, suffice to say nothing is either perfect or for everyone, and great wines can be made many different ways. Josh started using BD right out of the starting gate, utilizing JPI preparations and making his own compost. In difficult vintages like 2010 and 2011 a lot of work is needed to keep foliar and fruit diseases within quality limits. Downy mildew is still not known in Oregon and powdery mildew and botrytis are the main threats. At Penner-Ash on Ribbon Ridge the view takes your breath away and Lynn's wine also show the restraint and structure of great Pinot. In addition the estate fruit, she buys grapes from vineyards in EA and the Dundee Hills. Among the few wines I tasted I was pleased to see a shift away from the ponderous and clunky Pinots that had taken over in the 2000s to a more subtle style that allowed the fruit to be the focus of the wine. A THV designated Pinot at Adelsheim Vineyard had great length and class. The wine making and vineyard facilities, equipment and especially the people reflect the demands for quality.

**Volcanic soil profile at Penner-Ash**

The infrastructure supporting the wine industry is also impressive. There are dozens of vineyard and winery consultants, management companies and equipment and supply vendors. I do not know if the level of precision viticulture and site evaluation technology and methods that exists in California has quite arrived in Oregon. What has arrived for sure is Californians, most recently in the form of Kendall-Jackson (Jackson Family Estate Winery) which purchased hundreds of acres of the vineyards developed by Cal-PERS, a controversial project funded by the California public employee pension fund. Even when I was a grower I was frightened by the economic prospects of 2 t/a Pinot which continues today, along with issues such as lack of labor, or the refusal to accept machine harvesting.

Adelsheim's winery was the site of the 2013 Oregon low input viticulture and enology (LIVE) annual meeting. The tank room was packed with growers and wine makers from Oregon, Washington and Idaho. Chris Serra, the LIVE director has also advised fledgling programs in Ontario and Long Island. I was among five growers that met at Bethel Heights in 1997 to form LIVE and for many years growth was modest. Recently, however, it has exploded to almost 40% of all the vineyard acreage in the state, including many of the biggest vineyards. Participating vineyards are certified for their use of LIVE practices. It was announced that copper would no longer be permitted and greater points can be earned using less than 20 lbs of sulfur during the growing season. The strength of the program is its policy committee of outstanding growers, Chris' ability to translate their ideas into sustainable practices in the vineyard. The climate in Oregon, a dry mid-summer and often a dry harvest season, allows for reduced off-farm inputs, but having a certified system gives the entire industry credibility for its stewardship.

Oregon and Washington have been neck and neck in their development. Washington may have the paternal advantage of Chateau Ste Michelle, which has provided leadership and funds to drive growth across the state. In the East, perhaps only the Niagara Peninsula of Ontario can be compared to what has occurred in the northwest. It impresses me that leaders such as David Adelsheim and Ted Casteel (Bethel Heights) continue be extremely active in the politics of the industry and innovative wine growers like Joel Meyers are still pushing quality to the limit. They are joined by dedicated people like Josh and Isabelle who keep the industry fresh with new ideas and energy.

Mark L. Chien
Viticulture Educator
Penn State Cooperative Extension
http://pawinegrape.com/

April, 2013