

## Viticulture in Santa Barbara County

After visiting Santa Barbara County (SBC) and its vineyards it is necessary to wonder why anyone who wants to grow wine would do it anywhere else. This is as close to wine paradise as I have experienced. The region has just emerged during the past decade and one of its greatest proponents is Jeff Newton. I have known Jeff since we were grad students studying viticulture at UC-Davis. We followed different career paths – he went on to become one of the best viticulturists in the world and, well, most of you know what happened to me. I am not being frivolous with this accolade. In the preface of his most recent wine tome, Robert Parker, Jr. mentioned just two viticulturists in his broad view of the wine world, David Abreu and Jeff. His name is now popping up everywhere.

Jeff started Coastal Vineyard Care (CVCA) as a one-man consulting business 25 years ago and now it is a multi-million dollar company managing over 2500 acres in Santa Barbara County. The business itself is remarkable to behold, a lean and mean planting and management machine that farms medium to ultra-premium wine grapes that have achieved 95+ Parker scores. I have to keep reminding myself that this is the guy who used to grow broccoli in the central valley.

Jeff no longer works alone. He has three partners in the business who help to oversee the 30 or so ranches they farm. Below them is an incredibly integrated and efficient hierarchy of managers and foremen who monitor every last minute detail of work. They manage 2500 acres as well as any five acre vineyard in Pennsylvania. The company has its own accounting department, pest control advisor, and farm safety officer. CVCA draws talent from the excellent program at Cal Poly in San Luis Obispo and many of those working at CVCA have diverse and very accomplished backgrounds in other fields. There are viticulturists to look after the detail work such as irrigation scheduling. CVCA also relies on expert consultants to help them do a better job of farming, including Tom Prentice of Crop Care. It is truly a team approach to wine growing.

I got to ride shotgun with Jeff for two days as he made the rounds around his ranches. It was an amazing experience. First of all... the weather. It was perfect. The temperature in Lancaster hasn't crept much out of the 30s all winter and here we were, 60 degrees, blue sky, shimmering sunlight. Amazing. Maybe too amazing as a drought lingers and an early bud break brings the threat of frost.

Vineyard development: Clients usually approach CVCA with a property and ask them to evaluate it. It then goes through the suite of testing, primarily soil and water testing. Soils can be very high in magnesium which affects structure and nutrient availability. Salinity in the water can be a major problem. The initial walk over is important to determine the quality of the site and how vineyard blocks, varieties and rootstocks will be assigned. The soil work and determination of total available water will guide decisions, particularly rootstocks.

Depending on the AVA location relative to the ocean, varieties are selected. In the cool Santa Rita AVA it is mostly Pinot Noir and Chardonnay. Further east into the Los

Alamos AVA Syrah, Sangiovese, Grenache excel. The furthest east region is Happy Canyon where Cabernet Sauvignon has taken hold. Jeff has a good sense in each area what varieties will do best. The topography is highly variable, from some flat land on the valley floors to Mosel-steep hillsides but almost always with rolling hills defining the vineyards and adding complex slope, aspect and elevation qualities to the wines.

The vibrating winged plow has been used to rip in soil preparation. This is a wing on the end of a shank that glides through the ground at a depth of 2-3' and lifts the soil and gently lays it back down. They rip on each vine row adding uniformity to the soil structure. There is an applicator that can drill soil amendments deep directly behind the winged plow shank. Gypsum is often used to help improve soil structure and to neutralize active aluminum. Gypsum is much more soluble than lime so it can move deeper into the soil.

Row direction in warmer areas is established more by terrain contour than a strict N-S or NE-SW preference, although they try to achieve optimal orientation. In cooler Santa Rita, N-S becomes more important.

Development costs can be high, upwards of \$50,000 an acre for the ultra-premium, high density vineyards. Farming costs can also be steep, pushing \$10,000 per acre for the best vineyards but most are in the \$6-8K range and as low as \$3500. Labor is the major expense.

Soils: Mostly clay loams with some sandy soils. They care about soils but not to the extent that Europeans value the soil for wine quality. Here soil is a medium to irrigate and hold water long enough to get the vine to the next irrigation set. But one premium vineyard was on very sandy soils and the expectation may have been for lighter, fruitier wines but the strength of viticulture applied to the vineyard allows it to produce big, juicy Parker wines. It demonstrates the Thunevin method of taking a medium site and raising it to a top site through maniacal viticulture.

Plant materials: The quality and cleanliness of plant materials is always a concern. The combination of leafroll virus and vine mealy bug has growers on edge in SBC. Also, Syrah disorder is well-known in the area. Suffice to say the latest clone and rootstocks are being used. A lot of 420A is planted because of its tolerance to high pH soils. Riparia Gloire is also used to reduce vine vigor. Clones are all over the map and wine makers are always looking for the next great clone. There is a tendency to favor California clones as opposed to European imports. For example, there are three highly regarded Syrah clones 1, 2 and PB from the Alban Vineyard located just north in the Edna Valley. Wine makers suggested that the Wente clone performed better than the newer Dijon clones of Chardonnay. Clonal blocks are segregated in the field and almost always in the cellar. They are experimenting with some selection massale plantings. Merlot clones have not performed well and until recently Rolland has not liked the wines. But he says they are coming around and now getting into final blends.

Planting: It is still all done by hand. The appearance and uniformity of the results are as good as laser planted vineyards in Pennsylvania. The layout work is outstanding. CVCA does all of their planting in the spring when soil conditions are just right.

Vine spacing: For high end reds 6 x 3 is the preferred spacing. We visited one vineyard with only 2.5' between vines. Some older vineyards are on 8x4 and the oldest even wider with more traditional spacing. The trend, however, is towards higher density for better wines. Michel Rolland, who consults for Jonata, emphasizes three keys to high quality red wine – low yields, high density and full fruit maturity. It makes sense. All of these are connected.

Trellis: It's a lot of the same here but with some new twists. All notched, 13g metal stakes but because of some experience with stake failure due to salts and hydrolysis there is some preference towards galvanized stakes, which are proving to be more durable. Tubular steel end posts with winged flanges are most common, with or without dead man anchors. In the past four pairs of catch wires were used but they have decided that three is enough.

An interesting development is the use of a spread VSP canopy configuration. Three small cross arms are attached to stakes, the top one is the longest at 12-14". This opens the canopy into a slight V, much less dramatic than a lyre but very effective in providing some shade to the fruit zone. A major problem in sun-rich California, especially in the warmer areas, is the intensity of the sun that burns the fruit and sends sugars soaring out of balance. The wider configuration helps to provide more dappled light to the fruit zone. This is an expensive retrofit, both to the trellis and to maintain with additional shoot positioning.

Fruit wire height varies from 18" -36". The higher the quality of wine, the lower the wire gets. The intent is to pick up additional warmth to push fruit maturity. The climate is dry here so there is little concern about air circulation and fruit rots.

Pruning: Ultra-premium cordon vines are pruned to one count bud and a basal bud. This significantly limits crop. Pruning crews are extremely well-trained and fast. They prune and wrap an 8x4 cane VSP vine in about a minute. A crew later follows to tie the canes. 2-3 inches is left between the ends of canes. Brush is chopped in the row.

Training: There is a mix of cordon/spur and head/cane. Many cordon trained vineyards are unilateral. If the vine spacing goes to 3' or less, only one cordon are is used. Spur positions are every 4-5", 3-4 per arm. Maximum cane length is also considered to be 3' although they rarely get that long. Shorter canes help with more even shoot development along the entire cane. The debate between cane and cordon rages on. In the cooler Santa Rita hills cane is widely used for Pinot Noir and Chardonnay. Cordon is cheaper because it can be pre-pruned and does not require tying. Cordon vines are trimmed by hand to the first catch wire and finished pruned later on. The head of cane pruned vines are topped right at the fruit wire. No renewal spurs are kept since those shoots tend to crowd and shade the head area of the vine. The first bud is saved for next year's cane and they look

for water sprouts to provide the following year's fruiting wood. No extra canes are left for insurance wood. If instructed, in some higher vigor situations, a kicker or vigor diversion cane is left. This is tied up into the canopy early in the growing season then lowered and removed later on, sometimes as late as veraison. Spur vs. cane on Pinot Noir at Ampelos yields 1.65 vs. 1.97 t/a respectively. Cane typically has higher yields. Spurs have smaller berries and fewer clusters.

Canopy management: Shoot positioning in ultra-premium vineyards is meticulous. Branch locks (short, removable plastic ties) are used to fix every other shoot into a vertical and parallel position when shoot growth reaches the top of the canopy. These canopies tend to be on low-medium vigor vines with canopy densities of 1-1.5 leaf layers. The effect is a perfect panel of leaves. At Ampelos Cellars, owners Peter and Beth let us taste a 3 year trial of Pinot Noir with and without branch locks. Wines were uniformly produced and the differences between the two treatments were significant and obvious, if not predictable. The branch lock wine has more color and concentration. That's not to say it was a better wine. The locks are very slow to apply and expensive. Ruben developed a method weaving and fastening shoots with ty tape. They use brown colored tape so it won't be seen. This is just another example of innovativeness at CVCA.

In an attempt to slow sugar accumulation the tops of vines have been trimmed at 19 brix but the results are mixed so far. The challenge of producing balanced fruit in light of intense sun and climate change is

The V-VSP must be carefully developed and maintained. Spur position lean out in one direction or other to encourage the shoots to grow towards that side, making them easier to train. Shoots must be positioned on either side and the center kept clean.

Yields: Crop load correlates to wine quality but is generally in the 2-4 pound per vine range. Many thinning passes are made, starting with adjusting cluster number with shoot length all the way through veraison eliminating unripe berries and cluster parts. As far as I could tell, no statistical method of crop estimating is used. It is more based on experience and what they can explain to the crew.

Floor management: Cover crops are now widely used and a mix of legumes and grasses in alternating rows with some cultivated rows. Legumes are used to invigorate vines and rye or barley to devigorate. A lot depends on the soil composition and vigor of the vines. On hillsides they will drill legumes through the grass cover. Low vigor blocks are periodically ripped then gypsum is added to loosen soil and increase water penetration.

A mix of herbicide and mechanical cultivation is used in the vine row - four apps of Roundup in some vineyards and the Pellenc Sunflower or a type of grape hoe in others.

While CVCA is part of the Central Coast Vineyard Team and seeks to farm as sustainably as possible, it is not dogmatic about being organic or biodynamic. They strive for minimal off-farm inputs perhaps with the exception of labor. But even here there is the recognition of the value and improvement in vineyard mechanization.

Irrigation: Of course viticulture lives and dies by water management in much of California. The most important irrigation set is at veraison. Post fruit set water sets berry size. Pressure bombs are used to determine vine water status. Water is added at -12 to -16 bar depending on variety, rootstock, soil, temperature and lots of other factors. This is truly an intuitive part of viticulture in an arid region and so crucial to wine quality. Weather stations located around each AVA allow monitoring of evapotranspiration that additionally informs irrigation decisions. The preferred data logger is a Spectrum ET2900 Watchdog. This also tracks powdery mildew threats through a commonly used disease modeling system.

Disease and pests: Vine mealy bug and viruses are now on everyone's mind here. Infected vines are pulled immediately and every attempt is made to control VMB, including insecticides like Applaud, Moventia and Admire. The most common sprayer is still an airblast with Aerofans with larger droplets inland and in windier areas the Cima due to its atomization-small droplets. Sulfur dust is not used any more even though it is 2-3x cheaper than wettables.

Other threats: There aren't that many and certainly it is a comfortable place to grow grapes compared to the East and Midwest but occasionally they get hit by something big like the 2007 spring frost or wildfires.

Wines:

Ampelos Cellars is located in the wine ghetto in Lompoc but vineyards are in the heart of Santa Rita, on the south side of Hwy 246, rolling hills, small blocks. Pinot Noir clones 2A, 4 667 and 777. Syrah 99, 470, Alban and Estrella River. '06 Estate Pinot Noir has pure fruit, plush, clean, black fruit, very elegant. The '05 is deep, rich, dark, layered fruit, smoky with good length. Alban Grenache 2 from barrel is delicious!

<http://www.ampeloscellars.com/>

Paul Lato is a new and exceptionally passionate wine maker, hardly rare qualities in our business but Paul is one of the most eloquent wine makers I have met and that is why Jeff wanted to taste his wines. Like Kermit Lynch, he has the rare ability to put wine into words. He understands the importance of sourcing grapes from the best vineyards and communicating to the grower his need for flawless fruit. The cellar is actually a fenced off area in the middle of a vast floor of the Central Coast wine cooperative in Santa Maria.

I had to ask myself how Paul makes such good wines. He has no formal training and learned by hanging out with the likes of Manfred Krankl at Sine Qua Non and Jim Clendenen at Au Bon Climat. Still, you can only learn so much by hanging around wine. He is very smart and very observant. He is intuitive and connects dots, such as grapes to quality and he works well with others, such as vineyard managers. He told the manager

at Gold Coast Vineyard not to do any big experiments in his vines and that if there is ever a decision about what to do, do whatever will improve wine quality regardless of cost.

<http://www.paullatowines.com/>

I'll say this again at the risk of repeating myself but only because it is true. If Jeff and CVCA have to work this hard and spend this much money in almost ideal viticultural conditions to make a great wine then given the growing conditions in the Eastern U.S. we have to work even harder and better to achieve the same results. California and the Mid-Atlantic are on different viticultural planets but there are still lessons to be learned from each other. CVCA is an amazing business, built from scratch by Jeff and now developing some of the best vineyards in the world. The model for the business and its practices could certainly work here. The viticulture is mostly the same, with the exception of water management issues and coping with vine vigor problems that we have due to rainfall. I would challenge any Eastern wine grower to visit Santa Barbara County and not come home with a basket full of ideas.

Coincidentally, an excellent interview with Jeff appeared in the January **Wines and Vines** magazine. It's loaded with great information. In fact, he pretty much spills the viticultural beans here and if you want to know how to grow a 95+ Parker wine just follow the beans....

<http://www.winesandvines.com/template.cfm?section=features&content=61262&ftitle=JEFF%20NEWTON> or google "wine and vines, jeff newton."

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