

INNOVATIONS

VINEYARD TECHNIQUES NOW MORE VALUED IN WINE PRODUCTION

Rootstock, Clones, Trellising Choices Proliferate

By Scott Ferguson
Contributing Editor

Andy Beckstoffer, a long-time Napa grape grower and owner of Beckstoffer Vineyards, remembers when planting a vineyard was a much simpler project. "In the early '70s, however it was done before is what we did," said Beckstoffer. "That was the standard."



The photos show a significant difference in yield for two adjacent Cabernet Sauvignon vines on the same date in 1996. The appropriate clone and rootstock combination is among many factors growers and vintners are considering when planting vineyards for both yield and quality. Photos by Daniel Robledo

Growers used the supposedly phylloxera-resistant AXR #1 rootstock and planted Cabernet Sauvignon or Chardonnay on a single wire trellis that allowed vines to grow in all directions.

Beckstoffer now calls this system "California Sprawl." The manicured and manipulated vineyards of today represent a shift in the perspective of wine producers. The correlation between grape and wine quality was not a big issue of controversy or conversation in the 1970s. The winemaker's knowledge of chemistry was held responsible for the magic of turning grapes into wine, and growers were not as highly regarded in the winemaking process as they are today.

Grower's Role Seen as More Crucial

The winemaker/grower relationship has come full circle. The phrase, "Wine is made in the vineyard," has almost become a cliché in premium regions where the grower's role is regarded as paramount in the endeavor to make world-class wine. Almost all growers in California's North Coast regions are experimenting with vineyard techniques to ultimately improve wine quality. Increasing production is a secondary goal, but this shift in perspective has also helped producers obtain higher yields.

These days, vintner and viticulturist walk the vineyard; together looking for the grapes that will produce sought-after wines. Most winemakers readily acknowledge that great wine comes from great grapes. "The fruit is 65 to 70 percent responsible for wine quality," said **Michael Silacci**, associate winemaker at **Stags Leap Wine Cellars**. "After coming out of denial over the phylloxera outbreak (of the late 1970s and 1980s) we refocused. Now we're thinking about things like different rootstocks, row direction and soils. There's a whole palette of combinations."

But 20 years ago, when planting a vineyard cost an average of \$4,000 an acre compared to figures upward of \$25,000 today, a few winemakers realized how much of a wine's character came from the fruit itself. Pioneering winemakers including **Andre Tchelistcheff** and **Robert Mondavi** began paying much more attention to detail in the vineyard during the early 1970s.

A Balanced Vine

While at **Beaulieu Vineyards** in Rutherford, Calif., 10 years ago, Silacci worked with Tchelistcheff, the Napa Valley winemaking legend who always chose the fruit for his wines very carefully. Silacci said he and Tchelistcheff would ride through BV's vineyards tasting fruit and evaluating each block.

Today, Silacci can often be found out in the vineyards tasting fruit with the vineyard managers during harvest time. He walks the famous Stags Leap vineyards carefully designating—sometimes within a single vineyard block—which areas are ready for harvest.

Today, wineries pay incredible attention to detail. More tools than ever are available to achieve the kind of quality that great winemakers demand, and those tools are often found in the vineyard. For example, one particular area of a certain vineyard at Stags Leap has a circular section in the center of a 15-acre block that usually ripens more quickly than the outside portion of the block. That outside portion is normally harvested a week after harvest of the center. That's how precise grape growing has become.

Growers are also experimenting with a number of new vineyard strategies that produce what Beckstoffer calls a "balanced vine," which "expresses itself in flavor. We didn't understand 20 years ago that a vine out of balance doesn't produce the ultimate fruit," he said.

Beckstoffer said the key components of vine balance are soil vigor and heat. Growers evaluate, among other things, an area's soil and microclimate. With that information, they decide on a trellis system, rootstock, clone, grape variety, row spacing, and the overall density of vines per acre.

Vineyard Density Affects Characteristics

Trellis systems are among the most valuable tools growers use to achieve balance. In vigorous soils, where growers try to "devigorate" vines, growers train vines to grow on two horizontal planes, called a double curtain trellis system. "This lets the soil and the climate produce what it wants, because you're spreading it rather than cutting it all off," said Beckstoffer. "You try to pack into these very tight planes." In light soils, the proper trellis system supplements what's lacking in the soil by exposing vines to more sunlight.

Dick Grace, whose **Grace Family Vineyards** wines are some of the most sought-after and expensive in the world, believes that struggle is the essence of what makes a better grape. "Grapes are like people. If they struggle and come out the other side OK, you get a finer character," Grace said.

Developing quality of character has much to do with spacing, which represents some of the most dramatic changes in vineyard strategy. The typical spacing between rows 20 years ago was 12 feet, with 8 feet between vines, which made it easy to get tractors into the vineyard.

When farmers replant vineyards these days, it's not rare to see a vineyard with rows as close as five feet apart, and vines separated by only three feet within the rows.

Grace's vineyard manager, **Jim Barber**, convinced Grace to plant his vineyard with 3,460 vines on a one-acre parcel that supported just over 1,000 vines in 1976. Today the rows are five feet apart, and only three feet separate vines within rows.

In Oregon, where new Pinot Noir vineyards are popping up all over the Willamette Valley, that same dense planting approach is popular. "Up here, we traditionally planted vineyards at about 750 vines per acre, now it's 2,100 to 2,800," said **Danielle Andrus**, of **Archery Summit Winery** in Dundee, Ore.

"We feel we get a better concentration in fruit with denser vineyards," she added.

Not only is Archery Summit experimenting with vineyard density, they've used 20 different rootstocks

in their recent plantings, and have recently begun experimenting with new clones.

Cover Crops Help Achieve Balance

Richard Kunde, president of **Sonoma Grapevines** said, "It's amazing all the different clones people are asking for. Ten years ago people asked for Chardonnay or Cabernet Sauvignon on AXR#1," said Kunde. "Today, people want clone X, Y or Z and mix in a little clone A. Different winemakers choose different clones based on their palates." Some clones have very distinct characteristics: "The Chardonnay clone #15 is one that winemakers either love it or they hate it."

Today, Sonoma Grapevines offers 13 clones of Cabernet Sauvignon; 10 years ago, they offered just one. They have 18 clones of Chardonnay and 10 Merlot clones. Grape growers and winemakers also have a choice of 20 different rootstocks, Kunde said.

Alternate cover crops are other tools useful to growers these days. Vegetation like clovers, beans and legumes grown between rows or even under vines are used to help vintners achieve balance in a number of ways.

Certain crops help devigorate vines by competing with them for nutrients in rich soils. Other cover crops are chosen for their capacity to add nutrients to the soils as they break down. Cover crops also help cool the ground in extremely hot areas, which helps grapes retain acids. Some cover crops which literally suck moisture out of soil also help viticulturists control moisture.

Grape Prices Rise

Irrigation is the next horizon in vineyard manipulation, according to Beckstoffer. "When it's hot we try to make it cool. When it's cool we try to make it hot. When it's wet we try to make it dry, and when it's dry we try to make it wet," said Beckstoffer. "Otherwise we're just subject to nature."

"All these techniques paid off in 1997 and 1998," he said. "We had a very large crop in 1997, and we had superior quality. In 1998, because of the difficult challenges of the season, we were able to sacrifice a good bit of quantity to get quality that was very good," he added.

Grape growing innovations have not come cheap. In the past twenty years the average price of developing an acre has soared by some 600 percent. With that kind of investment, North Coast grapes have moved far beyond being an agricultural commodity.

The amount of time and money put into premium vineyards has caused a sharp increase in grape prices. In the past, growers were paid according to tonnage and sugar levels. Today, premium growers look for wine producers who know how to make a quality product and know how to market it in order to get the highest prices for their fruit.

"This whole idea is 20 years coming," Beckstoffer said. He added that he's beginning to taste the results of the innovation. "The best wines of the world are going to have the fruit component that the French wines never had."

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