Choosing the Best Barrel for Your Wine Program

A barrel trial performed at Halter Ranch winery of Paso Robles can serve as a template for wineries seeking to find the best barrels for their individual program.

Kevin Sass, Winemaker for Halter Ranch in Paso Robles, said he makes his winemaking decisions based on how the barrel affects the taste of the wine, and has conducted a unique experiment that allows him to taste the differences.

The experiment has allowed the winemakers to taste their wine aged in 16 types of oak and was designed to look at the same wine from three different perspectives for three different wines in the Halter Ranch program. Sass, along with Chris Hansen, general manager of Seguin Moreau’s Napa cooperage, showed and discussed these ongoing barrel trials at the 2014 WiVi Central Coast conference and trade show in March.

Halter Ranch produces about 15,000 cases of Rhône- and Bordeaux-styled wines annually, all from estate-grown grapes. The winery is sited on a 1,600-acre property (281 acres planted to grapes) about nine miles west of Paso Robles in the Adelaida sub-appellation.

Sass has worked at Halter Ranch since 2011. Previously he worked with Justin Vineyards, also in the Paso Robles region, where he produced wine from Halter Ranch fruit for Justin. His transition to Halter Ranch’s new state-of-the-art gravity flow facility was therefore an easy one for this Fresno State enology graduate.

The high-end wine industry (retail price of more than $25 a bottle) relies on the very finest grapes, winemaking techniques and equipment to survive in an extremely competitive environment. For Sass, barrels rank third in importance after vineyards and fermentation in the creation of fine wine and also account for, after grape costs, the second largest line item in Halter Ranch’s annual budget. At 15,000 cases of annual production, Halter Ranch is purchasing between 300 and 360 new barrels each year. French oak barrels, depending on quality, quantity and the foreign exchange rate, currently cost about $1,000 each. By comparison, the weighted average cost of Cabernet Sauvignon averaged was only $1,377 per ton in this area (District 8) in 2013, according to the 2013 California Crush Report.

The Trial Design

Sass used a single block of Halter Ranch’s 2012 estate Cabernet Sauvignon to serve as the basis for his barrel trials. The block has shown consistent “mid-tier” quality for the past several years and is representative of Halter Ranch’s largest production wine. It is clone 337 on 1103 rootstock.

The trial utilized a single tank of this wine, one fermentation lot, so that all the barrels would hold the identical wine for comparison of the barrels’ influence as the wines aged. All the barrels were also inoculated for ML with the same strain of bacteria while in a warm room. Samples were evaluated periodically through blind tastings post-malolactic fermentation, with the first round of tastings beginning in March following the vintage.

The complete trial consisted of 16 different barrel pairs from 10 coopers, 32 barrels in all. Two barrels of each type were used to help minimize any single barrel’s unique attributes, and samples were bottled from these two-barrel composites after 16 months. In order to maintain the integrity of the barrel pair, the wines were racked to a porta-tank and then returned to the same barrels following barrel rinsing. Topping wine for all barrels was obtained from a neutral barrel to help minimize variables.

The Tasting

For expediency and simplicity, Sass presented his audience at WiVi Central Coast with only eight wines from the complete trial. To keep his audience focused on discerning differences, Sass organized pairs and identified all the barrels presented before we tasted them. They were: #1 control (neutral barrel); #2 Seguin Moreau American oak, “Icon” barrel medium-long toast with toasted heads; #3 Seguin Moreau French oak, “Selection” medium-plus toast; #4 Sylvain, medium-plus toast; #5 Sylvain, heavy-toast; #6 Ermitage, Allier forest; #7 Ermitage, Bertranges forest; and #8 Taransaud, “Reference 112.”
Results

When we finished tasting the first set of Seguin Moreau barrels, American oak versus French oak, only a handful of tasters in the audience preferred the American oak barrel to the French. The American oak barrel imparted a very strong, markedly vanillin and coconut quality to the wine. It was the most different barrel-pair in the tasting.

American oak is a different species of oak from French oak and has very different physical and chemical properties. (For more about these differences see: Wine Business Monthly May 2012, The Complexities of Barrels.) Some wines and wine brands benefit from such treatment, but in general, and as evidenced by the participants in this tasting, it was not a favorite.

Sass commented that the majority of his program utilizes French oak. However, because of the price differences (more than $500 per barrel) between French and American oak and also American oak’s ability to impart so great an impact in a shorter time, it was beneficial to take a look at its suitability in his winemaking. He suggested that perhaps aging his Cabernet in American oak for only 10 months, instead of 16 or 22 months, might be a viable alternative for Halter Ranch wines, particularly for their lower priced, $20 per bottle, screw-cap-finished wines.

The next comparison pair was Sylvain, a French cooper. One pair of barrels was medium-plus toast and the other pair was heavy toast. Here the differences were less dramatic. The house style was more apparent, but even this can be elusive. I found the medium-plus toast to emphasis peppery spice, leather and chamois. The heavy toasted Sylvain barrel was less subtle aromatically, damping down some of the fruit.

Sass commented that when he conducted this tasting with the cooperors or their sales representatives and they tasted through all 16 wines, few could identify their own barrels; and if they didn’t prefer their own barrels to their competitors’ they would immediately ascribe the problem to be not with their cooperage or their wood sources but with the toast levels. This comment drew knowing laughter from the audience. But it is not easy to taste through young and tannic wines from new barrels and identify specific barrel traits divorced from the wines’ own tannin profile. It has also been my own experience in conducting such blind trials that few winemakers or cooperors can consistently pick out specific barrels.

The Ermitage barrel pairs, Allier and Betrange forests were again kind of a toss-up for me. The Allier barrel was not dramatic in its framing of the wine;
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it contributed a fair amount of smoke and tar to the wine. The Betrange was noticeably woody with decent weight and pronounced oak tannins.

The final barrel presented was from Taransaud, a cooperage with a "cult following," according to Sass. For me this was far and away my preferred barrel in the flight. Its influence on the wine was elegant and subtle. It didn’t rob the wine’s ripe fruit expression, but framed it with balanced toast and oak tannin. It was the kind of oak expression I expect from an expensive, $32 bottle of wine. And it seemed that it would continue to deliver that same elegance for more than a single fill, perhaps helping to justify its higher cost.

Conclusions

Each winery, wine type and wine style has to find its own way toward consumer acceptance. High-end wines are typically the only wines that are made and/or aged in barrels. It is difficult to justify the expense, both direct and indirect, for lesser-priced wines to see the inside of a barrel, hence, the proliferation of alternatives, including liquid extracts of oak, chips, sticks, dust and micro-oxydation. (There are many high-end wines that never see oak barrels; these are usually aromatic whites but may also include some reds, such as Domaine de Pibarnon’s Bandol blend of Mourvèdre, with some Grenache, which is fermented in stainless and aged in neutral, large casks.)

As a wine producer committed to making wine with barrels, you need to find a cooper and a barrel style that complements your wine. Because vintages and consumers’ tastes are variable, you should aim for consistency in winemaking, as well as in barrels. Finding out where each cooper is sourcing its oak, aging its oak and how the barrels are being crafted are key to a deeper understanding. As Hansen from Seguin Moreau pointed out in his remarks, each cooper has his own drying, aging, toasting and production protocols.

I would strongly urge all winemakers to take the time to investigate these important details of where and how your barrels are made. Just as the conscientious winemaker walks his vineyards and samples rows of grapes to observe and taste the fruit, it is equally important for the winemaker to scrutinize the barrel-making process in person.

Remember, barrels are integral to the flavor and texture profile of your wine, and they are also the second largest line item in your production budget. By learning as much as you can through trials and observation of each producer’s facility, you will broaden your knowledge and craft better wines.

The Halter Ranch barrel trial can serve as a template for others who seek to find the best barrels for their individual program. As Sass explained, he has basically two tiers of cooperers. His first tier consists of five or six cooperers whose barrels he feels successfully fulfill their promise of showing his wines’ qualities. The second tier of six or seven cooperers are contenders for his loyalty that he is willing to test to find out if they can meet his needs.

If your wines need barrels, do the work to find which barrels will work best for you; and if you can’t afford a trip to France, Spain, Italy, Missouri or California to see the production process, at least call a colleague in your area who has barrels from a prospective cooper and see if he won’t invite you over to taste his wine out of those barrels. It might save you a trip and thousands of dollars or at least help build your knowledge base of wine and barrels. It might also help you recognize a barrel that will not work in your program, thus avoiding a costly mistake.