

WINES & VINES

Feature Article from the April 2013 Magazine Issue

From an Alternative to a Priority

Winemakers describe how they use oak products in the cellar

by **Andrew Adams**

Winemaker Jay Christianson says his “Anemoi” line of wines allows him to experiment with blends and dabble in “pushing ripeness and pushing less traditional” approaches to winemaking.

He and Jennifer Christianson, his wife and fellow winemaker, named the wines after the mythical Greek gods of the wind. The Christiansons own Canyon Wind Cellars in Palisade, Colo., which also produces varietal wines and value blends from the winery’s 30 acres of estate vineyards in the Grand Valley AVA.

For the first vintage of Anemoi, Jay Christianson said he wanted a strong oak component, so he placed oak inserts in new oak barrels to age the Bordeaux blend with the equivalent of 130%-150% new oak barrels. “That was really an interesting aging; it came out better than anyone expected, even us,” he said.

From helping winemakers at smaller wineries compete at lower price points to broadening their oak “spice racks,” winemakers are using oak alternatives in seemingly as many different ways as there are alternative products. While many winemakers still say barrels can’t be beat, they do report the quality, consistency, flavor and aroma profiles of alternatives have improved, and some say they can depend on oak alternatives almost like barrels.

Useful at every price point

Christianson said the 2009 vintage was one of the coldest on record for the winery, but it still yielded “big and brooding” fruit that interacted well with the powerful dose of oak. He said he also uses oak alternative products to support his affordable red and white blends and to polish the oak profile of his premium varietal wines.

Like many winemakers, Christianson said he

Stainless barrel designed to work with staves

Modern Cooperage has developed a new stainless steel barrel designed for aging or fermenting wines with oak staves.

The 78.5-gallon barrel encases a fan of staves that are

first looked at oak alternatives in 2008 as way to save money on his barrel program. He then started incorporating them into other areas of his winemaking.

Making wine in Colorado also comes with some unique conditions that make alternatives useful. Christianson said the region has such little ambient humidity that the rate of evaporation is quite high—especially for wine he stores above ground such as whites he doesn't want undergoing malolactic fermentation. "Dealing with wood above ground in Colorado is just brutal," he said.

Christianson is experimenting with using stainless steel Mueller barrels with StaVin barrel inserts in a range of toast types. Chardonnay fermentation starts in a tank, but at around 12°-10° Brix; Christianson said he racks some of the lot into the steel barrels with inserts. "We're trying to keep it totally traditional while not keeping it traditional," he said.

The rest of the Chardonnay lot finishes in the tank as part of the winery's value white blend. Canyon Wind's lower priced red blend also ferments in tanks with oak alternatives. Christianson said he uses bags of Nadalie Oak Add Ins attached to steel plates with zip ties. The plates rest on the bottom of the tank while the bags are suspended in the wine.

The blends, known as 47-Ten in reference to the estate's elevation of 4,710 feet, retail for around \$10. Christianson said it would be practically impossible to make a similar wine using barrels and sell it for the same price.

For his varietal wines, Christianson said he tastes through the wine lots and determines what flavors or notes are lacking and then adds back those flavors with staves. While he said barrels provide "elegant characteristics" and are still the best for aging, he doesn't

centered on a metal shaft running through the middle of the barrel. A handle centered on the barrelhead is linked to the shaft, allowing cellar staff to rotate the fan in a complete circle. Patrick Pickett, a winemaker consulting on the project, said it allows winemakers to apply the exact amount of oak desired on a wine and stir the lees without removing the barrel bung.

Pickett demonstrated using the barrel at this year's Unified Grape & Wine Symposium. Staves slide into the barrel through a small hatch on the head and clip onto the racks. The surface area ratio of the staves to wine can provide an oak rate of up to 250% the equivalent from a new barrel.

Once staves are in place and the barrel is filled, Pickett said another advantage is that the barrel can remain sealed during battonage. A paddle, connected to the central shaft, sweeps along the interior side of the barrel, stirring the lees.

The barrel can be filled and racked with standard wands. The central shaft has a hole near its center that aligns with the bung. Turning the fan to a position indicated by markings on the barrel exterior ensures the shaft hole is lined up with the bung.

Because the barrel is sealed during stirring there's less oxygen pickup for wines such as Chardonnay, which may require repeated stirs. Instead, the barrel can also be equipped with a diffuser stone on the interior shaft to allow a winemaker to apply a specific

hesitate to use staves for each tier of the winery's 5,000-case production. "It's a whole lot easier to insert staves than rack out and change barrels," he said.

Less expensive but not a true barrel alternative

Jason Bull, winemaker and vineyard manager for the 9,000-case David Hill Vineyards & Winery in Forest Grove, Ore., said he started using some oak barrel alternatives about two years ago in the winery's less expensive Pinot Noir program. The winery's products range from an estate Pinot Noir for \$18 to a vineyard-designate estate Pinot Noir for \$55.

oxygen amount.

Pickett said the barrel costs a little more than a new French oak barrel, but the savings mean it pays for itself after a few years. He said there's no evaporation, and reloading new staves each harvest represents a fraction of the cost of buying new barrels.

A.A.

Bull said he prefers French and American oak spirals by The Barrel Mill. "The spiral inserts that I use in my winemaking help add not only oak seasoning with aromas of vanilla and toast and other attributes but also help with the tannin structure and mouthfeel," he said, adding he's had good results in Chardonnay as well. "Ultimately a new barrel is most preferred, but in cases where there is a tight budget I've been very happy to have this tool to play with rather than none at all."

Oak dust added for fermentation has helped with wine color, but Bull said that overall the results have been inconclusive.

At Robert Biale Vineyards in Napa Valley, Calif., winemaker Steve Hall said he uses 20% to 25% new oak from Burgundian coopers. He said he's not convinced that oak alternatives can match barrel aging. "It's not very likely that all the attributes of aging small lots from our favorite growers, in barrels, can be mimicked by oak alternatives," he said.

Dave Crippen, director of winemaking at Renwood Winery in the Sierra Nevada Foothills, has been making wine for more than 30 years. He recalled how, about 20 years ago, the introduction of micro-oxygenation and competition to make better—yet still affordable—wines drove winemakers to use some of the earliest oak alternatives. Back then it was the odds and ends from coopers, and Crippen said folks just tossed them in the tank to bump up the oak notes on finished wines. Soon, though, suppliers saw the potential and invested in improving the alternative products.

He said Renwood, which is producing about 75,000 cases, used to rely more on oak alternatives and barrel inserts as it sought to compete in the grocery aisle. But since a group of Argentinean investors purchased the winery in 2011, he's had the resources to invest back into a new barrel program. "From a personal point of view, I'm trying to make a purer style of wine," he said.

The smaller oak dusts and chips often did not integrate as well into the finished wine, he said, adding that he prefers the larger block or domino alternatives and plans to experiment using them with plastic, Flexcube tanks. Crippen said overall, oak alternatives have

improved and provide winemakers a means to add specific flavors to their wines.

Almost ready to stop using barrels altogether

Based in Nashville, Tenn., the BNA Wine Group produces several different brands of wine with fruit from California. Winemaker Tony Leonardini works out of an office in St. Helena, Calif., and his parents founded Whitehall Lane Winery, also in St. Helena.

Leonardini said BNA sells a California appellation Chardonnay called Butternut, which originally had been a barrel-aged wine. He said the brand debuted with just a few hundred cases but became a hit, and sales soon were outstripping BNA's resources for barrels. "We couldn't keep up with demand doing the barrel program," he said.

Leonardini said he met with a representative from the oak barrel alternative supplier Vivelys (the U.S. arm of the French company Boisé France), who recommended he develop an alternative program to replicate the barrels. He said most oak barrel alternative companies provide sample kits for 750ml bottles and bench-top analysis, but Vivelys set up an extensive trial program with 5-liter test lots. "It blew us away," Leonardini said.

For the 2010 vintage, Leonardini has steadily increased his use of oak alternatives for Butternut to keep pace with the brand's growth. He said he's been able to match the barrel program with alternatives and has found them to be even more consistent than barrels. Leonardini is such a fan of the products he'd make the full switch if it weren't for the fact that consumers and even the wine-buying trade prefer to see wineries use barrels rather than alternatives. "They still want to see barrels, but there's so much success in this alternative oak; it's so precise," he said.

With alternatives, Leonardini said he can rely on regular addition rates, and with the wine mainly staying in tanks there's less risk of contamination from barrels or during racking or filling. It's also easier to modulate oak flavors by adding more alternatives or moving the wine off the oak.

Masking green flavors and making teas

Reed Renaudin, winemaker and CEO of Napa Valley's X Winery, said oak alternatives were useful during the 2011 vintage, when he had to deal with several green lots because of the cooler vintage. He said he found that using oak alternatives early in primary and secondary fermentation really helped tone down the green aromatic and green olive flavors. "That's what I found real eye opening: how much we could change the wine," he said.

Christianson, with Canyon Wind Cellars, also said the 2011 harvest produced fruit with pronounced pyrazine flavors, but a little bit of micro-oxygenation and oak chips in the tank helped deal with them. "We managed to eliminate that issue—at least from a sensory standpoint," he said.

In the past three years, Renaudin said he's been moving away from just using untoasted oak during fermentation to a mix of light and medium toasted chips. The conventional wisdom has been that untoasted oak helps color while not imparting too much oak to the wine. Renaudin, however, said color has not been much of a factor while the oak integrates well

into the overall mouthfeel and aroma. “We certainly have taken a lot more aggressive approach to getting oak in earlier,” he said.

Renaudin said he has had less success making small 550- and 275-gallon lots of super saturated “oak teas” that he had hoped to add back to wines. He said the idea had been to give wines a shot of oak for blending to enable a quicker turn around to bottling and distribution. The wines, however, often exhibited a rawness that needed time to mellow out, negating the time advantage Renaudin hoped he would gain with the teas.

He also cautioned that not all alternatives are equal and said he’s found he needs to be as prudent with his pick of alternatives as when choosing which barrels are best matched to his program.

Renwood’s Crippen recalled from his experience working at a large winery that one of its “secrets to success” was to fill a large tank with oak chips and then add wine. The saturated wine would be added back to lots in incremental doses to fine tune a wine. He said it was key step when producing a \$2.99 bottle of Chardonnay.

Picking the flavors to build a program

Michael Borboa has been with Bear Creek Winery in Lodi, Calif., for eight years and is currently the export winemaker. The winery is a custom-crush operation owned by the Kautz family, who also own Ironstone Vineyards. Borboa said the winery processed about 49,000 tons of fruit in 2012, about 60% of which is for domestic custom-crush clients. All the fruit is from the Lodi grape district, and almost all is from the Kautz family’s 6,000 acres.

Most of the wine Borboa makes is sent to Europe. He said clients come to the winery with a plan to craft a product for the tastes of a specific market. Borboa said drinkers in Sweden appear to prefer a good level of oak, while English consumers enjoy wines with a restrained oak presence.

Borboa said he provides clients with samples of a base wine treated with a variety of different oak regimens, or he can offer them samples from a library of wines developed at Bear Creek’s research winery. He said for a bulk winery of Bear Creek’s size, alternatives are really the only option to deliver quality wine on time. “For our business, barrels are just not economically feasible,” he said.

Borboa said in his experience the quality of oak alternatives has steadily improved. He said he uses Oak Solutions’ evOAK Cuvee 2 and 3 staves for red wines and Fine Northern Oak’s tight-grain American oak for white wines. Borboa said he also really likes Vivelys’ line of products because they can reach the coffee and dark flavor end of the spectrum without hitting char or burnt. He called Vivelys’ DC310 chip a “home run” because of its “smoky, mocha character” that always does well in panel tastings.

The quality has been matched in consistency, Borboa said. Now he can craft a wine profile and hit it every time, which is important to many clients who may start with one tank but require almost exponential growth if the wine is popular with consumers.

Borboa said he would wager that most consumers wouldn't be able to perceive taste differences between wines matured in barrels versus wines aged with oak alternatives. He added that he also wouldn't be surprised if critics or those in the trade would be able to get it half right when presented with a flight of barrel- and stave-aged wines.

And if the quality is there, winemakers are increasingly open about their use of staves because they believe in the quality, are looking to expand their winemaking style and offer affordable wines.

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