ACACIA BARRELS OFFER ALTERNATIVES TO OAK
WINERIES GO BEYOND OAK TO ENHANCE STRUCTURE AND MOUTHFEEL

BY TED RIEGER, SENIOR FEATURE EDITOR

Although oak is the dominant wood used for wine barrels and cooperage, other types of wood have been coopered and used as vessels throughout winemaking history, including cherry, mulberry, ash, pine, redwood, chestnut and acacia. Some woods are still used in specific regions for particular wines, such as cherry cooperage used in ripasso-style wines of Valpolicella in Italy, and chestnut “pipes” for Porto wines in Portugal.

French acacia has been used for many years for white wine production in France, Italy and Spain. Acacia barrels have been used in French appellations such as Bordeaux, Sauternes, Loire Valley and Gaillac, commonly with sweet white varieties such as petit manseng, muscadelle and mauzac, and with more common Bordeaux, Burgundy and Rhone white varieties.

More recently, U.S. wineries have experimented with French acacia. While some have had mixed results, others now use it as a regular component in blending white wines, particularly sauvignon blanc, pinot blanc, viognier, chardonnay and pinot gris/grigio. Several French coopers have introduced and promoted acacia barrels for the U.S. market.

FRENCH ACACIA

French acacia, Robinia pseudoacacia, commonly known as black locust, and sometimes false acacia, is actually native to the southeastern United States. It has spread through much of North America and is considered an invasive species in

AT A GLANCE

+ French acacia barrels are being used in the United States to enhance fruit and aromatic qualities of white wines.
+ French acacia is actually black locust, and has been used as cooperage for sweet and white wines in France, Italy and Spain for many years.
+ Aging wine in acacia barrels can provide structure and mouthfeel in wines without the tannin, vanilla and toasty flavors associated with oak. 
+ Acacia barrels can dehydrate faster than oak, requiring humidification and rehydration during storage.
some states. It was introduced to France and England in the 1600s, and is now found throughout Europe, including Hungary, Bulgaria and Croatia. Acacia wood used in wine barrels is sourced from the same French forests as oak. (It is not the tree known as acacia in California. There are more than 800 species worldwide of true acacia; California has native shrub species, with landscape trees brought in from Australia and Africa.)

INTEREST GROWS IN U.S.

Norm Leighty, a barrel representative for Tonnellerie du Sud Ouest of Bordeaux, through his company Oakasions, began promoting the use of this cooper’s acacia barrels for white wines in California to better preserve aromatic and fruit character, while also providing structure. Leighty has since retired, and Espen Jensen is now the Napa-based rep for Tonnellerie du Sud Ouest and for Tonnellerie du Val de Loire, which also produces acacia barrels.

“A stylistic trend today for white wines, and even some red wines, is toward dialing back on oak,” Jensen explained. “Winemakers want more fruit character and acacia can help with that. Stainless steel will also save fruit character, but you don’t get the same structure and mouthfeel. Acacia is a way to get structure without oak.” He noted that acacia wood has less tannin than oak, and better preserves freshness, and floral and varietal character.

Additional cooperies have introduced acacia barrels to the U.S. market, including Tonnellerie Boutes, Dargaud et Jaeglé Tonnellerie (supplied by Premier Wine Cask), and Bouchard Cooperages of Napa, which supplies acacia from Tonnellerie Billon and Tonnellerie Vicard.

Seguin Moreau’s Fraicheur barrel is a combination of French oak staves and acacia heads. Seguin Moreau produces the Fraicheur (freshness) barrel with acacia heads and French oak staves. The barrel is said to enhance aromatic delicacy in white wines by reducing toasty and woody aromas associated with lactone and ellagic tannins, while enhancing citrus and floral characters, and adding structure and complexity. Fraicheur is suited to chardonnay, sauvignon blanc, semillon, viognier, marsanne and roussanne, with aging on lees

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suggested for five to eight months after fermentation. Acacia barrels cost about 10% less than French oak, but they cost more than American oak. Acacia is coopered similarly to oak, and is available in typical barrel styles and sizes. Some cooperers produce larger-size acacia puncheons of 500 L that are popular with some winemakers who prefer the wine-to-wood ratio with this size.

Acacia is usually seasoned for a shorter time period than oak, about 12 to 18 months. Recommended toasting levels are light to light plus. One difference with acacia is that it can dry out faster and be more porous than oak. Ullage may be higher and topping may be required more often with acacia, although wine is not commonly aged in acacia as long as in oak.

Acacia barrels should be stored in a humidified environment between fills. They are sometimes stored filled with water or a water/brandy solution, or rehydrated at regular intervals. They should also be hydrated prior to first use, to avoid wine leakage when filled. Acacia barrels are otherwise cleaned and maintained similarly to oak barrels.

**ADDING BODY TO PINOT BLANC**

Valley of the Moon Winery in Sonoma County began experimenting with two acacia barrels from Tonnellerie du Sud Ouest in 2006. Today acacia is a regular part of its pinot blanc program, a flagship variety for the winery. Winemaker Greg Winter said about a dozen new acacia barrels (225 L and 228 L) are bought each year, some still from Tonnellerie du Sud Ouest, but also from Tonnellerie Boutes and Dargaud et Jaegle Tonnellerie.

For pinot blanc, 80% of the blend is stainless steel-fermented, 20% barrel-fermented. After fermentation, 80% of the blend is aged in acacia barrels for five months, with some lees aging. Acacia barrels are used for four years (or fills), with 25% of each year's blend in new acacia, 25% in 1-year-old, 25% in 2-year-old, and 25% in 3-year-old.

Older neutral barrels are used for aging and storage of red wines.

**After several years of acacia use,** Winter observed: "It adds body and structure without the vanilla and toasty quality of oak. It accentuates fruit and floral character and aromatic compounds. It provides a different component compared with stainless steel and with French oak, and even compared with neutral barrels. It's a different and positive element to add to the blend."

He said the original acacia barrels had some leakage issues when first used. Cooperings modifications and improved maintenance and storage practices have reduced these problems. "They can expand and contract more than oak, and if not kept in a humidified cellar it can be a problem," Winter said. The winery washes acacia barrels every two months between fills to keep them hydrated; otherwise, they are maintained with a standard washing and ozone program.

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Winter summarized, "It takes some trial and error as with most cooperage, but it's worth checking out as it can enhance a blend, or you may like to use it for a stand-alone bottling."

**COMPLEXITY FOR SAUVIGNON BLANC**

Quivira Vineyards & Winery in Sonoma County tried acacia cooperage in 2007, and it's now a regular component of the winery's production for three styles of Dry Creek Valley sauvignon blanc. The winery uses 500 L acacia puncheons, all with a light toast, from Tonnellerie du Sud Oeste. Winemaker Hugh Chappelle, who began at Quivira in 2010, said he inherited the program. "But I quickly warmed up to it when I found how it worked with sauvignon blanc," he said.

Although there is no set production formula from vintage to vintage, each sauvignon blanc begins fermentation in stainless steel with native yeast. Depending on style, partially fermented juice is then divided into acacia and French oak barrels to complete fermentation, and then remains to age on lees for up to six months before final blending and bottling.

Chappelle said Quivira's stylistic goal is to blend Old World French styles with New World Dry Creek style and terroir. Quivira's Refuge Sauvignon Blanc, made in a white Bordeaux style, usually sees the most acacia and the highest percent of new acacia, from 20% to 30% of the blend. The Fig Tree Sauvignon Blanc is a Sancerre-style wine produced in 80% stainless steel and a 20% combination of acacia and neutral French oak. A sauvignon blanc/viognier is a 50/50 co-fermented blend in a Provence/Rhone style that uses acacia and neutral French oak.

Twenty to 30% of the Quivira Refuge Sauvignon Blanc is made in new acacia barrels.

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Chappelle said acacia is more of a challenge to store and maintain between fills, with barrels filled with water every six weeks to keep the wood hydrated. Acacia is used for four years before it's cycled out of the program. "I think it's a great fit and complement for sauvignon blanc and southern Rhone whites," he said. "I prefer it as part of the mix for blending rather than using it 100%. When it's integrated with lots processed in stainless steel and French oak, it adds another layer and more complexity to the blend."

DIFFERENTIATING WINES

Winemakers Dan and Therese Martin, owners of Martin Ranch Winery near Gilroy, Calif., began using two 225 L Tonnellerie Billon acacia barrels in 2011 for sauvignon blanc to differentiate between the two labels produced by the winery.

Dan Martin produces sauvignon blanc under the J.D. Hurley label with Santa Clara Valley grapes that are stainless-steel-fermented with some oak aging. Therese produces wines under the Therese Vineyards label with grapes from Arroyo Seco in Monterey County. So far, acacia is used only for the Therese label; about 10% of the 2011 sauvignon blanc was aged in acacia barrels for three months.

In 2012, two 500 L acacia puncheons were purchased from Tonnellerie du Sud Oeste. Part of the Therese sauvignon blanc was fermented in acacia, and about 60% of the 2012 vintage will see time in the wood. Dan Martin said, "Sauvignon blanc can be a delicate wine, and it doesn't need much barreling, so the acacia helps highlight the fruit, whereas oak can have heavier flavor and has a tendency to mask fruit flavors." He also observed, "Acacia seems to be more porous than oak, with higher wine loss and more barrel topping, which is a bit of a negative, but sauvignon blanc is only in barrel for three to four months, so it's not a major factor."

The Martins are also experimenting with acacia for aging riesling and chardonnay, after the sauvignon blanc is removed from the barrels. They plan to try acacia with viognier and pinot noir. "It seems to be a positive factor for riesling, and adds a touch of yellow color, as it otherwise would be pretty colorless," Martin said. "It's an interesting new tool, and so far, what we've seen, we like."

Ted Rieger, CSW, is a writer and photographer based in Sacramento, Calif., and has been a contributing editor for V&WM since 1990.

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