

LOW-ABV, NATURALLY

Alternative yeasts could be the key to a more gentle approach to making lighter alcohol wines that preserves flavor.

“To create a quality low-alcohol wine, you really have to start off with the good stuff,” says Casey DiCesare, winemaker for Scheid Family Wines in Soledad, California, where he oversees the winemaking program for the company’s low-abv Sunny with a Chance of Flowers label.

What some consumers may not realize is that removing alcohol changes more than the abv. “Alcohol does a lot of great things for wine—it pulls aromatics to the top of the glass, adds weight to the midpalate, gives the perception of sweetness and fullness,” says DiCesare. Without it, acid can stick out, tannins may feel more aggressive—what’s more, the reverse osmosis (RO) process used to remove the alcohol concentrates these structural elements even further. “So, if you’re not compensating for that in the front end of (low-abv) winemaking, it can be really hard to fix in the end.”

That work starts in the vineyard, where DiCesare coaxes grapes to full ripeness, de-leafing vigorous varieties and doing everything possible to pull out big flavors. “All the things you would do to make the best wine possible versus the most wine possible,” he says—despite the 107,000 case production of the Sunny with a Chance of Flowers label in 2024.

The RO process in which wine passes through a fine porous membrane to undergo pressurized filtration is not exactly gentle. Alcohol is removed by 0.7 to 1.5% with each pass; the higher the original alcohol content and the lower the desired abv, the more times wine needs to pass through the system. So, DiCesare asked himself what else he can do to continue to create balanced low-abv wines in a more hands-off, less manipulated way. “We’re not going to pick less ripe just for less

alcohol and sacrifice flavor, or water back and acidify, which can create structural imbalance or stop ferment early and leave residual sugar,” he says. “So, what can we do in the winemaking process to maybe not do as good a job of producing alcohol but still get to full dryness?” This question was the impetus of DiCesare’s 2023 yeast trial, looking closely at three alternative strains that are genetically geared to ferment to lower alcohol.

With separate batches of estate Sauvignon Blanc, the three yeast strains examined were Enartis’ EnartisFerm Q RHO (*Saccharomyces uvarum*), Gusmer’s Viniflora Frootzen (*Pichia kluyveri*) and Laffort’s Zymaflore Klima (*Saccharomyces cerevisiae*). Common between each

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alternative strain is their ability to produce less alcohol, but each has its own unique side-chain effect. “The Q RHO performs well at lower temperatures, which is great for white winemaking,” says DiCesare. It also increased glycerol production, which is a positive particularly for alcohol-removed wines, as it repairs the body, weight and perceived sweetness lost during the process. Frootzen “is an early-ferment dude,” that—contrary to how Sauvignon Blanc is typically produced—requires oxygen to get fermentation going. “The theory is that when oxygen is present, it takes sugars and rather than producing CO₂ and ethanol, it just produces the CO₂.” But it requires a secondary inoculation with a *saccharomyces* yeast in order to ferment to complete dryness. The Klima helped boost



aromatic intensity, but also increased malic acid production, resulting in the leanest palate of the three test yeasts.

All three did, in fact, create a reduced-alcohol wine—though none dramatically so. Compared to the control wine, which fermented to 12.43% abv, the Frootzen was the lowest competitor at 11.87%, followed by the Q RHO at 12.05% and Klima at 12.14%. “I can’t be sad about a 0.3 or 0.4% reduction because that can really make a difference,” says DiCesare, noting that even that small reduction means less RO Off-handedly, using the yeast in non-controlled experiments, he says he’s seen larger drops in alcohol. “This was the minimum side of reduction at production-scale. I was trying to be realistic about using them in our normal performance. For me, it was significant that all three had a drop.” DiCesare would love to one day rely solely on natural methods to create his lower-alcohol products. But, “Reducing handling on the product—every little bit counts.”

DiCesare plans to keep experimenting, trialing with different varietals, including reds like Pinot Noir and Cabernet, as well as other alternative inoculants. “I’m always looking at new strains ... any time anyone produces crappy-at-alcohol-producing yeast, I’m game.” —Stacy Briscoe