

Winemaker Trial: The Effects of Non-Saccharomyces Yeast in Winemaking

In a quest to bottle more organic wines, Castoro Cellars winemaker David Sailor was interested to learn new techniques to help reduce total SO₂ levels—including the introduction of a non-Saccharomyces yeast strain.

Stacy Briscoe

Author's note: At the time of this interview, the experiment was in the early stages. The questions and answers published here are a reflection of an in-progress trial.



David Sailor attended Cal Poly San Luis Obispo, where he received his B.A. in agricultural business with a marketing concentration and a minor in enology and viticulture. Since graduating in 2004, Sailor has worked in wine in a variety of positions in San Luis Obispo and Sonoma counties, in addition to Australia, New Zealand and Colorado. He has been making wine in the Paso Robles wine region for the past five years and joined the winemaking team at Castoro Cellars in 2018.

TRIAL OBJECTIVE: To determine whether the use of non-Saccharomyces yeasts will help eliminate the need for SO₂ during crush, thereby reducing the resulting wine's total SO₂ levels.

TRIAL DESCRIPTION: Three tanks of Cabernet Sauvignon will be used for the experiment. The control tank will receive SO₂ during the crush phase, followed by yeast inoculation. The two trial tanks will receive two separate non-Saccharomyces yeast strains during the crush phase, instead of SO₂, followed by the same yeast inoculation as the control tank.

Why are you interested in working with a new yeast?

Sailor: As Castoro approaches having all 1,400 estate acres of grapes certified organic, we are producing more wines designated as “made with organic grapes.” For this labeling, the wines going into the bottle must contain less than 100 ppm total SO₂. Using these non-Saccharomyces yeasts, we may be able to eliminate the initial hit of SO₂ at the crush hopper, which usually results in 40 to 50 ppm total SO₂.

What grape varieties are you experimenting with? Is there any reason you chose these varieties specifically?

Sailor: We are trialing the yeast on Cabernet Sauvignon, which will come in toward the end of harvest as we tend to need to add a little more SO₂ to this fruit to help reduce microbial activity.

What type of yeast do you typically use when fermenting these grapes and why?

Sailor: We inoculate with a *Saccharomyces bayanus* yeast. Toward the end of harvest, the grapes tend to have a higher fructose to glucose ratio. The *bayanus* really helps to ensure a finished ferment as it is fructophilic.



Stacy Briscoe is the assistant editor of *Wine Business Monthly*. Previously, she was a freelance wine writer for multiple publications, including the *San Francisco Chronicle*, *Napa Sonoma Magazine*, *Edible Silicon Valley*, among others. Stacy has a Bachelor of Arts degree in English-language literature, holds a WSET Level II certificate and is continuing with the WSET program. Outside of wine writing, she's also a contributing editor for independent publisher *She Writes Press/Spark Press*.