



HOW CLIMATE CHANGE IS AFFECTING NAPA VALLEY CABERNET
DEPARTURES, RAY ISLE, OCTOBER 11, 2019



It's a simple equation, really. Napa Valley equals Cabernet Sauvignon. America's foremost wine region is inextricably tied to the most sought-after, most prestigious, and most recognizable red wine variety in the world.

But what if it weren't?

At Larkmead Vineyards in Calistoga, winemaker Dan Petroski makes acclaimed Cabernets that garner raves from critics and sell for upwards of \$200 a bottle—a price that rarely raises an eyebrow in Napa Valley these days. But his latest project is a small parcel of prime vineyard land in which he isn't planting Cabernet at all. The reason is climate change.

"The future of agriculture here is understanding and dealing with climate change," Petroski says. "What will make sense in Napa Valley in the next 30 or 40 or 50 years?" He hasn't decided which varieties will go into the experimental vineyard yet; possibilities include Zinfandel, Petite Sirah, Aglianico, Syrah, and Tempranillo, among others—all varieties that thrive in hot regions. As he notes, "This is research. I'm looking at a seven-to-ten-year timetable.... But there's no doubt whatsoever that we're in a climate-changing environment right now. There's a clear upward



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trajectory of temperature.”

Petroski’s observations match those of winemakers in other major wine regions. Torres, in Spain, has been tracking temperatures and harvest dates for decades; in the Penedès region, harvest dates are ten days earlier than they were two decades ago; in Conca de Barberà, grapes are coming in, fully ripe, 25 days earlier. Similar shifts have happened in regions as diverse as Bordeaux and Piedmont.

But so what? Harvest a little earlier, bring in your grapes a little riper—what’s the issue? While it’s easy to produce palatable, commercial wine in a broad range of conditions by using additives like powdered tannins and Mega Purple grape concentrate or processes like alcohol reduction to modify a wine to fit a marketing committee’s parameters, producing great wine requires a finely tuned match of grape variety to climate and soil character. As Petroski says, “What Napa Valley is known for are these wines of hedonistic display, of luxury.” But, counterintuitively, he says, when it gets too hot, Cabernet tends to lose color. “The wines get lighter, and because of the way that those compounds interact with tannins, you’ll start to get wines that are green and harshly tannic.” That’s a far cry from the luscious texture and inky purple hue that draws people to Napa Cabernet.

Hence Petroski’s—and others’—investigations into alternative varieties. Across the way in Sonoma’s Dry Creek Valley, winemaker Jeff Hinchliffe of Hanna Winery has started bottling Saint Macaire, an obscure Bordeaux variety that he planted mostly because he was curious about it. At a climate change conference in Napa, he says, “the light bulb went on—Saint Macaire was originally recommended for high color and high acidity in hot regions. I thought, Well, this is kind of interesting.” (Hanna’s Saint Macaire is available directly from the winery.)

A rise of even one degree overall around the globe can drive broad shifts in weather patterns, pushing bud break two weeks earlier, yet not changing the timing of spring frosts (a condition that has been cataclysmic for the Loire Valley in recent years). The shifts can nudge harvest dates into August and prompt violent heat spikes at the end of the growing season (“We farm now to be prepared for a 116-degree day,” Hinchliffe says, “which we now get.”)

At Larkmead, Petroski isn’t uprooting his Cabernet anytime soon—or ever, if he can help it. But, he says, “to flourish here in the future, we’re going to have to open our eyes a little bit, and open our palates a little bit, and be willing to accept some change. You want to say the future’s bright, because it’s going to be awfully damn sunny, but...”