Larkmead

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THE END OF CABERNET IN NAPA VALLEY?

ESTHER MOBLEY, SAN FRANCISCO CHRONICLE, AUGUST 19, 2019

Cabernet Sauvignon grapes make America's favorite wine, and they are the lifeblood of Napa Valley, our country's most famous wine region. Cabernet accounts for 65% of the grapevines grown in Napa, where last year the crop reached a record $1 billion in gross value.

But Cabernet, like all of California agriculture, is under threat. As Napa's wine industry continues to confront rising temperatures, increasingly frequent wildfires, intermittent drought and erratic weather, a small but growing contingent of vintners is becoming more vocal about the need to address climate change head-on.

Frustrated by the lack of industry-wide action, some are taking matters into their own hands by planting experimental vineyards — and, in some cases, acknowledging that the future of Napa Valley may not lie solely with Cabernet.

"I hear some wineries saying, 'We're going to have to start thinking about different grape varieties in 30

years,'" says Dan Petroski, winemaker at Larkmead Vineyards in Calistoga. His incredulous response: "You're going to start thinking about it in 30 years?"

Like virtually all Napa wineries, Larkmead is a Cabernet house: The variety represents 73% of its estate vineyards, and its exquisite bottles sell for up to $350. Since Petroski started working for the winery in 2006, he has watched higher temperatures shift the annual Cabernet harvest almost four weeks earlier. In the short term, that's resulted in delicious wines, and the Larkmead team has been able to mitigate the effects of the heat with tools such as shade cloths, which blanket 90% of its vines.

In the long term, though, Petroski sees a future in which, as temperatures get even higher and the harvest shifts earlier in the year, grapes will be overripe in their sugar accumulation while still underripe in their flavor development. "There's going to come a point with Cabernet in Napa where you have it seared on the outside and completely raw on the inside," says Petroski, who was The Chronicle's Winemaker of the Year in 2017.

He's working on the assumption that Larkmead has 20 to 30 years before its reliance on Cabernet becomes untenable. That's why this summer, the Larkmead team is preparing the land for what it calls the research block — an experimental 3-acre parcel with grape varieties known to thrive in warm climates better than Cabernet can. Some of these are old-school California heritage grapes such as Charbono, Zinfandel, Petite Sirah and Chenin blanc; others are tried-and-true varieties from hot regions in Italy, Portugal and Spain, including Aglianico, Touriga Nacional, Tempranillo and possibly Albariño.

The goal, as it stands now, isn't to replace Cabernet entirely at Larkmead, but to develop a larger palette with which to supplement it. If Cab moves into that seared-raw, sweet-sour dynamic, what other grapes might Larkmead blend with Cabernet to maintain the current house style?

The research block is a significant investment — simply reconfiguring the Larkmead cellar to accommodate the wine trials will cost $75,000 — and one that's bound to start conversations throughout the valley. And Larkmead isn't alone. Two of the other highest-profile grape growers in Napa Valley, Spottswoode Winery and Beckstoffer Vineyards, are also embarking on ambitious planting experiments with climate change in mind. The approaches and hypotheses are different, but they all point to an inconvenient truth: Unless drastic action is taken, a business banking on Napa Cabernet may not survive into the next generation.

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Climate change isn't coming for Napa. It's here, explains S. Kaan Kurtural, UC Davis professor of viticulture and enology.

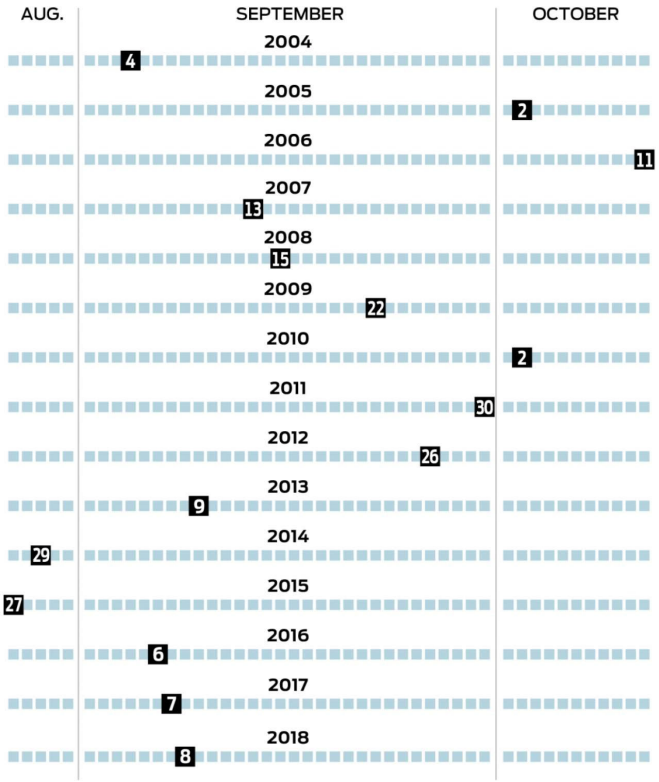
"Napa already has moved into another climate category," Kurtural says. By "climate category," he's referring to the Winkler Index, a Davis-developed scale that maps which types of grape varieties can grow within specific temperature bands.

Cabernet Sauvignon can grow successfully in the Winkler Index's Regions II, III and IV — but Region V would be pushing it. In 1944, when the system was developed, it put most parts of Napa Valley on the cool side of a Region II; now, most parts are a warm Region III or even a Region IV.

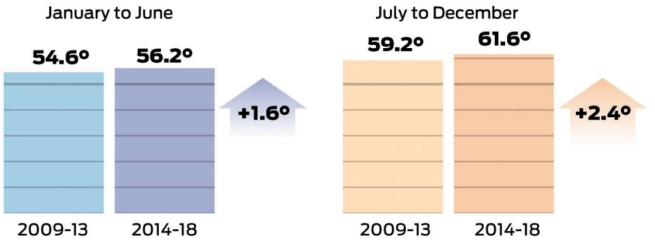
In Winkler Index terms, Napa Valley has steadily increased in growing degree day accumulation by 10 units a decade, Kurtural says. That it will eventually reach Region V — a kind of Cabernet apocalypse point — is a when, not an if.
As a grape ripens, the compounds within it — tannins (which contribute texture and astringency), flavonols (which determine flavors) and anthocyanins (responsible for color) — perform a delicate, shifting balancing act. "All three compounds have to be present in the correct concentration for the fine wine matrix," Kurtural says. When there are erratic heat spikes in the summer months, as opposed to a long, leisurely growing season that leads to harvest in the cooler weather

Earlier harvest in Calistoga

Date of first Cabernet Sauvignon harvest at Larkmead Vineyards



Average temperatures at Larkmead Vineyards in Calistoga are rising throughout the year



Source: Larkmead Vineyards

John Blanchard / The Chronicle

of October, grapes can ripen too quickly. Anthocyanins can degrade before their time. The grape chemistry gets thrown out of whack.

The eventual result? "We could end up with these bland sugar sacks," Kurtural says. "And we're seeing this effect be more chronic in the Bordeaux varieties, like Cabernet, which are driving the industry."

Kurtural's research has led him to team up with Beckstoffer Vineyards for what he calls "the mother of all Cabernet trials."

Kurtural directed a planting Thursday of 3,600 new Cabernet plants at Beckstoffer's Lake County vineyard, representing 100 combinations of rootstock and clone. (A clone is a distinct but genetically identical version of a grape variety.) The scale of this is enormous: Normally, Kurtural says, an ambitious project might look at two or three combinations, not 100.

The hope is to find some rootstock-clone permutations that promise improved drought tolerance and might encourage grapes to ripen closer to October than to August. "Right now, berry temperatures around harvest can be around 50 degrees Celsius (122 Fahrenheit) — that's hot to the touch," Kurtural says. "We're looking at: Can we extend the growing season?" Beckstoffer is providing the land and labor, Duarte Nursery is donating the plant material, and Kurtural's team will spend eight years making the vines' fruit into wine at UC Davis' winery. The results of the study will be made public.

Beckstoffer Vineyards has a clear interest in Cabernet's success. The company farms some of the most famous and expensive Cabernet in California, including at its To Kalon Vineyard in Oakville. Cabernet represents 97% of Beckstoffer's 1,800 acres in Lake County. Unlike Petroski, owner Andy Beckstoffer believes that with the proper adjustments, his cash crop will be just fine. "It's very sexy to talk about how you won't be able to grow grapes in Napa Valley in the near future," he says. "I just don't see that. We have the knowledge to adapt, and we can afford to."Spottswoode Winery owner Beth Novak Milliken agrees with Petroski that Cabernet alone is not the answer. "Napa Valley will continue to be a strong grape growing area, but will it be Cabernet dominant?" says Milliken, whose family purchased its St. Helena estate in 1972.

Convinced that her property will be a Winkler Region V by the early 2030s, she is looking at land in cooler

zones where she might invest in future Cabernet vineyards. In the meantime, she and Spottswoode winemaker Aron Weinkauf are in the early planning stages of an experimental vineyard, where, as at Larkmead, they'll plant grape varieties that might thrive in a warmer future. Although they have not yet made their final choices, they're considering grapes such as Suzao, Alicante Bouschet, Barbera and Valdiguie.

"I guess I'd call it a hedge," Milliken says. "If models are pointing to pretty radical changes within the next 20 to 40 years," she doesn't want "all our eggs in the St. Helena basket."

Petroski is pessimistic about the greater industry taking action, though. "A lot of the resistance (to addressing climate change) is the cultural fear of changing what we love about Napa Valley," he says. Napa is Cabernet. It's not going to suddenly become Aglianico."

If Larkmead's research block experiment proves fruitful, however, maybe we won't have to change what we love about Napa Valley.

He points to Bordeaux, another wine region built on Cabernet Sauvignon, where wines are identified by the winery, not the grape variety.

"Our brand should be 'Napa Valley red wine,' not 'Napa Valley Cabernet Sauvignon,'" Petroski says. In July, incidentally, Bordeaux approved the use of seven new grapes, including Touriga Nacional, in its lower-tier wines

RESISTING HEAT

Hot-climate grape varieties to watch:

Touriga Nacional: Primarily used for Port, this dark, tannic grape variety is becoming popular for table wines in Portugal. Can produce juicy, concentrated, floral wines and is permitted for use in Bordeaux wines.

Tempranillo: Spain's best-known red grape, which typically forms the basis for Rioja wines, is known for its ability to age beautifully. Fruity and easy-drinking while young, it can take on leather and tobacco flavors in maturity.

Alicante Bouschet: This Portuguese variety has a long history in California; many 19th century vineyards included it. Most important, the grape is a teinturier, a rare class of wine grapes whose flesh is red, rather than clear, which helps contribute color to wines.

Tannat: Its roots are in southern France, but Tannat has now become the calling card for Uruguay's wine industry, which prizes the thick-skinned grape for its drought and heat tolerance. Can retain lots of structure and freshness late into the growing season.

Alvarinho/Albariño: Whether it goes by its Portuguese or Spanish moniker, this white grape can produce crisp, high-acid wines in warm climates. It was one of the three white grape varieties recently permitted for use in Bordeaux wines.

— a dramatic development that underscored the dire situation that climate change presents there.

If Cabernet founders in a warmer Napa Valley, heat-tolerant grapes such as Tempranillo and Touriga Nacional could add freshness, weight and fruitiness to a Cabernet-based blend.

To pull that off, the idea of great Napa wine has to be decoupled from the idea of Cabernet Sauvignon. There are a few highly successful models for that: In Bordelais fashion, Opus One, Dominus and Harlan opt for "Napa Valley red wine" on their labels.

The Larkmead research block should be producing enough fruit to vinify in 2023, with the first wines to be released in 2026. Petroski intends to make a varietal wine from each of the grape varieties initially. He doesn't anticipate that wines like the Larkmead Tempranillo will be a big commercial success — he has a hard time selling a wine as recognizable as Merlot as it is — but he hopes it will be a small step toward ensuring that Larkmead Cabernet, and Larkmead itself by extension, has a future.

"All we're doing at this point is buying time — we're not reversing anything," Petroski says.

That certainty doesn't diminish Petroski's conviction that he must act. "We know climate change is real," he says.

"And the next generation, if we do nothing, is going to say, 'You knew.'"

Esther Mobley is The San Francisco Chronicle's wine critic. Email: emobley@sfchronicle.com Twitter: @Esther_mobley Instagram: @esthermobTo pull that off, the idea of great Napa wine has to be decoupled from the idea of Cabernet Sauvignon. There are a few highly successful models for that: In Bordelais fashion, Opus One, Dominus and Harlan opt for "Napa Valley red wine" on their labels.

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