

{ best practices }

A Step

THE **GREEN STRING**
METHOD FINDS AN
ALTERNATIVE TO
ORGANIC FARMING

UP

by Jess Lander

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Headlines in recent years have helped raise awareness of the dangerous effects of human exposure to agricultural chemicals. For Fred Cline of California's Cline Cellars, however, an instinctive concern for his children's well-being on his farm first arose decades ago, eventually serving as the catalyst for his fastidious commitment to sustainable farming.

Cline's sustainability practices, which go above and beyond the requirements of today's related certifications, were inspired by organic-farming pioneer Bob Cannard. Cannard, who has long provided produce for chef Alice Waters' Chez Panisse, is the man behind an approach known as the Green String Method: It refrains from using pesticides and herbicides, helping to produce a healthier crop and bigger yields as a result.

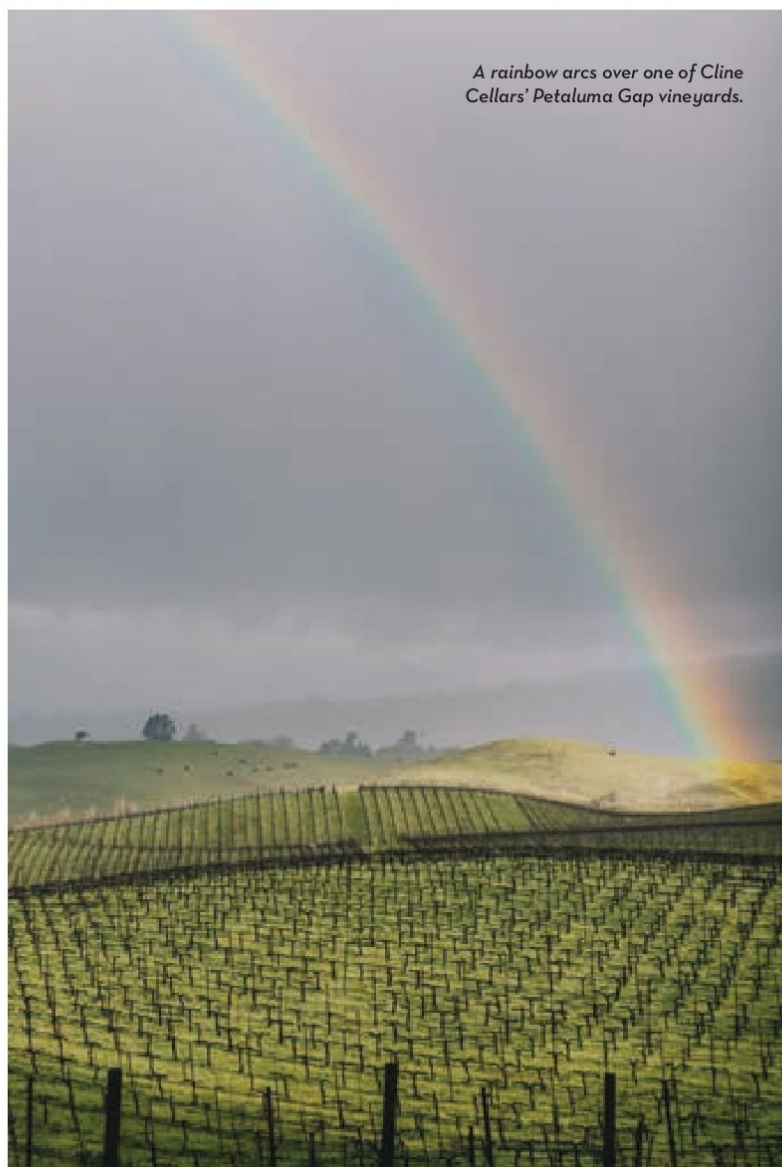
"It's about doing what's right for the environment and making it better—understanding your sites, understanding what works and what doesn't work," says Tom Gendall, associate winemaker for Cline Cellars and another Cline venture, Jacuzzi Family Vineyards. "You've got to think about the insects; you've got to think about the soil; you've got to think about the air; what your vegetations are, and how it's all tied together."

After Cannard and Cline met in 2000, it wasn't long before Cline became a Green String convert. By the following year, he had begun making the arduous transition to this new system; today, the winery uses no pesticides or glyphosates (weed-killing herbicides), and the only chemical it sprays is sulfur. "My dad realized that the safety of his children and his workers—and everyone—was more important than the quick and easy fix of using Roundup," says second-generation proprietor Megan Cline.

Located in Petaluma, CA, Green String Farm opened in 2008 as a means of providing high-quality and affordable organic produce to the area.

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A rainbow arcs over one of Cline Cellars' Petaluma Gap vineyards.

Beyond Organics

Switching to Green String farming isn't easy or cheap: It requires more passes through the vineyard, which necessitates a significant uptick in labor. The Clines had to find alternative methods to control weeds and fight disease, but nearly 20 years later, the land has reaped the benefits. "They say it takes about ten years to get all the glyphosate out of the soil, so it really was a long process," Megan recalls. "The first year, we had the problem of

pulling out an abundance of weeds that were difficult to remove in between the vineyard rows, but long-term, it has been so helpful to the health of our vines."

The most obvious indicator of that health? A total absence of disease. "The vines start becoming more resistant, and overall you're building up a healthier system," Gendall says. "Last year, we were picking in November after 2 inches of rain and there wasn't a touch of disease anywhere, which is a testament to our vine-

yard practices but also to the work of the vineyard crews. They're in the vineyards all the time making sure we get the best crop possible and [that] the canopies are open to lower the disease pressure."

In place of glyphosates, Cline Cellars uses weed wackers and sheep to control weeds. Since 2005, they've had 1,500 sheep and goats graze through the vineyards three times a year in addition to helping with leafing in the summer. "They're fantastic in the winter," says Gendall. "Especially in a wet year like this, the sheep can get in before the tractors can."

Compost teas, which naturally fight disease by making the soil healthier and promoting biodiversity, are another useful tool, as are seaweed fertilizers, which provide more nutrients to the vines and in turn help produce higher-quality fruit. And to target each vineyard's specific needs and disease pressures, Cline Cellars has partnered with BioFlora, a company that takes vineyard samples and creates custom nutrient programs for wineries.

Diverse Agriculture

The main reason Cline Cellars could economically justify the expense of adhering to the Green String Method is because, unlike most wineries, it farms much more than vines. In 2008, Cline and Cannard opened the 160-acre Green String Farm in Petaluma; located right across the street from one of Cline's Petaluma Gap vineyards, it sells seasonal produce, nuts, and meat it raises on site. "They wanted to create a space that was easily accessible to the local community, where [people] could get great-quality organic produce at a reasonable price," says Megan.

While it's a sound move to have more than wine to profit from, diversifying their crop truly fits into the Cline family's philosophy of leaving the land better than they found it. "By planting other crops in unfavorable viticulture areas, we diversify our horticulture system and our overall biosystem," says Gendall. "We also offer year-round work for our employees. By providing steady as opposed to seasonal jobs, we benefit from employees who are able to execute time-consuming jobs like weed wacking. In turn, when the vineyards

are not needing attention, we have other crops for them to work on. The end result is a consistent work crew who understands our crops better and better each year. It is a win-win-win situation."

Leading the Charge

A leader in sustainability, Cline Cellars was also at the forefront of farming in the Petaluma Gap, which was officially designated as an AVA in 2018. Of its three vineyards there, Catapult was the first Cline planted, back in 1998. The winery was also one of the first to use Petaluma Gap on a label, displaying it on its Amphora portfolio.

The wind is the biggest differentiator in this region, and Gendall, a Petaluma Gap AVA board member, says the wines produced here have an extra-savory character that particularly shines through in Syrah. "It's one of the first AVAs created that's not based on the soil and topography; it's based all on that wind," he says. "The average wind here is 8 to 10 miles per hour, which results in a longer growing

season and more flavor development over that time."

Willing to Experiment

The Cline Cellars team is constantly on the lookout for additional ways to improve their sustainability practices, especially in the face of climate change. Since 2008, for example, they've experimented with native root plantings, in which vines are planted right into the dirt without being grafted and then dry-farmed. "The idea is that you own-root it. Without water, the roots are forced to grow deeper into the soil, so you get a bigger, healthier root system," says Gendall. "With the water pressure issues throughout California, we're going to have to be smarter about water, so this is a really fantastic experiment that makes fantastic wine."

So far, the biggest challenge has been the low yields, as the vines produce roughly 1–1.5 tons per acre. Gendall, however, believes the tradeoff is worth it: "The grapes we do get are fantastic,"

Gendall says. "They're really concentrated, you get phenolic brightness at lower sugar levels, and they just make really delicious, elegant wine."

But with this experiment also comes a giant risk: phylloxera. After the devastating outbreak in the late 19th century, it became common practice to graft vine cuttings on American rootstock, which is resistant to the bug. "The big fear for everyone with doing own-roots is phylloxera, obviously, but by going dry-farmed, the roots should go deep enough," Gendall explains. "Phylloxera only lives in the top part of the soil, so hopefully these roots get down low enough and you get healthier root systems that are more resistant."

The winemaker is the first to acknowledge that "there's still lots to learn" when it comes to Cline's pioneering methods. "We are so prone to drought in California that this possibly could be the answer," he says. "Maybe this will be what we have to do in the future, but for now, it's more of an experiment." *SJ*



Fred Cline and Bob Cannard in Petaluma, CA.