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Green Wine Guide - Organic and Biodynamic Wine Tours
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Frog's Leap Winery: Saves 10 Million Gallons of Water a Year with Dry-Farming

Frog's Leap Winery is an organic and biodynamic vineyard located in the heart of Napa's Rutherford region. Back in 1975, owner John Williams was living in St. Helena on a property that was a frog farm during the 1800s. Yes, a frog farm! In 1981 he began working for Stag's Leap Wine Cellars, an opportunity that enabled him and his buddy Larry Turley to make a 5 gallon jug o' wine using "borrowed" grapes. As a homage to the grape's origins—and the frog farm—they called it Frog's Leap. Pleased with the results, they sold their motorcycles to produce another 500 cases.

Now entering their 30th year of production, Frog's Leap has been a pioneer in terms of green winemaking. They were Napa's first winery with certified organically grown grapes and the first California winery with a LEED certified building. But one of their most impressive accomplishments is that they grow all their grapes without the use of any water; they're completely dry-farmed.

In 1994, Frog's Leap moved from the St. Helena frog farm to the historic Anderson Winery in Rutherford. Turley didn't follow as he went on to establish what is now Turley Wine Cellars. Anderson Winery was a ghost winery that had been established in 1884 by a German vintner. This new home, located in the Rutherford appellation, has many diverse microclimates and soil types. It also produces some of California's most well known wines. The west side—called the Rutherford Bench—is home to some of Napa's award-winning Cabernet Sauvignons. Frog's Leap has four of their own vineyards on this Bench.

The property had been punctuated by a grand red barn which was Napa's oldest board and batten building. Williams took great care in restoring the building. The barn was rebuilt using 85% of the original wood and is now surrounded by over 40 acres of organic estate vineyard.

Going organic before it was cool

"We certified our first vineyard organic 24 years ago and believe me, it was not a cool thing to do back then," says Williams. Prior to 1987, Williams was buying grapes from other vineyards. That same year he purchased his first vineyard and began flexing his degree in agriculture from Cornell University. Initial soil inspections found the vineyard to be not only calcium deficient but also lacking in both zinc and boron. Growing up on a dairy farm, he was confident about the conventional methods in which to fix it; he was wrong. When the vineyard quickly took a turn for the worse, Williams started exploring alternatives. Through the owners of Fetzer Winery, John was introduced to Amigo Bob--an organic farmer from Mendocino County. Amigo Bob taught Williams how to farm with nature and not against it. John became a soil farmer and not *just a grape grower*.

"It [organic] was really the source of inspiration…that instructed us on the path of doing everything else. But organic farming came first," Williams notes.

Frog's Leap built Napa's first LEED certified commercial house, complete with a geothermal warming and cooling system. The closed-loop system consists of 20 different wells and has the capacity to cool a total of 10 houses. The house serves as the winery's administrative offices and its tasting room. But it isn't the only LEED certified structure on the property. Frog's Leap is also home to Napa's only LEED certified green house, no pun intended. And as you might expect from an eco-conscious winery, the day-to-day operations are 100% solar powered and have been since 2005. But these improvements are not just about the environment, they're also about good business. For example, their annual electric bill was $50,000 so solar made fiscal sense.

One of the more unique efforts that Frog's Leap has made is in the area of water conservation. No water is used on the any of the grape crops. They are completely dry farmed. John explains that "all grapes in Napa for 125 years were dry farmed. Irrigation came to Napa in the 70s, was made popular in late 80s, and became required in the 90s. Now it's thought to be completely impossible to grow grapes without water."

Water-free wine

Dry-farmed grapes not only reduce water usage but the resulting product is significantly better. First, dry-farmed vines have an extremely deep root. This makes them robust and much more resistant to diseases. In comparison, grapes that receive irrigation end up sitting on the vine significantly longer. The grapes themselves then have an extremely high sugar content which translates to a high alcohol content, a trend that has been plaguing California wines as of late. Alcohol content has increased by 10% since the late 80s! As the alcohol content in wine increases, acidity decreases and has to be added in later. These inputs start to make the irrigated wines all taste the same. You lose the terroir and it becomes more about winemaking-witchcraft than the nuances of the actual grape.

Napa is more than equipped for dry-farming, though conventional growers will tell you otherwise. But Frog's Leap is not powered by unicorns…we checked. Dry-farming in Napa Valley requires 16-20 inches of annual rainfall in order for the vines to sustain the region's hotter months (May to October). Napa receives about 36 inches annually.

But Williams understands that the success of Frog's Leap is not just about the winery. It's about community. A rarity in today's agribusiness, all of the winery's farm workers are full-time employees paid with living wages plus benefits. How does Williams responsibly employ a labor force and keep his wines around $30 a bottle? Well, the inspiration came from his days as a dairy farmer in New York where shared labor was part of the social fabric. Using this format, his workforce now maintains four other vineyards and one winery.

"In grapes, if you farm only grapes, you prune them and then there is nothing to do. Then you go pick the grapes and then there's nothing to do. That is why we grow almost 70 different crops here. When were done pruning grapes we can then prune the fruit trees. Cross training and diversification of agriculture has helped bridge that gap. But this wasn't enough. So we went to a few neighbors [and said] 'You're hiring and firing. It's a pain in the ass. Let us do your work for you.' Now we can keep these guys year round," says Williams.

When tasting wines from Frog's Leap, you'll notice something you don't often find at other wineries: consistency. Whether it be their Sauvingnon Blanc with its minerals and kaffir lime or the 2007 Merlot with notes of cigar and pepper, Frog's Leap wines have a distinct thread of continuity between all varietals. They are flavorful but not outspoken as most California wines tend to be. The dry farming seems to amplify a wine's sense of place, giving it both distinction and relation.

For example, their 2007 Merlot will definitely surprise you. California Merlots usually come with a big cartoon-y KAPOW à la 1960's Batman. But not this one. It holds its ground without demanding the company of food. It sells for $34, a price point most of their wines revolve around. Only their Rutherford will set you back double at $75.

So, is Williams correct? Is irrigation seriously diluting the terrior out from California wines?

I am not sure. But it really does taste that way!

CORRECTION: A previous version of this story stated the water savings was 64,000 gallons of water a year. It is actually 10 million gallons a year, 64,000 gallons saved per acre.