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Wolff Vineyards

Converting from drip irrigation to dry farming Edna Valley



The Chardonnay block at Wolff Vineyard

Jean-Pierre Wolff is the owner and vintner at Wolff Vineyards located in the Edna Valley. He currently has 55 acres of dry-farmed Chardonnay and additional acres of irrigated Pinot Noir, Teroldego, Syrah, Petite Sirah, and Riesling. Wolff is an active member of various agricultural sustainability and water stewardship initiatives. He currently serves on the Central Coast Regional Water Board, is a member of the Agriculture Liaison Advisory Board, Cal Poly Center for Sustainability, and the Vineyard Team, among others. The vineyard is certified Sustainability in Practice (SIP) by the Vineyard Team and was a pilot project for developing the SIP metrics. Sustainable use of water resources and environmental stewardship are priorities at Wolff Vineyard.

Wolff has been the owner and vintner at Wolff Vineyards since 1999. When he purchased the vineyard, the Chardonnay, which is now around 35 years old, was conventionally irrigated. With older vines on their own rootstocks and an average of 22.5" of annual rain, Wolff did not think that the Chardonnay needed irrigation. Further, the vines have a large spacing, at 12 x 8 feet, and the vineyard itself is located at the base of hillsides, with sandy loam and clay loam soils- all great for holding water. But, as he asked around to various consultants and experts, Wolff was told that if he took the vines off the irrigation, they would die within three years. But Wolff thought that all he needed to do was change the system of management of his vines, as well as help the rain and runoff from the hillsides infiltrated into the soils of the Chardonnay vineyard.

Wolff did not just turn the irrigation off on the vines. Instead, he weaned them off irrigation and helped the vines search for deeper water sources. Irrigated vines have concentrated root balls around the water source. Wolff deep ripped the soils around the base of the vine every

Wolff Vineyard: At a Glance

- 55 acres of dry-farmed Chardonnay
- Planted on own rootstock
- Vine spacing is 12 x 8 feet
- Vines are wire trellised and cane pruned.
- Sandy loam and clay loam soils
- Receive on average, 22.5" of annual rain
- Yields range from 2.5 to 3.5 tons an acre
- Vineyard is certified Sustainability in Practice (SIP)
- Additional 37 acres of irrigated Pinot Noir
- Additional 12 acres of irrigated Teroldego, Syrah, Petite Sirah and Riesling

**Want to learn more?
Visit the tasting room:**

**6238 Orcutt Road
San Luis Obispo, CA 93401**

Or online

**[http://www.wolffvineyards.com/
index.php](http://www.wolffvineyards.com/index.php)**

year to remove the shallow surface roots. This process forced the vines to grow deeper roots to seek out water sources in the soil and sustain the vine without irrigation.

Wolff harvested the water from his land by capitalizing on the topography of the hillsides and location of the Chardonnay block. He built infrastructure to channel the water into the dry-farmed vineyard such as culverts and ditches to direct the runoff from the hillsides. He also sloped the road along the outer edge of the vineyard inward to minimize water runoff from the vineyard. This essentially created a basin out of the Chardonnay vineyard, slowing down the flow of water from the hillsides and allowing the water to infiltrate into the soil profile instead of running off the surface. The road barrier also reduces sediment runoff into an adjacent stream, protecting stream flows and fish habitat.

Gradually, Wolff re-trellised and re-trained his vines to reduce their energy and water use. When he purchased the land, the Chardonnay vines were spur pruned, but he retrained the vines and now cane prunes them. He also reduced canopy cover. This reduced vine water use, as the vines are no longer supporting excess vegetative growth.

Wolff's Chardonnay yields 3 ¾ tons per acre in a good year, and between 2 ½ to 3 tons per acre in a stressed year.

As Wolff worked to convert his Chardonnay block to dry farming, he also planted additional acres of grapes on the hillsides surrounding the Chardonnay. He has planted Pinot Noir, Teroldego, Syrah, Petite Sirah, and Riesling, and used AXR1 and 1103P rootstocks. These vines do have drip lines, but irrigation events are scheduled based on soil moisture readings from neutron probes. Wolff is able to monitor soil moisture levels at 12", 24", and 36" deep. He also uses a drip irrigation system that he maintains to operate at as close to 98% efficiency as he can. The irrigation events are controlled with variable frequency drives on the pumps.

Cultivation and Management

Wolff does not disk the rows of the Chardonnay vines, as he believes this interrupts the soil microbes and degrades the health of the soils. He uses native grasses and cover crops to promote capillary action. In the fall, Wolff applies 1.5 ton per acre of gypsum and compost. The gypsum maintains the pH of the soils and increases water infiltration into the soil. The compost is spread around the base of the vines. Wolff also uses fertigation on the old Chardonnay vines as needed.

To cultivate, he alternates mowing one row and using a keyline plow on the other row in the spring. The keyline plow opens up and aerates the soils. He pulls weeds around the base of the vines by hand with shovels.

Advice for New Dry Farmers

Before planting, Wolff suggests new growers consider rootstock, spacing, trellising, location, soil profile, and water availability with dry farming in mind. Site selection based on the geography, topography, and the timing and frequency of rain is extremely important. There has to be enough rain to support vine growth.

Growers may have to adjust their yield expectations. Dry farming can lead

to lower yields per acre compared to conventionally irrigated vineyards. However, Wolff indicates that his dry farmed Chardonnay produces higher quality grapes with a deeper expression of the land in part due to extensive roots systems encouraged by dry farming practices.

Wolff Vineyards



2007 Chardonnay Old Vines



Edna Valley
San Luis Obispo County, California
Estate Produced

Alc. 14.2% Vol.

750ml

Wolff Old Vine Chardonnay

Wolff produces an estate old vine dry-farmed Chardonnay that is sold directly through his tasting room and wine club. He also sells his grapes to other wineries and has long-term contracts for his grapes. Wolff receives about 20% more per ton for his dry-farmed Chardonnay grapes than for his other varieties.



Jean-Pierre Wolff speaking at a CAFF dry farming workshop at Tablas Creek Vineyard in Paso Robles, August 2012

Visit our webpages for more information

www.caff.org/programs/dryfarm/

agwaterstewards.org/index.php/practices/dry_farming/

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