



KUNDE FAMILY WINERY

Stewardship Profiles in California Agriculture
Environmental Leadership with Water Efficiency, Habitat Restoration and GHG Mitigation

German immigrant Louis Kunde established the Kunde Family Winery in 1904. More than 110 years later, his great grandchildren and great, great grandchildren own and operate the winery, which consists of 1,850 acres to constitute the largest contiguous privately-owned parcel in the Sonoma Valley. Seventeen grape varietals are grown on the parcel, which extends from the valley floor to 1,400 feet in elevation. Under the Kunde brand, 70,000 cases of wine are produced annually.

PROBLEM

The Kunde Family Winery has an ongoing program to improve their water use efficiency in the face of water supply variability. Part of that program involves supporting healthy fish populations in the creeks on its property. In its winery facilities, the Kunde operation has moved to solar thermal energy to reduce costs and greenhouse gas emissions.

SOLUTION IMPLEMENTATION AND MANAGEMENT

In its vineyards, the Kunde Family Winery has introduced pressure chamber technology to monitor the stress levels of the vines and prevent overwatering. In addition, the operation's extensive cover cropping program helps the soil retain moisture. The cover crops aid in erosion control, and also attract beneficial insects. At the moment, about 30 percent of the vineyards are dry-farmed. The rest contain drip lines for irrigation.

In the past, the creeks on the winery's property were too warm for fish to thrive. The Kundes planted trees and natural grasses along the creek beds to shade the creeks, creating an improved environment for fish to spawn.

The family opted to use a fuel-switching project to meet its hot water demands. Five years ago the Kunde family purchased a solar thermal system designed and installed by Citizen Green Solutions. Marcia Kunde Mickelson called the system expensive and projected it would take a decade to pay for itself.

ACHIEVEMENTS

- 2008 Governor's Environmental and Economic Leadership Award recipient
- Certified sustainable by the Certified Sustainable Winegrowing Alliance
- Projected \$95,000 in natural gas cost savings
- Projected displacement of 491 tons of carbon dioxide over 30 years



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-Marcia Kunde Mickelson

An article in the North Bay Business Journal reported the price was \$110,000 for 50 solar collectors, a 1,000-gallon storage tank, piping and labor.

CHALLENGES/OBSTACLES OVERCOME

High costs can be a challenge when considering energy-saving measures. The winery bit the bullet and paid for a solar thermal system that taps solar energy to generate hot water. Despite the high upfront cost, the Kunde Family Winery reasoned it was still a good investment and was a hedge against increasing energy costs.

MEASURING SUCCESS

Although the winery hasn't collected data on its efficiency gains, Citizens Green Solutions estimated the system would save the winery \$95,000 in natural gas costs and displace some 491 tons of carbon dioxide over 30 years.

For its sustainability efforts, the Kunde Family Winery received the Governor's Environmental and Economic Leadership Award in 2008. Two years later, it was certified sustainable by the Certified Sustainable Winegrowing Alliance.

To expose members of the public to wine grape growing and sustainable farming practices, the Kunde Family Winery set up a hiking program and invites people to explore its property. "Especially in the North Bay right now, farmers get a bad rap with people saying they are doing harm. When you can get people out into your property and show them what you are doing, I think that sends a really important message," said Kunde Mickelson.

Kunde Mickelson emphasized the winery's commitment to sustainability is integral to its business culture. She underscored that commitment is echoed in the winery's goals. "It is critically important for everybody to have a strategy and long-term plan for their business. Especially if you are growing, you have to take care of the soil. Otherwise, you won't have anything left," said Kunde Mickelson. "The plan now is to be the most efficient we can be and craft the highest quality wines."

For more information about the stewardship practices discussed in this profile, please contact the winery directly. You can reach Marcia Kunde Mickelson by phone at (707) 282-1515 or by email to marcia@kunde.com

STEWARDSHIP PRACTICES



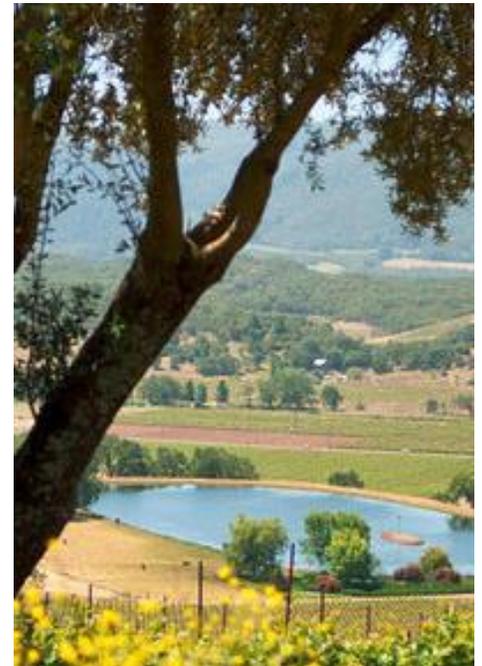
Water Efficiency



Habitat Restoration



GHG Mitigation



PROJECT PARTNERS

- California Conservation League
- Sonoma County Energy Independence Program
- Pacific Gas and Electric Company

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