



HIGHLIGHTS

WINTER 2013

CALIFORNIA SUSTAINABLE WINEGROWING ALLIANCE NEWS

Green Initiatives at Coppola

Francis Ford Coppola Winery continuously proposes, evaluates and executes sustainable practices throughout the winery and vineyards. “Sometimes just asking the question about how we can reduce waste is enough to get the ball rolling,” says Rhonda Hood, Alcohol and Environmental Compliance Manager. Recent initiatives include:

- Establishing a winery “Green Team,” comprised of staff from different departments, to work on sustainable practices;
- Installing synthetic air curtains in the barrel room to keep cool air in, significantly reducing the need for air conditioning and refrigeration;
- Recycling unused corks and using up capsules before re-ordering; folding boxes used for shipping corks and returning to the vendor;
- Using local trucking companies to support the community and reduce the carbon footprint;
- Installing two electric car charging stations, serving visitors with clean air vehicles;
- Diverting grape pomace to compost;
- Reducing paper use by sending invoices by email;
- Using barrels from certified sustainable forests;
- Encouraging carpooling among employees at health and wellness fairs.

Photo to right: Pellets that induce microbial activity to treat wastewater replaced the ammonia-activated system.

Case Studies: the Business and Environmental Benefits of Sustainability

Sustainability at Francis Ford Coppola Winery

SINCE ITS OPENING, Francis Ford Coppola Winery in Geyserville has become a mecca for visitors. In 2010, after extensive renovations, the winery reopened with new tasting rooms, a restaurant, movie gallery and a winery park area with swimming pools and a performing arts pavilion, all sharing space with a working winery. Behind the scenes, however, is an abiding commitment to sustainable winegrowing practices, some with side benefits of reduced operating costs.

For its winery operations, Coppola recently switched from a traditional steam boiler system to a hot water heater with a thermal efficiency of 88%. Unlike boilers, the new system automatically adjusts for demand, heating water only when the winery needs it. Although the upfront cost was not

insignificant, Coppola began to see energy cost savings immediately.

“In the first year the new system reduced our natural gas costs by 35%,” says Rhonda Hood, who oversees Alcohol and Environmental Compliance for the winery, which received Certified



FRANCIS FORD COPPOLA PHOTOS

Coppola's CCSW-certified winery and vineyard operations reduced energy costs 35% the first year after adding a new hot water system.

California Sustainable Winegrowing (CCSW) in 2012. “That’s an incredible savings for a winery of our size.”

Another sustainable initiative with cost savings benefits was changing the winery’s wastewater ponds from a double containment ammonia-activated system to one that uses pellets to induce microbial activity that processes the waste. The new system resulted in a cost savings of 80%. “The environmental impact is a no-brainer. Instead of having trucks full of ammonia arrive at the winery, we get little boxes filled with pellets,” said Hood.



“Sustainable winegrowing is key to a successful business, motivated work force, and improved environment. With the mantra of continuous improvement, California continues to lead the way in sustainability in the global wine business.”

STEVE SMIT, CONSTELLATION BRANDS AND CSWA CHAIRMAN



HIGHLIGHTS WINTER 2013

Nutrient Accounting at Terra d'Oro

THE STRATEGIC USE of cover crops and compost by Terra d'Oro's vineyard team has significantly reduced its reliance on synthetic fertilizers. The Trinchero family's Amador winery both saves money and significantly improves its vineyard soil composition through careful accounting of nutrients transported into and out of the soil.

"We work using industry standards for net export of nutrients from the vineyard per ton of fruit," says Viticulturist Melinda Costigan.

Terra d'Oro uses a cover crop that blends 40% fava beans, 20% forage peas, 20% vetch (all legumes) and 20% cereal oat or barley. Sown each fall in every other row, the crop composition varies depending on nutrient requirements but provides approximately 10-15 pounds of nitrogen per acre, plus other nutrients such as potassium and cal-

cium. Because they decompose gradually over time (as the crop is mowed and disked in the spring), the nutrients are not as prone to leaching as with typical inorganic fertilizers.

Terra d'Oro, certified by Lodi Rules for Sustainable Winegrowing, estimates that using cover crops and compost saves approximately \$80 per acre in conventional fertilizer. The team is quick to note there are other reasons for undertaking these practices.

"Using organic forms of nutrient delivery improves soil structure and water holding capacity and increases microbial activity and organic matter," says Costigan. "These soil improvements aren't easy to quantify but they are soil building—vs. depleting—practices that are consistent with the aims of sustainable agriculture."



Terra d'Oro spreads about two tons per acre of its composted grape pomace in its vineyards, according to Viticulturist Melinda Costigan and Vineyard Manager Kevin Steward.

TERRA D'ORO PHOTOS

Minding Your PEAS at Terra d'Oro



Terra d'Oro General Manager Jeff Meyers checks the health of the vines and grapes.

Minimizing the use of chemical inputs via scouting is another way the vineyard team at Terra d'Oro practices sustainability. Each of the winery's more than 65 acres of vineyard is scouted weekly to evaluate the level of pests and/or fungal disease, with treatment determined on an as-needed basis, according to infestation levels and proximity to harvest.

When treatment is necessary, Terra d'Oro uses the Pesticide Environmental Assessment Scheme (PEAS) established by the Lodi Rules for Sustainable Winegrowing, which assigns environmental impact values to agrochemical inputs. In order to be certified under Lodi Rules, the winery always selects materials with low PEAS values.

THE CALIFORNIA SUSTAINABLE WINEGROWING ALLIANCE (CSWA) program has broad industry participation with 1,800 wineries and vineyards, representing 72% of California's winegrape acreage and 74% of the state's case production, which have evaluated their operations with CSWA's Code workbook.

In 2010, CSWA added voluntary Certified California Sustainable Winegrowing (CCSW), which requires an annual assessment, meeting 58 prerequisites and doing a third-party audit. Fifty-six wineries and 178 vineyards are CCSW-Certified with more applications in process. See: www.sustainablewinegrowing.org.

WIES: Energy Efficiency Resource

Stags' Leap Winery is one of over 150 wineries (including Francis Ford Coppola Winery) enrolled in the Wine Industry Efficiency Solutions (WIES) Program. Providing energy efficiency engineering services and incentives to qualifying wineries that receive gas or electric service from PG&E, WIES is sponsored by PG&E and administered by Resource Solutions Group.

WIES offers wineries custom technical service, education and support which identifies upgrades that reduce operating expenses, improve efficiency and help meet sustainability goals. Project evaluation can begin with a comprehensive audit or be isolated to a specific system depending on the winery's priority and schedule.

See: www.wiesprogram.com, email WIES@rsgrp.com or call the Resource Solutions Group, 650/726-7628.



Efficient lighting helped reduce energy usage per gallon by 18%.

Energy and Cost Savings Go Hand in Hand at Stags' Leap Winery

ALTHOUGH STAGS' LEAP Winery is one of California's oldest wineries, dating back to 1893, this Napa Valley estate winery is thoroughly modern when it comes to energy conservation.

ity upgraded to more efficient lighting, installed variable frequency drives on motors and placed dissolved oxygen sensors on wastewater aerators to ensure operation only when needed.



Dissolved oxygen sensors on process water aerators ensure operation only when needed.

"One of the guiding principles of our corporate social responsibility platform is to use as little as we need, as efficiently as we can," says Scott Curwood, Senior Manager, Environment and Sustainability for Treasury Wine Estates, which owns Stags' Leap Winery.

From 2007 to 2011, Stags' Leap's energy usage per gallon of wine processed was reduced by 18%, both lowering greenhouse gas emissions and saving costs. The winery already had a good track record with about 70% of its electricity coming from its solar panel installation, but the reduction in total power used per gallon was a fantastic outcome.

To achieve it, the facil-

Upcoming projects include additional lighting and refrigeration control upgrades. Stags' Leap works with PG&E and the Resource Solutions Group as part of the WIES program to identify conservation and cost saving opportunities and rebates.

Stags' Leap's vineyard received CCSW certification in 2012 and the winery has a target to reduce energy and water usage by a further 30% over the next three years. "The '30 in 3' program is a company-wide initiative that gives our people a goal and a good rallying cry," says Curwood. "We're already making good progress."



Solar panels supply about 70% of the winery's electricity needs.

“We want a winery that makes less of an environmental footprint, and speaks about the quality of the wine and our vision for the future.”

JOHN DYSON, PRESIDENT, WILLIAMS SELYEM



HIGHLIGHTS WINTER 2013

Video Case Studies Show Sustainability in Action

CSWA VIDEOS offer case studies that demonstrate how California wineries gain environmental benefits and cost savings, often through PG&E rebate and incentive programs. See: www.pge.com/mybusiness/energysaving-rebates/incentivesbyindustry/agriculture. Videos can be viewed online at: www.sustainablewinegrowing.org/media.php.

Solar Hot Water System at Williams Selyem

The solar hot water system cuts propane use to heat the water at the winery for sanitation and other purposes.

Korbel Champagne Cellars Process Water Ponds Efficiency Measures

A new aerator system increased energy efficiency, saved money, reduced CO2 emissions and improved water quality.

Saving Energy with High Speed Roll-up Doors at J. Lohr Vineyards & Wines

The winery saved over 32,000 kilowatt hours and 20,000 lbs. in CO2 emissions per year through the installation of two high-speed roll-up doors in their barrel rooms.

Jordan Vineyard & Winery Energy Efficiency Measures

Jordan used refrigeration efficiency measures, pipe insulation and other sustainability strategies.

Wetlands Stewardship at Turner Road Vintners

Turner Road Vintners provides wetlands habitat for local wildlife and employee enjoyment, while improving water quality and conservation through process water ponds and wetlands restoration efforts.



Imagery Estate Winery: Energy Efficiency and Variable Frequency Drives

Variable frequency drives on glycol pumps increased the energy efficiency of the refrigeration system, saving costs and reducing CO2 emissions.

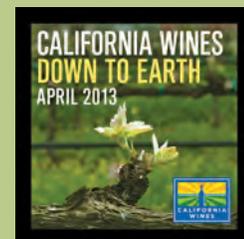
Gallo Vineyards: Water Efficiency in the Vineyards

Gallo Vineyard used various elements of infrastructure to contribute to energy and water efficiency in the vineyard, including source meters, regular testing of equipment, and uniformed distribution.

Building an Energy Efficient Winery at LangeTwins Family Winery & Vineyards

The winery received design assistance and cost savings to build and expand an energy efficient winery.

Get Ready for “California Wines: Down to Earth Month” in April



Wineries and regional associations are encouraged to plan a green-themed consumer event

or immersion experience to offer during the “California Wines: Down to Earth Month” celebration the entire month of April 2013. Wine Institute created the campaign to highlight California’s leadership in adopting sustainable and other green winegrowing and winemaking practices. The goal is to inform consumers, media, trade and policy leaders about California’s commitment to environmental stewardship, high quality wine and community education.

The collective event offerings will be given exposure through websites, social media and publicity. Contact communications@wineinstitute.org or 415/356-7520.

CSWA is a 501(c)3 nonprofit organization established in 2003 by Wine Institute and the California Association of Winegrape Growers. For information, contact 415/356-7525 or communications@wineinstitute.org. Copyright © 2013 CSWA. Printed on recycled paper.

