California Sustainable Winegrowing Program

Benefiting the environment, the community and high quality grapes and wine.

2012 PROGRESS REPORT
“California Wineries and Vineyards are primarily family businesses with a long-term commitment to the health and vitality of their communities and to preserving the land for future generations...”

California Legislature 2011-12
Regular Session, Assembly Concurrent Resolution No. 118

About the California Sustainable Winegrowing Alliance

The California Sustainable Winegrowing Alliance (CSWA) is a 501(c)(3) nonprofit organization incorporated in 2003 by Wine Institute and the California Association of Winegrape Growers (CAWG). CSWA’s mission is to ensure that the California wine community is recognized globally as the leader in sustainable winegrowing in the marketplace and public policy arena through the development and promotion of sustainable practices, tools for education and outreach, partnerships with key stakeholders, and prioritizing research. The result of this work will be a healthier environment, stronger communities, and vibrant businesses.

About Wine Institute

Established in 1934, Wine Institute is the premier voice effectively representing wine worldwide. With membership of 1,000 California wineries and affiliated businesses, the organization initiates and advocates public policy that enhances the ability to responsibly produce, promote, and enjoy wine. Wine Institute works to bolster the economic and environmental health of the state and its communities by encouraging sustainable winegrowing and wine-making practices. The membership represents 85 percent of U.S. wine production and 90 percent of U.S. wine exports.

About California Association of Winegrape Growers

Established in 1974, the California Association of Winegrape Growers (CAWG) provides industry leadership to advocate for public policies, research and education programs, sustainable farming practices and trade positions to improve the viability of winegrape growing as an essential contributor to California’s economy, culture, and landscape. CAWG represents the growers of more than 60 percent of the gross grape tonnage crushed for wine and concentrate in California.
Welcome to the 2012 Progress Report

The partnership Wine Institute and the California Association of Winegrape Growers (CAWG) established nearly a decade ago in the form of the California Sustainable Winegrowing Alliance (CSWA) has well positioned the California wine community as a leader in sustainability. The California Sustainable Winegrowing Program (SWP), Certified California Sustainable Winegrowing (CCSW-Certified), and other regional educational and certification programs have been embraced by California growers and vintners and have bolstered the environmental and sustainability credentials of the industry in public policy and market arenas. Just as importantly in a competitive global environment, increasingly growers and vintners are adopting sustainable practices that can improve efficiency and quality, reduce risks and, in some cases, reduce costs.

HIGHLIGHTS OF PROGRESS

Code of Sustainable Winegrowing. CSWA remains committed to ensuring that the Code is a world class self-assessment tool that is user-friendly and applicable to vineyards and wineries of all sizes in all regions of the state. After a two year review process by the Sustainable Winegrowing Joint Committee, the third edition workbook – with new information, clarified language and improved format – will be available in early 2013.

Grower and Vintner Involvement in Self-Assessment, Targeted Education and Certification. Participation in both the SWP and CCSW-Certified continues to grow. Since 2002, 1,800 vineyard and winery organizations, representing 72% of California’s winegrape acreage and 74% of case production have used the Code to self-assess their operations. In addition, CSWA has held 232 targeted education workshops for 10,737 participants. To date, 56 wineries and 178 vineyards (more than 12% of statewide acreage) have been CCSW-Certified, and countless others are certified to Bay Area Green Business, Biodynamic®, Fish Friendly Farming, Lodi Rules, Napa Green, Organic and SIP-Certified.

Performance Metrics. In March 2012, CSWA launched a new online tool to help California growers and vintners measure, track and improve performance over time. The pilot metrics include water use, energy use, greenhouse gas emissions and applied nitrogen.

Communication and Outreach. CSWA communicates the California wine community’s commitment to sustainable winegrowing to key stakeholders in both the public policy and market arenas and, in turn, the California wine industry has been widely recognized as a sustainability leader and a model for other wine regions and agricultural sectors. In 2010, CSWA received a second Governor’s Environmental and Economic Leadership Award, California’s highest environmental honor. In addition, California’s sustainability efforts have been featured in a new Down to Earth Campaign, dozens of trade and lifestyle media outlets and at various industry and stakeholder conferences and events.

As the industry faces growing international competition and increasing interest in sustainability by trade and other stakeholder partners, the SWP and CCSW-Certified will provide meaningful tools to ensure that California growers and vintners continue to produce high quality grapes and wine for generations to come.

ROBERT P. (BOBBY) KOCH
President & CEO, Wine Institute

JOHN AGUIRRE
President, California Association of Winegrape Growers

ALLISON JORDAN
Executive Director, California Sustainable Winegrowing Alliance
The California Sustainable Winegrowing Program (SWP) was launched in 2002 to help vineyards and wineries, and the industry as a whole, continuously improve and adopt sustainable practices. The program promotes the use of the Cycle of Continuous Improvement for vintners and growers to self-assess their operations, interpret their performance, develop action plans to improve, implement changes and reassess.

**SWP CYCLE OF CONTINUOUS IMPROVEMENT**

1. Growers and vintners self-assess their operations using the Code, and voluntarily contribute data to the SWP.

2. Data is aggregated and reported in statewide reports that measure and track improvement over time.

3. Customized reports show SWP participants their performance against regional and statewide averages, which are used to help interpret performance.

4. CSWA provides workshops and other educational tools to focus on specific sustainable practices and foster peer-to-peer exchange of information.

5. Growers and vintners develop action plans for the priority areas they want to improve.

6. Growers and vintners implement action plans and adopt increasingly sustainable practices.

7. Participants are encouraged to self-assess themselves again, to continue this process of evaluation, learning, action planning and improvement.
The centerpiece of the Sustainable Winegrowing Program is the California Code of Sustainable Winegrowing Workbook, which covers a broad range of sustainable practices used in vineyard and winery operations.

The workbook, first published in 2002, benefited from the collective knowledge and experience of the 50-member SWP Joint Committee, input from regional grower and vintner organization members and staff, and external reviewers that included researchers and farm advisors, government agencies, and environmental and social equity groups.

The Code is divided into 14 chapters:
- viticulture
- soil management
- vineyard water management
- pest management
- wine quality
- ecosystem management
- energy efficiency
- winery water conservation and quality
- material handling
- solid waste reduction and management
- environmentally preferable purchasing
- human resources
- neighbors and community
- air quality

**THIRD EDITION WORKBOOK**

Over the past two years, the Joint Committee reconvened, holding over 35 meetings to review and revise the workbook. Among the improvements are: updated best practices and resources, clarified language, improved format, minimized duplication, and enhanced applicability to vineyards and wineries of all sizes throughout the state.

The third edition of the Code will be released in January 2013.

**PARTICIPATION FIGURES**

Self-assessment utilizing the Code workbook is the first phase in the Cycle of Continuous Improvement. Since 2002, **1,800 vineyard and winery organizations**, representing **72% of California’s winegrape acreage (>389,375 acres)** and **74% of case production (>189 million cases of wine)** have used the Code to self-assess their operations.

CSWA’s goal is for vineyards and wineries that produce **80% of California’s winegrapes** and wine to use the Code to self-assess their operations by 2015.

“Today we know we can grow our crops and foster environmental quality as well. Knowing we are stewards here only for a short time we can always improve upon the future...the sustainable workbook provides growers a wonderful tool to do just that.”

**DAVID LUCAS**
The Lucas Winery
CSWA collaborates with regional grower and vintner organizations throughout the state to develop and facilitate educational events that target the most challenging areas in specific regions as part of the Cycle of Continuous Improvement. Many participants in these workshops have already attended a self-assessment workshop and received a customized report comparing their performance to their peers at the regional and statewide levels. Targeted education events such as workshops, field days and seminars can support their efforts in making appropriate changes in their vineyard or winery.

In addition to regional organizations, CSWA solicits input and involvement from growers, vintners, government agencies, industry experts and scientists to provide workshop content on areas in need of improvement, as identified by the self-assessment results collected from earlier workshops. The workshops give growers and vintners an opportunity to learn from peers.

To date, targeted education events have focused on topics such as:

- energy efficiency
- environmentally preferable purchasing
- erosion control and soil conservation methods
- heat stress prevention
- integrated pest management
- irrigation management
- soil analysis and amendment management
- sustainable vineyard and winery certification
- winery water use efficiency.

Targeted Education Events Held Throughout California in 2004-2012: 232

Total Participants: 10,737

In addition, CSWA develops new tools and educational materials – including newsletters, educational hand-outs, and case studies – which can be found at [http://www.sustainablewinegrowing.org/publications.php](http://www.sustainablewinegrowing.org/publications.php).

CSWA would like to thank the California Department of Food and Agriculture for a Specialty Crop Block Grant that supported the targeted education workshops.
Energy Efficiency Education

The collaboration that began in the fall of 2005 between CSWA and Pacific Gas and Electric Company (PG&E) led to the development of workshops and educational materials focused on energy conservation and efficiency for California wineries and vineyards. These workshops provided participants with information on best practices for energy efficiency and conservation and PG&E rebates and incentives, while introducing a variety of PG&E online resources and tools to help reduce energy use and thereby improve the sustainability of their operations. Topics covered at the workshops over the years have included energy evaluation and planning, energy efficiency, green building design, renewable energy, climate protection through reduction of greenhouse gas (GHG) emissions from energy use, and winery process water and related energy.

The collaboration between CSWA and PG&E has been effective. Since the fall of 2005, the two organizations have held over 50 energy management workshops attended by more than 1,400 wine industry members from PG&E’s service area. During this period, PG&E recorded an increase in the number of annual energy-efficiency projects at California wineries and vineyards. Since 2001, 520 energy-efficiency projects resulted from 350 California wineries receiving about $37.6 million in PG&E rebates, saving over 200,000 megawatt hours (MWh) of electricity and more than 4,000 therms of natural gas. This has resulted in eliminating more than 76,990 tons of carbon dioxide emissions, the equivalent of removing 12,918 cars off the road for one year.

VIDEO SERIES

Short video case studies that provide details about energy efficiency measures undertaken at wineries and vineyards throughout California were developed to increase the opportunity for peer-to-peer exchange and education.

Topics covered in the videos include:

- High Speed Roll-Up Doors at J. Lohr Vineyards & Wines
- Planning and Building an Energy Efficient Winery at LangeTwins Family Winery & Vineyards
- Process Water Pond Energy Efficiency at Korbel Champagne Cellars
- Refrigeration Efficiency at Jordan Vineyard & Winery
- Solar Hot Water System at Williams Selyem Winery
- Variable Frequency Drives for Pumps at Imagery Estate Winery
- Water Efficiency in the Vineyards at Gallo Vineyards
- Wetlands Stewardship at Turner Road Vintners

Watch the videos at: www.sustainablewinegrowing.org/media.php

“PG&E commends California’s vintners and growers for their continued progress in adopting energy efficiency improvements. Their commitment to preserving the environment and ensuring that their industry remains viable for generations to come is a valuable contribution to lowering emissions and fighting climate change.”

TOM WILSON
Pacific Gas and Electric Company

CSWA would like to thank PG&E for continuing to help California wineries and vineyards meet their energy efficiency and sustainability goals.
Sustainable Winegrowing Performance Metrics

Sustainable winegrowing performance metrics are the measurable outcomes of sustainable vineyard and winery practices. In March 2012, CSWA released an online tool to help California growers and vintners measure, track and improve performance over time. The calculation and storage of performance metrics are incorporated into the SWP to complement practice-based assessments and to further promote, measure and communicate continuous improvement.

The initial set of metrics include:

- **WATER USE** (vineyards and wineries)
- **ENERGY USE** (vineyards and wineries)
- **GHG EMISSIONS** (vineyards and wineries), and
- **APPLIED NITROGEN USE** (vineyards).

Using the online tool, growers and vintners can confidentially calculate their metrics, store data, track improvements year to year and over time, and access tools and resources to help optimize performance, conserve resources, and save money. In addition, once a robust set of metrics results is aggregated, data will be carefully analyzed to determine if reasonable collective (e.g. statewide and/or regional) baselines can be generated for industry wide benchmarking and target-setting. Metric results will also be used to determine priorities and to drive educational programs. Additional metrics may be added; however, the initial set of pilot metrics met CSWA’s criteria: economic and environmental impact, data availability, ease of use and state of the science.

To learn more about the project or to start using the metrics, visit [www.metrics.sustainablewinegrowing.org](http://www.metrics.sustainablewinegrowing.org).

GREENHOUSE GAS FOOTPRINTS OF VINEYARDS AND WINERIES

In addition to the performance metrics described above, CSWA and Wine Institute are working on two related grant projects that will help the California wine community better understand its full greenhouse gas (GHG) footprint.

1. CSWA is working with scientists at UC Davis and Applied Geosolutions to calibrate and validate the Denitrofication and Decomposition (DNDC) model for California winegrapes that incorporates regional characteristics and different management practices to calculate GHG emissions and carbon sequestration potential. A user-friendly tool is being developed to help growers calculate their vineyard greenhouse gas footprint.

2. Wine Institute is working with PE International to develop a Life Cycle Analysis that not only considers on-farm and winery energy use and vineyard greenhouse gas fluxes, but also includes all significant inputs into winegrape and wine production, packaging and distribution. The result will be a GHG footprint for the California wine industry, as well as a tool for vineyards and wineries to calculate their GHG footprint from a life cycle perspective.

CSWA would like to thank the US Department of Agriculture Natural Resource Conservation Service for matching funds provided through a Conservation Innovation Grant; and the California Department of Food and Agriculture for Specialty Crop Block Grants that supported the Vineyard GHG Model and LCA projects.
Certified California Sustainable Winegrowing (CCSW-Certified), a third-party certification option for California vineyards and wineries based on the California Code of Sustainable Winegrowing, was launched in January 2010 to enhance transparency and credibility in the public policy and market arenas and to encourage statewide participation to advance the entire California wine industry.

With input from vintners and growers on the Sustainable Winegrowing Joint Committee, CSWA developed the third-party certification program for vintners and growers to verify and communicate their continuous improvement in the adoption of sustainable practices.

CCSW-Certified requires that an accredited auditor verify that the vineyard and/or winery:

• Conducts an annual self-assessment using the Code (138 vineyard practices and 103 winery practices in the 3rd edition workbook)
• Meets prerequisite criteria (50 vineyard prerequisites; 32 winery prerequisites)
• Identifies priority areas and creates, implements and annually updates action plans
• Demonstrates continuous improvement

Certification is a great motivator within our company where sustainable winegrowing is taken very seriously. It provides a goal for our staff members who meet regularly to discuss how to make sustainability more effective in their respective areas.”

“STEVE LOHR
J. Lohr Vineyards & Wines


**EXTENSIVE COMMITMENT TO SUSTAINABLE WINEGROWING IN CALIFORNIA**

Several of the state’s winegrowing regions and other organizations have sustainable and environmental programs, many of which provided the foundation for the statewide California Sustainable Winegrowing Program and all of which play an important role in the ever-expanding tapestry of the California wine community’s efforts to produce high quality wine that is environmentally sound, economically feasible and socially equitable.
CSWA communicates the California wine community’s commitment to sustainable winegrowing to key stakeholders in both the public policy and market arenas. In turn, the California wine industry has been widely recognized as a sustainability leader, and a model for other wine regions and agricultural sectors. For instance, in 2010 CSWA received a second Governor’s Environmental and Economic Leadership Award, California’s highest environmental honor.

**DOWN TO EARTH MONTH**

Down to Earth is a new month-long campaign launched in April 2012, to coincide with Earth Day on April 22, to inform and engage policy leaders, media, wine trade and consumers about the California wine community’s commitment to environmental and community stewardship. Wineries around the state offered hands-on workshops, eco-tours, green-themed events, special offers and tastings of eco-friendly wines. During the inaugural year, the California legislature issued a resolution proclaiming April 2012 as the month to celebrate the sustainable leadership of California vintners and winegrape growers. In addition, CSWA, Wine Institute and CAWG participated in a sustainable winegrowing informational hearing in Sacramento and hosted a sustainable winery tour for California legislators and staff in April 2012.

**MEDIA COVERAGE**

Another indicator of success has been the increased coverage of CSWA, the SWP, CCSW-Certified and individual winery and vineyard practices in various publications. CSWA staff and board members have participated in interviews, and the SWP has appeared in stories in dozens of publications in 2010-2012, including:

- Associated Press
- Audubon Magazine
- California Farmer
- Decanter
- Drinks Magazine
- Grower Magazine
- Practical Winery & Vineyard
- The Wine Kingdom (Japan)
- USA Today
- Wall Street Journal
- Washington Times
- Wine Business Monthly
- Wines & Vines
- Wine Spectator

CSWA, the SWP and CCSW-Certified have also been featured in numerous radio and television programs, including Sustainable 1000 Green Radio, FarWest FM, Dining Around with Gene Burns, iWineRadio, and This Green Earth (KPCW Radio).

**SHARING THE STORY**

CSWA also shares information with the wine community and other sectors through presentations, vineyard and winery tours, trade show booths, newsletters and case studies to showcase the SWP. Since 2010, some of these activities include:

- Meetings with trade and media delegations from Canada, China, Europe, Korea, Japan, Nordic Monopolies and Russia
- Presentations at international events in Belgium, Denmark, France, Germany, Japan, Mexico, Norway and Portugal
- CA Climate and Agricultural Network Summit
- California Farm Bureau Federation
- California Travel and Tourism's Sustainable Tourism Summit
- Food Marketing Institute and Grocery Manufacturers Association Sustainability Summit
- Sustainable Agricultural Partnerships Summit

Sustainable winegrowing is now fully integrated into all California wine public relations campaigns and promotional materials, including the [www.discovercaliforniawines.com](http://www.discovercaliforniawines.com) website. CSWA and Wine Institute are also working on several new sustainable winegrowing communication tools, including a custom-published lifestyle book, interactive micro website, and trade, consumer and winery surveys to better understand marketplace needs and interests.
The Sustainable Winegrowing Joint Committee

See www.sustainablewinegrowing.org for member listing.

Acknowledgements

CSWA gratefully acknowledges contributions from the United States Department of Agriculture Natural Resources Conservation Service’s Conservation Innovation Grant Program, the California Department of Food and Agriculture’s Specialty Crop Block Grant Program, and Pacific Gas & Electric Company, which helped to support the activities described in this report.

CSWA values your feedback, questions and concerns. Please contact us at info@sustainablewinegrowing.org.

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