



# Industry-Driven Standards for Water Efficiency: The California Sustainable Winegrowing Program

By Courtney Smith

*“When growers and vintners came together to create the Sustainable Winegrowing Program, they truly wanted it to be an example and to help inspire other sectors of agriculture because we really believe this is a terrific way to brand California.”*

**-Karen Ross, Past-President of the California Association of Winegrape Growers**

## Introduction

In California, water is an increasingly precious resource. Pressures from population growth, management policy, and climate change all threaten the security of our water. The availability of water is of incredible importance to farmers—the future of farming depends on it. With a stake in the future of this resource, farmers also have an opportunity to help protect it. Improving the conservation and efficient use of agricultural water and other natural resources can reduce the risks that come from water scarcity, and many individual farmers have taken proactive approaches to improving how they manage resources. But a consolidated, industry-wide effort is still relatively uncommon, although it can be powerful in bringing resilience to farming’s future—and extending the benefits agriculture brings society to include model stewardship of the state’s natural resources.

Recognizing the numerous benefits that come from enlisting an entire industry, California’s wine industry has taken a proactive approach to putting sustainable practices into action under the California Sustainable Winegrowing Program (SWP). By adopting industry-driven, voluntary efforts, the state’s wine community has become a leader in sustainability. The self-assessment program they created has provided their industry many benefits, including market advantages, data with which to communicate their progress to regulators, and a mechanism through which their farmers can identify opportunities to increase efficiencies, manage risks, improve product quality, and cut costs. Using the wine industry’s efforts as a model, other crop industries are beginning their own programs to gauge, and ultimately improve, the adoption of industry-specific sustainability best practices.

## Background

Over a decade ago, California’s wine industry began working to provide its growers and vintners with the tools and resources necessary to make California a world leader in the adoption of sustainable wine-growing practices. In 2001, the Wine Institute and the California Association of Winegrape Growers (CAWG) established the California Sustainable Winegrowing Program (SWP), a first-of-its kind, industry-driven, crop-specific sustainability program that helps

educate growers and vintners on the benefits of sustainable practices, provides tools for participants to self-assess their practices and progress, and provides the industry with information on what it is doing well and what it can improve (CSWA 2004).

The Wine Institute and CAWG teamed up with SureHarvest—a consulting firm that served as the key architect for the program—to design and implement the sustainability program. After a multi-stakeholder process, the program created the Code of Sustainable Winegrowing Practices—a self-assessment workbook covering over 200 vineyard and winery criteria and associated best-practices for soil, ecosystems, air quality, pest control, water conservation, recycling, energy efficiency, and wine quality, among others. The Code allows participants to assess their practices to determine where they lie on a continuum of sustainability. First published in 2002, this self-assessment tool was built largely upon the innovative efforts already begun by regional leaders and organizations, including the Lodi-Woodbridge Winegrape Commission (LWWC) and the Central Coast Vineyard Team (CCVT). The CCVT developed the first vineyard self-assessment in 1996, a series of yes/no questions focused on sustainable vineyard practices. A few years later, the LWWC published the *Lodi Winegrower's Workbook* (LWWC 1999), based on a self-assessment model developed by Farm\*A\*Syst. Many of the vineyard chapters in the Code of Sustainable Practices were adopted directly from the *Lodi Winegrower's Workbook*, though additional chapters were added to address other vineyard issues and practices inside the winery itself (Ross 2002).

## California Sustainable Winegrowing Program

*“As we talk to people in the trade about our practices, we’re willing to document them...That’s part of the Sustainable Winegrowing program—our commitment to transparency—and so everything that we’re doing is available on our website.”*

—Karen Ross, Past-President of CAWG

What began as a three-ring binder workbook is now a web-based system created and managed by SureHarvest that allows growers and wineries to complete their self-assessment online, file action plans and performance reports, access educational content, and stay informed of industry events (SureHarvest). In addition to the creation of the self-assessment workbook, the SWP held hundreds of workshops to help vineyards and wineries complete the self-assessment and to increase industry participation.

From these assessments, confidential reports were provided to individual growers. Then, the results from these self-assessments were compiled to gauge industry-wide progress. The resulting Sustainability Report was the first time an entire sector measured the sustainability practices among its members and reported them publicly (CSWA 2004). This first report provided the industry with a picture of how it was doing and gave it the ability to identify strengths and weaknesses and target educational efforts, demonstrations, and workshops.

The process of industry-wide self-assessment has many benefits beyond working toward better stewardship of the environment. An industry-wide self-assessment effort can serve to unify the

growing community by creating a common understanding and language of what it means to be sustainable. A more cohesive community of growers working to improve their practices sends a powerful message to the marketplace and to regulators that the industry is forward-thinking and proactive in working toward sustainable resource use. Self-assessment provides an industry with a way to communicate—with numbers—the positive steps it is taking.

In addition to industry benefits, the self-assessment process can provide many advantages to individual growers. Not only does it allow growers to evaluate their farm operations, it can help farmers identify opportunities to increase efficiencies, manage risks, improve product quality, and cut costs. As a part of a larger industry-specific program, self-assessment allows farmers to compare their practices to others in the region and the industry and to develop action plans to increase their operation's sustainability. Such an assessment can also help growers to find funding to help offset the costs of best management practices. In partnership with the U.S. Department of Agriculture's Natural Resources Conservation Service (NRCS), the SWP workbook criteria and practices have been matched to corresponding NRCS standards and practices for the Environmental Quality Incentives Program (EQIP). EQIP is a cost-share program, authorized by the federal Farm Bill (see Chapter 7).

## Results To-Date

*“Because of increasing statewide demand for a constrained water supply, it is imperative that all users maximize their effective and efficient use of this crucial natural resource. Winegrowers should continue to lead the state’s agriculture sector by implementing the high levels of beneficial practices for conserving and ensuring the quality of California’s water.”*

*–Sustainability Report 2009*

The SWP has documented its progress through two sustainability reports. The most recent report, released in January 2010, measured the California wine industry's performance against 227 criteria and associated best management practices from the second edition of the *Code of Sustainable Winegrowing Practices Self-Assessment Workbook* (CSWA 2010). To date, 1,566 vineyard and winery organizations representing 68% of California's 526,000 wine acres and 63% of the state's 240 million case production have evaluated their vineyards and wineries with CSWA's Code. The report found that during the past five years, there was demonstrated improvement in 60% of the Code criteria (CSWA 2010). The self-assessment report updated industry-wide strengths and weaknesses, and found that despite significant progress since 2004 in vineyard water management and winery water conservation and quality, the industry scored in the middle ground for these two chapters. This result signifies that while the industry is making progress, opportunity exists to further improve.

In terms of on-farm management, 92% of growers have defined comprehensive water management plans, though only 33% have implemented this plan for more than one year. Eighty-five percent of growers are on micro-irrigation or sprinkler systems. About half of growers are monitoring their irrigation system annually, which is important for detecting leaks and determining the distribution uniformity of the system, and about half are using evapotranspiration data to determine irrigation requirements. A little more than half of growers

are metering their water use—34% are monitoring the irrigation flow through their system, however only 18% are recording the volume of each irrigation application. The most significant improvements in on-farm practices since 2004 are the increased use of flow meters and evapotranspiration data to schedule irrigation.

The program also evaluates winery water conservation and quality best practices, with about half of participating wineries conducting water audits in the last two years. Yet the Sustainability Report notes: “In the 21<sup>st</sup> century just thinking about water isn’t enough. It is now time to take action and this requires measuring the amount of water used at the winery. Many wineries have installed water meters at key operational points...A small but growing percentage of wineries have installed water meters throughout their entire facilities to monitor water consumption.” In the future, both vineyard and winery water management are classified as areas for potential improvement.

### **Moving Forward: Third-Party Verification**

While the SWP has focused on education and self-assessment for the last several years, they are now expanding to include a statewide certification program that provides third-party verification of adherence to a “process of continuous improvement” in the adoption and implementation of sustainable winegrowing practices. This marks a step toward even more transparency and may provide additional legitimacy in the marketplace. Introduced in January 2010, the CSWA’s new voluntary program, Certified California Sustainable Winegrowing, is open to all California wineries and vineyards and requires applicants to meet 58 prerequisite criteria, annually assess winery and/or vineyard operations, and create and implement an annual action plan and show improvement over time (CCSW 2010).

### **Adoption by Other Crop Industries**

Recognizing the multiple benefits self-assessment can bring to the individual farmer, industry, and the environment, the SWP’s self-assessment program is serving as a model for other sectors of California agriculture. For instance, as part of a larger industry-wide sustainability effort, the California Almond Board recently initiated the development of their own self-assessment program designed to inventory the in-orchard practices among its growers (CAB 2010). The initial focus of the self-assessment will be on irrigation and fertilizer management practices.

Nineteen growers recently participated in a pilot self-assessment. One of the participants, Brain Ramos, said, “What I like about this program is it tells a person about what we’re doing...It’s nothing but win-win” (quoted in Boyd 2010). The Almond Board likes it because it collects valuable information to focus research into areas where information may be lacking, to back grower claims, to improve practices, and to answer questions buyers have about the industry’s sustainability practices. The latter is increasingly important as large food distributors and retailers, such as Walmart and Safeway, launch sustainability initiatives and are interested in metric-based programs that document grower practices.

## Conclusions

The proactive approaches that these industries are taking demonstrate that it is possible to improve how we use our state's resources, particularly water. In addition, sustainable management provides multiple benefits, from higher quality products and marketing advantages to healthier ecosystems and less contentious relations with other resource users and regulators. Indeed, the practices outlined by the SWP and the transparency of the assessment program have engendered widespread support. Karen Ross sees many opportunities for other commodity groups to put in place similar programs. She stresses that “using sustainable practices is a great way to brand California as the special place it is for growing lots of different crops” (K. Ross, Past-President of the California Association of Winegrape Growers, personal communication, September 28, 2009).

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