



SPECIAL PROMOTIONAL SECTION

Sonoma County Winegrowers 1st Annual Sustainability Report

JANUARY 2015

A comprehensive report on Sonoma County Winegrower's commitment and path towards making Sonoma County the nation's first 100% sustainable winegrowing region by 2019.

**SONOMA
COUNTY
WINEGROWERS**

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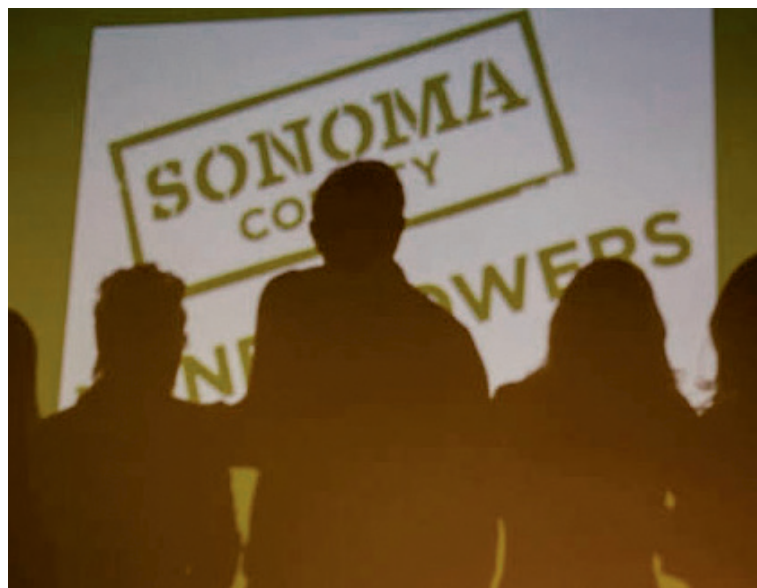
Sonoma County Winegrape Commission

The Sonoma County Winegrape Commission, also known as Sonoma County Winegrowers (SCW), was established in 2006 as a marketing and educational organization dedicated to the promotion and preservation of Sonoma County as one of the world's premier grape growing regions. SCW has oversight by California Department of Food and Agriculture which supports producer regions.

With more than 1,800 growers, SCW's goal is to increase awareness and recognition of the quality and diversity of Sonoma County's grapes and wines through dynamic marketing and educational programs targeted to wine consumers around the world.

OUR MISSION

The mission of the Sonoma County Winegrowers is to increase the value of Sonoma County winegrapes and to nurture and protect this agricultural resource for future generations.



OUR VALUES

Sonoma County Winegrowers are **family farmers** who work hard every day to produce **high quality grapes** that are the **foundation for world class wines**. We are dedicated to **sustaining our land** for future generations. We preserve the land **where we live and work** and the **water and air that we share with neighbors**. We actively **support our communities** and are proud to be a **part of Sonoma County**.

STEWARDSHIP. INTEGRITY. COLLABORATION.

Acknowledgements

This Sustainability Annual Report could not have been produced without the support of the following people:

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STAY CONNECTED

Keep informed of the latest news, information, and updates on our sustainability initiative.

WEBSITE: www.sonomawinegrape.org

FACEBOOK.COM/sonomagrapes

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INSTAGRAM.COM/sonomacountywinegrowers

Sonoma County first wine region to make bold sustainability commitment

The Sonoma County Winegrowers, in partnership with Sonoma County Vintners, announced on January 15, 2014, that Sonoma County is committed to becoming the nation's first 100% sustainable wine region by 2019.

Although many of the region's multigenerational wine growers and winemakers have been practicing sustainable farming techniques and winemaking practices for decades, this initiative demonstrates their seriousness and commitment to ensuring

all vineyards and wineries across Sonoma County will soon be sustainable. This is an unprecedented commitment for a wine region and is a remarkable collaboration of the 1,800 growers and 16 AVAs (American Viticulture Area) in Sonoma County working toward one goal – ensuring that the land stays preserved in agriculture, their community of neighbors and workers are treated with respect, and their business endures providing positive economic impact to Sonoma County.

When making this commitment, the Sonoma County Winegrowers promised to be fully transparent about their progress. This comprehensive report shares the stories of our winegrowers' and winemakers' path towards sustainability, their practices, and the impact it has on the environment, our community and people, and the local economy. It also provides a report card on where we're at towards reaching our sustainability goal after the first year.

Join us in this bold initiative.

Letter from the Chairman

By Brad Petersen, Chairman of the Sonoma County Winegrape Commission & Vineyard Manager at Silver Oak Cellars & Twomey Cellars

In the past twelve months since we made the announcement that the winegrowers in Sonoma County would be certified 100% sustainable in the next five years we have been amazed at the response and recognition we have received from across Sonoma County, and throughout the nation, and beyond. We have gathered interest from not only the grape and wine industry across the state but from other industries and government agencies as well. Because of this commitment we are now being invited to participate in conversations that we had to push to speak at in the past. Our county supervisors now point to this commitment with pride as proof that growers are being good stewards of our land.

Our commission president Karissa Kruse has been asked to participate in sustainability conferences with multinational corporations such as General Electric and Microsoft. State regulators are considering allowing some sections of the Code of Sustainable Winegrowing to satisfy requirements for irrigation and storm water runoff from vineyard land. Wineries are starting to pay extra for grapes that are grown sustainably and the consumer interest and demand for sustainably-grown wines continues to increase in the marketplace. These are just a few of the benefits we have seen from the pledge we made just one year ago. We are sure there are many more to come.

To help ensure our success with this commitment, the Sonoma County Winegrape Commission staff has been working very hard

to help growers with self-assessments and third party certification. Robert LaVine, our new sustainability manager at the Commission has been busy meeting with any and all growers who are interested, and we've seen a great response to date. The Code of Sustainable Winegrowing that was developed by California Association of Winegrape Growers (CAWG) and The Wine Institute is the program we are endorsing for our growers, but we are working on guidelines to accept others as well so long as the same standards are met, such as Lodi Rules and Sustainable in Practice (SIP). In addition, we have surveyed our growers and now have a baseline to judge future progress by. As we stated from the beginning, this is a voluntary program to document what growers are currently doing and how they can improve if they choose to do so.

As farmers we strive to produce the best crop we can and to preserve the land just as the generations of farmers before us have done. Making this pledge to be 100% sustainable is a way for us to demonstrate to others who may not be as familiar with what we do that we are good stewards of the land, that we do care for the communities that we live and work in, and that we want to be able to pass this fine tradition on to the next generation. If you haven't already done so, please take some time to look into the CSWA Code of Sustainability, if not for you, then for those who will come after you.



Sustainability Commitment Exceeds Expectations!

On January 15th, 2014, I had the honor of making the public announcement, on behalf of the Sonoma County Winegrowers, that Sonoma County was committing to becoming 100% sustainable by 2019, making us the first sustainable wine region in the U.S. This is an ambitious goal and a bold statement by Sonoma County grape growers who believe in a sustainable business, farm and community. As we hit the end of our first year in our sustainability aspirations, I am proud to announce that we surpassed all year one expectations. Since January of 2014, 43% of the vineyard acres in Sonoma County have gone through the sustainability assessment and 33% of the vineyards have taken the next step and are now certified sustainable under a third party auditor program. We are clearly leading the way for wine regions in sustainability and we have only just begun.

In addition to grape growers from all over Sonoma County stepping up and embracing this sustainability commitment, the community at large has engaged in the sustainability dialogue. Over the past 12 months, I have been invited to speak over 30 times about our sustainability initiative to groups from around the county and throughout California. I have given presentations to groups ranging from our own AVA groups and local Rotary Clubs to the busi-

ness community during Sonoma County Alliance and Santa Rosa and Healdsburg Chamber meetings to testifying in the halls of our State Capital in the State Assembly and Senate Wine Committees, as well as beyond our state's border to a group of global companies at Wharton's Initiative for Global Environmental Leadership Advisory Board in Philadelphia.

Our commitment to becoming the nation's first 100% sustainable winegrowing region has made headline news throughout the world with more than 50 stories reaching over 50 million people, including *San Francisco Chronicle*, *CNN*, *NPR*, *Bloomberg*, *BusinessWeek*, *Wine Spectator*, *KCBS Radio*, *Environmental Leader*, *SustainableBusiness.com*, *GreenBusiness.com*, *The Press Democrat*, and others. The headlines say it all:

- "Sustainability Push Conjures Optimism" – *Wines & Vines*
- "Seeds of Sustainability: Sonoma County wine growers set goal of 100% sustainability" – *San Francisco Chronicle*
- "Cheers to the Nation's First Sustainable Wine Region" – *NationSwell.com*
- "Sonoma strives to become first 100 percent sustainable wine region" – *GreenBiz.com*
- "Sonoma Goes (even) more green" – *CNN's Eatocracy*

The press has been unprecedented, but what is really important is how we ensure success



of the goal. There are four main areas that are critical to this commitment. First, is getting growers the support that they need to sign up for a sustainability program and complete the assessment. We hired Robert LaVine to be the full-time Sonoma County Wine-grape Commission Sustainability Manager to conduct workshops and seminars and help work alongside growers on an individual basis to complete the assessment. The second area of importance is helping growers afford the sustainability 3rd party certification costs. We are working on a partnership with Sonoma County's Green Business Program which now includes CSWA certification. Through this program and program dollars dedicated to sustainability in the Commission budget, we hope to help minimize the cost barrier for certification. The third imperative is to educate the local community. In addition to the presentations that I have given around the county, we have launched a local advertising campaign that

shows our dedication to sustainability. We have also engaged with the Ag Commissioner and other regulatory agencies to discuss how sustainability can be a voluntary path to meet compliance with potential regulations and permits. Finally, the end goal for all growers is to have a place to sell their grapes and increase the price that they get. To support this long term goal, this past fall, we launched a national advertising campaign in *Food & Wine* magazine, *Wine Spectator* and *Wine Enthusiast* to educate consumers so that when they see Sonoma County on the wine label and purchase our wines they know they are supporting sustainable agriculture. We also just announced our partnership with the Super Bowl 50 Host Committee who has a goal of being the most sustainable Super Bowl in history. This partnership is the intersection of sports, wine and sustainability, hopefully motivating people all over the country to get involved and support us.

When we announced our bold

commitment and 100% sustainability goal, we made a promise to be transparent and communicate our progress. This report is our best effort to keep that promise. We hope that it provides insight, learning and inspires others to join us in this march to sustainability.

For us, sustainability is a compass for how we do business and farm. Most importantly, this commitment recognizes all of the grape growers in Sonoma County for their continued love of the land, their support of their communities and their desire to preserve agriculture for future generations. Onward!

Proudly serving Sonoma County grape growers,

Karissa Kruse

Karissa Kruse
President
Sonoma County Winegrowers



Sonoma County Sustainability 2014 Report Card

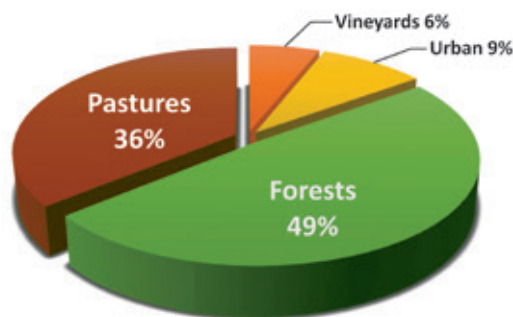
On January 15, 2014, the Sonoma County Winegrowers announced a bold commitment to become the nation's first 100% sustainable wine region by 2019. In its first year, Sonoma County's vineyards and wineries have made significant progress towards reaching that goal. Here are the accomplishments in the last twelve months.

59,772 Vineyard acres in Sonoma County (bearing)¹

43% Vineyard acres sustainably self-assessed (25,987 acres)²

33% Vineyard acres certified sustainable (21,491 acres)²

Only 6% of Sonoma County's 1 Million Acres are Planted to Grapes¹



Diversified Agriculture

Based on an independent survey of grape growers representing 35,605 acres planted to vineyards, these growers also reported that they farm an additional

8,639 acres of other agricultural crops and pastures including almonds, figs, hay, hazelnuts, lavender, limes, oranges, pears, and walnuts.

The March Towards Sustainability in 2014

51 MILLION consumers reached from media stories

57 Feature stories in the media about our sustainability initiative

950 Total number of grape growers who attended sustainability workshops, meetings, and other related events

26 Total number of sustainability workshops and meetings hosted by Sonoma County Winegrowers

25 Number of individual grape grower self-assessments assisted by SCW Sustainability Manager Robert LaVine

8 Number of Sonoma County AVA-dedicated sustainability workshops held

34 Number of community presentations on sustainability given by Sonoma County Winegrowers

101 Number of CSWA workbooks given out by Sonoma County Winegrowers

543 Total weight (in pounds) of CSWA workbooks given out to Sonoma County grape growers

In addition to third party sustainability certification programs, many grape growers also participated in environmental specific programs.



18,491 acres²
Fish-Friendly Farming:
Sustaining water quality and habitat



1,171 acres²
National Organic Program:
Farming to national organic standards



240 acres²
Demeter USA –
Biodynamic® farming practices

¹ These figures are based on 2013 Sonoma County Agricultural Commissioner's Crop Report

² Survey of vineyard owners conducted by Sonoma County Winegrape Commission and accepted third party certification programs, including CSWA, Lodi Rules, and Sustainable in Practice (SIP).

FAQs

About Sustainability



How do you define Sustainability?

People. Planet. Profit. We look at it from the triple-bottom line approach that measures grape growers commitment to being **socially responsible** in how they treat their employees, neighbors, and community, **environmentally conscientious** with their farming and winery practices, and **economically viable** as a business. Sonoma County's sustainability commitment provides a holistic approach that rewards **continuous improvement**.

Sustainability is complicated, but the results are simple – we are doing the right thing for the environment, for people and for our businesses in both growing grapes and making wine in Sonoma County.

What does this sustainability commitment mean for the local community and economy?

There are a lot of positive impacts for our local economy and community. Sonoma County has been rooted in agriculture for generations, so there is pride and enthusiasm in our community about our strong commitment to the future of agriculture, especially grape growing and winemaking. Sonoma County is a special place and we know that our sustainability efforts are already generating more awareness for the region and will attract more tourists who will visit us to learn about our winegrowing and winemaking practices, as well as stay in our hotels, dine out at our terrific restaurants, and visit other popular destinations around the county. **As a wine industry, in 2012 we contributed \$13.4 billion to our local economy and accounted for one in three jobs.** There is no question that our sustainability initiative will have a positive impact on our local economy.

GROWER PROFILE

John and Terri Balletto: A Passion for the Land Based on a Philosophy of Balance and Elegance

When John Balletto started growing vegetables in 1977 at age 17, with the help of his mother, Hazel, after his father's untimely death, he could not have known he was building an enterprise that would become the largest produce grower north of the Golden Gate Bridge.

In 1981, John was looking for more cropland and space for a packing facility to accommodate his growing vegetable business, so he purchased his first ranch in Santa Rosa. John married Terri in 1988 and they expanded the vegetable business even further by purchasing more land and then in 1996 they built a bigger packing and shipping facility at what is today their the winery. In the years that followed the variety of vegetables brought to market expanded to 70 categories grown on 700 acres. At the height of production, shipments totaled more than two million cases.

"Things were going well until a series of El Nino storms destroyed three successive plantings in 1998," John said. "Natural forces, combined with effects of NAFTA in 1994, made it hard to stay in the vegetable business."

The Balletto family began a shift to winegrape production in 1995 with the planting of 35 acres of Pinot Noir, Chardonnay and Pinot Gris on their western Sebastopol property. From 1999 to 2000, they decided to convert all of their farmland from vegetables to grapes.

Today their 14 estate vineyards encompass 600 acres in three regions located in the cool and foggy southern tip of the Russian River Valley: seven vineyards on the Santa Rosa Plains, six in the Sebastopol Hills, and Hazel's Vineyard in the Petaluma Gap.

What is paramount to John and Terri Balletto is preserving the land and continuing their farming legacy for future generations. The Balletto family sold 50 acres to Sonoma County Open Space District to serve as a buffer between their property and the adjacent Laguna de Santa Rosa. The com-

pany also created a four-acre, regulation-size baseball field on its property, in response to employee requests for their own "Field of Dreams." They also contributed materials, which combined with staff sweat equity, made this recreational facility a reality. During the spring and summer at the winery, you can hear the sounds of bats cracking, children laughing, and families and friends cheering on their team.

Balletto Vineyards has been certified for five years under Lodi Rules, first introduced in 2005 by the Lodi Woodbridge Winegrape Commission to implement environmentally-sustainable farming practices. Growers who are certified under this program are also accredited by Protected Harvest, a leading non-profit organization that certifies a farmer's use of 101 sustainable farming management practice standards in six categories: Business, Human Resources, Ecosystem, Soil, Water and Pest Management.

"Today we are more conscious of our footprint on the land enabling us to do a better job of farming high quality grapes for our clients, and our own wines. In the long run, certification saves you money," John said.

At Balletto's vineyards, a growing number of sustainable practices have been implemented. Some examples include: end rows are not disked to serve as a filter when it rains and to minimize erosion; there is no cultivation under the drip line of oaks; irrigation systems are monitored monthly to maintain consistent pressure and eliminate leaks; only approved fertilizers with no harmful chemicals are used, and soil samples are taken regularly. In addition, a pipeline carrying recycled water from Santa Rosa minimizes the use of Balletto's own wells.

"Our business philosophy includes balance and elegance in our wines along with a keen respect for the land. We produce wines that are lower in alcohol, with softer tannins and higher in natural acidity that deliver varied, subtle flavors. New



oak barrels are used sparingly to enhance our wine, but not dominate it," he said. "We only harvest the top 10% of everything we grow to maintain our consistent quality and style, while also supplying grapes to 25 other wine producers."

Sustainable practices have helped Balletto Vineyards and Winery consistently produce award-winning Russian River Valley Estate wines – including seven Gold Medals and two Double Gold Medals at the 2014 Sonoma County Harvest Fair. They also won the Red Wine Sweepstakes Award for their 2013 BCD Vineyard Pinot Noir.

Their hard work over the past 30 years proves that not only does sustainable farming benefit the environment, the community, and the business, it also contributes to better, more distinctive wines.

Jackson Family Wines Conservation Strategy Saves Water and Increases Energy Efficiency

“My dad Jess Jackson said it best when defining our commitment to sustainability: ‘We do this because it’s the right thing to do.’ Taking a long-term perspective, we should strive to be good land stewards and reduce dependence on water and energy to ensure a healthy planet,” according to Katie Jackson, who represents the next generation of Jacksons to assume a leadership role in the family business. “The business my father founded in 1982 has lived up to this challenge by continuing to find innovative, economically viable and sustainable ways to conserve water and increase energy efficiency.”

With wineries in six coastal California counties, Jackson Family Wines (JFW) has left its mark on the wine growing community by embracing and promoting sustainable practices. All of the family’s vineyard acres and wineries are third-party certified sustainable by the California Code of Sustainable Winegrowing (the Code) and the Sustainability in Practice (SIP) programs. In an effort to encourage others to participate in third-party certified programs, the family is also offering a price premium to its grower partners for grapes certified as sustainable.

Taking seriously the requirements in the Code to demonstrate progress toward sustainability throughout their wineries, Jackson Family Wines has retrofitted lighting systems and installed more efficient HVAC, conveyors, pumps, air compressors, cooling and refrigeration systems, as well as new motors, variable frequency drives and hot water boilers. JFW also purchases renewable wind energy certificates (RECs) each year to offset 100% of the company’s electricity emissions for all of its operations, including vineyards, wineries, and offices, in

addition to purchasing offsets for all of its 1,000+ employees’ annual home power usage. This total is equal to 28,000 metric tons of CO₂, roughly equivalent to removing 6,000 passenger vehicles from the road. In 2011, the U.S. Environmental Protection Agency (EPA) awarded JFW a Green Power Leadership Award for these initiatives. In subsequent years, JFW has also been named as the 2013 Green Company of the Year and received special commendation as 2014 Ethical Company of the Year by the Drinks Business, Europe’s leading beverage industry trade publication.

The next step for JFW’s energy management strategy involves the introduction of on-site solar arrays. Beginning in 2013, JFW began investing in rooftop solar PV and will have a total of seven megawatts installed across nine of the family’s wineries by the end of 2016. This will make JFW the wine industry’s largest solar generator,

with the combined output of these systems providing over 50% of JFW’s electricity needs - equivalent to the energy required to power 1,400 homes.

While JFW goes above and beyond in achieving energy efficiencies, the Code provides a template for understanding and developing performance metrics to aid in their success. Both the Code and SIP incorporate standardized equations based on EPA standards for collecting, measuring and tracking data to ensure that efficiencies,

management of costs and increasing profitability goals are met.

The Code also provides a matrix for achieving water conservation, both in the winemaking facilities and on the farm. Water conservation and development of better technologies to reduce water have become a priority for all agriculture producers. Grape growers are leaders in this effort, and their progress is supported by information provided by the California Department of Water Resources. A comparison of crop water uses

suggests that grapes are one of the most efficient irrigated crops. In fact, according to the California Department of Water Resources, wine grape vines in Sonoma County water use per acre is 30% less than apples or walnuts, and 78% less water than what is required to irrigate grazing pasture.

Recognizing the need to conserve water, Jackson Family Wines pioneered the installation of drip irrigation systems in all their vineyards starting in the late 1980s. Today the company employs smart systems linked to weather satellites that automatically update daily landscape irrigation plans, resulting in a savings of two million gallons of water per year. The company also deploys moisture monitoring sensors and leaf porometers so water can be used more efficiently. To continue water conservation efforts, in the late 1990s Jess Jackson embarked upon a program of constructing off-stream reservoirs to capture and store water during high periods of runoff for use later in the growing season. “Reservoirs are very costly, but to protect fisheries and other aquatic functions, we build them with an eye toward minimal impact on other resources,” according to Carolyn Wasem, Senior Vice President of External Affairs. “We’ve been successful in construction of reservoirs to reduce environmental impacts and are working with California agriculture groups to modify rules on water storage, and develop a more adaptive policy in connection with climate change goals.”

“We are always looking for ways to reduce water use and enhance wine quality,” says Julien Gervreau, Senior Sustainability Manager. “In 2013 we only used three gallons of water to produce one gallon of wine, less than half the industry average. We invest in water reuse and conservation initiatives that reduce our wine-making footprint and reuse our winery process water for vineyard irrigation.”

In the words of Katie Jackson, “Sustainability is a journey that helps us succeed. We invest in the health of our lands, the quality of our wines and in the wellbeing of our people and communities to cultivate a thriving future for generations to come.”



Being Sustainable Caretakers is the Goal at Bush Crispo Vineyard

After just three years in the wine growing business, Audrey Bush, Jr. and Chris Crispo, of Bush Crispo Vineyards, still consider themselves newcomers – despite the fact that Audrey’s mother and father, Fritz & Audrey Sr. Bush, have owned the 23-acre parcel on Woolsey Road in Windsor for 32 years.

Born in San Francisco in 1923, Fritz Bush found a love for wine and fermentation science, brewing beer with his father in their Bernal Heights basement. He later moved to Southern California, while clinging to a desire to make wine somewhere in the North Bay.

“My father retired from an LA-area fire department in 1982,” Audrey said. “He wanted to leave La Canada-Flintridge and drove up and down California looking for agricultural property. He narrowed his search to a parcel close to River Road. Warren was my father’s friend and the property’s first vineyard manager. He advised dad to plant some of the first Pinot Noir vines grown in the valley. We love the land and see ourselves as sustainable caretakers.”

Audrey had been working at ADP and met Chris Crispo about the time her father purchased the property. Chris also had a career in public safety. He worked for the Santa Fe Springs Fire Department where he was a Division Chief and a Haz Mat response specialist. He previously served on the faculty of Rio Hondo Community College in the Environmental Technology Safety and Emergency Response program.

The family moved to the Windsor site in 2011 where their commitment to sustainability took many forms. The property has five acres of oak woodlands and eucalyptus where the family places owl boxes as nesting spots. Trees near the vineyard are trimmed to allow sun to reach the vines. Cut branches produce large volumes of chips repurposed as mulch, for erosion and weed control as well as to minimize

road dust.

“We replanted an old vineyard and replaced the original wooden end posts with steel and the 2x2 wooden posts with pencil rods to train new vines. To reduce waste, over 75% of these posts were recycled as fencing for a horse corral and vegetable garden, plus a dock on the pond.”

An 1860 vintage redwood barn on the property was leaning. Fritz removed the siding, wrapped the structure with cables and pulleys, straightened the walls and put on a new roof and a concrete foundation to preserve the barn as part of Sonoma County history.

The family also installed two solar fields – one with 55 panels – that provide most of the power for the house, property lighting, a solar-powered gate and irrigation pumps. No city water is used. The Bush Crispo’s rely on rain and a well for irrigation and frost protection of their vineyards and they carefully analyze the depth gauge for water flow and to ensure they are conserving as much water as possible.

“We practice night harvesting which is easier on workers and leads to better quality. Lower night temperatures chill the fruit and reduce early fermentation,” Chris said.

“At the beginning we were on a learning curve when it came to the wine business, so we enrolled in a SRJC program at Shone Farm, which has 365 acres of certified sustainable land producing 600 cases of wine annually. We learned so much from industry workshops, including how to harvest grapes, make wine, and the process for becoming certified as a sustainable vineyard.”

He said certification provided an opportunity to examine their vineyard business and discover ways to improve through best management practices.

“With knowledge comes the ability to do more while keeping up with new farming practices and techniques. We got



a copy of the California Code of Sustainable Winegrowing workbook and have started the process of self-assessing our vineyard operations that involve 16 compliance categories.”

Audrey Bush, Jr. and Chris Crispo have been married for 26 years and have two children, Daniel, 21 and Caroline, 15. They all live on the vineyard property, along with the matriarch of the family, Audrey Sr., age 93. With a strong desire to continue their family’s farming legacy, the Bush Crisos are getting their children, the third generation, up to speed on what it takes to operate a vineyard. “Our son and daughter grew up on this land and enjoy living here. They’re hands-on when it comes to working in the vineyard and learning on the job,” said Chris.

Sonoma County Agriculture Commissioner Is a Bridge Between Winegrowers and the Water Board

“We have been working with the Sonoma County Winegrowers to help leverage their sustainability certification program efforts to obtain regulatory relief,” said Tony Linegar, Agriculture Commissioner for Sonoma County. “Even though sustainability certification is a voluntary program, it makes a lot of sense for growers to become certified, and many as a result are already in compliance with most of the proposed water quality regulations coming forward.”

For Tony, sustainability certification exemplifies growers’ commitment to establishing high standards for protecting the environment, natural resources and their workers. “Having growers adopt this



sustainability commitment makes my job a lot easier since it dovetails well with the regulations our office enforces when it comes to pesticides and water quality, for just two examples.”

As authorized by the Clean Water Act, the National Pollutant Discharge Elimination System (NPDES) permit program controls water pollution by regulating point sources that discharge pollutants into waters of the United States.

However, agriculture gets a waiver if growers follow certain conditions for wastewater discharge.

Water discharges from California agricultural operations include irrigation runoff, flows from tile drains, and storm water runoff. These discharges can affect water

quality by transporting pollutants, including pesticides, sediment, nutrients, salts (including selenium and boron), pathogens, and heavy metals, from cultivated fields into surface waters.

To prevent agricultural discharges from impairing watershed, the Irrigated Lands Regulatory Program (ILRP) regulates discharges from irrigated agricultural lands by issuing waste discharge requirements (WDRs), or conditional waivers of WDRs (Orders) to growers. These Orders contain conditions requiring water quality monitoring of receiving waters and corrective actions when impairments are found.

Sonoma County Regional Water Quality Control Boards in regions 1 and 2 will require most vineyards, with a few exemptions, to develop a Farm Water Quality Plan for their vineyard operations that addresses

sources of pollutants such as sediment, nutrients and pesticides that have potential to impact water quality. To develop such a plan, growers have the option of working with third party groups to identify specific sources of pollutants and develop a timeline for correcting any such issues to comply with the Waste Discharge Requirements of the specific Regional Boards.

“The Ag Commissioner’s Office will be pursuing certification through the Water Board as a third-party technical assistance group to help farmers develop these Farm Water Quality Plans and meet Water Board requirements. The California Code of Sustainable Winegrowing has 56 sections dealing with water quality alone. We are using this as a template for developing a

continued | **Commissioner** | Page 10



PHOTO: JAK WONDERLY

Our GOAL. Our COMMITMENT. For Our COUNTY.

Join us in this bold initiative.

The Sonoma County Winegrowers put a stake in the ground to be the first wine region in the U.S. that is 100% sustainable by 2019. Why? Because it's the right thing to do for us, for our community, and for the people who love and enjoy Sonoma County wines.

We do not take this commitment and what it means lightly: the land stays preserved in agriculture, our community of neighbors and workers are treated with respect, and our business endures providing positive economic impact to Sonoma County.

For us, sustainability is more than a word, it is a way of life. We are proud of this initiative and hope that you will stand alongside us in continuing to keep Sonoma County sustainable and a great place to call home.

Sonoma County Sustainable: Then. Now. Forever.

Kevin Barr
Family farming since 1979

John Balletto
Family farming since 1977

Brad Petersen
Family farming since 1945

Learn more at www.SonomaWineGrape.org

FAQs About Sustainability

What is significant about Sonoma County becoming the nation's first 100% sustainable wine region?

Sonoma County has a heritage of farm families preserving their land for future generations. It is part of the very fabric that defines the Sonoma County wine region and is delivered in every bottle of high quality wine that proudly carries the Sonoma County designation. Sonoma County's wine industry has long been at the forefront of creating and utilizing sustainable practices in the vineyard, in the winery and in running their businesses. This expertise has now evolved into Sonoma County winegrowers and winemakers partnering together to establish the nation's first 100% sustainable county which will benefit the environment while meeting the needs of consumers as well as increasing efficiencies, eliminating waste and saving money. In the near future, consumers around the world will be able to purchase any Sonoma County wine with confidence knowing that they are supporting sustainable agriculture.



Vineyard Managers Play Vital Role In Sustainability Effort

As California's first certified sustainable vineyard management company, Redwood Empire Vineyard Management (REVM) is helping 60 clients obtain sustainability certifications and re-certifications, while also providing ongoing monitoring and documentation. The company hired Data Specialist Matt Kerr and Viticulturist Dan Rotlisberger and enhanced its services to better serve grape growers and wineries.

When Kevin and Linda Barr came to Sonoma County and founded REVM in 1983, absentee owners buying property as an investment or as a second home, increased demand for management companies to care and farm the vineyards. The Barr's have skin in the game. Their expertise is based on personal experience with their own acreage.

"Today approximately 600 of the 1,800 growers in Sonoma County utilize management companies. While some clients are hands-on, perform sustainability assessments and record keeping functions themselves, a majority of REVM's clients ask us to take care of all this," Mr. Barr said.

Twenty-three sites have been certified through REVM, including 15 properties that Kevin and Linda own and lease. Another 29 client sites are in the process of being certified, and 16 new ones are about to start. In all, 45 sites will be certified by 2015 and the momentum is building among others to join them.

"With the continuing requirement to track and monitor sustainability progress and keep abreast of new developments, more vineyard owners are turning to professionals to handle details and record progress. We see ourselves as a one-stop shop for all things related to vineyard management," he added. "The cost of certification typically ranges from only \$1,000 to \$1,500 on average."

Kevin graduated from UC Davis in 1979 majoring in Agriculture Science and Management with an emphasis on viticulture. In addition to leading REVM, he serves on the boards of the American Vineyard Foundation, the SRJC Viticulture Advisory Board and the Sonoma County Winegrape Commission. Linda is a fourth-generation Sonoma County farmer who oversees field crews, the office, harvest activities, and safety operations.

"REVM has the largest equipment fleet in the North Bay with the latest and state of the art of reliable trucks, tractors and harvesters. We recently bought a Pellenc mechanical grape harvester. Since 2000 we have been living in a high tech world that takes more know-how to run effectively," he said.

The company is a licensed labor contractor. While some wineries with vineyards try to cope with their own labor needs, REVM manages a substantial labor force of 300 to 400 workers for vineyard owners providing the labor they need when they need it.

"We see our role as business matchmakers. The most important thing for growers is to sell their grapes. We put deals together and facilitate negotiations. Winery relationships are huge for us and we help growers find buyers and sell into the market," Kevin added. "There is a trend among some wineries to pay a premium per ton for grapes from certified sustainable growers."

In 1997 Tyler Klick joined the firm and later became a co-owner and senior viticulturist. He is a graduate of the UC Davis Viticulture and Enology as well as St. Mary's College Health Sciences programs. In 2012 Tyler was instrumental in accelerating REVM toward becoming the first certified sustainable management firm in the state.

"Economic considerations are leading vineyard owners to outsource sustainability documentation and related activities allowing in-house teams to focus on quality. We collect information from each site to use in decision-making, vine stock and varietal selection, soil and pest monitoring, irrigation measurements, vine water content and many other factors," Tyler said.

Kevin believes the industry has to consider issues like the future of farm labor housing and do the right thing in caring for workers as a sustainable human resource. Linda is a member of the North Bay California Women in Agriculture and the California State



Women in Agriculture organizations. She is concerned that there are not enough women at the farm worker level as well as more female managers, winemakers and viticulturists.

"We believe in sustainability. Our mission is to help vineyard and winery owners grow their businesses. We surround ourselves with experts in soil science, well drilling, irrigation design and a host of other disciplines. CCSW

self-assessment and certification made us fine-tune our practices. Adherence to this code will produce wine industry dividends for generations to come," Kevin said.

"Sustainability can be the educational catalyst bringing winegrowers and the environmental community closer together. Now is the time to become engaged and help brand Sonoma County in terms of positive public opinion."

Commissioner: Bridge Between Winegrowers and the Water Board *continued from 8*

model Farm Water Quality Plan. These 56 sections help growers identify erosional features and other factors, such as the pH of irrigation water that can be managed to protect water quality.

"While my office is not directly involved in winegrower assessments, we are developing a pilot program to show growers how it can work. A trial is already underway at the Carinalli Ranch on Llano Road near Sebastopol. Dominic Carinalli was a former dairyman who switched to grape growing. He has allowed us to use his vineyard as a testing ground for the creation of the model. The Water Board has to approve of any third party attempt to develop Farm Water Plans. This pilot is

going very well and we learned a lot. Few issues were found at Carinalli Ranch that had to be addressed," Tony said.

Dominic's land is almost flat, but other small vineyards need some assistance when it comes to meeting the proposed Water Board standards. VESCO, which passed in 2000 established standards for new vineyard development and replants which have put Sonoma County in a better position to comply with the proposed water Board requirements than other regions which have not adopted standards for vineyard development."

He said it has been great working with the Water Boards. "They have very little available staff to enforce their regula-

tions, so it has been an opportunity for the Agriculture Commissioner's Office to serve as a bridge and facilitator between the grower community and regional Water Boards in helping to bring these groups together."

According to Tony Linegar, Sonoma County winegrower commitment to sustainability and certification sends a message to their communities that growers want to be good neighbors, provide jobs, support local businesses as well as the economies of their regions. Embracing the Code and planning for continuous improvement is evidence of this commitment, and puts our growers in a good position to comply with the regulatory challenges on the horizon."

AVA Spotlights

Dry Creek Valley

What does SCW's commitment to sustainability mean to Dry Creek Valley?

Dry Creek Valley is dominated by multi-generational wineries and growers, many here for 5+ generations. This points to our strong values in preserving what we have for future generations. To be able to educate and certify our community on best practices for preserving our businesses to hand down to the next generation is inherently woven into the fabric of our values and we are proud to be a part of Sonoma County's commitment to sustainability.

What steps have you taken to help your winegrower and vintner members become more sustainable?

As an organization, we have appointed a Sustainability Chair, David Mounts, who is the spokesperson for this initiative at the AVA level. We also host monthly sessions at our office, where growers can meet in a small-group environment with the Sonoma County Winegrape Commission's Sustainability Manager, Robert LaVine, to walk through the sustainability process and ask questions specific to their business.

What will it mean to Dry Creek Valley when your region becomes 100% sustainable?

It will mean that we are demonstrating the values of being a world-class wine region that values the future.



Pine Mountain-Cloverdale Peak

What will it mean to Pine Mountain-Cloverdale Peak when your region becomes 100% sustainable?

What unites Pine Mountain-Cloverdale Peak growers is a love of the abundant nature of our area in addition to the ability to earn a reasonable living off of our land growing premium winegrapes. Due to the difficult conditions of farming steep hillside plots, and the added cost of farming on the "mountain", the concept of sustainability is a vital one. We can only earn a living if we can sell our grapes as premium winegrapes at premium prices due to the lower yields and higher costs. Thus it is imperative for us to ensure the vitality of our land through sustainable practices and expect to be paid commensurately with our viticulture practices and the quality of our grapes. Being a 100% sustainable AVA will help brand this message to those who buy our wines and/or make wines from our grapes.

Russian River Valley

What does the SCW's commitment to sustainability mean to Russian River Valley?

As a whole, it is a priority and a general business practice for so many of our growers and winemakers, that we have great examples that we can share on behalf of the AVA, and more to uncover.

What steps have you taken to help your winegrower and vintner members become more sustainable?

In the past year, the Russian River Valley has organized self-assessment workshops to help our winegrowers take the first steps in becoming certified sustainable. We held our first sustainability seminar in December with Robert LaVine from Sonoma County Winegrowers presenting how our members can become certified sustainable. In 2015, we will be establishing various Vineyard Walks throughout the AVA, and will incorporate sustainability in these programs with winegrowers whose practices most illuminate the importance of this initiative.

Sonoma Valley

What steps have you taken to help your winegrower and vintner members become more sustainable?

Sonoma Valley has challenged our membership to become the first AVA within Sonoma County to be fully sustainable. We have provided opportunities at 5 different events throughout 2014 for members to start the self-assessment program. SVVGA has also selected an active member to sit on the Sustainability Task-Force committee with Sonoma County Winegrowers. Finally, SVVGA has incorporated a 'SUSTAINABILITY' section within the weekly membership newsletter that highlights key information or success stories that the membership can reference.

What will it mean to Sonoma Valley when your region becomes 100% sustainable?

Sustainability is very important to us, so when this initiative was introduced to our members during the 2014 State of the Alliance meeting, we committed to becoming one of the first 100% sustainable AVA's, which represents a large region encompassing 4 other AVA's (Moon Mountain District, Bennett Valley, Sonoma Mountain and Los Carneros). This initiative is important because with Sonoma Valley's rich history and being the birth place of CA winemaking, we want to continue this tradition of generational farming, working efficiently and eliminating waste.

Bennett Valley

Bennett Valley AVA put their own stake in the ground with a plan in place to become Sonoma County's first 100% certified sustainable AVA by 2017. The Bennett Valley Grape Growers Association appointed vineyard manager Chris Bowland to a new sustainability coordinator position on their board of directors to provide more resources and support to their growers.

Sustainability Honor Roll

7th St. Diserens Vineyard
Abbe Vineyard
Acorn Winery
Akerlind Vineyard
Alta Vista/Mulas Family Vineyards
Andrews Vineyard
A. Rafanelli Winery & Vineyard
Argot Wines
Balletto Vineyards
Banatao Vineyard
Barricia Vineyard
Barrow Vineyard
Bazzano Vineyard
Belle Terre Ranch
Bevill Vineyards
Black Emerald Vineyard
Black Horse Vineyard
Blue Oak Vineyard
Boisset Family Estates
Bowland Vineyard Management
Brereton Vineyard

Brown-Forman Wines
Capener Vineyard
Catherine Bonneau Vineyard
Colibri Vineyard
Collier Falls Vineyards LLC
Comstock Vineyard
Comstock Wines Vineyard
Constellation Brands
Darden Vineyard
DeBenedetti Vineyard
Degrange Vineyard
Dempel Farming Company
Diageo Chateau & Estate Wines
Dow Vineyard
Draxton Vineyard
Dry Creek Vineyard
D.V. Vineyards
Eagan Vineyards
E. & J. Gallo Winery
Fall Creek Vineyards
Farrow Ranch

Ferrari-Carano Vineyards & Winery
Ferguson Vineyards (SIP)
Flanagan Wines
Francis Ford Coppola Winery
Friedman Vineyard
Frugoli Vineyard
Fritz Winery and Vineyards
Furlong Vineyard
Gantz Family Vineyards
Gensler Vineyard
GlenLyon Vineyard & Winery
Goodkin Vineyards
Griffin's Lair Vineyard
Gros-Balthazard Vineyard
Gundlach Bundschu Winery
Gunsalus Vineyard
Hanks Vineyard
Hanna Winery Vineyards
Hafner Vineyard
Handal Family Vineyards
Hart Vineyards

Hawk Hill Vineyard
Henderson Vineyard
Hervey Vineyard
Hill Family Vineyard
Hoot Owl Creek & Alexander Valley Vineyards JV
Hopkins River Ranch
J Vineyards & Winery
Jack London Vineyard
Jackson Family Wines
Jordan Vineyard and Winery
Judge Family Vineyards
Kagel Vineyard
Keegan Vineyard
Keresey Vineyard
Killen Vineyard
Kinsey Vineyard
KL Barr (877) Vineyard
Knights Bridge Vineyard, LLC.
Kunde Estate Winery & Vineyards
Lafranchi Vineyard

Want to see your vineyard on this list? Contact SCW Sustainability Manager Robert LaVine to start your sustainability self-assessment. He can be reached at 707-522-5851 or Robert@sonomawinegrape.org



Sonoma County Winegrowers would like to recognize our grape growers and vintners who have assessed their vineyards or received sustainability certification from California Sustainable Winegrowing Alliance (CSWA), Lodi Rules, or Sustainable In Practice (SIP) since making our sustainability commitment in 2014. Those in bold are certified.

Lancaster Estate	Polesky-Lentz Vineyards	Shea/Collins Vineyard	Truett Hurst Winery
Lindley Vineyard	PMRR Vineyard	Shiloh Glen Vineyard 5	Two Moon Vineyard
Lonestar Vineyard	Price Family Vineyards	Shiloh Glen Vineyard 6	Tzabaco Rancho Vineyards
MacDonald Vineyard	Puccioni Vineyards	Shiloh Glen Vineyard 7	Uptick Vineyards
MacRostie Winery and Vineyards	Puma Springs Vineyard	Silver Oak Cellars	Vadasz Vineyard
Mary Gallo Vineyard	Rattlesnake Ridge Vineyard	Silver Wolf Vineyards	Vineyard of Pasterick
Martin Ray Winery	Redwood Empire Vineyard	Skywalker Ranch Vineyard	Vino Farms, Inc.
Mauritson Family Winery	Management #1 & #2	Smith Vineyard	Vogensen Vineyards
Medlock Ames Vineyards	R.F.S. Vineyards	Soiland Vineyard	Wallace Creek Vineyard
Melim Vineyard	Ricioli Bros. Vineyard	Somers Vineyards	Warnecke Ranch and Vineyard
Mercer Golden Vineyard	Ring Vineyard	Spring Hill Ranch & Vineyard	Weed Farms Vineyard
Merry Edwards Vineyard	Rio Lago Ranch & Vineyard	St. Francis Winery and	West-Pin Vineyard
Mounts Family Winery	Rising Star Vineyard	Vineyard	Westside Farms Vineyard
Muhleman Vineyard	Robert Young Vineyards Inc.	Stevens Vineyard	Wildcat Mountain Vineyards
Noble Vineyards	Rodney Strong Vineyards	Stiling Vineyard	Williamson Vineyard 2
Oehlman Vineyard	Salem Ranch	Stuhlmuller Vineyard	Windsor Oaks Vineyards and
Olivewood and Vine Vineyards	Sapphire Canyon Vineyard	Sutter Vineyard	Winery
Oltranti Vineyard	Sangiaco Vineyards	Syar Family Vineyards	Wine Creek Vineyard
Orsi Vineyard	Santa Rosa Junior College	Swane Vineyard	Wolcott Vineyards
Paradise Ridge Winery	Shone Farm	Three Sticks Winery LLC	Woods Vineyards
Pina Vineyard Management	Salem Vineyard	Tolay Springs Vineyard	Yeomans Vineyard
Placek Vineyard	Seghesio Family Vineyards	Treasury Wine Estates	
	Sei Querce Vineyards		

**Survey of vineyard owners conducted by Sonoma County Winegrape Commission and accepted third party certification programs, including CSWA, Lodi Rules, and Sustainable in Practice (SIP).*



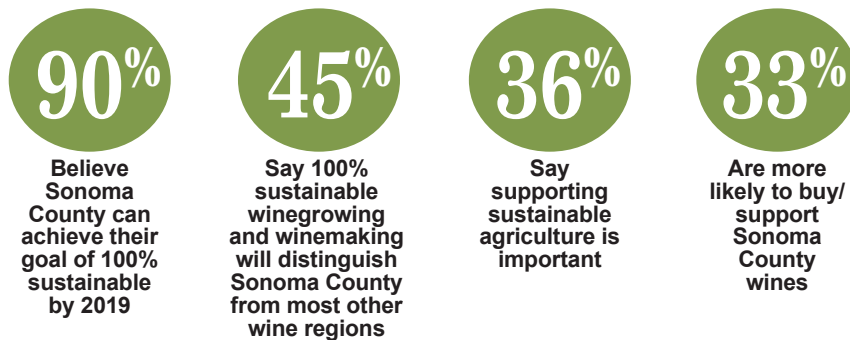
Sustainability in the Marketplace

Recent consumer research proves that sustainability is a global megatrend that is transforming how businesses operate and dramatically changing how consumers make purchasing decisions.

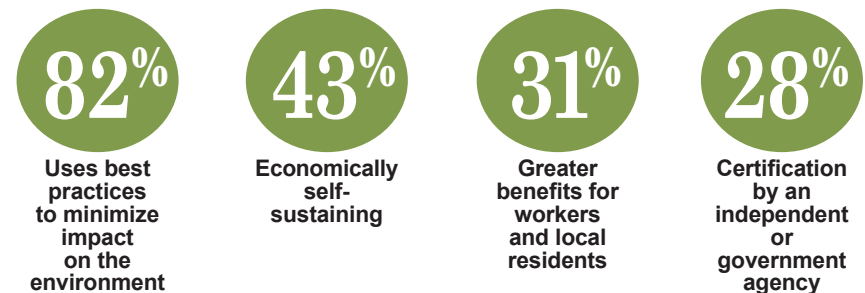
Consumers Believe Sonoma County Can Reach Its Goal of 100% Sustainability

A recent national wine consumer survey commissioned by the Sonoma County Winegrowers and Sonoma County Vintners, and conducted by Wine Opinions, measured the awareness and willingness of wine drinkers to support sustainable practices in the vineyards and wineries. The survey group included over 1,512 respondents, 51% male and 49% female, all of whom are “high frequency” wine drinkers, meaning that a vast majority (82%) drink wines at least a few times a week, with 40% of them saying they purchase wines costing \$20+/bottle once a month or more often.

What Does Sonoma County's Goal of 100% Sustainability Mean to Consumers?



How Do Wine Consumers Define Sustainability?



Doing Well by Doing Good

A recent Nielsen Global Survey of Corporate Social Responsibility conducted earlier this year shows that consumers care deeply about sustainability and are willing to pay more for sustainable products.

Here's a snapshot from the results of their survey to more than 30,000 consumers in 60 countries.



** Source: The Nielsen Company Global Survey of Corporate Social Responsibility, "Doing Well By Doing Good" released June 2014

“At the moment of truth - in store, online and elsewhere - consumers are making a choice and a choice that is heavily influenced by brands with a social purpose,” said Amy Fenton, global leader of public development and sustainability, Nielsen. “This behavior is on the rise and we are seeing this manifest into positive impact in our communities as well as share growth for brands.”

Consumers Say They Care, But Do Their Actions Follow?

The results from a March 2014 year-over-year analysis show an average sales increase of **2 percent** for products with sustainability claims on the packaging and a rise of **5 percent** for products that promoted sustainability actions through marketing programs.

Worker Safety and Health Practices Support Sustainability

Effective human resources management is a key component of any organization's sustainability program. At Bevill Vineyard Management, owner, Duff Bevill, knows that attracting and retaining reliable, skilled vineyard workers can improve productivity, profitability and sustainability. Job creation, training and managerial development strengthens and enhances the quality of community life.

From the late 1990's through 2001, the California Association of Winegrape Growers worked closely with the Wine Institute to develop a new workbook, published in 2002, promoting continuous improvement through sustainable practices – this partnership is known as the California Sustainable Winegrowing Alliance.

"We did self-assessments for years. Immediately following the publishing of the CCWA workbook, Nick Frey and I made appointments with local AVA groups and helped facilitate their assessments, first in Dry Creek Valley, then in Sonoma Valley. Today's CSWA code covers virtually all aspects of sustainability and can be applied to growing any crop," Duff said. He added, "Having a comprehensive, self-governing industry code is far better than government intervention, or costly, burdensome government regulations."

For many growers, sustainability means taking care of the land for the long term by adopting best practices. For Duff, it's a holistic approach. It means doing things that are economically viable, environmentally sound and socially responsible. The social aspect includes taking

good care of your employees.

Farm labor contractors are middleman between workers and the vineyards. In recent years, the labor component of farming has been turned over to management firms like Bevill. "Like any business, if you treat your workers with respect, they'll remain loyal. I have workers who have been with me for 18, 20 and 30 years."

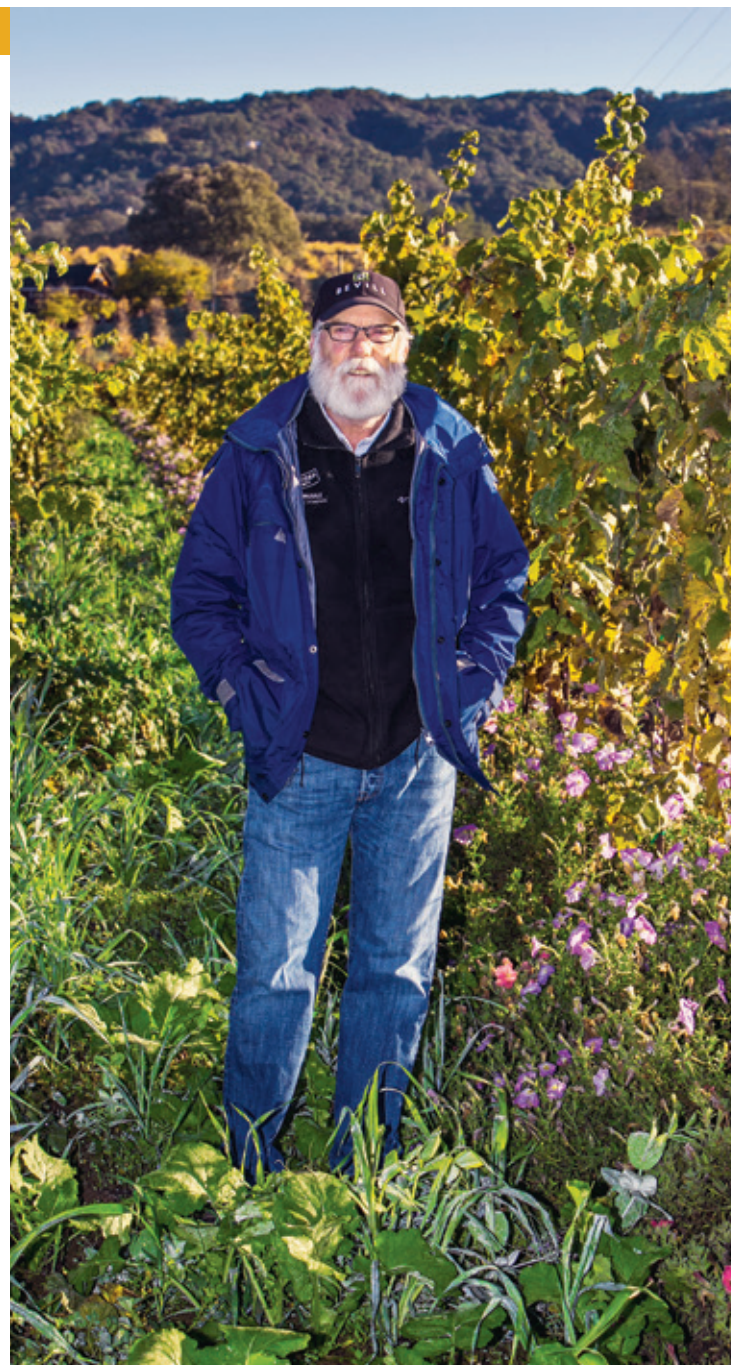
Caring for employees involves on-the-job training, safety awareness, injury prevention, heat training, and even sexual harassment education, both in house, and reinforcement by a third party. If an accident occurs, Duff addresses it immediately with his

staff and determines why and how it occurred and, more importantly, how to prevent it in the future. His managers hold monthly safety meetings, more frequently when issues arise, and remind employees about a variety of issues including drinking plenty of water and taking advantage of shaded rest areas. Said Duff, "We now harvest most of our fruit at night from 12:30 a.m. to 9:30 a.m. Working in cool conditions results in less worker fatigue and eliminates heat-related illness."

"We constantly watch out for their wellbeing. Our foremen teach workers how to do their jobs and prepare for them for the day's work. On cold mornings, they advise our workers to lightly exercise to warm up," he said. Duff has paid far above minimum wage levels for decades, but when he asks workers what's important to them – surprisingly, pay is not their number 1 concern. Being treated with respect, liking the people they work with (including supervisors), and the ability to take PTO and time off for holidays ranks higher than pay or company-provided health insurance.

"Good health makes good employees. Once an employee works with us for a year, he or she qualifies for a raise; receive paid holidays, PTO as well as health coverage. "We encourage our teams to use the insurance first to get base line physical exams and then access it for preventative care".

Bevill employs around 60 full-time workers year-round. That number expands for pruning from January to March and during harvest season. "We try



to extend the non-harvest periods to provide continuous employment opportunities so we can retain good workers."

Today one out of every three farm workers is a woman. Looking ahead, Duff anticipates childcare for workers becoming an important issue with his employees. This will be an area of review each year. The Affordable Care Act will also begin covering some seasonal workers in 2016.

In February 2015 Bevill Vineyard Management will become CCSW certified. Duff says sustainability originated within

the grower community, and he is whole-heartedly behind it.

Said Duff, "I have long felt that sustainability is the best approach to ensure we protect our land for future generations. It will also improve the quality of life for our employees, and enhance the community where we live and work. This effort to become 100 percent certified speaks volumes about our love for the land in Sonoma County, our commitment to environmental stewardship and that we value what is important to our consumers, including being good employers."

Collaboration Helps Restore Watershed and Fish Habitat at Gunsalus Vineyard

With multiple research, teaching and consulting careers behind them, Glen and Pamela Gunsalus set out to plant a small hillside vineyard located west of Graton in Sonoma County with the goal of being sustainable.

"We both started with careers in science and have had several career changes. Glen earned his PhD in physics and then transitioned to biomedical research working at Hershey Medical Center and then at Rockefeller University for 25+ years. Prior to getting an MBA and becoming a consultant in strategic planning for leading medical centers, I worked in research focusing on virology at Princeton University and then on reproductive endocrinology at Worcester Foundation for Experimental Biology. With our backgrounds, we wanted to understand as much as we could about viticulture before we started," Pamela said. "We spent a year learning about the area and talking to area growers, wineries and consultants to determine the appropriate rootstocks and grape varieties for our vineyard."

The couple purchased 21 acres in 1990 on Upp Road in West County and moved to the property in 2000. Their vineyard lies within three AVAs (Russian River Valley, Green Valley of Russian River Valley and Sonoma Coast) and is divided into one-acre blocks planted with four Pinot Noir Dijon clones.

Green Valley Creek borders the property, so there have been several opportunities to work with local groups for wildlife habitat and creek enhancements. An early project supported by Trout Unlimited and Fish and Game involved bank restoration and Coho salmon habitat improvements. The Russian River Coho Salmon Breeding Program took salmon from their stretch of the creek to stock the Warm Springs breeding program and each year releases fingerlings and monitors their outcomes.

A recent project to repair many years of erosion to an

ephemeral stream along one side of their vineyard which empties into the Green Valley Creek was a collaborative effort with the support of Gold Ridge Resource Conservation District, Sonoma County Fish and Wildlife Commission, USDA/NRCS, and a local environmental engineer and a construction firm. "Fill was brought in and compacted, rocks were positioned to channel the stream, and to provide habitat for wildlife and erosion control, and we planted more than 100 native trees, shrubs and ferns along the banks," Glen said.

"Collaboration with area natural conservation and environmental groups is essential for enabling us to be better stewards of the land. For example, making needed improvements to minimize sediment from erosion flowing into the creek, since our property drains about 15 acres coming off Mt. Pisgah," Glen said. "In a typical year we average 45 inches of rain – only 20 in 2013/14 – but after ground saturation (10-12 inches) the rest is runoff."

The Gunsalus' farming approach is to be economically and environmentally sustainable using best management and least invasive practices. They perform most vineyard tasks by hand – pruning, canopy management, as well as, control of soil erosion, weeds, gophers and other pests.

"Our first priority is healthy vines and preserving the land. We work with consultants for integrated pest management, soil analysis and aerial imaging, which identifies vine vigor across the vineyard," Glen added. "Our spray program to control vine fungal infections, such as, powdery mildew and botrytis, uses new/emerging soft materials."

Over the years they have removed non-native/invasive plants, such as Himalayan blackberries and Vinca, and maintain good habitat for beneficial insects by encouraging the growth of native flowers, such as Queen Anne's Lace, and planting shrubs (e.g., Rosemary) to attract bees and benefi-



cials. The couple adhere to a no-till practice to reduce erosion and encourages the growth of natural vegetation.

The vineyard is Fish Friendly Farming Certified which addresses important watershed and ecology issues, however, currently does not meet several other sustainability concerns, such as, air quality, labor and community relations, and economics. Pamela and Glen believe these issues are important for their vineyard's sustainability.

"We did an initial vineyard sustainability assessment in 2003 using the California Code of Sustainable Winegrowing and are in the process of an update. We plan to become certified in 2015 under provisions of the revised Code being advocated by the Sonoma County Winegrowers. This Code covers 16 categories and asks 138 self-assessment questions to determine our current status and how we plan ongoing improvements," Glen said. "We've done a lot of work to restore fish and wildlife habitat and soil health, and we know that continuing to farm sustainably will protect and preserve our ecosystem for the long term."

SRJC's Shone Farm Curriculum Focuses on Sustainable Practices



As California's only community college with a CSWA-certified sustainable vineyard and winery, Santa Rosa Junior College is teaching students in its viticulture curriculum how to farm sustainably in a hands-on learning environment at the college's Shone Farm field station with vineyard management by Mark Sanchietti of Sanchietti Farming and a SCW Commission Board member. Shone Farm also partners with Sonoma County Winegrowers in sponsoring all-day workshops involving up to 200 people at a time.

With 365 acres at this hilltop facility, 80 acres are devoted to a vineyard producing estate grown, gold-medal winning Russian River Valley Chardonnay, Pinot Noir,

Sauvignon Blanc and Syrah grapes that are picked, crushed and bottled by students. Zinfandel has just been planted. Approximately 600 cases are produced each year. Ten wineries purchase Shone Farm's varietals, with some paying a \$20 premium per ton for certified sustainable wine grapes.

Sustainable practices are used throughout this pristine open-air laboratory where a bare minimum of chemical pesticides and herbicides are used. Drip irrigation systems utilize treated wastewater conveyed through a pipeline from Windsor. Low-flow, high-impact barrel washers use only two gallons of water a minute, rather than the eight-gallon previous standard.

Sheep graze on cover crops planted between vine rows. Frequent wind on this high plateau eliminates the need for frost control measures.

"Our mission is to educate and train future farmers in sustainable practices. We're teaching diversified farming the way farmers would, while showing students how to view the wine production from start to finish including planting, pruning, pest management, harvesting and other aspects of the business along with wine making and marketing," said Ganesan Srinivasan, Dean of the SRJC Agriculture, Natural Resources and Culinary Arts programs that collectively enrolls 2,000

continued | **Shone Farm** | Page 22

Dane and Brad Petersen:

A Multigenerational Approach to Farming Sustainably

After two decades of experience managing Silver Oak Cellars Estate Vineyards, third-generation Sonoma County farmer, Dane Petersen is also the owner of Fall Creek Vineyard, a 40-acre property in the Dry Creek Valley. His son, Brad, continuing his family's legacy, took over vineyard management responsibilities at Silver Oak Cellars when his father retired, and is now Chairman of the Sonoma County Winegrowers. Both father and son are passionately committed to preserving agriculture for future generations and carrying on their family

legacy of farming.

"We may not have called it sustainability thirty years ago, but we did believe taking care of the land was critical to growing the best grapes," Dane said. "Back then we were always looking for ways to be softer on the land. Today, that approach is core to sustainable grape growing as we think more about how are we going to farm and keep the environment top of mind."

For example, grape growers have always used the latest research and innovation to help improve vineyard practices and increase quality. When pests

posed a threat to the vines, the typical response was to spray the entire vineyard to reduce risk and damage to the vines. "We sprayed everything, not just the affected vines because that was the standard procedure back then. Today we take a softer approach in every facet of farming from concentrating our water use to applying fewer and milder sprays. All of this is based on the latest research and best practices. Technology – along with more innovative practices – has changed our world for the better. Now we check moisture gauges and electronic equipment monitoring sap flow and use a formula to apply the exact amount of water needed," said Dane Petersen.

Sustainability is not just good for the environment, it's helping to foster a closer relationship between consumers and farmers. "The fact is we share the same concerns but until recently our actions as farmers were not reaching consumers," said Brad. He added, "Sustainability is not only helping us measure what we're doing, but it helps counter concerns among those who still believe farmers are not protecting natural resources by enabling us to provide documented proof that we are the best stewards of the land. Being self-regulated, under a code of industry standards, is better for all."

Dane had initial reservations about sustainability. "Becoming sustainable is much easier than I thought. Self-assessment is for the grower's benefit and knowledge only, and it can be done in the privacy of your home or in the security of your locked pickup truck, for that matter. I'm not the best farmer. I think more about business economics. But after getting into the sustainability assessment, I realized I was already doing a lot of sustain-



able practices."

At age 69, Dane admits that it was difficult for him to self-assess using the online code and a computer. "I picked up the binder and found it was like reading a map giving me positive direction and recommendations to work toward when developing a viable farm plan. I worried about the time commitment, but it didn't take as much as I thought. I realized the code of sustainability is a tool for identifying more beneficial ways of doing things."

Measurability is key, according to Brad. He said it is important to put aside pre-conceived notions about what the code is and call upon Sonoma County Winegrowers' Sustainability Manager Robert LaVine and those familiar with the code to learn more ways to improve.

Said Brad, "It's been less than a year since we started advocating certification. There is a third party cost associated with audits, but we're working to mitigate that by applying for grants, promoting premium pricing for grapes from

certified sustainable vineyards, and by making internal funds available to help defray expense."

"We've created a new Sonoma County Sustainable sign that will call out and say this is a certified sustainable vineyard. I believe every member will want to have such a sign in an age when people prefer doing business with sustainable producers," he added.

In addition to caring for his own Fall Creek Vineyard, Dane serves on the Dry Creek AVA Board of Directors, a nine-member group that asked for a volunteer to head up certification efforts in this area. He volunteered, and is helping other AVA members assess their operations.

"Years from now when people drive down roads looking at vineyards, I want them to come away with the impression that growers have embraced sustainable practices. I also want my great-grandchildren to be able to farm, so caring for the land is a multi-generational objective for Brad, myself as well as our entire family," Dane added.



The Nation's Leading Sommeliers and Wine Buying Influencers Speak Up About Sustainability

Wanda Cole

Sommelier at Salpicón
in Chicago, IL



What does Sonoma County's commitment to sustainability mean to the world of wine?

It sets an incredibly high standard for the rest of the wine world; and Sonoma County will be a shining example. Expectations will be raised much higher. If the entire community of Sonoma can come together for the betterment of the environment

and economy then individual wineries outside of Sonoma should (in the eyes of the consumer) be able to attain the same. When other wine regions commit to 100% sustainability the overall economy and environment will improve by leaps and bounds.

As a sommelier, why does sustainability matter?

Sustainable wine practices help assure longevity of the economy and the environment. We are ensured that the environment is fully functional and capable of producing the grapes that turn into wines that we love.

How important is sustainability when selecting wines for your restaurant menu?

During my tenure as a sommelier I have always made sure to include a fair selection of sustainable, organic, and biodynamic wines. With today's dining and restaurant trends going more toward sustainable practices wine and beverage must mirror those trends. Small production, farm to table, sustainability, and organic movements has resulted in a consumer desire for wine and beverage of similar nature.

David Keck

General Manager & Wine Director of
The Camerata at Paulie's Wine Bar in
Houston, TX



What does Sonoma County's commitment to sustainability mean to the world of wine?

By setting a tone and precedent for an entire region, Sonoma County is raising the bar in a noticeable and public way. Whenever a standard is set like this, people are forced to take notice and change what they are doing or become obsolete. Let us hope that the baton is picked up rapidly and by many.

As a sommelier, why does sustainability matter?

We are storytellers and curators of lists that hopefully express the message we want our wine programs to convey. That message should always be one that is socially and environmentally responsible. Working with wines that are made in a conscientious and thoughtful way is a reflection of the care we have for our guests, communities, and the future of our industry.

How important is sustainability when selecting wines for your restaurant menu?

What we do in the wine industry is as tied to the land as what our chefs do in the kitchens of our respective establishments. In choosing wines, we should be critical of everything, not just the flavor and structure of the wine, but how the grapes are grown, harvested and fermented, and how the community around that is treated. The world of wine continues to grow and our options along with it--being irresponsible regarding sustainability is no longer justified by a lack of alternatives.

How do you explain the benefits of a sustainable wine to your customers?

They honestly don't need justification-- our clientele are becoming more and more erudite -- being able to say that a wine is sustainably produced is an immediate positive.

Allegra Angelo

Sommelier at AQ Restaurant in
San Francisco



What does Sonoma County's commitment to sustainability mean to the world of wine?

It proves that big scale comradery, across different professional backgrounds, is achievable! For the consumer, it will raise the benchmark in quality for Sonoma County wines.

As a sommelier, why does sustainability matter?

There is a correlation between sustainably-farmed land and better quality wines. Yet, beyond taste and even more paramount, we need to support American wines that payback value into the land -- in turn supporting and protecting American jobs for our current and future generation.

How do you explain the benefits of a sustainable wine to your customers?

There is a noticeable "feel good" action when a guest buys or drinks a sustainable wine. We definitely approach it as a "win-win" situation -- drinking better wine while protecting the land and jobs.

What are some of the sustainability trends you're seeing in the culinary world?

We are seeing more and more restaurants begin to grow, farm, and produce their own ingredients. Last decade it was all about 'farm to table,' while today the trend has moved towards "table to table" -- the realm of locality is diminishing.

What is the Culinary World Saying about Sustainability?

- The National Restaurant Association released their 2015 Culinary Forecast and among the survey's top 20 trends, environmental sustainability came in third.
- Chefs and restaurateurs recognize more customers are incorporating sustainability practices into their daily lives and want to extend that into the food space as well, particularly when dining out.
- The survey also found 42 percent of respondents thought environmental sustainability would be the hottest menu trend 10 years from now.

Judge Family Vineyard Owners

Appreciate the Value of Sound Record-Keeping Practices

Joseph Judge was not born into the wine business. However, by earning a bachelor's degree in environmental studies from Utah State University in 1975, and later a master's degree in forestry economics, the stage was set for his role as a vineyard owner in the Bennett Valley American Viticultural Area (AVA).

"For several years I owned a construction company in Sun Valley, Idaho and in 1986 decided to get into investment management with Dean Witter. When I moved to California, I discovered Sonoma County and settled in Bennett Valley. Later, I became a senior vice president for investments with Wells Fargo Advisors in Santa Rosa. With my education, I always wanted to develop my own vineyard," Mr. Judge said.

Joe and his wife Gail bought 20 acres in Bennett Valley and established Judge Family Vineyard in 2000. They currently have 10 acres planted to Syrah, Sauvignon Blanc and Grenache.

"Most of our 36 Bennett Valley Grape Growers Association members own vineyards averaging about 20 acres each, for a total of just over 650 planted acres. Several are virtual wineries utilizing custom crush and barreling services. More than 10 families have their own labels and some have winemakers," he added.

Joe became president of the Bennett Valley Grape Growers Association in 2005. He was elected to the Sonoma County Winegrape Commission Board of Directors last July, is on the board of the Farmer Veteran Coalition, and is a member of the Sonoma County Farm Bureau.

He is proud to see Bennett Valley and its growers commit to a plan of becoming Sonoma County's first 100% certified sustainable region by 2017, with the help of Chris Bowland, of Bowland Vineyard Management Company. The Bennett Valley Grape Growers Association appointed Chris to a new sustainability coordinator position on the board last July. His task is to help guide members toward certification while mak-

ing the process as seamless as possible.

"We recently completed our own vineyard self-assessment and received our certification from CSWA. Everyone here lives downstream or downhill of someone else. I believe that if like-minded people can come together to ensure a sustainable future, we all will have a nicer place to live. This mindset is reflected by most vineyard owners in Bennett Valley today," he said.

He noted the continuing uptick in tourism resulting from the wine industry bringing a huge revenue stream to Sonoma County. "People like to see vineyards and taste wine, and sustainability is becoming more important for this new generation of wine drinkers. Disposable incomes are also higher for this group and their dollars are spent in places and for products that are sustainable and they share their beliefs with their friends."

From a business perspective, Joe believes when PRMD and Sonoma County's Agriculture Commission's vineyard ordinance requirements are met, sustainable practices and development rules bring public and private sectors together to find ways to cope with run off, erosion and other issues of mutual concern.

A decade ago Judge Family Vineyard was one of the founding growers that embraced Fish Friendly Farming. This environmental certification program helps farmers inventory and assess their property and apply beneficial management practices to reduce erosion, conserve water, increase native habitats and enhance aquatic habitats.

"When I first became a winegrower, a fellow grower named Wells Wagner gave me sound advice. He told me to keep a calendar and record something every day during the growing season, such as temperature, rainfall, and business practices being implemented in your vineyard. This counsel helped me answer questions posed by the Code of Sustainable Winegrowing Alliance (CSWA). With the help of Robert LaVine,



Sonoma County Winegrowers' Sustainability Manager, I was able to complete the vineyard practices self-assessment process in less than four hours. And the saying still holds true - it's never too late to start keeping records."

According to Joe, farmers sometimes ask "What's in it for me to become certified?" Some wineries are paying a premium per ton for certified sustainable grapes. If a winery uses 100% of these vineyard-designate grapes in their bottles, they can advertise this on their label - which, like conjunctive labeling, can add buyer appeal.

Joe believes in the importance of succession planning. "Our children both have an interest in Agriculture. Our son Blake graduated from California Polytechnic State University with a degree in Wine Business, and our daughter, Sarah, is also pursuing her degree in Ag Business at Cal Poly. She recently returned home to take an internship at the Economic Development Board (EDB). They both appreciate the value of sustainability - and good record keeping."

Three Wineries Use

Technology Tools

To Enhance the Natural

Environment

FRANCIS FORD COPPOLA WINERY & VINEYARDS

"Sustainability is very important to the Coppola family. With grandkids running around on the property, they want to make sure the environment is safe. Mr. Coppola is a very creative person who appreciates the value of exploring new technology," said Corey Beck, director of winemaking and general manager at Francis Ford Coppola

Winery.

The winery's staff has been collaborating with a team from Carnegie Mellon, a global research university recognized for world-class arts and technology programs, in a beta test of a high frequency aerial imaging system, called Terravision, that provides a weekly picture of a vineyard that is visible on the web.

Lise Asimont, director of grower relations

at Francis Ford Coppola Winery, is enthusiastic about new technology being implemented that will not just help make better wine, but contribute to the sustainability of the 24 acres of estate vineyards now in their fourth certified growing season as well as all Coppola properties.

"In addition to walking our vineyards, we can also view a natural thermal differentiated index to see which sections have been properly irrigated and which ones are too dry or overwatered. We thought we were good at watering, and now we know we can improve our conservation efforts. This aerial reconnaissance costs about \$30 an acre and is done from a bi-plane with an under-belly camera accurate down to vine level," Asimont added.

The vineyard is irrigated 100 percent with wastewater from a facility at the Coppola Estate Vineyard stored in an on-site pond. A secondary water source utilizes a membrane biological recycler to produce clean water

that is one step away from potable. U.C. Davis and USDA are conducting a trial to determine the affect on wine quality of recycler water side by side with a neighbor's well water.

There are three perennial creeks on the property and all water is naturally filtered. Roads are engineered, graded and winterized with hay and bioswales. Drop inlets are positioned so rain drainage does not run across the property but is channeled into the wastewater pond. Local vegetation and biomass are preserved by not clear-cutting the land.

The company hired an irrigation "guru" for all of its vineyards and a compliance manager that oversees certification programs. Asimont works with over 200 growers certified under CSWA, Lodi Rules, Sustainability In Practice (SIP), and Fish Friendly Farming.

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FAQs

About Sustainability

How do you plan to measure success and overcome “greenwashing”?

Third party verification and certification programs will be used such as the California Sustainable Winegrowing Alliance’s (CSWA) Code of Sustainability that involves 15 chapters and 138 Vineyard & 103 Winery Best Practices focused on environmental, social and economic viability and continuous improvement with verification by a third-party certifier. We also believe that transparency will be key in thwarting any suggestions of “green washing,” including the release of this annual Sustainability Report that shows where we stand in terms of our goals, our assessments, and other measurements that provide insight into our sustainable practices.

What sustainability programs do you plan to accept as part of the Sonoma County Sustainable program?

There are two main elements of Sonoma County’s sustainability program and commitment. The first is taking a holistic view of sustainability by focusing on a triple-bottom line approach that considers impact on the environment, people, and the economic viability of the business. The second element is third party certification that serves to validate the sustainability assessment and process. A vineyard or winery will be considered Sonoma County Sustainable if it assesses and certifies under a program that meets both of these criteria.

With this lens in mind, programs such as California Sustainable Winegrowing Alliance’s (CSWA) Code of Sustainability, Lodi Rules and Sustainable in Practice (SIP) are being considered since they have a triple bottom line approach for the assessment and third party certification.



PHOTO: GEORGE ROSE PHOTOGRAPHY

SUSTAINABILITY IS OUR WAY OF LIFE.

Sustainability matters. It’s been part of our family culture since 1927, when Vittorio Sangiacomo purchased a fruit tree ranch in Sonoma County. Today, three generations later, we grow premium grapes with sustainability as our guiding passion and principle.

There’s nothing new about sustainability; it’s just a relatively new word for something we, and most Sonoma County winegrowers, have been doing for generations — making better wine by taking care of the land and the people who live here.

Let’s make sure our land — our home — stays sustainable and preserved in agriculture for our children, their children and all the generations to come.

Join us as we turn Sonoma County into the nation’s first 100% sustainable wine region by 2019.



Steve Sangiacomo
3rd generation
winegrower

Mike Pucci
1st generation
winegrower

Mike Sangiacomo
3rd generation
winegrower

Angelo Sangiacomo
2nd generation
winegrower

Buck Sangiacomo
2nd generation
winegrower

Learn more about the Sangiacomos and their sustainable practices at sonomawinegrape.org

CALIFORNIA CODE OF
SUSTAINABLE WINEGROWING

SECTION 3-1, CATEGORY 4.2

VINE
BALANCE



VINE PHENOLOGY WAS RECORDED USING
A METHOD SUCH AS THE MODIFIED E-L **
SCALE, OR BY DOCUMENTING VARIOUS
PHENOLOGICAL DATES.

SONOMA
COUNTY
WINEGROWERS

BY 2019 EVERY SONOMA COUNTY VINEYARD WILL BE CERTIFIED SUSTAINABLE.



SUSTAINABLE FARMING IS AN ONGOING COMMITMENT TO A DETAILED SET OF BEST PRACTICES. TO SONOMA COUNTY GRAPE GROWERS, IT'S SIMPLY WHAT WE'VE BEEN DOING FOR GENERATIONS – MAKING WINE BETTER BY TAKING CARE OF THE LAND AND THE PEOPLE WHO LIVE HERE. FOR YOU, IT'S EASY. SONOMA COUNTY ON THE LABEL MEANS YOU'RE SUPPORTING SUSTAINABLE AGRICULTURE.



SEE THE OTHER 137 WAYS WE'RE MAKING BETTER WINE MORE SUSTAINABLY AT SONOMAWINEGRAPE.ORG

Small Grower Certification Pilot Program

In 2012, Sonoma County Winegrowers partnered with CSWA to launch the first pilot program in California to assist small growers in obtaining sustainability certification at no cost. Twelve growers with vineyard acreage ranging from 5-26 participated and helped to identify methods for reducing audit costs and minimizing barriers to certification. Ten growers completed the program in 2014.

Technology: Tools to enhance the natural environment *continued from 19*

“We believe strongly in preserving biodiversity while promoting natural insect control. We also have a no trapping mammalian policy for pest control involving owl and blue bird boxes as well as raptor perches. Coppola is bee friendly farming certified with hives on the grounds. One-third of every bite you eat is bee pollinated, so these members of the hymenoptera family are vital to effective long-term production. Furthermore, we don’t use Imidacloprid insecticides that can contaminate birds,” said Asimont.

All winery byproducts are 100 percent recycled. Improved packaging uses less glass and weight in bottles, and recycled labels and boxes are also used.

Coppola has an employee volunteer Green Team that implements holistic programs. They replaced plastic cups with paper. On special Coffee Days everyone shows up with their own mugs. In exchange for green practices, employees earn Coppola Bucks that can be exchanged for merchandize in the company store. They started a car pool and help host an annual fall health fair offering free flu shots, health advisors, Yoga and fencing vendors, terra vegetables, blood pressure and BMI tests to support human resource viability.

“Ours is a fun place to work,” added Asimont. “What we’re doing is very cool and all these things are coming organically from our employees. Mr. Coppola sees it as a civic duty when doing so much work in agriculture to do the right thing and to let people know we are doing as much as we can to protect the environment.”

RODNEY STRONG WINERY & VINEYARDS

Rodney Strong has been in-

involved in a formal sustainability program since 2002 and was one of the original pilot wineries to complete CSWA certification in 2010. “The code is a great resource for seeing where you are today, what you can do to improve and how to develop an action plan moving forward,” said Ryan Decker, grower relations manager with Rodney Strong, who works closely with Doug McIlroy, director of vineyard operations, and a SCW Commission Board member.

The winery uses Pyra monitors on weather stations to calculate moisture loss so they don’t over/under irrigate. They also utilize regulated deficit irrigation techniques such as reducing the vine canopy to produce fewer leaves.

“We changed out our lighting to use lower wattage and installed motion sensors. Our new cellar uses LeGarde square fermentation tanks giving us 30 percent greater capacity by saving space, since we can now stack these tanks. Our HVAC and glycol systems have also been upgraded to achieve better efficiency.”

Looking ahead, Decker said Rodney Strong is buying twice as much fruit as it grows, so the next step is to get its 75 to 100 growers on board with sustainability certification, since only five or six are certified today. “Some have done self assessments and many are actively considering early certification adoption. We are conducting a survey to see which ones are certified or in the process.”

He said all of Rodney Strong’s estate vineyards are certified and its vineyard management company, Vino Farms, Inc., is involved with documenting results. “In 2015 we will also hire a new person to handle in-house data collection. Every time you interact with the

environment there is potential to alter the delicate balance of nature, so we want to do it right. Our team includes a lot of fishermen who are also very concerned about preserving fish habitat.”

“Our owner, Tom Klein, wants to ensure that what we do benefits the future. Employees are given a card that defines Rodney Strong’s values and mission that says: We aspire to preserve and protect the environment in all operations.” Tom wants his company to be growing grapes 100 years from now. “It’s our land and we want to take care of it,” Decker said.

ST. FRANCIS WINERY & VINEYARDS

With a family legacy that goes back to 1852 in Petaluma, St. Francis Winery President and CEO Christopher Silva knows that the essence of family farming means preserving resources for future generations. “We incorporate this concept in what we call green practices today,” he said.

St. Francis farms more than 420 acres of estate vineyards in Sonoma Valley and Russian River Valley that are all certified sustainable under CSWA. In 2004, the firm installed its first 457 kWh solar energy system over its cellar and barrel room and receives 46 percent of its energy needs from the sun – enough energy to supply 450 homes. Today the company is moving toward expanding its environmental practices and sees itself as stepping into an advocacy leadership role.

“We embraced the objective of the Sonoma County Winegrower community to be 100 percent sustainable within five years. St. Francis was certified sustainable in 2013-14. We believe in the 3E’s of sustainability – Environment,

Economy and Social Equity – when it comes to healing the land.”

He said protecting the environment involves a broad range of topics such as water conservation, recycling, using eco-friendly packing with 25 percent less glass, and the creation of an on-site sustainable vegetable garden to support its culinary programs. St. Francis has also switched to irrigation nozzle reducers, plants cover crops in rows and has taken aggressive steps to manage erosion and looks for other ways to care for the environment. Economic measures include being a viable enterprise so portions of profits can be used to sustain and replenish the ecosystem. Social equity means being a best place to work with an emphasis on workforce wellness.

“Over the years we have been recognized for our efforts to improve worker nutrition, exercise, education and overall lifestyles for the entire family among employees and especially for those who may not have had access to this information in the past. Experts are brought in to talk about stress reduction, planning a balanced diet and other timely topics,” Silva said.

Jake Terrell, St. Francis’ vineyard manager, is a leader in sustainability and was one of the authors of the code. In 2004 both Christopher and Jake – along with other members of the St. Francis management team – saw the objective of 100 percent sustainability as a distinct possibility. Today it is going viral and becoming contagious.

“If you keep talking about sustainability and certification, others will follow because people care, and also because it is the right way to run a business,” he added. “The marketing goal for achieving

this involves internal programs among vineyard and winery owners addressing values and how eco-friendliness affects the quality of wine. It also includes a public education component to show everyone that green practices are not limited to certain people or businesses, and that vineyards and wineries are on the leading edge of compliance.”

When it comes to conservation, the company “walks the talk” and today focuses on responsible irrigation by using 25 percent less water. St. Francis deploys aircraft to take photos to measure irrigation efficiency, also revealing the least and most watered areas. The winery utilizes deficit irrigation practices (giving vines less water) resulting in lower yields but better quality wine. “We would like to use drones someday to perform these flyovers when this technique is permitted.”

“It’s an exciting time for me as a fifth generation farmer in Sonoma County to explore ways to improve the quality of life and to help create a blueprint for making good choices down the road.

“After 45 years we are replanting our vineyard with the next generation in view by adding merlot and chardonnay, upgrading irrigation and finding new ways to conserve water. We are also restoring creek areas to control erosion and implementing other vital initiatives. At the end of the day, sustainable viticulture involves getting out of the way and letting Mother Nature do her thing,” Silva observed.

Shone Farm: Sustainable Practices *continued from 16*

students annually taught by seven full-time and 50 adjunct faculty.

“We don’t have marketing staff in our program, so students go out and learn how to sell our products. They learn marketing by actually doing it. We tell them, if you want to be in agriculture, you have to make money and be economically viable. Last year our products generated over \$1 million in revenues and we believe 2014 will see over a 10%

sales increase,” he said.

The entire farm is a sustainable campus where 15 to 20 classes are held each semester incorporating a hybrid learning approach combining classroom theory with field experience in courses focusing on the sustainable production of wine grapes, apples, olive oil and vegetables.

“We received a \$250,000 National Science Foundation grant that spans over three years

to support our sustainable agriculture curriculum and also includes bringing in high school students for a two- week Summer Academy,” Dr. Srinivasan said.

“In addition, we are working with other community colleges in developing a sustainable wine grape curriculum for use by all California Community Colleges that will also be available for use in four-year programs with some classes offered online.

Shone Farm has a student-run Wine Club started in 2013 that boasts almost 100 members. “Wineries want students to come to them with experience and ready to work on day one. We’re giving them practical know-how across the board from growing grapes to making wine and selling it, while instilling within each a love for the environment, preservation and ways to sustain and replenish natural resources,” remarked Dr. Srinivasan.

E. & J. Gallo is Preserving and Improving Habitat Around its Estate Vineyards

Gallo's commitment to sustainability is a core value that originated with the winery's co-founders Ernest and Julio Gallo in the late 1930s and has grown in importance over the last 80 years.

"We led the way in developing and refining a variety of environmentally-friendly practices, including minimizing the use of synthetic chemicals, fertilizers and pesticides in the vineyards; recycling and reusing processed wastewater; and, creating new wetlands and protecting existing riparian habitats to benefit a variety of plants, fish and wildlife," according to Jim Collins, senior director of vineyard management at Gallo.

"Our commitment to the environment is so strong that the E. & J. Gallo Winery took the lead in drafting and implementing the Code of Sustainable Wine Growing Practices as part of a collaborative effort with the Wine Institute and the California Association of Winegrape Growers.

The company's sustainability practices also include installing owl and kestrel hawk boxes on Gallo ranches throughout California to serve as natural predators against a variety of rodent pests that can do thousands of dollars of damage to grape vines.

At the Two Rock Ranch in Sonoma County, Gallo uses falcons to chase starlings away from ripening grapes in the days leading up to the start of harvest. This effective natural solution replaces costly techniques such as placing nets over vineyards or using loud noises and flashing lights that can be effective, but disturb surrounding neighbors.

Gallo has enhanced the natural habitat for other animals as well, such as providing housing for wood ducks to keep predators away from nests, eggs and small ducklings.

The company also maintains populations of predatory insects and has established green belts of natural grasses, old growth oaks, lakes and wetlands that provide beauty as well as a habitat for



beneficial insects. Over the years, research has shown that many harmful insects can be eliminated through the introduction of natural insect predators.

To prevent erosion during winter rains, Gallo plants cover crops in the rows between the vines. These cover crops also provide a nourishing habitat for beneficial insects to breed. Gallo has even researched the most effective times to mow cover crops so beneficial insects will not be disturbed or seek refuge in the vines.

The family-owned company's commitment to protecting and enhancing the environment goes beyond its estate vineyards. Decades ago, Julio Gallo introduced an innovative approach to land conservation in Sonoma County known as the "50/50 Give Back" plan which continues today at all of the firm's coastal vineyards.

For every acre of land planted in vineyard, Julio set aside one acre of property to protect and enhance wildlife habitat. Today, the 50/50 Give Back plan is considered the first principle of our company's sustainable practices.

Gallo has collaborated with community groups, neighbors and others to improve or restore habitat. For example, in Sonoma County the company created more than 16 acres of new wetlands at Gallo's Laguna Ranch in the environmentally-sensitive Laguna de Santa Rosa.

With this addition, there are now more than 37.5 acres of diverse wetlands, which has greatly benefitted a variety of plants, fish and wildlife. Gallo also helped restore access and spawning grounds for salmon and steelhead trout and annually stock Porter Creek with fry from the Warm Springs Dam hatchery at Lake Sonoma. In addition, the original stream course of Archer Creek was restored and the adjoining land was returned to its original condition.

By removing ranch roads near creeks, riparian areas were enhanced along waterways at Gallo's MacMurray Ranch in the Russian River Valley. At the same time, native vegetation was planted and maintained. By lessening pressure on these sensitive lands, the

wildlife habitat in the region has improved.

There are many examples found in the Code of Sustainable Winegrowing to choose from that apply to habitat management, such as Gallo's use of integrated pest management, leading to a reduction in pesticide usage.

The company follows the Code's ecosystem management to ensure that its vineyard practices and stewardship of the non-cultivated areas of company-owned property is managed with the intent of protecting and enhancing ecosystem values.

For a number of years Gallo has utilized a variety of vineyard practices to prevent erosion and sediment from reaching nearby streams. No resource is more important than water, which is why vineyard water management has been a top of priority at Gallo for decades. This includes an intense focus on vineyard water management to minimize the amount of water used to irrigate the vines only to a level that the plant actually needs.

FAQs About Sustainability

Let's say in 5 years you achieve 100% sustainability, how do you plan to maintain that long term?

The beauty of a sustainable approach is that one always finds new ways to improve and progress. With this effort, that should only continue in the years ahead. Always improving and always sustainable, that is our goal.

How do you respond to those who might argue that this sustainable farming initiative does not go far enough to protect the environment?

No other region in the world has undertaken such an ambitious goal of wineries and winegrowers working together to benefit and enhance the environment so it would be difficult to see how anyone could criticize this effort for not doing enough. We would also tell anyone skeptical of our initiative to take some time and review the Code of Sustainable Winegrowing manual. You'll quickly learn that between the farms and the wineries, our practices are measured on more than 200 criteria from soil management, water management, pest management, energy efficiency, and so many other important factors. It's very comprehensive. Learn more at <http://www.sustainablewinegrowing.org/aboutcswa.php>.

OUR CREED

WE ARE FARMERS ALWAYS

WE ARE GRAPE GROWERS TODAY

WE BELIEVE IN PRESERVING AGRICULTURE FOR FUTURE GENERATIONS

WE SEE SUSTAINABILITY AS OUR COMPASS FOR BETTER FARMING AND BUSINESS

WE UNDERSTAND THAT HISTORY OFFERS A GUIDE TO MAKING DECISIONS IN THE FUTURE

WE BELIEVE IN CONTINUOUS LEARNING, IMPROVEMENT AND COLLABORATION

WE ARE POSITIVE CONTRIBUTORS TO OUR COMMUNITY AND INDUSTRY

WE ARE CARETAKERS OF THE LAND WE INHERITED ON BEHALF OF THOSE WHO WILL INHERIT IT FROM US

SONOMA COUNTY: THEN. NOW. FOREVER.

**SONOMA
COUNTY
WINEGROWERS**

FIND SONOMA COUNTY GRAPES AT [SONOMAWINEGRAPE.ORG/MARKETPLACE](https://sonomawinegrape.org/marketplace)