WINE INSTITUTE
THE VOICE FOR CALIFORNIA WINE

Sustainable Winegrowing Practices

May 2002

Highlight of the Month: Wildlife Corridors and Habitat

Preserving wildlife corridors and habitat near vineyards can provide refuge for beneficial insect and animal predators, as well as reduce erosion and act as a buffer for waterways. Providing ecological diversity improves the health and beauty of the landscape and enhances relationships with the community and government agencies.

Throughout California, there are many wine-growers protecting the natural environment in and around their vineyards. They are preserving creeks, wetlands, grasslands, oak woodlands, vernal pools and more. This issue looks at why three wineries pursued their conservation projects and how they manage these habitats in relation to their vineyards.

Preserving Grasslands and Wetlands at Bronco's Lodi Vineyard

Six years ago, Bronco Winery partners were seeking to expand their Lodi vineyards at Clay Station near the Delta. The surrounding land was a vast expanse of vernal pools, native grasses and wetlands, so the partners wanted to find a way to develop their property that would meet their goals as well as serve the interests of the public, environmentalists and government agencies.

After a series of meetings with the Army Corps of Engineers and environmental groups, the Bronco partners developed a plan that was both a good financial decision and had good environmental practices. Adjacent to the vineyards and the expansion, the partners preserved a 300-acre refuge with native habitat and six reservoirs. Wood ducks, red wing blackbirds, owls, hawks, bullfrogs, fairy shrimp, coyote and many other species find their home in the refuge. The native grasses and flowering vegetation provide habitat for this wildlife and add to the simple beauty of the open landscape.

"We worked out a plan that was compatible for everyone involved," says Bronco partner Bill Rossini of Rossini Farming Company in Ceres. "It was a win-win situation with give and take on both sides. In the process, we developed better relationships."

Rossini explained that they pursued the project because the climate, marginal rocky soils and low rolling hills were ideal for growing great quality winegrapes. The wetland areas also recharged the ground water, providing a consistent source of water in addition to year-round habitat for waterfowl.

And what is it like farming next to a refuge? Rossini says most of the bird species at the property don't eat grapes. However, his company still uses reflective tape, whistles, "poppers" and "eyeballs" to scare birds away during harvest. They are also on the lookout for rodents that feed on grapevine roots and cause burrowing damage. Mowed, no-till vineyards can provide habitat for these pests, so Rossini uses a clean culture in the

A dry vernal pool harbors fairy shrimp eggs at the 300-acre wildlife preserve established by Bronco Wine Co. partners near their Lodi vineyards.

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vineyards and hires a crew to set manual traps to catch gophers and voles. Hundreds of bird boxes also dot the landscape to attract birds that prey on pests. Rossini says eliminating the use of poisons was the best decision.

"Farmers are number one as environmentalists," says Rossini. "However, anything we do is not an option if it's too expensive. To be sustainable, revenues need to exceed expenses. Fortunately, because we have new farming technology, biological advances in soft chemistry and efficient systems for production, it's possible to maximize wine quality and quantity as well as practice sustainable methods."

Benefits of Establishing and Preserving Habitat:

- *Encourages presence of owls, hawks and other predators that lower rodent pests*
- *Can provide refuge for natural insect enemies*
- *Certain habitats can reduce soil erosion on hillsides and stream banks*
- *Habitats can act as buffer for waterways and improve water quality by filtering water as it moves into the waterway*
- *Riparian vegetation can offset flood damage to vineyards by acting as a "sieve" for trees and other debris washing in during large floods*
- *Preserving a wetland can provide groundwater recharge*
- *Biodiversity can increase the stability and health of ecosystems*
- *Wine tourism experience can be improved through aesthetics of the landscape and by providing recreation to observe wildlife in the habitat, particularly bird watching*
- *Enhances relationships and builds public trust in winegrowers as stewards of the land*
- *Protects the environment on one's own volition, rather than through more regulation or other pressures*
- *Can allow development of private land supporting threatened species if conservation measures are taken*

Potential Trade-offs:

- *Leaving setbacks can decrease land area used for farming winegrapes*
- *Establishing and maintaining habitat can increase management costs*
- *Can provide habitat for pests, such as grape-eating birds*

Restoring Wine Creek at Quivira Vineyards

For the last three years, Henry and Holly Wendt of Quivira Vineyards have been restoring their portion of Wine Creek in the Dry Creek Valley to increase the numbers of salmon migrating upstream to spawn there. Only fifty years ago, the fish were so plentiful that people pulled them out with pitchforks. Now the returning fish are few. The spawning streams have been adversely affected by gravel mining downstream, road building, and agricultural practices that allowed silt to erode into the spawning gravel beds—actions that are carefully restricted now.

Since buying the vineyards in 1980 and learning more about their history, the Wendts became acutely aware of the precious nature of their 90-acre environment. The bank of Wine Creek is a registered site of a Pomo Indian fishing camp where the Pomos once smoked salmon and steelhead.

"It was a transforming experience to see wild fish come up and spawn each year in our creek," says Henry Wendt. "We wanted to bring Wine Creek back to what it was as a habitat for spawning. Restoring the creek seemed only responsible."

Working with the Fish and Game Commission and USDA on this ambitious project, the Wendts installed seven low fall dams to provide pools for the young fish and help rebuild the gravel beds for spawning. The Wendts also pulled back the steep banks to prevent them from collapsing into the water during heavy rains. To do this, they had to pull out a few rows of vines along a quarter of a mile of the creek. Trees and shrubs are maintained along the banks to stabilize the soil and provide shade for fish. To finance the work, USDA made a grant available for the restoration, and the Fish and Game Commission also partially matched funds that the Wendts invested into the restoration.

Quivira's Henry Wendt explains how they regraded stream banks to help restore Wine Creek as a spawning destination for returning salmon.

"We worked cooperatively and harmoniously with these government agencies. It has been a satisfying project that improved our relationships throughout," says Wendt.

"Also, our neighbors have followed suit and embarked on similar restoration projects on their portions of Wine Creek."

Wendt says the project has even improved winery visits in the winter months, particularly February and March, when the fish are at their peak.

"It's a lot of fun for our staff and visitors to see the fish come in."

Conserving Marshlands at Viansa Vineyards

Each year, more than one million birds visit the 90-acre waterfowl preserve at Viansa Winery and Vineyards in Sonoma's Carneros region near San Pablo Bay. Over 156 bird species have been sighted, including golden eagles, tundra swans, canvasback ducks and the threatened tri-colored blackbird. The wetlands also support a diverse array of grasses and wildlife. The refuge is the result of years of planning by third-generation vintner, Sam Sebastiani, who established the wetlands in 1993.

The Viansa wetlands attract one million birds annually and provide an opportunity for winery visitors to see birds in a natural habitat.

When Sebastiani and his wife, Vicki, purchased the winery property in the late 1980s, they found the location desirable for several reasons. The mild Carneros climate and rare red soils on which the winery was built were ideal for growing red wine grapes. Under that soil was a concrete volcanic ash silt, a preferred material for building caves. The location was also well situated for visitor traffic, as Viansa is one of the first wineries encountered traveling from the Golden Gate Bridge. That more than half of the winery's 175 acres was seasonally flooded and too wet for vineyards did not deter Sebastiani from purchasing the land. A conservationist like his father, he envisioned the creation of the wetlands.

Working closely with the conservation group, Ducks Unlimited, and the U.S. Army Corps of Engineers, Sebastiani spent years meeting with county, state and federal agencies to approve the project. He and Vicki put up the land while Ducks Unlimited provided expertise and a grant to build the wetlands. To help Ducks Unlimited recapture some of their funds, Sebastiani created special red and white wines where a dollar from the sale of each bottle is donated to that organization.

To build the 90-acre marsh, Sebastiani had a mile-long levy constructed to keep the water depth at about 18 inches to establish plants for food and cover for the waterfowl. To mitigate the loss of 3.9 acres from building the levy, Sebastiani had four more acres dug out to create more wetlands. He also put in five islands to provide a safe haven from predators for nesting. Fortunately, wetland birds generally don't eat grapes and the only adjustment to Viansa's cultural practices is timing re-entry into the vineyards so that crews don't disturb ducks nesting in habitat near the vineyard.

"At first, I engaged in the project because it was beautiful and interesting, but now I have been amazed at the huge volume of positive attention. We've received goodwill not only from visitors, but from groups such as the Sierra Club, Smithsonian Institute and Center for Private Conservation," says Sebastiani.

Indeed, Viansa's wetlands offer an unusual attraction to the winery's 100,000 visitors. Guests have the opportunity to see the lifecycle of birds in a natural setting by strolling along trails to observation areas or viewing the panorama through high-powered telescopes in the winery picnic grounds. People can also enjoy Viansa's wetlands through a new Sierra Club book, "The Winemaker's Marsh."

Resources:

Incentive/Cost-Sharing Programs:

- *U.S. Fish and Wildlife Service, Partners for Fish and Wildlife Program, Dan Strait, 916/414-6456, www.ceres.ca.gov/wetlands/introduction/partners.html. Also ask about other incentive programs: Safe Harbor Policy, Candidate Conservation Agreements with Assurance Policy, Habitat Conservation Planning*
- *Natural Resource Conservation Service. Call local district conservationist about WHIP program. Funds available FY 2002, www.nrcs.usda.gov/programs/whip or www.attra.org/guide/whip.htm*
- *California Department of Fish and Game, PLM program, Craig Stowers, 916/445-3553, www.dfg.ca.gov/habitats/private.html*

Additional Information Sources on Habitat Enhancement:

- *Yolo County Resource Conservation District, www.yolorcd.ca.gov*
- *East Bay Municipal Utilities District, Kent Reeves, 209/335-1096*
- *Ducks Unlimited, Inc., 916/363-8257, www.ducks.org*

THE CODE OF SUSTAINABLE WINEGROWING PRACTICES

In early 2001, leadership and funding from Wine Institute and the California Association of Winegrape Growers (CAWG) led to the formation of a subcommittee to develop a "Code of Sustainable Winegrowing Practices." This proposed voluntary program, establishing statewide guidelines for sustainable farming and winemaking, is still under development and is expected to be introduced to the wine community within the coming year.

Purpose: The purpose of the project is to enhance the California wine industry's leadership role in responding to pressures resulting from population growth, public and legislative attitudes, environmental decisions from regulatory and governmental bodies, and other growth-related issues. The new Code, and its implementation, can greatly augment the industry's collective and unified ability to accommodate these pressures, while assuring that future generations can produce the finest world-class wines. The goal of the Code is to "promote farming and winemaking practices that are sensitive to the environment, responsive to the needs and interests of society-at-large, and economically feasible in practice." In a recent address to Wine Institute's Board of Directors John De Luca characterized the proposed Code as "most likely the greatest legacy we can create for the wine community, our larger society, and generations yet unborn."

Project Status: Close to 50 Wine Institute and CAWG members, as well as outside stakeholders such as representatives from Cal/EPA and independent farm advisors, sit on the subcommittee spearheading the project. Subcommittee Chair Michael Honig leads work on this first-ever statewide initiative, which will include a system to measure the voluntary industry input from vineyards and wineries. The data collected from the project will be used to benchmark the wine community's progress on sustainability and target educational campaigns where needed. The winegrowing portion of the guide book will build upon the successful programs of the Lodi-Woodbridge Winegrape Commission and the Central Coast Vineyard Team. Feedback from regional grower and vintner associations and a wide range of academia, environmental and social equity communities has played an important role in the Code development. Dr. Jeff Dlott of RealToolbox, a sustainable agriculture and resource conservation consulting firm, has been contracted to help oversee the project and measurement system.

Next Steps: In March 2002, the Wine Institute Board of Directors provided comment and approved a 150-page draft of eight chapters representing half of the guidelines for the Code of Sustainable Winegrowing Practices. The subcommittee and Institute staff are now going forward to obtain outside review of the approved chapters by environmental groups, university educators, regulators and other industry experts. The remaining chapters are being developed and a complete draft of the Code is planned for presentation at the Annual Meeting in June 2002.

To attract additional implementation funds for this project, the Wine Institute Board also approved the establishment of a 501(c)3 nonprofit, non-lobbying foundation in conjunction with the California Association of Winegrape Growers. This was necessary as many philanthropic organizations donate solely to 501(c)3 groups. Named the California Sustainable Winegrowing Alliance, this entity will help advance the adoption of sustainable viticulture and winemaking practices through research and education. For more information on the project, go online to ***www.wineinstitute.org/communications/SustainablePractices/vision.htm***

Upcoming topics for "Highlight of the Month" publications are as follows. For information, please call the Communications Department at 415/356-7520.

- **June – "Communicating with Neighbors"**
- **July – "Increasing Predators and Scouting Pests" ***
- **August – "Assessing and Reducing Energy Needs" ***
- **September – "Composting" ***
- **October – "Controlling Erosion" ***
- **November – "Protecting Air and Water Quality"**
- **December – "Attracting and Retaining Good People"**

***Topics of a seasonal nature are matched to the time of year when the practice takes place.**

The practices of "Wildlife Corridors and Habitat," highlighted in this issue, pertain to the Code of Sustainable Winegrowing Practices in the following areas: Viticulture; Soil Management; Pest Management; Water Management; Water Conservation & Water Quality; Ecosystem Management & Function; and Neighbors and Communities.