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# Sustainability: It's Not Just a Trend Anymore

*Multi-faceted concept goes beyond "green" practices*

If you've been thinking about how your vineyard or winery business can survive the recession, you're thinking about sustainability. You may have noticed that sustainability is all the rage in the wine industry, but it has several facets that should be considered separately to really understand the concept and how it applies to your business.

First, you might think that with all the daily press releases about California wineries installing solar panels or farming organically that the whole thing is some sort of trendy West Coast fad. But consider this: Sustainable agriculture was the default norm for centuries prior to the "Green Revolution" after WWII, so sustainability as a concept is at least as traditional as it is trendy.

## SUSTAINABILITY SUMMARIZED

There are three guiding principles to sustainable farming: environmentally friendly practices, such as minimizing synthetic inputs and erosion; economic feasibility; and social responsibility. The latter means minimizing any negative impact on the surrounding land and also having a positive influence on the community—including neighbors, workers and customers.

With these principles in mind, you

### SHORT COURSE

- ▶ Sustainable viticulture isn't just a West Coast trend.
- ▶ Its three major principles are being environmentally friendly, economically feasible and socially responsible.
- ▶ Sustainability can include winery design, water management, packaging and energy issues.
- ▶ A handful of Eastern wineries are putting a strong emphasis on sustainability.

can do a lot to improve your sustainability without having to get formal certification. For example: recycling, increasing water and energy efficiency, geothermal cooling, using "green" building materials, and pressuring suppliers to use environmentally friendly practices and products.

As Nancy Irelan of Red Tail Ridge Vineyards on Seneca Lake points out (see cover story), sustainability has become a consumer expectation, especially with the Millennial generation, which is driving growth

in our industry. You can't afford to be viewed as having callous indifference to the environment in these times.

## ORGANIC AND BIODYNAMIC FARMING

There's been a lot of focus on organic and biodynamic farming as specific methods of implementing sustainable farming. These are different (but complementary) methods that also offer certification programs. A primary goal of both is to reduce the impact of synthetic inputs on the land and the crop, while simultaneously encouraging the health and vitality of not only the crop (or vines) but of the whole ecosystem of the farm. Biodynamic farming takes this a step further by using the ancient model of a farm balanced between animal hus-

bandry and agriculture. This creates a naturally complementary system of taking waste material from both and recycling them with some natural inputs into compost which then allegedly boosts the health and vitality of the soil and plants. Another difference with biodynamic farming is the timing of applications, coinciding with seasonal and lunar cycles to have the proper effect. While this might sound like a lot of hooey to some of you (and you know who you are), consider that fishermen in Maine can't operate without consulting the tidal charts, which illustrates the graphic effect of the moon on the sea at those latitudes.

## EASTERN WINERIES MAKE SUSTAINABILITY A PRIORITY

Along with Red Tail Ridge, two other Eastern wineries are putting an emphasis on sustainability: Southbrook Vineyards of Niagara on-the-Lake, Ontario, and DeFosse Vineyard & Winery in Nelson County, VA (Monticello AVA).

Last fall, Southbrook became the first Canadian winery to have its vineyard certified biodynamic (it was earlier certified as organic), and its new hospitality pavilion has earned a gold-level LEED rating (Leadership in Environmental and Energy Design). DeFosse Vineyard & Winery's sustainability program has earned it a "Virginia Green" certification from the Virginia Department of Environmental Quality, the Virginia Hospitality and Travel Association and the Virginia Tourism Corporation. Southbrook's new LEED-certified pavilion features: daylight in 95% of the working areas, wastewater management with bioswales and reed beds, low-flow fau-





Southbrook Vineyards of Niagara on-the-Lake, Ontario, earned gold-level LEED certification for its new hospitality pavilion.

cets and toilets, optimizing energy performance, use of local and recycled materials, and indoor air quality enhancement.

Southbrook Director of Winemaking and Viticulture Ann Sperling points to leading Old World producers who are certified biodynamic, including Zind Humbrecht in Alsace, Chapouti-

nessed the wonderful results that biodynamics has had on our wines. It's startling—the vitality of these wines gives a whole new dimension."

Proprietor Claude DeFosse of Virginia's DeFosse Vineyard & Winery took note of the increased focus on sustainability and thought that getting a green certification could be a mar-

ket asset. To assess his operation, he consulted several sources including the International Wine Industry Greenhouse Gas Accounting Calculator, the New York State Sustainable Viticulture Program's workbook, the California Sustainable Winegrowing Alliance, and the book "True to Our Roots," by Paul Dolan.

First, DeFosse conducted a carbon footprint assessment of his vineyard and winery operation. The International Wine Industry Greenhouse Gas Accounting Calculator uses three "scopes" to make the calculation. The first scope is direct carbon emissions on the actual site. The second scope is the indirect emissions from the production of purchased electricity, heat or steam. The third scope is based on evaluating the carbon footprint of one's suppliers. Looking at his own operation, DeFosse calculated that he produced 54 short tons of carbon per vintage (scope one), and 86 short tons of carbon through purchased electricity (he now produces 4,500

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**Claude DelFosse of DelFosse Vineyard & Winery shows off his Virginia Green certification.**

cases annually). The biggest carbon culprit, however, was in his glass bottles (99% of scope three), which totaled 166 short tons.

To get the green certification, DelFosse drew up an action plan to reduce his carbon footprint, including ordering lighter-weight bottles. The vineyard now has sheep and lla-

mas to replace mechanical grass cutting; employs cover crops for weed management and composting of manure, pomace and cane chippings; uses 54% organic spray material; uses natural herbicides and raptor refuges; and employs erosion control and wastewater management evaluation as outlined in Virginia Green's "Pollution Prevention Practices."

An integrated pest management program includes construction of bluebird boxes and monitoring of a bluebird trail in collaboration with the Virginia Bluebird Society and planting of native plants to attract beneficial insects, sponsored by the Wintergreen Nature Foundation. DelFosse also has developed a forest stewardship program (a professional forester has estimated that 9,530 tons of carbon are sequestered in the 239 acres of forest

biomass on the property). There are even guidelines in place for "green events" as outlined in "Environmentally Responsible Conferences, Meetings and Events," published by the Virginia DEQ.

### TASTING THE DIFFERENCE

For some people, farming organically or biodynamically is its own reward in its positive impact on the earth, but in this business, many people also look to the positive impact these methods make on grape and wine flavor and quality. Based on my tasting experiences in Ontario, the Finger Lakes, and Maryland this last year, I can say emphatically that wineries with a strong devotion to these principles are making amazing wines in which terroir shines through, and their quality is fruit-driven, but with more nuanced complexity—unlike some wines that impress critics, but are so over the top that you can't finish a glass of them.

Examples include Le Clos Jordanne on the Niagara Peninsula, which com-

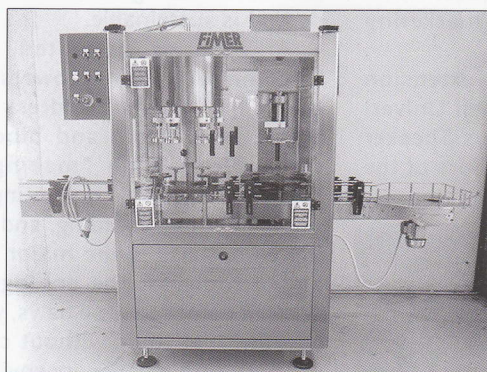


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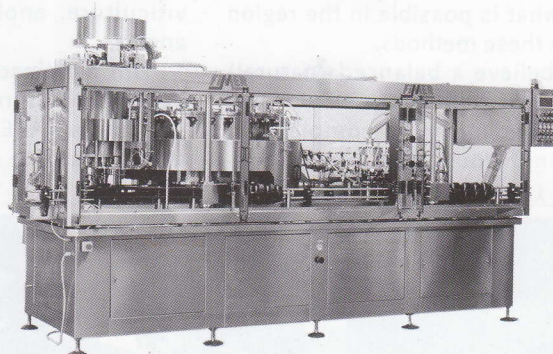
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**Black Ankle Vineyards in Maryland farms its vineyards using biodynamic and organic practices.**

bines the best of Burgundian tradition with careful and clean winemaking; Red Tail Ridge; and Black Ankle Vineyard in Maryland's Linganore AVA (Frederick Co.). Black Ankle farms biodynamically and as organically as possible and won the 2008 Maryland Governor's Cup with a cabernet franc-dominated red Bordeaux blend that was not only the best Maryland wine I've tasted yet, but showed the potential for what is possible in the region and with these methods.

"We believe a balanced (natural) environment will lead to a balanced, healthy vine and more complex and interesting wines," Black Ankle pro-

prietor Ed Boyce said. And his wines certainly seem to support this view.

### EXPLORING SUSTAINABILITY IN THE EAST

At Wineries Unlimited (WU) this year, our theme is sustainability—both environmental and economic. "What does sustainability mean in the East?" is the topic of the plenary session, and speakers will explore this question on viticulture, enology and marketing angles.

Tim Martinson, senior extension agent (viticulture) at Cornell University, and an ASEV/ES Focus Speaker at WU, was one of the authors of the

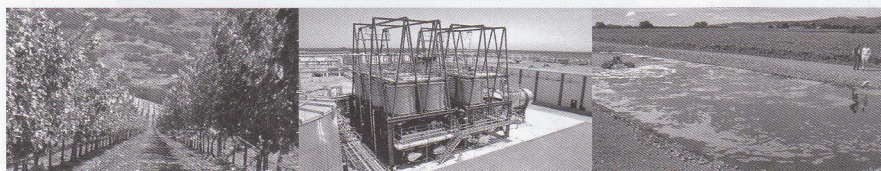
"New York Guide to Sustainable Viticulture Practices." The workbook "was designed to provide grape growers in New York (and the Northeast) with guidance in evaluating and adopting best management practices that minimize environmental impacts, reduce economic risks, and protect worker health and safety." Impressive because it combines and synthesizes best management practices across hundreds of miles, diverse soils, and three species of grape varieties, the workbook has a self-assessment guide that lets growers review their practices and score themselves from one to four, or "low risk" to "high risk," and includes an action plan template.

Martinson explained that the workbook doesn't include specifics on organic or biodynamic methods, but that "any producer striving to be organically certified would score well" on the self-assessment. It's about practices that reduce environmental risk with (in our case) a particular focus on preserving and maintaining water quality in the Finger Lakes."

We should know by now that strict organic viticulture is risky in the East, not just because of fungal diseases in general but because there's no "organic" preventative application for black rot. But as seen in the sustainability programs of Red Tail Ridge and Delfosse, that doesn't mean that it's not worth seeing how much you can do that is sustainable.

At Wineries Unlimited, a panel of commercial winegrowers and an extension agent will address conventional vs. organic and biodynamic viticulture. While "making wines that sell" is a basic marketing motto, understanding, avoiding, and mitigating wine flaws is the major sustainability topic for the enology focus. When it comes to wine flaws, you can't address that topic without considering both fruit and winery environment hygiene, which will also be addressed at the WU conference.

Hope to see you there!



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