Interest in organic winegrowing is increasing

by Glenn McGourty

The term “organic” is used both to describe a market niche and a legally defined way of farming. As codified by the U.S. Department of Agriculture’s National Organic Program (USDA NOP), organic farming is:

“An ecological production management system that promotes and enhances biodiversity, biological cycles and soil biological activity. It is based on minimal use of off-farm inputs and on management practices that restore, maintain and enhance ecological harmony” (NOSB 1998).

Major objectives of farming organically are to improve soil quality by building soil organic matter; use only naturally occurring fertilizers and crop protectants (no synthetic materials allowed); recycle crop residues and animal waste by composting and/or incorporating them into the soil; emphasize integrated pest management (IPM) to control pests, diseases and weeds; and create a safe and productive environment for crops and people working on the farm.

Certification. In order to legally use the term “organic” on a product label, the grower must become “certified” by a third-party agency (such as California Certified Organic Farmers, Oregon Tilth or Demeter Stellar), which assures that USDA NOP regulations are followed. A 3-year transition period is required, in which an Organic System Plan (OSP) is implemented. Typically, this includes: not using conventional crop protectants and fertilizers; implementing a soil fertility program with cover crops and compost; and developing a pest management program with spray materials approved for organic growing. (The transition period can be shortened with proof that no restricted conventional materials were applied before the certification process started.)

When organic certification is completed, growers must register their production area and processing facility (for winemaking) with the state of California. The cost of certification and registration varies depending on the area farmed and crop value, but usually ranges from one-half to one percent of the crop value.

Crop protection. Organic winegrowers do spray crop protectants such as wettable sulfur, potassium bicarbonate and minerals, but these materials tend to be environmentally benign and not particularly toxic to workers. The materials must be approved by the third-party certifiers and the USDA NOP for use in organic farming. For wine grapes, an important goal is to create “balance,” in which vines are adequately cropped so as not to be excessively vigorous — but not over-cropped — so that the resulting wine is of the highest quality. This involves moderate applications of fertilizer and water, as well as careful canopy management to insure that diffused light penetrates and the fruit zone is aerated, while at the same time minimizing conditions that encourage pests and diseases.

Organic wine. Wine created from organic grapes must be made in a facility certified for organic production, in which strict guidelines are followed that prohibit toxic chemicals and synthetic additives. There are two NOP-defined categories of wine made from organic grapes. First, “organic wine” contains no added sulfites (which are used to preserve and stabilize wine from unintended microbial degradation). However, organic wine is notoriously inconsistent and unpredictable in quality, and is mostly consumed by people who are sensitive to sulfites (a relatively small market niche). Second, “wine made from organically grown grapes” allows the use of sulfites at lower levels than conventionally processed wine. The majority of organic wine-grapes in California are used to make the latter.

State and global acreage. Interest in organic winegrowing has grown steadily over the past decade. In 2006, almost 8,000 vineyard acres were certified organic (CDFA 2006). Total global acreage of organic grapes is estimated at just over 228,000 acres in 31 countries (including California acreage), with Italy alone producing 77,000 acres (Willer and Yussefi 2006). Most California acres are in coastal wine-
Growing districts: Mendocino County has the most with about 3,000 certified acres, and Napa County is next with 1,600 acres. Significant acreage is also certified in Lake, Sonoma, Santa Barbara and San Luis Obispo counties. Oregon and Washington growers are also certifying significant grape acreage in organic production.

Why grow organic grapes?
Growers farm vineyards organically for many different reasons. Most have a strong conservation ethic and want to minimize potential harm to the environment, workers, neighbors and their family, since many growers reside near their vineyards. They also embrace farming with nature, and want to encourage biological diversity on their property. They recognize that their farms can provide other ecological services, such as habitat for beneficial insects and birds of prey; the recycling and sequestering of organic matter; and protection for the overall health of their watersheds. Others are interested in achieving a very high-quality product, and potentially increasing their income. Finally, organic winegrowers manage their vineyards as mini-ecosystems, striving to increase biodiversity in the soil, for example via the use of cover crops. Organically managed soils have higher biological activity than conventionally managed ones, possibly due to more efficient resource utilization and diverse flora and fauna (Mader et al. 2002; Reeve et al. 2006).

As organic matter is added, organisms in the root zone appear to change the dynamics of disease expression on the vine roots. Organically farmed vineyards infested with phylloxera have been shown to last many years longer than conventionally farmed vineyards attacked by phylloxera, although they do need to be replanted eventually (Lotter et al. 1999). Diverse microflora in the soil suppresses pathogenic fungi that attack grapevine roots damaged by phylloxera.

Some growers feel that the quality of both fruit and wine improves after organic winegrowing practices are adopted. Grower experience has shown that under most conditions, organic winegrowing is both cost effective and productive, and does not reduce yields or quality (Klonsky et al. 1992; Weber et al. 2005). There is no specific premium for organically grown fruit, because wine-grape lots are judged on their individual merits and are more affected by region of production (appellation), variety and intended price-point (such as a finished bottle of wine).

Finally, some organic winegrowers don’t bother to register and certify their vineyards, because they see no market or competitive advantage to doing so. Rather, they find that farming organically personally satisfies and meets their production objectives.

References


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Grape growers may choose to farm organically to minimize environmental damage, encourage biological diversity or position their products in the marketplace. Above, mixed cover crops at Bonterra Vineyards in Mendocino County.