Organic and sustainable production

The adoption of organic and sustainable grape and wine production practices is increasing around the world in response to a range of factors. Organic and sustainable production systems have many similarities, with both aiming to protect and enhance the natural environment and ecological diversity. The two systems do, however, have different approaches to achieving those aims. In this column.

Liz Pitcher, AWRI Sustainability and Viticulture Specialist, addresses some of the more common questions about these two production systems.



Organic agriculture is based on an internationally recognised definition and set of principles covering health, ecology, fairness and care. The National Standard for Organic and Bio-Dynamic Produce is the Australian Export Standard for products labelled organic or biodynamic. For sustainable agricultural production, there is no internationally recognised definition, set of principles or standard. In the wine industry, the fundamentals of sustainable production are agreed by international organisations including the International Organisation of Vine and Wine (OIV) and the international federation of the beverage sector, FIVS. The United Nations Sustainable Development Goals articulate the range of sustainability issues being considered and implemented internationally; many of which integrate into both organic and sustainable production. In Australia, there is a national sustainability program for grape and wine producers, Sustainable Winegrowing Australia.

Organic production is focused on



the integrity of the end product, with production tracked from inputs in the vineyard right through to the final bottled wine. The use of synthetic inputs is prohibited in organic production (e.g. it is not permitted to use synthetic pesticides, fertilisers or pruning wound dressings; posts treated with copper chromated arsenate or creosote; or winery additives not from natural origin).

Sustainability of vineyards and wineries is broader, focused on managing the production system rather than the end product. It encompasses elements designed to enhance environmental, social and economic aspects of vineyards and wineries including waste, biosecurity and energy management and business continuity. Best management practices for vineyards and wineries that have been developed by industry experts are central to sustainability and although 'softer' agrochemical options are encouraged, synthetic products are permitted.

What are the certification requirements of organics versus sustainability?

To become certified under either system, businesses need to be inspected by

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external third party auditors who are contracted through certification bodies accredited to manage certification to the relevant organic or sustainability standards. For vineyards and wineries, organic audits are conducted every year and sustainability audits are conducted every three years. A typical audit involves both a site inspection and an office-based inspection of the relevant paperwork.

To become sustainably certified, grape or wine producers need to attend a certification training workshop before being audited. The training provides tools and examples of the documentation needed to pass an audit by demonstrating evidence of best management practices in the vineyard and/or winery. To become organically certified, a written Organic Management Plan is required, which documents practices and potential risks to those practices that may compromise organic integrity. Evidence of due diligence is required to ensure all inputs are compliant with organic standards. Some grape and wine producers choose to be certified as both organic and sustainable to meet market requirements. In such cases, the two audits can be consolidated into one, using the same documentation for both, saving time and money while gaining the benefits of both systems.

How long does it take to achieve certification of either organic or sustainable production?

The transition to certified organic takes a minimum of 36 months of no prohibited inputs. In addition, following an initial vineyard audit, a minimum one year 'in-conversion' period is required to become eligible for organic certification. Wineries do not require an in-conversion period; however, they do need to establish systems and processes prior to their initial audit which demonstrate how they propose to maintain the integrity of organically certified wine in their production facility. For sustainability, there is no set time to achieve certification for vineyards or wineries, but for most businesses it takes three to six months to undertake training, implement practices, establish records and have an audit.

Will adopting organic or sustainable production require practice changes in the vineyard or winery?

Becoming certified organic requires a focus on reducing reliance on inputs, with a stronger emphasis on biological and physical processes rather than chemical ones. Cultural practices in the vineyard become more important for pest and disease control (e.g. promoting air flow and sunlight penetration into canopies). Mechanical tillage may be used for under-vine weed control as an alternative to herbicides (e.g. slashing or cultivating to minimise weed seed set). Vine nutritional needs are met through improving soil health to mobilise soil nutrients and make them available to aid vine growth. Foliar fertiliser use is permitted to correct documented micronutrient deficiencies. In the winery, all input products need to be of natural origin and in some target markets, there may be restrictions on winemaking techniques such as filtration and sulfur use.

Achieving sustainability certification for many grape and wine businesses formalises the way they currently operate, with little change needed on-ground. The most common changes for vineyards and wineries are in the areas of biosecurity, waste, energy and chemical storage/management. There are usually additional records to be kept ensuring that the business is identifying risks and is focused on continual improvement. Sustainable certification can be a tool to document vineyard and winery management practices that have previously been followed but not written. Some practice changes may be necessary to comply with the Australian Wine Industry Standard of Sustainable Practice (AWISSP) and achieve sustainable certification.

For more information on sustainable or organic production or any other technical question, please contact the AWRI helpdesk on helpdesk@awri.com.au or 08 8313 6600.

