

The Future is Organic

NO LONGER A NOVELTY,
BUT A NECESSITY

DAVID STEVENS-CASTRO

SO-CALLED 'GREEN' WINE is a very strong rising trend. All over the world, wineries are experimenting with organic and biodynamic techniques. Others are focusing their efforts on carbon emissions and the ability to claim that they are carbon-neutral. Motivations for these forays are inevitably varied - from the genuinely enthused grower who has a developed knowledge of organic agriculture and a keen desire to produce using the best practices possible, to some major corporations purely 'cashing in' on the green dollar.

At this stage, though, it is unlikely that many have fully contemplated the likelihood that in the near future, rather than being a novelty, organic production will be a necessity.

In our desperate search to get greater yields per hectare, we are succumbing to the realities of overuse of all natural resources producing erosion in the soils from neglectful use of the land. Organic farming is emerging as the solution to these problems. It is vital to promote the development of organic agriculture, especially in these times of increasing natural disasters, conflicts between countries and problems caused by the increase in world population. When we choose organic, we support a better way of life.

Essentially, organic agriculture produces food without using synthetic fertilisers or chemicals. This does not mean growing a garden carelessly. On the contrary, it is even more necessary to understand living systems and how they interact. It is of utmost importance to support a balanced relationship between plants, soil, insects and animals.

It is also significant to understand the difference between organic and 'certified organic'. Third-party certification guarantees an auditable check at every stage through the chain of production - from the farm right through to processing, packaging and retail.

Top of the list of methodologies that generates the most controversy - and even some misinformed ridicule - is biodynamic production, which is a form of organic agriculture based on the principles of Austrian philosopher Rudolph Steiner. Steiner created his techniques after World War I to assist farmers who were struggling with less productive crops in increasingly arid soils. In simple terms, biodynamics in food production is based on connecting all the energy sources in the universe, including the sun, moon and Earth - as well as the flora and fauna on our planet. ▶



WE'RE REASONABLY
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It is easy to be sceptical about some of the seemingly pagan rituals, including preparations assembled in cow horns and intestines, designed to increase energy in the soil. On face value this approach can seem like it is based on 'magic' or even farce, depending on your point of view.

As the old saying goes, though, the proof is in the pudding - and the notion of delivering nutrients at the optimum times when plants are responding to movements of the sun and moon does seem to literally 'bear fruit'. In practice, this means sowing and planting with the use of an astronomical calendar and the application of fermented herbal and mineral additive preparations as compost and field sprays.

However, for many, the most important question is whether organic/biodynamic farming can actually be financially viable and even profitable? In the US, a trial founded by the Rodale Institute has been comparing organic farming against conventional for more than 20 years and the results are encouraging. They have found that while initial costs to set up organic systems are higher than for conventional farming, energy use in the conventional system is much higher. Most importantly, groundwater increases in organic systems, with 15-20 per cent higher volume of percolating water and reduced run-off.

Of even greater magnitude for our wine industry is the biggest organic trial ever undertaken in Australia, based on vines. Led by University of Adelaide PhD student Luke Johnston in association with McLaren Vale producer Gemtree Vineyards, this study is researching how conventional, organic and biodynamic vineyard management systems affect soil properties, vine physiology and wine grape quality and is also comparing the running costs of each practice. Project manager of the trial is Dr Cassandra Collins, lecturer in viticulture at the University of Adelaide.

The trial has been set up in the largest of three vineyards owned by Gemtree in the McLaren Vale region and involves 10 hectares of own-rooted cabernet sauvignon. Each of the four treatments being studied - low-input conventional, high-input conventional, organic and biodynamic - are located adjacent to each other and, therefore, share the same influences of soil and climate.

Since the vineyards have been previously managed conventionally, the researchers can track the changes that happen in the soil following the adoption of organic or biodynamic viticulture for the duration of

the project. Hotly anticipated results are due later this year - and rumour has it that early indications weigh very favourably for both organic and biodynamic production.

Gemtree Vineyards already use biodynamic practices across all 134 hectares of the property. The main driver in adopting biodynamics was to make better wines, improve the health of the vineyards and increase water-holding capacity of the soils. They did expect that management costs would rise under a biodynamic regime but this is proving not to be the case.

"Financially, the move to biodynamics has been quite pleasing," says Gemtree's Melissa Brown. "There hasn't been much difference at all in running costs, even though we anticipated an increase. We're reasonably confident that we can get our costs down even further now that we're 100 per cent biodynamic, particularly with respect to herbicide use."

As the vines get healthier under the new regime, they become more resistant to disease naturally. Already Gemtree has reduced the number of sulphur applications (organic spray) on the vineyards. In recent years four applications have been necessary, in comparison with seven to eight per year in previous seasons.

Sometimes people perceive that organic wines are good for you on a physical level, whereas the truth is much broader. It is good for everyone and everything. As it ultimately develops into the norm again, the world will be a better place. My intention is to promote organic agriculture, to practice it and to share it within the wine world. In the inimitable words of John Lennon, "You may say I'm a dreamer, but I'm not the only one..."

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