



ORGANIC AND BIODYNAMIC WINES

What makes them different?

Most of us understand the basic differences between conventional and organic farming but the practice of biodynamic viticulture and winemaking is not widely understood and can be confusing. The information note summarises the basic differences between a conventional, organic and biodynamic approach. It is not definitive but will hopefully provide an insight as to the reasons why biodynamic viticulture and winemaking is becoming ever more popular.

Biodynamic practices in the vineyard encourage a natural harmony between the earth, the vine and the cosmos as nature intended, without the need to use systemic chemicals. We believe that this results in a more naturally healthy bio-diverse and sustainable vineyard, producing better quality fruit and ultimately better quality wine, with a unique sense of place or *terroir*.



SOIL FERTILITY AND NUTRIENTS

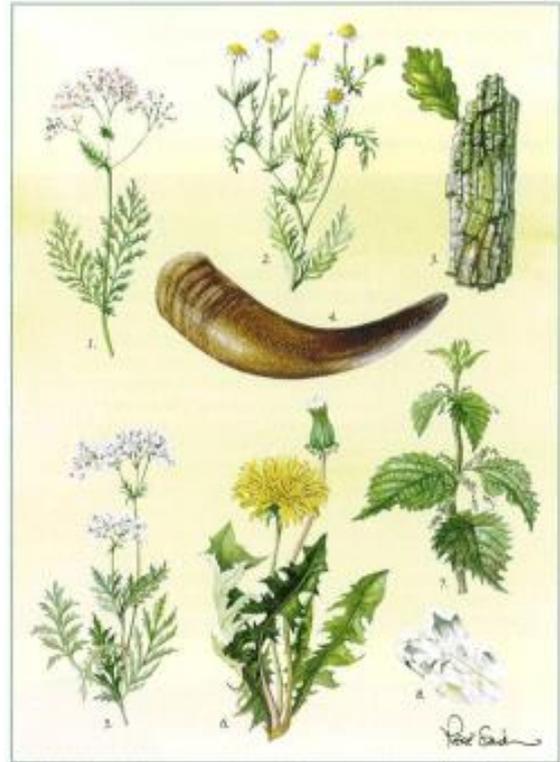


HORN MANURE

Conventional	Organic	Biodynamic
<p>Conventional agriculture uses a combination of artificial and natural fertilisers to feed plants.</p> <p>The use of artificial fertilisers can increase the salinity level of the active root zone and as a result soils become less biologically active.</p>	<p>Soil fertility is achieved through the use of raw manures, composts, organic fertilisers and mineral supplements.</p> <p>These natural nutrients create a balanced environment not only for the plants to thrive in but also for the microorganisms that support their activity.</p>	<p>Composts are enhanced with natural biodynamic preparations made from Yarrow, Chamomile, Stinging Nettle, Oak Bark, Dandelion, Valerian and Horse Tail. This enhances the microbiological diversity within the soil improving soil structure and fertility.</p> <p>Preparations made from horn manure and quartz crystals (that have been buried in cow horns), as well as compost teas, are sprayed on the vineyard to stimulate humus formation and encourage plant development.</p>



PESTS AND DISEASE



PLANTS USED FOR BIODYNAMIC PREPARATIONS

1. Baldrian, 2. Kamille, 3. Eiberrinde, 4. Honig, 5. Schaffgarbe, 6. Löwenzahn, 7. Bienenweide, 8. Querc

Conventional	Organic	Biodynamic
<p>Vines are protected from pests and disease with a combination of systemic pesticides and biological controls.</p> <p>Under vine growth is often controlled with herbicides, which can compromise biodiversity.</p> <p>Some complex chemicals can be harmful to wild life and the operator if the label recommendations and right precautions are not followed correctly.</p>	<p>Systemic chemicals are not used.</p> <p>Small amounts of sulphur, copper (restricted to 6kg/ha) and potassium bicarbonate are used to prevent disease. Organic pesticides may also be used.</p>	<p>Systemic chemicals are not used.</p> <p>Small amounts of sulphur, copper (restricted to 3kg/ha) and potassium bicarbonate are used to prevent disease.</p> <p>Natural biodynamic plant preparations are used to create a balanced system whereby pests and diseases are not attracted to healthy plants.</p>





THE ENVIRONMENT, THE MOON AND THE COSMOS

Conventional	Organic	Biodynamic
<p>There is little or no recognition that the Moon and planetary rhythms affect plant growth. Activities revolve more around prevailing weather and economic conditions.</p>	<p>As for conventional.</p>	<p>Vineyard Managers recognise the importance of the cosmos (the Moon, Sun and planets) as well as light and warmth.</p> <p>Activities are organised around the phases of the Moon and other planetary and solar rhythms.</p>





Albury Organic Vineyard

BIODIVERSITY AND SUSTAINABILITY

Conventional	Organic	Biodynamic
<p>In recent years the reduced use of broad-spectrum pesticides has improved the biodiversity of conventional vineyards but biodiversity is still often compromised by the use of chemicals.</p> <p>Sustainability is focused on minimising the use of tractors (less compaction and diesel consumption) and by using selective systemic chemicals, which generally work for a longer protective interval reducing the number of sprays per year and the volume of water used.</p>	<p>Biodiversity is encouraged by significantly reducing the use of chemicals.</p> <p>The use of cover crops and/or green manures between the rows improves the sustainability of wild life.</p> <p>Rain water is used for spraying.</p>	<p>Biodiversity drives the general management of the vineyard, enhancing the microbiology of not just the soil but also the foliage. The colonisation of the leaves with good microbes is encouraged so that harmful fungi will not find the space to attack the plant.</p> <p>Bees are often kept on the vineyard, not to help with the pollination of the vines as they are self fertile, but to benefit a greater collection of wild flowers and generally improve the fertility and productivity of the land.</p> <p>The use of man-made products, including machinery, is minimised and there is a greater use of recycled materials making the biodynamic vineyard very sustainable.</p>



WINE MAKING



MONTY'S PET NAT, A BIODYNAMIC WINE AND THE UK'S FIRST PETILLANT NATUREL

Conventional	Organic	Biodynamic
<p>Under EU law any wine containing 10mg/l or more of sulphur dioxide must be labeled as "containing sulphites".</p> <p>The maximum permitted levels of sulphites are:</p> <ul style="list-style-type: none"> • Red wine - 160mg/l • White/Rosé - 210mg/l • Sweet Wine - 400mg/l 	<p>The maximum permitted levels of sulphites are:</p> <ul style="list-style-type: none"> • Red wine - 100mg/l • White/Rosé - 120mg/l • Sweet Wine - 250mg/l 	<p>The maximum permitted levels of sulphites by Demeter (the biodynamic certification body) are:</p> <ul style="list-style-type: none"> • Red wine - 70mg/l • White/Rosé - 90mg/l • Sweet Wine - 210+mg/l <p>Biodynamic wine makers strive to keep sulphites to a minimum.</p>
<p>Commercially produced yeasts can be used for fermenting the wine.</p>	<p>Organic certified commercial yeasts can be used for fermentation.</p>	<p>Only wild yeasts from the vineyard are used for fermentation.</p>
<p>The use of any ferment aid is permitted.</p>	<p>Only an organic certified ferment aid can be used.</p>	<p>None are used.</p>
<p>Stabilisation can be done by many different ways.</p>	<p>The only stabilisation process allowed is Bentonite for hot and cream of tartar for cold.</p>	<p>The only stabilisation process allowed is Bentonite for hot and cream of tartar for cold.</p>
<p>De-acidification limited at -2.5-3g/l</p> <p>Sugar addition during fermentation limited at +3%</p>	<p>De-acidification limited at -1.5-2.5g/l</p> <p>Organic Sugar addition during fermentation limited at +2.5%</p>	<p>De-acidification limited at -1.5g/l</p> <p>Organic Sugar addition during fermentation limited at +1.5%</p>

