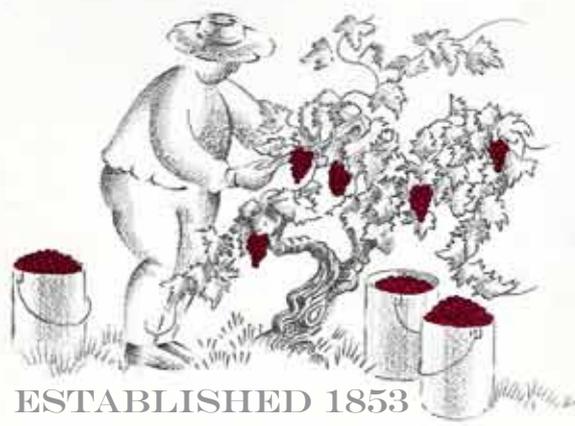


1853

Kalleske

BAROSSA VALLEY



ESTABLISHED 1853

ORGANIC
— & —
BIODYNAMIC

Kalleske is the oldest certified organic/biodynamic vineyard & winery in the Barossa Valley



BAROSSA

ORGANICS/BIODYNAMICS

For over 150 years our Kalleske family has been living and working on our Greenock farm. Throughout this time each generation has been vigilant in looking after the property for the next generation by not only preserving but enhancing the natural environment. Today, genuine sustainability and careful environmental practices continue to be at the core of our Kalleske farming, grapegrowing and winemaking. Certified organic and biodynamic practices in the vineyard and winery ensure the soil, air and waterways are not polluted with synthetic chemicals and fertilisers. Organic/biodynamic farming is not only good for the environment but it ensures the grapes produced are more wholesome with vitality and integrity that reflect their origins of our Kalleske vineyard. Farming the vineyard organically and biodynamically is the truly natural way of farming ensuring ultimate sustainability, authenticity and quality.

WHAT IS ORGANIC?

Organic viticulture requires the complete cessation of synthetic chemicals and artificial fertilisers in the vineyard - this is the basic legal definition of organics. However, at Kalleske we are pro-actively organic whereby we not only don't use chemicals but we actively promote a healthy soil and healthy vines in a truly sustainable system.

WHAT IS BIODYNAMIC?

Biodynamics is an organic holistic method of farming based on the work of Austrian philosopher Rudolf Steiner. 'Biodynamic' or 'biologically dynamic' is a farming system where the health of the soil is of utmost importance, principally high in biological activity, rich in humus and well structured. In addition to good organic practices such as composting, biodynamic farming relies on special plant, animal and mineral preparations and the rhythmic influences of the sun, moon, planets and stars.

Ultimately biodynamics is about two main principles: promoting the health of the soil and enhancing the link between plant growth and the rhythms of the cosmos.

"For over 150 years our Kalleske family has been living and working on our Greenock farm"

HOW IS VINEYARD FARMED ORGANICALLY & BIODYNAMICALLY?

In practical terms, farming organically and biodynamically means:

- » Controlling weeds mechanically (instead of with herbicides).
- » Vines gain their nutrition naturally (and not with chemical fertilisers): 'Green-manure' covercrops are grown mid row and ploughed into the soil to build up organic matter and provide nutrients for the vines and soil micro-flora.
- » Composts and natural fertilisers (e.g. kelp, rock dust) are applied to the soil.
- » Biodynamic preparations are applied to the soil and the vines.

Vines are protected from insects and diseases through their naturally stronger immune system or via natural sprays such as worm tea (instead of via insecticides or fungicides).

A healthy soil with high organic matter and high micro flora is able to better capture natural rainfall and vines with strong healthy roots are better able to utilise this natural moisture. Bird pest problems (e.g. starlings) are mitigated by planting adequate native vegetation which they prefer and this also encourages predatory birds (e.g. hawks).



ORGANICS & BIODYNAMICS IN THE WINERY

By definition, organic winemaking is practically the same as conventional winemaking. The main difference is that with organic wine you are only permitted to add a maximum of 125ppm sulphur dioxide compared to 250ppm. You are also not permitted to use any synthetic additives such as PVPP.

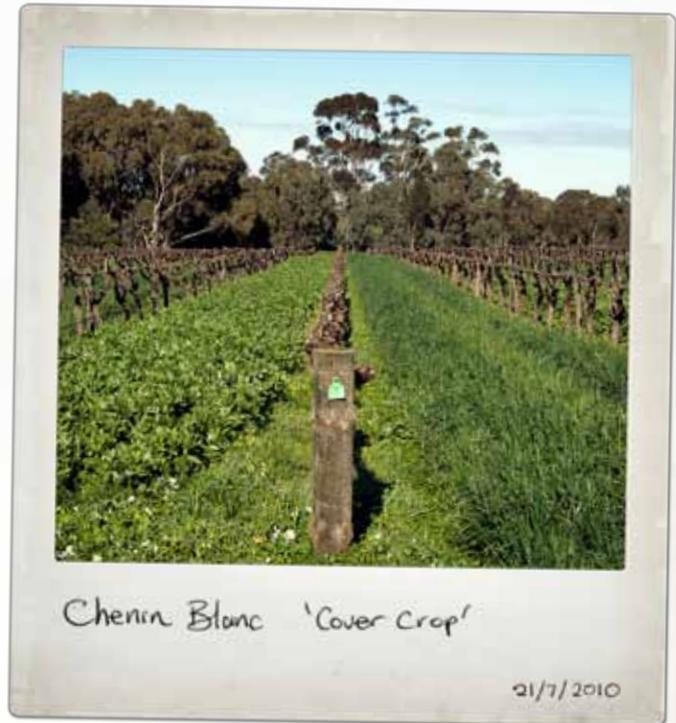
At Kalleske we continue the natural organic and biodynamic theme from the vineyard into the winery. Our practices include relying on natural yeasts to undertake the primary fermentation and natural malolactic bacteria to perform the malolactic fermentation. We do not use added tannins or fining agents and the wines are naturally clarified through gravity (racking) without filtration.

We also follow the phases of the moon and where possible time operations such as harvest and racking when they are most favourable.

The biodynamic philosophy sees the farm in a holistic sense whereby it should be as self-sufficient as possible. Thus, solar electricity is installed which generates enough electricity to run the entire winery. Excess electricity is then used by other buildings on the farm or fed back into the grid, ensuing a little less coal is burnt. The solar installation was a major project and we acknowledge the assistance of AusIndustry through the 'Retooling for Climate Change' project.

The winery is also self sufficient with water. A 250,000 litre rainwater tank captures valuable water from the winery and farm sheds. Capturing our own water means more of this precious resource can stay where it's needed in the River Murray.

“At Kalleske we continue the natural organic and biodynamic theme from the vineyard into the winery”



THE WINES?

We believe that farming naturally does make better wine. Healthy soil, as attained by organic and biodynamic methods is the prime basis for healthy vines, expressive grapes and quality wines. We believe that farming the vineyard organically and biodynamically results in more genuine and individualistic wines that are truer to their site.

Organic and biodynamic viticulture is all about balance and harmony - to have the soil, vine, and microclimate all working together to produce wholesome grapes with authentic flavour, depth and structure.

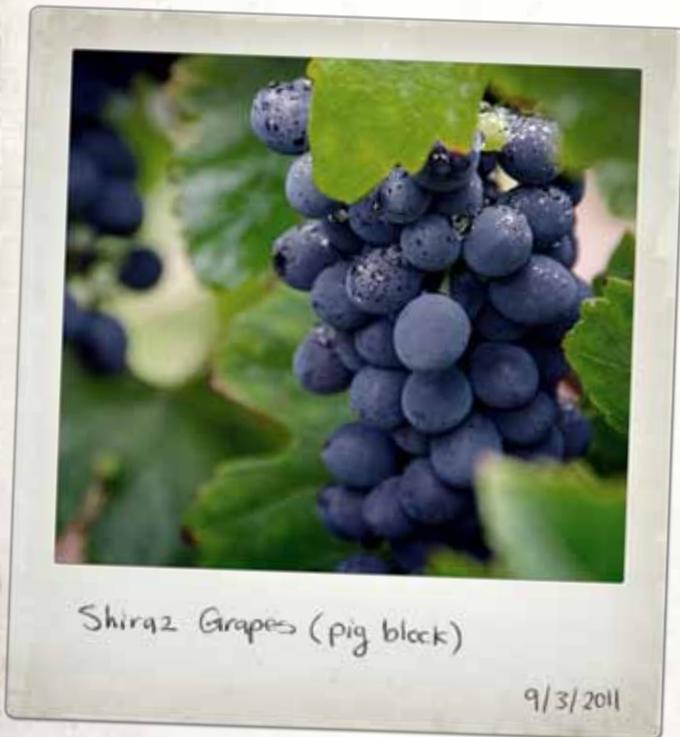
We believe that every vineyard location is unique. The relationship between soil and climate has the potential to produce a different result at every location. For the vines to capture these unique characteristics of their site with their roots and their leaves, the soil must be alive and healthy and the leaves must be free of synthetic chemicals. We believe organic/biodynamic grapes are a true, original and authentic expression of their site resulting in genuine and flavoursome wines.

With quality organic grapes the winemaking process is relatively straight-forward and traditional. We simply crush, ferment, press and barrel mature the wines before bottling without 'tampering' with them. We see ourselves as guiding the grapes into the bottle with the aim of capturing the true essence of the vineyard in the finished wine.

THE BENEFITS OF ORGANIC GRAPE GROWING AND ORGANIC WINES

There are many benefits in growing grapes organically and biodynamically:

- » Environmental – no chemical runoff into waterways or groundwater and more biodiversity – spiders, fungi, bacteria, ladybirds, etc.
- » Less pollution – more carbon is retained in the soil instead of being lost to the atmosphere.
- » Healthier soil – more porous, more nutrient availability, more microbes.
- » Healthy environment for vineyard workers.
- » Healthier wines to drink – no residual chemicals.
- » Better wines – more naturally balanced, of inherent quality and reflective of their origin.



“We believe that farming naturally does make better wine”

CERTIFICATION

At Kalleske our vineyard and winery is 100% certified organic and biodynamic by Australian Certified Organic (ACO). The Kalleske vineyard has been certified since 1998 and is the oldest certified organic/biodynamic vineyard and winery in the Barossa.

Being certified is valuable to the consumer as it's their guarantee that they're getting a genuine organic product. The organic certification process requires good record keeping, annual and random audits and inspections of the vineyard and winery.



SUMMARY

Organic and biodynamic farming is a truly sustainable production system with the health of the soil at its core. Healthy plants and quality produce then naturally flows from this.

Our view is that organic/biodynamic production is nothing out of the ordinary but simply the way nature intended.

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MORE DETAIL ON BIODYNAMICS

Being a holistic farming method, biodynamics emphasizes the importance of the whole and the interdependence of its parts, so it not only considers the role and importance of the soil and the immediate environment of the plant (in this case the vine), but also the influences of the cosmos.

At the core of biodynamics are two main principles:

- » Recognition of the importance of soil health and promotion of such.
- » Recognition and enhancement of the link between plant growth and the rhythms of the cosmos.

Soil health (and thus vine health, strength and vitality) is achieved through having a 'biologically dynamic' soil. A properly functioning soil must have healthy populations of soil life – fungi, bacteria and earthworms. A biologically active soil is important for nutrient cycling and ensuring that minerals are in a plant usable form. There is a strong symbiosis between the plant and the microbes in the soil. The plant will give off exudates (e.g. carbon from photosynthesis) to the microbes that attach or associate themselves to the plant and in return these microbes will seek out minerals, essential nutrients and moisture for the plant. A living soil also ensures the soil is porous and permeable. This allows for easy movement of the vines roots through the soil and for maximum rainfall penetration. The enlivening of the soil through the increase of the living organisms in the soil is the most important aspect of biodynamics.

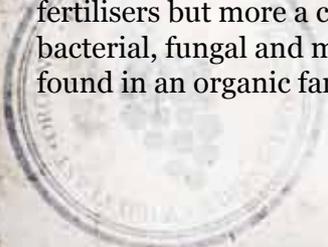
Organically a healthy, biologically active soil is achieved through green-manure cover-crops, composts and natural fertilisers such as kelp and rock dust. These are also important elements in biodynamic farming, but biodynamics takes organic viticulture a step further and especially prepared biodynamic (BD) preparations are applied to the plant and to the soil. The BD preps are highly concentrated inoculums that contain high concentrations of micro-organisms and trace elements. Essentially these BD preps are not fertilisers but more a catalyst to enhance the bacterial, fungal and mineral processes that are found in an organic farming system.

The BD preparations are made from numerous plant, mineral and animal substances. The most commonly known preparation is BD500, cow horn manure preparation. BD500 is used to vitalise the soil, increasing the microbes and availability of nutrients and trace elements. BD500 enhances and strengthens plant root growth and develops humus formation and thus soil structure and water retention. BD500 is made by burying cow manure in a cow horn over the winter months. During these cooler months, life breathes into the soil and the soil has the tendency to be full of growth energies and these energies are absorbed into the manure through the receptive nature of the horn. The preparation, when ready after 4 months, has turned into dark humus and is sweet smelling. It is then mixed with water and sprayed at the descending phase of the moon in late afternoon in Spring and Autumn.

BD501 is the next most common prep and is made of finely ground quartz crystals. The crystals are buried in a similar manner to BD500, but they are buried in the cow's horn during the hot months over Summer. BD501 is applied early morning during the growing season and this spray enhances the photosynthesis of the leaf, and also strengthens the plants against fungal attacks. It is complimentary to the activity of the preparation BD500, which works mostly in the root zone of the plant.

There are other BD preps, BD502-507. These are the compost preps and are made from medicinal herbs. They are humus-like, rich in beneficial bacterial life and minerals. They are added to a compost heap and they radiate influences throughout the compost heap aiding the transformation of compost material into humus.

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MORE DETAIL ON BIODYNAMICS

The BD preps are applied to the vineyard at specific times of the day, year, and growing stage of the plant and are applied in regard to the phase of the moon and other planets. For example, 500 is applied to the soil when the moon is descending or in opposition to Saturn. Applying the BD preparations at specific times is based on the same principles of moon gardening that has been practiced for centuries. Independent research demonstrates a correspondence between the moon's position in the real, or International Astronomical Union Zodiac, and plant growth. The moon cycle controls tidal effects which involve not only large bodies of water, but also the surface tension of liquids, so works on all fluid elements in soil and plants as well. So plants that are rooted in the earth, pump water from the soil into the air and that consist largely of liquid are affected by the moon cycle. The lunar cycle is said to favour above-ground processes when the moon is waxing and light increases, while as the moon is waning, below-ground processes are favoured.

This biodynamic element relating to the rhythmic energies of the Moon and planets is perhaps the most difficult aspect of biodynamics to understand. However, the daily and yearly rhythms of the Sun are a given in our lives, so it should not be a big leap to also accept the influence of the moon and planets. As biodynamic grape growers we widen our observations and rhythmic practices and learn to accept, include and work with these astronomical influences in our farming. It is important to note that this is working with astronomy, the physical stars and planets in the sky (and not astrology). These extra terrestrial influences are in existence and are not dependant on us accepting or believing in them, they are real. By having the willingness to work with the rhythms of the Sun, Moon and planets you can understand the variations in growth patterns and can optimise your farming outcomes.

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