

## How can Temple Bruer make wines without sulphur dioxide (SO<sub>2</sub>)?

- The preservative in wine is SO<sub>2</sub> and some critics claim that it's impossible to make a sulphur free wine because sulphur dioxide can be produced by yeast during fermentation.
- The first step in producing quality Preservative free wines is fruit quality from the vineyard. Temple Bruer owns and manages four Organic Certified vineyards; Langhorne Creek, Eden Valley, Loxton and Moorook. In addition, we contract other organically certified vineyards to grow fruit in Currency Creek and McLaren Vale, all based in South Australia.
- Temple Bruer has used internal trials to select certain yeast strains which when temperature-controlled during fermentation produce very little or no sulphur dioxide.
- Post fermentation the wines need to be temperature controlled, below 10 degrees is ideal and oxygen exclusion through a reticulated carbon dioxide system is used daily in the tanks.
- The final stage in preservative free winemaking and bottling needs to be done with great care and consideration to exclude oxygen and ensure good bottle filtration. Bottling under screwcaps also helps to reduce the ingress of oxygen to the wines and maintains their freshness for longer.
- Our wines have been verified through NATA accredited laboratories to contain less than 10ppm Sulphur Dioxide, although our wines usually have zero sulphur dioxide.

## Temple Bruer has the following certifications



Certified Australia Organic through NASAA



Certified Organic Chinese Standard



Certified Organic EU Standard



Carbon Neutral since 2011

## Carbon Neutral

- Carbon neutral since 2010/2011 accredited through Canopy
- We were the first in Australia to plant Arundo donax to harvest CO<sub>2</sub> — this special weed captures more CO<sub>2</sub> than any other plant
- We use a pyrolysis kiln which turns green waste into biochar
- Biochar is charcoal made from plant matter. It is a soil amendment (maintains nutrients & water in the soil) as well as capturing CO<sub>2</sub>
- In its biochar form, (Char + Manure) 1 tonne = 3.7 tonnes captured CO<sub>2</sub>

# TEMPLE BRUER

## Committed to great wine



## Committed to the environment

**Temple Bruer** is regarded as a leader in the organic vineyard and wine scene, used as the “model” for organic farming for Australia. They know organic wine is healthier and organic practices are sustainable; sustainability and health are entwined.

Temple Bruer has long held to the philosophy that responsible farmers (including winegrowers) should aim to minimize chemical inputs into our environment. This philosophy was put into practice in the early 1990s, when conversion to fully certified organic grape growing practices commenced. Today, all of their plantings are certified as **A-Grade Organic** by the Australian Certified Organics.

Temple Bruer was established as a small vineyard and nursery in the early 1970's on a property situated on the main road between the towns of Strathalbyn and Milang, in the grape growing district of Langhorne Creek in South Australia.

### Examples of Temple Bruer's commitment to the environment...

**Re-vegetation program** (the key to greenhouse neutral). 6000 native trees have been planted since 1996, all grown from seed collected within 3 km of the property.

**Native trees provide habitats for native birds.** Native birds are strongly territorial, excluding exotic birds which may damage crops.

**Grapes are grown on a special trellis** which allows the entire grape crop to be exposed to bright sunlight. This allows in ripening to full fruit flavour in this cool region and reduces disease pressure and therefore the need for chemical inputs to control them. UV is in essence nature's fungicide.

**Compost** is made from winery waste and wood chips.

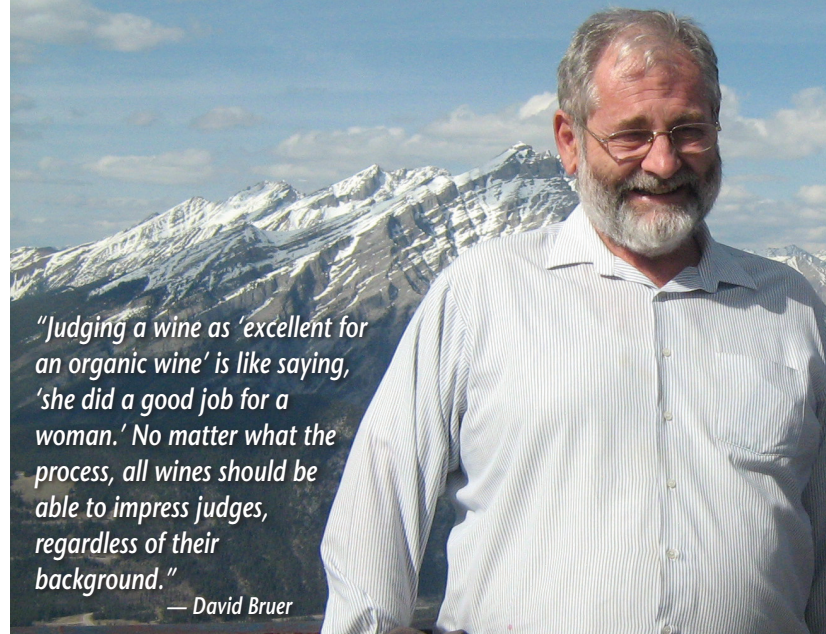
**Sustainable Energy.** Started design work on a new project to generate electricity from biowaste. At present biowaste is composted which gets very hot (60-65°C). All this heat energy is wasted. A better method is to use anaerobic digestion. The waste is pumped into a big plastic bag where, with the right bacteria, it breaks down largely to CH<sub>4</sub> (methane), CO<sub>2</sub> and humus. The methane is then used to generate (green) electricity and the waste heat from the engine keeps the digester warm.

**The use of a French weeder**, which brushes weeds to the centre of the row where they are mulched into the soil.

**Watering at night**, as less water evaporates. The irrigation system waters 22 rows at a time, between 10pm to 5am. Water

saving policies are to monitor soil water potential and water only when the soil starts to dry out.

**Powdery mildew fungus** is responsible for about 90% of the crop and leaf damage in vineyards.



*“Judging a wine as ‘excellent for an organic wine’ is like saying, ‘she did a good job for a woman.’ No matter what the process, all wines should be able to impress judges, regardless of their background.”*

— David Bruer

The common way to deal with this fungus is spraying with a synthetic spray and sulphur. Due to the powdery mildew fungus adapting to these synthetic sprays, the use of these sprays naturally has to increase. David Bruer, with the help of Peruvian Indians and the Waite Agricultural Research Institute created a spray that uses milk whey (the waste product of cheese production). Potassium bicarbonate, canola based oil and this natural combination actually burns holes in the fungus' mycelium and destroys it.

**No synthetic chemicals are used.** Indigenous insect species are encouraged, to provide a balanced ecology where predatory insects help to keep insect pest populations under control.

**Temple Bruer is always trying to find new ways to deal with pests**, such as the LBAM (moths) that are nasty and attack the leaves and fruit. Fruit damage often leads to an infection of botrytis. Temple Bruer introduced the shield bug that eats the LBAM. And when the shield bug is not feeding on the LBAM they are found on the Eucalyptus trees that have been planted for them.

**Working on developing an organic herbicide** which is based on vinegar – it is cheap!

**Fining only with bentonite clay** means the wines are vegan friendly.

**The “Warren-Bruer”** (use of tank staves), in which the staves of old oak barrels are separated, re-shaved, re-toasted and hung in stainless steel tanks, giving new wood flavour to wine without sacrificing a tree.

**David Bruer is a believer of “LLMCSS”** – low level multiple chemical sensitivity syndrome. It can be initiated by almost any synthetic chemical but once initiated, many others will carry it on. Consumers often mistakenly believe that they are not tolerant to sulfites. David truly believes that due to the rise of antibiotics, synthetic fungicides and synthetic insecticides are what consumers are sensitive to, not the sulfites added to wine.