How can Temple Bruer make wines without sulphur dioxide (SO_2)?

- The preservative in wine is SO_2 and some critics claim that it's impossible to make a sulphur free wine because the SO_2 is produced by yeast during the fermentation stage of winemaking. Basically, oxygen must be excluded at all times and secondary fermentations controlled. Temple Bruer uses yeasts which make little or no SO_2.
- Good bottling lines can bottle wine without exposure to oxygen. Temple Bruer uses the Angove's 'state of the art' bottling line.
- Screw caps have become fashionable. Screw caps prevent oxygen from getting inside the bottle. (Corks cannot do this!)
- To be considered preservative free, wine can still have 10ppm SO_2 or less, but Temple Bruer's has zero.
- Up to 200 years ago, all wine was made without SO_2.

Temple Bruer has the following certifications, which guarantee third party accountability:

- **ISO 9001 (Quality Management Certification)**
- **HACCP (Hazards Analysis and Critical Control Points)**; a set of guidelines and principles that offer a systematic approach to food safety
- **Certified Organic (EU Standard).** One difference compared to the Australian certification is the EU standard for SO_2, which is 100 ppm vs 250 ppm
- Joined the **Australian Govs. Greenhouse Challenge** program in 2002 to be Greenhouse neutral by 2010

	Cabernet/ Merlot	Shiraz/ Malbec	Preservative Free Shiraz
Alberta	+441550	+441592	+741012
Saskatchewan	+7382	+7383	n/a
Manitoba	n/a	+441592	n/a

TEMPLE BRUER

Committed to great wine

Committed to the environment

David and Barbara Bruer established a small vineyard 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. Both chemists, David was in charge of Roseworthy College's Oenology Department before becoming a full-time vigneron, while Barbara also taught chemistry at Roseworthy College and Flinders University for ten years.

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 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.

The Bruers see themselves as genuine conservationists. A cornerstone of this is organic certification, but issues such as re-vegetation, endangered species rescue, greenhouse gas abatement, responsible water use and native habitat preservation are all part of their conservation program. They are both truly dedicated to leaving their land cleaner than when they bought it so that future generations can enjoy it us much as they did.

Examples of Temple Bruer's committment to the environment…

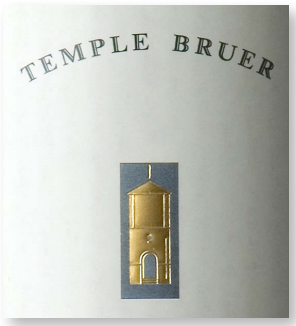
Re-vegetation program (the key to greenhouse neutral). 6000 native trees have been planted since 1996, all grown from seed collected within 3 km of the property.

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.

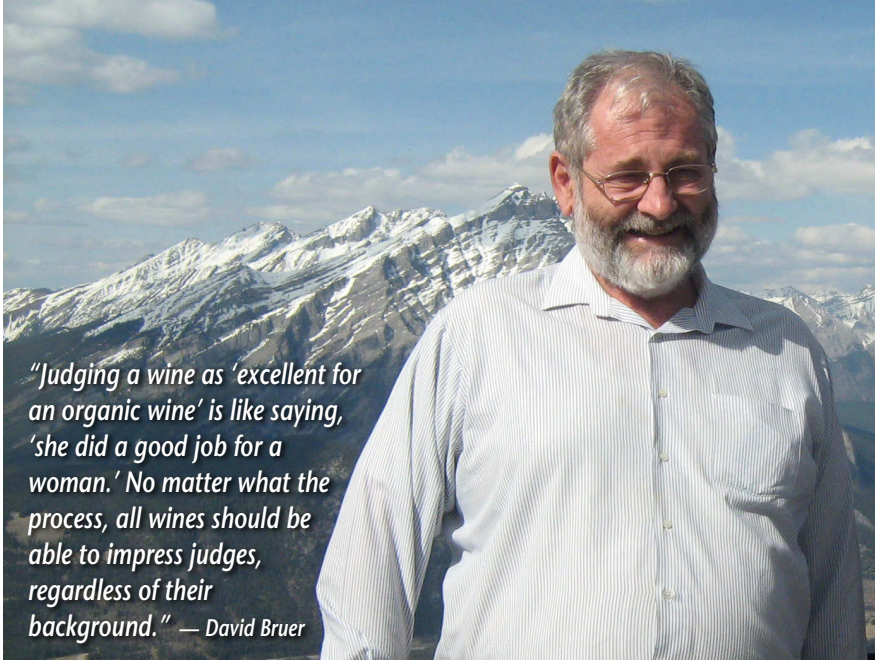
Compost is made from winery waste and wood chips.

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 anaerolic digestion. The waste is pumped into a big plastic bag where, with the right bacteria, it breaks down largely to CH_4 (methane), CO_2 and humis. 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. 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; insecticides wipe out naturally occurring insects, spiders and mites which reduce the biodiversity of soil. 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 bortrytis. 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! There is an organic herbicide already bases on pine oil, but it is expensive.

The nursery was established in 1970 by David and Barbara Bruer. Vines were propagated as dormant rootlings and callused cuttings. These root lings were planted into vineyards.

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.