

CARBON REDUCTION INSTITUTE CASE STUDY

CULLEN WINES

Australian Wineries and Climate Change

This case study is one of several wineries in Australia which have now taken action to combat climate change. The fragile relationship between the environment and wine production means climate change will dramatically affect the wine industry. Temperatures in most Australian wine regions are projected to increase by between 0.3 to 1.7°C by 2030, causing shorter budburst dates, earlier harvests and reduced grape quality.*

This will alter the grape growing season of many varieties and suitability of some regions, suggesting that many wineries will need to adapt their business to climate change.

*CSIRO, Oct 2006 www.csiro.au/news/ps2ei.html



Cullen Wines, Margaret River, WA

Cullen Wines is located in the Margaret River region of Western Australia. The company has a reputation and legacy centered on caring for the environment. Cullen Wines initially started in 1971 as a minimal chemical input vineyard, then became certified organic and finally certified bio-dynamic with the Biological Farmers Association.

In 2006, the Cullen Wines team felt an urgency to participate in the fight against global climate change. As well as signing up for Green Power options and investing in tree planting to offset their fuel and air travel, Cullen Wines decided to make their whole operations carbon neutral: NoCO2 certified through the Carbon Reduction Institute.



Freight Type	Kilo-grams of CO2e/ Tonne/ Km
Sea (bulk)	0.011
Rail	0.037
Road (large trailer)	0.055
Road (small truck)	0.293
Air (long haul)	1.100
Air (short haul)	8.800

Cullen Wines were found to have a total carbon footprint of 561 tonnes of CO2e per year. These emissions continue to be offset through the purchase of reliable carbon credits, giving Cullen Wines the Carbon Neutral: NoCO2 certification.

Emissions from glass bottle production were the single largest source of emissions for Cullen Wines with over 1.3kg of CO2e emissions for every 750ml bottle.

The emissions from caps and corks were also calculated. The Stelvin caps, containing 15% virgin aluminium and 85% recycled aluminium were found to have a higher carbon footprint than the traditional corks.

Cullen Wines distribute their product worldwide, so the resulting emission's from freight is an important factor. The table to the right demonstrates how different methods of transport have varying CO2 emissions:

After learning about their total environmental impact, Cullen Wines explored options to reduce their footprint further. Potential savings from altering freight methods, waste reduction and energy efficiency measures can reduce costs as well as emissions.

The Carbon Reduction Institute completed a Solar Power Feasibility Study for Cullen Wines to consider as well. Combined with actions they are already taking, such as on-site recycling, Cullen Wines have a powerful case for demonstrating leadership for Australian vineyards to take action to combat climate change.

"Cullen Wines are proud of the work done to ensure the sustainability of the vineyard for future generations. Going carbon neutral is an important part of our environmental message."

Vanya Cullen, Cullen Wines

'Food Miles' & Carbon Labeling

'Food Miles' is a term which refers to the distance food and beverages are transported from the time of production until reaching consumer. Tesco's in the UK recently introduced carbon labeling which shows the emissions of a product including its food miles and overall life-cycle impact.



As Tesco's sells approximately 30% of all Australian Wine into the UK, this will make the push for carbon reduction an important imperative for wine producers.

For more information about how your Winery or related business can get involved in the Low Carbon Economy, please contact:

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