

Elephant Hill rises to environment challenge



A Hawke's Bay winery has earned a national environment award for its outstanding sustainability efforts in water management and viticulture practices

Chris Herden

ELEPHANT HILL ESTATE & Winery had its beginnings in 2001 when German couple, Reydan and Roger Weiss, fell in love with the glorious ocean views and rugged coastline of Hawke's Bay, in New Zealand. The Weiss's dream was for a small winery by the sea. It would have a restaurant in which they could indulge their passion for sharing great wine and food with family and friends.

The couple decided on a 25 hectare property on the Te Awanga coastline, which had once been used as a deer farm. From the outset, they were determined their winery enterprise would be sustainable to the core and have minimal impact upon the land.

Inspired by the Pacific Ocean and the natural beauty of the coast, environmental and aesthetic considerations prevailed during the design of the buildings, which were positioned so as to optimise the use of natural sunlight. The pre-aged copper exterior wall cladding would withstand the climatic conditions imposed by the long dry summers of one of New Zealand's warmest areas. The grapes were planted in 2003 and the first

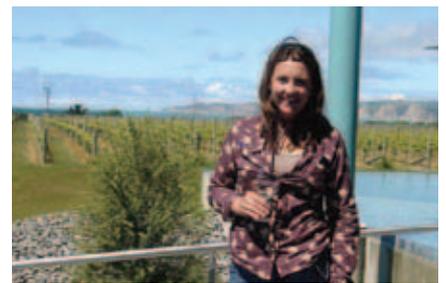
commercial vintage was produced four years later.

Today, Elephant Hill is firmly established on the wine and food map; winning accolades for its sustainable innovations and contemporary style. It is a premium producer of elegant Hawke's Bay wines which are exported worldwide and have been awarded more than 50 medals and trophies on the New Zealand and international wine stage.

In March this year, the winery's sustainability practices were acknowledged by the Balance Farm Environment Awards when it became the first east coast recipient of the Massey University Discovery Award. The judges commented on Elephant Hill's innovative and responsible use of natural resources at all levels of the winery's operation.

Water balance

"Great care was taken to be as environmentally sensitive as possible, even down to the shape of the buildings so that developments blended with the surrounds," said awards chairman Bruce Wills.



Elephant Hill viticulturist Brittany Thompson.

"They showed an absolute appreciation of soil types and characteristics and planting different varieties to suit. The outstanding feature, however, was the extensive recycling of all water."

In 2007, Elephant Hill became one of only two New Zealand wineries to install a Lyve winery wastewater treatment system. The cutting-edge pre-engineered system has 'return activated sludge technology', whereby a portion of treated waste material is returned to the head of the aeration system to re-seed the new wastewater entering the tank.



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The treated water is used for landscape irrigation, thereby reducing overall water usage.

Elephant Hill viticulturist Brittany Thompson said the Lyve system's \$200,000-plus price tag was an important investment in the winery's eco-friendly future.

"With 98 per cent removal of biochemical oxygen demand and total suspended solids, our soils and water table are protected from the significant demand that would otherwise be placed on them to absorb the high loadings typical of untreated winery wastewater," Thompson said. "We feel confident our land discharge practices are sustainable now and for the future."

The award judges commended the ingenious use of an ultra-sound device in the non-chemical treatment of the restaurant's water pond. They also

noted the exactness of soil mapping, the resourceful use of irrigation water and Elephant Hill's long-term aim to 'dry farm' the vineyard.

"When roots are encouraged to root deeply they become less dependent upon irrigation," Thompson said.

"Nutrients and moisture are sourced from further down the soil profile where the moisture remains more constant. Dry farming allows the fruit to express the uniqueness of the region as the vines have access to a greater range of elements and minerals."

Accredited by the Sustainable Winegrowers of New Zealand as 100 per cent sustainable, Elephant Hill employs many additional environmental practices.

"In 2009, we built two hawk platforms and stocked these with road-kill. This provided food for the harrier hawks

that roam about the bay and enticed them to nest nearby. The hawks keep the starlings, wax eyes and other problematic birds to a minimum," she said.

Thompson also planted a mix of wild flowers and buckwheat along the rows of vines in order to attract predatory insects. Next year she plans to farm a whole section of vines using only organic methods.

"I have taken out the use of herbicides on 70% of the property and we now use a combination of under-vine cultivation and mowing. Sheep are used for winter grazing – they do a wonderful job and are a great asset for New Zealand vineyards," she said.

"We are always looking for ways to limit our impact on the land and are taking a long-term view of this business. It has never been about cost – it's about quality and sustainability. What we do on a daily basis makes a difference." **GW**

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