

## Case study

### Adelaide Hills Wine Region



## K1 Wines, Kuitpo

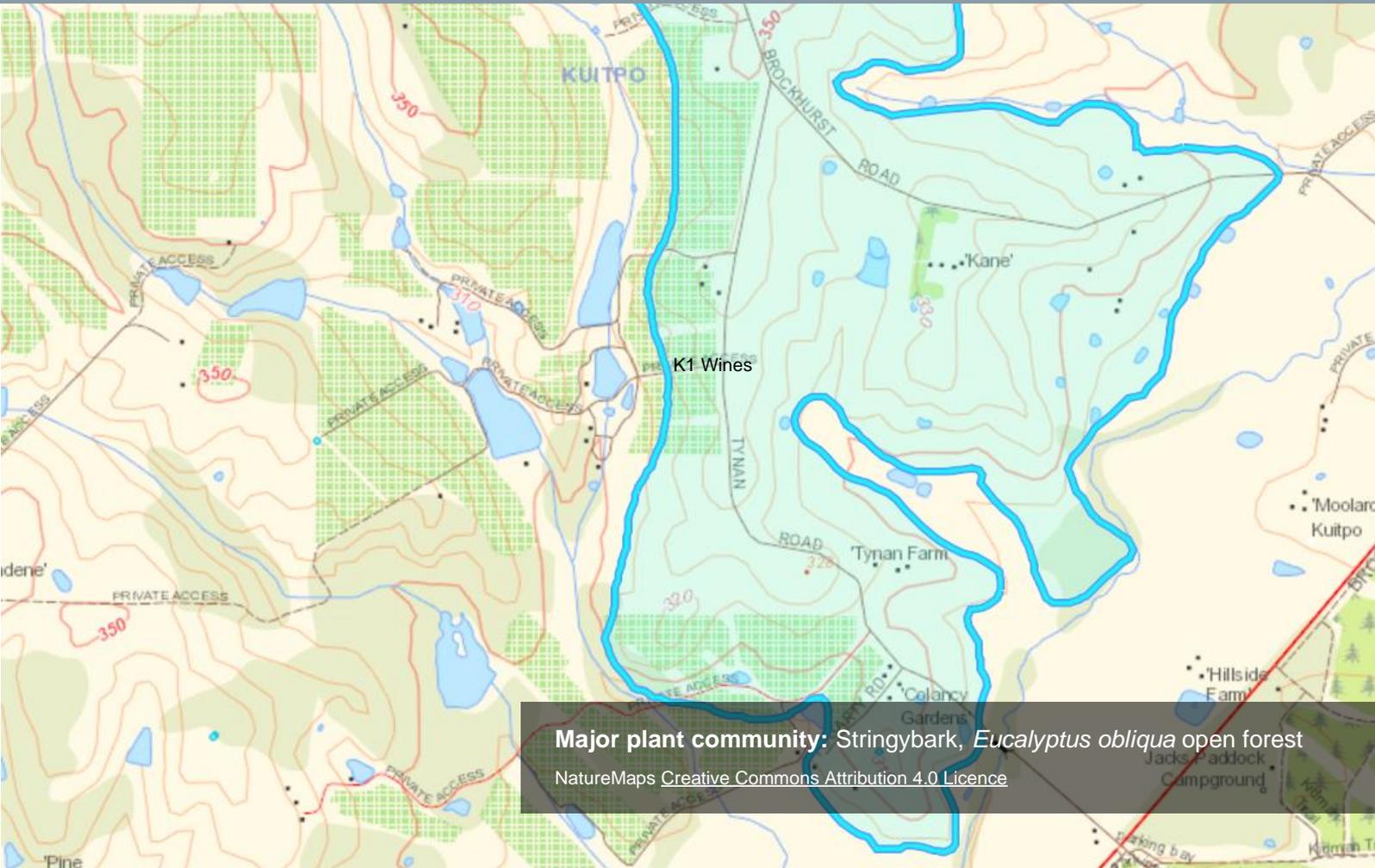
**EcoGrowers:** Jess and Geoff Hardy

*"We're a wine business that firmly values sustainability and strive to improve the land we are custodians of therefore we jumped at the opportunity to be involved in the EcoVineyards program."*

*Mary is a wealth of knowledge; the program has been very educational and has given us the confidence to pursue a suitable revegetation plan to support our vineyard biodiversity above and below the ground."*



August 2023



EcoGrowers: Jess and Geoff Hardy, K1 Wines

Adelaide Hills Wine Region



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### What worked well?

Pigface has provided undervine groundcover to help suppress most weeds (though as the pigface is still establishing it has allowed some weeds to persist through and we are still trialling ways to deal with these) and they provide soil coverage to protect from soil erosion and support soil microorganisms. To note that some areas of dense canopy have reduced pigface growth as it appears to prefer full sun.

### Pitfalls to avoid?

Erect new fencing in first instance to exclude sheep pushing through fencing and grazing the new undervine plantings.

With the introduction of more undervine vegetation we have found that it also provides habitat for snails, so we will monitor how it impacts the population.

Increased hand watering of strainer post plantings of *Bursaria spinosa* during their establishment as reduced watering has stunted growth.



### Progress (June 2021 to 2023):

#### What were you hoping to achieve and why?

We planted native plants in the undervine area and adjacent to vineyard to support our soil and to provide habitat for predatory insects in areas that we have increased populations of scale and garden weevil.

We plan to increase plantings on the property, to maximise living roots in the ground it is supporting soil health which inevitably supports vine health, fruit health as well as the added benefit of increasing carbon drawdown.

#### What did you do and when?

We sourced our tube stock from a range of local nurseries:

- McLaren Vale Native Nursery,
- Coro Native Nursery, and
- Belair State Flora Nursery.

We initially selected our Pinot Noir 777 block, where we have had incidence of scale infestation.

In June 2021 we trialled two rows of two species, planted undervine (*Myoporum* and ruby saltbush) to reduce weed pressure and support predatory insects of scale.

Unfortunately, the ruby saltbush failed to thrive, and some rogue sheep nibbled at the *Myoporum*. We then decided to move sites to our Chardonnay block, and erect new fencing to firmly exclude sheep.

In this new plant area in July 2022, we planted undervine pigface to suppress weeds and provide soil coverage and beneficial insect habitat, and *Bursaria spinosa* at every second strainer post at the top and bottom of the block. These were protected with grow guards to deter rabbits and kangaroos.

We also planted additional species in the headland adjacent to Middle Hill Shiraz block, in August 2022. In this block we have also planted undervine with pigface.

Photo above: Geoff and Jess Hardy installing the Ocloc photo point (Photos: Mary Retallack)



**Inset:** Ella, the next generation of the Hardy family continuing their focus on environmental stewardship.

**Main photo:** *Bursaria spinosa*, sweet bursaria planted adjacent to the strainer to provide habitat for predatory arthropods which contribute to biocontrol in the vineyard (Photos: Jess Hardy)



Clockwise: *Myoporum parvifolium*, creeping boobialla establishing in the under-vine area (Photos: Mary Retallack) and *Carpobrotus glaucescens*, pigface helping to suppress weedy species (Photo: Jess Hardy)



EcoGrowers: Jess and Geoff Hardy, K1 Wines

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## Insights

### Highlights and insights?

We trialled ruby saltbush undervine, as old man saltbush grew well in the nearby scrub. Unfortunately, it did not thrive and was picked at by kangaroos. Observed many spider webs on *Bursaria spinosa*.

### What are you more aware of now?

We hadn't considered microbats as being a contributor to reducing pest populations, so going forward will be considerate of ways to support their populations.

### Where to from here?

We would like to continue to roll out undervine plantings of pigface and *Myoporum* through cuttings from currently established plants. Due to winter sheep grazing in a large area of the vineyard we are limited in the areas we can undervine plant until we erect more fencing to allow light, cell grazing to reduce undervine plants being overgrazed.

Potentially in long term plans of vineyard re-work we will consider replacing part of a mid-block vine row with a shelter belt planting of natives.

### What has been the most valuable aspect of the program for you personally?

To trial alternate undervine management that eradicates the use of herbicide applications, knowing that we are reducing bare soil (and the risk of soil erosion) and feeding soil life with exudates.

Also, to use the project to explain to employees and visitors how the aesthetics of vineyards are potentially changing into the future to support biodiversity and work with nature.

### Has your level of knowledge increased significantly since you became an EcoGrower?

Personally, it has been a great project to learn in parallel with my regenerative agriculture degree as it allowed me to share my learnt knowledge and experiences from the program with my course peers.

### Native plant list:

- *Acacia paradoxa*, kangaroo thorn
- *Bursaria spinosa*, sweet bursaria
- *Carpobrotus glaucescens*, pigface
- *Crowea saligna*, willow-leaved crowea (NSW native)
- *Enchylaena tomentosa*, ruby saltbush
- *Myoporum parvifolium*, creeping boobialla
- *Thryptomene baeckeacea*, myrtle (WA native)
- *Westringia fruticosa*, coastal rosemary



## Expenses (cash and in-kind)

Name: K1 Wines		Region: Adelaide Hills			
Date	Activity	Number of plants	Grant cash expenses	Additional cash co-contribution	In-kind time captured
04/04/2022	Purchase 82 x tube stock (30 x <i>Bursaria spinosa</i> , 20 x <i>Myoporum</i> , 20 x pigface, 6 x ruby saltbush, 6 x mix local shrubs for headland)	82	\$ 186		
	Additional 20 x <i>Myoporum</i> (broadleaf) propagated	20		\$ 50	
04/04/2022	Herbicide			\$ 50	1 hrs
10/04/2022	Planting time (2 people x 3 hours)				6 hrs
05/07/2021	Compost		\$ 105		
15/07/2022	Mulch		\$ 297		
10/04/2022	Tree guards and stakes (\$1.90 each)			\$ 156	
19/04/2023	HRI-Ag Wire exclusion fencing		\$ 884		2 hrs
26/04/2023	Additional exclusion fencing (HRI-Ag Wire) 2 x \$448.67 ea	2	\$ 897		
25/06/2023	Fencing star droppers (Meadow Barn)		\$ 423		
25/06/2023	Compost and mulch (SA Composters)		\$ 569		
29/06/2023	Native plants (\$201.03) - <i>Myoporum</i> , kangaroo thorn, <i>Bursaria spinosa</i> (some to replace failed) <i>Westringia</i> .	73	\$ 183		
	<b>TOTAL</b>	<b>175</b>	<b>\$3,544</b>	<b>\$ 256</b>	<b>9 hrs</b>



# ECO VINEYARDS

GROWING RESILIENCE NATURALLY

## Program partners



This project is supported by the Department of Agriculture, Water and the Environment, through funding from Australian Government's National Landcare Program.

### Acknowledgement of country

The EcoVineyards program acknowledges Aboriginal people as the First Peoples and Nations of the lands and waters we live and work upon and we pay our respects to their Elders past, present, and emerging. We acknowledge and respect the deep spiritual connection and the relationship that Aboriginal and Torres Strait Islander people have to Country.

### Disclaimer

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