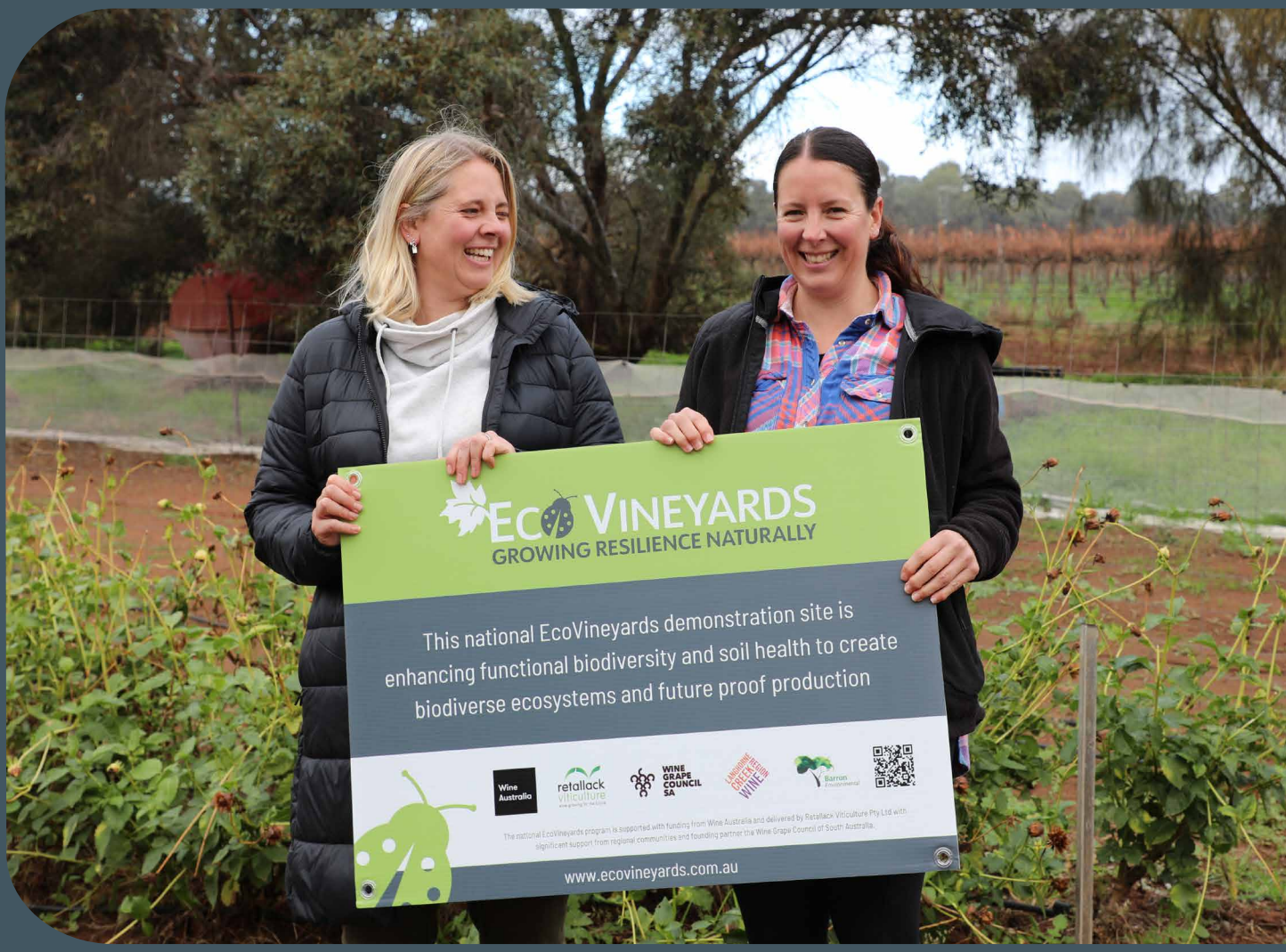
ECO VINEYARDS
GROWING RESILIENCE NATURALLY

CASE STUDY

ESTABLISHING ORNAMENTAL INSECTARY PLANTS ADJACENT TO KARANTO VINEYARDS AND THE VINEYARD FLOWER PATCH, LANGHORNE CREEK, SA

By Kate and Sarah Elliott, Karanto Vineyards Janet Klein and Dr Mary Retallack, Retallack Viticulture Pty Ltd



Wine Australia

retallack viticulture

ESTABLISHING NATIVE INSECTARY PLANTS

Background

Karanto Vineyard is located at 36 Karanto Road, Langhorne Creek consists of a total of 50 ha with 44 ha planted to wine grape varieties Cabernet Sauvignon, Shiraz, Fiano, Greco, and Aglianico.

There are large areas of native revegetation present that were planted by our dad in the last 25 years. Mostly trees and some shrubs. E.g. *Eucalyptus*, gum tree, *Dodonaea,* hop bush and *Acacia*, wattle. These form a wind break around most of the project area, with some gaps. There are some very large red gums that were planted many years ago.

"We have enjoyed being part of the EcoVineyards program. It has provided great opportunities to learn about native flora and fauna, and the benefits they present. The workshops were always fantastic and Mary and her team are extremely knowledgeable and their passion for the project is infectious. Thanks!"

Kate Elliott

What were you hoping to achieve and why?

We planted native insectary climbing species along a fence line, as well as planting an empty area adjacent to our vineyard with a medium storey of mixed ornamental species shrubs and trees, with the goal to increasing biodiversity and insectary benefits to both vineyard and our nearby commercial cut flower farm. Many of these species were picked for their potential as cut flowers and many are native to Western Australia and NSW.

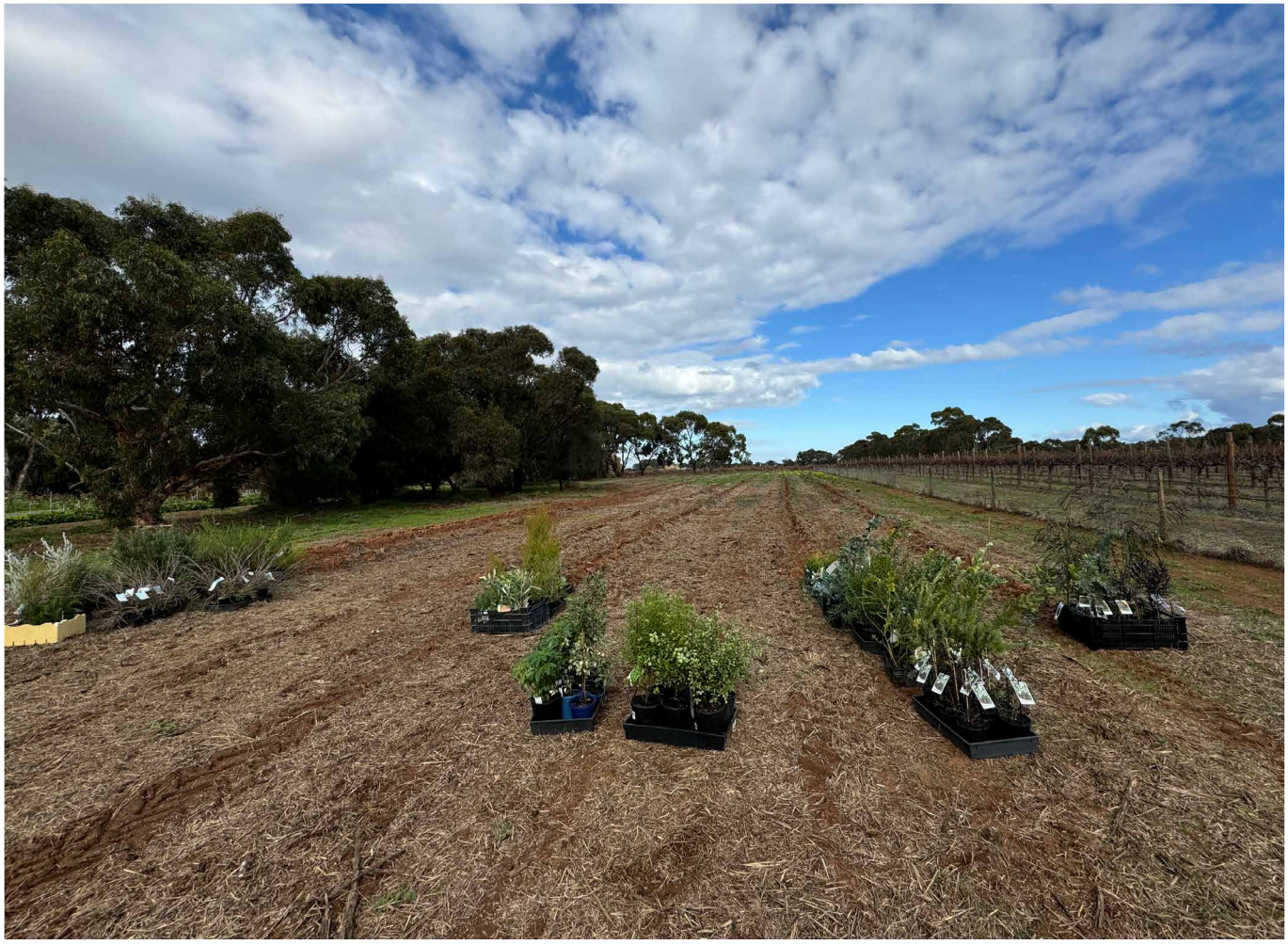


Figure 1: Prepared site with seedlings delivered for planting [Photo. Kate Elliott].

What did you do and when?

We prepared the shrub area for planting by firstly, herbiciding weed competition in the spring 2022, and then planting an annual cover crop in June 2023 of barley and wheat to stabilise the soil throughout summer. We then sprayed this out towards the end of May 2024, ripped the planting line, laid irrigation line (shrub area only) and then planted more than 320 seedlings in June 2024.

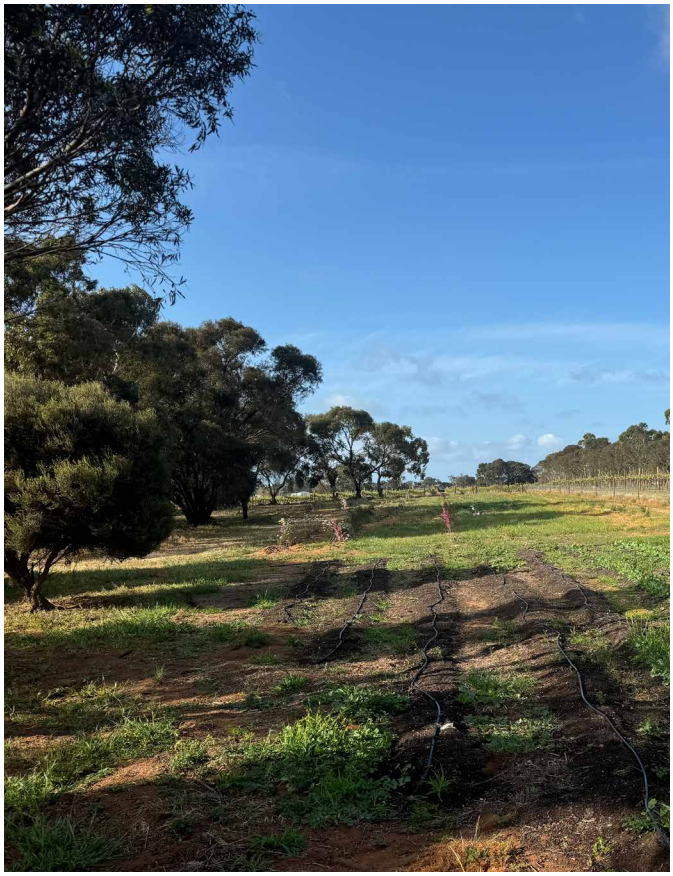


Figure 2: Covercrop slashed prior to final site prep (June 2024) [Photos: Kate Elliott].

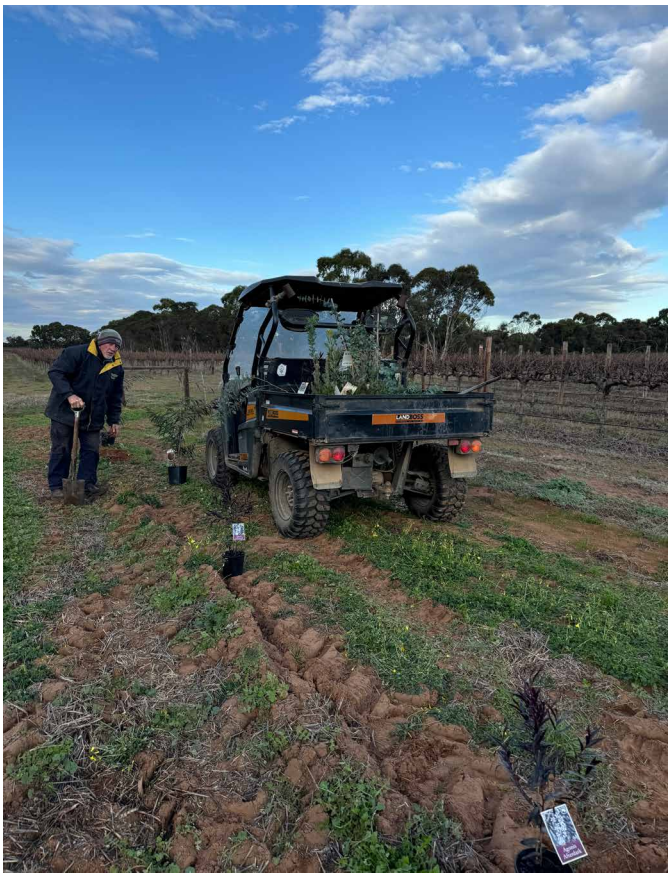


Figure 3: Planting seedlings in to rip line (June 2024) [Photos: Kate Elliott].

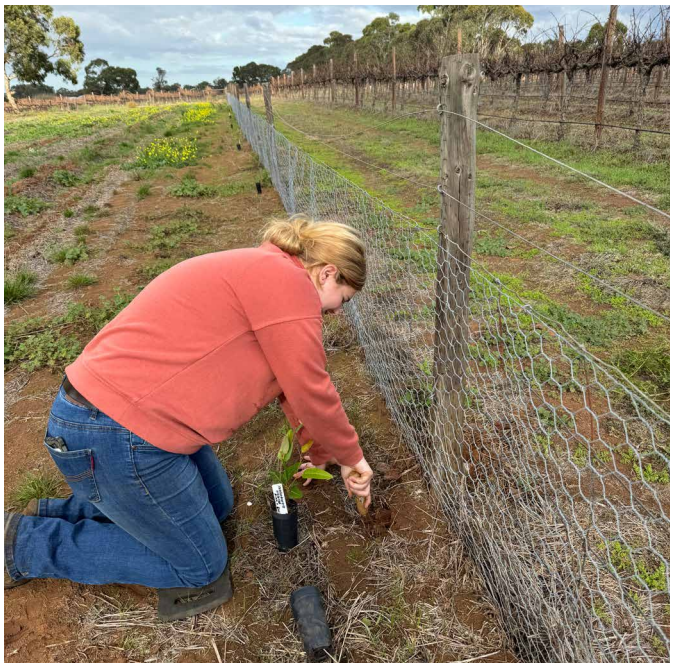


Figure 4: Planting seedlings in to rip line (June 2024) [Photos: Kate Elliott].

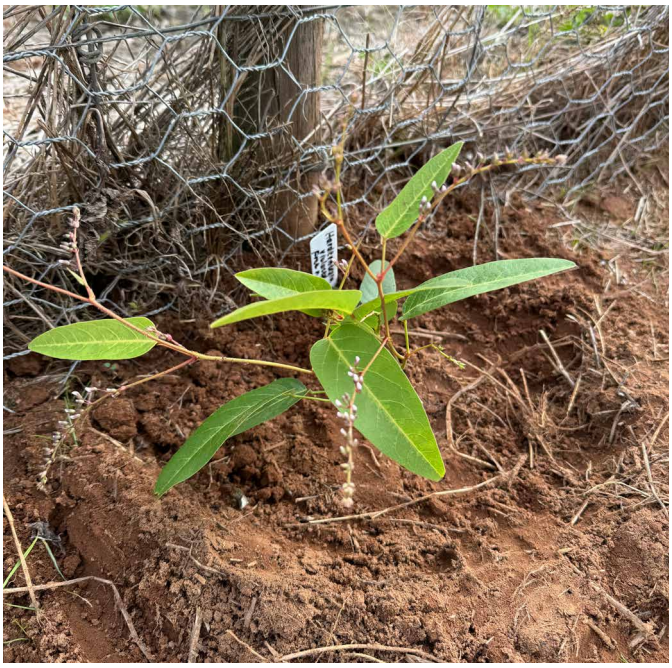


Figure 5: Young climbing Hardenbergia seedling planted along fenceline [Photo: Kate Elliott].

Did your plans change?

Our original plan was to plant predominantly ground covers in an adjacent shelter belt. However, we had to abandon this plan due to extensive digging disturbance from a large population of *Ratus fuscipes,* native bush rats. Therefore, we extended our area to include planting climbers along the fenceline instead.

What worked well?

Everything worked well we believe despite losing a portion of plants to lack of water and rabbits (15 creepers, 40 shrubs). We have had strong growth of all surviving plants, despite the dry season, thanks to the regular watering they received.

Any pitfalls to avoid?

We didn't have the opportunity to lay irrigation along the fenceline and instead relied on hand watering. We would therefore ensure irrigation across whole project and in hindsight, begin watering earlier. We would also protect against rabbits.

We would also have preferred a greater variety of species to plant and would have preferred to have better personal knowledge prior to starting.

Any highlights/insights that you would like to share?

The climbing *Hardenbergia* sp. native lilac, and *Billardiera cymosa*, sweet apple bush grew the most strongly. We would also say, our ability to keep water to the young plants, in a dry year such as 2024/25 and in our sandy soils, was key to our good growth.

We are also pleased with the timing of all preparation activities and could see this also supported strong growth. A notable immediate benefit of the project was that the parcel of land planted (and therefore, irrigated) was not the usual 'dust bowl', and once flowering was noticeably attracting local insect and bird life.

Figure 6: Successful planting of insectary (in flower) adjacent to vineyard [Photo: Kate Elliott].

What are you more aware of now?

- I have learnt a lot through this project, especially of native plant species, their names and role in our farm ecosystem. We all are now aware of how best to obtain insectary benefits through native plants
- The insight in to using leaf brix as a measure of vine health and resilience against disease was also valuable, as it was information learnt on the benefits of compost and compost tea,
- We now have a much improved understanding of the lifecycle and management of native plantings for farm benefit.

Where to from here?

I intend to continue to plant native flowering plants further along fenceline – and hopefully find a way, under the trees if we can develop a means of working with the native bush rats! A nesting box to attract barn owls may also help to keep the rat populations in balance, as they love eating rodents.

I have developed a love of planting natives - for both insectary benefits and for my cut flower business.

Are there any outstanding knowledge gaps you would like filled?

The main knowledge gap this project identified was how low our understanding of native Australian flora is. We would have been very interested, in hindsight, in an early workshop focusing purely on native plant species – identification, categories, uses etc.

Our knowledge, for all of above reasons, is certainly significantly enhanced thanks to the EcoVineyards program.

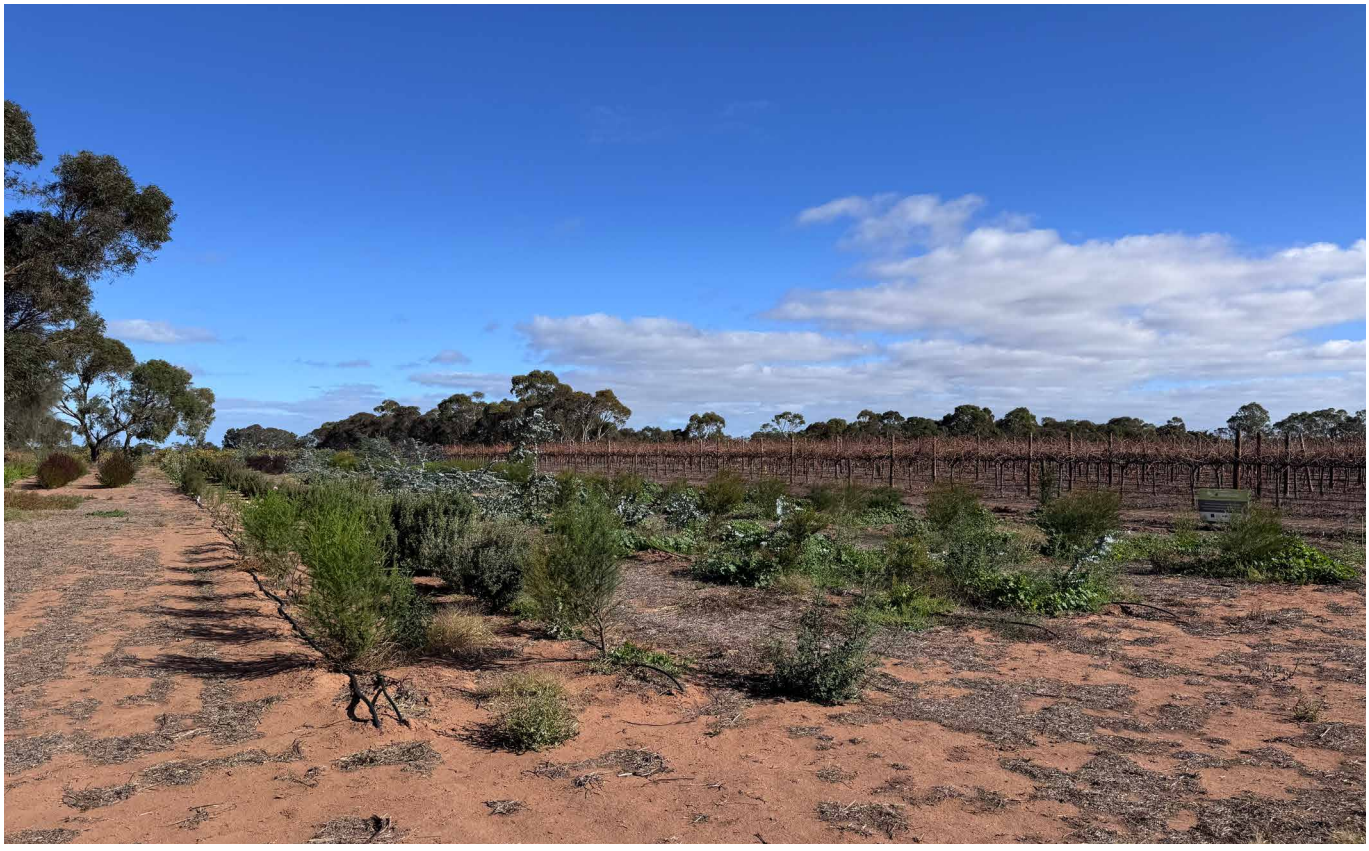
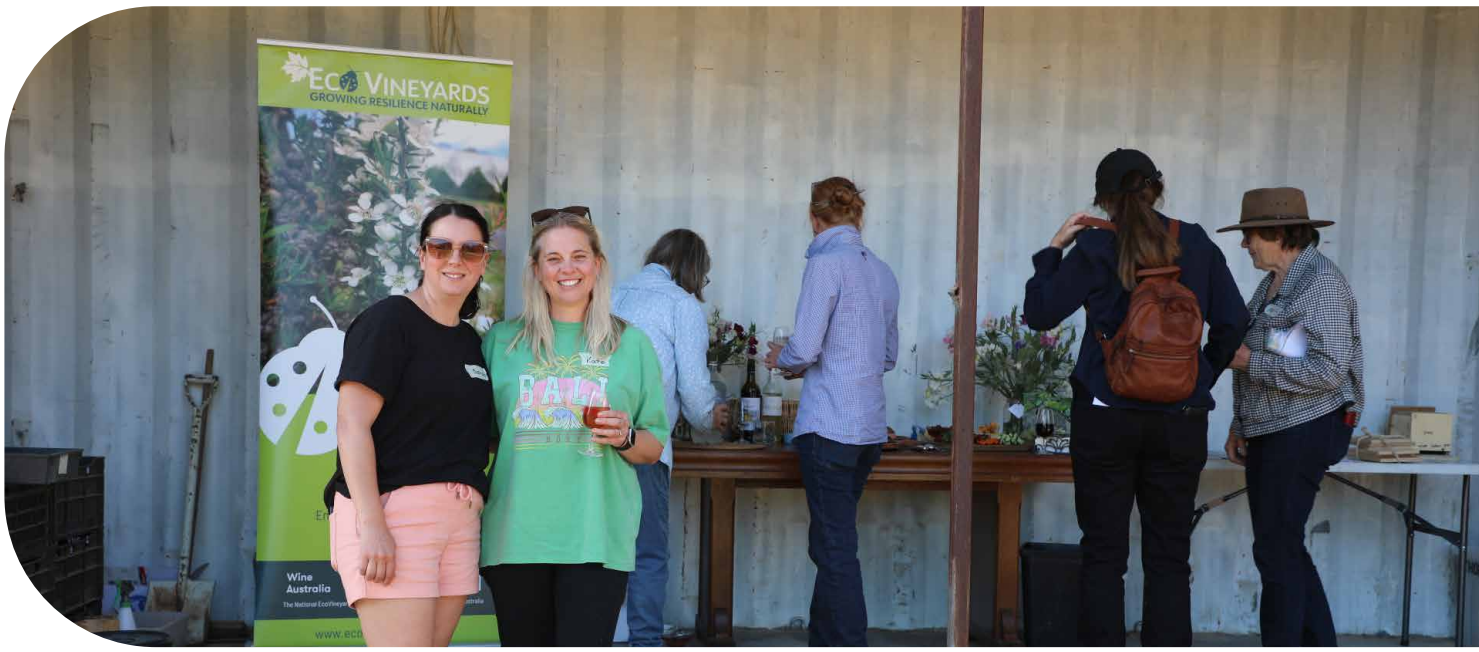


Figure 7: EcoVineyards demonstration site – 9 months growth [Photo: Kate Elliott].

Plant list

#	Scientific name	Common name	Number planted	Number survived (May 2025)
1	*Acacia baileyana*	Cootamundra wattle#	7	7
2	*Acacia podalyriifolia*	Mount Morgan wattle	8	7
3	*Agonis flexuosa*	peppermint*	6	6
4	*Adenanthos cunninghamii*	woolly bush*	8	6
5	*Adenanthos sericeus*	woolly bush*	16	12
4	Anigozanthos sp.	kangaroo paw*	155	155
5	*Banksia sceptrum*	sceptre banksia*	4	3
6	*Banksia coccinea*	scarlett banksia*	18	18
7	*Banksia hookeriana*	Hooker's banksia*	9	6
8	*Bankisia menziesii*	firewood banksia*	10	10
9	*Banksia occidentalis*	red swamp banksia*	2	2
10	*Banksia Formosa*	showy dryandra*	5	5
11	*Billardiera cymosa*	sweet apple berry bush	10	7
12	*Chamelaucium ciliatum*	Albany wax flower*	4	4
13	*Chamelaucium* sp.	wax flower*	24	24
14	*Clematis vitalba*	Old mans beard	10	8
15	*Dodonea viscosa*	broadleaf hopbush^	18	15
16	*Eremophila nivea*	silky eremophila*	2	1
17	*Eucalypyus pleurocarpa*	tallerack*	20	6
18	*Eucalyptus pulverulenta*	baby blue gum#	34	32
19	*Hardenbergia* sp.	native lilac^	19	10
20	*Hypocalymma angustifolium*	white myrtle*	14	14
21	*Isopogon formosus*	rose coneflower*	10	10
22	*Leptospermum polygalifolium*	yellow tea tree#	10	10
23	*Leptospermum polygalifolium*	tickled pink#	7	7
24	*Olearia phlogopappa*	dusty daisy-bush#	10	10
25	*Ozothamnus diosmifolius*	rice flower#	20	20
26	*Philoteca myoporides*	long-leaf wax flower#	8	8
27	*Thryptomene calycina*	Grampians thryptomene±	3	3
28	Thryptomene saxicola	rock thryptomene*	7	7
		Total	**478**	**433**

* Native to Western Australia, # Native to NSW, ^ Native to SA, ± native to Victoria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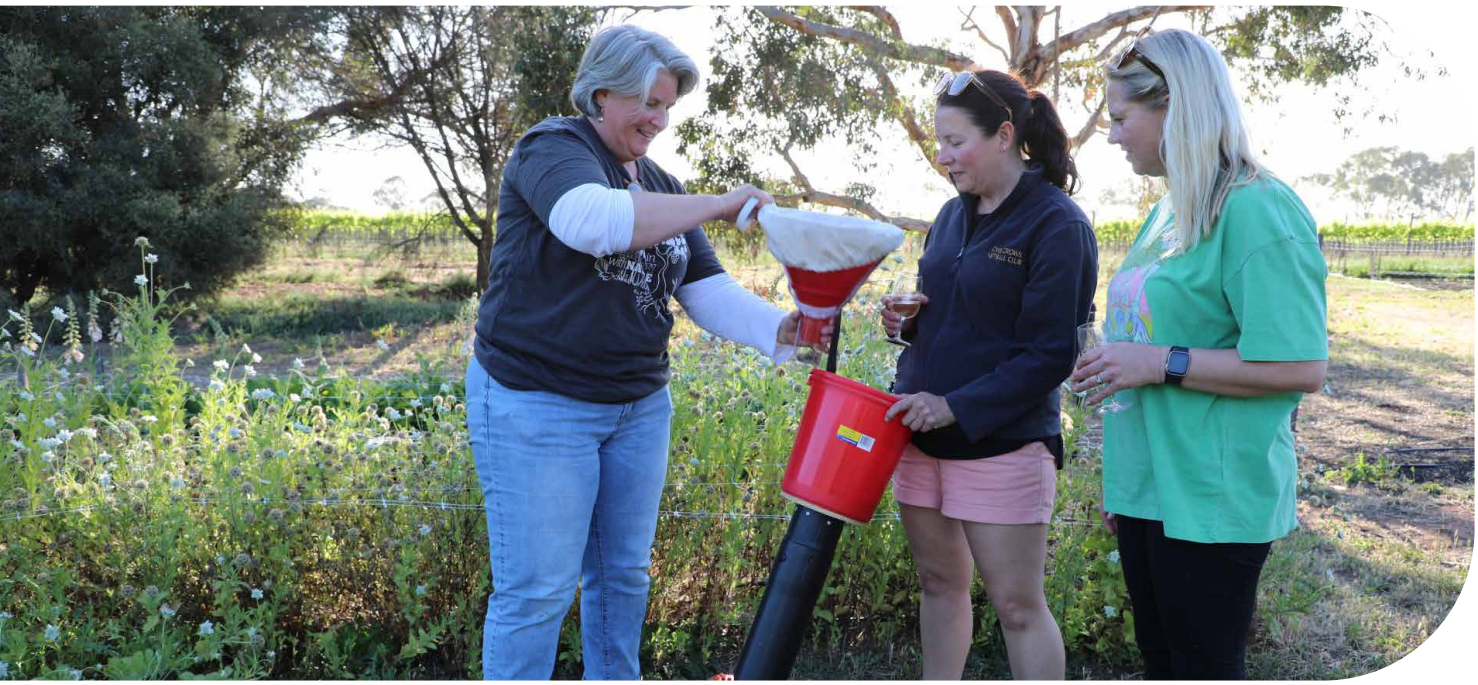

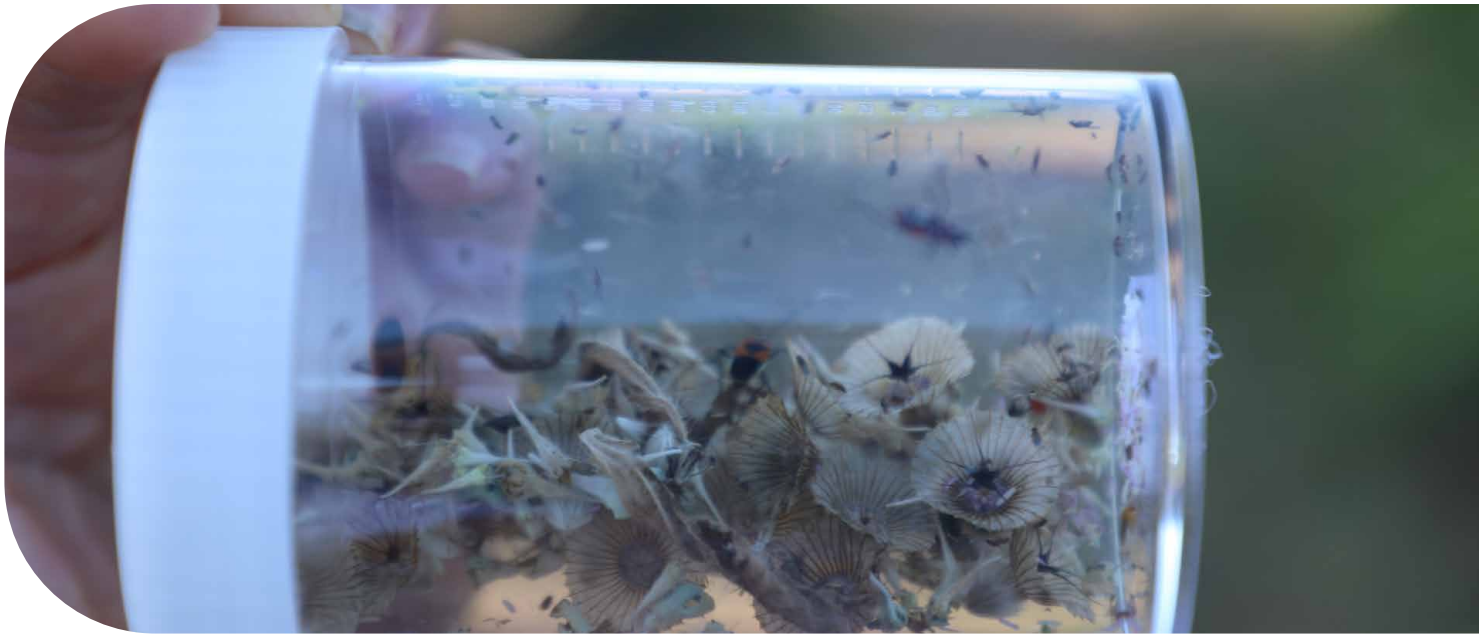

Costs

Date	Item	Number of plants	EcoVineyards costs (ex GST)	Co-contribution (grant and landholder contribution)	In-kind contribution (time)
9/09/2022	Tubestock Brenton Tucker	10	$108		1 hr
Nov 2023 to May 2024	Site preparation				2 hrs
10/04/2024	Daish Irrigation		$369		
12/12/2024	Daish Irrigation Rainbird Controller		$223		1 hr
6/05/2024	Variuos tube stock Brenton Tucker	255	$1,555		2 hrs
15/05/2024	Various tube stock Brenton Tucker	30	$263		
15/05/2024	Tubestock Brenton Tucker	20	$216		1 hr
20/05/2024	Set up irrigation				5 hrs
14/06/2024	Tubestock Trees For Life	20	$54		4 hrs
24/06/2024	Plant trees				2 hrs
4/03/2025	Daish Irrigation various		$251		
14/04/2025	Tubestock Brenton Tucker	4	$34		2 hrs
14/04/2025	Tubestock Brenton Tucker	45	$369		
20/05/2025	Ball Australia kangaroo paw	155	$364		
20/05/2025	Brenton Tucker		$256		
23/05/2025	Plant kangaroo paw and replace dead plants				3 hrs
	Total	**539**	**$4,062**	**$3,000**	**23 hours**

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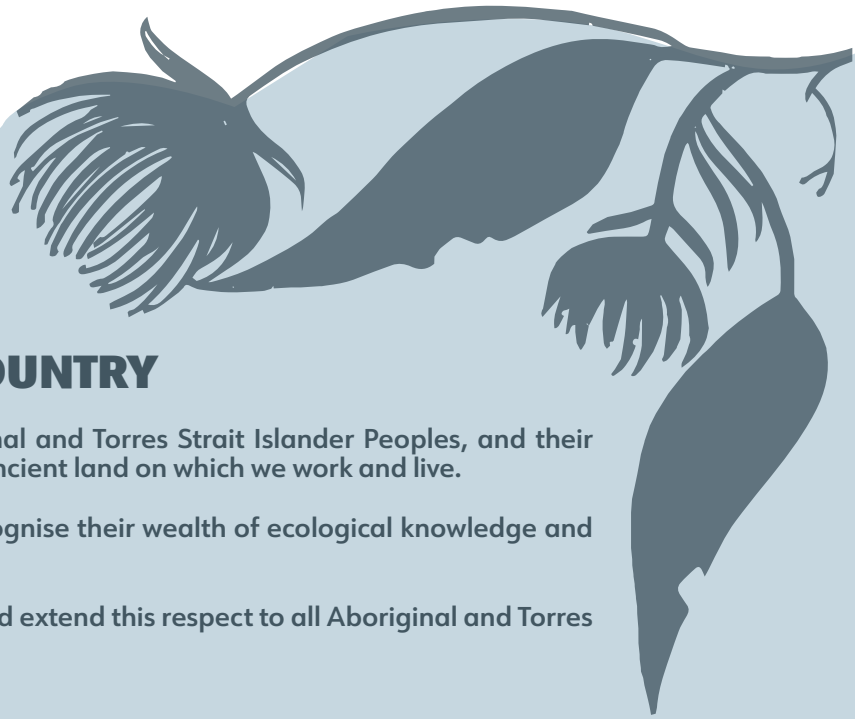
The National EcoVineyards Program is funded by Wine Australia with levies from Australia's grape growers and winemakers and matching funds from the Australian Government.



ACKNOWLEDGEMENT OF COUNTRY

EcoVineyards proudly acknowledges the Aboriginal and Torres Strait Islander Peoples, and their ongoing cultural and spiritual connection to this ancient land on which we work and live.

As the Traditional Custodians of this land, we recognise their wealth of ecological knowledge and the importance of caring for Country.

We pay our respects to elders past and present and extend this respect to all Aboriginal and Torres Strait Islander Peoples.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