

Langhorne Creek Wine Region Case Study, August 2021

Bleasdale Vineyards, Langhorne Creek, SA

EcoGrowers: Sarah Keough and the team at Bleasdale Vineyards

“Projects such as this allow us to venture in a direction outside our ‘normal’ vineyard operations and practices.”

Shannon George, Scott Hocking and Sarah Keough
(Photo: Mary Retallack)



Langhorne Creek Wine Region

Plant community (marked in blue): Red gum, *Eucalyptus camaldulensis* woodland over an open understorey of sedges, rushes, grasses, and herbs



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Case study

Progress (June 2019 to August 2021):

For Bleasdale Vineyards, the aim of the EcoVineyards project was to increase the native reserves in the vacant areas around the vineyard, with the added benefit of creating corridors of native insectary plants.

The second aim was to investigate if native prostrate plants planted between the vines, would assist in weed suppression, water conservation, and cooling of soils by providing cover.

Along the Bremer River

Bursaria spinosa, Christmas bush has been planted along the Bremer River to create a habitat and corridor for beneficial insects.

Mass planting

Sections of vacant land along the Bremer River have been planted to a selection of ground covers and mid canopy plants.

Between the vines

We also planted native ground covers between vines to assess if these ground covers will compete with weeds and provide a home for predatory insects amongst the vines. Once established, we will also assess their ability to cool soils during heat waves whilst monitoring their water requirements.

Large scale planting of native grasses

We have planted in four sections, this area was sprayed and lightly cultivated. Seed was spread by hand and incorporated lightly with the tines behind the seeder.

Lots of weeds which have been difficult to control. I have been told to be patient, as we really couldn't see any seedlings last season, however after a visit with Mary in June 2021 we could see the first plants starting to establish.



Photo above: A Wine Australia funded educational sign has been installed near the new native insectary plants adjacent to the vineyard (Photo: Sarah Keough).

Photo left: Sections of vacant land along the Bremer River have been planted to a selection of ground covers and mid canopy plants (Photo: Mary Retallack)

Photo below right: *Bursaria spinosa*, Christmas bush has been planted along the Bremer River to create a habitat and corridor for beneficial (Photo: Sarah Keough).



Insights

While we have removed/reduced our herbicide applications in our vineyards, the younger vines are still receiving the odd application to control competition.

Unfortunately, due to the harvester knocking over some tree guards and this area not being sign posted, (warning signs needed) our native vine row was herbicided.

Here are some insights:

- *Kennedia prostrata*, running postman did not handle the application of herbicide,
- *Myoporum parvifolium*, creeping boobialla 'fine leaf form' was slightly better, and
- *Atriplex semibaccata*, creeping saltbush, and *Myoporum parvifolium*, creeping boobialla 'purple leaf form' survived quite well.

Looking for a positive....

We were able to mix up the species within the row with the replacement plants and now also have *Rytidosperma* spp., wallaby grass in the mix.





Atriplex semibaccata, creeping saltbush growing in the undervine area (Photo: Mary Retallack)



Myoporum parvifolium, creeping boobialla 'fine leaf form' growing in the undervine area (Photo: Mary Retallack)



Myoporum parvifolium, creeping boobialla 'purple leaf form' growing in the undervine area (Photo: Mary Retallack)



Kennedia prostrata, running postman growing in the undervine area (Photo: Mary Retallack)



Chloris truncata, windmill grass collected from Bleasdale mid rows. Notice how it seems to love the wheel tracks (left) and *Calostemma purpureum*, garland lily collected from the Langhorne Creek Nature Reserve (Photos: Sarah Keough)



The preparation and planting of *Chloris truncata*, windmill grass, *Rytidosperma* spp., wallaby grass, *Rytidosperma pilosum*, velvet wallaby grass and a mix of all grasses and *Calostemma purpureum*, garland lily (Photo: Sarah Keough)



Kangaroos love milk cartons and have left the plants alone (Photo: Sarah Keough)



Case study

Challenges

The W's and Kangaroos

Water

Two very dry summers have meant a lot of hand watering, and while most have survived, I'm looking forward to seeing a few more plants pop out of the vine guards this year.

Install warning signs, to indicate plants are in the rows!

Weeds

Weed control on floodplain country – we start from scratch every time it floods so we are never going to get the weeds under control before we start planting.

Some control is better than nothing and my hope is the seeds planted will eventually out compete the weed seeds.

When to remove guards?

The plants between the vines were guarded. As plants grow to light, they grew up, therefore when we took the guards off, we had some of the woody branches break (mainly saltbush and *Myoporum* spp.).

Kangaroos love milk cartons (and have left the plants alone)!

Native plant list:

- *Acacia pycnantha*, golden wattle
- *Arthropodium strictum*, common vanilla lily
- *Atriplex semibaccata*, creeping saltbush
- *Bursaria spinosa*, Christmas bush or sweet bursaria
- *Callistemon rugulosus*, scarlet bottlebrush
- *Callistemon sieberi*, river bottlebrush
- *Calostemma purpureum*, garland lily
- *Chloris truncata*, windmill grass
- *Dichondra repens*, kidney weed
- *Drosera whittakeri* ssp. whittakeri, scented sundew
- *Enchylaena tormentosa*, ruby saltbush
- *Eucalyptus camaldulensis* var. camaldulensis, river red gum
- *Geranium retrorsum*, grassland geranium
- *Hardenbergia violacea*, native lilac
- *Kennedia prostrata*, running postman
- *Leptospermum continentale*, prickly tea-tree
- *Microlaena stipoides* var. stipoides, weeping grass
- *Myoporum parvifolium*, creeping boobialla 'fine leaf form'
- *Myoporum parvifolium*, creeping boobialla 'purple leaf form'
- *Rytidosperma* mixed species, wallaby grasses
- *Themeda triandra*, kangaroo grass
- *Xanthorrhoea semiplana* ssp. semiplana, yacca

"I would like to thank Mary Retallack who has been the driving force behind the project and has provided a wealth of information, encouragement, and support since inception."



Photo top: Sarah Keough taking a photo using the Ocloc photo point (above), Wine Australia sponsored educational signage (below left), Sarah checking out the native ground cover plants in the undervine area and in the revegetation area (Photos: Mary Retallack).

Expenses (cash and in-kind)

Grower: Bleasdale Vineyards		Region: Langhorne Creek			
Date	Activity	Number of plants	Grant cash expenses	Additional cash co-contribution	In-kind time captured
09/09/2019	Trees for Life native plants	60	\$ 150		
11/11/2019	Goolwa to Wellington LAP (Ben Simon) native plants	50		\$ 125	
03/09/2019	Planting time (person x 8 hours) Might seem a long time but planted 20 m apart along the Bremer river - on both sides and watered in.			\$ 264	8 hrs
18/11/2019	Planting time (person x 4 hours) planted in very dry soil and watered in.			\$ 132	4 hrs
Multiple FY20	Hand water plants during summer			\$ 264	8 hrs
24/04/2020	Herbicide block for native seed plus glyphosate			\$ 95	1 hr
24/04/2020	Herbicide and slash block for native seed			\$ 170	2 hrs
	Light cultivation of block for native seed			\$ 170	2 hrs
27/04/2020	Native grass seed collection (windmill grass sown on 0.5ha)			\$ 165	5 hrs
25/04/2020	Blackwood seeds (wallaby grass and saltbush)	7,200 grams	\$1,733		
13/08/2020	Goolwa to Wellington LAP (Ben Simon) native plants	100	\$ 250		
30/11/2020	Goolwa to Wellington LAP (Ben Simon) native plants	100	\$ 250		
30/04/2021	Arboregreen Landscape Products 50 tree guards and stakes	100	\$ 402		
21/06/2021	DEW – Tube stock	110	\$ 358		
25/06/2021	Native Seeds 1 kg <i>Rytidosperma setaceum</i>	1	\$ 373		
Multiple FY21	Hand water plants during summer			\$ 528	16 hrs
Multiple FY21	Wiper snip around tube stock			\$ 528	16 hrs
Multiple FY21	Slash large scale planting of wallaby grass			\$ 170	2 hrs
23/06/2021	Planting native tube stocks			\$ 792	24 hrs
07/07/2021	Planting native tube stocks	200		\$ 500	
TOTAL		721	\$3,516	\$ 3,903	88 hrs

Thank you to our project partners!



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This project is supported by the Hills and Fleurieu Landscape Board's Grassroots Grants Program and is funded by the landscape levy.

Acknowledgement of country

The EcoVineyards project 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.

The Ngarrindjeri people are the traditional custodians of the Langhorne Creek region and have an ongoing connection to the land.

Disclaimer

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For more info about the National EcoVineyards Program see www.ecovineyards.com.au

This case study was collated by Dr Mary Retallack, Retallack Viticulture Pty Ltd