



Grindstone Vineyard / Land of Tomorrow, Wrattenbully, SA

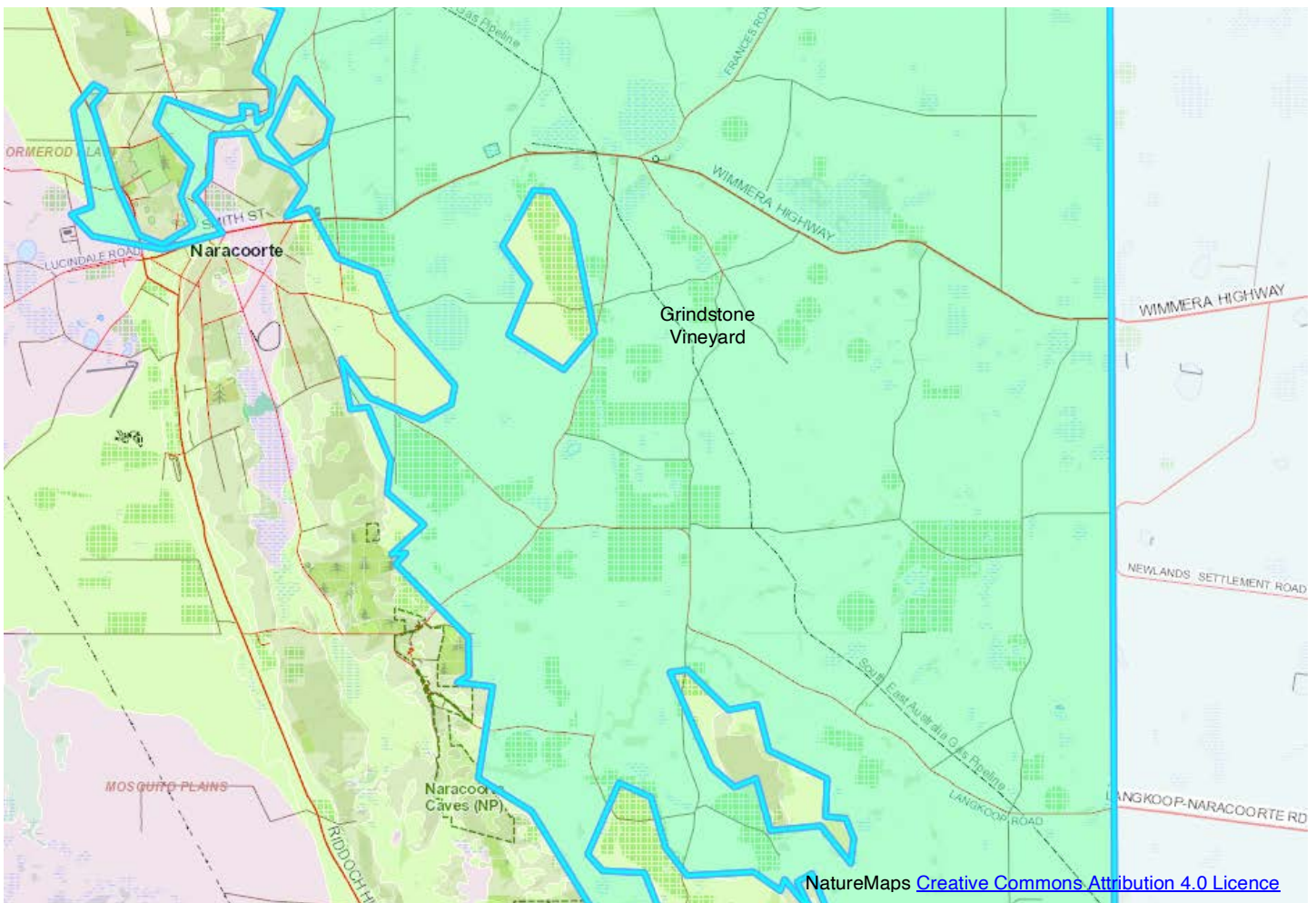
EcoGrower: Susie Harris

“EcoVineyards has been a positive experience. I have enjoyed working alongside other growers in the area and further afield, to increase biodiversity and have a beneficial effect on our site.”



Wrattenbully Wine Region

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



Case study

Progress (June 2019 to 2021):

What were you hoping to achieve and why?

Focus 1: Replacing the 'weed free strip' undervine with a species that does not inhibit grape crop growth, improves biodiversity and is easy to maintain (ideally not requiring mowing!).

Focus 2: Increasing biodiversity/insect habitat in our headland areas which have mainly red gums.

What did you do and when?

Focus 1: Autumn 2020 – herbicide applied to undervine trial rows, then planted native seed mix 2 kg

- kneed wallaby grass, *Rytidosperma geniculatum*
- windmill grass, *Chloris truncata*
- weeping rice-grass, *Microlaena stipoides*
- lemon beauty heads, *Calocephalus citreus*
- woolly New Holland daisy, *Vittadinia grisilis*
- everlasting daisy, *Chrysocephalum apiculatum*

and tube stock seedlings (80)

- fairy fan-flower, *Scaevola aemula*
- spur velleia, *Velleia paradoxa*
- berry saltbush, *Atriplex semibaccata*
- muntries, *Kunzea pomifera*

Winter 2021 – herbicide applied to prepare more undervine trial rows, hydroseeded three treatments – native seed mix, weed suppressing mulch and sub clover comparison.

Focus 2: Spring 2019 - Initial planting of Christmas Bush, *Bursaria spinosa* in headland areas – 50 trees

Winter 2020 – planted 275 tube stock – *Bursaria spinosa*, *Leptospermum continentale*, *Poa labillardieri*, *Juncus pallidus*, *Juncus subsecundus*, *Kunzea pomifera*.

Winter 2021 – planted 340 more tube stock in headland areas – *Bursaria spinosa*, *Banksia praemorsa* and *Carex* ssp. and *Juncus* ssp. on the edge of the wetland

What were the highlights?

Poa and *Juncus* are not eaten too heavily by kangaroos/wallabies and appear to have good insect inhabitants. *Bursaria spinosa* is growing really well, although are eaten by our resident macropods – spines and all! We have had to put larger guards on all but the grasses.



What worked well?

Knead wallaby grass, *Rytidosperma geniculatum* grew very well undervine when planted in Autumn and has formed a low thick mat. Seed worked better than seedlings (tube stock) planted undervine.

Plants in headland areas are growing well and we have lost very few.

Pitfalls to avoid

The hydroseeded native grass mix is yet to come up – this was planted in late winter 2021.

I think Autumn might be better for planting these grasses.

What are you more aware of now?

I am more aware of the diversity of the native species that are endemic to our area.

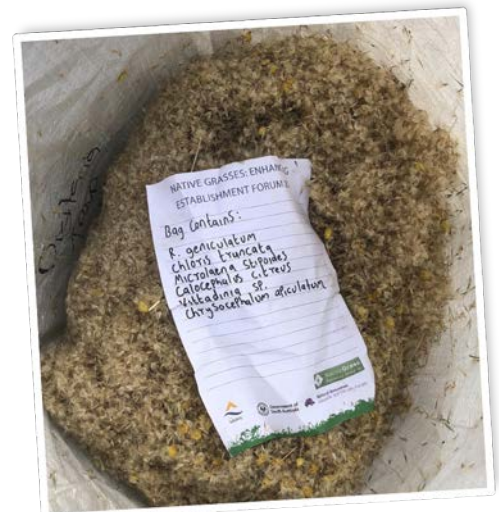


Photo above: Susie capturing progress via the photo-point (Photo: Mary Retallack).

Photos right: native grasses and forbs mix prior to sowing (Photo: Susie Harris) and Christmas bush/sweet bursaria, *Bursaria spinosa* (Photo: Mary Retallack).



May 2020: herbicide applied prior to raking the soil (left), seed spread by hand (right) (Photos: Susie Harris)



May 2020: wallaby grass seed raked in and pressed down by foot (left), finished row ready for germination and tagged to prevent herbicide application (right) (Photos: Susie Harris)



Seed plus sandy loam (left), wallaby grass emergence in July 2020 (right) (Photos: Susie Harris)



January 2021: wallaby grass setting seed (left) and August 2021 during winter (right) (Photos: Susie Harris)



August 2021: Hydroseeding seed and liquid mulch in the undervine area (left), November 2021 sub-clover growth (right) (Photos: Susie Harris)



July 2020: tube stock planted and guarded (left) and August 2021 growth (right) (Photos: Susie Harris)

Insights

Where to from here?

We will continue to plant areas of beneficial insect habitat in our headland areas. We will continue to monitor the native seed planted by hydroseeding to see if it comes up at some point

Are there any outstanding knowledge gaps you would like filled?

By hand planting a trial area of native grasses under vine, I established that it was possible to grow these species successfully under vine and that the size/height of the grasses (particularly the kneed wallaby grass) was what I wanted.

The question of how to do this on a much larger scale is now being addressed by Hydroseeding.

I have carried out a small Hydroseeding trial but would like to carry out more trial work using this method to see if we can get this to be a useful and cost-effective method of planting the under-vine area, where conventional seeding machinery cannot reach. This is particularly relevant for native seed which does not fall through conventional seeding equipment easily.

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

Discovering a network of people in our area who can help with increasing biodiversity – plant growers, advisors etc.

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

Yes, I have more knowledge about what grows well and what doesn't.



Native plant list:

- *Atriplex semibaccata*, berry saltbush
- *Banksia praemorsa*, cut-leaf banksia
- *Bursaria spinosa*, Christmas Bush or sweet Bursaria
- *Calocephalus citreus*, lemon beauty heads
- *Carex tereticaulis*, rush sedge
- *Chloris truncata*, windmill grass
- *Chrysocephalum apiculatum*, everlasting daisy
- *Juncus pallidus*, great soft-rush pale rush
- *Juncus subsecundus*, fingered rush
- *Kunzea pomifera*, muntries
- *Leptospermum continentale*, prickly tea-tree
- *Microlaena stipoides*, weeping rice-grass
- *Poa labillardieri*, common tussock-grass
- *Rytidosperma geniculatum*, kneed wallaby grass
- *Scaevola aemula*, fairy fan-flower
- *Velleia paradoxa*, spur velleia
- *Vittadinia grisilis*, woolly New Holland daisy



Photos above: Susie standing next to Christmas bush with mallee mesh guards installed and Susie sharing information at an EcoVineyards field session (Photo: Mary Retallack).

Photo left: Susie checking the shrubs and sedges planted adjacent to the vineyard in July 2020 and then May 2021 (Photo: Mary Retallack).

Expenses (cash and in-kind)

Name: Susie Harris, Grindstone Vineyard		Region: Wrattonbully			
Date	Activity	Number of plants	Grant cash expenses	Additional cash co-contribution	In-kind time captured
06/09/2019	Trees for Life - Christmas Bush @ \$2.50 each	50	\$ 125.00		6 hrs
29/04/2020	Seeding Natives (1 kg native grass)		\$ 150.00		
29/04/2020	Seeding Natives (1 kg <i>Vittadinia</i>)		\$ 250.00		
29/04/2020	Seeding Natives - postage		\$ 15.70		
03/08/2020	EE Muir & Sons - Bioweed Ultra (15 L)		\$ 270.00		
03/08/2020	EE Muir & Sons - 300 Tree Guard, 300 Stakes		\$ 609.00		
03/08/2020	Eucaleuca Native services (205 plants)	205	\$ 329.55		24 hrs
03/08/2020	Kersbrook Nursery (150 plants)	150	\$ 390.00		18 hrs
14/05/2021	Eucaleuca Native services (340 plants)	340	\$ 736.38		43 hrs
17/05/2021	Penola Hardware - Seasol		\$ 32.70		
08/06/2021	EE Muir & Sons - mesh, stakes, Lge stakes		\$ 91.77		
08/06/2021	Hydroseeding Australia - native seed trial		\$ 1,000.00		
Summer	Watering over summer (2 hours per week)				24 hrs
		745	\$ 4,000	\$ -	114 hrs

Thank you to our project partners!



This project is supported by the Limestone Coast 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 Bungandidj people are the traditional custodians of the Limestone Coast 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