

The Barossa Chapters: Resilience



ENVIRONMENTAL CHAMPIONS OF THE BAROSSA Six inspirational stories of change and innovation

Introduction:

Today, Australia's contribution to the world of wine is both familiar and yet still not fully explored.

Australians are celebrated for their enthusiasm and innovation; lauded for championing the consumer; and recognised for making wines with clean, bright expressions of fruit and an emerging appreciation of regional authenticity and signature expression.

The word 'regionality' is currently resonating around Australia. In an increasingly overcrowded wine marketplace, high-end customers and consumers of Australian wine are more and more interested in exploring a wine's provenance – the story behind the wine.

Strong, active and progressive regional brands are a potential way of connecting brand owners and regional wine communities to, and with, their audiences. Historically, this has meant engaging consumers with stories of landscape, geology, aspect, weather, and method, focussing on the nuances of place that makes that particular region different to all others.

For Barossa, in South Australia, this has meant the current generation of vignerons shifting their focus from 'what' they are doing, to 'how' and 'why' they are doing things differently. And in so doing, sharing with consumers the most important lesson of all: ensuring generations to come have the same opportunity to benefit from the land as we do.

In the driest, inhabited continent on earth, and with the world's oldest and most ancient geology, the realisation is simple but confronting: unless we convincingly start addressing the challenges of climate change and environmental sustainability, then our 200 year-old wine opportunity will be startlingly finite.

The Big Picture:



Strategies based on environmental understanding, working with nature and keeping an eye on the future.

“Our strategy of working with the whole community to better prepare for a changing climate is to work from the ‘ground up’ and engage people through inspirational stories,” explains Barossa Grape & Wine Association’s Viticultural Development Officer, Nicki Robins.

“Growers are improving their soil health with mulch and compost applications. They’re using water more efficiently, monitoring soil moisture, capturing and storing solar energy and water, applying vine sunscreens, trialling alternative varieties, and planting native and other non-competitive grasses and plants in the mid-row to improve water and nutrient infiltration. Many of these actions have the added benefit of enhancing biodiversity, decreasing tractor time, and reducing diesel use and chemicals applied in the vineyard.”

One of the immediate outcomes of this initiative is a video series, entitled ‘Environmental Champions of the Barossa’, and as Robins goes on to explain: ‘If the actions of certain growers can affect change in the behaviour of their peers and neighbours, then that will help build momentum and scale, embedding the resilient nature of this community and landscape.’”

Six Cases In Point:



Setting a Barossa course based on example, ingenuity and empathy.

1. Water As The Starting Point:

Anthony Scholz of Scholz Estate in the northern Barossa, is steadfast and purposeful - the type of farmer who believes the answers to challenges in agriculture lie in better understanding the landscape and natural resource.

At his Shiraz vineyard in Ebenezer, it would be tempting to think the greatest assets were the magnificent vines on this 73 hectare property. But that would be to overlook the significant and newly-completed 42 million litre irrigation dam, and its evaporation cover which reduces evaporation by more than 6 million litres annually.

Anthony explains: "The biggest challenge in agriculture and viticulture is climate change, and for growers that means water, and trying to achieve more with less. With less winter and spring rainfall, and hotter, drier summers, we need to make sure we get maximum efficiency out of our precious water reserves..."

"The dam gives us the potential to ensure that even when under duress we can tend our vines properly. And with additional, supporting activities like mulching under vines, we can not only preserve moisture, but also improve the overall, long-term soil health through providing a welcome home to micro-organisms.

"Beyond that, we are even targeting the source of the water challenge – the sun – and generating our own solar-powered energy. This gives us the opportunity to further future-proof our assets. Having this additional energy source to run the irrigation helps mitigate seasonal weather events that can threaten our viability."

The Take Out:

Anthony Scholz's example of using technology and good resource management is at the heart of a new viticultural and commercial reality: producing consistently yielding, high quality – and therefore profitable – product year after year; and producing as small a footprint as possible.



2. The Importance Of Great Ingredients:

In a starkly beautiful sweep of the Eden Valley high-country, you will find Daniel Falkenberg of Eden Hall Wines talking as passionately about the texture and richness of compost as an aspiring Master-chef contestant would about 'jus'!

But Daniel's passion has a serious and more enduring motivation: the health and viability of Eden Valley's fragile viticulture, where hotter, drier weather challenge this area as much – if not more – than the Barossa Valley floor.

Daniel's explanation is an ominous echo of Anthony's: "We don't have enough water, and that is the number one challenge of climate change. Add to that the naturally low nutrient levels of our soils, and you can see the balance that needs to be struck between getting better levels of water and organic matter into the soil, and keeping it there long enough to have a long-term, beneficial effect."

The potential solution at Eden Hall lies in the serious business of creating a remedial regime of soil health improvement based on mixing their own compost out of natural, organic matter, and adding it to back into the vineyard.

But this alone is not enough, and so supporting measures, such as introducing less water-reliant native grasses to replace fescues in the mid-rows, and careful monitoring of vineyard uptake using daily moisture monitoring probes, produces a sensitive system of health management that is part-organic matter, part-technology driven.

The Take Out:

Holistic systems that use traditional, low-technology inputs such as composts and mulching, allied to sophisticated, technology-assisted measurements, can produce results that improve soil health, moisture retention and vineyard biodiversity. Old ways and new technology in tandem.



3. Return Of The Native:

Evan Gobell of Stonewell Cottages and Vineyards looks for all the world like he has been tied to the land for generations, but as he is quick to point out: “I didn’t grow up on a vineyard, and in some ways that gives me an advantage – I think that can mean you are open to new ideas, and open to people who are prepared to have a go at doing things differently.”

Yet whether he is looking for a new perspective or not, Evan is as equally resolute as his viticultural peers, in terms of what and where the challenge is coming from: “If you are involved at all in agriculture, you are on the front-line of climate change.

“You notice the rapidly changing nature of passing seasons, and major fluctuations in weather patterns. When you see the mark of last year’s water level still stranded on the side of a dam in winter, and you see that dam is empty, then you should be in no doubt as to the reality of the challenge.”

Evan’s intuitive response was simply to act, and to start with the challenges set on the property that he worked: “I set about replacing and introducing native species around the dam, hoping to improve everything from water and soil retention, to the diversity of the landscape and the way that it’s interacting with everything from insects to birdlife, and the whole ecosystem.”

The next year, I invited Adelaide and Mount Lofty Ranges Natural Resources Management Board down to see what I had done and they immediately committed to helping me introduce a further 1000 native plants the following year. To be honest, I don't see myself as an ‘Environmental Champion’, I just think I am one example of a lot of people who are now doing a lot of good things,” Evan modestly concludes.

The Take Out:

Action is the most important step of all. The response to environmental challenge cannot always be absolute, but it must be immediate.



4. Improvise; Adapt and Overcome

Dr Mike McCarthy, principal viticultural research scientist at SARDI, has the smiling eyes of your favourite elementary school teacher, but draws upon a vast knowledge of cutting edge research to deliver some rather sobering truths:

“The wine industry is currently the canary in the coal mine – a good indicator of what might happen in the future with regard to climate change.”

McCarthy is heading-up a SARDI/Wine Australia-funded project on the Barossa Valley floor to explore the qualitative impact of less winter and spring rainfall on vine performance. The setting is a working vineyard, partly under artificial canopy, in order to mimic the effects of no access to natural rainfall, and to simulate a range of adverse conditions at critical points throughout the growing season.

He is also working a project which introduces evaporative cooling to drop night-time vineyard temperatures.

The intent is to explore what factors mitigate vine stress beyond the provision of water alone, and what responses might be able to mitigate the seasonal variabilities of dry spells and heat that we are currently experiencing.

McCarthy is clear but undaunted by the challenge and, in fact, enormously encouraged by the response of industry: “We’re getting great support from growers to what we are doing – which is basically trying to create adaptive management strategies for climate change.”

The Take Out:

The critical work is to understand not just the extent of our current adaptive capacity, but to assess accurately where we need to be in the next 100 years. McCarthy is in no doubt that it will be far away from where we are now.



5. Everything In Its Rightful Place:

Sam Dahlitz of Samerra Vineyards never strays from telling it like it is, particularly when it comes to explaining the purpose and benefit of cleaning up his local creek bed: “I’m not a greeny; I just like things looking neat and tidy. We don’t live in an area where we are supposed to have exotics, so it makes sense to return the landscape to its native cover.”

“I like the idea of cleaning it up, having it a bit more natural, and having an area that we can use again.”

The project benefitted from assistance from Adelaide and Mount Lofty Ranges Natural Resource Management Board as the original idea to ‘tidy up the creek a bit’ soon presented a fairly daunting challenge - half a kilometre of river was cleared of ash and olive trees, as a progressive program of native revegetation started.

But, as Sam explains, the outcome has gone beyond just good husbandry alone: “The more land-owners along the river we can get involved, the better. We haven’t just got the natives back, we’ve also benefited in the vineyard in terms of improved biodiversity.”

The Take-Out:

Balance is not a complicated equation. What was there in the first place; what should be there; and how can you best return it to its original state? Balance is often just as simple as restoring the natural order.



6. Because We're Australian!

Prue Henschke and her family's commitment to farming organically and biodiversity needs little introduction, but the work currently going on in the estate's Eden Valley vineyards shows a commitment that goes beyond just preferred method – it is the pursuit of a rightful and contributing sense of order.

"It is possible that I see things differently, perhaps because I am a botanist as well as a viticulturist," Prue modestly explains.

As for the progressive introduction and reintroduction of native plants into the vineyards and swathes, Prue not only imagines a kind of mutually rewarding exchange between vineyard and natural flora and fauna, but also an expression of national pride and identity: "It makes sense to me because it brings our real Australian smell; it brings our natural Australian flavour; and it makes it a genuine Australian site."

The viticultural benefits encompass a scope that ranges from better water retention within the rows, to improved soil health and the encouragement of natural vectors for predation and pollination – an improved biodiversity that is not only compelling for its authenticity, but also for its efficacy.

Prue convincingly concludes: "It is simply the right thing to do. It is an Australian landscape and we should welcome them into our vineyards."

The Take Out:

By following nature's example we can not only recover a lost sense of balance, but we can also uncover an improved outlook for physical and cultural landscape. Perhaps the last words are best left to Prue: "In such a monoculture as a vineyard, it is really important to try and introduce natives as a way of improving plant- and bio-diversity. It is their landscape after all, and we should welcome them into ours."

Barossa Environmental Champions Conclusion:



The idea that wine should reflect place is not a new one, and increasingly we need to balance that goal with practices and philosophies that ensure a long-term time frame for our endeavours.

Place should be inextricable to landscape, environment and culture if it is to be a 'true' reflection of where it hails from.

This current initiative encourages a new culture of stewardship for Barossa – an idea of collective responsibility that is best-expressed as giving back to the land as much as we demand from it.

We hope this approach becomes as identifiable a marker to Barossa wine as the current appreciation of our distinctive regional flavours, tastes and structure.