

# Demonstration Vineyards

## Adoption Impact

### Overview and summary of impact

There are currently 8 demonstration vineyards in the Barossa and Clare Valley. The vineyards are located at Vine line, Light Pass, Ebenezer, Krondorf, Eden Valley, Gomersal, Nuriootpa (x2).

Launched in 2014/15 with funding from Wine Australia, the vineyards demonstrate the benefits of modern vineyard management techniques such as mid-row swards (particularly native grasses) and mulch under-vine to improve water infiltration, reduce vineyard temperatures, improve soil health and increase biodiversity. The project shows, rather than tells, growers the benefits of these techniques, combined with improved pruning and introduction of catch-wires. They aim to demonstrate:

- improved water infiltration (reduces water and pumping costs).
- reduced vineyard temperatures, particularly night-time.
- more ability to withstand heatwaves, therefore improve yield and quality.
- improved soil health and therefore more consistent yield (while also reducing 'traditional' inputs/costs such as chemicals, fertiliser, fuel, machinery).
- reduced tractor passes, fuel, chemical and fertiliser costs (reduces compaction and erosion, whilst increasing vineyard profitability).

There are a number of case studies and videos showcasing the impact of the demonstration vineyards available on the [Wine Australia website](#). Two examples are provided below.



## The situation

Soil and vine health is a critical input to successful vineyards especially as they will come under increasing water and temperature challenges. The Barossa demonstration farm program seeks to work directly with growers in commercial settings to showcase a range of modern viticultural techniques that would improve soil health to produce more consistent yields; reduce reliance on traditional inputs such as fertilisers, chemicals and fuel; and potentially improve fruit and wine quality – all of which would also improve vineyard profitability.

These techniques include mulching, soil moisture monitoring, canopy health-based irrigation scheduling, catch wires, non-competitive mid-row grasses and remedial work to eliminate eutypa. Eutypa dieback is the major disease problem in the Clare Valley, with estimates of as much as 30% infection in many vineyards, leading to significant reductions in profitability.

## Connection with research and extension activity

A Wine Australia funded eutypa project, which is led by Dr Mark Sosnowski from the South Australian Research and Development Institute (SARDI), will have three deliverables for growers in the Clare and Barossa regions:

- a resource kit, including fact sheets and a short video, extending the latest information from SARDI research combined with local knowledge and management tips regarding prevention practices and treatment of the disease.
- a workshop to present the resource kit, discuss vineyard assessment and summarise the latest research and issues surrounding the adoption of various prevention and control strategies.
- a vineyard assessment program which would supply grape growers with the knowledge from current research and development to recognise disease symptoms in the field.

This field assessment will allow grape growers to apply appropriate decisions regarding eutypa management, particularly with respect to vine age and grape variety.

The key characteristics of the project of importance from an extension/adoption perspective are that it:

- focuses on an issue(s) of importance to producers
- provides a 'single source of truth' via a multi-faceted resource kit
- provides a hands-on learning environment via a workshop
- provides producers with an assessment program that allows them to be implementation-ready
- provides lots of farmer-useful data.

## Details of the impact

Adrian Hoffmann, the proprietor of Dimchurch Vineyards, has spent 10 years fine-tuning a eutypa reworking method that he believes has been key to reinvigorating his vineyard to deliver improved yield and quality. With yields as low as 3.5t/ha in the mid-2000s, Dimchurch Vineyards now reworks four to five hectares every year. The reworking has pushed yields back up to around 5.5 to 6.5t/ha and maintained them at that level. Yields in excess of 7t/ha have been achieved and the quality has been far superior to what it was even when yield was only 3.5 to 4.5t/ha.

Menglers Hill was achieving less than 2t/ha fruit production in 2014 so they instigated a reworking program cost \$2 per vine or \$3000 per hectare and returned yields to 6.5 to 7t/ha. See the case study here.

More than 120 Barossa growers and technical viticulturists turned out to attend a 'vine health' workshop held after the 2019 vintage – and another 50 attended a Clare Valley workshop on the same topic. The workshop program included a discussion of the vintage 2019 results of the eight demonstration vineyards being run by Barossa Grape & Wine (BGWA) and Clare Valley Wine & Grape (CVWGA) regional associations. In a survey of written grower feedback 88% rated value of the event high or very high; 76% rated 'knowledge gained from speakers' as high or very high; and 92% rated 'overall service from BGWA' as high or very high.

## Relevance to others

The demonstration vineyards provide an approach that is appealing to a wide range of producers and facilitates improvements in producer knowledge which can lead to significant practice change.