



IMPROVING SOIL HEALTH AND CONTROLLING INSECT PESTS FOR GREATER PRODUCTIVITY

This vine health workshop will focus on two key areas: soil health and mealy bug and scale control.

- Poor soil health can affect water infiltration and storage, and vine nutrition, having a significant impact on vine water relations and productivity.
- Grapevine mealy bug and scale, the grapevine pests found in increasing numbers in Sunraysia vineyards last vintage, can spread virus, cause sooty mould and reduce vine performance.

The first half of the workshop will focus on the importance of building soil health to improve vineyard resilience in warm irrigated winegrowing regions. Practices to build soil carbon and improve soil structure, water infiltration rates and soil fertility will be discussed. The second half of this workshop will focus on best practice scale management.

Time	Agenda	Presenter
08:30 – 08:45	Registration	
08:45 – 08:50	Introduction	Robyn Dixon (AWRI)
08:50 – 09:15	Soil health – practices to improve soil health, water infiltration and water holding capacity	Chiara Pasut (CSIRO)
09:15 – 09:40	Cover crops for building vineyard resilience in warm inland irrigated vineyards	Jeremy Nelson (Landscapes SA)
09:40 – 10:05	Sustainable viticulture in a commercial setting	Sam Bowman (Bowman Viticulture)
10:15 – 10:45	Morning tea	
10:45 – 11:15	Mealy bug lifecycle and control (chemical, biological, cultural) - VIRTUAL	Dr. Vaughn Bell (New Zealand Plant and Food)
11:15 – 11:40	Scale biology: species, prevalence, lifecycle, factors affecting their abundance and impact	Assoc. Prof Paul Cooper (ANU)
11:40 – 12:05	Mealy bug and scale biological control: natural enemies, ants, biodiversity	Dr Linda Thomson (University of Melbourne)
12:05 – 12:30	Scale chemical control: broad spectrum chemicals, softer chemicals, new chemicals	Jenny Venus (Brad Case Contracting)
12:30 - 1:00	Q&A	

Morning tea and lunch provided.

MILDURA

Tuesday 26 July, 8:30am – 1:00pm

SuniTAFE Smart Farm
161 Dairtnunk Ave, Irymple VIC 3498

SWAN HILL

Wednesday, 27 July, 8:30am – 1:00pm

Andrew Peace Wines
4077 Murray Valley Hwy, Piangil VIC 3597

To reserve your spot, please email admin@mwwi.com.au or call the office on 5021 3911



Robyn Dixon (AWRI)

Robyn Dixon is a Senior Viticulturalist at the AWRI, with over 20 years of national and international experience in vineyard management, technical viticulture, research, and extension. Since moving back to Australia from New Zealand, Robyn has been adapting her cool climate viticulture knowledge to Australian conditions, through the management of technical and extension programs across Australia.



Jeremy Nelson (Murray Lands and Riverland Landscapes Board)

Jeremy Nelson is a project officer working in the Sustainable Agriculture team of the Murraylands and Riverland Landscape Board (Murray Bridge). After completing studies and a stint in Adelaide Hills viticulture Jeremy furthered an interest in irrigated water resource management and this led to him moving to the Riverland region (2005-2022) to participate in drought mitigation strategies during the millennial drought as a field officer with the then South Australian Murray Darling Basin NRM Board. Subsequently Jeremy has diverged into further associated agricultural trial work in the fields of dairy, broad acre, and pivot agriculture within the SAMDB region. This work has covered a range of differing themes spanning from improving conventional agronomy and resource usage, cover cropping (dryland) through to irrigation and ancillary systems energy usage and efficiency studies. Jeremy is the central contact and daily operations manager for the 40-device strong automated weather station network operated by the Murraylands and Riverland Landscape Board and works with industry and individuals to improve their ability to apply climatic data into production systems. Jeremy is currently developing project work in the Riverland region of SA focusing on soil sustainability in viticulture. This work is particularly comprised of studying the inter-relations of undervine cover cropping, compost and injectable biological soil conditioner applications on soil health, function and vine yield. This work is being applied across the classic sandy-loam and river-flat cracking clay soil types and is yielding promising results in terms of soil organic carbon, nitrogen mineralisation and micro-biology.



Chiara Pasut (CSIRO)

Chiara is a soil-biogeochemist modeller with a particular interest in the interactions between organic carbon and nitrogen in soils, and the importance of these on ecosystem function and agricultural productivity. She's recently joined CSIRO, and her research concentrates on monitoring and modelling soil carbon stocks and flows through agricultural systems, including land management, soil-water dynamics, transport and fate of chemical species, and bio-physical processes linking nutrient cycles, plants, and soil microbial communities. The final target includes the accounting of GHG emissions, carbon and nitrogen stocks in soil, and ecosystem service and sustainability.

Chiara is currently involved in a number of on-going projects and research areas, including:

1. Generate high-quality, open-access soil carbon and carbon input datasets that can be used to understand temporal changes in soil carbon stocks and their potential vulnerability across Australia;
2. Linking vegetation cover to soil carbon and sequestration potential in Australian rangelands

3. Understanding the effect of anthropogenic activities and land management practices on soil carbon sequestration.



Dr Vaughn Bell (New Zealand Plant and Food)

Dr Vaughn Bell is a Senior Scientist working for The New Zealand Institute for Plant & Food Research, Havelock North. Since 2004, he has studied sap-feeding mealybugs in vineyards, with an emphasis on their ecology, biology and ability to transmit (or vector) grapevine viruses. By examining the inter-relationship between the vine, virus and vector, his findings have contributed to the development of a practical and financially sustainable virus management response commonly deployed in commercial vineyards in New Zealand.

Assoc. Prof. Paul Cooper (ANU)

Assoc. Prof. Paul Cooper undertook his PhD at UCLA and held four postdoctoral positions before being appointed as a lecturer at ANU in 1987. Paul is the editor-in-chief for the *Australian Journal of Zoology* and has worked on various aspects of feeding in insects, including several papers on the biology of phylloxera and scales on grapevines.



Dr Linda Thomson (University of Melbourne)

Dr Linda Thomson has extensive research experience in biological monitoring, biodiversity assessment and invertebrate conservation and ecology with particular interest in integrated pest control options for the grape/wine industries, including how landscape changes can be harnessed to provide pest control services. I have published extensively in international journals and have also ensured that outcomes are widely available to industry by publishing in industry journals and speaking to grower groups. My research focus has been on interactions between pests, natural enemies and the local environment.



Jenny Venus (Brad Case Contracting)

Jenny Venus has worked in the viticulture industry for more than 20 years. Jenny is a Viticulture Consultant with Brad Case Contracting, addressing viticulture issues across South Australia. Jenny was awarded Viticulturist of the Year for Langhorne Creek in 2021. She has a keen interest in vineyard pests and diseases and their control, in particular scale insects and their effect on vine health and virus spread.

