

Wednesday, 9 November 2022

University of Wollongong, Southern Highlands  
Kirkham Street  
Moss Vale, NSW 2800

9:00 am – 12:30 pm

Time	Agenda	Presenter
09:00 – 09:25	Welcome and introduction	Marcel Essling (AWRI)
09:25 – 09:50	Managing 'reductive' aromas in wine	Marlize Bekker (AWRI)
09:50 – 10:15	Making tropical wine by vineyard foliar application of nitrogen and sulfur	Josh Hixson (AWRI)
10:15 – 10:40	Cover cropping	Chris Penfold (AWRI)
10:40 – 11:15	<b>Morning tea</b>	
11:15 – 11:40	How to improve fruit set in cool climates	Mardi Longbottom (AWRI)
11:40 – 12:05	When do grapes stop accumulating sugar and why this is important?	Paul Petrie (SARDI)
12:05 – 12:30	Spray application: the basics	Marcel Essling (AWRI)

### Booking is essential

Please book [here](#) and for more information, please contact:

AWRI Events  
Ph. 08 8313 6600 | Email: [events@awri.com.au](mailto:events@awri.com.au)



**Wine  
Australia  
for  
Australian  
Wine**

**Marcel Essling – Senior Viticulturist, Industry Development & Support**  
[Marcel.essling@awri.com.au](mailto:Marcel.essling@awri.com.au)



Marcel Essling is a Senior Viticulturist at The Australian Wine Research Institute. He provides viticulture and technical advice to the Australian wine sector as well as coordinating activities associated with the provision of information related to agrochemicals. He holds a BAgSc in Viticulture from The University of Adelaide and a BBus from Victoria University of Technology. Marcel is chair of the Agrochemical Reference Group, represents the AWRI on AgChem Access Priorities Forum, advises the Wine Industry Technical Action Committee and is a member of the Adelaide Hills Wine Technical Subcommittee.

**Dr Marlize Bekker – Principal Research Scientist, Research & Development**  
[marlize.bekker@awri.com.au](mailto:marlize.bekker@awri.com.au)



Dr Marlize Bekker is a Principal Research Scientist at the Australian Wine Research Institute. She completed her PhD in Organic and Analytical Chemistry at Stellenbosch University (South Africa) focused on pheromone research and natural product chemistry. She joined the AWRI in 2011 and now leads a team of scientists whose research is focused on understanding the formation and fate of undesirable volatile sulfur compounds in wine and providing winemakers with tangible advice on how to increase flavour and aroma compounds associated with premium characters in wine.

**Josh Hixson – Senior Research Scientist, Affinity Labs**  
[Josh.hixson@awri.com.au](mailto:Josh.hixson@awri.com.au)



Josh is a Senior Research Scientist at the AWRI with expertise in chemical structure and reactivity. He obtained a PhD from the University of Adelaide looking at the generation of Brettanomyces-derived off-aroma. Since joining the AWRI in 2012 he has worked on the re-use of winery waste with a focus on phenolics, and now applies his chemistry knowledge to the modulation of flavour in the vineyard, winery and in-bottle.

**Chris Penfold – Senior Viticulturist – Australian Wine Research Institute**  
[Chris.penfold@awri.com.au](mailto:Chris.penfold@awri.com.au)



Chris Penfold's roots are from a broadacre farm at Tumby Bay on Eyre Peninsula. He gained an Agriculture Degree and Postgraduate Diploma in Natural Resource Management from Roseworthy Agricultural College, and later a Masters in Agricultural Science, which was the culmination of an eight-year investigation of organic and biodynamic broadacre farming systems. In 2000 he started the journey in viticultural research, which included investigating non-chemical weed control, native cover cropping options, organic and biodynamic systems and most recently under-vine cover cropping as an alternative to the application of herbicides for weed control. After 30 years he has retired from research at the University of Adelaide and now enjoys part-time work with the AWRI and conducting organic audits for NASAA, along with some recreational flying and travel when possible.



**Dr Mardi Longbottom – Manager Sustainability and Viticulture**  
[mardi.longbottom@awri.com.au](mailto:mardi.longbottom@awri.com.au)

Mardi began her career in the wine industry in the early 1990s helping to establish her family's vineyards in Padthaway, South Australia. Shortly afterwards she gained her viticultural degree and held technical and vineyard management positions across numerous Australian wine regions. Mardi returned to the University of Adelaide in 2002 where she completed a master's and PhD in Viticulture and was a Lecturer in Viticulture. For the past ten years, Mardi has focused on research and extension of wine industry sustainability projects including regional climate risk analyses, benchmarking greenhouse gas emissions from vineyards and the management of corporate water assets. She now manages the Australian wine industry's sustainability program, Sustainable Winegrowing Australia. Mardi is a graduate of the SA Governor's Leadership Foundation Program and a former director of Australian Grape and Wine Inc and the Australian Society of Viticulture and Oenology.



**Paul Petrie – Principal Scientist – Viticulture, SARDI**  
[paul.petrie@sa.gov.au](mailto:paul.petrie@sa.gov.au)

Paul Petrie is the Principal Scientist – Viticulture and Program Manager of the Irrigated Crops group at the South Australian Research and Development Institute. He has extensive experience in the Australian wine industry which includes working in research and extension at the Australian Wine Research Institute and as the National Viticulturist at Treasury Wine Estates. Paul grew up helping his parents establish a vineyard in New Zealand and before moving to Australia for a role at CSIRO he completed a PhD on canopy management at Lincoln University. Paul leads a viticultural research program aiming to improve the resilience of Australian vineyards; improving their productivity and ability to adapt to climate change. This work includes projects developing strategies to better manage dry winters and to understand and manage vintage compression. He also has an active interest in the application of technology to the wine industry and has previously developed a system to assess grapevine water status using a thermal camera mounted on a smartphone and is currently working on a project to assess and map grapevine trunk diseases using an action camera. Paul supports a wide range of horticultural projects; including the development of high density almond orchards and the assessment of the recovery of apples and cherries after bushfire damage.