

# Crush 2024

## 25 - 26 September

Adelaide Convention Centre, South Australia



# Program

\*Program is subject to change

The Crush organisers would like to thank the following sponsors



**Australian Wine Industry**  
Technical Conference & Trade Exhibition



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Agriculture Water Environment



**Wine Australia**



# Program Day 1 **Session 1**

Wednesday, 25 September 2024 | Riverbank Rooms 2, 3 & 4

Chaired by Dr Christine Böttcher, CSIRO and Dr Dimitra Capone, University of Adelaide

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|    |          |  |
|----|----------|--|
|    | 09:00 AM | <b>Welcome to Crush 2024</b><br>Christine Böttcher, CSIRO (WIC Reasearch Group Chair)  |
| 1  | 09:10 AM | <b>Keynote speaker + Q &amp; A</b><br>Prof. Kym Anderson, University of Adelaide   |
| 2  | 09:35 AM | <b>Remotely sensed crop coefficients of wine grapes for precision irrigation</b><br>Dr Vinay Pagay, University of Adelaide & Athena IR-Tech                          |
| 3  | 09:42 AM | <b>The potential use of natural compounds to manage diseases in grapevines</b><br>Dr Tarita Furlan, SARDI  |
| 4  | 09:49 AM | <b>From rapid white wine shelf-life test to red wine mouthfeel prediction using the power of machine learning</b><br>Yingxin Miao, University of Adelaide            |
| 5  | 09:56 AM | <b>Factors affecting the formation of 'struck flint' aroma in wine</b><br>Dr Toni Cordente, AWRI   |
| 6  | 10:03 AM | <b>Bridging the learning gap between researcher-led field trials and producers own trials.</b><br>Professor Katherine Evans, University of Tasmania                  |
| 7  | 10:10 AM | <b>Evaluating the potential for smoke from prescribed burns to taint grapes and wine</b><br>Song Yan, University of Adelaide   |
| 8  | 10:17 AM | <b>Pruning cut position affects the susceptibility of grapevine pruning wounds to <i>Eutypa lata</i> and natural dieback</b><br>Daniel March, University of Adelaide |
| 9  | 10:24 AM | <b>Understanding the sensory gap between no and low alcohol (NOLO) wine and traditional wine</b><br>Huanhuan Li, University of Queensland                            |
| 10 | 10:31 AM | <b>Cover crops to carbon stocks</b><br>Dr Joseph Marks, University of Adelaide   |
| 11 | 10:38 AM | <b>Closing the loop on grape marc using insect bioconversion</b><br>Chris Malcolm, Mobius Farms  |
|    | 10:45 AM | <b>Q&amp;A</b>   |
|    | 10:55 AM | <b>Morning Tea (25 minutes)</b>  |

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# Program Day 1 **Session 2**

Wednesday, 25 September 2024 | Riverbank Rooms 2, 3 & 4

*Chaired by Dr Vinod Phogat, SARDI and Dr Paul Boss, CSIRO*

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|----|----------|--|
| 12 | 11:20 AM | <b>Keynote speaker + Q &amp; A</b><br>Jean Macintyre, Pernod Ricard Winemakers   |
| 13 | 11:45 AM | <b>Exploring the basis of drought resilience in grapevines of varying age</b><br>Grace Prayogo, University of Adelaide   |
| 14 | 11:52 AM | <b><sup>137</sup>Cs analysis by gamma spectrometry as a tool for dating old wines</b><br>Vasiliki Thanasi, University of Lisbon  |
| 15 | 11:59 PM | <b>Estimating long-term water demand of grapevine in the Barossa region under current and future climate projections</b><br>Dr. Vinod Phogat, SARDI  |
| 16 | 12:06 PM | <b>Optimising the use of membrane filtration and adsorbent resin to remediate smoke tainted wine</b><br>Yiming Huo, University of Adelaide   |
| 17 | 12:13 PM | <b>Grapevines naturally infected with trunk disease pathogens as a potential source of inoculum in the vineyard</b><br>Colin Starkey, Charles Sturt University   |
| 18 | 12:20 PM | <b>Investigation of the impact of biochar application on soil carbon and nitrogen pools as well as plant water and nitrogen use efficiency in Southeast Queensland vineyard trials</b><br>Kate Kingston, Griffith University |
| 19 | 12:27 PM | <b>Consumer acceptance of novel foods and beverages: A systematic literature review and future research agenda for the wine sector</b><br>Syuzanna Mosikyan, University of Adelaide  |
| 20 | 12:34 PM | <b>Ecosystem monitoring of scale insect and mealybug vineyard pests</b><br>Dr Chris Ward, AWRI   |
| 21 | 12:41 PM | <b>'Shaken or stirred?' Virus cocktails linked to Shiraz disease impact physiological performance and defence responses in grapevine</b><br>Dr Vinay Pagay, University of Adelaide   |
|    | 12.48 PM | <b>Q&amp;A</b>   |
|    | 01.00 PM | <b>Lunch (1 hour)</b>  |

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# Program Day 1 **Session 3**

Wednesday, 25 September 2024 | Riverbank Rooms 2, 3 & 4

*Chaired by Dr Mango Parker, AWRI and Dr Tarita Furlan, SARDI*

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|    |          |  |
|----|----------|--|
| 22 | 02:00 PM | <b>Keynote speaker + Q &amp; A</b><br>Stefano Poni, Università Cattolica del Sacro Cuore   |
| 23 | 02:25 PM | <b>Sensory and consumer insights of Australian red wines made from non-traditional, emerging red grape varieties</b><br>Jacob Long, University of Adelaide                             |
| 24 | 02:32 PM | <b>Under vine living mulches improve soil physical properties on a Sodosol and Dermosol in Tasmania</b><br>Philippa French, University of Tasmania                                     |
| 25 | 02:39 PM | <b>Tracking the evolution of red wine maturation and ageing: Novel approach based on spectrofluorometric fingerprints</b><br>Shuyue Fan, University of Adelaide                        |
| 26 | 02:46 PM | <b>Glutathione and cysteine bound disulfides as sources of 'struck flint' aroma compounds phenylmethanethiol and 2-furylmethanethiol in Chardonnay wine</b><br>Dr Deanna Langone, AWRI |
| 27 | 02:53 PM | <b>Understanding salt uptake and accumulation in grapevines</b><br>Dr Yue Wu, University of Adelaide   |
| 28 | 03:00 PM | <b>The impact of water stress on Petri disease development in young grapevines</b><br>Dr Jared Hrycan, Charles Sturt University  |
| 29 | 03:07 PM | <b>Understanding the influence of shading on grapevine performance under a Vitivoltaic system</b><br>Haodong (Torian) Jiang, University of Adelaide                                    |
| 30 | 03:14 PM | <b>Source to table: Isotope analysis in irrigated agriculture and implications for grape origin traceability</b><br>Dr Ellyse Bunney, CSIRO  |
| 31 | 03:21 PM | <b>Controlling Brettanomyces: new approaches in wine spoilage management</b><br>Yanina Giordano, University of Adelaide  |
|    | 03:28 PM | <b>Q&amp;A</b>   |
|    | 03:38 PM | <b>Afternoon Tea (25 minutes)</b>  |

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# Program Day 1 **Session 4**

Wednesday, 25 September 2024 | Riverbank Rooms 2, 3 & 4

*Chaired by Dr Cristian Varela, University of Adelaide and Dr Agnieszka Mierczynska-Vasilev, AWRI*

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|    |                        |  |
|----|------------------------|--|
| 32 | 04:05 PM               | <b>Keynote speaker + Q &amp; A</b><br>Rob Bramley, <a href="http://robbramley.ag">robbramley.ag</a>  |
| 33 | 04:30 PM               | <b>Physiological events that underlie berry cell death and shrinkage</b><br>Lishi Cai, University of Adelaide  |
| 34 | 04:37 PM               | <b>Can spinning cone column distillation and activated carbon remediate smoke taint in wine?</b><br>Ysadora Mirabelli-Montan, University of Adelaide                               |
| 35 | 04:44 PM               | <b>How can we best use statistical methods to quantify the impact of climate change on the wine industry? A case study for Australia</b><br>Dr German Puga, University of Adelaide |
| 36 | 04:51 PM               | <b>Developing strategies to monitor powdery mildew resistance to fungicides in Australian vineyards</b><br>Dr Ismail Ismail, SARDI   |
| 37 | 04:58 PM               | <b>Innovative SPE technique for analysis of polysulfides in wine and beer</b><br>Yu Hou, University of Adelaide  |
| 38 | 05:05 PM               | <b>Grapevine root distribution and implications for water and nitrogen uptake in cover cropped vineyards</b><br>Calvin Lam, Charles Sturt University                               |
| 39 | 05:12 PM               | <b>Comparing the drought resilience traits of traditional and emerging grapevine cultivars in Australia</b><br>Caoyang Wang, University of Adelaide                                |
|    | 05:19 PM               | <b>Q&amp;A</b>   |
|    | 05:29 PM               | <b>Official closing of Crush Day 1</b><br>Dr Cristian Varela, University of Adelaide (Crush Planning Committee Chair)  |
|    | 05:45 PM               | <b>Pre-dinner Drinks</b><br>Foyer A/B<br><b>Sponsored by Jacob's Creek</b>   |
|    | 06:15 PM –<br>09:00 PM | <b>Crush 2023 Dinner and Awards</b><br>Foyer A/B<br><b>Sponsored by Jacob's Creek</b>  |

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# Program Day 2

Thursday, 26 September 2024 | Riverbank Rooms 2, 3 & 4

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|   |                        |   |
|---|------------------------|---|
|   | 11:00 AM               | <b><i>Morning Tea</i></b>   |
| 1 | 11:30 AM               | <b><i>Welcome to Crush Day 2</i></b><br>Dr Eveline Bartowsky, ASVO, Director, Lallemand   |
| 2 | 11:35 AM               | <b><i>Australian research priorities</i></b><br>Dr Paul Smith, Wine Australia, General Manager, Research and Innovation                         |
| 3 | 11:55 AM               | <b><i>Australian wine research in a global scientific context</i></b><br>Dr Mark Krstic, AWRI, Managing Director                                |
| 4 | 12:15 PM               | <b><i>Wine research perspectives - opportunities</i></b><br>Dr Chris Ford, University of Adelaide, Deputy Dean of Graduate Studies              |
| 5 | 12:35 PM               | <b><i>The future of the journal publishing experience... and how we get there</i></b><br>Tamara D'Mello, Wiley, Associate Publisher, Research   |
|   | 12:55 PM               | <b>Q&amp;A</b>  |
|   | 01:05 PM               | <b><i>Lunch</i></b>   |
| 6 | 01:35 PM               | <b><i>Increasing your research impact</i></b><br>Ashlinn Theroux, Wiley, Journals Marketing Manager   |
| 7 | 02:05 PM               | <b><i>Communication - the forgotten critical skill of a research professional?</i></b><br>Andrew Clarke, Wine Australia, Agtech Program Manager |
| 8 | 02:25 PM               | <b><i>The rise of AI</i></b><br>Dr. Hong Zhou, Wiley, Director of Intelligent Service Group and AI R&D  |
|   | 02:45 PM               | <b>Q&amp;A</b>  |
|   | 03:00 PM               | <b><i>Official closing of Crush 2024</i></b>  |
|   | 03:10 PM -<br>04:00 PM | <b><i>Afternoon tea</i></b>   |

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Crush 2024 is supported and coordinated by contribution from the following:

## WIC Research Group, Crush 2024 Program Committee, ASVO

### **WIC Research Group**

Christine Böttcher (Chair)  
Kerry Wilkinson  
Paul Petrie  
Markus Herderich

### **Crush 2024 Planning Committee**

Cristian Varela (Chair)  
Dimitra Capone (Co-Chair)  
Christine Böttcher  
Paul Boss  
Vinod Phogat  
Tarita Furlan  
Mango Parker  
Agnieszka Mierczynska-Vasilev  
Cerys Colquhoun (WIC EO)

### **ASVO**

Chris Waters