



**BENDIGO  
VICTORIA**  
TUESDAY 26TH AND  
WEDNESDAY 27TH FEBRUARY 2019

# GRAINS RESEARCH UPDATE

**BOOSTING PROFITABILITY – RESILIENT SOLUTIONS**



**GRDC™**  
GRAINS RESEARCH  
& DEVELOPMENT  
CORPORATION

**Ulumbarra Theatre,  
Gaol Road**



[grdc.com.au](http://grdc.com.au)



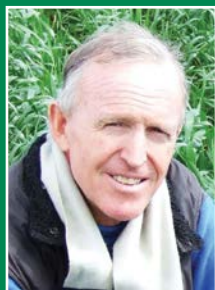
# Day 1 program

8.30 am registration for a  
8.55 am start - 5.30 pm

## PLENARY PRESENTATIONS

### The 'National Paddock Survey' – what have we learned?

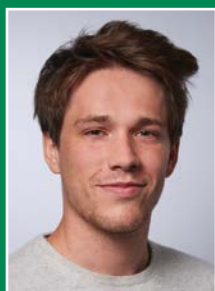
What are the main opportunities to bridge the yield gap? What can realistically be done about it while balancing risk and financial implications? This session will give an insight into how advisers and growers can use the results of the National Paddock Survey to determine the yield gap and develop practices to improve water limited yield. Harm is a partner in Crop Facts Pty Ltd, an agricultural consulting firm he has operated for over 25 years. He is currently the National Co-ordinator for the GRDC 'National Paddock Survey' and the 'Soil and plant testing to inform better nutrient management' programs.



**Harm van Rees,**  
*Crop Facts Pty Ltd*

### In crop weed search and destroy technology

Guillaume will outline the Intelligent Spot Spraying System his France based company developed. The system has the potential to reduce herbicide usage by 80%. The technology is an AI based solution combining an array of cameras with in crop weed recognition, real time spot spraying and weed mapping software. The technology is in use on selected farms around the world. Guillaume is a founding partner of tech start-up company Bilberry founded in 2015. Their main goal is to develop intelligent agriculture systems that can help farmers and environment alike.



**Guillaume Jourdain,**  
*Co-founder and CEO, Bilberry*

### Evidence and emotion: finding a new way forward for the grains industry

In response to recent negative publicity surrounding agricultural practices, Richard will discuss how public perceptions and consumer emotions influence the engagement in the debate and what that means in terms of how the agricultural sector needs to communicate to re-build trust. Richard brings his diverse experiences within the grains industry to focus on this timely and relevant issue.



**Richard Heath,**  
*Executive Director, Australian Farm Institute*

## CONCURRENT PRESENTATIONS

### Nitrogen and soil organic matter decline - what is needed to fix it?

Jeff will provide the current 'state of play' in our understanding of the capability of our cropping systems to supply sufficient nitrogen to crops. Can the supply from soil organic matter through mineralisation combined with N fertiliser be sufficient to feed crops into the future? Jeff Baldock, *CSIRO*

### Statistics made sexy

How to make the best use of research statistics. Dale will present the basics of statistical analysis to make it easier to cut through and identify significant data for practical use. Dale Grey, *Agriculture Victoria*

### Herbicide residue in soil - what is the scale and significance

Two seasons of residue survey data matched up with available phytotoxic thresholds - what are the learnings to date about injury thresholds in crops? How do we best interpret soil herbicide residue test results? How do extended dry spells impact? Mick Rose, *NSW DPI*

### Fixing more N - improving the performance of inoculants in suboptimal conditions

What are the best inoculant options for dry sowing? What opportunities are there to improve nodulation, N-fixation and yield of pulse crops along with selection of improved rhizobia for beans and lentils? Liz Farquharson, *SARDI*

### Pest patrol - Russian wheat aphid under the spotlight

A fresh look at RWA including numbers, symptoms and yield loss in relation to aphid numbers and plant symptoms. New research on seed treatments, insecticide sprays and threshold information. How important are risk factors such as over summer host plants, climatic conditions, land usage and presence of beneficial invertebrates. Elia Pirtle, *cesar*

### Emerging management tips for early sown winter wheats

James will fill us in on the best emerging winter wheat cultivars and management practices to maximise yield in early sown crops. James Hunt, *La Trobe University*

### Cost effective outcomes for ameliorating sandy soils

Lynne will discuss the contrasting suite of constraints that are affecting Victorian sandy soils and the cost-effective amelioration approaches being developed to remedy them. Lynne Macdonald, *CSIRO*

### Canola - latest on new variety phenology, response to frost and optimum management strategies

What are the management 'rules of thumb' for optimum canola growth and how does maturity length mitigate the crop's exposure to frost? Cam Taylor, *BCG*

### Cereal and soil borne disease wrap up

Grant will discuss issues relating to cereal foliar disease, rhizoctonia and some key learnings from the National nematology, diagnostic and crown rot projects. Grant Hollaway, *Agriculture Victoria*

### Sustaining our herbicides options into the future

The latest herbicide resistance research and options for sustaining herbicide use. Chris Preston, *The University of Adelaide*

### Providing advice to growers - getting a healthy balance between care and responsibility

How much responsibility and ownership do you feel when providing advice to growers? How to get the balance of supporting the decision of the grower with robust, considered advice based on evidence, data and experience but leaving ultimate ownership of the decision to the grower. Kate Burke, *Think Agri*

### High Rainfall Zone Research Forum

This forum will be in an extended format. Firstly, Nick will provide an overview on aspects of the hyper-yielding cereal project that relate to southern Victoria and give an update on septoria. Fiona will report on research into waterlogging and its effect on nitrogen use efficiency. This session will be closed by Jon with a summary of outcomes from SFS research projects. Nick Poole, *FAR Australia* Fiona Robertson, *Agriculture Victoria* Jon Midwood, *SFS*

### Emerging research from PhD students

Corinne Celestina and Drew Portman

## Networking drinks in trade display area

# Day 2 program

9.00 am to 3.00 pm

## PLENARY PRESENTATIONS

### Pesticides and regulatory impacts - the road ahead

Gordon will address some key questions regarding chemical regulation in Australia including; what pesticides are currently under review with APVMA, which ones are likely to come under scrutiny in the future, and what's likely to replace them, and at what cost? He will also discuss what's happening in Europe and Canada that could influence chemical availability and use in Australia. Gordon is currently the GRDC Manager of Chemical Regulations. He brings to the role over 25 years' experience in research, development and project delivery. His previous roles have been with Pulse Australia, FMC Chemicals and Crop Care Australasia.



**Gordon Cumming,**  
GRDC

### Integrated weed management status - where to from here?

Mix it up? With the reporting of alphabet cross-resistance; how important is the use of non-chemical approaches to IWM? Peter will provide a comparison of various IWM methods and discuss future challenges and opportunities.

As the leader of communications at the Australian Herbicide Resistance Initiative, Peter always finds a new and interesting way to deliver the message about managing resistant weeds by targeting the seed bank.



**Peter Newman,**  
AHRI



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## CONCURRENT PRESENTATIONS

### Sowing into stubble - impacts of stubble height, row widths and Yellow Leaf Spot on crop development

Michael will provide an update of the research outcomes from the GRDC Stubble Initiative conducted on farms in southern NSW and North Eastern Victoria. *Michael Straight, FAR Australia*

### Understanding alphabet resistant annual ryegrass - where to from here

This update on herbicide resistance from Peter will focus on the results of testing products used for multi-resistant ryegrass. *Peter Boutsalis, The University of Adelaide*

### Liming and limes - managing soil acidity

Lisa will present the results of SFS research into soil acidity focusing on lime, subsoil pH amelioration, timing and variability within the paddock and product differences. *Lisa Miller, SFS*

### Fungicides strategies in canola - achieving yield responses to foliar application

Steve will share the latest knowledge on this topic including recent trial results looking at evidence for yield response to the application of foliar fungicide and timing. When can an economic response be expected? *Steve Marcroft, Marcroft Grains Pathology*

### Insects - tools for forecasting risks to enable proactive management

What is the latest research into predictive tools for pest management? Taking a proactive rather than reactive approach – tools to help create action plans leading to more effective and sustainable pest management strategies. *James Maino, cesar*

### Relative importance of different factors on the water use efficiency of wheat in the Wimmera, Mallee and Western districts

Understanding the implications of research into the importance of environmental, management and genetic factors on WUE of wheat in Western Victoria. *Roger Armstrong, Agriculture Victoria*

### Mice - status, baiting and forecast threat

Steve will outline what mice numbers to expect in the lead up to sowing; what factors affect the reduction in their numbers and baiting strategies based on mouse food preference data. *Steve Henry, CSIRO*

### Weed research - chaff lining weed persistence and site specific targeted tillage

Mike will present the highlights of the suite of projects currently conducted by the University of Sydney team. He will give a summary of several IWM technology-based solutions being researched including weed recognition and targeted tillage systems. *Mike Walsh, The University of Sydney*

### Nitrogen placement application methods - effects on yield, protein and nitrogen use efficiency

Are you getting value for money? What effect does the application method and location of N fertiliser have on yield, soil nutrition and NUE? And how can you deal with narrow row spacings and high stubble loads? *Ash Wallace, Agriculture Victoria*

### Pulse Agronomy Forum

This forum will be in an extended format. Firstly, Josh will provide an update on recent research into current pulse diseases affecting the agriculture industry. Audrey will provide some insight into frost impact in lentils and IMI tolerance while the session will be closed by Jason with a summary of outcomes from the pulse agronomy project he leads. *Josh Fanning, Audrey Delahunty, Jason Brand, Agriculture Victoria*

# EVENT DETAILS



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## IMPORTANT INFORMATION

### Registration options

**Cost:** **\$245** one-day inc. GST | **\$345** two-days inc. GST  
**Student:** **\$80** student one-day inc. GST | **\$150** student two-days inc. GST  
**Extra proceedings:** **\$60** for pick up inc. GST | **\$80** posted inc. GST

**Click here to register and pay online**

### Early bird registration

Early bird registration closes **25 January 2019**. Register early to go into the draw to win a free registration for the 2020 GRDC Grains Research Update in Bendigo.

### Cancellation

If cancellation of your registration is necessary, please contact ORM with details. Cancellations prior to **21 February 2019** will receive a full refund. **There will be no refunds for cancellations received on or after 21 February 2019**. Registration is transferable at any time.

### Car parking

All day parking vouchers for designated car parks will be available to registered attendees.

### Catering

Food and beverages are provided throughout the day.

### Accommodation

A link to accommodation options is available via the [www.orm.com.au](http://www.orm.com.au) website.

### Program

Topics and speakers are subject to change.

The final program will be provided to registered attendees and made available via the GRDC website in January.

### Industry supporters

Opportunities for industry supporters are available.  
For details contact ORM.

### Contact details

For enquiries, contact ORM on **03 5441 6176** or email [admin@orm.com.au](mailto:admin@orm.com.au)