



ADELAIDE  
SOUTH AUSTRALIA  
TUESDAY 12TH AND  
WEDNESDAY 13TH FEBRUARY 2019

# GRAINS RESEARCH UPDATE

BOOSTING PROFITABILITY – RESILIENT SOLUTIONS



**GRDC**

GRAINS RESEARCH  
& DEVELOPMENT  
CORPORATION

Adelaide Convention  
Centre, North Terrace



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

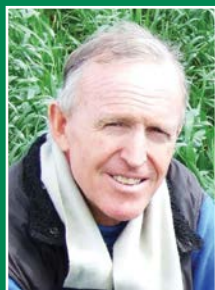
# Day 1 program

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*

### Evidence, ethics and emotions - the way forward in retaining trust between agriculture and consumers

In response to recent negative publicity surrounding agricultural practices Deanna will discuss how each of us has a role in telling agriculture's story and earning our collective social license to operate. Deanna is Managing Director of AgCommunicators and has recently completed her Churchill Fellowship studying methods to build trust in agriculture. 'Business as usual' is no longer an option in the agriculture industry. If we want to earn and maintain our social licence to operate we must actively tell our story.



**Deanna Lush,**  
*AgCommunicators*

### 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*

## CONCURRENT PRESENTATIONS

### Taking on our international grain competitors - what can we do at the farm and industry level?

To be internationally competitive the Australian grains industry must be vigilant in achieving production efficiency and marketing effectiveness. At the farm level 'one-percenters' increasingly will matter and at the industry level collaboration and coordination for mutual benefit between competing parties will deliver advantages.  
Ross Kingwell, *AEGIC*

### Disease and weed responses to intensive cropping systems

Work to sustain the life of herbicide tolerant break crops as a valuable broadleaf management tool will be covered by Navneet. While Sara will discuss the response of ascochyta blight to intensive cropping systems and what this means for crop management.  
Sara Blake, *SARDI* Navneet Aggarwal, *SARDI*

### Emerging management tips for early sown winter wheats

Kenton will discuss the best new early sown winter wheat cultivars and management practices to maximise their performance.  
Kenton Porker, *SARDI*

### Technical research supporting the expansion of pulses

Agronomy insights from the Southern Pulse Extension project for each pulse crop type. Penny Roberts, *SARDI*

### Latest strategies for treatment of soil acidification

Brian will provide an update on recent findings around liming including tools available to assist decision making, lime comparison trials, soil pH stratification under no till and implications for soil testing. Sam will relate his practical experience with precision pH mapping and variable rate liming. Brian Hughes, *PIRSA* Sam Trengove, *Trengove Consulting*

### Improving prediction of diamondback moth risk in canola

New insights into ecology and resistance management of diamondback moth and how this knowledge can help forecast infestation risk.  
Kym Perry, *SARDI*

### Cost effective outcomes for ameliorating sandy soils

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

### Factors that drive N availability in cereal crops including the role of soil microbiology

How cereal crops differ in terms of accessing N from the soil and the role soil microbiology plays in this process. Gupta Vadakkatu, *CSIRO*

### Cereal variety review

NVT - wheat and barley results and trends that matter to SA agronomists. Rob Wheeler, *GRDC*

### Sustaining our herbicides into the future

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

### On the couch

Heard the plenary but still not satisfied? This 'on the couch' informal Q&A session provides opportunity for further in-depth discussion to flesh out the topics. Harm van Rees, *Crop Facts Pty Ltd*

### 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*

### Implications of robotics for broad acre farming

Cutting edge technology with adaptability to the grains industry.  
Salah Sukkarieh, *The University of Sydney*

### Emerging research from PhD students

Adam Norman and David Brunton

## Networking drinks in trade display area

# Day 2 program

8.15 am to 3.00 pm

## EARLY RISERS - GRDC COMMUNITIES PANEL SESSION ON NUTRITION – 8.15 AM START

The GRDC Communities of practice meet the needs of rural regional Australia for the extension of knowledge and to enable collaboration on important issues. Experts from the Crop Nutrition community will be present for a robust Q&A discussion.

## PLENARY PRESENTATIONS

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

Jeff will provide a 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? What are the factors influencing soil N supply capacity? What is the net N balance outcome and what are the agronomic and economic considerations? What needs to change for our farming systems to cope? Jeff is a research scientist working in the Soil Carbon and Nutrient Cycling group of CSIRO Agriculture and Food. He has also worked with the Australian government in developing soil carbon accounting systems.



Jeff Baldock,  
CSIRO

### Changing food and diet trends affecting the grains industry

Sara is the General Manager of the Grains and Legumes Nutrition Council. She is an Advanced Accredited Practising Dietitian with over 20 years experience in the health and food industry. Growth in plant-based diets, increased incidence of food allergies and generational behaviour are all influencing current food choices. Sara will discuss what these changes mean to the grains industry.



Sara Grafenauer,  
Grains and  
Legumes Nutrition  
Council

## CONCURRENT PRESENTATIONS

### Fungicide strategies in canola - achieving yield responses to foliar applications

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*

### Validating integrated weed management practices

Adoption and effectiveness of harvest weed seed management in differing situations and different weeds. Other IWM strategies offering opportunities.  
Chris Davey, *YP AG*

### Herbicide residues in soil - what is the scale and significance?

Two seasons of residue survey data has been matched up with available phytotoxic thresholds. What are the learnings to date about injury thresholds in crops. How do we interpret soil herbicide residue test results? How do extended dry spells impact? Lukas Van Zwieten, *NSW DPI*

### The root health report - pulse root diseases and root lesion nematode

This combined session will review the incidence and severity of root diseases affecting pulse and cereal crops. Tara Garrard, *SARDI*  
Katherine Linsell, *SARDI*

### The 10 key lessons from the 'Stubble Initiative' every agronomist should know

With this major initiative wrapped up, John will provide his perspective on the key learnings relevant to agronomic advisers with a focus on South Australian results and observations. John Kirkegaard, *CSIRO*

### Rapid assessment of crop N – in field assessment of a hand-held near infra-red tool

Research into the effectiveness of a hand-held NIR tool in providing a rapid assessment of N tissue concentration of the crop across the paddock. Also, how it is being used and could be used by advisers/growers.  
Michael Zerner, *Landmark Pfitzner & Kleinig*

### The role of N as a possible mitigating tool to heat stress impact in wheat

Discussion of the interaction between high temperature and nutrients to understand whether N may have a role as a possible mitigating tool to adverse effects of climate change via its influence on grain number and grain yield. Mariano Cossani, *SARDI*

### Seedbank life of emerging problem weeds - management impact

This session will focus on the latest research results from the emerging problem weeds project. Gurjeet Gill, *The University of Adelaide*

### HRZ forum - hyper yielding cereals, pulse update and HRZ weed control

Tactics best suited to managing annual ryegrass tailored to the HRZ. The hyper yielding cereal project results relevant to south-east SA, including information on Septoria. Key learnings from the Southern Pulse extension program that are particular to the SA HRZ region.  
Gurjeet Gill, *The University of Adelaide* Nick Poole, *FAR Australia*  
Penny Roberts, *SARDI*

### Spotlight on canola

An overview of five years of canola agronomic research. Coverage of phenology of many newer varieties, more assessment of frost in canola and optimum canola management strategies. Andrew Ware, *SARDI*

### Chaff lining - another tool for the IWM tool box?

Recent research results on the impact of chaff lining on the viability and persistence of weed seeds and subsequent emergence of weeds.  
Annie Ruttledge, *QLD Dept Ag & Fisheries*

### Minimising risk of extreme temperatures in critical pulse development windows through management decisions

Most likely management strategies for minimising risk and maximising yield in faba beans and lentils in the SA high temperature environment.  
Lachlan Lake, *SARDI*

### Getting the best from barley in the South

Barley will be a focus crop next year following a dry season. Kenton will provide a timely update on getting things right to maximise barley production. Kenton Porker, *SARDI*

# EVENT DETAILS



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## IMPORTANT INFORMATION

### Registration options

**Cost:** \$250 one-day inc. GST | \$350 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 **11 January 2019**. Register early to go into the draw to win a free registration for the 2020 GRDC Grains Research Update in South Australia.

### Cancellation

If cancellation of your registration is necessary, please contact ORM with details. Cancellations prior to **7 February 2019** will receive a full refund. **There will be no refunds for cancellations received on or after 7 February 2019**. Registration is transferable at any time.

### Car parking

Parking is available at the North Terrace and Riverbank Adelaide Convention Centre car parks.

### 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)