

## Keys stories for your region

### Julianne Hill, RCSN western region coordinator

It has been another busy month across the Western Australian grainbelt and, after a late start to the growing season, good rainfall in many areas raised the prospects of a reasonable harvest for much of the State. The recent frosts have had a big impact on harvest potential but time will tell just how much these have affected crops across much of the grainbelt.

The RCSN groups helped GRDC coordinate a series of Open Forums during July and August and a summary of these for each port zone is outlined below.

More than 300 grains research, development and extension (RD&E) issues were raised by those attending. These priorities will be considered by RCSN groups, GRDC's Western Region Panel and GRDC nationally to help refine its activities or identify areas for further investment.

The RCSN welcomes Darrin Lee, of Mingenew, to the Western Region Panel to replace outgoing chairman, Peter Roberts, who started in the role in 2011. Peter has been a strong supporter of the RCSN model and much of its success has resulted from this. The RCSN network wishes Peter well in his future endeavours.

Another recent change to the Panel is the appointment of Marchagee grower and adviser Juliet McDonald. She joins existing members: agronomic and agribusiness adviser Chris Wilkins (deputy chairman); Fiona Gibson, a Mingenew grower and applied economist; agronomist Michael Lamond; Binu grower Rohan Ford; Ravensthorpe grower Andy Duncan; Munglinup grower Gemma Walker; Merredin grower Jules Alvaro; GRDC's general manager of genetics and enabling technologies Nicole Jensen; and wheat geneticist Greg Rebetzke from CSIRO.

This year has flown by and harvest is just around the corner. Good luck getting ready for harvest and I hope to see you at a field day soon.

You can contact me for news and information about the western region RCSNs - Julianne Hill: 0447 261 6077, [email](#), or [Twitter](#).



## Around the RCSN Port Zones



### Esperance Port Zone RCSN

Esperance port zone RCSN group members helped to coordinate GRDC Open Forum meetings at Dunn Rock, Munglinup and Condingup.

About 100 growers attended and provided input on local RD&E priority issues to pass on to GRDC for future levy investment consideration.

A 'Glyphosate sustainability workshop' was held in conjunction with a couple of these meetings, which also heard from GRDC staff about the organisation's investments in WA agronomy and farming systems projects; GRDC's engagement with herbicide companies and temporary permit uses; and a local RCSN group-initiated trial demonstrating deep ripper tactics.

Some of the key issues raised at the meetings as impacting on grower profitability in this zone included:

- Attracting and retaining quality staff to the farm business
- Best practice nitrogen timing and balancing returns in difficult seasons
- More effective in-season crop nutrition management tactics
- Soil constraint impacts on crop nutrient uptake
- More accurate weather forecasting
- Research into open pollinated canola varieties with blackleg resistance
- Breeding efforts into short-season barley varieties
- Data connectivity to better use on-farm monitoring technologies
- Stubble management and system diversity.

GRDC has invested in RD&E to address many of these specific challenges in the Esperance port zone. This includes a range of shorter-term RCSN-initiated projects that are assessing:

- Optimum timing and rate of nitrogen application in waterlogged conditions
- Halving the \$90 million estimated canola harvest losses in WA
- 'Bagging grain profit' strategies
- Return on investment from using drones on-farm
- Best-practice glyphosate use.

Final reports from some of these projects are available on the GRDC's Online Farm Trials (OFT) website at [www.farmtrials.com.au](http://www.farmtrials.com.au) or on [www.rcsn.net.au](http://www.rcsn.net.au).

**Caption:** The RCSN-coordinated GRDC Open Forum at Dunn Rock attracted many growers to discuss grains RD&E issues in the local area. PHOTO: Julianne Hill

## Albany Port Zone

Top RD&E issues raised at the GRDC Open Forum meetings at Cranbrook, Jerramungup and Kukerin were assessed by delegates according to:

- impacts on grower profitability;
- area of the zone affected by the issue; frequency of occurrence; and
- whether there would be value to growers if GRDC took action to address the problem.

With these factors in mind, more than 100 delegates raised the following as areas of high priority for GRDC investment:

- How to achieve optimal water use efficiency and close potential yield gaps
- Finding the most economic and profitable break crops and rotations
- More reliable weather forecasting and seasonal outlooks
- Managing biosecurity risks to protect grain markets
- Herbicide options for late-germinating annual ryegrass
- Assessing profitable options for inverting and mixing water repellent soils
- Snail management, especially for biosecurity measures
- Making machinery purchase decisions
- Use of remote sensing to find the best areas for soil amelioration tactics.

Updates of several projects with GRDC investment were given at the Albany port zone Open Forums, including those delving into soil amelioration and nutrition, developing better synergies between cropping and livestock in mixed farming operations and investigating seeding systems to improve crop establishment.

RCSN-initiated projects in this port zone that GRDC already supports to address many of the top local issues include:

- Case studies of growers successfully managing snails and slugs
- Deep ripper use
- Legume crop demonstration trials
- Optimising timing and rate of nitrogen application in waterlogged areas
- Halving canola harvest losses in WA
- 'Yardstick' comparisons of crop varieties
- Summer cropping options in the rotation.

Related research and local trial results can be found on the GRDC's OFT website at [www.farmtrials.com.au](http://www.farmtrials.com.au) or on [www.rcsn.net.au](http://www.rcsn.net.au).

**Caption:** *Water use efficiency and closing crop yield gaps were high on the agenda at the GRDC Open Forum meeting at Kukerin, where Albany port zone RCSN members gathered. PHOTO: Julianne Hill*



## Kwinana West Port Zone

Open Forum meetings were organised by the Kwinana West RCSN group at Goomalling, Brookton and Kondinin and about 75 delegates attended.

These forums included an update about GRDC investments into weeds, soils, nutrition, digital agriculture and enabling technologies on-farm and the potential costs and benefits of using drones in the farm business.

Top issues affecting grower profitability in this zone were discussed and included:

- Late nitrogen application and the impact on grain protein levels and profit margins
- Summer weed herbicide options and costs versus benefits
- Whole-farm tactics to manage herbicide, fungicide and insecticide resistance
- Profitable legume options, especially for heavy soil types
- Machinery replacement costs and decision-making
- Early sowing options - crop varieties and best-practice management
- Managing salt and transient salinity
- Soil amelioration tactics for heavy soil types
- Frost prediction models that investigate causes and potential nutrition solutions.

Projects initiated by the Kwinana West RCSN group that have GRDC investment in this region are addressing many of these topics and include:

- Fighting weeds using a focus farm approach
- Legumes crop demonstrations to assess profit reliability
- Seeding systems to improve crop establishment on heavy-textured soils
- Deep ripping trials
- Tactics to improve crop emergence
- Incorporating lime to depth
- 'Yardstick' crop variety comparisons.

Final reports from some of these investments and information about related projects are available online at the OFT website at [www.farmtrials.com.au](http://www.farmtrials.com.au) or on [www.rcsn.net.au](http://www.rcsn.net.au).

**Caption:** Growers and advisers discuss grains RD&E priorities at the GRDC's Kwinana West Open Forum meeting at Kondinin. PHOTO: Julianne Hill



## Kwinana East Port Zone

Herbicide resistance, profitable break crop options, ameliorating soils, closing the yield gap and controlling summer weeds were identified at GRDC's Open Forum meetings in this zone as having a big impact on grower profitability.

These meetings were held in Bruce Rock, Westonia and Bencubbin, attracting about 65 participants. Many also attended associated GRDC-supported 'Financial decision-making tools for growers' workshops.

GRDC staff and researchers updated the meetings about investments into WA agronomy and farming systems RD&E; low rainfall zone crop breeding; and harvest weed seed management in a low biomass year.

Local priority issues raised as having a big impact on productivity and profitability in this region included:

- Finding non-chemical weed control tactics to combat herbicide resistance
- Seeding systems for canola to improve returns from break crops
- Managing soil acidity with on-farm lime sources and other mechanical measures
- Yield scenario analysis focusing on optimising returns from seasonal and market conditions
- Control options for summer weeds
- In-crop management of grass weeds
- Benefits of liquid versus granular nitrogen use.

Many shorter-term RCSN-initiated projects have been rolled out in the Kwinana East port zone since 2011, with GRDC investment, and are tackling some of these challenges, including:

- Tactics to improve crop establishment in a drying soil profile
- 'Yardstick' crop variety comparisons
- Assessment of financial decision-making tools
- Identifying on-farm lime sources
- Legume crop demonstrations for rotation options
- Seeding system technology to boost crop establishment
- Deep ripping demonstrations.

Some of these projects have final reports available on the GRDC's OFT website at [www.farmtrials.com.au](http://www.farmtrials.com.au) or on [www.rcsn.net.au](http://www.rcsn.net.au).

**Caption:** GRDC Open Forum participants hard at work developing RD&E priority issues at the Bruce Rock meeting coordinated by the Kwinana East port zone RCSN group. PHOTO: Julianne Hill



## Geraldton Port Zone RCSN

GRDC's Geraldton port zone RCSN group coordinated Open Forum meetings in Eneabba, Morawa and Geraldton, where about 100 delegates discussed the specific grains RD&E needs in this region.

They also heard from GRDC staff and researchers about existing levy fund investments into: WA farming systems and agronomy; developing better synergies between crop and livestock enterprises; managing and measuring potassium; and tactics for improving crop rooting depth and grain yield on sodic soils.

High priority future RD&E needs were identified at these Open Forum meetings, to be further discussed by the RCSN group and taken to GRDC's Western Region Panel for consideration. These include:

- Integrated weed management, considering herbicide resistance and saving out of season rainfall
- Communications management and engagement with the general public/consumers
- Crop breeding into short-season, high-yielding varieties (for later sowing)
- Crop breeding into longer coleoptiles (for early sowing)
- Crop breeding into disease tolerance (for powdery mildew, yellow spot)
- Soil amelioration effects on herbicide carry-over, plant-back periods and rates of applications
- Tactics for ripping, spading and use of inclusion plates
- More accurate yield forecasting during the growing season
- Investigating crop types and varieties no longer popular in the port zone (to assess fit in modern farming systems)
- Handling machinery costs
- Ways to better understand new technologies
- Summer weed control options.

Projects with GRDC investment that are already being carried out in this port zone to address some of these issues include:

- Seeding system technologies to improve crop establishment
- Demonstrations of legume crops in local conditions
- Improving rooting depth of crops
- Assessing the benefits of micronutrients on cereals
- Making lupins profitable again
- Deep ripping trials
- 'Yardstick' crop variety comparisons.

More information and research results for many of these topics can be found on the GRDC's OFT website at: [www.farmtrials.com.au](http://www.farmtrials.com.au) or on [www.rcsn.net.au](http://www.rcsn.net.au).

**Caption:** GRDC Open Forum participants heard from Richard Bell (Murdoch University) on the importance of potassium in the farming system in the Geraldton port zone. PHOTO: Julianne Hill

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