

GRDCs Albany port zone Regional Cropping Solutions Network (RCSN) held three Open Forums in July, 2018. The meetings were held at Cranbrook sports pavilion (16th July at 2pm); Jerramungup CRC (17th July at 8am); & Kukerin Hotel (17th July at 2pm)

A total of 104 guests attended the three Open Forums. Members of the general public were able to register for the Open Forums at the RCSN website www.rcsn.net.au and could submit an issue/idea should they be unable to attend.

Those presenting across the forums included:

- Rowan Maddern/Jo Wheeler (GRDC) & Peter Roberts (Western Panel): GRDCs investment into soils/nutrition; GRDC update
- Phil Barrett-Lennard (AgVivo): Developing synergies between crop and livestock enterprises
- Kelly Cussons (Cussons Media): RCSN initiated project - seeding systems that can provide improved crop establishment in WA

Also in attendance were some Albany RCSN members. Online GroupMap technology was used to capture audience input. A key part of the Open Forum was the opportunity for participants to share the top issues affecting their profitability. The aim of these discussions was to provide growers with direct input into the analysis of current local priorities affecting productivity and profitability to assist in the discussions relating to future projects by GRDC’s RCSN and by GRDC’s Western Panel and GRDC staff.

A number of shorter term, smaller RCSN initiated projects have been put on the ground in the Albany port zone since 2011. Final reports are available online at the Online Farm Trials website, www.farmtrials.com.au or on www.rcsn.net.au. Those that were contracted to date in 2018 (that primarily arose from Open Forum meetings and RCSN member meetings in 2017) were:

Table 1: Summary of RCSN initiated projects for Albany port zone in 2017/18 (GRDC)

Project number	Project title	Project lead
9176109	‘Ripper Gauge’ sites in the Albany port zone, (4 sites)	Christine Kershaw, Stirlings to Coast
9176105	‘Snails, slugs and slaters in Western Australia: Case studies of growers in WA’s southern coastal region - An initiative of the Albany and Esperance port zone Regional Cropping Solutions Network’	Christine Kershaw, Stirlings to Coast
9176156	Summer Cropping Demonstrations in the Western Region	Tracey Hodgkin, Southern Dirt
9176077	Demonstrations of Legumes crops for reliable profitability in the Western Region	Christine Kershaw, Stirlings to Coast
9176098	‘Yardstick’ Demonstrations for the Western Region port zones	Barrett Sinclair, Kalyx
9176058	A Review of Seeding Systems that Provide Improved Crop Establishment for Growers in the Western Region	Kelly Cussons, Cussons Media
9176138	Optimising timing and rate of Nitrogen application in waterlogging conditions in the Western Region	Emma Russell, Southern Dirt
9176041	Halving the \$90m Canola Harvest Losses in WA	Peter Newman, Planfarm
9176023	Return on Investment of Using Drones	James MacFarlane, Farmanco

All issues raised at the Open Forums at Cranbrook, Jerramungup & Kukerin were discussed by the RCSN members at their meeting held on 18th July in Kukerin. The RCSN also added further issues after gaps were identified. All issues were ranked according to five main factors: Does it impact on grower’s profitability? What area is affected by the issue? How frequently does the issue occur? If work was conducted on the issue, would it deliver more value to growers? Is the issue something that we can effect change upon?

Table 2: Summary of areas of Interest raised at the Open Forums at Cranbrook (C), Jerramungup (J) & Kukerin (K); or by RCSN members

Areas of interest raised at Albany port zone Open Forums and RCSN members	Expanded areas of interest	RCSN member feedback from Closed meeting and further action
J, C: Water use efficiency	Providing ways to enable growers to determine if they are reaching potential and if not why not. Achieving yield potential-what are the constraints and how to close the gap (Only reaching 60-70% of potential). Improving soils to increase soil water holding and water use efficiency. Simple systems such as French and Schulz model have fallen below the radar.	Ranked highly by RCSN members at their RCSN member meeting. The RCSN identified this as an issue but did not further develop this issue at this time. However, the RCSN wanted to ensure that it continued to have presence within GRDC.
J, K, C: Economic and profitable break crops	Suitable for particular regions in the Albany port zone. Economic analysis of break crops in rotation management - fallow vs clover pastures vs cover crops vs dual use crops in a continuous cropping	Ranked highly by RCSN members at their RCSN member meeting. The RCSN identified this as an issue but did not further develop this issue at this time as there is current RCSN initiated projects on

	system. Include feed value, root disease and nematode break advantages in the analysis. Want a legume that can handle wet feet and disease pressures. Profitable legumes, both pulse and pasture suitable for Lakes area, has to be profitable year in its own right.	the ground on this topic. However, the RCSN wanted to ensure that it was raised as an issue within GRDC.
K, C: Weather forecasting and seasonal outlooks	Reliability of long term weather forecasting. Seasonal outlooks particularly related to episodic extreme events so that growers can manage risk around impacts of these events.	Ranked highly by RCSN members at their RCSN member meeting. The RCSN identified this as an issue impacting on profitability over all years, however noted that much of this work is being covered by private providers and did not further develop this issue at this time.
J - Protecting our markets and keeping our image up as our upper hand to competitors	Managing biosecurity issues such as snails, slugs, mice. Better understanding of seasonal influences on biosecurity issues eg. dry years on snails. Also managing chemical residues levels to ensure continued market access.	Noted as an issue by RCSN members at their closed member meeting, however the RCSN did not further develop this issue at this time. The RCSN will ensure that it is raised again as an issue with GRDC.
K - Chemical control options for late germinating ryegrass in all crop types.	Ryegrass now germinating July-August which is well past normal post-emergent control.	Ranked highly by RCSN members at their RCSN member meeting. The RCSN identified this as an issue but did not further develop this issue at this time. However, the RCSN wanted to ensure that it continued to have presence within GRDC.
<i>K, C, J, RCSN - How to select the most effective option to invert/mix soils for non-wetting?</i>	<i>What option will work best on a given paddock? Knowing where to start with high variability within paddocks. Looking at deep ripping, seeding in the same furrow, using wetting agents in gravelly soils, looking at long term cost and longevity of effect. Understanding what works and doesn't work over area specific soil types. Should we be rolling deep ripped paddocks? Spring ripping in mixed farming systems?</i>	<i>Ranked highly by RCSN members at their closed member meeting. The RCSN identified this as an issue impacting on profitability and further developed some aspects of this issue.</i>
K, C, RCSN: Snails	Snails management particularly around biosecurity measures. The snails are coming! An education program on how to avoid them getting on to your farm. Mitigation strategies, cleaning options and biosecurity. Massive issue in Albany port zone.	Ranked highly by RCSN members at their closed member meeting. The RCSN identified this as an issue impacting on profitability in some years and also noted that the area of spread is increasing, however noted that much of this work is being covered by current GRDC/DPIRD investments. Further work considered re extension of biosecurity
C, RCSN - Machinery costs are too high	How better to manage purchases and maintenance. Need more information to help evaluate machinery replacement strategies as costs are ever increasing.	Ranked highly by RCSN members at their RCSN member meeting. The RCSN identified this as an issue but did not further develop this issue at this time. However, the RCSN wanted to ensure that it continued to have presence within GRDC.
<i>RCSN - Development of remote sensing techniques to delineate "best bang for buck" for different soil amelioration processes</i>	<i>e.g. deep ripping, liming, re-finishing</i>	<i>Ranked highly by RCSN members at their closed member meeting. The RCSN identified this as an issue impacting on profitability and further developed some aspects of this issue.</i>
C, RCSN: Fungicide resistance and crop breeding for disease management, particularly for barley	Fungicide resistance management for barley - net blotch, rust, powdery mildew. Grow a more robust crop that will be able to defend best against pest and disease pressures (genetics and nutrition). Increasing reliance on products used across crops. Concerned about applying a limited range of products over a range of crops in current cropping systems. Net blotch resistance, what do we do? Where to from here?	Ranked highly by RCSN members at their RCSN member meeting. The RCSN identified this as an issue but did not further develop this issue at this time, with investment occurring through CCDM and other DPIRD investments. However, the RCSN wanted to ensure that it continued to have presence within GRDC.

RCSN - Sowing strategy in different starts to the season.	ie. between furrow, in furrow, along furrow. Depth of sowing for different soil types. Technology available to use on different seeding gear.	Ranked highly by RCSN members at their RCSN member meeting. The RCSN identified this as an issue but did not further develop this issue at this time
J, J, K: Seeding system choices and effectiveness	Trialling seeding systems over all farming systems ie retained stubble, burnt stubble, row spacing, system set up, seed placement row placement. Precision seeding and crop establishment. Timing, method, depth control, seed placement, conserving moisture at seeding. How effective are disc seeders on variable WA soils?	Ranked highly by RCSN members at their RCSN member meeting. The RCSN identified this as an issue but did not further develop this issue at this time as there is a current RCSN initiated project in this space, however the RCSN wanted to ensure that it continued to have presence within GRDC.
K - Barley disease management by breeding resistance	Currently there is a continuing succession of diseases. When one is controlled another becomes prominent.	Ranked highly by RCSN members at their RCSN member meeting. The RCSN identified this as an issue but did not further develop this issue at this time. However, the RCSN wanted to ensure that it continued to have presence within GRDC.
RCSN - Better soil testing.	True nutrient availability of K and P in heavy soils. Results confirm high levels but in heavy soils not necessarily available to plants.	Noted as an issue by RCSN members at their closed member meeting, however the RCSN did not further develop this issue at this time. There is current large GRDC investment occurring in this space
K - Nematodes	Availability and efficacy of nematocides, and understanding rotation by soil type as well as crop variety tolerance	Ranked highly by RCSN members at their RCSN member meeting. The RCSN identified this as an issue but did not further develop this issue at this time. However, the RCSN wanted to ensure that it continued to have presence within GRDC.
C, K, RCSN: N and P applications	Efficient P use on the forest gravels (High P fixing soils). N rates in late seasons. Later applications. At what stage is there no benefit compared to what you are spending. Economics of late applications. How much nitrogen is left-over from last season, at depth?	Ranked highly by RCSN members at their RCSN member meeting. The RCSN identified this as an issue but did not further develop this issue at this time. There is current large GRDC investment occurring in this space however the RCSN wanted to ensure that it continued to have presence within GRDC.
RCSN - Header set up for Harvest Weed Seed Control	Also includes herbicides for chaff lining/decking. How do we attack roots and not shoots? How do we best use this for high population ryegrass densities?	Ranked highly by RCSN members at their closed member meeting, however some of this work is being covered by AHRI and other GRDC investments currently underway. A small RCSN initiated project is also currently underway in this space
K - Educating school kids about Australian agriculture to both attract them as future employees and to have them act as advocates		Ranked highly by RCSN members at their RCSN member meeting. The RCSN identified this as an issue but did not further develop this issue at this time. However, the RCSN wanted to ensure that it continued to have presence within GRDC.
J - Further development for lupins as a human food source	Making them a more profitable rather than just feed. Extend to other legumes in the western region. This will be more likely to satisfy current grower requirements of a more profitable legume in the state.	Ranked highly by RCSN members at their RCSN member meeting. The RCSN identified this as an issue but did not further develop this issue at this time. However, the RCSN wanted to ensure that it continued to have presence within GRDC.
RCSN - Ongoing work into crop type x TOS x season length x frost trials in different environments to show both yield potential and penalty of missing an establishment timing.	How early is too early or what is the penalty going to be in different environments? Trials to date are only focussed around Wickiepin, York etc	Ranked highly by RCSN members at their RCSN member meeting. The RCSN identified this as an issue but did not further develop this issue at this time. There is current large GRDC investment occurring in this space however the RCSN wanted to ensure that it continued to have presence within GRDC.

<i>K - Management of shallow sodic duplex clay to increase WUE. (Ripping is not the answer)</i>	<i>Management of shallow sodic duplex clay to increase WUE. (Ripping is not the answer)</i>	<i>Ranked highly by RCSN members at their closed member meeting. The RCSN identified this as an issue impacting on profitability and further developed some aspects of this issue.</i>
J, K - Nutrition.	What are we losing by not applying micronutrients? Economic losses? Application timing, method, and better knowledge on identification of deficiencies. A better understanding of soil chemistry by farmers, especially pH, K & TE	Noted as an issue by RCSN members at their closed member meeting, however the RCSN did not further develop this issue at this time. There is current large GRDC investment occurring in this space
RCSN - Investment into speeding up chemical registrations/labels	Labels currently driven by farmer trials, thus slowing down process ie bottom up rather than chemical producer/manufacture	Noted as an issue by RCSN members at their closed member meeting, however the RCSN did not further develop this issue at this time.
K, J - Canola breeding	To focus on genetics to handle increased post spraying herbicide tolerance to group A's or any other new in crop ryegrass herbicide that is on the horizon. Also need more non-shattering canola. Increase plant breeding on OP/TT canola. Too much emphasis in the hybrids and RR segment which can be too risky in marginal areas.	Ranked highly by RCSN members at their RCSN member meeting. The RCSN identified this as an issue but did not further develop this issue at this time. However, the RCSN wanted to ensure that it continued to have presence within GRDC.
RCSN, K - Genetic modification of crops to tolerate frost	Concentration on genetic modification of plants for frost tolerance rather than the small physical crop establishment issues that change only + or - 1 degree. Nutrition to help the crop tolerate frost. Understanding genetics; and nutrition to help the crop tolerate frost	Ranked highly by RCSN members at their RCSN member meeting. The RCSN identified this as an issue but did not further develop this issue at this time. There is current large GRDC investment occurring in this space however the RCSN wanted to ensure that it continued to have presence within GRDC.
K, RCSN: Retention and upskilling of staff particularly backpackers	Extension work into being able to re-visit current 457/working holiday visa. Difficult to get excellent backpacker staff who want to return but can't due to current visa restrictions. Allowing extension to visas to be able to get good workers back each season. Backpacker visa requirement. Better knowledge and support for employing backpackers. Currently they can only stay with one employer for 6 months	Of high interest to the RCSN and was ranked highly by RCSN members at their RCSN member meeting. The RCSN identified this as an issue but did not further develop this issue at this time. However, the RCSN wanted to ensure that it continued to have presence within GRDC and wanted support for this issue.
J, K, RCSN: Wheat breeding	New varieties/growth regulators for shorter straw. High stubble loads as a result of current varieties is making sowing difficult. Short season wheat and barley varieties. Would like to step away from dry sowing, looking at short season, high yielding cereal to plant late June. Need to have varieties that are high protein high yielding wheat otherwise barley will continue to take over the wheatbelt and that poses more problems in terms of reduced rotation. Long season wheat options for HRZ that aren't feed variety classification that can be planted as early as March in the HRZ	Ranked highly by RCSN members at their RCSN member meeting. The RCSN identified this as an issue but did not further develop this issue at this time. However, the RCSN wanted to ensure that it continued to have presence within GRDC.
C - Maximum Residues Levels	Needs to be more grower education on application of chemicals and residue levels and market acceptance	Noted by RCSN members at their RCSN member meeting. The RCSN identified this as an issue but did not further develop this issue at this time. However, the RCSN wanted to ensure that it continued to have presence within GRDC, believing that further extension can occur.
K - Live export ban.	Impact on growers. Not just livestock producers, also grain producers, hay producers, trucking	Noted by RCSN members at their RCSN member meeting. The RCSN identified this as an issue but did

	companies. Where to from here and what are other options?	not further develop this issue at this time understanding that lobbying is unable to occur through GRDCs charter. However, the RCSN wanted to ensure that it continued to have presence within GRDC
K - Succession planning.	Workshops. Better prepared to hand over farm to the next generation. Farm structure, financial security. Increase access and support in funding mediation. More marketing in the industry of succession planning (similar to Mens Health initiative)	Ranked highly by RCSN members at their closed member meeting who felt that if not managed correctly this issue had a high impact on the farm business. The RCSN noted that some of this work is being covered by private providers and did not further develop this issue at this time, but there could be need for further extension or workshops.
K - Lack of research in Lake Grace and surrounds.	A hole for regionally relevant experiments between Esperance, Merredin and Katanning/Albany.	Noted by RCSN members at their RCSN member meeting and will be fed back to GRDC
K - Grain Marketing 101	Helping farmers understand the basics and how to compare what the different grain marketers are providing and their performance	Ranked highly by RCSN members at their closed member meeting. The RCSN identified this as an issue impacting on profitability over most years, however noted that much of this work is being covered by private providers and did not further develop this issue at this time.
J - Education of advisors in whole farming systems	Bring together older advisors, young guns, and cross colours, to integrate new ideas and innovations with existing knowledge to create a viable ag industry	Noted by RCSN members at their RCSN member meeting and will be fed back to GRDC
C - Farm enterprise mixed seasonal flexibility	What other options are there other than wheat and barley? This issue is bigger than break crops, disease and pests, and should be a whole-farm system.	Noted by RCSN members at their RCSN member meeting. The RCSN identified this as an issue but did not further develop this issue at this time
K - Summer weed control	Want something that can be a one pass spray with residuals for every summer weed, eg lontrel for fleabane. Weeds to control are caltrop, melons, nutgrass, prickly salt wort	Noted by RCSN members at their RCSN member meeting. The RCSN identified this as an issue but did not further develop this issue at this time, however there are some current GRDC and RCSN initiated projects in this area
K - Pasture species resistance to insects, RLEM early and budworm in serradella in spring.		Noted by RCSN members at their RCSN member meeting and will be fed back to GRDC
RCSN - Residue management options in high yielding crops	Options/ways to manage heavy stubble loads of high yielding varieties without removing or burning	Noted by RCSN members at their RCSN member meeting. The RCSN identified this as an issue but did not further develop this issue at this time
RCSN – Tracking chemical use	Chemical drum barcoding App to track batch number and product recording. Ideal when drum labels fall off to reduce wrong product mix up.	Noted by RCSN members at their RCSN member meeting. The RCSN identified this as an issue but did not further develop this issue at this time
RCSN - Waterlogging (not this year but there is still time☺)	Waterlogging (not this year but there is still time☺)	Ranked highly by RCSN members at their RCSN member meeting. The RCSN identified this as an issue but did not further develop this issue at this time as there are some current RCSN initiated projects in this space, however the RCSN wanted to ensure that it continued to have presence within GRDC.
RCSN - Revisit current row spacing ideas.	To help with weed control, crop establishment, pest and disease management	Noted by RCSN members at their RCSN member meeting. The RCSN identified this as an issue but did not further develop this issue at this time however this can be considered in future trials
RCSN – Vegetable beetle life cycle and control options.	These beetles are increasing in incidence	Noted by RCSN members at their RCSN member meeting. The RCSN identified this as an issue but did

		not further develop this issue at this time and will ensure GRDC are aware of this issue
RCSN, J - Liming	Case study on the process of evaluating sites for on farm lime sources - morrell clay etc. Measuring the economic response to liming as well as looking at other options for neutralizing soil pH.	Ranked highly by RCSN members at their RCSN member meeting. The RCSN identified this as an issue but did not further develop this issue at this time as there is a current RCSN initiated project in this space, however the RCSN wanted to ensure that it continued to have presence within GRDC.
RCSN - Workers compensation insurance	Workers compensation insurance currently doesn't cover super and any other benefits, only pay 85% of wage after 16 weeks. Premiums across the industry are now ridiculous! Better information needed and support for change on this issue	Noted by RCSN members at their RCSN member meeting. The RCSN identified this as an issue but did not further develop this issue at this time and will ensure GRDC are aware of this issue
RCSN – Worksafe and employee training	Equivalent of white card needed for agriculture to help ensure that farm workers have the relevant training. If Worksafe attends an on-farm incident, there is currently inconsistency from worksafe inspectors on our requirements to comply.	Noted by RCSN members at their RCSN member meeting. The RCSN identified this as an issue but did not further develop this issue at this time and will ensure GRDC are aware of this issue
K: Data Management	Having a unified PC program that links with all brands and companies. Overlaying weather data and other info to get a complete picture at time of planting, spraying harvest. Data Management 101 - helping farmers turn their data into better decisions	Noted by RCSN members at their RCSN member meeting. The RCSN identified this as an issue for most growers, but did not further develop this issue at this time and will ensure that it is raised again as an issue with GRDC.
RCSN - Explanation and extension of how block-chain technology is going to be used and effect the grains industry		Noted by RCSN members at their RCSN member meeting. The RCSN identified this as an issue but did not further develop this issue at this time and will ensure GRDC are aware of this issue
J - A farming systems approach for combatting soil erosion	Combining systems to help with soil erosion. This could include stripper fronts/machinery options and economics, summer crop options, grazing management, soil management and the economics of this systems approach	Ranked highly by RCSN members at their RCSN member meeting, particularly after current seasonal conditions. The RCSN identified this as an issue but did not further develop this issue at this time. However, the RCSN wanted to ensure that it continued to have presence within GRDC.
J – Investment by Australian Superannuation fund managers in the Australian ag industry.	Getting Australian super fund groups involved and investing in the Australian ag industry. Need to look at the legislation involved and managing the risks within the farming system to assist the Australian super system involvement	Noted by RCSN members at their RCSN member meeting.
C, RCSN - Summer cropping-pastures used over some crops to increase water holding capacity.	Try using summer crops planted in spring/summer. They will grow big root systems which will increase storage of carbon. Potentially increase water use efficiency. Long term effect. Investigation/extension of natural nutrition and decreased waterlogging following pasture phase in HRZ	Ranked highly by RCSN members at their RCSN member meeting. The RCSN identified this as an issue but did not further develop this issue at this time as there are some current RCSN initiated projects in this space, however the RCSN wanted to ensure that it continued to have presence within GRDC.

NB: ALL issues raised at the Open Forums as notes above will continue to have presence at the RCSN discussion table and will be forwarded to the GRDC Western Panel and GRDC for continued visibility that may feed into existing or future initiatives.

Thanks and Further Details.

GRDC now have a Facebook page – www.facebook.com/theGRDC/ (like us!) as well as a dedicated RCSN website – www.rcsn.net.au. Follow us on Twitter @Julianne_Hill, or visit GRDC www.grdc.com.au. Thank you to everyone who attended the Open Forums and contributed to the detailed discussions. For further details, contact the RCSN Facilitator Julianne Hill on 0447 261 607 or email regionalcroppingsolutions@gmail.com