

GRDCs Esperance port zone Regional Cropping Solutions Network (RCSN) held three Open Forums in July, 2018. The meetings were held at Dunn Rock Tennis Club (23rd July at 2pm following an RCSN initiated Glyphosate workshop); Munglinup Recreation Centre (24th July at 8am); and Condingup Tavern (24th July at 2pm following an RCSN initiated Glyphosate workshop).

A total of 95 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:

- Julia Easton & Jo Wheeler (GRDC) & Gemma Walker (Western Panel): GRDC investment into agronomy & farming systems
- Gordon Cumming (GRDC): Old chemistries for new uses; GRDCs engagement with multi-nationals; temporary chemical permits
- Aidan Sinnott (SEPWA): RCSN initiated project - Ripper Gauge demonstrations in the Esperance port zone

Also in attendance were some Esperance port zone RCSN members. 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 Esperance 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 Esperance port zone in 2017/18 (GRDC)

Project Number	Project Title	Leader(s)
9176152	Best practice glyphosate use for Esperance port zone growers	Andrew Storrie, Agronomo
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, South Coast Farmers
9176161	Summer Cropping Demonstrations in the Western Region	Niki Curtis, SEPWA
9176166	'Ripper Gauge' Demonstration Sites in the Western Region	Niki Curtis, SEPWA
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
9176054	Optimising timing and rate of Nitrogen application in waterlogging conditions in the Western Region	Niki Curtis, SEPWA
9176041	Halving the \$90m Canola Harvest Losses in WA	Peter Newman, Planfarm
9176003	Bagging Grain Profits	Niki Curtis, SEPWA
9176023	Return on Investment of Using Drones	James MacFarlane, Farmanco

All issues raised at the Open Forums at Dunn Rock, Munglinup and Condingup were discussed by the RCSN members at their meeting held on 25th July in Esperance. 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 Dunn Rock (D); Munglinup (M) or Condingup (C) or by RCSN members

Areas of interest raised at Esperance port zone Open Forums and RCSN members	Expanded areas of interest	RCSN member feedback from Closed meeting and further action
M, D, C, RCSN - Staffing issues	Good quality staff and retaining them. Impacts on timing of management, seeding and spraying. Farm managers to have skills to properly manage staff. Training staff, teaching high school students about agriculture; opportunity for jobs through education; include training of backpackers. Increasing rural population, young people engagement and up skilling. Lack of labour. Retaining staff; apprenticeship for agriculture; one step up from Ag school; encouraging people from outside of agriculture as well as from	Ranked very 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.

	within it to bring diversity to agriculture. Creating a positive image for Ag as an industry. How do we increase the sexiness. Gain and get good staff in ag business and farm work.	
D, M, C - Best practice N strategies.	Nitrogen timing and balancing the return on difficult years, not only dry but waterlogging. Knowing when to apply, low or high rainfall, how much, return on investment. Applying N in crop; especially in dry season. How much N is actually taken up; how much N do I put on and using what formulation and application method; and what are future plant requirements?	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.
C - Soil constraints.	Do they affect nutrient uptake? Roots can't get down to access what's down there, so is what we do to ameliorate these constraints affecting uptake?	Noted as an issue by RCSN members at their closed member meeting, however the RCSN did not further develop this issue at this time. GRDC do have some large soil constraints investments however the RCSN wanted to ensure that it continued to have presence within GRDC.
C, D - more accurate weather forecasting	Not worth throwing more \$ in when outcome would probably not be more accurate; level of reliability of the SE corner not good!!! Doppler radar is being updated in Esperance zone. Maintenance difficult to keep up with; but we really need this for better on farm data collection; Long term weather forecast - isn't good enough for what we actually do. The further the weather bureaus can predict the better. Need 3 months. At the moment we're not even close. Rainfall especially.	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.
RCSN – In season crop nutrition	More effective in season nutrition management, on the go.	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.
D, RCSN - Canola breeding work and development;	Open pollinated canola varieties with black leg resistance to replace Bonito	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.
D, RCSN, C - Cereal breeding work and development;	Short season barley; early season wheat. Managing disease in Planet barley; netblotch in particular. Barley head retention in Latrobe	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, D - Data connectivity and using it in crop	Better connectivity so they can utilise on farm monitoring and farm monitoring, cost effective data plan, optic fibre that is affordable, network that can access this. want to open weather station to neighbours. Want to build a network. Hollows are too far from towers when checking frost. Point to point. 4G range is worse than 3G. Wi-Fi is good for farms but is too expensive. Boosters are cheaper but may become ineffective. Communication; internet; connectivity; wireless network setup on farm; repeater towers	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 wanted to ensure that it continued to have presence within GRDC.
RCSN – Stubble management	Stubble management that maintains soil cover.	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 wanted to ensure that it continued to have presence within GRDC.
M – Diversity in our systems	Making sure our farming systems are more diverse	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 wanted to ensure that it continued to have presence within GRDC.
C, D, M, RCSN - Soil amelioration and constraints	Longevity, fertility, nutrition, productivity, depth of ripping, how it fits into the farming system. Nutrition after soil amelioration focussing on leaching events and N mineralisation. Liming; constraints; types of lime available and to use. Nitrogen/other nutrient management in deep ripped for ameliorated country. Deep ripping trials away from Esperance and not on the northern sandplain. Management of deep ripping in variable/multiple soil type paddocks. Where does the sulphur go; subsoil constraints - impacting on sulphur & gypsum; (interaction?) saving \$8 per hectare by using gypsum and reducing S in compound fertilisers; particularly on duplex 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. There is current large GRDC investment occurring in this space however the RCSN wanted to ensure that it continued to have presence within GRDC.
C, D - Heat stress in crop	Particularly when they're at late maturity. On hot days canola suffers, and barley. Around Esperance showtime (about 20th October) is when we see barley suffer most from heat. Want to see something that can cope with both frost and heat stress. Heat stress in flowering, moisture retention in soil, better research in leaf structure, especially canola, pine leaves and sheoaks are perfect examples.	GRDC have some investment in this space. Some of this includes looking at root architecture and leaf structure which are being analysed in terms of their value in the cropping system. Working on using polymers in the ground or on plants, but it's too expensive right now in everywhere except horticulture.
C, RCSN – Canola agronomy and decision-making information	Finding info on farming system packages for high yielding canola and wheat; ameliorate or not? In season decision making tools re nutrition, disease; pests. Driving canola yield - what more can we do to get better yields; is it just N? is it a variety thing? Bonito still outperforms Hybrids. Fungicide strategies for canola. Variable canola establishment. Poor yield performance of canola in the mallee compared to sandplain where canola ratio is 1:2 compared to 1:3 compared to cereal yields	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 wanted to ensure that it continued to have presence within GRDC.
D, C, RCSN - Better varieties for an early start.	Crop varieties that suit very early seeding if there are very early seeding opportunities. Long season crops, implications on soil carbon, biology, this is step change in our farming system. Long season milling wheat, suitable for high rainfall in the Esperance port zone with potential for grazing. Early sowing options for barley and canola. High yield long season wheat for early sowing opportunities.	Ranked very 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.
RCSN – Easy access to all trials and final reports	Access to all studies completed already. We need an intuitive electronic library that allows for really simple access to the outcomes of all the work completed in the past. It feels like a lot of work has been completed and the ideas arising now may have been completed	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 wanted to ensure that it continued to have presence within GRDC.
C, M, D, RCSN - Profitable Legumes	Better drought and Boron tolerance in legumes. Correct nutrition to maximize flower retention and pod set; Pre-emergent herbicides for lentils on sandy textured soils; break crop option for heavy 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 current RCSN initiated projects on the ground on this topic as well as major investment from GRDC. However, the RCSN wanted to ensure that it remained as an important issue within GRDC.

D, C - Frost	Managing frost, trying to work towards resistance, varietal or better varieties that can handle frost better. Frost and soil amelioration; managing frost through soil amelioration; nutrition, best farm practices for 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.
RCSN - Quarantine and Biosecurity	Have we dropped the ball? Need to be better at managing our risks	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 wanted to ensure that it continued to have presence within GRDC.
RCSN – Analysis of seeding equipment	Independent comparison on seeding equipment on comparing seed placement to increase and improve crop establishment	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 Kwinana West RCSN have initiated a crop establishment/tools case study booklet, but RCSN wanted to ensure that it continued to have presence within GRDC.
D, M, C, RCSN - Nodulation of pastures	What can we do to improve these for the rotation? Utilizing break crops and legumes pastures; in a mixed farming system; farming systems approach needed; Compared to the past, pasture legumes have been taken out of a full crop rotation and we think this has impacted on our systems. In a continuous cropping system, pasture legume seed bank is almost gone. How much influence does that have and what shortfall is that leaving? Is fallow a viable option to replace break crops in the mallee?	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 - Autonomous vehicles	Larger autonomous vehicles (that can be used in CTF) that we can use for different purposes including spraying, fertilisers, snails, ability to turn off autonomy and use them for seeding purposes. What we need on farm now for when they become available, which is farm mapping, any legislation that might be needed to be addressed, telecoms and improved employee/HR training and skill sets	Ranked very 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.
M - Surface and sub soil water management	Particularly for management of salinity; drainage issues with neighbours	Ranked very 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.
D - R and D in our area	We are a large distance from a large regional centre, not enough R and D done in our duplex soils. It's not getting done away from regional centres, no frost research done either.	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 wanted to ensure that it continued to have presence within GRDC.
M - Weed control during dry years	Staggered germination and how to manage control of summer weeds, sow thistle, fleabane, ryegrass and marshmallow.	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 wanted to ensure that it continued to have presence within GRDC.
D - Can't buy experience	How do we teach experience? Many farmers don't know what to do because they are inexperienced. Would like a forum or app, to say what worked or didn't worked, store the data for future generations and to inform other farmers. Want to get experience as soon as possible so they don't waste their few years in farming. Some of the stuff you learn may not be	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 wanted to ensure that it continued to have presence within GRDC.

	relevant for another 15 years so it's important to remember it.	
C, M - Glyphosate on barley	Late season application. Issue with herbicide residues, glyphosate on barley. What other issues are we going to face and how is it going to impact us and on our markets. Specific focus on market access and chemical residue in crops, late application of glyphosate.	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. Gordon Cumming (GRDC Manager for chemical regulations) did attend Open Forums and discussed issues around this topic.
M, RCSN – Non-wetting soils	Non-wetting on gravel soils in a dry year, successful techniques on these soils. Use of soil wetters during dry year to help with germination	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 GRDC investment occurring through DPIRD investments. However, the RCSN wanted to ensure that it continued to have presence within GRDC.
D – Better information and quicker tools for defining zones	Refine EM mapping; including to help with soil amelioration; on the go pH tester	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 some GRDC investment occurring through DPIRD investments. However, the RCSN wanted to ensure that it continued to have presence within GRDC.
RCSN – Slaters, vegetable beetles and earwigs	Slaters and earwigs are increasing in damage with minimal till and high stubble retention. Need more available control methods that are actually registered. Vegetable beetles, thresholds and weather conditions when control needed. Current insecticides not effective for vegetable beetle.	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.
M, D – Healthy soils	Looking at microbiology in soils; particularly in low input systems. Soil health, gypsum spreading in a sheep rotation and whether it's viable	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 wanted to ensure that it continued to have presence within GRDC.
M – Disease early alerts and management	Disease management in a range of crops, blackleg and sclerotinia in canola - real time alerts, manage for resistance, what is becoming resistant, access to information. Better knowledge of weather systems affecting disease development.	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.
C - Community vibrancy	Mental health; men's health; communication; consistency of messages; awareness	Highly ranked by RCSN members at their closed member meeting, however the RCSN did not further develop this issue at this time. The RCSN wanted to ensure that it continued to have presence within GRDC.
C, M - Snails, and slugs, mice	Mice - Growers seek knowledge on thresholds for control of mice in different crops. They also require information on different rates. This year, there was a lot of variation in the numbers of mice in different paddocks - soil type, stubble type/load.	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 wanted to ensure that it continued to have presence within GRDC.
M – Machinery decisions	Replacement, leasing verses HP. Can it incorporate recent small business tax benefits?	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.
M – Copper and Potassium issues	Copper in the mallee; copper and potassium deficiencies now starting on duplex soil types; are the current thresholds right given lack of application of these micro nutrients and how hard we are pushing crops; application issue applying micronutrients with N and fungicides; difficult to put in same tank.	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 wanted to ensure that it continued to have presence within GRDC.
M, RCSN - Green peach aphid control	How long can current registered insecticides last? Green peach aphid and turnip yellows virus monitoring, DPIRD need to communicate risk much earlier so control methods can be implemented much sooner.	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 wanted to ensure that it continued to have presence within GRDC.
RCSN – Weed control	Bromegrass control beyond imi's. Caltrop - timing of chemical application and effect on seed viability. Lack of in-crop control for stattice in legumes and canola. Explore further anecdotal evidence that Boxer Gold will suppress stattice. Stattice control in break crops. Does Boxer Gold suppression really work	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. GRDC do have some investments in place, and Bayer are currently working on stattice, however the RCSN wanted to ensure that it continued to have presence within GRDC.
M - boron toxicity	Issues on pulses and cereals and canola; work needs to be done on varieties on boron tolerance (genetics)	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 wanted to ensure that it continued to have presence within GRDC.
RCSN – Are we testing for the right parameters for barley deliveries?	Protein or Gluten testing? Protein verses gluten. Do we need to test for gluten as well or instead of protein	Noted as an issue by RCSN members at their closed member meeting, however the RCSN did not further develop this issue at this time.
RCSN – Dry sowing options	Seed coating to protect seed viability when dry sowing	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 wanted to ensure that it continued to have presence within GRDC.
RCSN – Managing and maintaining tramlines	Tramline renos long term solution	Noted as an issue by RCSN members at their closed member meeting, however the RCSN did not further develop this issue at this time. Some of this is included in current GRDC investments
RCSN – Chemical options in Kopi soils	Pre-emergents not working in kopi soils or soils with high transient salt	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 wanted to ensure that it continued to have presence within GRDC.
RCSN – Heavy soil moisture retention	What are some ways that we can retain more moisture in heavy soils? Sanding of heavy soil for moisture retention?	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 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