

GRDCs Kwinana East port zone Regional Cropping Solutions Network (RCSN) held three Open Forums in August, 2018. The meetings were held at Bruce Rock shire supper room (6<sup>th</sup> August at 2pm); Westonia Bowls club (7<sup>th</sup> August at 8am); and Bencubbin Community Rec Complex (7<sup>th</sup> August at 2pm). These were preceded by FREE workshops presented by farm business consultants Brent Searle & David Williams, BJW Agribusiness “Financial Decision-Making Tools for Growers” at Bruce Rock and Bencubbin.

A total of 64 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](http://www.rcsn.net.au) and could submit an issue/idea should they be unable to attend.

Those presenting across the forums included:

- Jo Wheeler (GRDC) & Jules Alvaro (Western Panel): GRDC investment into agronomy & farming systems in WA
- Andrew Fletcher (CSIRO): What’s happening in low rainfall zone crop breeding? Some applied research
- Dani Whyte (Planfarm): RCSN initiated project - Harvest weed seed management in a low biomass year

Also in attendance were some Kwinana East 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 Kwinana East port zone since 2011. Final reports are available online at the Online Farm Trials website, [www.farmtrials.com.au](http://www.farmtrials.com.au) or on [www.rcsn.net.au](http://www.rcsn.net.au). Those that were contracted in 2018 (that primarily arose from Open Forum meetings and RCSN member meetings in 2017) were:

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

Project Number	Project Title	Leader(s)
9176166	'Ripper Gauge' Demonstration Sites in the Western Region	Nathan Craig, West Midlands Group
9176098	'Yardstick' Demonstrations for the Western Region port zones	Richard Devlin, Living Farm
9176058	A Review of Seeding Systems that Provide Improved Crop Establishment for Growers in the Western Region	Kelly Cussons, Cussons Media
9176041	Halving the \$90m Canola Harvest Losses in WA	Peter Newman, Planfarm
9176023	Return on Investment of Using Drones	James MacFarlane, Farmanco
9176065	Financial Decision-Making Tools for Kwinana East Growers	Brent Searle, BJW Agribusiness
9176164	Demonstrations of Legumes crops for reliable profitability in the Western Region	Rebecca McGregor, Liebe Group
9176146	Simple identification of on-farm lime sources	Rebecca McGregor, Liebe
9176047	Tactics to Improve Crop Establishment in a Drying Soil Profile in the Western Region	Kaaren Latham, Coxinall Communications

All issues raised at the Open Forums at Bruce Rock, Westonia and Bencubbin were discussed by the RCSN members at their meeting held on 8<sup>th</sup> August in Bencubbin. 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 Bruce Rock (BR); Westonia (W), Bencubbin (B) or by RCSN members**

Areas of interest raised at Kwinana East zone Open Forums and RCSN members	Expanded areas of interest	RCSN member feedback from Closed meeting and further action
<i>BR, B - Herbicide resistance particularly glyphosate</i>	<i>Non-chemical weed control to combat herbicide resistance. Understanding how widespread is glyphosate resistance in region. Fence line options. Strategies for in crop management. Growers using below recommended rates or only using one chem. Also includes integrated weed management. Lack of new chemical technology to rotate active ingredients to prevent resistance</i>	<i>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.</i>

<p>B, BR - Profitable break crops</p>	<p>Canola agronomy seeding systems. New pastures legumes. New investment. Variety choice. Needs to be profitable in the first year - the agronomy package to successfully grow a profitable break crop year in and year out</p>	<p>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.</p>
<p>BR, B, W - Soil acidity and amelioration including on-farm lime sources</p>		<p>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 on the ground on this topic. However, the RCSN wanted to ensure that it remained as an important issue within GRDC.</p>
<p>BR, B, W - Most limiting factor and risk</p>	<p>Greatest return on yield, Bottom line, Different potential yield scenario - maximizing return, Low yield crop for max potentials high yielding crop (inputs involved for different yielding potential to suit scenario). Business management assistance with managing variation between seasons (weather/prices) and evening out the risk, modelling yield in EWB. Decile rainfall doesn't reflect what is actually happening in a season. Not good for making decisions on most limiting factor/what's going to give best profit. Impact of WUE changing based on in season rainfall impacting profitability. Balancing inputs and associated costs with potential yields. Balancing cropping rotations with the livestock enterprise.</p>	<p>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 on the ground on this topic. However, the RCSN wanted to ensure that it remained as an important issue within GRDC.</p>
<p>BR, B - Summer weeds</p>	<p>Control options for common ice plant in pastures. Including biological control. Glyphosate vs other chemicals and additives. Aimed at hard to kill summer weeds such as windmill grass and button grass. What chemical packages to use and what additives? What is the ROI.</p>	<p>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 a range of weeds including hard to kill weeds, however the RCSN wanted to ensure that it continued to have presence within GRDC.</p>
<p>B - In cereal crop grass management.</p>	<p>Increase in resistance (ARG), dry sowing not helping for grass weed control</p>	<p>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 large GRDC investment with AHRI in this space. However, the RCSN wanted to ensure that it remained as an important issue within GRDC.</p>
<p>BR, B - Nitrogen</p>	<p>Liquid vs granular. Late N application to manage protein. Oil in canola. Application from start to finish. Extension of the nitrogen tools. When to apply to meet yield/quality. Can we force out sodium so it doesn't reach the plant. Need increased research into how much to apply and when. How much will yield increase with application? Also want info on N application in relation to soils with low OC, ameliorated soils and also increased confidence in apps in LRZ especially when in ameliorated paddocks (do apps need to be tweaked?)</p>	<p>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 large GRDC investment occurring on the ground on this topic. However, the RCSN wanted to ensure that it remained as an important issue within GRDC.</p>

RCSN – NVT canola trials	NVT canola trials further east than already done	Ranked highly by RCSN members at their RCSN member meeting. The RCSN identified this as an issue and have highlighted this issue within GRDC.
B - Harvest weed seed management.	Long term viability in LRZ	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 large GRDC investment with AHRI in this space. However, the RCSN wanted to ensure that it remained as an important issue within GRDC.
<b>BR, B, RCSN - Low rainfall agronomy trials</b>	<b>Low rainfall legume systems agronomy.</b>	<b>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.</b>
BR, W - Frost	Crop stress since there is so much dry seeding, meaning flowering window condenses and risk of frost risk increases. Wheat breeding with varieties more suited to frost prone regions. Genetic modification use of natural traits or use of GMO to step it up.	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 large GRDC investment occurring on the ground on this topic. However, the RCSN wanted to ensure that it remained as an important issue within GRDC.
B - Soil acidity	Lack of options for crop and pasture. Want acid tolerant varieties. More around tolerant varieties rather than amelioration	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 large GRDC investment occurring on the ground on this topic. However, the RCSN wanted to ensure that it remained as an important issue within GRDC.
BR, B, W, RCSN – Soil Health	Soil carbon, soil health, impact of chemicals. Residues of Ag chem affecting soil microbes and fauna. Snake oil testing. Independent testing of products. Look at yield plus quality (hectolitre, screening 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 as there has been large GRDC investment occurring on the ground on this topic. However, the RCSN wanted to ensure that it remained as an important issue within GRDC.
<b>BR, B, W - Canola agronomy and genetics</b>	<b>Including shorter season canola varieties. More chemical choice for ryegrass - canola crops. Seeding times. Patchy crops. Re seeding. Canola agronomy package and risk mitigation. TOS, nutrition, variety decision making. Wide rows? Genetics in canola - similar to what CSIRO are doing in wheat. Particularly genetics to enable deep seeding of canola to chase subsoil moisture in LRZ.</b>	<b>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.</b>
BR - Machinery investment	Labour shortages. Restricting money to spend in other areas. Lease plans vs buying outright.	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 on the ground on this topic. However, the RCSN wanted to ensure that it remained as an important issue within GRDC.
W – Flexible farming systems	Developing flexible systems in seeding cereal varieties. Look at both long winter and short season varieties	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 will ensure that it continues to have presence within GRDC.
W, B - Soil amelioration and ripping	Deep ripping - got the machinery, where do we start (soil types/timing/chemical control) for best return on investment. Amelioration of	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

	heavy soils - struggling on heavy sodic soils, seeing higher biomass but not increases in yield. Looking at other options such as tillage radish to establish rooting pathways for subsequent crops rather than deep ripping.	time as there is a current RCSN initiated project and a large GRDC investment occurring on the ground on this topic. However, the RCSN wanted to ensure that it remained as an important issue within GRDC.
<i>RCSN – Weed sensing</i>	<i>In crop weed detection camera technology evaluation/verification.</i>	<b>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.</b>
B - Pre-emergents persistence in dry soils.	Tref, Sakura, prosulfocarb etc. how much is left when it is dry? Does it degrade? If so how much is left? Want a rule of thumb... how much to add if there is degradation. Does this need more research or more extension?	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 will ensure that GRDC are aware of this issue
RCSN - connectivity	Connectivity across farms	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 will ensure that GRDC are aware of this issue
W - Benefits of double break.	Extending to triple profitable break crop, long term profitability and profitability in all years (except fallow). Resilience in farm system single break not stacking up long term	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 and a large GRDC investment occurring on the ground on this topic. However, the RCSN wanted to ensure that it remained as an important issue within GRDC.
B - Lack of qualified farm labour in regional areas	Offer training in OH&S, management, chem cert, tractor training etc to assist in up-skilling labour and managers.	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 will ensure that GRDC are aware of this issue
RCSN - Automation	Automation demonstration - farmscale (ie weedseeker)	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 will ensure that GRDC are aware of this issue
RCSN – N measurements	Understanding the value of measured N via soil tests. Proximity to season. Changes with rainfall, temp, crop growth. 2018 has questioned tested levels.	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 large GRDC investment occurring on the ground on this topic. However, the RCSN wanted to ensure that it remained as an important issue within GRDC.
RCSN – Risk management tools	Investigation of seasonal risk management tools that are not the full multi peril crop insurance product. Weather derivatives, frost insurance etc.	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 will ensure that GRDC are aware of this issue
B - Lack of diversity in farming systems	Discovering niche products for us to grow if Russia takes over the wheat market, growing on unproductive land etc, exploring saltbush, different oilseeds, etc to be profitable.	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 will ensure that GRDC are aware of this issue
W - Winter vs spring wheats	Developing the agronomy to say what material is required. Farm system trials and how to identify the opportunities within the season	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 will ensure that GRDC are aware of this issue
B - Locally important weeds.	Matricaria in pasture and static. Is there a control option for both? Matricaria increased in density and spread over time. Really gets out of control in pasture phase	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 large GRDC investment occurring on the ground on this topic. However,

		the RCSN wanted to ensure that it remained as an important issue within GRDC.
W - Crop tolerance work - herbicide packages	Damage noticed with use of prosulfocarb and su's (metrabuzin). Also reducing passes and inc UAN and potential damage. Carry over of SU residual and mixing of new chemical that hasn't been trialled within same season.	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 have provided input to GRDC on this issue
B - Fallow management	Fallow Management, spray frequency & timing, spot spray tech, fallow vs canola. Residual herbicide. Fallow management, spray frequency, spray timing.	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 will ensure that GRDC are aware of this issue
BR - Phosphorus.	Farmers locally are mining soils but they are not seeing reduced P levels. Unlocking P in soil to reduce Phos spend Ha.	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 large GRDC investment occurring on the ground on this topic. However, the RCSN wanted to ensure that it remained as an important issue within GRDC.
W, BR, RCSN - Trace elements	Potential increase in root disease and trace element issues with increased liming. Increasing levels. No profitable break crops for rhizoctonia	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 will ensure that GRDC are aware of this issue
B - Scarcity of products	Example this year: flexi N - prioritizing where it's used to ensure highest profitability.	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 will ensure that GRDC are aware of this issue
RCSN - Gypsum	Long term trial of gypsum on heavy country; how much; to what depth; how frequent; how mobile; what benefits	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 will ensure that GRDC are aware of this issue
RCSN – Yield estimate tools	What are going to be the future implications of domestic and international governments yield and crop estimation tools going to be for our industry (Satellite Tech) Is this going to help or hinder us?	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 will ensure that GRDC are aware of this issue
B - Oats	Low rainfall genetics on milling oats.	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 will ensure that GRDC are aware of this issue
B, RCSN - Cover crops and summer cereals	Mix of grains or single variety. What varieties, does this have good results in lifting soil carbon and how to best manage. Summer cereals - C4 wheat development	Ranked highly by RCSN members at their RCSN member meeting but was not further developed at this time. Grain and Graze 3 could be of use here
W - Remediation of Potash deficiency in crop.	Unsure if a problem can be rectified. Potash post can it be done? Is there an economic response	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 large GRDC investment occurring on the ground on this topic. However, the RCSN wanted to ensure that it remained as an important issue 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/](http://www.facebook.com/theGRDC/) (like us!) as well as a dedicated RCSN website – [www.rcsn.net.au](http://www.rcsn.net.au). Follow us on Twitter @Julianne\_Hill, or visit GRDC [www.grdc.com.au](http://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](mailto:regionalcroppingsolutions@gmail.com)