

GRDCs Kwinana East port zone Regional Cropping Solutions Network (RCSN) held three Open Meetings on the 8 and 9 August 2017. The meetings were held at Narembeen Recreation Centre (8 August at 9am); Southern Cross Tennis Club (8 August at 3pm); and at Nungarin Recreation Centre (9 August at 9am).

A total of 114 guests attended the three open meetings. Members of the general public were able to register for the Open Meetings at the RCSN website www.rcsn.net.au and could submit an issue/idea should they be unable to attend. Those presenting were:

- Julia Easton, Peter Roberts and Charlie Thorn (GRDC): GRDCs investment into soil constraints and GRDC update
- Alex Douglas (DAFWA): Matricaria ecology and control options - Narembeen, Southern Cross and Nungarin
- Glen Bradley (Bayer): Matricaria, statice trial work – Nungarin only

The following Regional Cropping Solutions Network initiated projects were also presented:

- Bill Bowden (WMG): Alternative lime sources – farmer trials, comparison to limesand and more – Narembeen, Southern Cross, Nungarin
- Peter Hills (HillsAg): Harvest weed seed management – Nungarin

Also in attendance were Kwinana East RCSN members. Online GroupMap technology was used to capture audience input. A key part of the open meeting 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 projects have been put on the ground in the Kwinana East port zone through the RCSNs since 2011. Final reports are available online at the Online Farm Trials website, www.farmtrials.com.au or by contacting Julianne Hill, RCSN Coordinator.

All issues raised at the Open meetings at Narembeen, Southern Cross and Nungarin were discussed by the RCSN members at their meeting held on 9 and 10 August at Nungarin. The RCSN also added further issues after gaps were identified. All issues were ranked according to three main factors:

1. Is the idea/issue something that impacts on grower’s profitability?
2. If work was conducted on the issue, would it deliver more value to growers?
3. And is the issue something that we can effect change upon?

Table 1: Summary of areas of interest raised at the Narembeen (NB); Southern Cross (SC) & Nungarin (NG) Open meetings

Areas of interest raised at Kwinana East port zone Open meetings	Expanded areas of interest by Open meeting attendees	RCSN member feedback from Closed meeting and further action
NB, NG, SC: Acidity and sodicity management	Acidity - (in addition to the issue in the booklet - subsoil amelioration for acidity and compaction). What are the right steps to fix it? What decision making tools are available to assist growers to successfully address the issue for the long term? Cost benefits of using local and alternative lime sources for amelioration. How to identify, management, how to diagnose, cheapest and best way to go about it sourcing local product. Sodicity - how to turn our soils around? More work looking at gypsum x ripping followed by canola to provide soil pathways for following cereal crops.	Ranked highly by RCSN members at their closed member meeting. RCSN members further developed this issue, particularly around on-farm amelioration sources; and ROI of different amelioration strategies
NB, NG, SC: Connectivity	Connectivity issues limit the ability to use new technology. What are the opportunities in this space? Communication on and off the farm, farmers want to be able to use tools in the paddock - sometimes there's no point in the office.	Ranked highly by RCSN members at their closed member meeting. The RCSN identified this as an issue however felt that much of this was outside the scope of GRDC but wanted to ensure that it was raised as an issue within GRDC.

Areas of interest raised at Kwinana East port zone Open meetings	Expanded areas of interest by Open meeting attendees	RCSN member feedback from Closed meeting and further action
NB, NG: Heat stress and frost	Heat stress after seeding and at grain fill. Frost impact is a big issue also. Communicate current work and look at function of soil type, soil colour, temperature retention of soil etc	Ranked highly by RCSN members at their closed member meeting. RCSN members further developed this issue.
NB: Soils knowledge	Better knowledge of soil types - understanding what the soil can provide. Soil characteristics - they need to be mapped and categorised. Farming that best suits marginal soils - can we improve them enough to grow pastures?	Ranked highly by RCSN members at their closed member meeting. The RCSN identified this as an issue heavily impacting on profitability however noted that much of this work is being covered in current work being conducted under the GRDC Soils constraints investments.
NG, NB, SC: Hard to kill and summer weeds	Economical control of hard to kill weeds - both within season and over summer to provide best water use efficiency and soil moisture conservation while maintaining enough paddock cover. Best and cheapest options for radish control. Summer fallow and alternative knockdown options. Some hard to kill weeds are button grass, windmill grass, and statice.	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 Bayer have indicated that further work may now be carried out on some of these weeds (eg Statice and Matricaria) after awareness was raised via these meetings.
NG, NB: Decision support tools to manage seasonal conditions	Seasonal decision-making tools to be better able to react to different seasons including working out the balance between crop and pasture, how to adjust programs, how to manage tactical nitrogen management, and what needs to be done in different seasons.	Ranked highly by RCSN members at their closed member meeting, however RCSN members have not progressed this further at this time. Will be forwarded to GRDC Western Region
NG, NG, SC: NVT and Regionally specific agronomy trials	Changing the NV trials to meet the needs of the grower and the information they seek. Growers want regionally specific agronomy trials, including TOS and nutrients, with variables including long season varieties, dry sowing, heat stress, using district practices. Need to educate growers on what the current NVTs provide and what they are used for. Would like to see a Canola NVT (including hybrids) in the eastern parts of the zone including more than one time of sowing. While NVT is fundamentally there to compare genetics across zones, can it be modified to additionally include more locally relevant variety results?	Ranked highly by RCSN members at their closed member meeting. This issue will be forwarded to GRDC Western Panel
NG, SC, NB: Integrating pastures into farming systems	Integrated pastures/forages in our mixed farming systems to extend our rotations and provide feed. Weed management, nutrition and herbicide packages, and how will these impact on following cropping rotation. Further information on twin sowing and IWM to suit our systems and soil types. How do we use our systems to maintain continuous cropping on our better soils? Using poorer country for pasture. Working pasture year or fallow year or legume crop into rotation where possible.	Ranked highly by RCSN members at their closed member meeting. This issue will be forwarded to GRDC Western Panel

Areas of interest raised at Kwinana East port zone Open meetings	Expanded areas of interest by Open meeting attendees	RCSN member feedback from Closed meeting and further action
NG, SC, NB: Matricaria	Matricaria control both in-crop & during the pasture/fallow phase. Herbicide & non-herbicide options. Other weeds of concern are button grass and other emerging weeds – what chemical control, cropping, pasture, summer, and pre-emergent options are available? How are they going to affect agriculture and what is the cost to the industry?	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 Bayer have indicated that further work may now be carried out on these weeds after awareness was raised via these meetings.
NG, SC: Herbicide resistance	Over-reliance on glyphosate. Herbicide resistance in the zone. What are other alternatives we can use in the system to take pressure off glyphosate. Further information on summer weed control with alternatives. Issue for control of ryegrass, and radish as a knockdown and in crop. What is the most reasonably cost-effective chemical fallow in a total cropping system? Other methods of chemical control apart from glyphosate eg paraquat double knock, glufosinate. Resistance along fencelines is increasing.	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 AHRI and others are currently working in this space
NG, SC: Root disease	Crown rot, nematodes and other root diseases are an issue in our zone. There is a need for genetic tolerant varieties as well as work on rotations to lessen impact of disease.	<i>Ranked highly by RCSN members at their closed member meeting. RCSN members further developed this issue, particularly around Predicta B, rotations and changing the soils through liming etc</i>
SC, NB: CTF	Understanding the ability for CTF to maintain the benefits after subsoil amelioration and soil constraint mitigation. The need to have CTF implemented to protect the benefits of amelioration.	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 GRDC currently have investments in this area in the soils constraints investment area
SC, NB: Local agronomy trials	Yard stick trial. Variety x environment crop trials using common practice time of sowing, nutrition and equipment. Also can include 3 TOS. Rule out all subsoil constraints to achieve a full potential so farmers have a goal of 100% water use efficiency. Something farmers can quantify to work towards. Other work to consider is: How deep can you go seeding, variety difference, seed size, nutrition. What are our limits after amelioration? What does it change in our environment? If you remove limiting factors then are you changing your production system? eg. Add legumes to the rotation	<i>Ranked highly by RCSN members at their closed member meeting. RCSN members further developed this issue.</i>
SC, NG: Break crops	Break crop options for heavy soils in eastern Wheatbelt, as well as PROFITABLE dry season break crops	Ranked highly by RCSN members at their closed member meeting. The RCSN identified this as an issue impacting on profitability, and will highlight the issue with GRDC Western Panel.

Areas of interest raised at Kwinana East port zone Open meetings	Expanded areas of interest by Open meeting attendees	RCSN member feedback from Closed meeting and further action
SC, NG: Crop breeding and genetics	Breeding for longer coleoptile wheats to allow deeper sowing to chase moisture. Other work to produce reduced tillering wheats. Genetic improvements for wheat to better tolerate frost. GM probably necessary and would be of favour to the growers. Wheat very important crop in this region. Triticale is very prone to frost and is unlikely to provide risk reduction. More communication around what the frost initiative has found to date.	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 this issue is out of the scope of RCSNs. The issue will be highlighted for GRDC Western Panel consideration
SC, NG: Sodic, acid, saline suitable crop varieties	Wheat varieties with acidity tolerance - similar to Litmus barley. Varieties that can tolerate sodic soils. Barley varieties that can tolerate some level of salinity.	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 this issue is out of the scope of RCSNs. The issue will be highlighted for GRDC Western Panel consideration
Closed members	How to identify the most limiting factor or the area of investment that gives biggest return on investment	<i>Ranked highly by RCSN members at their closed member meeting. RCSN members further developed this issue. Part of this can be included in the farm business updates</i>

NB: All issues raised at the Open Meetings will continue to have presence at the RCSN discussion table and will be forwarded to the GRDC Western Panel and GRDC for continued visibility as port zone related issues that may feed into existing or future initiatives.

Connect with Us.

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.

Thanks and Further Details.

Thank you to everyone who attended the Open Meetings and contributed to the detailed discussions. For further details on the RCSN, please visit www.rcsn.net.au or contact the RCSN Facilitator Julianne Hill (GRDC Regional Cropping Solutions Network Co-ordinator) on 0447 261 607 or email regionalcroppingsolutions@gmail.com.