



WDM-RAC Meeting Hermitage RS, Friday 30th August 2013

Attendees: Paul McIntosh (chair), Andrew Borrell, Anthony Doljanin, Phil Egan, Andrew Milla, Maryse Bourgault, Emma Colson, Damien Scanlan, Lynne McIntyre, John Cutler.

Apologies: Ann-Maree Bach, Chris Bazley, Brett Bidstrup, James Coggan, Andrew Coleborn, Ross Uebergang, Lindsay Ward, Lee Hickey, Geoff Slaughter, Rob Taylor.

WDM RAC Minutes from March 21st 2013: Distributed prior to meeting. Taken as read. Moved as accepted Maryse, seconded Phil, passed.

Business arising: Nil

Correspondence: Nil

GRF/RAC Issues:

Damien Scanlan

- The foundation has been operating RACs for 20 yrs.
 - Growers have difficulty allocation time to activities like RAC's, grower solution groups etc.
 - Chris Bazley reviewed the RACs last year, need to find better ways of gathering grower thoughts and opinions.
 - Some GRDC grower solution groups work well others not so well. Commercial agronomists find it easier to allocate time to meetings sector, look at research priorities in a 2-3 yr window.
 - GRDC question whether they will continue to fund RACs across Australia. Alan Umbers review for GRDC said they are working well in some parts and not in others. No published material from southern RAC's.
 - Grower reps in all states have said RAC's should continue until something else is put into place.
 - GRFL will continue with RACs even if funding not available from GRDC. A mix of real science and growers is important. GRDC have gone away from having scientists on regional panels but include agronomists. GRFL will continue to find younger growers to be involved and invest in their development. An independent grower voice is vital
 - GRFL will have an annual forum to discuss grains R&D issues - GRDC will be invited along as will key organisations involved in grains R&D.
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- Institute model – GRFL is continuing discussions with minister and growers.

Members Reports:

Anthony

Frost event, growers considering grain or hay options. Growers are not well informed about making hay. Concern about price drop if flood of grain hay occurs.

A wet winter was forecast, high fertiliser levels did not pay off. Barley is hanging on longer than non-fertilised, due to length of roots etc. with lack of moisture. There is net blotch in barley.

Phil

District missed frosts, few chickpeas in area so haven't seen any frosted. Need rain now, forecast rain didn't come. Feathertop Rhodes Grass a problem, were going to put sunnies in on worst areas but by the time it does rain the FTR will be germinating and out of control.

Andrew

Got through the frost OK, lack of rain a problem, long fallow, were going to plant sorghum but only have half a metre of moisture so not sure what to do.



Nematodes are a problem with some wheat varieties. Some move towards more sorghum.
Minor use registration of chemicals a frustrating issue. Would help find solutions for controlling problem grasses.

Maryse

West of Roma very dry. Some frost but extent not clear.
More research needed on the economics of practice changes. What are the financial results of practice changes?
What are the thresholds for changing practices. With low wheat populations at Mungindi, do you replant or follow thru to harvest?

Meeting comment: Could Grower Solution Groups carry out on farm practice change trials? GRDC do not allow trial failure!

Paul

Frost is an issue, FTR another issue, Fleabane, learning how to handle better, herbicide resistance in barnyard grass a problem, need better genetics in our crops to manage climate variability to ensure profitability. Moisture is the biggest issue at the moment.

Damien

WA growers want more research into lower risk varieties, managing risk rather than maximum yields.

Nominees Reports:

Lynne (CSIRO)

A recent annual day with all Australian wheat breeders – what's in the pipeline, near to release, 10 min presentations, multiple reps from every company.

MLA again funding pasture improvement. CSIRO revisiting pasture research. Updating stylo info etc.

GRDC project – Alan Peake is looking at wheat after cotton in irrigated systems

Crown rot pre-breeding germplasm evaluation in wheat and barley continues.

Meeting comment:- Concern that breeding companies do not provide any information on progress towards commercialisation of pre-bred material made available or identify resistance genes in released lines. NO royalties or payments come back to researchers or growers funds for use of these lines.

Work continues on modelling climates, predicting future climates, what type of heat tolerance etc may be needed.

Emma (DAFF)

The new mungbean variety 'Jade-AU' was successfully launched at the recent Australian Summer Grains Conference. Jade-AU promises to boost yields by 12% over the popular Crystal variety, and is expected to deliver up to \$100 extra per hectare for growers. Jade-AU is also more resistant to the foliar disease Powdery Mildew but offers the same proven grain quality and agronomy to fit Australia's main export market.

QAAFI Weed Scientist position currently advertised to replace Steve Walker who is going on pre-retirement leave in January 2014.

DAFF PO5 plant pathologist position currently advertised to replace Mal Ryley who is retiring this year. We are planning on offering Mal a post-retirement associateship for a few years so that he can mentor the new pathologist and continue to support the grains industry

New DAFF permanent position to be appointed at Goondiwindi in the coming months . The position is a Regional Development Agronomist associated with new Pulse Agronomy project lead by RCN at QAAFI. Funded by GRDC.

Project purpose: project would focus on the development of crop agronomy packages for the Queensland Grains Region for the winter pulses (chickpea, and faba bean) and summer pulses (mungbean, soybean and peanut). In



addition to agronomic management of pulse crops, the packages will also include assessing crop sequencing implications such as impacts of and effects on; diseases, weeds, water and nutrients. Linkages with other investments such as the N fixation and More Profit from Crop Nutrition programs will be investigated and efficiencies through collaboration captured.

Recent release of the following guiding documents:

[The Queensland Agriculture strategy](#)

[The DAFF Strategic Plan](#)

The [DAFF R,D&E Plan](#) – draft released for public comment (closed 9th August).

Geoff Slaughter (USQ)

The presentation below was forwarded by Geoff who was unable to attend the meeting.

USQ Focus on Agriculture

Three research Centres:

- **The Australian Centre for Sustainable Business and Development (ACSBD)** supports a broadly based research program dedicated to promoting sustainable development through innovations in organisational and community sustainability. With expertise in regional community and economic development, social impact management planning, socioeconomic analysis, and engaged community research, we are able to provide research at the interface between regionally based industries and their communities.
- ***Dr Geoff Slaughter is the co-leader of agribusiness research in the ACSBD with Prof Julie Cotter***
- At the **National Centre for Engineering in Agriculture (NCEA)** we develop solutions for a sustainable and profitable rural sector with research covering sustainable agriculture, energy use, water resources and food security
- The **Australian Centre for Sustainable Catchments (ACSC)** focuses on and underpins the profitability and sustainability of agriculture and water resources, underpinned by

ACSBD Focus

USQ strategic research funding to develop research capacity in agriculture with the aim of:

- Delivering research with high impacts at farm and industry level
- Analysing the business case for sustainable agricultural practice – most profitable options
- crops, grazing, horticulture

****Strategic Focus on crops and grazing enterprises in the Darling Downs and Western Queensland***

- Increasing adoption of profitable and sustainable practices in Agriculture.
- Particular emphasis on evaluating the business case
- work in areas such as impacts of CSG on high value farm land;
- sustainable fodder systems for mixed cropping and livestock operations;
- managing production with climate variability;
- increasing profitability;
- increasing production efficiency.

HERMITAGE RESEARCH STATION

Introduction to Hermitage (Dr Andrew Borrell, Centre Leader)

Hermitage is fully utilised and now has 50 staff. It supports sorghum, barley and pulse breeding programs, plant pathology, biotechnology and other activities.

Frost research:- Was led by Qld. Hermitage supported work developing a rigorous phenotype testing which works well but now has limited support as SA and WA now lead the national program which is moving in a different direction. No



true genetic resistance is available at this stage. Hermitage is an ideal testing site and there are good researchable issues which should be followed up on. Qld has the worst frost problem. Grower support for frost research is needed.

Sorghum:- Andrew's sorghum physiology program receives funds from a number of sources. David Jordan is leading the Gates Foundation supported cutting edge genetic development work. David now has 100 populations under development which has greatly increased the genetic base of material available to sorghum breeders. 4 companies are using pre-breeding lines with royalties coming back to the Hermitage based program. Genomic information has revolutionised the way the program operates.

Grower comment:- There is a need to follow up on inter-cropping.

Barley Pathology:- (Ryan Fowler)

Glasshouse disease screening

Large numbers of lines are effectively screened for the National Variety Trials, as well as breeding material.

F2 screening - multi screening on an individual plant, sequential inoculation of 4 diseases. Have tested 12,000 plants from 11 populations to 5% of original plants remain. Significantly reduces numbers for agronomic testing.

Field Screening

Disease nurseries 4 sites - Hermitage, Toowoomba, Gatton, Cleveland. 12000 plots/ha are infected with "pure culture" of disease. Yield loss trials for barley leaf rust, wheat stripe rust and yellowspot are included.

Disease Surveys

These monitor changes in pathogen type and distribution. The Powdery Mildew pathogen has changed.

Pulse Breeding Programs (Col Douglas)

National mungbean improvement program 2011-2016 lead agency DAFF

Australian chickpea breeding program 2011-2016 lead agency NSW DPI

Mungbean variety release pipeline

JAdA-Au available now - long term yield gain of 12% over Crystal with equivalent agronomy and grain quality.

MR to powdery mildew.

2014 - Replacement for Celera, Green Diamond - -improved yield, halo blight and agronomy.

Possible replacement for Regur - yield, halo blight, tan spot resistance

Breeding for productivity, reliability

NMIP focuses on large shiny Crystal types. 400 lines have been imported, 7 resistant to Halo Blight, 10 to Tan Spot with one line resistant to both and with large seed.

New strain of halo blight identified in 2013 but resistance is available in black gram lines. Three previously resistant parents are susceptible.

Chickpea Breeding Program (Col Douglas)

Chickpea variety releases

PBA HatTrick

PBA Boundary

PBA Pistol

CICA0857 - Oct 2013

Next Meeting:

Phil Eagan recommended a survey be sent to all members before the meeting which they could bring or if unable to attend forward into the meeting.

Next meeting early March at a place and date to be fixed.