

Minutes of CQ RAC Meeting – 15 March, 2011

Biloela Research Station, Biloela

meeting commenced at 9:30am

1. Chairman's Welcome and Confirmation of Agenda

The Chairman opened the meeting and welcomed the members and guests.

2. Attendance

Members:-G. Spackman, (Chairman), P. Durkin, R. Sequeira (DEEDI), C. Dunne, N. Gregg, D. Storey, D. Jordan (QAAFI).

Nominees:-S Chapman (CSIRO), A Ward (DEEDI) J. Sheppard (GRDC), D. Midmore (CQU), D. Lund (GRFL)

Guests:- D. Howard, S. Schmidt (grain growers) P. Keys (DEEDI)

Co-ordinator: - L Webb

3. Apologies

S. Eden, A. Farquharson, M. Balentine, M MacTaggart, C. Douglas (DEEDI), D. Midmore (CQU),

4. Election of Chairman

Graham Spackman stepped down from the role of Chairman.

The Co-ordinator declared the position of Chairman vacant and called for nominations.

Mr Graham Spackman was elected unanimously and unopposed as Chairman for the coming year.

5. Confirmation of Minutes 26th Aug, 2010

Confirmed

6. Business from Minutes

CQ-RAC to write to GRFL to say that we see continued role for GRFL as coordinator of RAC priorities...Co-ordinator to follow up

*coleoptile length still an issue.....*J Sheppard to follow up

Dichlorvos issue ...NuFarm has stopped manufacturing.

GRDC investment-720 issues for consideration.

Climate Champion Program- Col Dunne advised www.climatekelpie.com.au Farmer to Farmer help. SOI may be overdone as an Indicator...good at extremes..Dr Stone thinks there are good indicators for Summer crops.

7. RAC members' reports

Each member is invited to report (3 minutes each) on the regional cropping situation with emphasis on changing practices, production constraints and research issues.

David Lund – reasonably successful season with short dry spell in mid Jan-mid Feb. Weed control an issue. Sorghum, corn and mungbeans in and shaping for large wheat planting – possible seed issues.

Col Dunne – crops along McKenzie/Dawson were waterlogged and wiped out if planted prior to Christmas. Lot of the crop was replanted – sorghum, corn, mungbeans. Some farmers waiting for winter crop. Change in practices – lot of aerial spraying due to difficulties in accessing country. Need dry conditions for harvest and winter planting. Grass weed problems substantial.

Nigel Gregg - Some difficult spring harvests. Variable chickpea yields – mostly mouldy with high screenings. Weed control serious problem – needed to spray early and hard to kill many of the species. Wheat planting likely to be large – especially with harvest quality of chickpea being poor.

Doug (Capella) – feathertop coming through as issue.

David Storey- FTR not as big an issue as in other areas. 90% winter planting was affected- yields in some areas above average-controlled traffic worked well-mainly sorghum planted a little corn and mung beans also-sweet summer grass is a major problem-quite a positive outlook for winter

Peter Durkin – too much rain in winter crop. Needed to spray out some of the wheat (green heads + weeds). All downgraded to feed; some varieties shattered; track damage in fields. Sprouting and grey mould in chickpea. Sorghum/mungbean delayed planting but generally looks ok. Bean yields looking a bit low; some good corn crops. Flooding destroyed many cotton crops in Theodore and so planted beans or corn. Feathertop everywhere.

Doug Howard – yield improvements have been not so terrific in wheat, and certainly not in barley. Issue of wet weather disease resistance – 40% of northern crop downgraded to feed. Barley hasn't really dealt with blotches in region. Sorghum midge resistance continuing to be of value – can total resistance be reached?

Selwyn Schmidt – spring sorghum had sprouting; as did mungbeans. Jan plantings looking ok for these crops, but insect pressures now. Winter profiles looking good for wheat.

Graham Spackman– challenging season as noted above; Heliothis, nitrogen, and summer grasses and issue -winter seed quality and availability evident,-spray drift (2-4D onto cotton, roundup). Fleabane is emerging weed problem (lack of 2-4D? use due don't want to mix with roundup when controlling other weeds). Metalchlor has been less of an issue than in past years.

8. RAC nominees' reports

Each Nominee is invited to report (3 mins each) on their RDE Agency operations with a focus on actions and outcomes relevant to the Central Queensland Region.

DEEDI: Dr A. Ward

\$2.5M in flood recovery activities, e.g. how to replenish eroded soils. Continuing to progress toward implementing national RD&E. Stronger role in summer crop breeding; supporting in winter cereal genetics. Grains2020 is divestment research strategy including shift from Biloela to Emerald Ag College. Transition over 3-5 years. Aiming to purchase new research station on inner Downs. Licensed major wheat lines with crown rot resistance to breeding companies. Projects being renewed in crop protection and nematode/crown rot work. MLA invited research proposal on pasture run-down. Soil health/nutrition research on-going with Mike Bell/Dave Lester. Issues with K and S on multiple sites and is complex issue.

Emerald targeted for major capital investment but there are NO research scientists based there on core funding (Graham S). Internal environment is still challenging and negotiating with GRDC on possible soil nutrition projects; and also working with ag college on space negotiations etc. Aiming to spend about \$2M (Andrew)

Peter Keyes – mungbean program (Col Douglas). Had to reduce new proposed program to 2 sites (cf 3). Previously was 2.5 sites (with 1 every 2 years in spring). 2 sites in NSW. In 2012/13 will have new line 7213 (new Crystal with improved tanspot and powdery mildew resistance). Another 5 lines being bulked up – looking for 1 each of small and large (Crystal) lines. Bringing lines from AVRDC for halo-blight resistance. Mungbeans traded over the fences (maybe 30%) and so PVR not being paid on seed (cf end-point royalties). Issue in CQ.

Ted Knights submitted 5 year chickpea project. Targeting disease resistances. Releasing new variety in 2012 (Pistol) with new plant type.

Richard Sequeira – CQFS project. Appointed 5 regional agronomists to deliver results across the region. Focus on short-term issues (grass weeds, sprays, grain quality), and some longer term outcomes (nutrition). Field days run by agronomists. Spray application workshops been successful – good especially for younger farmers.

David Jordan - Normally aim to plant 10 sites/year. Lost sites all over the place – probably only get 2 in CQ, 2 in NSW. Focus remains on increasing yield via improved genetic diversity, and looking for specific adaptation such as root angle architecture, and low tillering sorghums. Have good sources of ergot resistance and 2 companies have taken up lines, but take up slow so cleaning up lines some more. Companies need ergot in good background. Midge resistance still improving. Total resistance is possible, but usually have commercial downside. Pacific and Pioneer working on herbicide-tolerant sorghum lines and introgressing to new hybrids (2 years time?). Licensed 200 lines in 2010 – indication of relevance. Some concern that multi-nationals might move investment away from Australia. DEEDI restructure has had some flow-on effects, e.g. of shared resources especially related to equipment. Biloela to Emerald move is important and may be very expensive, e.g. for a new planter will cost \$20-30k/year in on-costs. Movement of staff to QAAFI going well, and new breeding project due in 2012.

CSIRO: Dr S. Chapman

Reported on Emerald trials (2 late plantings failed) and progress in Zvi Hochman's project. NVT meeting in 2 weeks time- will report next RAC meeting. Narrabri undertaking performance trials for irrigated wheat.

John Sheppard GRDC Northern Panel

Peter Reading replaced by John Harvey. CQ has had strong influence on setting up NVT advisory committees and has helped repair the NVT. Provides monitoring of NVT and that the sites are planted on time and managed under farmer direction. 1st meeting in CQ and SQ helped establish new variety lists – getting grower feedback, especially to stop companies using NVT for testing. Northern panel supports the existing breeding programs. Barley Breeding Australia – was to be sorted by mid 2010. Panel does not know what is the current situation and is still not done. Low sprouting lines have been licensed by AGT and they have appointed a trait breeder in WA to work on this, among other traits. AGT running trials in CQ – mostly via DEEDI. LongReach based at Narrabri, but not testing further north. 30 applicants for GRDC Panel.

GRFL: D. Lund

John Maloney (ex Dekalb) joined board. GRFL Seeking grower director. GPA active now as a National Peak Body-seeking membership which is important to demonstrate National representation.

D. Midmore (CQU) (apology)

The Chairman advised that David had submitted a thesis abstract on Tea Compost which had been circularised by email.

9. Guest Speaker

John Sheppard (GRDC) delivered a PP presentation prepared by GRDC- key points included....

- The global wheat breeding environment
- Wheat breeding in Australia
- Where are the next varieties coming from?
- How is GRDC addressing longer term challenges?

Private:

Syngenta, Limagrain,
Bayer Crop Science,
BASF, Monsanto,
Dow Agrosciences

Public:

CIMMYT, ICARDA.
Public wheat breeding in the US and Canada

Plant Breeder’s Rights Legislation:- The Plant Breeder’s Rights Act (1994) grants breeders ‘ownership’ of their varieties and enables them to set conditions on their use by others.

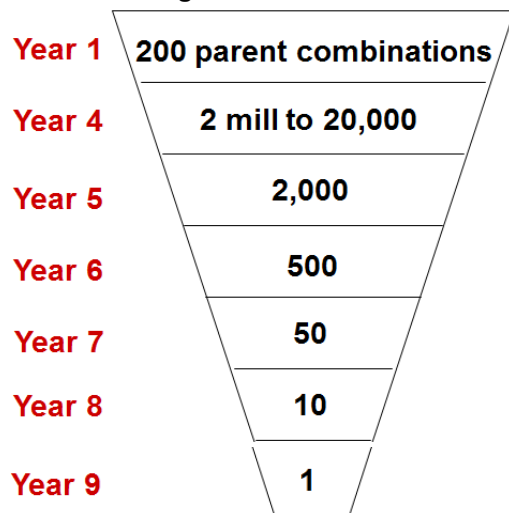
GRDC National Wheat Breeding strategy :- The strategy has changed in response to a changed environment for wheat breeding.

- Public investment in breeding was declining.
- The 1994 Plant Breeder’s Rights legislation created value capture mechanism in the form of seed and End Point Royalties. This provided an incentive for private investment
- GRDC has been re-directing levy money into pre-competitive, strategic pre-breeding research and other important parts of the GRDC portfolio.

Northern Wheat Breeding M & As

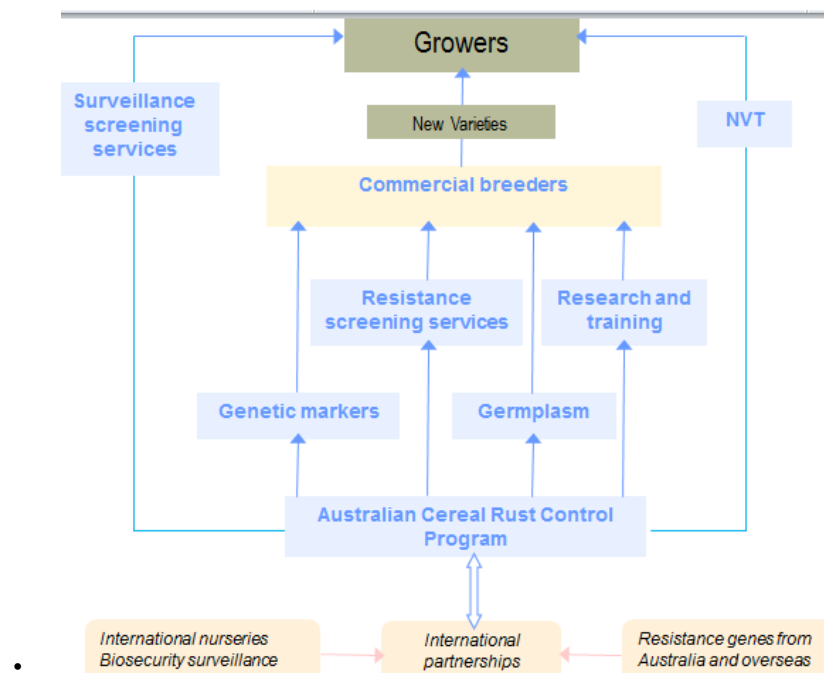
- 2001 - Establishment of SunPrime Seeds, a wheat breeding JV between GRDC, Sydney Uni, and GrainCorp
- 2002 - CSIRO set up Graingene with AWB Limited, GRDC and Syngenta Seeds to produce varieties for the main wheat belt
- 2003 - Creation of Enterprise Grain Australia (EGA), a partnership between GRDC, QDPI, NSW DPI and WA Department of Agriculture.
- 2005 - Merger between SunPrime Seeds and AGT
- 2008 - Shut down of EGA and transfer of QDPI and NSW DPI wheat breeding to AGT

“The Breeding Funnel”



GRDC pre-breeding priorities include:

- Frost
- Salinity
- Drought
- Disease
- Quality



- **Rust biosecurity : managing the risks**

Continuous - incursions

- mutations

Requires continuous supply of new resistance genes

Wheat Breeding: Key Points

- We've got a structure for wheat breeding in Australia designed to make it world leading and sustainable.
- GRDC no longer directly invests grower levies into breeding programs. We've redirected a lot of those funds into pre-breeding and other activities like agronomy.
- GRDC's investment in pre-breeding is critical for solving long term challenges because no-one else can and will do it.
- NVT now offers robust information for growers.
- Improving the EPR system is critical for a viable wheat breeding industry in the future.
- Pre-breeders develop germplasm
- Pre-breeders and breeders need close links
- PVR- very low collection of funds in Queensland
- varieties that are broadly adaptable is the most important attribute
- Frost research has moves South- Renée negotiation with GRDC
- expansion in Asia will help with Queensland varietal access
- breeding is almost totally commercial now
- there is a significant need for northern region focus

10. Next meeting

Date: 25 August, 2011

Venue: Emerald DPI

Speakers: to be determined..

11. Closure

Meeting closed at 4:15pm