

Minutes
Darling Downs RAC Meeting
held at Pacific Seeds Anzac Av Toowoomba
On Friday 21st July 2006

- 1. Opening of meeting and Chairman's welcome**
The Chairman opened the meeting and welcomed members to the Pacific Seeds, Toowoomba facility.
- 2. Attendance**
Members: R. Taylor, W. Bidstrup, J Thompson, D. Alexander, L. Berry, P. McIntosh, B. Warren, R. Skerman, S. Cook, J. Farrell, C. Hornick,
Nominees: C. Joseph (GRDC), E. Corsan (DPI&F), R. Bartels (USQ) P. Carberry (CSIRO),
Guests: D. Hamilton, M. Crawford, N. Muller, A Hardy, M Miles, I Godwin
Acting Coordinator: J Obst
- 3. Apologies:** Apologies were received from W. Newton, M. Burgis, T. Jorgensen, J. Boland, S. Pfeffer, J. Rochecouste. Apologies were **accepted**.
- 4. Changed RAC Coordination Arrangement**
J Obst advised that the GRF was currently in negotiations with Agforce Grains and GRDC to replace J. Twyford as Northern Region RAC Coordinator for the term ending 30-06-08. J Twyford has previously indicated his desire to retire from the position he has held for 10 years.
- 5. Confirmation of Minutes of meeting 15th March 2006**
Moved D. Alexander **Seconded** L Barry **Carried**
- 6. Election of Chairman for following 12 months**
Moved D. Alexander **Seconded** P. McIntosh that R. Taylor remain Chairman until the July 2007 meeting. Mr Taylor accepted. **Carried**
- 7. Business from the Minutes**
No business from the minutes
- 8. Correspondence & Business** (not covered elsewhere)
8.1 Inwards
8.2 Outwards:
There was no business from the correspondence.
- 9. Seasonal / Crop Report**
The following is a summary of key points mentioned by members:
 - Reasonable summer crop. Late corn < 1 t/ac. No winter crop
 - Little pupae busting due to drought. No dam water for irrigation
 - Irrigated cotton still better option than sorghum
 - Due to winter drought growers looking to early summer cropping.
 - Landmark doing soil biology trails
 - Late sorghum suffered from lodging and small grain size
 - Mice numbers increasing on the Darling Downs
 - Subsoil moisture levels low entering into this summer season
 - Mono cropping of sorghum becoming a major concern with regards to soil borne diseases and soil chemical residue levels (atrazine and dual)J Farrell NRMW reported on the mice situation
 - Alternative rodenticides are being trialled for in-crop and bulk storage use. Could be registered within 5 years.
 - Pot trials are being used to establish MRLs_ required for registration.

- The final report for the Best Management Practice project has been submitted to GRDC.
- Looking at preparing A4 Fact Sheets to control mice in crops.
- Regular monitoring of mice to maintain the DD plague prediction model continues. Breeding normally begins around Sept/Oct.

The meeting noted the recent death of John Slatter and acknowledged the significant contribution Mr. Slatter made to the Australian pulse industry.

10. PIPn 2006 (recently sent out by Jack Twyford)

This paper was noted by the committee.

11. Report on RAC Chairmen / N Panel & Board GRDC Meetings

The Chairman said that he along with the Chairmen of the other 7 northern region RACs met with the N Panel & Board of GRDC in Brisbane on 7/ 8th June 2006. This annual N Panel GRDC meeting provides an excellent opportunity to discuss RAC priorities with the GRDC. Issues discussed included:

- Problems of information transfer to growers
- Crop notes in CD format not being well used
- Electronic media not well used world wide by farmers
- Sucking pests in summer crops a major problem
- Markets in the northern region becoming domestic
- OHS a big concern on farms
- While there appears to be adequate support for mentoring industry people <35 years, there should be more mentoring support for people >35<50 years.
- Discussed a GM approach to sorghum breeding.
- The importance of bio-fuels to the grain industry.

C Joseph N Panel GRDC said it was a good meeting and the N Panel valued the comments of the RACs.

D. Hamilton DPI&F said that the high cost of publishing a hard copy of Crop Notes encouraged DPI&F to publish the notes on CD.

12. Crop production profile for D Downs Region: (draft)

The Coordinator said that in order for the RAC to prioritise issues with a high level of confidence he felt it necessary to rank the individual crops grown on the Darling Downs in the order of importance that growers place on them. This ranking could be best determined by taking a regional view across several seasons. The ranking would be incorrect if determined on the current drought season only. Members were invited to complete the form from which an average would then be taken. This ranking of importance would be further discussed at the next meeting and following any amendments would be used as an broad guide to determining priority RDE issues for 2006-07. The following is the average of the individual rankings.

Crop	Winter Crop			Summer Crop							TOTAL
	Wheat	Barley	C Pea	Sorghum	Maize	S'flower	Mung Bean	S'bean	P'nut	NBean	
Estimate based on DPI data	M 40	20	7	20	5	2	4	2	0	0	100
Y 2006 (RAC answer)	9 19	10	7	51	7	1	4.5	0.5	0	0	100
Y 2011-2016 (future task)											

For Wheat M = Milling D = Durum F = Feed

13. Brief discussion on macro-factors which will / could influence future crop production in DD region

The Coordinator said that research providers and funders were looking for guidance from the RACs as to the future direction of the grain industry. With continuing pressure on the availability of funds for RDE investment in the Northern region it was important to invest for future needs and opportunities rather than solving yesterday's problems. The list of macro factors provided by the Coordinator was noted. It was agreed to add 'availability and price of fossil fuels and N fertilizer' to the list. (list attached)

14. GM Sorghum

The Chairman invited Dr Ian Godwin UQ to address the RAC on the opportunities for a GM approach to sorghum breeding. Following are some key points mentioned during this address:

- Good support in DPI&F for GM
- No GM sorghum being grown in the world although there is a small US investment
- Will have to assume that any trait introduced into grain sorghum would cross over into forage and wild sorghum species (eg Johnson Grass)
- Sorghum is seen world wide as the 'poor man's crop'. Not so in Australia where it is the dominant summer cereal.
- Industry could be best served by focusing on grain quality rather than agronomics. This could make it easier to get OGTR approval.
- Apart from Pioneer Hi-Bred Seeds it is doubtful if any commercial company has the interest or resources to develop a GM sorghum.

C Joseph N Panel GRDC outlined GRDC's position on GMOs as contained in the GRDC Guidelines: Development and Use of Gene Technologies and Genetically Modified Crops.

15. Pathway to Prosperity: Busting Sorghums Yield Barrier: Discussion on Paper by Prof Graeme Hammer:

RAC members S Cook and W Bidstrup presented their views to this recently presented paper. Some key points made by the RAC are as follows:

- Sorghum is not achieving its full yield potential
- A GxMxE approach would improve yields
- Not properly managing nutrition and soil moisture
- Getting soil diseased from sorghum monoculture
- Need to look at sorghum in a full agronomic package including soil biology
- Potash becoming a major issue
- Growers are now a lot better at managing soil moisture than before
- There is a need to better manage canopy cover through applied nutrients
- Have the ability to manage soil moisture but excessive heat is a problem
- Climate appears to be getting hotter and dryer
- D Downs growers don't want to trade off high yields to lift minimum yields
- Paper appears to challenge current breeding effort. Efforts to consider crop cover management have been talked down in the past.
- There has been a loss of rotations due to lack of winter crop planting rains
- Yield potentials are still rising from breeding efforts although getting harder to achieve.
- Sorghum becoming more of an 'opportunity crop' due to unreliable seasons.
- Good genetic variability available for increasing seed size.

It was agreed that there was qualified support for a GxMxE approach to increasing sorghum yields with most potential seeming to come from 'M'. It was felt that there was not a lot of scope for significant yield increase from 'G'. Growers would not support trading off high yields simply to increase minimum yields.

16. In sorghum crop control of midge and rutherghlen bugs

Dr Meline Miles DPI&F addressed the RAC on Rutherglen Bug infestation in sorghum. Some of the key points are as follows:

- In field research is being conducted to measure the level of yield / quality damage caused by Rutherglen Bug
- There are no chemicals registered but SPs are being used with harmful effects on the beneficials.
- There is some trialling of softer insecticide options
- Found a lot of gum produced in the head
- There may be egg parasitoids
- RGB could be varietal inclined
- There are 5 instars plus the adult
- RGBs hide the eggs in the head and it is hard to achieve insecticide contact

Dr Adam Hardy DPI&F addressed the RAC on midge control in sorghum

- With the new level of midge resistance being incorporated into sorghum hybrids, a 90% level of resistance should be achieved.
- This will remove the need for in crop spraying for midge.
- Dr Hardy expects these hybrid varieties to be released into the market within the next 5 years.
- Midge parasites will control midge larvae in the floret however by the time the midge larvae is destroyed the damage has been done to the developing seed. Midge populations are however reduced.

17. Feed Wheat Breeding-New DPI&F initiative:

E Corsan DPI&F Nominee addressed the RAC on DPI&F's feed grain initiatives. Following are some key comments:

- A 16% increase in lot feed numbers is forecast
- A national barley breeding program has been developed with the Northern node located at Hermitage Research Station (HRS)
- The HRS barley breeding program will have an 80% focus on feed varieties and a 20% focus on malting quality varieties.
- A new barley breeder has been appointed to the HRS program.
- The Leslie Research Centre (LRC) wheat breeding program has been expanded to include breeding feed wheat varieties. An additional wheat breeder (Dr Rex Williams) has been appointed to the program. There are now 3 wheat breeders at LRC.
- A replacement maize breeder is being appointed at Atherton.
- A 5 to 10% increase in wheat yields is possible without the need to select for high milling quality.
- 3 to 5 years timeframe for release of suitable existing feed quality lines
- 7 to 8 years timeframe for lines requiring breeding improvements
- A minimum level of disease resistance will be required to protect all wheat varieties

18. Reports by RAC Nominees: DPI , CSIRO, Uni, GRDC, GRF

CSIRO: P Carberry;

- Eastern Farming Systems Project being reviewed by GRDC.
- Current project is due to end 30.06.07.
- This is a \$570 K / Annum project.

- W Newton is a Reference Committee Member to this project.
 - Discussions are being held on a reinvestment model to move forward with.
 - APSRU, now 15 years old, is being reviewed by internal agencies. 6 months are available to present a case for a continuation.
 - There are arguments for APSRU to do more national research.
 - There is a significant CSIRO shift to research in the south and west which could possibly be at the expense of the north.
 - CSIRO has a major research project supporting wheat breeding.
- USQ NCEA: R Bartels;
- No research directly relating to grain being undertaken at the centre.
 - Dr Bartels reported on the current research initiatives
- GRDC: C Joseph:
- The 2006-07 Investment in Northern Region Report is now available.
 - A general overview of GRDC activities was provided.
- GRF: J Obst:
- The meeting was referred to the notes to the agenda reporting on GRF matters.

19. General Business

Sorghum Research Workshop: The Coordinator advised that the DD RAC has been invited to send a representative to this workshop to be held at Bribie Island on 3 & 4th August 2006. Members to inform the coordinator if available.

GRDC / AWB Wheat Crop Shaping Overview Forum: The RAC has been invited to send a grower representative to this forum in Melbourne on 3rd August 2006. The Chairman indicated his interest in attending.

Controlled Traffic Farming Conference Sponsorship: The Coordinator advised that the GRF is offering to sponsor 4 RAC grower members to this conference at Ballarat Vic on 24th September / 1st October 2006. Each sponsorship is for \$445 ea as part of the CFI Bus Tour. Those interested are to contact J Obst Secretary GRF.

Australian Agronomy Conference Sponsorship: The Coordinator advised that the GRF is offering to sponsor 2 grower RAC members to this conference to be held in Perth W Aust. on 10th to 14th September 2006. Each sponsorship is to the value of \$1500. Those interested are to contact J Obst Secretary GRF.

20. Date and Venue of Next Meeting

It was agreed to hold the next meeting on 20th February 2007 at the Dalby Agricultural College.

21. Meeting Closure

The Chairman thanked Pacific Seeds for the use of its meeting room and for providing lunch.

The meeting closed at 3.15 pm.

The meeting was followed by an inspection of Pacific Seeds facilities.

Some Future Opportunities and Threats

Not only is the role on the RAC to identify and prioritise current issues affecting profitable and sustainability grain production but they are also encouraged to consider the future and aim to identify emerging issues. With continual downward pressure on available funds for research investment, the challenge is to invest in areas of research that will deliver the greatest future returns. There is little use in solving yesterday's problems.

The following are some of the factors (opportunities and threats) which will / could have a significant effect and substantially change the shape of the northern grains industry. No doubt any one of these change will bring forward a new set of production problems. The challenge is to predict and invest in research to minimize any negative impacts.

1	Climate Change	Hotter & Dryer and more CO2
2	Future Markets	Feed Grains and bio-fuels Organics, International competition
3	Community Expectations Environmental Requirements, OHS	BMP & EMP, Food Safety
4	Precision Ag , Mechanisation	Shortage of farm labour, higher N costs
5	Greenhouse	Carbon sequestration, Trading Carbon Credits
6	GM approach to crop improvement	No moratorium in Queensland
7	Supply / Price Fossil Fuels	Forecast increase in farm fuels, biofuels
8	Biological approach to farming	Managing soil health
9	Research capacity and capability	Downturn in university agri science students