

## GRDC Dry Start Forums – Maximising returns through informed decision making

350 farmers, advisors and agribusiness representatives attended a series of four forums across Eyre Peninsula to discuss the dry conditions for the start of the 2017 growing season. Funded by the Grains Research & Development Corporation (GRDC) and supported by PIRSA-SARDI and local farming groups Eyre Peninsula Agricultural Research Foundation (EPARF) and Lower Eyre Agricultural Development Association (LEADA), the forums titled *'Maximising returns through informed decision making'* were held at Wudinna (15 June), Cummins (16 June), Cleve (22 June) and Streaky Bay (23 June).

Local GRDC Southern Panel Representatives Peter Kuhlmann and Bill Long opened the two major forums at Wudinna and Cummins. Local consultant Andy Bates, Bates Ag Consulting facilitated the Cleve and Streaky Bay forums.

At the beginning of each forum, farmers were asked:

- How much have you sown of your intended program?
- Of what you have sown, what germination (establishment) levels have you got?
- Who will put more in if it rains?

Thirty percent of Wudinna and Cummins\* farmers had sown their full program, 45% at Cleve+ and only 6% of Streaky Bay+. Conversely, 44% of Streaky Bay farmers had not sown any of their program, compared to 10, 3 and 18% for Wudinna, Cummins and Cleve respectively (Table 3). Plant establishment was varied, with the best establishment being recorded in the Cleve area with 94% reporting greater than 50% establishment. To sow more now, the majority of farmers reported that they would require at least 20-30 mm of rainfall. Interestingly following the Streaky Bay forum, farmers shifted their responses from requiring 10 mm of rainfall to sow, to a greater number saying that they needed at least 30 mm.



**Andy Bates leading the discussion session at the Wudinna forum**

Dale Grey, Seasonal Risk Agronomist with Agriculture Victoria presented the oceanic and atmospheric climate drivers of weather in south-eastern Australia, what they are currently up to and the model predictions for rainfall and temperature for the rest of winter and spring. At this point in time half the models are predicting average winter and spring rainfall, and half are predicting drier and warmer than average rainfall for Eyre Peninsula. None of the models were predicting higher than average rainfall.

Tim McClelland, Systems & Agronomic Services Manager with Birchip Cropping Group presented a range of yield simulations for various localities across Eyre Peninsula using the decision support tool 'Yield Prophet'. Yield Prophet's simulations are based on soil water, N supply, crop type and variety, sowing



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date and crop physiology, in the absence of events such as heat and frost. The soil water module is estimating that plant available water is getting quite low in most EP situations, despite substantial rainfall events in late summer. Yield potential in some districts such as Cummins is still quite good, but the risk of heat stress is significant which would have a big impact on grain produced from late developing crops. Tim ran through some scenarios based on a sowing date of 24 June, which would move the flowering window into October, when the chance of heat events is much greater than the normal flowering window for upper EP of late August-early September. Tim also used CLIMATE in his presentation, which is a free app that summarises climate data in many ways, eg what is the likelihood of getting 150 mm of growing season rain at Cummins from now on?

James Edwards, Wheat Breeder with Australian Grain Technologies explained the potential losses from heat events at flowering and grain fill in wheat.

- The difference in flowering date between the quickest maturing wheat (Axe) and the slowest maturing wheat (Yitpi) when sown at the end of April is 60 days. When sown in the middle of June this difference is reduced to just 10 days.
- Varieties differ in the length of their grain filling period (flowering to harvest maturity). In a time of sowing trial at Roseworthy the slowest variety; Axe took 914°C degree days, while the quickest variety, Mace was 20% faster at 746°C degree days.
- Research by AGT has shown that heat stress events (greater than 30°C) during grain filling can result in grain yield losses of 100-150 kg per hectare per day.

Kenton Porker, Research Scientist with SARDI highlighted that different barley varieties sown later in the season all ended up maturing within about a week of each other, as opposed to longer growing seasons where varieties display quite different maturity dates.

- Current barley variety options will flower at a similar time and closer to the optimum period for EP than current fast-medium spring wheats when sowing late.
- Increase seeding rate of barley and have confidence in the improved grain size stability of newer varieties.
- Barley offers a yield advantage over wheat, but consider economic upsides in wheat quality such as increased protein.

For anyone considering sowing cereals now, it was strongly recommended to increase sowing rates to have the best shot at good grain numbers, which ultimately drive yield.

Hamish Dickson, Principal Consultant for AgriPartner Consulting described the key features to consider when designing containment areas for sheep, for the health and wellbeing of both sheep and workers.

- Protect soils, manage stock condition and encourage fast feed growth when conditions improve by using containment areas.
- Managing feed and animal health correctly can result in good animal production and reduce the impact of a poor season.
- There are key things to consider when setting up a containment area to make life much easier! The main aspects to consider are site selection, stocking density, shade and shelter, feeding and water equipment, feed and water rations.
- Don't forget the transition out of containment is just as important to get right.



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An opportunity for questions to all of the speakers was well utilized, with plenty of questions and discussion held with the crowd. Some of the questions and answers included:

- What has happened to seed already sown weeks ago?
  - A: If not germinated (no root showing) or sprung, the seed generally remains viable. If germinated, it will be needing a drink. How long it can last is unknown and a potential research question.
  - Andy Bates has been applying water to 1 m<sup>2</sup> areas in paddocks across EP. Ten mm of water was not enough to establish plants, 20 mm was required to get some germination. Try this at your place – will depend on soil type.
- Will my herbicides still work?
  - A: Efficacy should still be good, not enough rainfall to break it down.
- If I sow now, should I still apply planned rates of herbicide?
  - A: Yes – you don't want to ruin years of good weed control/face years of issues by poor weed control in one year.
- If I sow now, should I still apply planned rates of fertiliser?
  - A: It is important for plants to have access to fresh phosphorus (P), especially in cold conditions. Nitrogen (N) rates may be reduced if good N levels in soil.
- Should I add urea to crops that are looking water stressed?
  - A: No.
- Should I sow barley or wheat?
  - A: It depends! Barley is more favoured by many farmers on the sandier soils as a late sow option.
- Should I sow any break crops?
  - A: Sowing canola now would be risky – the ideal canola flowering time is early August, sowing now would push flowering time back too far.
- What is best to sow for sheep feed?
  - A: Barley has the greatest early vigour compared to wheat and oats. If you need to buy sheep feed, do it ASAP as prices are rising. Make sure you get feed tests on hay (don't pay top dollar for poor quality).



**Panel session at Wudinna forum, L-R: Hamish Dickson, Tim McClelland, Kenton Porker, James Edwards, Andy Bates**

Chris Fitzgerald, Rural Financial Counsellor with Rural Business Support outlined the free, confidential financial services that Rural Business Support provides, as well as types of government assistance currently available and eligibility requirements. Chris also highlighted the importance of looking after your mates and yourself (and the women in the business), and to seek professional help if required. Helpline numbers were provided for services that farmers may wish to access. She reminded people to keep communicating with their bank throughout the season.



**Chris Fitzgerald, Rural Business Support**

Following the Wudinna and Cummins forums, farmers were asked by show of hands whether attending the forum had assisted or changed what they might do, the majority (~80%) of farmers at each event raised their hands. Some of the real value of the forums however was simply getting people together. There was a lot of discussion amongst attendees during breaks and following the forums which was important for mutual support. Rabobank assisted this process by providing refreshments following the Wudinna and Cummins events.



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**Table 1 Forum contributors**

Name	Organisation	Role
Bill Long	GRDC Southern Panel	Forum development, facilitation Cummins
Peter Kuhlmann	GRDC Southern Panel	Facilitation Wudinna
Andy Bates	Bates Ag Consulting/Low Rainfall RCSN	Forum development, panel facilitation x 4 sessions, general agronomic advice
Dale Grey	VIC DEDJTR	Speaker, via phone x 4
Tim McClelland	BCG	Speaker x Wudinna and Cummins
Kenton Porker	SARDI	Speaker x Wudinna and Cummins
James Edwards	AGT	Speaker x Wudinna and Cummins
Hamish Dickson	AgriPartner Consulting	Speaker x Wudinna and Cummins
Chris Fitzgerald	Rural Business Support	Speaker x 4
Amanda Cook	SARDI	Speaker x Cleve and Streaky Bay
Naomi Scholz	SARDI	Event coordination, notes, voice recording
Dot Brace	EPARF	assistance with organisation of Wudinna forum, registrations, publicity
Megan Low	LEADA	assistance with organisation of Cummins forum, registrations, publicity
Simon Guerin	EPARF	Close Wudinna
Bruce Morgan	LEADA	Close Cummins
Dion Williams	Streaky Bay farmer	Open and close Streaky Bay

**Table 2 Event participation breakdown**

Event	Total Attendance	Breakdown
Wudinna 15 June, 1.30-5.30pm	143	111 farmers, 7 speakers, 2 GRDC reps, 14 agribusiness reps, 9 MAC staff.
Cummins 16 June, 9am-1.30pm	137	98 farmers, 7 speakers, 1 GRDC rep, 23 agribusiness reps, 8 other.
Cleve 22 June, 1.30-3.30pm	42	22 farmers, 4 speakers, 3 GRDC reps, 10 agribusiness reps and 4 other.
Streaky Bay 23 June, 9-11am	31	23 farmers, 4 speakers, 4 agribusiness reps, 1 other.



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**Table 3 Survey of participants**

How much have you sown of your intended program? (% of farmers)	Wudinna*	Cummins*	Cleve+	Streaky Bay+	
100%	30	30	45	6	
50-100%	20	50	36	11	
0-50%	40	10	0	39	
None	10	3	18	44	
Of what you have sown, what germination levels have you got? (% of farmers)	Wudinna*	Cummins*	Cleve+	Streaky Bay+	
100%	10	10	35	8	
>50%	30	30	59	42	
<50%	30	50	6	25	
Bugger all	20	10	0	25	
Who will put more in if it rains? (% of farmers)	Wudinna*	Cummins*	Cleve+	Streaky Bay+	Streaky Bay after forum
No, I have finished sowing my program	30	30	33	6	6
At least 10mm		20	0	21	12
At least 20mm	some	40	44	7	12
At least 30mm	more		16	50	53
More than 30mm	most		8	3	18

\*Estimates from raised hands in the crowd

+ Based on individual responses collected via Keypad clickers