

Durum Growers Association SA Inc

Issue 1-March 2011

www.durumgrowerssa.org.au

From the Chairman



Durum Wheat growers in SA and Victoria Wimmera District have experienced an excellent season, with high yields in most districts, however, extreme rainfall events in some areas during harvest have caused quality downgrades and the subsequent poor financial return from a crop that promised so much. Quality downgrades were mainly due to low vitreous and lower protein, because of the wet spring and rain before and during harvest.

Unfortunately the price of Durum has not risen with bread wheat this past season.

The new Durum Varieties all performed well in most districts out yielding the older varieties like Tamaroi and Kalka. Tjilkuri (53188 or Wid801) was named during the season and performed well in most areas.

The Adelaide University announced the appointment of Dr Jason Able to succeed Dr Tony Rathjen, as the new Durum Wheat Breeder who will take over the leadership of the Southern Breeding operations of the Australian Durum Wheat Improvement Program (ADWIP)

San Remo announced that the Durum Grower of the Year Award for this year goes to Leith Cooper from Jamestown, who has been actively supporting the Durum industry in this state for over 20 years.

The GRDC Durum Wheat crop trials were on display at the Crop Walks last year, and the harvest results from all the sites will be a feature at the upcoming Forums at Wolseley on March 22nd and at Blyth on April 5th. There trials were also supported by our financial sponsors San Remo, Viterra, Glencore Grain, and the in kind contributors SARDI New Varieties Agronomy Group, AWB Landmark and the Durum Growers Ass. of SA.

Monica Trengove was appointed Secretary last May after Neville Sharpe retired after 20 years service. Neville still retains the roles of Treasurer and Seed Manager.

Please check out our new website www.durumgrowerssa.org.au which enables everyone in the industry to access information on all facets of Durum.

Good subsoil moisture from summer rains will give all farmers much confidence when starting this year's seeding operation.

John Green Chairman

Hygiene vital to Durum

Five Critical Factors:

- 1 Watch for new variety releases
- 2 Durum grows well after bean, pea crops
- 3 Machinery cleaning crucial to keep out bread wheat contamination
- 4 Aim to increase durum growing area
- 5 Yields about 4t/ha possible [see website for full article]



Derek Gollan & Dr Tony Rathjen at Georgetown—at the release of 801—now called Tjilkuri [Aboriginal word meaning “little green shoots”] at Bruce Crawford’s property, Georgetown, 15th September 2010.

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Crop Walks—2010



Farmers at Bruce Crawford's property—Georgetown—
15th September 2010



Simon Mock of Nhill, Victoria—winner
of 1 ton of 803 durum seed—SE Crop
Walk at Alwyn Dyer's property, Kaniva.
Donated by the Durum Growers SA As-
sociation Inc.



Farmers at Pat Connell's property—Tarlee—15th September 2010—
amongst the Durum.



Alwyn Dyer speaking at the SE Crop Walk—
Alwyn's property at Kaniva—5th October 2010.



Kenton Porker, SARDI—at Paskeville—YP
Crop Walk—29th September 2010.

San Remo's "Grower of the Year" 2011 went to Leith Cooper



Durum Breeding & Research News at the Waite



Dr Jason Able, Wheat Breeder & Lecturer in Plant Breeding.
University of Adelaide, Waite.

The University of Adelaide is pleased to announce the appointment of Dr Jason Able, as durum wheat breeder and lecturer in plant breeding. Jason comes into the role with more than 10 years research experience in cereal genetics, and is looking forward to applying that knowledge to generate improved durum varieties.

Jason is taking over leadership of the southern breeding operations of the Australian Durum Wheat Improvement Program (ADWIP). In this role, he is mentored by Dr Tony Rathjen and assisted by two experienced technical officers, Christopher Stone and Ranjit Das.

Jason is also leading a new GRDC-funded project on root traits in durum. In this project, he will be assisted by two new staff members: postdoctoral research fellow Dr Alison Millar and technical officer David Keetch.

Both projects benefit from molecular support from Prof Diane Mather and Dr Genet Mekuria.

Seed Report 2011—Neville Sharpe

Last season was a mixed bag due to the erratic rainfall. Many crops were downgraded as was the seed production

Sales were:

Hyperno	12 tons
Saintly	4.6 tons
Tjilkuri	95.4 tons

There is still a small amount of seed available of Tjilkuri. No Hyperno or Saintly.

Approximately 11 tons of pure seed were produced at Virginia of varieties Tjilkuri, WID803 and WID802 for future multiplication.

Major trials were carried out on the properties of Bruce Crawford, Alwyn Dyer, Michael Jaeschke, Rex Kakoschke and Neville Mildren our seed growers.

All of the new varieties were trialled and I hope to have the results for the forum.

San Remo will be trial milling 100 tons of WID802 and WID803 to facilitate their release if the quality is okay. Previous tests were good. Both of these varieties have the potential to lift current yields by another 5% over Hyperno and Tjilkuri. It is possible that they will suit different rainfall zones due to the high screenings experienced with WID803 in some areas under different farming rotations and rainfall.

Neville Sharpe
Seed Manager
M: 0419 607 120

The optimal time of sowing for new durum varieties?

Kenton Porker & Rob Wheeler, New Variety Agronomy, SARDI

The DGA led durum agronomy project has now collected data from time of sowing trials from the past two years thanks to SAGIT and GRDC funding. The response of durum to time of sowing has been completely different across both seasons, but differences in variety yield rankings from each time of sowing has largely remained unchanged.

In the 2009 trial at Turretfield the highest yields were achieved at earlier sowing (11-May), followed by the mid sowing (1-Jun) and then later sowing (24-Jun) yielding (Figure 1). When sown late in 2009, it highlighted the potential for quality downgrading in the newer durum varieties when they were exposed to heat stress during grain fill with large increases in screenings experienced in Hyperno and WID803. Hence in these conditions it was best to sow early to avoid stresses during grain fill.

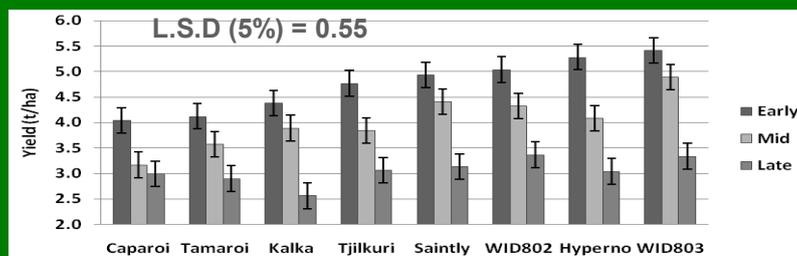


Figure 1 Grain yield data of durum varieties in response to sowing time; Early (11-May), Mid (1-Jun), and Late (24-Jun) at Turretfield 2009.

Fortunately in 2010 there was not a repeat of the hot conditions experienced at grain fill in 2009. In both time of sowing trials at Minlaton and Tarlee in 2010 it was expected that with wet conditions right through the 2010 growing season the earlier sowing dates (May) would yield significantly higher

than the later sowing times. However this was not the case as the later sowing times yielded the highest and the early sowing the lowest at both sites (Figure 2 & Figure 3), contrary to 2009 results.

Figure 2. Grain yield response to sowing date averaged across all nitrogen treatments at Minlaton, 2010

It appears as though durums are also susceptible to chilling stress during anthesis particularly under cold and moist conditions resulting in head sterility. As a result, the durum sown later in 2010 possibly yielded higher than early sowing because anthesis was later in the season when conditions were warmer than earlier sowing dates. Unlike 2009 the detrimental effects of heat stress on grain plumpness and yield were not experienced in the later sowing of 2010.

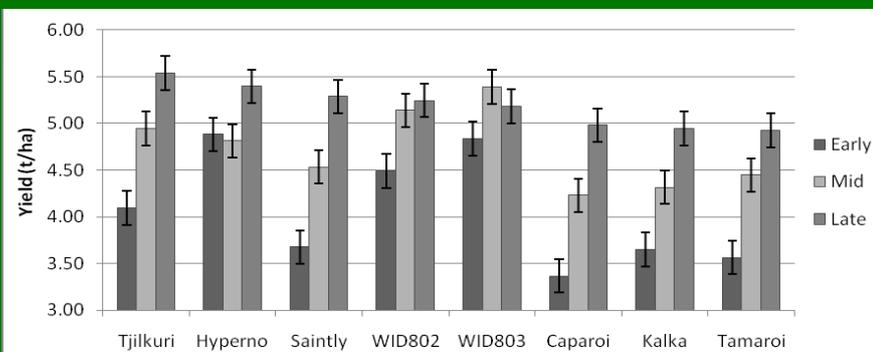
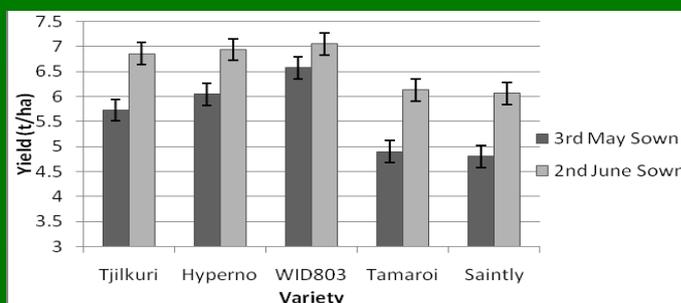


Figure 3. Grain yield data of durum varieties in response to sowing time; Earlier sown (7th May), Mid (27th May), and Later sown (22nd June) at Tarlee, 2010 (LSD FPr<0.05 = 0.36).

By combining 2009 and 2010 results it is therefore evident that the optimum sowing window for durum is quite small and will depend on seasonal conditions, with early sowing leading to increased potential for yield reduction from cold stress and later sowing bringing the increased risk of quality downgrades from heat and moisture stress.

One of the fundamental objectives of this research is to identify how best to manage new varieties and reduce the risk associated with growing durum in SA. Importantly these trials have identified useful varietal differences in yield and quality responses to time of sowing that can lead to avoidance or offer improved tolerance to stress (cold and heat).

WID803 shows high yield potential, and Hyperno and WID802 slightly less; both 2009 and 2010 trials show them to be the highest yielding varieties irrespective of when they are sown (in particularly WID803) but can be subject to quality downgrades when sown late. Therefore they are likely to offer large yield advantages at early sowing but may be less preferred varieties for later sowing as they have a greater chance for quality downgrading. Across all of the trials, variety yields have only differed to a small degree at late sowing but grain quality has been more affected. Therefore choosing varieties which have competitive yields coupled with more stable and improved quality characteristics is more important with delayed sowing, than striving for overall yield potential. Caparoi has been a standout in all late time of sowings offering superior quality and yields similar to all other varieties. Earlier maturing varieties Tamaroi, and Saintly also become more viable options; yielding similar to longer season lines at later sowing but with improved grain quality, hence these varieties have a good fit in environments where moisture may be limiting during grainfill. 2010 release Tjilkuri does not quite have the yield potential of WID803, Hyperno, and WID802 but is well adapted and consistent across all environments with improved grain quality. Tjilkuri appears to be a genuine all round variety that will perform well across all sowing dates with reduced likelihood of large quality downgrades.

Interestingly varieties such as WID803, Hyperno, WID802 that were most sensitive to heat stress (quality and yield reductions) in 2009, were the least sensitive to cold stress in 2010; suggesting maybe these varieties have improved cold tolerance similar to that of bread wheat; a likely reflection of their ancestry.

More detailed results from the 2010 durum agronomy trials will be published in a final annual report to be released by the DGA, individual trial results from regions will be published into relevant farming systems trial results booklets.

SE Forum to be held on 22nd March 2011 at Wolseley

Durum Wheat Pre-Seeding Forum Wolseley Sport & Recreation Centre

Tuesday 22nd March 2011 – 8.30am-1.00pm

[Supported by Durum Growers Association of SA, West Wimmera Durum Growers & MacKillop Farm Management Group]

- 8.30am John Green, Chairman, Durum Growers Association SA Inc
Opening Forum
- 8.35am Rob Wheeler & Kenton Porker, SARDI
"2010 Trial Results"
- 8.55am Dr Alison Millar, University of Adelaide, Waite
"Root Traits & Nutrient Efficiency for Durum"
- 9.20am John Stuart, San Remo
"Milling Qualities of New Varieties"
- 9.40am Peter Botta – PCB Consulting
"Grain Storage on Farm"
- 10.00am AGM West Wimmera Durum Group
Chairman Alwyn Dyer
- 10.10am Morning Tea – provided by Wolseley Sport & Recreation Centre
- 10.50am Simon Mock, Agronomist
"Opportunities & Challenges in growing Durum"
- 11.10am Allen Kelly, Farmer Manoora
"On-Farm Grain Hygiene"
- 11.30am Wallace Meyer, Farmer Kaniva
"Durum Report with Farmer Perspective"
- 11.50am Andrew Wilsdon, Glencore Grain
"Durum Marketing"
- 12.10pm Steve Mellington, AWB
"San Remo/AWB Area Contracts"
- 12.30pm John Green, Chairman Durum Growers Association SA Inc
"Future Directions"
- 12.40pm Pasta Lunch at Wolseley Hotel – Pasta supplied by San Remo
Complimentary Drinks – AWB
- 2.30pm Peter Botta, PCB Consulting
"On-farm Silo Storage" Seminar—Simon Ballinger's property [1/2kms north of Wolseley].

Forum & Morning Tea \$10—Forum, Morning Tea & Lunch \$20

RSVP: Alwyn Dyer 0427 558 170 or Monica Trengove 0417 803 386

Mid North Forum to be held on 5th April 2011 at Blyth

Durum Wheat Pre-Seeding Forum Blyth Cinema

Tuesday 5th April 2011 - 8.30am-1.00pm

[Organised by the Durum Growers Ass. of SA Inc for the Durum Wheat Industry]

- 8.30am John Green, Chairman, Durum Growers Association SA Inc
Opening Forum
- 8.35am Rob Wheeler & Kenton Porker, SARDI
"2010 Trial Results"
- 8.55am Dr Jason Able, Durum Breeder at Waite University of Adelaide, Research
"Current Status – Future Prospects"
- 9.20am Peter Botta, PCB Consulting
"Grain Storage on Farm"
- 9.40am Andrew Wilsdon, Glencore Grain
"Durum Marketing"
- 10.00am Durum Growers Association SA Inc AGM – Reports & Election of Committee
- 10.10am Morning Tea – Prepared by Blyth Hall Committee
- 10.50am Troy Johnson, YP Ag Agronomist
"Durum on Southern Yorke Peninsula"
- 11.10am Michael Long, LGL Commodities Pty Ltd
"Durum Worldwide & Australia"
- 11.30am Ben Crawford, Farmer Georgetown, SA
"Durum Gross Margins over 3 Seasons"
- 11.50am Mark Haskett, ANZ Commodity Analyst
"Wheat Swaps including Durum"
- 12.10pm Steve Mellington, AWB
"AWB/San Remo Area Contracts"
- 12.30pm John Green, Chairman Durum Growers Association SA Inc
"Future Directions"
- 12.40pm Pasta Lunch at Blyth Hotel – Pasta supplied by San Remo
Complimentary Drinks – Glencore Grain
- 2.30pm Peter Botta, PCB Consulting
"On-farm Silo Storage" Seminar—Jim Maitland's property [11kms north of Blyth on the Brinkworth Road]

Forum & Morning Tea \$10—Forum, Morning Tea & Lunch \$20

RSVP: Monica Trengove 0417 803 386 or John Green 0427 101 482

**For information contact: John Green, Chairman M: 0427 101 482
Monica Trengove, Secretary, Durum Growers SA Association Inc.
M: 0417 803 386, E: monica.trengove@internode.on.net
All Seed enquiries: Neville Sharpe, M: 0419 607 120**