



## PROGRESS STATEMENT 2017

Please read the SAGIT Project Funding Guidelines before filling in this form. Guidelines can be found on [www.sagit.com.au](http://www.sagit.com.au)

Progress Reports must be submitted via email to [admin@sagit.com.au](mailto:admin@sagit.com.au) as a Microsoft Word document

<b>Project No:</b> UA415	<b>Project Title:</b> Growing durum demand in SA: gross margin sensitivity analysis trials	
<b>Previous Project(s)</b> (If this project is on a similar theme to a previous funded project please provide code, title, years and investment details) N/A		
<b>Organisation:</b> The University of Adelaide		
<b>ACN/ABN:</b> 61 249 878 937		
<b>Start Date:</b> (This date must be same as in the Funding Agreement) 1 <sup>st</sup> July 2015	<b>Completion Date:</b> (This date must be same as in the Funding Agreement) 30 <sup>th</sup> June 2018	
<b>Address:</b> Research Branch, Level 4, Rundle Mall Plaza, 50 Rundle Mall, Adelaide SA 5000		
<b>Principal Investigator:</b> A/Professor Jason Able		<b>10% Time</b>
<b>Location:</b> PMB1, Waite Campus, School of Agriculture, Food & Wine, Glen Osmond, SA, 5064		
<b>Telephone:</b> 08 8313 7075	<b>Mobile:</b> 0459 841 586	
<b>Facsimile:</b> -	<b>Email:</b> <a href="mailto:jason.able@adelaide.edu.au">jason.able@adelaide.edu.au</a>	
<b>Other Research Staff:</b> <i>Alistair Pearce and the DBA Breeding Program Staff as directed by A/Professor Able</i>		<b>As required</b>

<b>Administrative Contact:</b> Ms Chelsea DuBois	
<b>Telephone:</b> 08 8313 6283	<b>Mobile:</b> -
<b>Facsimile:</b> 08 8313 3700	<b>Email:</b> <a href="mailto:seapgrants@adelaide.edu.au">seapgrants@adelaide.edu.au</a>

## 1. BUDGET

Please include below a brief description of the main items required within each category for the current application year.

<b>BUDGET</b>			
Category	\$	\$	\$
	Year 1	Year 2	Year 3
Salaries			
Travel			
Operating	34,560	38,880	38,880
Capital			
<b>TOTAL SAGIT CONTRIBUTION</b>	34,560	38,880	38,880
Host organisation cash contribution			
Host organisation in-kind contribution*	27,845	28,245	28,745
<b>TOTAL HOST ORGANISATION CONTRIBUTION</b>	27,845	28,245	28,745
Other funding bodies contribution (SADGA)	15,000	15,000	15,000
Other third parties contribution*			
<b>TOTAL NON-SAGIT CONTRIBUTION</b>	42,845	43,245	43,745

\*If it is not possible to specify amounts, then a description of the nature of the contribution should be given.

### **EXPLANATORY NOTES ON BUDGET ITEMS**

*Including budget variations*

No budget variations.

## 2. PROGRESS STATEMENT

Provide clear description of the following:

### Project aims

This project aims to:

1. Evaluate leading durum varieties (from Durum Breeding Australia's (DBA) Southern Node Breeding Program) against leading bread wheat varieties in the same trials;
2. Establish a series of coordinated trials in areas that are not yet known for widely growing durum and/or have grown durum historically but are no longer pursuing this crop. Areas include the Lower EP (Yeelanna); Upper Mid-North (Wandearah); the Western Murray Plains (Sanderston); and the 'Upper South East' (Coonalpyn);
3. Promote durum as an alternative high value crop through field day events highlighting the trials, results and updating growers (and consultants/advisors) with further information about the durum industry in South Australia.

### Progress against the key performance indicators of the project

Progress against all three listed KPIs has been completed or will be completed by the set dates.

No.	KPI	Date to be completed
1	Plan, conduct, harvest and analyse at least four trials each year in the district areas listed in the research proposal (minimum one trial per area) <i>Completed</i>	Post-harvest 2015, 2016, 2017
2	Publish trial results for relevant Farming Systems Groups, and the SADGA website <i>Completed</i>	31/03/2016, 2017, 2018
3	Annual progress reports submitted to SAGIT <i>Completed</i>	31/01/2016, 2017, 2018

### Conclusions reached / discoveries made

*This must include a dot point summary of progress to date, suitable for use in media articles. Provide more details which add to key findings (eg. tables, graphs) in an attachment of 1-2 pages.*

A short summary for each trial site is listed below. The attached excel file outlines the gross margins obtained for each site and the best performing bread wheat and durum wheat gross margin at each site. Please note that in calculating DR1 we used a cash price of \$300 per tonne, which was conservative. Altering this to the slightly more realistic value of around \$330 per tonne, which many growers would have received will change the results accordingly. Such a higher figure would have seen the best durum variety typically receive a higher gross margin when compared to the best bread wheat variety (where DR1 was obtained at the trial site). The attached file is adjustable and growers have the flexibility of downloading this file and altering it based on their individual circumstances and pricing that they received.

### **COONALPYN**

- The site was sown into good soil moisture the day before the surrounding land was sown by the grower (15<sup>th</sup> May).
- Yields were well above what was expected and this together with a lack of rainfall events late in the season saw the quality severely impacted – across all varieties protein was below 10%.
- With no quality difference across all yield and price combinations, the bread wheat returned higher gross margins – the largest of which was around \$100 per Ha. With enhanced quality grades for the durum varieties, this margin would have been significantly less or even non-existent.

### **ROSEWORTHY**

- The site was sown on the 11<sup>th</sup> May into soil that had a full profile of moisture but was starting to dry out on top.
- Lack of rain late in the growing season significantly reduced the durum's ability to fill to potential and therefore reduced yields.
- While there was only minimal difference in the yields at this site the narrow spread of prices between the two grades meant that the bread wheat had the higher gross margin across all yield and price combinations (see attached supplementary data).

### **SANDERSTON**

- The site was sown on the 3<sup>rd</sup> May into dry soil.
- While emergence was good there was limited follow up rain which limited yield potential.
- The increased vigour of the bread wheat varieties and ability to recover from the dry start, enabled these varieties to significantly out-yield the durum varieties.
- With such a significant yield gap, the durum varieties gross margins were lower in all yield and price combinations.

### **WANDEREAH**

- The site was sown on 4<sup>th</sup> May into minimal soil moisture.
- Miscommunication between the grower and durum breeding program technical team resulted in the site being sprayed for broadleaves twice and caused severe yellowing of the trial.
- Minimal late season rain resulted in limiting the yield potential.
- Across all yield and price combinations the best bread wheat variety had the higher return.

### **YEELANNA**

- This site was sown around the same time as the surrounding crop and enjoyed good soil moisture all through the season.
- On the down-side, and largely due to the distance from Adelaide, this site was the last one harvested and endured heavy rainfalls through late December which severely affected the quality.

- The gross margins were much closer at this site due to the lower prices achieved, but in most yield / price combinations the durum showed a significantly higher figure.
- In reality, if durum was being grown in a season like this it would have been harvested before the bread wheat due to its higher value and would not have been affected by the late rains at the end of December.
- Protein achievement for the durum varieties at this site was disappointing.

#### **SUMMARY**

- The year was mixed across the regions.
- Results in these trials (for the first time) from across the three year project saw the bread wheat varieties produce better gross margins (on average) when compared to the durum varieties.
- This was in part due to lack of significant and timely rains to achieve the desired DR1 grade specification for the durum varieties (by adding extra N, in the form of UAN).
- With the spread between bread wheat and durum wheat much tighter in 2017, and the bread wheats in general out-yielding the durum varieties, this also contributed to the gross margin not being present as in previous years with the durum varieties.

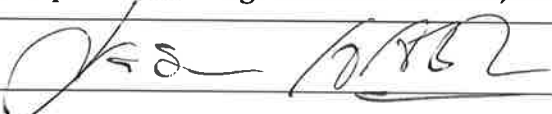
#### **Communication of results to farmers/industry**

The trial results are ready for distribution and will be sent to SADGA for uploading to their website. Grower forums will also be attended and these results will be presented at those events. See attached summary of results that will be used for distribution. This year we have seen some further interest from growers in and around Coonalpyn, Monarto, and the Mallee. These findings will be reported upon in the final report in the coming months. It is expected that seed (~150 kg of several durum varieties) will be provided free of charge to these growers so that can evaluate durum in their farming system for 2018. These opportunities have only come about due to this project and the broadcasting of the annual results we have achieved.

#### **Plans for the coming year**

This concludes the gross margin trial project (UA415). A full report will be compiled and sent to SAGIT in the coming months. That report will also be distributed to SADGA for further dissemination. Thank-you to SAGIT and the board for selecting this project to be funded. It has resulted in clearly identifying that durum is a good alternative (in most seasons) to bread wheat. With the new varieties that we have released (e.g. DBA-Aurora), there is renewed confidence in the durum industry and results from this project have shown that such varieties are competitive against the best bread wheat varieties. Nonetheless, there is still work to be done and through the combined efforts of the breeding program and all industry stakeholders (such as SAGIT, the GRDC, San Remo and SADGA), we will continue to move forward in delivering better varieties for growers in the coming years.

### 3. AUTHORISATION OF THE PROJECT REPORT

Name: A/Professor Jason Able
Position: Head, Department of Agricultural Science , School of Agriculture, Food & Wine
Signature: 
Date: 18/01/18