Growing durum demand in SA: gross margin sensitivity analysis trials

UA415

COONALPYN, ROSEWORTHY, SANDERSTON, WANDEREAH, YEELANNA

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Table 1. Summary of calculations for gross margins in the 2015 bread wheat and durum wheat trials conducted as part of UA415 sponsored through SAGIT.

BREAD / DURUM GROSS MARGIN ANALYSIS								**2015**
			Low Yield	Low Yield	High Yield	High Yield	Average	Actual
			Low Price	High Price	Low Price	High Price	GM	Best GM
Coonalpyn	Bread		33	71	272	349	147	272
	Durum		135	212	383	514	338	447
Roseworthy	Bread		490	505	546	561	528	546
	Durum		545	684	623	776	655	650
Sanderston	Bread		928	954	1078	1107	1018	1078
	Durum		919	981	1239	1318	1140	1249
Wandereah	Bread		564	579	643	660	627	660
	Durum		292	675	325	732	435	675
Yeelanna	Bread		724	948	938	1214	1022	1068
	Durum		987	1191	1344	1608	1253	1344

Notes: The calculations for these gross margin figures can be found in the supporting documents. When assessing the gross margins the following points should be noted:

1. *Input prices are as charged to the durum breeding group, and are in general higher than a farmer would pay due to product size.*
2. *Delivery charges and rail freight are to the nearest silo, and have been taken from either Viterra or AWB websites.*
3. *It is assumed all durum would be delivered to Balaclava, unless it only made feed quality in which case it would go to the nearest silo.*
4. *If screenings was the only limiting factor to a higher grade being paid, a cost of $14 per tonne was deducted and the yield lowered to the amount it would be with 5% screenings. No value was placed on screenings. This makes the assumption that the protein will not drop with the removal of screenings.*
5. *These calculations do not consider a carry-over price or put a value on the need to store grain on farm, it only looks at a hectare of crop in the field.*
6. *At Sanderston, the farmer applied a protective application of rust control which was applied to both bread and durum. The durum did not need this spray and it has not been included in the cost of production.*
7. *The high, low, and average refer to the 4 durum and 4 bread wheat varieties grown in these trials.*
8. *In all trials, a supply problem with a custom made sprayer to apply UAN to individual rows had an impact of what could be achieved this year. This has been rectified for the 2016 season.*

A short summary for each trial site is listed below. Table 1 outlines the gross margins obtained for each site and whether durum or bread wheat had the highest gross margin at each site. This table should be viewed with the UA415 excel supplementary spreadsheet that shows all working calculations including test weights, screenings, protein and yield and grades assigned to each variety at each site based on the quality results.

COONALPYN

- Sown very early when compared to local practices.
- Suffered severe moisture stress in spring.
- Trojan (ASW) and DBA-Aurora (DR2) had the highest gross margins and are the varieties compared in the attached, with both being low in quality due to lack of opportunity to apply N late.
- At this site, the table shows that durum had a higher GM than the bread wheat across all yield / price combinations.

ROSEWORTHY

- This trial was sown at a similar time to other bread wheat crops in the area, and also suffered moisture stress in spring.
- The site also experienced some frost, although it was worse in lower areas than where this trial was located.
- Trojan (GP) and DBA-Aurora (DR1) had the highest gross margins. All varieties had quality issues.
- Across all yield / price combinations the durum had a higher return.

SANDERSTON

- This site was visited by SAGIT staff and was one of the best sites throughout the season.
- High yields were obtained across all varieties.
- The finish was a bit softer than some areas and this showed in the quality.
- Trojan (APW) and WID802 (DR1) were the higher returning varieties, with no quality issues for either.
- Despite bread wheat averaging over 5 t ha^{-1} compared to the durum under 4 t ha^{-1}, the higher market price for durum meant that it still returned a higher GM across all yield / price combinations (apart from the low yield / low price).

WANDEREAH

- The site was sown at the same time as the bread wheat crop around it. The site enjoyed a reasonable season with a tight finish which favoured the bread wheat.
- Test weight and protein caused quality issues across all varieties.
- Trojan (APW) and Tamaroi (DR3) were the highest returning varieties.
- The yield / price combinations varied between the 2 types of wheats, with the durum being worth more when the price was higher (better quality). Tamaroi returned the highest gross margin, even though it had the lowest yield of all 8 varieties.

YEELANNA

- The site was sown early by local standards, and had a good season with an average finish.
- Quality was good across all varieties, although the protein was down due to the higher yield.
- Trojan (ASW) and Yawa (DR3) were the highest returning varieties.
- The ability to apply late nitrogen would have had a large impact on the return of the durum.
- Even with lower quality, the durum had a higher GM return across all price / yield combinations.

SUMMARY

- The year favoured early sown crops as most of the state had a dry finish.
- Sowing early meant the bread wheat varieties had a better opportunity to finish than they possibly would have if sown at normal district times.
- There was little rust throughout the season and this has improved the gross margin obtained for bread wheat varieties as spraying was not needed (with the exception of Sanderston where a spray was applied).
- Under less than ideal conditions the best durum variety still managed to have a higher gross margin than the best bread wheat, irrespective of the site. At some sites this was not a noticeable difference ($15 per Ha at Wandereah) but it does show that in less than ideal conditions it still brings comparable returns to bread wheat.
- With a favourable season in 2016, it is expected that the gross margins will be significantly more in durum over all bread wheat varieties evaluated.

COONALPYN BREAD						2015		Total Production HA	1	
Gross Return		**Yield t / Ha**		**$ / t**			**$ / Ha**	Tonnes Produced :	2.64	
		2.64		231			609.84	Tonnes Sold :	2.64	
								Tonnes Retained :	0	
Marketing Charges										
Total - Road, Rail		2.64		49.92			131.7888	Gross Cash	609.84	
and Delivery Fees		2.64		0			0	Total Marketing Cost	131.7888	
3		2.64		0			0			
4		2.64		0			0	Net Payment	478.0512	
		Total Charges		49.92			131.7888	Harvest Payment	478.0512	100%
								Post Harvest	0	0%
		Net Price		181.08			478.0512	Pool Remaining	0	0%
Variable Costs		**Quantity**	**Unit**	**$ / Unit**	**Unit**		**$**			
Seed		68	kg / ha	0.231	$ / kg		15.708		16	
Seed Dressing		70	mL/Ha	50	$ / L		3.5		4	
Fertiliser	DAP	100	kg / ha	998	$ / T		99.8		100	
Fertiliser 2	UAN	0	L / ha	750	$ / 1000L		0		0	
Chemical 1	Ultramax	2	L / ha	8	$ / L		16		16	
Chemical 2	Striker	0.15	L / ha	50	$ / L		7.5		8	
Chemical 3	Jedi Duo	1.8	L / ha	20	$ / L		36		36	
Chemical 4	MCPA	0.5	L / ha	11	$ / L		5.5		6	
Chemical 5	Lontrel	0.125	L / ha	20	$ / L		2.5		3	
Chemical 6	Tilt	0	L / ha	16	$ / L		0		0	
Insurance		1%					6.1		6	
Freight		2.6	T / ha	0	$ / T		0		0	
Fuel		9	L / ha	1.5	$ / L		13.5		14	
				Total On Farm Variable Costs :			206.11	**Total Variable Costs :**	206	
								Cash Gross Margin :	272	
								Plus Grain Retained :	0	
				Gross Margin / Ha :			271.94	**Total Gross Margin :**	272	
Break Even Yield :		0.89								
Break Even Price :		78.07								
Sensitivity Analysis				(Calculated on	206.11	variable costs)				

Shows approximate GM/Ha for High, Average and Low yields and prices achieved in trials

Does not take into account changes to insurance or freight as yield changes - would have a minor effect on GM

		Price $ / t		
	t / Ha	**231**	**240.5**	**260**
High Yield	**2.64**	272	297	349
Average Yield	**1.85**	129	147	183
Low Yield	**1.32**	33	45	71

COONALPYN DURUM						2015		Total Production HA	1	
Gross Return	**Yield t / Ha**		**$ / t**			**$ / Ha**		Tonnes Produced :	1.79	
	1.79		400			716		Tonnes Sold :	1.79	
								Tonnes Retained :	0	
Marketing Charges										
Total, includes road	1.79		27.35			48.9565		Gross Cash	716	
and rail freight, and	1.79		0			0		Total Marketing Cost	48.9565	
delivery / EPR	1.79		0			0				
4	1.79		0			0		Net Payment	667.0435	
	Total Charges		27.35			48.9565		Harvest Payment	667.0435	100%
								Post Harvest	0	0%
	Net Price		372.65			667.0435		Pool Remaining	0	0%

Variable Costs		**Quantity**	**Unit**	**$ / Unit**	**Unit**		**$**		
Seed		80	kg / ha	0.4	$ / kg		32		32
Seed Dressing		0	kg / ha	50	$ / kg		0		0
Fertiliser	DAP	100	kg / ha	998	$ / T		99.8		100
Fertiliser 2	UAN	0	l/ha	750	$/L		0		0
Chemical 1	Ultramax	2	L / ha	8	$ / L		16		16
Chemical 2	Striker	0.15	L / ha	50	$ / L		7.5		8
Chemical 3	Jedi Duo	1.8	L / ha	20	$ / L		36		36
Chemical 4	MCPA A	0.5	L / ha	11	$ / L		5.5		6
Chemical 5	Lontrel	0.125	L / ha	20	$ / L		2.5		3
Insurance		1%					7.2		7
Freight		1.8	T / ha	0	$ / T		0		0
Fuel		9	L / ha	1.5	$ / L		13.5		14
				Total On Farm Variable Costs :			219.96	**Total Variable Costs :**	220
								Cash Gross Margin :	447
								Plus Grain Retained :	0
				Gross Margin / Ha :			447.08	**Total Gross Margin :**	447

Break Even Yield :	0.55
Break Even Price :	122.88

Sensitivity Analysis (Calculated on 219.96 variable costs)

Shows approximate GM/Ha for High, Average and Low yields and prices achieved in trials

Does not take into account changes to insurance or freight as yield changes - would have a minor effect on GM

		Price $ / t		
	t / Ha	**350**	**392.5**	**420**
High Yield	**1.87**	383	463	514
Average Yield	**1.53**	273	338	380
Low Yield	**1.1**	135	182	212

ROSEWORTHY BREAD						2015		Total Production HA	1	
Gross Return	**Yield t / Ha**		**$ / t**			**$ / Ha**		Tonnes Produced :	3.83	
	3.83		242			926.86		Tonnes Sold :	3.83	
								Tonnes Retained :	0	
Marketing Charges										
Total - includes rail,	3.83		29.84			114.2872		Gross Cash	926.86	
road freight and	3.83		0			0		Total Marketing Cost	114.2872	
recieval fees	3.83		0			0				
4	3.83		0			0		Net Payment	812.5728	
	Total Charges		29.84			114.2872		Harvest Payment	812.5728	100%
								Post Harvest	0	0%
	Net Price		212.16			812.5728		Pool Remaining	0	0%

Variable Costs		**Quantity**	**Unit**	**$ / Unit**	**Unit**		**$**		
Seed		68	kg / ha	0.242	$ / kg		16.456		16
Seed Dressing		70	mL/Ha	50	$ / L		3.5		4
Fertiliser	DAP	100	kg / ha	998	$ / T		99.8		100
Fertiliser 2	UAN	70	L / ha	750	$ / 1000L		52.5		53
Chemical 1	Ultramax	2	L / ha	8	$ / L		16		16
Chemical 2	Striker	0.15	L / ha	50	$ / L		7.5		8
Chemical 3	Jedi Duo	1.8	L / ha	20	$ / L		36		36
Chemical 4	LVE	1	L / ha	11	$ / L		11		11
Chemical 5	Lontrel	0.075	L / ha	20	$ / L		1.5		2
Chemical 6	Tilt	0	L / ha	16	$ / L		0		0
Insurance		1%					9.3		9
Freight		3.8	T / ha	0	$ / T		0		0
Fuel		9	L / ha	1.5	$ / L		13.5		14
			Total On Farm Variable Costs :				267.02	**Total Variable Costs :**	267
								Cash Gross Margin :	546
								Plus Grain Retained :	0
				Gross Margin / Ha :			545.55	**Total Gross Margin :**	546

Break Even Yield :	1.10
Break Even Price :	69.72

Sensitivity Analysis (Calculated on 267.02 variable costs)

Shows approximate GM/Ha for High, Average and Low yields and prices achieved in trials

Does not take into account changes to insurance or freight as yield changes - would have a minor effect on GM

		Price $ / t		
	t / Ha	**242**	**245**	**246**
High Yield	**3.83**	546	557	561
Average Yield	**3.70**	517	528	532
Low Yield	**3.57**	490	501	505

ROSEWORTHY DURUM						2015		Total Production HA	1	
Gross Return	**Yield t / Ha**		**$ / t**		**$ / Ha**		Tonnes Produced :	2.69	
	2.69		400		1076.181		Tonnes Sold :	2.69	
							Tonnes Retained :	0.00	
Marketing Charges									
Total - includes road	2.69		46		123.76		Gross Cash	1076.18	
and rail freight, and	2.69		0		0.00		Total Marketing Cost	161.43	
delivery / EPR	2.69		0		0.00				
Cleaning	2.69		14		37.67		Net Payment	914.75	
	Total Charges		60		161.43		Harvest Payment	914.75	100%
							Post Harvest	0.00	0%
	Net Price		340		914.75		Pool Remaining	0.00	0%

Variable Costs		**Quantity**	**Unit**	**$ / Unit**	**Unit**	**$**		
Seed		68	kg / ha	0.231	$ / kg	15.708		16
Seed Dressing		0	kg / ha	50	$ / kg	0		0
Fertiliser	DAP	100	kg / ha	998	$ / T	99.8		100
Fertiliser 2	UAN	70	l/ha	750	$ / 1000L	52.5		53
Chemical 1	Ultramax	2	L / ha	8	$ / L	16		16
Chemical 2	Striker	0.15	L / ha	50	$ / L	7.5		8
Chemical 3	Jedi Duo	1.8	L / ha	20	$ / L	36		36
Chemical 4	LVE	1	L / ha	11	$ / L	11		11
Chemical 5	Lontrel	0.075	L / ha	20	$ / L	1.5		2
Chemical 6	Tilt	0	L / ha	16	$ / L	0		0
Insurance		1%				10.8		11
Freight		2.7	T / ha	0	$ / T	0		0
Fuel		9	L / ha	1.5	$ / L	13.5		14
			Total On Farm Variable Costs :			264.27	**Total Variable Costs :**	264
							Cash Gross Margin :	650
							Plus Grain Retained :	0
				Gross Margin / Ha :		650.48	**Total Gross Margin :**	650

Break Even Yield :	0.66
Break Even Price :	98.23

Sensitivity Analysis (Calculated on 264.27 variable costs)

Shows approximate GM/Ha for High, Average and Low yields and prices achieved in trials

Does not take into account changes to insurance or freight as yield changes - would have a minor effect on GM

		Price $ / t		
	t / Ha	**350**	**375**	**400**
High Yield	**3.06**	623	700	776
Average Yield	**2.92**	582	655	728
Low Yield	**2.79**	545	615	684

SANDERSTON BREAD						2015		Total Production HA	1	
Gross Return	**Yield t / Ha**		**$ / t**			**$ / Ha**		Tonnes Produced :	5.82	
	5.82		243			1414.26		Tonnes Sold :	5.82	
								Tonnes Retained :	0	
Marketing Charges										
Total, includes road	5.82		19.45			113.199		Gross Cash	1414.26	
and rail freight, and	5.82		0			0		Total Marketing Cost	113.199	
delivery fees	5.82		0			0				
4	5.82		0			0		Net Payment	1301.061	
	Total Charges		19.45			113.199		Harvest Payment	1301.061	100%
								Post Harvest	0	0%
	Net Price		223.55			1301.061		Pool Remaining	0	0%

Variable Costs		**Quantity**	**Unit**	**$ / Unit**	**Unit**		**$**		
Seed		68	kg / ha	0.243	$ / kg		16.524		17
Seed Dressing		70	mL/Ha	50	$ / L		3.5		4
Fertiliser	DAP	100	kg / ha	998	$ / T		99.8		100
Fertiliser 2	UAN	0	L / ha	750	$ / 1000L		0		0
Chemical 1	Ultramax	2	L / ha	8	$ / L		16		16
Chemical 2	Striker	0.15	L / ha	50	$ / L		7.5		8
Chemical 3	Jedi Duo	1.8	L / ha	20	$ / L		36		36
Chemical 4	MCPA	0.5	L / ha	11	$ / L		5.5		6
Chemical 5	Lontrel	0.125	L / ha	20	$ / L		2.5		3
Chemical 6	Tilt	0.5	L / ha	16	$ / L		8		8
Insurance		1%					14.1		14
Freight		5.8	T / ha	0	$ / T		0		0
Fuel		9	L / ha	1.5	$ / L		13.5		14
				Total On Farm Variable Costs :			223	**Total Variable Costs :**	223
								Cash Gross Margin :	1078
								Plus Grain Retained :	0
				Gross Margin / Ha :			1078	**Total Gross Margin :**	1078

Break Even Yield :	0.92
Break Even Price :	38.31

Sensitivity Analysis (Calculated on 223 variable costs)

Shows approximate GM/Ha for High, Average and Low yields and prices achieved in trials

Does not take into account changes to insurance or freight as yield changes - would have a minor effect on GM

		Price $ / t		
	t / Ha	**243**	**245.5**	**248**
High Yield	**5.82**	1078	1093	1107
Average Yield	**5.49**	1004	1018	1032
Low Yield	**5.15**	928	941	954

SANDERSTON DURUM						2015		Total Production HA	1	
Gross Return	**Yield t / Ha**		**$ / t**			**$ / Ha**		Tonnes Produced :	3.8	
	3.80		420			1596		Tonnes Sold :	3.8	
								Tonnes Retained :	0	
Marketing Charges										
Total - road freight	3.8		32.15			122.17		Gross Cash	1596	
delivery and EPR	3.8		0			0		Total Marketing Cost	122.17	
3	3.8		0			0				
4	3.8		0			0		Net Payment	1473.83	
	Total Charges		32.15			122.17		Harvest Payment	1473.83	100%
								Post Harvest	0	0%
	Net Price		387.85			1473.83		Pool Remaining	0	0%

Variable Costs		**Quantity**	**Unit**	**$ / Unit**	**Unit**		**$**		
Seed		68	kg / ha	0.42	$ / kg		28.56		29
Seed Dressing		0	kg / ha	50	$ / kg		0		0
Fertiliser	DAP	100	kg / ha	998	$ / T		99.8		100
Fertiliser 2	UAN	0	l/ha	750	$/ 1000L		0.0		0
Chemical 1	Ultramax	2	L / ha	8	$ / L		16		16
Chemical 2	Striker	0.15	L / ha	50	$ / L		7.5		8
Chemical 3	Jedi Duo	1.8	L / ha	20	$ / L		36		36
Chemical 4	LVE	0.5	L / ha	11	$ / L		5.5		6
Chemical 5	Lontrel	0.125	L / ha	20	$ / L		2.5		3
Insurance		1%					16.0		16
Freight		3.8	T / ha	0	$ / T		0		0
Fuel		9	L / ha	1.5	$ / L		13.5		14
				Total On Farm Variable Costs :			225.32	**Total Variable Costs :**	225
								Cash Gross Margin :	1249
								Plus Grain Retained :	0
				Gross Margin / Ha :			1248.51	**Total Gross Margin :**	1249

Break Even Yield :	0.54
Break Even Price :	59.29

Sensitivity Analysis (Calculated on 225.32 variable costs)

Shows approximate GM/Ha for High, Average and Low yields and prices achieved in trials

Does not take into account changes to insurance or freight as yield changes - would have a minor effect on GM

		Price $ / t		
	t / Ha	**400**	**415**	**420**
High Yield	**3.98**	1239	1298	1318
Average Yield	**3.57**	1087	1140	1158
Low Yield	**3.11**	919	965	981

WANDEREAH BREAD						2015		Total Production HA	1	
Gross Return	**Yield t / Ha**		**$ / t**			**$ / Ha**		Tonnes Produced :	4.22	
	4.22		242			1021.24		Tonnes Sold :	4.22	
								Tonnes Retained :	0	
Marketing Charges										
Total - includes road	4.22		35.67			150.53		Gross Cash	1021.24	
and rail freight, and	4.22		0			0		Total Marketing Cost	150.5274	
delivery fees	4.22		0			0				
4	4.22		0			0		Net Payment	870.7126	
	Total Charges		35.67			150.53		Harvest Payment	870.7126	100%
								Post Harvest	0	0%
	Net Price		206.33			870.71		Pool Remaining	0	0%

Variable Costs		**Quantity**	**Unit**	**$ / Unit**	**Unit**		**$**		
Seed		68	kg / ha	0.242	$ / kg		16.456		16
Seed Dressing		70	mL/Ha	50	$ / L		3.5		4
Fertiliser	DAP	100	kg / ha	998	$ / T		99.8		100
Fertiliser 2	UAN	0	L / ha	750	$ / 1000L		0		0
Chemical 1	Ultramax	2	L / ha	8	$ / L		16		16
Chemical 2	Striker	0.15	L / ha	50	$ / L		7.5		8
Chemical 3	Jedi Duo	1.8	L / ha	20	$ / L		36		36
Chemical 4	LVE	0.5	L / ha	11	$ / L		5.5		6
Chemical 5	Lontrel	0.125	L / ha	20	$ / L		2.5		3
Chemical 6	Tilt	0	L / ha	16	$ / L		0		0
Insurance		1%					10.2		10
Freight		4.2	T / ha	0	$ / T		0		0
Fuel		9	L / ha	1.5	$ / L		13.5		14
				Total On Farm Variable Costs :			210.97	**Total Variable Costs :**	211
								Cash Gross Margin :	660
								Plus Grain Retained :	0
				Gross Margin / Ha :			659.74	**Total Gross Margin :**	660

Break Even Yield :	0.87
Break Even Price :	49.99

Sensitivity Analysis (Calculated on 210.97 variable costs)

Shows approximate GM/Ha for High, Average and Low yields and prices achieved in trials

Does not take into account changes to insurance or freight as yield changes - would have a minor effect on GM

		Price $ / t		
	t / Ha	**238**	**241**	**242**
High Yield	**4.22**	643	656	660
Average Yield	**4.08**	615	627	631
Low Yield	**3.83**	564	575	579

WANDEREAH DURUM						2015		Total Production HA	1	
Gross Return	**Yield t / Ha**		**$ / t**			**$ / Ha**		Tonnes Produced :	2.81	
	2.81		350			983.5		Tonnes Sold :	2.81	
								Tonnes Retained :	0	
Marketing Charges										
Total - includes road	2.81		32.15			90.34		Gross Cash	983.5	
freight, delivery fee	2.81		0			0.00		Total Marketing Cost	90.3415	
and EPR	2.81		0			0.00				
4	2.81		0			0.00		Net Payment	893.1585	
	Total Charges		32.15			90.34		Harvest Payment	893.1585	100%
								Post Harvest	0	0%
	Net Price		317.85			893.16		Pool Remaining	0	0%

Variable Costs		**Quantity**	**Unit**	**$ / Unit**	**Unit**		**$**		
Seed		80	kg / ha	0.35	$ / kg		28		28
Seed Dressing		0	kg / ha	50	$ / kg		0		0
Fertiliser	DAP	100	kg / ha	998	$ / T		99.8		100
Fertiliser 2	UAN	0	l/ha	750	$/ 1000L		0		0
Chemical 1	Ultramax	2	L / ha	8	$ / L		16		16
Chemical 2	Striker	0.15	L / ha	50	$ / L		7.5		8
Chemical 3	Jedi Duo	1.8	L / ha	20	$ / L		36		36
Chemical 4	MCPA	0.5	L / ha	11	$ / L		5.5		6
Chemical 5	Lontrel	0.125	L / ha	20	$ / L		2.5		3
Insurance		1%					9.8		10
Freight		2.8	T / ha	0	$ / T		0		0
Fuel		9	L / ha	1.5	$ / L		13.5		14
				Total On Farm Variable Costs :			218.64	**Total Variable Costs :**	219
								Cash Gross Margin :	675
								Plus Grain Retained :	0
				Gross Margin / Ha :			674.52	**Total Gross Margin :**	675

Break Even Yield :	0.62
Break Even Price :	77.81

Sensitivity Analysis (Calculated on 218.6 variable costs)

Shows approximate GM/Ha for High, Average and Low yields and prices achieved in trials

Does not take into account changes to insurance or freight as yield changes - would have a minor effect on GM

		Price $ / t		
	t / Ha	**214**	**258**	**350**
High Yield	**2.99**	325	457	732
Average Yield	**2.90**	308	435	702
Low Yield	**2.81**	292	416	675

YEELANNA BREAD						2015		Total Production HA	1	
Gross Return	**Yield t / Ha**		**$ / t**			**$ / Ha**		Tonnes Produced :	5.75	
	5.75		250			1437.5		Tonnes Sold :	5.75	
								Tonnes Retained :	0	
Marketing Charges										
Total - includes road and	5.75		26.68			153.41		Gross Cash	1437.5	
rail freight and delivery	5.75		0			0		Total Marketing Cost	153.41	
3	5.75		0			0				
4	5.75		0			0		Net Payment	1284.09	
	Total Charges		26.68			153.41		Harvest Payment	1284.09	100%
								Post Harvest	0	0%
	Net Price		223.32			1284.09		Pool Remaining	0	0%

Variable Costs		**Quantity**	**Unit**	**$ / Unit**	**Unit**		**$**		
Seed		68	kg / ha	0.25	$ / kg		17		17
Seed Dressing		70	mL/Ha	50	$ / L		3.5		4
Fertiliser	DAP	100	kg / ha	998	$ / T		99.8		100
Fertiliser 2	UAN	0	L / ha	750	$ / 1000L		0		0
Chemical 1	Ultramax	2	L / ha	8	$ / L		16		16
Chemical 2	Striker	0.15	L / ha	50	$ / L		7.5		8
Chemical 3	Jedi Duo	1.8	L / ha	20	$ / L		36		36
Chemical 4	MCPA	0.5	L / ha	11	$ / L		5.5		6
Chemical 5	Lontrel	0.125	L / ha	20	$ / L		2.5		3
Chemical 6	Tilt	0	L / ha	16	$ / L		0		0
Insurance		1%					14.4		14
Freight		5.8	T / ha	0	$ / T		0		0
Fuel		9	L / ha	1.5	$ / L		13.5		14
				Total On Farm Variable Costs :			215.68	**Total Variable Costs :**	216
								Cash Gross Margin :	1068
								Plus Grain Retained :	0
				Gross Margin / Ha :			1068.42	**Total Gross Margin :**	1068

Break Even Yield :	0.86				
Break Even Price :	37.51				

Sensitivity Analysis		(Calculated on	216	variable costs)
Shows approximate GM/Ha for High, Average and Low yields and prices achieved in trials				
Does not take into account changes to insurance or freight as yield changes - would have a minor effect on GM				
		Price $ / t		
	t / Ha	**207**	**239**	**250**
High Yield	**6.4**	938	1145	1214
Average Yield	**5.82**	834	1022	1085
Low Yield	**5.21**	724	892	948

YEELANNA DURUM						2015		Total Production HA	1	
Gross Return	**Yield t / Ha**		**$ / t**			**$ / Ha**		Tonnes Produced :	5.28	
	5.28		350			1848		Tonnes Sold :	5.28	
								Tonnes Retained :	0	
Marketing Charges										
Total - includes road	5.28		52.35			276.41		Gross Cash	1848	
freight, delivery	5.28		0			0.00		Total Marketing Cost	276.408	
and EPR	5.28		0			0.00				
4	5.28		0			0.00		Net Payment	1571.592	
	Total Charges		52.35			276.41		Harvest Payment	1571.592	100%
								Post Harvest	0	0%
	Net Price		297.65			1571.59		Pool Remaining	0	0%

Variable Costs		**Quantity**	**Unit**	**$ / Unit**	**Unit**		**$**		
Seed		80	kg / ha	0.35	$ / kg		28		28
Seed Dressing		0	kg / ha	50	$ / kg		0		0
Fertiliser	DAP	100	kg / ha	998	$ / T		99.8		100
Fertiliser 2	UAN	0	l/ha	750	$/ 1000L		0		0
Chemical 1	Ultramax	2	L / ha	8	$ / L		16		16
Chemical 2	Striker	0.15	L / ha	50	$ / L		7.5		8
Chemical 3	Jedi Duo	1.8	L / ha	20	$ / L		36		36
Chemical 4	MCPA	0.5	L / ha	11	$ / L		5.5		6
Chemical 5	Lontrel	0.125	L / ha	20	$ / L		2.5		3
Insurance		1%					18.5		18
Freight		5.3	T / ha	0	$ / T		0		0
Fuel		9	L / ha	1.5	$ / L		13.5		14
				Total On Farm Variable Costs :			227.28	**Total Variable Costs :**	227
								Cash Gross Margin :	1344
								Plus Grain Retained :	0
				Gross Margin / Ha :			1344.31	**Total Gross Margin :**	1344

Break Even Yield :	0.65
Break Even Price :	43.05

Sensitivity Analysis (Calculated on 227.28 variable costs)

Shows approximate GM/Ha for High, Average and Low yields and prices achieved in trials

Does not take into account changes to insurance or freight as yield changes - would have a minor effect on GM

		Price $ / t		
	t / Ha	**350**	**363**	**400**
High Yield	**5.28**	1344	1410	1608
Average Yield	**4.77**	1193	1253	1432
Low Yield	**4.08**	987	1038	1191