

SUPER SINGLES

– PROFITABLE DRYLAND COTTON AT \$400/BALE

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A new buzzword has swept dryland cotton growing areas this season. Super Singles is being trialled over around 18,000 ha West of Moree this year.

What are Super Singles? Super Singles is a dryland cotton growing configuration developed by B& W. Rural as a summer crop option for the Western areas and is expected to take some of the risk out of dryland cotton growing. Super singles is a one in two out configuration using Bollgard/Roundup Ready cotton.

B& W. Rural have been developing the super singles theory since 1998 when a double skip dryland cotton crop at Walgett was sown with one row missing over a large area. The individual row that was left was not treated any differently and ended up yielding the equivalent of the two rows that should have been there.

The advent of Bollgard/Roundup ready made the super singles a reality as it capped the herbicide and insecticide costs. Growing 100% Bollgard requires that a 10% unsprayed conventional cotton area must be grown as a refuge. This is taken into account in all the figures we have produced.

There were a number of underlying ideas that went into the formulation of the super singles theory.

New superior cotton varieties are yielding in excess of 12 bales per hectare so the Super Singles have a theoretical yield of over four bales per hectare

Bollgard and Roundup Ready Technology have reduced the variability in insecticide and herbicide costs.

Growing Super Singles means that the plants grow throughout the season with much less stress thereby incurring fewer penalties than double skip cotton.

Super singles will only attract a one-third technology fee for the Bollgard and Roundup Ready thereby capping most of these variable costs to a known level. Around \$120 in 2006.

Cotton tends to perform well over a wide planting window i.e. mid-September to 15th November (15 November is the last day for planting Bollgard under the resistance management plan).

Cotton tends to handle extreme heat better than sorghum.

In a zero till situation the stubble will remain relatively undisturbed through the life of the crop and into the following fallow.

The cotton price is not related to grain prices such as sorghum and therefore may be high when other grain prices are down.

The ability to lock in cotton prices is enhanced by the extra reliability of the Super Singles system.

Cotton has a proven ability to utilise moisture out to the width of the Super Singles and to a depth of 2 m.

The particular row configuration was chosen to maximise the saving in harvesting costs by being able to pick each set of the Super Singles with a 4 row picker effectively only running the picker over two thirds of the area.

Gross margins for Super Singles crops excluding fallow costs but including the 10% unsprayed area at \$400/bale, \$30 discounts and 1.0 bales/acre (2.5 bales/hectare) indicate total returns of \$833/hectare with costs of \$532/hectare giving a gross margin of \$301/hectare. Gross margins of this magnitude are difficult to achieve with other summer crops or other cotton configurations west of Moree.

Super Singles 2005

The first commercial block was grown at Avondale near Rowena last year. The 100 ha block was planted in mid-November. These varieties chosen were 289 BR and DP 556 and 189 RR as the unsprayed refuge. It was planted with a 12 row planter and the sowing rate was kept at 12 to 13 seeds per metre. The field chosen was an irrigated field which had been long fallowed and there was 2 m of moisture on the moisture probe at sowing. The crop established well and heavy rains in December ensured a full profile through to mid-December however by this stage the cotton had used very little moisture. The remainder of the season was hot and dry with only 25 mms of subsequent in crop rainfall. The Super Singles grew unstressed through the whole season. Apart from the initial Roundup Ready herbicide application there was a shielded spray with Roundup and Diuron. One insecticide spray of Regent was used for mirids and at the crop was defoliated as for an irrigated crop. The crop was picked in April and the final yield including the 10% unsprayed refuge was 2.9 bales/ hectare. The most pleasing aspect of the final yield was that there were no discounts and a slight premium on the cotton. Discounts are a major issue for dryland growers especially with the P&D Sheets getting tougher every year.

Super Singles 2006

Following the success of the Super Singles in 2005 approximately 18,000 ha of Super Singles have been planted in 2006. These crops have been planted from Cryon and Mungindi in the West to Bellata and North East of Moree in the East and Talwood in the North. Seeding rates from 6 to 13 seeds per metre have been trialled and a number of different cotton varieties including 289BR, DP546 & V 16 BR have also been trialled. The various crops have received from virtually nil effective rain to over 200 mm of in-crop rainfall.

All crops experienced the two severe heatwaves in early January and early February.

Our understanding of the super singles has been added to greatly by the plantings at Iffley this year. Bernie Bierhoff and Ken, Rob and Bruce Harris decided to plant 1700 hectares of Super Singles in 2006. Included in this was a replicated trial in field 17 at Iffley.

The commercial crop was all grown on the Super Singles configuration but a replicated trial including single skip, double skip, one in one out, two in four out and Super Singles was conducted. In collaboration with CSIRO and Agri link neutron probes and also C- probes were placed in the row and in the interrow in every treatment. These results will be presented .

The over all results from this year's super singles plantings ranged from the crop at Gorian at Cryon which after a flying start hit the hottest and driest summer on record and finally yielded 0.5 bales/acre with discounts, to crops north of Moree which yielded 1.4 bales/acre with premiums. Most of the crops in the Moree area which received reasonable rain on January 16 and some subsequent falls yielded 1.0 bales/acre or better despite the heat wave conditions.

The results from many of these crops and the trials will be presented.

B&W RURAL SUPER SINGLES TRIAL

GROSS MARGIN : DRYLAND COTTON (BR) 1 in 3 Row configuration

A. GROSS INCOME

bale/ha	price	discounts	net price	10% unsprayed
2.5	400	30	\$370	0.9
				\$833

VARIABLE COSTS

excluding fallow costs

Row conf.
saving

Seed			12.5	@	\$7	0.33	\$29.91
Licencing	BG II		1	@	\$300	0.33	\$99.00
	RR		1	@	\$45	0.33	\$14.85

Fertiliser

\$0.00
\$0.00
\$0.00

Herbicides

Band

	Roundup Ready	100%	1.5	@	\$10.85	1	\$16.28
OTT	Roundup CT		1.25	@	\$5.06	1	\$6.33
Layby	Diuron		1	@	\$13.20	1	\$13.20

Insecticide

	Regent	1	0.045	@	\$300	1	\$13.50
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Growth Regulant

	Pix	1	0.8	@	\$8.80	1	\$7.04
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Defoliation

2

	Dropp		0.1	@	\$165	0.4	\$6.60
	Prep		0.5	@	\$9.70	0.4	\$1.94
	Intac		2	@	\$2.20	0.4	\$1.76
						0.4	\$0.00
	Dropp		0.05	@	\$165	0.4	\$3.30
	Prep		2	@	\$10	0.4	\$7.76
	Intac		2	@	\$2.20	0.4	\$1.76

Consultancy

\$25.00

Cartage

\$110 per module

\$11.00

Hail insurance

optional

OPERATIONAL COSTS

Planting	1	1	@	\$25.00	1	\$25.00
Shield spraying	1	1	@	\$20.00	1	\$20.00
Ground spraying	3	3	@	\$9.00	1	\$27.00
Picking (contract)	1	1	@	\$300	0.66	\$198.00

Tarps & ropes	2.5bales/ha	2.5	@	\$1.10	1	\$2.75
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B. TOTAL COSTS						\$532
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GROSS MARGIN (A-B)						\$300.53
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