

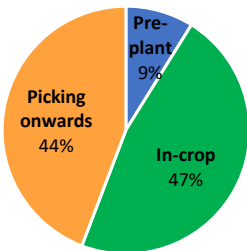
Gross Margin Budget: Dryland Cotton

Bollgard3®, Roundup Ready Flex®

INCOME:		Yield *		Single Skip	Double Skip	Your Budget
				\$/ha	\$/ha	\$/ha
Single Skip	3.6	bales/ha @	Cotton lint	\$594 /bale (at gin)	\$2,138	\$1,900
Double Skip	3.2		Cotton seed	\$93 /bale (at gin)	\$333	\$296
			(less discount)	-\$25 /bale (at gin)	-\$90	-\$80
				\$661 /bale (at gin)		
			A. TOTAL GROSS INCOME \$/ha:	\$2,381	\$2,117	

VARIABLE COSTS:

See pg 2 for details



Graph based on 'Double skip' row configuration

	Single Skip	Double Skip	Your Budget
	\$/ha	\$/ha	\$/ha
Fallow management	\$59	\$59	
Nutrition	\$55	\$45	
Planting	\$93	\$66	
Insurance	\$99	\$88	
Crop protection, application & licence fee	\$395	\$347	
Defoliation	\$71	\$53	
Picking, cartage & ginning	\$487	\$443	
Farming: Post-crop	\$78	\$78	
B. TOTAL VARIABLE COSTS \$/ha:	\$1,338	\$1,179	

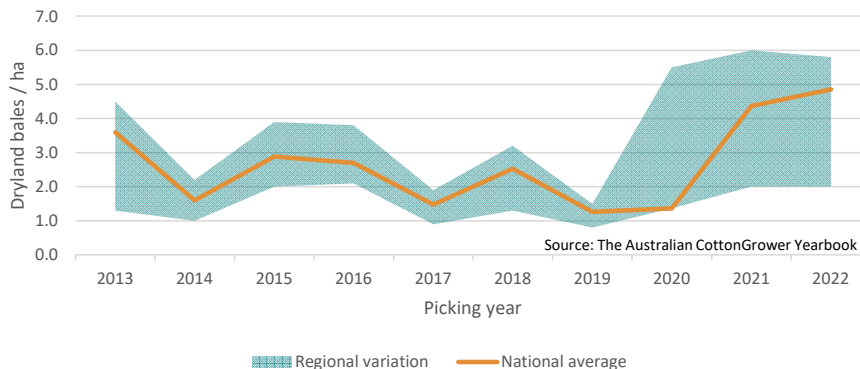
C. GROSS MARGIN (A-B) \$/ha: \$1,043 \$938

Approximate Breakeven Yield (bales/ha) based on lint & seed prices above:	1.38	1.20	bales/ha
Approximate Breakeven Price (\$/bale) based on 3.6 bales/ha:	\$359	\$356	/bale
<i>Note that break even yield & price is for variable costs only, overhead costs and labour are NOT considered</i>			

SENSITIVITY TABLE (Single Skip)

227kg lint bales/ha	\$1,043	PRICE (\$/bale incl. of seed & discounts)				
		561	611	661	711	761
0.6		-424	-395	-367	-338	-309
1.6		-50	27	103	180	257
2.6		324	449	573	698	823
3.6		698	871	1043	1216	1388
4.6		1072	1293	1513	1734	1954
5.6		1447	1715	1983	2252	2520
6.6		1821	2137	2453	2770	3086

Dryland cotton average yield variation



This budget is designed to give an indication of operations and costs required to grow a dryland cotton crop. Prices are estimates only. A grower should alter this budget to take account of individual field management plans, movements in crop and input prices and changes in seasonal conditions. In all instances, operations should be tailored to the requirements of individual paddocks. For a complete guide to cotton management, see the *Australian Cotton Production Manual*.



Variable costs by operation	Machinery	Total \$/ha	Inputs				Single	Double	
			Rate /ha	Unit	Band width	Cost \$/unit	Cost \$/ha	Skip \$/ha	Skip \$/ha
Fallow management (long fallow)									
Fallow spray: Glyphosate (450g/L)	Self Propelled	1.37	2.00	L		5.17	10.34	12	12
Fallow spray: Flumioxazin (500g/L)	with above		0.03	kg		150.54	4.52	5	5
Fallow spray: Paraquat (360g/L)	Self Propelled	1.37	2.00	L		5.98	11.96	13	13
Fallow spray: Flumioxazin (500g/L)	with above		0.03	kg		150.54	4.52	5	5
Fallow spray: Glyphosate (450g/L)	Self Propelled	1.37	2.00	L		5.17	10.34	12	12
Fallow spray: Isoxaflutole (750g/kg)	with above		0.10	kg		124.56	12.46	12	12
Nutrition									
Fertiliser: Urea (32kg N) - drilled early season	295 eng/HP	15.10	70	kg		0.86	60.34	55	45
Planting									
Planting: Precision planter	295 eng/HP	12.69						13	13
Planting: Seed: Roundup Ready Flex® Bollgard3®	with above		9	kg		8.92	80.28	80	53
Crop protection, application & licence fee									
Insecticide: Sulfoxaflor (500g/kg), target: mirids	Self Propelled	1.37	0.14	kg	30%	302.90	12.72	10	8
Insecticide: Fipronil (200g/L), target: mirids	Self Propelled	1.37	0.07	L	30%	71.36	4.99	5	4
Insecticide: Diafenthiuron (500g/L), target: SLW, aphids, mites	Self Propelled	1.37	0.60	L	100%	44.02	26.41	19	15
Insecticide: Acetamiprid (218g/L), Emamectin (32.5g/L) target for above product: SLW, aphids, shield bugs	Self Propelled	18.00	0.30	L	100%	88.52	26.55	36	31
Herbicide: Pendimethalin (455g/L)	Self Propelled	1.37	2.25	kg	100%	12.82	28.85	30	16
Herbicide: Terbutylazine (875g/L)	with above		1.20	L	100%	14.75	17.70	18	18
Herbicide: Roundup Ready® Plantshield® (690g/kg Glyphosate)	Self Propelled	1.37	1.20	kg	100%	10.50	12.60	14	14
Herbicide: Roundup Ready® Plantshield® (690g/kg Glyphosate)	Self Propelled	1.37	1.20	kg	100%	10.50	12.60	14	14
Herbicide: S-metolachlor OTT (960g/L)	with above		1.00	kg	100%	14.26	14.26	14	14
Licence: Bollgard 3® RRF Licence Fee: End Point Royalty						52.50 / lint bale		189	168
Other: Consultant	Contractor	40.00						40	40
Refuge: Refuge crop: Conventional cotton 5%, see page 3								8	6
Defoliation									
Defoliation: Thidiazuron (500g/L)	Self Propelled	3.49	0.15	L	#	35.99	5.40	9	7
Defoliation: Ethephon (900g/L)	with above		0.75	L		9.94	7.45	7	5
Defoliation: Crop oil	with above		1.00	L		7.02	7.02	7	5
Defoliation: Thidiazuron (500g/L)	Self Propelled	3.49	0.15	L		35.99	5.40	9	7
Defoliation: Ethephon (900g/L)	with above		0.75	L		9.94	7.45	7	5
Defoliation: Crop oil	with above		1.00	L		7.02	7.02	7	5
Defoliation: ETee® (25g/L + 756g/L + 102g/L)	Self Propelled	3.49	0.08	L		80.83	6.47	10	8
Defoliation: Ethephon (900g/L)	with above		0.75			9.94	7.45	7	5
Defoliation: Crop oil	with above		1.00	L		7.02	7.02	7	5
Picking, cartage & ginning									
Stripping: Own plant: round baler (variable costs only, incl. fuel)	CS690	86.00 per ha						86	86
Stripping: plus wrap		51.00 / round bale				16.00 / lint bale		58	51
Cartage: Freight (incl. lift) 50 km from gin	costs related to	63.00 / round bale				19.76 / lint bale		71	63
Ginning: Fibre processing	yield	72.00 / lint bale				72.00 / lint bale		259	230
Levies: Research levy & Cotton Australia levy		3.75 / lint bale				3.75 / lint bale		14	12
Farming: Post-crop									
Farming: Mulcher	Contractor	55.00						55	55
Farming: Pupae bust (check bt licence cultivation requirements)	295 eng/HP	22.95						23	23
Other									
Crop insurance:								99	88
<i>Premium depends on various factors</i>									
B. TOTAL VARIABLE COSTS \$/ha:								1,338	1,179



(refuge for Bollgard3® cotton) Includes fallow management

REFUGE INCOME (if it is picked and ginned)

	Yield				Single Skip \$/ha	Double Skip \$/ha
Single Skip	0.80	bales/ha @	Cotton lint	\$594 /bale (at gin)	\$475	\$416
Double Skip	0.70		Cotton seed	\$93 /bale (at gin)	\$74	\$65
			(less discount)	-\$25 /bale (estimate)	-\$20	-\$18
				\$661 /bale		

A. TOTAL GROSS INCOME \$/ha: **\$529** **\$463**

Variable costs by operation			Machinery	Total \$/ha	Rate /ha	Unit	Band width	Cost \$/unit	Cost \$/ha	Single Skip \$/ha	Double Skip \$/ha
Fallow management (long fallow)											
Nov	Fallow spray:	Glyphosate (450g/L)	Self Propelled	1.37	2.00	L		5.17	10.34	12	12
Nov	Fallow spray:	Flumioxazin (500g/L)	with above		0.03	L		150.54	4.52	5	5
Jan	Fallow spray:	Paraquat (360g/L)	Self Propelled	1.37	2.00	L		5.98	11.96	13	13
Jan	Fallow spray:	Flumioxazin (500g/L)	with above		0.03	L		150.54	4.52	5	5
Mar	Fallow spray:	Glyphosate (450g/L)	Self Propelled	1.37	2.00	L		5.17	10.34	12	12
Mar	Fallow spray:	Isoxaflutole (750g/kg)	with above		0.10	kg		124.56	12.46	12	12
Planting											
Oct	Planting:	Precision planter	295 eng/HP	12.69						13	13
Oct	Planting:	Seed: Sicut812 Roundup Ready Flex®	with above		9	kg		8.92	80.28	53	40
Crop protection, application & licence fee											
Oct	Herbicide:	Pendimethalin (455g/L)	Self Propelled	1.37	2.20	kg	100%	12.82	28.21	30	30
Nov	Herbicide:	Roundup Ready® Plantshield® (690g/kg Glyphosate)	Self Propelled	1.37	1.20	kg	100%	10.50	12.60	14	14
Jan	Herbicide:	Roundup Ready® Plantshield® (690g/kg Glyphosate)	Self Propelled	1.37	1.20	kg	100%	10.50	12.60	14	14
Defoliation #											
Mar	Defoliation:	Thidiazuron (500g/L)	Self Propelled	1.37	0.15	L		35.99	5.40	7	5
Mar	Defoliation:	Ethephon (900g/L)	with above		0.75	L		9.94	7.45	7	5
Mar	Defoliation:	Crop oil	with above		1.00	L		7.02	7.02	7	5
Mar	Defoliation:	Thidiazuron (500g/L)	Self Propelled	1.37	0.15	L		35.99	5.40	7	5
Mar	Defoliation:	Ethephon (900g/L)	with above		2.00	L		9.94	19.87	20	14
Mar	Defoliation:	Crop oil	with above		1.00	L		7.02	7.02	7	5
Apr	Defoliation:	Paraquat (360g/L)	Self Propelled	1.37	2.00	L		5.98	11.96	13	10
Apr	Defoliation:	Crop oil	with above		1.00	L		7.02	7.02	7	5
Picking, cartage & ginning											
Apr	Stripping:	Contract: round baler (variable costs only incl. fuel)	CS690	320.00	per ha		per ha (solid plant dryland)			320	320
Apr	Stripping:	plus fuel		18.15	L/ha @			1.11 \$/L		20	15
Apr	Stripping:	plus wrap		51.00	/ round bale			12.00 / lint bale		10	8
May	Cartage:	Freight (incl. lift) 50 km from gin	costs related to	63.00	/ round bale			14.82 / lint bale		12	10
May	Ginning:	Fibre processing	yield	72.00	/ lint bale			72.00 / lint bale		58	50
Jun	Levies:	Research Levy & Cotton Australia Levy		3.75	/ lint bale			3.75 / lint bale		3	3
Farming: Post-crop											
Jun	Farming:	Mulcher	Contractor	55.00						55	55
Jun	Farming:	Chisel plough (check bt licence requirements)	295 eng/HP	25.63						26	26

B. TOTAL VARIABLE COSTS \$/ha: **\$760** **\$710**

REFUGIA GROSS MARGIN (A-B) \$/ha: **(\$230)** **(\$247)**

Approximate Breakeven Yield (bales/ha) based on lint & seed prices above: **1.21** **1.14**

Approximate Breakeven Price (\$/bale) based on yields above: **\$949** **\$1,014**

Note that break even yield & price is for variable costs only, overhead costs and labour are NOT considered

2023-24 Cotton Gross Margins, brought to you by the cotton industry's joint extension program, CottonInfo.

Footnotes

Machinery costs: The cost of each farming pass reflects variable costs only (fuel, repairs and maintenance), labour and depreciation are considered overhead costs, so are not included in this budget. Contractor rates encompass these costs and are outlined in a separate budget.

Rotation: This budget assumes the previous crop was wheat, followed by a long fallow.

*** Yield:** Actual yields are a complex result of agronomic and environmental factors. In this budget, yield assumptions for each row configuration are based on Ozcott modelling of the Darling Downs Region, see the *Australian Cotton Production Manual 2022* p.21 Table 4, Bange. Yields will vary between regions and row configurations depending on environmental conditions.

Defoliation: Taking into account estimated yields and associated vegetative matter, the band width for defoliation of single skip cotton is 100% and double skip 70%.

! Gross margin: Based on the published yields and prices, the refuge gross margin results in a loss. It is still justified to pick the crop as the projected refuge income (e.g. \$529 single skip) is greater than the projected stripping, cartage and ginning costs (\$407/ha). In the event that projected refuge income is not able to cover these costs, the overall gross margin would be maximised if the crop was destroyed (mulched) without being picked.

See the **Gross Margin Notes** for further details on assumptions.

Acknowledgements

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