

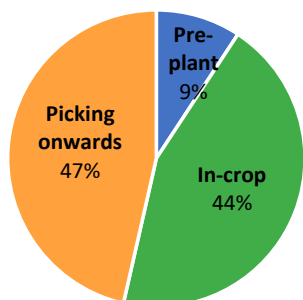
Gross Margin Budget: Northern Australia Raingrown Cotton

Bollgard3®, Roundup Ready Flex®

INCOME:				Example Budget	Your Budget
				\$/ha	\$/ha
4.0	bales/ha ¹ @	Cotton lint	\$594 /bale (at gin)	\$2,376	_____
		(less discount)	-\$13 /bale (at gin)	-\$50	_____
		Cotton seed	\$93 /bale (at gin)	\$370	_____
			\$674 /bale (at gin)		_____
		A. TOTAL GROSS INCOME \$/ha:		\$2,696	_____

VARIABLE COSTS:

See pg 2 for details



Ground preparation	\$53	_____
Nutrition	\$358	_____
Planting	\$73	_____
Crop protection, application & licence fee	\$624	_____
Insurance	\$65	_____
Defoliation	\$125	_____
Picking, cartage & ginning	\$1,036	_____
Farming: Post-crop	\$89	_____
B. TOTAL VARIABLE COSTS \$/ha:	\$2,422	_____

C. GROSS MARGIN (A-B) \$/ha:	\$274	_____
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Breakeven Yield (bales/ha) based on lint & seed prices above:	3.4	bales/ha
Breakeven Price (\$/bale incl. seed and discounts) based on 4 bales/ha:	\$604	/bale
<i>Note that break even yield & price is for variable costs only, overhead costs and labour are NOT considered</i>		

SENSITIVITY TABLE

		(Gross Margin \$/Ha)				
		PRICE (\$/bale incl. of seed & discounts)				
		574	624	674	724	774
227kg lint bales/ha	\$274					
	2.5	-654	-532	-410	-288	-166
	3.0	-475	-328	-182	-36	111
	3.5	-295	-125	46	217	388
	4.0	-116	79	274	469	665
	4.5	63	283	502	722	942
	5.0	243	487	731	975	1219
5.5	422	690	959	1227	1496	

This budget is designed to give an indication of operations and costs required to grow a northern Australia rainfed 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		Inputs			Total
		Total	Rate	Unit	Cost	Cost	Cost
		\$/ha	/ha		\$/unit	\$/ha	\$/ha
Ground preparation (cover crop destruction)							
Herbicide:	Fluroxypyr (333g/L)	Self Propelled	1.37	0.45 L	29.56	13.30	15
Herbicide:	Glyphosate (450g/L)	Self Propelled	1.37	2.00 L	5.52	11.04	12
Farming:	Cultivation (depending on vegetative matter present)	295 eng/HP	25.63				26
Nutrition							
Fertiliser:	DAP - spread pre plant	295 eng/HP	8.41	90 kg	1.34	120.15	129
Fertiliser:	Urea - with above	295 eng/HP		40 kg	1.08	43.20	43
Fertiliser:	SOP - spread in crop	295 eng/HP	8.41	60 kg	1.88	113.04	121
Fertiliser:	Urea - with above	295 eng/HP		60 kg	1.08	64.80	65
Planting & in-crop farming							
Planting:	Precision planter	295 eng/HP	12.69				13
Planting:	Seed: Roundup Ready Flex® Bollgard3®	with above		6.5 kg	9.24	60.04	60
Crop protection², application & licence fee							
Insecticide:	Fipronil (200 g/L), target: mirids	Aerial	35.00	0.06 L	71.71	4.48	39
Insecticide:	Indoxocarb (150 g/L), target: mirids	Self Propelled	1.37	0.25 L	75.98	18.99	20
Insecticide:	Chlorantraniliprole (600 g/L), target: cluster caterpillar	Aerial	35.00	0.06 L	898.35	53.90	89
Insecticide:	Clothianidin (200 g/L), target: shield bugs	Aerial	35.00	0.25 L	75.98	18.99	54
Fungicide:	Azoxystrobin + Prothioconazole (133 g/L + 100 g/L) target for above: grey mildew	Aerial	35.00	0.30 L	52.05	15.62	51
Fungicide:	Adjuvant: Spraying oil	With above		0.10 L	7.37	0.74	1
Growth regulant:	Mepiquat (380g/L), growth regulator	Aerial	35.00	0.03 L	24.15	0.60	36
Growth regulant:	Mepiquat (380g/L), growth regulator	Aerial	35.00	0.03 L	24.15	0.60	36
Growth regulant:	Mepiquat (380g/L), growth regulator / cutout	Self Propelled	1.37	0.07 L	24.15	1.69	3
Herbicide:	Roundup Ready® Plantshield® (690g/kg Glyphosate)	Aerial	35.00	1.20 kg	10.85	13.02	48
Herbicide:	Roundup Ready® Plantshield® (690g/kg Glyphosate)	Aerial	35.00	1.20 kg	10.85	13.02	48
Herbicide:	Roundup Ready® Plantshield® (690g/kg Glyphosate)	Self Propelled	1.37	1.20 kg	10.85	13.02	14
Licence:	Bollgard 3® stacked RRF Licence Fee, (end point royalty) Northern Australia Development allowance					32.50 / lint bale	130
Other:	Consultant	Contractor	40.00				40
Refuge:	Refuge crop: Conventional cotton 5%, see page 3						15
Defoliation²							
Defoliation:	Thidiazuron (500g/L)	Aerial	35.00	0.10 L	36.34	3.63	39
Defoliation:	Ethephon (900g/L)	with above		0.75 L	9.94	7.45	7
Defoliation:	Spraying oil	with above		1.00 L	7.37	7.37	7
Defoliation:	Thidiazuron + Diuron (240g + 120g/L)	Aerial	35.00	0.13 L	173.35	21.67	57
Defoliation:	Ethephon (900g/L)	with above		0.75 L	9.94	7.45	7
Defoliation:	Spraying oil	with above		1.00 L	7.37	7.37	7
Picking, cartage & ginning							
Picking	Contract: Round baler incl. stacking at end of field	CS690	320.00 per ha			80 / lint bale	320
Picking	plus fuel		27.50 L/ha @	1.46 \$/L		10 / lint bale	40
Picking	plus wrap		51.00 / round bale			12 / lint bale	48
Cartage:	Freight (incl. lift) 550 km from gin ³	costs related to	183.33 / round bale			43 / lint bale	173
Ginning:	Fibre processing ³	yield	110.00 / lint bale			110 / lint bale	440
Levies:	Research levy & Cotton Australia levy		3.75 / lint bale				15
Post-crop							
Farming:	Mulcher (check bt licence requirements)	Contractor	55.00				55
Herbicide:	Fluroxypyr (333g/L)	Self Propelled	1.37	0.45 L	29.56	13.30	15
Herbicide:	Fluroxypyr (333g/L)	Self Propelled	1.37	0.60 L	29.56	17.74	19
Other							
Crop insurance:						Premium depends on various factors	65
B. TOTAL VARIABLE COSTS \$/ha:							2422



Variable costs by operation	Machinery	Total \$/ha	Inputs				Total Cost \$/ha
			Rate /ha	Unit	Cost \$/unit	Cost \$/ha	
Ground preparation							
Herbicide: Fluroxypyr (333g/L)	Self Propelled	1.37	0.45	L	29.56	13.30	15
Herbicide: Glyphosate (450g/L)	Self Propelled	1.37	2.00	L	5.52	11.04	12
Farming: Cultivation (depending on vegetative matter present)	295 eng/HP	25.63					26
Planting & in-crop farming							
Planting: Precision planter	295 eng/HP	12.69					13
Planting: Seed: Roundup Ready Flex®	with above		6.50	kg	9.24	60.04	60
Crop protection, application & licence fee							
Herbicide: Roundup Ready® Plantshield® (690g/kg Glyphosate)	Self Propelled	1.37	1.20	kg	10.85	13.02	14
Herbicide: Roundup Ready® Plantshield® (690g/kg Glyphosate)	Self Propelled	1.37	1.20	kg	10.85	13.02	14
Herbicide: Roundup Ready® Plantshield® (690g/kg Glyphosate)	Self Propelled	1.37	1.20	kg	10.85	13.02	14
Other: Consultant	Contractor	40.00					40
Defoliation							
Assume yield for refuge cotton does not justify picking (therefore defoliation)							
Picking, cartage & ginning							
Assume yield for refuge cotton does not justify picking.							
Post-crop							
Farming: Mulcher (check bt licence cultivation requirements)	Contractor	55.00					55
Herbicide: Fluroxypyr (333g/L)	Self Propelled	1.37	0.45	L	29.56	13.30	15
Herbicide: Fluroxypyr (333g/L)	Self Propelled	1.37	0.60	L	29.56	17.74	19
Other							
Crop insurance:					Premium depends on various factors		0
B. TOTAL VARIABLE COSTS \$/ha:							297

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

Foot notes

1. Yield: Actual yields are a complex result of agronomic and environmental factors. In this budget a yield of 4 bales/ha is based on Douglas Daly/Tipperary raingrown crops of 3–6 bales/ha reported in CRCNA, Broadacre Cropping in northern Australia Newsletter #2, January 2021, as well as consultation with northern growers and stakeholders regarding recent commercial yields.

Rotation: This budget assumes the previous crop of sorghum, with 2 t/ha mulch cover retained (Yeates SJ and Poulton PL (2019), *Determining Dryland cotton yield potential in the NT: Preliminary climate assessment and yield simulation*. Report to NTFarmers, Queensland Cotton and the Cotton Research and Development Corporation.)

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.

2. Crop protection requirements will vary season by season and across regions. **Chemical registrations** vary between states. Use of a particular brand name or active ingredient are examples only and do NOT imply a recommendation. Always read chemical labels and follow directions.

3. Frieght and ginning. The Katherine cotton gin is due for completion late 2023 so has been included in this gross margin. Cartage and ginning costs are estimates only.

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

Acknowledgements

We wish to acknowledge the efforts made by industry specialists and management during the development and review of the 2023 Northern Australia cotton gross margin budgets. Assistance was provided by the CottonInfo team, CRDC, CSD, WA DPIRD, and a number of individual growers and specialists.

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