



DRYLAND CHICKPEAS (No Till)

Farm Enterprise Budget Series - North East NSW

Winter 2009

1. GROSS MARGIN BUDGET:

INCOME:

1.50 tonnes/ha@ \$450.00 /tonne (on farm)

Sample Budget \$/ha	Your Budget \$/ha
\$675.00	

Crop prices were correct at the time of writing (Mar 17 2009), world market volatility makes estimation of future pricing impractical.

A. TOTAL INCOME \$/ha:

\$675.00	
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VARIABLE COSTS:

See next page for detail

Sowing.....	\$95.71	
Fertiliser.....	\$58.50	
Herbicide.....	\$121.68	
Insecticides.....	\$33.19	
Fungicides.....	\$37.56	
Contract harvesting.....	\$69.72	
Levies.....	\$6.89	
Crop Insurance.....	\$17.28	

B. TOTAL VARIABLE COSTS \$/ha:

\$440.54	
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C. GROSS MARGIN (A-B) \$/ha:

\$234.46	
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Water use efficiency example

Growing season rainfall (ie in-crop): mm	317	
Stored fallow moisture: mm (25% of rainfall in fallow period assumed)	75	
Early crop water use: mm	130	
Total crop water use mm	262	
Gross margin per mm	\$0.89	
kg of grain per mm	5.73	

Please refer to the "Water Use Efficiency in Northern NSW Winter Crop Enterprise Budgets" summary for more information on water use efficiency assumptions used at right.

2. EFFECT OF YIELD AND PRICE ON GROSS MARGIN PER HECTARE:

YIELD tonnes/ha	On Farm Price				
	\$350 /tonne	\$400 /tonne	\$450 /tonne	\$500 /tonne	\$550 /tonne
0.9	-\$113	-\$69	-\$26	\$18	\$61
1.1	-\$45	\$8	\$61	\$114	\$167
1.3	\$22	\$85	\$148	\$210	\$273
1.5	\$90	\$162	\$234	\$307	\$379
2.0	\$259	\$355	\$451	\$548	\$644
2.5	\$427	\$548	\$668	\$789	\$909
3.0	\$596	\$741	\$885	\$1,030	\$1,175

Gross margin is zero when income is reduced by 35% or variable costs are increased by 53%

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CALENDAR OF OPERATIONS:		Machinery			Inputs			Total Cost \$/ha
Operation	Month	hrs /ha	Cost \$/hour	Total \$/ha	Rate/ha	Cost \$	Total \$/ha	
broadleaf and grass weed control eg: glyphosate 450 g/L	Dec	0.05	45.64	2.28	1.2 L	7.43/L	8.92	11.20
broadleaf weed control eg 2,4-D amine 300g/L	Dec	with above			1.80 L	4.23/L	7.61	7.61
wetting agent	Dec	with above			0.25 L	8.84/L	2.21	2.21
broadleaf and grass weed control eg: glyphosate 450 g/L	Feb	0.05	45.64	2.28	1.5 L	7.43/L	11.15	13.43
broadleaf and grass weed control eg: glyphosate 450 g/L	Mar	0.05	45.64	2.28	1.2 L	7.43/L	8.92	11.20
wetting agent	Mar	with above			0.25 L	8.84/L	2.21	2.21
sowing (inoculated seed)	May/June	0.17	66.34	11.28	65 kg	1.22/kg	79.24	90.51
P-Pickle T seed treatment	May/June	with above			130 ml	0.04/ml	5.20	5.20
Fertiliser (Starter Z)	May/June	with above			50 kg	1.17/kg	58.50	58.50
PSPE broadleaf weed control eg **isoxaflutole 750 g/kg	May/June	0.05	45.64	2.28	100 g	0.31/g	31.00	33.28
fungus control eg.mancozeb ¹	Jul	0.05	45.64	2.28	1 kg	8.25/kg	8.25	10.53
grass weed control eg haloxyfop-R 520g/L	Jul	with above			75 ml	0.164/ml	12.27	12.27
crop oil	Jul	with above			0.50 L	6.35/L	3.18	3.18
fungus control eg.mancozeb	Sep	0.05	45.64	2.28	1 kg	8.25/kg	8.25	10.53
insect control eg. Indoxacarb ²	Oct	aerial		14.50	0.30 L	62.30/L	18.69	33.19
fungus control eg.mancozeb	Oct	with above			2 kg	8.25/kg	16.50	16.50
dessicant-eg. glyphosate 540 g/L ³	Nov	aerial		14.50	1.00 L	9.60/L	9.60	24.10
dessicant-eg. metsulfuron methyl ³	Nov	with above			5 g	0.20/g	1.00	1.00
contract harvest ⁴	Nov			69.72				69.72
levies	Nov			1.020%				6.89
crop insurance				2.560%	of on-farm value			17.28

Input prices were correct at the time of writing (Mar 17 2009). Current fertiliser and chemical market uncertainty makes estimation of future pricing impractical.

AGRONOMIC REQUIREMENTS: Growers should assess soil moisture profiles and fertility levels to assist with yield estimates.

Inoculation: With group N inoculum is essential.

Nutrient requirements should be assessed with soil tests and previous strip trial results.

Insects: Heliothis must be monitored from flowering through to podding.

² Indoxacarb used as example, but must be used within approved window, check permits.

Herbicides: Weed control is critical and a pre-emergent broadleaf weed herbicide is important.

Balance[®] (isoxaflutole) is **not recommended for use with the chickpea variety Yorker. Application of Balance[®] post-sowing pre-emergence (PSPE) to crops of Yorker variety chickpeas can result in unacceptable crop damage and may result in yield loss. Chickpeas in general are highly sensitive to sulfonyl urea herbicide residues.

To reduce the likelihood of herbicide resistance, rotate herbicide groups and weed management techniques.

³ Dessicants: Examples given only, check current permits before applying.

Disease: Ascochyta blight, botrytis grey mould, sclerotinia and phytophthora can all cause damage.

See variety management packages for disease management strategies on the Pulse Australia website <http://www.pulseaus.com.au/>

Check current permits & registrations prior to using fungicides.

¹ Seasonal conditions, especially rainfall events, and varietal resistance will affect fungicides required.

Crop rotation is essential to minimise loss of yield due to disease.

Controlled traffic: Chickpeas grown on wide rows in a controlled traffic layout may be band sprayed with fungicides and insecticides. This may reduce the chemical cost to half and may reduce the application cost from an aerial spray to a ground spray.

Harvest: ⁴ Grading may be required, extra cost approx. \$17/t (not included in budget).

If using a dessicant before harvest (may be required in some seasons), ensure withholding periods are adhered to.

- **Always read chemical labels and follow directions, as it is your legal responsibility to do so.**

Use of a particular brand name does NOT imply a recommendation of that brand by NSW DPI.

LABOUR REQUIREMENTS: - labour is not costed in this budget.

According to the above operations, labour required is 0.47hrs/ha. Then multiplying this by 1.25 to allow for machinery repair time etc, and using a labour cost of \$19/hr, the cost of labour is \$10.87/ha, reducing the gross margin to \$223.59/ha.

MACHINERY ASSUMPTIONS:

Tractor: - pto power: 130 kW (175 HP); engine power: 146 kW (196 HP)

Machinery costs refer to variable costs of: fuel, oil, filters, tyres, batteries and repairs.