



DRYLAND CHICKPEAS (no till)

Farm Enterprise Budget Series - North West NSW

Winter 2009

1. GROSS MARGIN BUDGET:

INCOME:

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

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

Sample Budget	Your Budget
\$/ha	\$/ha
\$585.00	

A. TOTAL INCOME \$/ha:

\$585.00	
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VARIABLE COSTS:

See next page for detail

Sowing.....	\$81.21	
Fertiliser.....	\$40.25	
Herbicide.....	\$126.23	
Insecticides.....	\$33.19	
Fungicides.....	\$32.36	
Contract harvesting.....	\$69.72	
Levies.....	\$5.97	
Insurance.....	\$7.49	

B. TOTAL VARIABLE COSTS \$/ha:

\$396.41	
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C. GROSS MARGIN (A-B) \$/ha:

\$188.59	
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Water use efficiency example

Growing season rainfall (ie in-crop): mm	253	
Stored fallow moisture: mm (25% of rainfall in fallow period)	60	
Early crop water use: mm	130	
Total crop water use mm	183	
Gross margin per mm	\$1.03	
kg of grain per mm	7.1	

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
0.5	- \$212	- \$188	- \$163	- \$139	- \$114
0.8	- \$109	- \$70	- \$31	\$8	\$47
1.0	- \$41	\$8	\$57	\$106	\$154
1.3	\$62	\$125	\$189	\$252	\$316
1.7	\$198	\$281	\$364	\$447	\$531
2.1	\$335	\$438	\$540	\$643	\$745
2.5	\$472	\$594	\$716	\$838	\$960

Gross margin is zero when income is reduced by 32%
or variable costs are increased by 48%

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CALENDAR OF OPERATIONS:		Machinery			Inputs			Total
Operation	Month	hrs /ha	Cost	Total	Rate/ha	Cost	Total	Total Cost \$/ha
			\$/hour	\$/ha		\$	\$/ha	
harvest previous crop	Nov							
broadleaf and grass weed control eg: glyphosate 450	Dec	0.03	45.23	1.36	1.2 L	7.43/L	8.92	10.27
broadleaf weed control eg 2,4-D amine 300g/L	Dec	with above			1.80 L	4.23/L	7.61	7.61
wetter - non-ionic surfactant	Dec	with above			0.04 L	6.86/L	0.27	0.27
broadleaf and grass weed control eg: glyphosate 450	Jan	0.03	45.23	1.36	1.0 L	7.43/L	7.43	8.79
broadleaf weed control eg triclopyr 600g	Jan	with above			0.12 L	43.63/L	5.24	5.24
wetter - non-ionic surfactant	Jan	with above			0.04 L	6.86/L	0.27	0.27
broadleaf and grass weed control eg: glyphosate 450	Feb	0.03	45.23	1.36	1.0 L	7.43/L	7.43	8.79
broadleaf weed control eg 2,4-D amine 300g/L	Feb	with above			1.2 L	4.23/L	5.08	5.08
wetter - non-ionic surfactant	Feb	with above			0.04 L	6.86/L	0.27	0.27
broadleaf and grass weed control eg paraquat+diquat	May	0.03	45.23	1.36	2.0 L	12.25/L	24.50	25.86
wetting agent	May	with above			0.25 L	8.84/L	2.21	2.21
sowing	Jun	0.12	67.23	8.07	60 kg	1.22/kg	73.14	81.21
fertiliser (Starter Z)	Jun	with above			35 kg	1.15/kg	40.25	40.25
PSPE broadleaf and grass weed control eg. simazine	Jun	0.03	45.23	1.36	1.5 L	7.99/L	11.99	13.34
PSPE broadleaf weed control eg. isoxaflutole	Jun	with above			100 g	0.25/g	25.00	25.00
grass weed control eg haloxyfop-R	Jul	0.03	45.23	1.36	0.06 L	163.59/L	9.82	11.17
crop oil	Jul	with above			0.50 L	4.10/L	2.05	2.05
fungus control eg.mancozeb	Jul	0.03	45.23	1.36	1 kg	8.25/kg	8.25	9.61
fungus control eg.mancozeb	Aug	aerial spray		14.50	1 kg	8.25/kg	8.25	22.75
insect control eg. indoxacarb*	Oct	aerial spray		14.50	0.30 L	62.30/L	18.69	33.19
harvest (contract)**	Nov			69.72				69.72
crop levies	Nov			1.020%	of on-farm value			5.97
crop insurance				1.280%	of on-farm value			7.49

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.

Soils:

Must be grown on well drained loam, clay loam and self mulching clay soils.

Be aware of and monitor sub-soils constraints that could limit yield potential.

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

Insects:

Heliothis must be monitored from flowering through to podding.

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

Herbicides:

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

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

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

Refer to the NSW DPI booklet "Weed Control in Winter Crops 2009" for options.

Disease:

Botrytis grey mould, ascochyta blight, sclerotinea and phytophthora can all cause damage

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

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.

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:

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

- **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 0.27hrs/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 \$6.25/ha, reducing the gross margin to \$182.35/ha.

MACHINERY ASSUMPTIONS:

Tractor:

170 KW PTO (230 HP) and 200 KW engine (265 HP)

machinery costs refer only to variable costs (running costs), not overhead costs.