



DRYLAND FABA BEANS (no till)

Farm Enterprise Budget Series - North West NSW

Winter 2012

1. GROSS MARGIN BUDGET:

INCOME: 1.80 tonnes/ha
Small grain 1.80 tonnes/ha@ \$270.00 /tonne (on farm)

Sample Budget \$/ha	Your Budget \$/ha
\$486.00	

Crop prices were correct at the time of writing (Feb 2012), world market volatility makes estimation of future pricing impractical.

VARIABLE COSTS:
See next page for detail

A. TOTAL INCOME \$/ha: **\$486.00**

Sowing.....	\$98.91	
Herbicide.....	\$83.65	
Insecticides.....	\$23.93	
Fungicides.....	\$38.42	
Contract harvesting.....	\$86.24	
Levies.....	\$4.96	
Insurance.....	\$17.45	

B. TOTAL VARIABLE COSTS \$/ha: **\$353.55**

C. GROSS MARGIN (A-B) \$/ha: **\$132.45**

Water use efficiency example

Growing season rainfall (ie in-crop): mm 189
Stored fallow moisture: mm (25% of rainfall in fallow period) 69

Early crop water use: mm 130

Total crop water use mm 128

Gross margin per mm **\$0.74**

kg of grain per mm 14.0

Please refer to the NSW DPI webpage
["About gross margin budgets"](#)
for more information on water use efficiency
assumptions used at right.

* A yield range of 7-15kg/mm could be expected depending on suitable management, fallow efficiency and rainfall received.

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

YIELD tonnes/ha	ON FARM PRICE (\$/tonne)				
	\$220 /t	\$245 /t	\$270 /t	\$320 /t	\$370 /t
1.00	-\$121	-\$97	-\$74	-\$26	\$22
1.20	-\$79	-\$51	-\$22	\$35	\$92
1.60	\$5	\$43	\$81	\$157	\$234
1.80	\$47	\$90	\$132	\$218	\$304
2.00	\$89	\$136	\$184	\$279	\$375
2.40	\$173	\$230	\$287	\$401	\$516
2.60	\$214	\$276	\$338	\$463	\$587

Gross margin is zero when income is reduced by 27%
or variable costs are increased by 37%

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CALENDAR OF OPERATIONS:		Machinery			Inputs			Total Cost \$/ha
Operation	Month	hrs /ha	\$/hour	Total \$/ha	Rate/ha	Cost \$	Total \$/ha	
harvest previous crop	Nov							
broadleaf and grass weed control eg: glyphosate 450 g/L	Dec	0.03	56.21	1.69	1.2 L	4.67/L	5.60	7.29
broadleaf weed control eg 2,4-D amine 475 g/L	Dec	with above			1.2 L	5.82/L	6.98	6.98
wetter - non-ionic surfactant	Dec	with above			0.04 L	6.77/L	0.27	0.27
broadleaf and grass weed control eg: glyphosate 450 g/L	Jan	0.03	56.21	1.69	1.0 L	4.67/L	4.67	6.36
broadleaf weed control eg triclopyr 600g	Jan	with above			0.12 L	19.57/L	2.35	2.35
wetter - non-ionic surfactant	Jan	with above			0.04 L	6.77/L	0.27	0.27
broadleaf and grass weed control eg: glyphosate 450 g/L	Feb	0.03	56.21	1.69	1.0 L	4.67/L	4.67	6.36
broadleaf weed control eg 2,4-D amine 475 g/L	Feb	with above			1.2 L	5.82/L	6.98	6.98
wetter - non-ionic surfactant	Feb	with above			0.04 L	6.77/L	0.27	0.27
broadleaf and grass weed control eg paraquat+diquat	Apr	0.03	56.21	1.69	2.0 L	10.93/L	21.86	23.55
wetter - non-ionic surfactant	Apr	with above			0.12 L	6.77/L	0.81	0.81
broadleaf and grass weed control eg. simazine	May	0.03	56.21	1.69	1.5 L	7.26/L	10.89	12.58
sowing	May	0.12	78.21	9.39				9.39
seed	May	with above			80 kg	1.12/kg	89.52	89.52
grass weed control eg haloxyfop-R 520 g	Jun	0.03	56.21	1.69	0.06 L	99.00/L	5.94	7.63
crop oil	Jun	with above			0.5 L	3.91/kg	1.96	1.96
disease control eg.mancozeb	Jun	with above			1 kg	9.21/kg	9.21	9.21
disease control eg.mancozeb	Aug	aerial spray		20.00	1 kg	9.21/kg	9.21	29.21
insect control eg. lambda-cyhalothrin	Sep	aerial spray		20.00	0.024 L	163.64/L	3.93	23.93
harvest (contract)	Nov			86.24				86.24
crop levies					1.02%	of on-farm value		4.96
crop insurance				3.590%	of on-farm value			17.45

Input prices were correct at the time of writing (Feb 2012). Current fertiliser and chemical market uncertainty makes estimation of future pricing impractical.

AGRONOMIC REQUIREMENTS:

Growers should assess soil moisture profiles and soil fertility levels to assist with yield targets.

Soils: Best grown on the better clay loam and heavy self mulching clay soils. Soils must be well-drained. Faba beans are more tolerant of waterlogging than chickpeas.

Stored soil moisture at sowing reduces the risk of crop failure due to variable in crop rainfall. To reduce this risk, crops should be sown with the maximum amount of stored soil moisture. Soils in the North West can store approximately 150-200 mm in the rooting zone, this can be roughly measured at sowing using a push probe.

Rotation place: Useful as a break crop in cereal rotations for disease control, weed control and nitrogen benefits for following cereal crops. Crop rotation is essential to minimise loss of yield due to disease. Nutrient requirements should be assessed with soil tests and strip trial results.

Inoculation: With group E inoculum is essential.

Seed: Seed price used above is for purchased seed; if using retained seed adjust budget accordingly.

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

Herbicides: Faba beans are sensitive to sulfonyl urea herbicide residues.

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

Refer to the NSW DPI booklet *Weed Control in winter crops 2012* for options.

Fungicide: Used to control chocolate spot and rust. See Faba bean Agnote *Faba beans 2009- Management strategies for the Northern Region* and Agfact P4.2.7 for disease management strategies. Check current permits & registrations prior to using fungicides. Number of applications will depend on the season

- 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.

MACHINERY ASSUMPTIONS:

Tractor: 170 kW PTO (230 HP) and 200 kW engine (265 HP)

- Machinery costs refer only to variable costs: fuel, oil, filters, tyres, batteries & repairs.

- Contract harvesting does not include the cost of fuel.

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

According to the above operations, labour required is 0.21hrs/ha. Then multiplying this by 1.25 to allow for machinery repair time etc, and using a labour cost of \$21/hr, the cost of labour is \$5.51/ha, reducing the gross margin to \$126.94/ha.