



SPRAY IRRIGATED NAVY BEANS

Farm Enterprise Budget Series - Northern Zone

Summer 2011-2012

1. GROSS MARGIN BUDGET:

INCOME:

Yield	1.70 tonnes/ha	
Clean seed	1.50 tonnes/ha at	\$1,000.00 /tonne
Gradings	0.20 tonnes/ha	

A grading percentage of 12% is assumed. The price listed is nett of grading costs.

Crop prices were correct at the time of writing. **A. TOTAL INCOME \$/ha:**

pricing impractical.

Sample Budget \$/ha	Your Budget \$/ha
\$1,496.00	
\$1,496.00	

VARIABLE COSTS:

see following page(s) for details

Sowing.....	\$109.33	
Fertiliser & application.....	\$236.61	
Herbicide & application.....	\$53.18	
Insecticide & application.....	\$109.53	
Irrigation.....	\$303.81	
Harvesting.....	\$119.90	
Levies.....	\$15.26	
Insurance.....	\$64.93	
B. TOTAL VARIABLE COSTS \$/ha:	\$1,012.55	

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

D. GROSS MARGIN \$/ML:

\$483.45	
\$161.15	

SENSITIVITY TABLES

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

Total Yield t/ha	Yield t/ha clean seed	Price (clean seed)					Gross Margin (\$/ha)
		\$950 /t	\$975 /t	\$1,000 /t	\$1,025 /t	\$1,050 /t	
0.80	0.70	-\$325	-\$308	-\$291	-\$273	-\$256	
1.10	0.97	-\$80	-\$57	-\$33	-\$9	\$15	
1.40	1.23	\$164	\$195	\$225	\$256	\$286	
1.70	1.50	\$409	\$446	\$483	\$520	\$557	
2.30	2.02	\$899	\$949	\$999	\$1,050	\$1,100	
2.65	2.33	\$1,185	\$1,243	\$1,300	\$1,358	\$1,416	
3.00	2.64	\$1,471	\$1,536	\$1,601	\$1,667	\$1,732	

3. EFFECT OF YIELD AND PRICE ON GROSS MARGIN PER MEGALITRE:

Total Yield t/ha	Yield t/ha clean seed	Price (clean seed)				
		\$950 /t	\$975 /t	\$1,000 /t	\$1,025 /t	\$1,050 /t
0.80	0.70	-\$108	-\$103	-\$97	-\$91	-\$85
1.10	0.97	-\$27	-\$19	-\$11	-\$3	\$5
1.40	1.23	\$55	\$65	\$75	\$85	\$95
1.70	1.50	\$136	\$149	\$161	\$173	\$186
2.30	2.02	\$300	\$316	\$333	\$350	\$367
2.65	2.33	\$395	\$414	\$433	\$453	\$472
3.00	2.64	\$490	\$512	\$534	\$556	\$577

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(spray irrigated from river -regulated)

Operation	Month	Machinery			Inputs			Total Cost \$/ha
		hrs /ha	Cost \$/hour	Total \$/ha	Rate/ha	Cost \$	Total \$/ha	
Herbicide - ground spray, glyphosate CT	Jan	0.05	54.60	2.73	1.2 L	4.42	5.30	8.03
Herbicide - 2,4-D i.p.a. 300g/L	Jan	with above			0.66 L	4.20	2.77	2.77
Wetter - non-ionic surfactant	Jan	with above			0.2 L	6.45	1.29	1.29
Herbicide - ground spray, glyphosate CT	Mar	0.05	54.60	2.73	1.2 L	4.42	5.30	8.03
Wetter - non-ionic surfactant	Mar	with above			0.2 L	6.45	1.29	1.29
Herbicide - ground spray, glyphosate CT	May	0.05	54.60	2.73	1.0 L	4.42	4.42	7.15
Wetter - non-ionic surfactant	May	with above			0.2 L	6.45	1.29	1.29
Herbicide - ground spray, glyphosate CT	Sep	0.05	54.60	2.73	1.2 L	4.42	5.30	8.03
Wetter - non-ionic surfactant	Sep	with above			0.2 L	6.45	1.29	1.29
Fertiliser - Urea	Nov	with above		74kg of N	161 kg	0.70	112.61	186.61
Herbicide - ground spray	Nov	0.03	55.78	1.67				1.67
Herbicide - trifluralin (480 g/L)	Nov	with above			2.1 L	5.87	12.33	12.33
Sowing: Seed + inoculum	Dec	0.12	77.78	9.33	50 kg	2.00	100.00	109.33
Fertiliser - Single Super	Dec	with above			100 kg	0.50	50.00	50.00
Irrigate	Jan				0.50 ML	101.27	50.64	50.64
Insecticide - aerial spray	Jan	aerial spray		20.00				20.00
Insecticide - deltamethrin ULV	Jan	with above			2.5 L	11.18	27.95	27.95
Irrigate	Jan				0.50 ML	101.27	50.64	50.64
Crop insurance **	Jan			4.34%				64.93
Irrigate	Feb				0.5 ML	101.27	50.64	50.64
Insecticide - dimethoate	Feb	0.03	55.78	1.67	0.8 L	10.49	8.39	10.07
Irrigate	Feb				0.5 ML	101.27	50.64	50.64
Insecticide - aerial spray	Feb	aerial spray		20.00				20.00
Insecticide - thiodicarb 375 g/L	Feb	with above			0.75 ML	28.60	21.45	21.45
Irrigate	Feb				0.50 ML	101.27	50.64	50.64
Irrigate	Mar				0.50 ML	101.27	50.64	50.64
Insecticide - dimethoate	Mar	0.03	55.78	1.67	0.8 L	10.49	8.39	10.07
Harvest [#]	Apr	contract		101.20	per ha incl fuel			101.20
Drying (if above 15% moisture)	Apr			\$11 /t				18.70
Research Levy	Apr			1.02%	of farm gate value			15.26

AGRONOMIC NOTES:

Management: Yields of up to 3 t/ha can be achieved with a high standard of management.

Not recommended in the west, yields with current varieties will probably plateau around 1.5-1.9 t/ha.

Sowing: Sowing in late December-early January is advisable to avoid heat stress at flowering.

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

Irrigation: It is important to avoid waterlogging with navy beans.

Depending on the season, pre-irrigation may be required, at about 0.3 ML/ha

Fertiliser: The rate used for Single Super is for a moderate phosphorus deficiency. In very deficient situations up to 200 kg/ha could be used. Navy beans may need extra nitrogen fertiliser to achieve yield potential.

Insurance: ** Varies with local government area and postcode, check with your insurer.

[#] Harvest costs based on \$99.94/ha for crop up to 2.5 t/ha with estimated increment of \$1.00 per extra 100kg.

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

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

Marketing: Payment is usually on the basis of clean seed yield.

For further details contact: Bean Growers Australia: phone 07 4162 1100 fax: 07 41 624 706

Website <http://www.beangrowers.com.au/> or email info@beangrowers.com.au

LABOUR REQUIREMENTS: - labour is not costed in this budget. If labour costs \$21.00 /hr, total labour cost would be \$10.76, reducing the gross margin to \$473 /ha. This does not include labour required to irrigate.

MACHINERY ASSUMPTIONS: Tractor: 170 KW PTO (230 HP) and 200 KW engine (265 HP)

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

You may need to add overhead costs as well, please refer to the Tractor and Implement Costs Guide

IRRIGATION: Estimated water usage charge of \$31.75 per ML assumed, your costs may be different.

Water pumping costs: calculated using a spray system with diesel powered pumping from surface supply

Water requirements 3.00 ML is sufficient to adequately irrigate navy beans 4 out of 5 years.