DRYLAND JUNCEA CANOLA (no till)

Farm Enterprise Budget Series - North West NSW

1. GROSS MARGIN BUDGET:

	Sample Budget $/ha	Your Budget $/ha
INCOME:		
1.30 tonnes/ha@ $460.00 /tonne (on farm)	$598.00	

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

A. TOTAL INCOME $/ha:	**$598.00**	
VARIABLE COSTS:		
See next page for detail		
Sowing	$28.39	
Fertiliser	$110.80	
Herbicide	$48.78	
Insecticide	$51.10	
Contract harvesting	$80.00	
Levies	$6.10	
Insurance	$21.47	
B. TOTAL VARIABLE COSTS $/ha:	**$346.63**	
C. GROSS MARGIN (A-B) $/ha:	**$251.37**	

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

Water use efficiency example	
Growing season rainfall (ie in-crop): mm	189
Stored fallow moisture: mm (25% of rainfall in fallow period assumed)	69
Early crop water use: mm	110
Total crop water use mm	148
Gross margin per mm	**$1.69**
kg of grain per mm	10.79

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

YIELD	Port (eg Newcastle) Price				
tonnes/ha	$310 /tonne	$410 /tonne	**$460 /tonne**	$510 /tonne	$610 /tonne
0.50	- $171	- $124	- $100	- $76	- $28
0.75	- $97	- $26	$10	$46	$117
1.00	- $23	$72	$120	$167	$263
1.30	$65	$189	**$251**	$313	$437
1.70	$184	$346	$427	$508	$670
2.10	$302	$502	$602	$703	$903
2.50	$420	$659	$778	$897	$1,136

Gross margin is zero when income is reduced by 42%
or variable costs are increased by 73%

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Farm Enterprise Budget Series - North West NSW **Winter 2012**

CALENDAR OF OPERATIONS:		Machinery			Inputs			
			Cost	Total		Cost	Total	**Total Cost**
Operation	Month	hrs /ha	$/hour	$/ha	Rate/ha	$	$/ha	**$/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**
nitrogen fertiliser eg. urea	Feb	0.13	60.02	7.80	80 kg	0.70/kg	56.00	**63.80**
broadleaf and grass weed control eg: glyphosate 450 g/L	Apr	0.03	56.21	1.69	0.5 L	4.67/L	2.34	**4.02**
sowing	May	0.12	78.21	9.39	2.0 kg	9.50/kg	19.00	**28.39**
fert. (Granulock 15)	May	with above			50 kg	0.94/kg	47.00	**47.00**
grass weed control eg haloxyfop-R 520 g/	Jul	0.03	56.21	1.69	0.06 L	99.00/L	5.94	**7.63**
insect control eg pirimicarb	Aug	aerial spray		15.00	0.5 kg	53.02/kg	26.51	**41.51**
aerial spray (1 year in 4)	Oct	aerial spray		15.00				**3.75**
insect control eg. methomyl	Oct	with above			1.5 L	15.56/L	23.34	**5.84**
harvest (contract-windrowed)	Dec			80.00				**80.00**
crop levies	Dec			1.020%				**6.10**
crop insurance				3.590%	of on-farm value			**21.47**

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:

Please refer to the NSW DPI Primefact 786 "Brassica juncea in north-western NSW", at http://www.dpi.nsw.gov.au/agriculture/field/field-crops/oilseeds or consult your local district agronomist.

Moisture considerations: Growers should assess soil moisture profiles and fertility levels to assist with yield targets. At least 90cm to 1m of soil moisture is needed before sowing juncea canola. 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.

Paddock selection: Where possible, grow under zero-tillage management. Only plant juncea canola on the best country with high levels of soil moisture and fertility. Juncea can benefit a winter cereal rotation by reducing cereal root diseases. However, juncea canola can reduce beneficial arbuscular mycorrhizal fungi, which are required by summer crops.
Select a paddock relatively free of broadleaf weeds following cereal crops or pulses.

Fertilisers: Fertiliser programs are similar to wheat for nitrogen and phosphorus. Juncea canola does not need the same high sulphur levels as canola under the same conditions. Soil tests are recommended to determine fertiliser rates. Juncea canola is very N responsive, so the timing and rate needs careful attention in the vegetative stages. It may grow excess vegetation if additional N is applied in-crop and substantial rain follows.

Sowing time: Refer to NSW DPI Primefact 786 and the NSW DPI *Winter crop variety sowing guide 2012* for sowing guidelines. Juncea canola is best sown towards the end of the canola sowing window.

Insects: Check for beneficial biological control agents such as ladybird larvae, hover fly larvae and fungal diseases. Aphids need to be monitored from early flowering. When isolated colonies begin to spread control may be needed. Check for heliothis post flowering.

Weed control: PER 13353 (expiry 31/03/17, http://permits.apvma.gov.au/PER13353.PDF) permits most crop protection products registered in canola to be used on Brassica juncea. Users must obtain and read the permit before using any crop protection product on juncea canola. There are some exclusions which should be checked.
To reduce the risk of herbicide resistance, rotate herbicide groups and weed management techniques.

- 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 0.4hrs/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 $10.50/ha, reducing the gross margin to $240.87/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.