NSW GOVERNMENT | Industry & Investment

Flood Irrigated Conventional OP Canola

Central Zone

Winter 2010

1. GROSS MARGIN BUDGET:

	Standard Budget $/ha	Your Budget $/ha
INCOME:		
2.50 tonnes/ha @ $400.00 /tonne (on farm)	$1,000.00	
A. TOTAL INCOME $/ha:	**$1,000.00**	
VARIABLE COSTS:		
See opposite page for detail		
Cultivation	$35.69	
Sowing	$37.82	
Fertiliser	$217.55	
Herbicide	$56.98	
Insecticide	$27.80	
Irrigation	$59.23	
Contract windrowing and harvesting	$135.00	
Levies	$13.90	
Crop Insurance	$35.88	
Cartage, grading & bagging	$0.00	
B. TOTAL VARIABLE COSTS $/ha:	**$619.84**	
C. GROSS MARGIN (A-B) $/ha:	**$380.16**	
D. GROSS MARGIN FOR ALTERNTIVE DRYLAND CROP (SF CANOLA)	**$213.13**	
E. EXTRA GROSS MARGIN DUE TO IRRIGATION (C-D)	**$167.03**	
F. GROSS MARGIN /ML (E÷ML WATER APPLIED)*	**$55.68**	

*** See agronomic notes on irrigation**

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

YIELD tonnes/ha	ON FARM PRICE ($/tonne) $360 /t	$380 /t	**$400 /t**	$420 /t	$440 /t
1.60	- $13	$18	$48	$79	$109
1.90	$90	$126	$162	$198	$235
2.20	$188	$230	$272	$314	$356
2.50	$285	$332	**$380**	$428	$476
2.80	$381	$435	$488	$542	$595
3.10	$478	$537	$596	$655	$715
3.40	$575	$639	$704	$769	$834

Gross Margin ($/ha)

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

YIELD tonnes/ha	ON FARM PRICE ($/tonne) $360 /t	$380 /t	**$400 /t**	$420 /t	$440 /t
1.60	- $75	- $65	- $55	- $45	- $35
1.90	- $41	- $29	- $17	- $5	$7
2.20	- $8	$6	$20	$34	$48
2.50	$24	$40	**$56**	$72	$87
2.80	$56	$74	$92	$109	$127
3.10	$88	$108	$128	$147	$167
3.40	$120	$142	$164	$185	$207

Gross Margin ($/ML)

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CALENDAR OF OPERATIONS:

		Machinery			Inputs			Total
			Cost	Total		Cost	Total	Cost
Operation	**Month**	hrs /ha	$/hour	$/ha	rate/ha	$	$/ha	**$/ha**
Off-set disc	Jan	0.35	50.78	**$17.63**				**$17.63**
Chisel plough	Feb	0.22	44.83	**$10.01**				**$10.01**
Gypsum (Sulfur)	Mar	contract		**$7.50**	0.3 t	$85.00 /t	**$25.50**	**$33.00**
Light Cultivation	Mar	0.17	47.03	**$8.05**				**$8.05**
Pre- irrigation	Mar				1.50 ML	$19.74/ML	**$29.61**	**$29.61**
Pre-sowing weed control eg: Glyphosate 540 (Roundup PowerMax®)	Apr	0.05	43.36	**$2.34**	1.00 L	$7.62/L	**$7.62**	**$9.96**
Nitrogen fertiliser eg: Urea	May	0.17	47.03	**$8.05**	150 kg	$0.59/kg	**$88.50**	**$96.55**
Pre-emergent weed control eg: trifluralin 480 g/L	May	0.05	43.36	**$2.34**	1.60 L	$10.73/L	**$17.17**	**$19.50**
Sowing	May	0.17	64.36	**$10.82**	3.00 kg	$9.00/kg	**$27.00**	**$37.82**
Starter fertiliser eg: MAP	May	with above			100 kg	$0.88/kg	**$88.00**	**$88.00**
Insecticide eg: Omethoate (Le-mat®)	May	0.05	43.36	**$2.34**	0.10 L	$34.10/L	**$3.41**	**$5.75**
Broadleaf weed control eg: Clopyralid (Lontrel®)	Jun	0.05	43.36	**$2.34**	0.30 L	$42.50/L	**$12.75**	**$15.09**
Grass weed control eg:haloxyfop-R (Verdict®520)	Jun	with above	0.00	**$0.00**	0.10 L	$124.33/L	**$12.43**	**$12.43**
Irrigation	Aug				1.50 ML	$19.74/ML	**$29.61**	**$29.61**
Heliothis control eg: alpha-cypermethrin (Fastac Duo)	Sept	Aerial applic		**$18.15**	0.30 L	$13.00/L	**$3.90**	**$22.05**
Contract Windrow		contract		**$75.00**				**$75.00**
Contract-harvest		contract		**$60.00**				**$60.00**
Crop Levies					$1.50/tonne + 1.03% of on-farm value			**$13.90**
Crop Insurance					3.59%	of on-farm value		**$35.88**

* Irrigation water price is an average price. You should use the variable cost of irrigation water applicable to your situation.

*** Input and crop prices are correct at the time of writing (March 2010). Market uncertainty makes estimation of future pricing impractical.

NOTES:

Soil type:	- Suitable for all good fertility wheat soils. Avoid acid soils containing high exchangeable aluminium.
	- Seedbed should be fine and firm. Trifluralin can be incorporated by sowing.
Fertiliser:	- Adequate phosphorus is essential for canola.
	- Canola requires more nitrogen than wheat and also has high sulfur requirement. This can be applied as either two separate products (eg gypsum pre-sowing, urea at sowing or top dressed in-crop), or as a combined product at sowing or in-crop (eg, sulfate of ammonia).
	- For maximum yield response both nitrogen and sulfur should be applied prior to early budding.
Sowing time:	- Sow canola as early as possible to maximise yield potential, either after pre-irrigation or after the first autumn rains from mid-April.
	- There is a 10% yield loss for every weeks delay in sowing after early May.
	- Seed price used above is for purchased seed (open pollinated variety). Do not use retained canola seed.
Weed control:	- Trifluralin for grass weed and wireweed/fumitory control.
	- Can use wide range of herbicides for grass control.
	- Clopyralid for capeweed and saffron thistle control.
	- Rotate herbicide groups and use other non-chemical methods to avoid herbicide resistance developing.
Insect control:	- Earthmite contol is essential at establishment.
	- Check for insect pests at flowering time.
	- Aphids need to be monitored from early budding, when colonies begin to spread control may be needed.
	- Monitor for heliothis from flowering onwards.
Windrowing:	- Windrowing is strongly recommended to reduce shattering losses and allow earlier harvest.
Irrigation:	- Pre-irrigation is optional, dependent on stored moisture levels following summer rainfall.
	- This budget is applicable for the Central Zone east, a higher water requirement may be required for the central zone/west.
	- In-crop irrigation: timing and amount dependent on in-crop winter rainfall; generally one spring irrigation (1.5 ML/ha) is sufficient but must be timed to ensure that there is adequate moisture over the critical flowering period.
	- Some of the yield response for irrigated crops is due to stored soil moisture and growing season rainfall which can be sufficient to grow a dryland crop. Thus the gross margin per ML is obtained by (GM/Ha irrigated crop – GM/Ha dryland crop)÷ML of irrigation water applied.
Machinery:	- A tractor with 149 kW (200 HP) pot power and 177kW (240 HP) engine power is assumed.
	- Machinery costs refer only to variable costs: fuel, oil, filters, tyres, batteries & repairs.
	- Contract-harvesting does not include the cost of fuel.
	- The labour required for machinery operations is 1.75 hr/ha
Labour:	- Using a labour cost of $21/hr, an additional $36.82 can be deducted from the budget
	- These gross margins are only a guide. They do not include overhead costs.
Important notes:	- Use of a particular brand name does NOT imply a recommendation of that brand by Industry & Investment NSW.