NSW DEPARTMENT OF PRIMARY INDUSTRIES

Flood Irrigated Conventional Canola

Central Zone

Winter 2009

1. GROSS MARGIN BUDGET:

	Standard Budget $/Ha	Your Budget $/Ha
INCOME:		
2.50 tonnes/ha @ $480.00 /tonne (on farm)	$1,200.00	
A. TOTAL INCOME $/ha:	**$1,200.00**	
VARIABLE COSTS:		
See opposite page for detail		
Cultivation	$35.69	
Sowing	$37.82	
Fertiliser	$273.55	
Herbicide	$53.64	
Insecticide	$24.67	
Irrigation	$59.23	
Contract windrowing and harvesting	$135.00	
Levies	$15.93	
Crop Insurance	$43.05	
Cartage, grading & bagging	$0.00	
B. TOTAL VARIABLE COSTS $/ha:	**$678.57**	
C. GROSS MARGIN (A-B) $/ha:	**$521.43**	
D. GROSS MAGIN FOR ALTERNTIVE DRYLAND CROP (SF CANOLA)	**$305.68**	
E. EXTRA GROSS MARGIN DUE TO IRRIGATION (C-D)	**$215.75**	
F. GROSS MARGIN /ML (E÷ML WATER APPLIED)	**$71.92**	

* **See agronomic notes on irrigation**

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

YIELD tonnes/ha	ON FARM PRICE ($/tonne) $440 /t	$460 /t	**$480 /t**	$500 /t	$520 /t
1.60	$60	$90	$121	$151	$182
1.90	$185	$221	$258	$294	$330
2.20	$307	$349	$391	$432	$474
2.50	$426	$474	**$521**	$569	$617
2.80	$546	$599	$652	$706	$759
3.10	$665	$724	$783	$842	$902
3.40	$784	$849	$914	$979	$1,044

Gross Margin ($/ha) ← $617

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

YIELD tonnes/ha	ON FARM PRICE ($/tonne) $440 /t	$460 /t	**$480 /t**	$500 /t	$520 /t
1.60	- $82	- $72	- $62	- $51	- $41
1.90	- $40	- $28	- $16	- $4	$8
2.20	$0	$14	$28	$42	$56
2.50	$40	$56	**$72**	$88	$104
2.80	$80	$98	$116	$133	$151
3.10	$120	$139	$159	$179	$199
3.40	$160	$181	$203	$224	$246

Gross Margin ($/ML) ← $104

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CALENDAR OF OPERATIONS:

Operation	Month	Machinery hrs /ha	Machinery Cost $/hour	Machinery Total $/ha	Inputs Rate/ha	Inputs Cost $	Inputs Total $/ha	Total Cost $/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	$110.00 /t	**$33.00**	**$40.50**
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	$10.67/L	**$10.67**	**$13.00**
Nitrogen fertiliser eg: Urea	May	0.17	47.03	**$8.05**	150 kg	$0.85/kg	**$127.50**	**$135.55**
Pre-emergent weed control eg: trifluralin 480 g/L	May	0.05	43.36	**$2.34**	1.60 L	$8.05/L	**$12.88**	**$15.21**
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	$0.98/kg	**$97.50**	**$97.50**
Insecticide eg: Omethoate (Lemat®)	May	with above			0.10 L	$33.67/L	**$3.37**	**$3.37**
Broadleaf weed control eg: Clopyralid (Lontrel®)	Jun	0.05	43.36	**$2.34**	0.30 L	$44.67/L	**$13.40**	**$15.74**
Grass weed control eg:haloxyfop-R (Verdict®520)	Jun	with above	0.00	**$0.00**	0.10 L	$96.88/L	**$9.69**	**$9.69**
Irrigation	Aug				1.50 ML	$19.74/ML	**$29.61**	**$29.61**
Heliothis control eg: alpha-cypermethrin (Fastac Duo)	Sept			**$18.15**	0.30 L	$10.50/L	**$3.15**	**$21.30**
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		**$15.93**
Crop Insurance					3.59%	of on-farm value		**$43.05**

* 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 2009). 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 hrs/ha

Labour:
- Using a labour cost of $14/hr, an additional $24.55 can be deducted from the budget
- These gross margins are only a guide. They do not include overhead costs.

Important notes:
- Use your own figures and price assumptions to estimate your own gross margin.
Use of a particular brand name does NOT imply a recommendation of that brand by NSW Department of Primary Industries.