



Flood Irrigated Wheat Central Zone

Winter 2009

1. GROSS MARGIN BUDGET:

INCOME:

5.00 tonnes/ha @ \$244.00 /tonne (on farm) (AH)

A. TOTAL INCOME \$/ha:

VARIABLE COSTS:

See opposite page for detail

Cultivation.....	\$38.03
Sowing.....	\$93.44
Fertiliser.....	\$290.00
Herbicide.....	\$54.22
Insecticide.....	\$0.00
Irrigation.....	\$78.97
Contract-harvesting.....	\$78.00
Levies.....	\$12.44
Crop Insurance.....	\$25.01
Cartage, grading & bagging.....	\$0.00

B. TOTAL VARIABLE COSTS \$/ha:

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

D. GROSS MARGIN FOR ALTERNATIVE DRYLAND CROP (SF WHEAT)

E. EXTRA GROSS MARGIN DUE TO IRRIGATION (C-D)

F. GROSS MARGIN/ML (E÷ML WATER APPLIED)

* See agronomic notes on irrigation

Standard Budget \$/Ha	Your Budget \$/Ha
\$1,220.00	
\$1,220.00	
\$38.03	
\$93.44	
\$290.00	
\$54.22	
\$0.00	
\$78.97	
\$78.00	
\$12.44	
\$25.01	
\$0.00	
\$670.11	
\$549.89	
\$285.73	
\$264.16	
\$66.04	

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

YIELD tonnes/ha	ON FARM PRICE (\$/tonne)					Gross Margin (\$/ha)
	\$204 /t	\$224 /t	\$244 /t	\$264 /t	\$284 /t	
3.50	\$77	\$145	\$213	\$281	\$349	
4.00	\$170	\$248	\$325	\$403	\$480	
4.50	\$263	\$350	\$438	\$525	\$612	
5.00	\$356	\$453	\$550	\$647	\$744	
5.50	\$449	\$556	\$662	\$769	\$875	
6.00	\$542	\$658	\$774	\$891	\$1,007	
6.50	\$635	\$761	\$887	\$1,013	\$1,139	

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

YIELD tonnes/ha	ON FARM PRICE (\$/tonne)					Gross Margin (\$/ML)
	\$204 /t	\$224 /t	\$244 /t	\$264 /t	\$284 /t	
3.50	-\$52	-\$35	-\$18	-\$1	\$16	
4.00	-\$29	-\$9	\$10	\$29	\$49	
4.50	-\$6	\$16	\$38	\$60	\$82	
5.00	\$18	\$42	\$66	\$90	\$115	
5.50	\$41	\$67	\$94	\$121	\$147	
6.00	\$64	\$93	\$122	\$151	\$180	
6.50	\$87	\$119	\$150	\$182	\$213	

PRODUCT TRADE NAMES

The product trade names in this publication are supplied on the understanding that no preference between equivalent products is intended and that the inclusion of a product does not imply endorsement by NSW Department of Primary Industries over any other equivalent product from another manufacturer.

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CALENDAR OF OPERATIONS:

Operation	Month	Machinery			Inputs			Total Cost \$/ha
		hrs /ha	Cost \$/hour	Total \$/ha	Rate/ha	Cost \$	Total \$/ha	
Off-set	Jan	0.35	50.78	\$17.63				\$17.63
Chisel Plough	Feb	0.22	44.83	\$10.01				\$10.01
Land plane	Mar	0.05	43.36	\$2.34				\$2.34
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 (eg: 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	217 kg	\$0.85/kg	\$184.45	\$192.50
Sowing	May	0.17	64.36	\$10.82	90 kg	\$0.92/kg	\$82.62	\$93.44
Starter fertiliser eg: MAP	May	with above			100 kg	\$0.98/kg	\$97.50	\$97.50
Weed control eg: Chlorsulfuron (Glean)	May	0.05	43.36	\$2.34	15 g	\$0.12 /g	\$1.76	\$4.10
Grass weed control eg:Diclofop-methyl + Fenoxaprop (Tristar®)	Jun	0.05	43.36	\$2.34	1.50 L	\$23.19/L	\$34.78	\$37.12
Irrigation	Aug/Sept				1.25 ML	\$19.74/ML	\$24.68	\$24.68
Irrigation	Sept/Oct				1.25 ML	\$19.74/ML	\$24.68	\$24.68
Contract-harvest	Nov	contract		\$78.00				\$78.00
Crop Levies					1.02%	of on-farm value		\$12.44
Crop Insurance					2.05%	of on-farm value		\$25.01

* Irrigation water price is an average price. 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:

Sowing time:

- Sowing at the optimum time for the selected variety is critical for maximum yield, regardless of irrigation.
- There is a 4 to 7% yield loss for every weeks delay past the optimum sowing time.
- Seed price used above is for purchased seed; if using retained seed adjust budget accordingly.

Weed control:

- Weed control, if required, should be implemented either pre-emergent or within 6 to 8 weeks after sowing time to avoid yield loss.
- Glyphosate for fallow knockdown weed control.
- A wide range of herbicides can be used, including chlorsulfuron for early weed control and fenoxaprop for in-crop grass control.
- As an alternative, Triasulfuron can be used for wild oat/ryegrass control.

Fertiliser:

- Adequate phosphorus is essential before applying extra nitrogen fertiliser. Nitrogen is essential to maintain protein levels and can be applied either at sowing or top-dressed in-crop.
- Rotate herbicide groups and use other non-chemical methods to avoid herbicide resistance developing.

Irrigation:

- Pre-irrigation may be optional, dependent on stored moisture following summer rainfall
- In-crop irrigation: timing and amount dependent on in-crop winter rainfall: generally spring two irrigations (2.5 ML/ha) is sufficient.
- This budget is applicable for the Central Zone east, a higher water requirement is needed for the central zone/west than the figures used in this budget.
- 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 of irrigated crop – GM/Ha alternative dryland crop)=ML of irrigation water applied.

Machinery:

- A tractor with 149 kW (200 HP) pto power and 177 kW (240 HP) engine power is assumed.
- Machinery costs refer only to variable costs: fuel, oil, filters, tyres, batteries & repairs.

Labour:

- Contract-harvesting does not include the cost of fuel.
- The labour required for machinery operations is 1.95 hrs/ha
- Using a labour cost of \$14/hr, an additional \$27.35 can be deducted from the budget

Important notes:

- These gross margins are only a guide. They do not include overhead costs.
- **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.