Department of Primary Industries

SURFACE (furrow) IRRIGATED BREAD WHEAT (diesel pump from surface supply)

Northern Zone — Winter 2012

1. GROSS MARGIN BUDGET:

	Sample Budget $/ha	Your Budget $/ha
INCOME:		
6.00 tonnes/ha@ $275.00 /tonne (APH, on farm)	$1,650.00	

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

A. TOTAL INCOME $/ha:	**$1,650.00**	
VARIABLE COSTS:		
See next page for detail		
Cultivation	$9.08	
Sowing	$84.54	
Fertiliser	$305.33	
Herbicide	$85.57	
Insecticide	$0.00	
Fungicide	$25.95	
Irrigation	$151.37	
Contract harvesting	$108.94	
Levies	$16.83	
Insurance	$33.83	
B. TOTAL VARIABLE COSTS $/ha:	**$821.44**	
C. GROSS MARGIN (A-B) $/ha:	**$828.56**	
D. Gross margin of alternative dryland crop based on Dryland Wheat after chickpeas (no till)	**$435.74**	
E. Extra gross margin due to irrigation (C-D)	**$392.83**	
F. Gross margin/ML (E÷ML water applied in irrigation)	**$115.54**	

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

YIELD	Feed wheat	Price				
tonnes/ha	$140 /tonne	$175 /tonne	$225 /tonne	**$275 /tonne**	$325 /tonne	$375 /tonne
4.5	- $147	$11	$229	$447	$665	$883
5.0	- $85	$90	$332	$574	$817	$1,059
5.5	- $24	$168	$435	$701	$968	$1,234
6.0	$37	$247	$538	**$829**	$1,119	$1,410
6.5	$98	$326	$641	$956	$1,271	$1,586
7.0	$159	$404	$744	$1,083	$1,422	$1,761
7.5	$221	$483	$847	$1,210	$1,574	$1,937

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

YIELD	Feed wheat	Price				
tonnes/ha	$140 /tonne	$175 /tonne	$225 /tonne	**$275 /tonne**	$325 /tonne	$375 /tonne
4.5	- $171	- $125	- $61	$3	$67	$132
5.0	- $153	- $102	- $31	$41	$112	$183
5.5	- $135	- $79	- $0	$78	$157	$235
6.0	- $117	- $56	$30	**$116**	$201	$287
6.5	- $99	- $32	$60	$153	$246	$338
7.0	- $81	- $9	$91	$190	$290	$390
7.5	- $63	$14	$121	$228	$335	$442

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CALENDAR OF OPERATIONS:		Machinery			Inputs			
Operation	Month	hrs /ha	Cost $/hour	Total $/ha	Rate/ha	Cost $	Total $/ha	**Total Cost $/ha**
broadleaf and grass weed control eg: glyphosate 540 g/L	Dec	0.05	54.96	2.75	1.8 L	7.44/L	13.39	**16.14**
broadleaf weed control eg: triclopyr	Dec	with above			0.08 L	19.57/L	1.57	**1.57**
wetting agent	Dec	with above			0.25 L	7.47/L	1.87	**1.87**
broadleaf and grass weed control eg: paraquat + diquat	Jan	0.05	54.96	2.75	2.5 L	10.93/L	27.33	**30.07**
wetter - non-ionic surfactant	Jan	with above			0.25 L	6.77/L	1.69	**1.69**
broadleaf and grass weed control eg: glyphosate 540 g/L	Feb	0.05	54.96	2.75	1.6 L	7.44/L	11.90	**14.65**
wetting agent	Feb	with above			0.25 L	7.47/L	1.87	**1.87**
cultivate and fertilise	Mar	0.17	53.44	9.08				**9.08**
nitrogen fertiliser (anhydrous ammonia)	Mar	with above		100 kg/N	122 kg	0.90/kg	109.80	**109.80**
irrigate pre-sowing	Apr				1.2 ML	44.52/ML*	53.42	**53.42**
sowing	May	0.17	75.66	12.86	80 kg	0.90/kg	71.68	**84.54**
fertiliser (Starter Z)	May	with above			60 kg	0.94/kg	56.40	**56.40**
grass weed control (1 year in 4)	Jun	0.05	54.96	2.75				**0.69**
eg fenoxaprop-p-ethyl	Jun	with above			0.35 L	47.29/L	16.55	**4.14**
broadleaf weed control eg. MCPA 500g	Jun	0.05	54.96	2.75	1.5 L	6.76/L	10.14	**12.89**
fungicide-tebuconazole	Jun	with above			0.145 L	20.50/L	2.97	**2.97**
irrigate	Aug				1.2 ML	44.52/ML*	53.42	**53.42**
nitrogen fertiliser (urea)	Aug	with above irrigation			174 kg	0.80/kg	139.13	**139.13**
fungicide-tebuconazole	Sep	aerial		20.00	0.145 L	20.50/L	2.97	**22.97**
irrigate	Sep				1.0 ML	44.52/ML*	44.52	**44.52**
harvest (contract)	Nov	contract		108.94				**108.94**
levies	Nov			1.020%				**16.83**
crop insurance				2.050%	of on-farm value			**33.83**

Input prices were correct at the time of writing (Feb 2012). Current fertiliser and chemical market uncertainty makes estimation of future pricing impractical.

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AGRONOMIC REQUIREMENTS:

Sowing Time:	Sowing at the optimum time for the selected variety is critical for maximum yield. There is a 4% to 7% yield loss for every weeks delay past the optimum sowing time. Sowing time involves a tradeoff between frost risk with early sowing and heat stress with later sowing.
Diseases:	Crown rot can and does occur in irrigation fields. Please refer to the *Winter Crop Variety Sowing Guide 2012* for stripe rust ratings for wheat varieties. Any varieties rated less than MR-MS are not recommended to be sown. However the individual varietys' package needs to be evaluated. If varieties rated MR are sown two in-crop fungicides should be budgeted for and timing and product rate decisions made depending on seasonal conditions.
Weed Control:	Weed control, if required, should be timely to be cost effective. To reduce the risk of herbicide resistance, rotate herbicide groups and weed management techniques.
Fertiliser:	Adequate phosphorus is essential before applying extra nitrogenous fertiliser. Nutrient requirements should be assessed on an individual paddock basis. Moderate existing N amount assumed
Herbicides:	MCPA® 500 used for early post-emergence broadleaf weed control Fenoxaprop-p-ethyl has been included for wild oats, control by rotation is better
Harvesting:	Yields over 2.5 t/ha assumed to cost an extra $1.22 per extra 100 kg of grain.
Consultant:	

- 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.

MACHINERY ASSUMPTIONS:

Tractor:	- pto power: 130 kW (175HP); engine power: 146 kW (196 HP) - machinery costs refer only to variable costs (running costs), not overhead costs.
Water pumping costs:	* calculated using diesel powered pumping from surface supply.

Irrigation costs were calculated using 2011-12 Namoi Valley regulated river water charges and pumping costs for 10 metres total head ($13.02/ML). Your costs are likely to be be different and should be allowed for.

Water requirements 3.40 Ml/ha