



SPRAY IRRIGATED DURUM WHEAT (diesel pump from bore)

Northern Zone

Winter 2009

1. GROSS MARGIN BUDGET:

INCOME:

6.50 tonnes/ha@ \$321.00 /tonne (DR1 on farm)

Sample Budget \$/ha	Your Budget \$/ha
\$2,086.50	

Crop prices were correct at the time of writing (Mar 17 2009), world market volatility makes estimation of future pricing impractical.

A. TOTAL INCOME \$/ha: **\$2,086.50**

VARIABLE COSTS: See next page for detail

Sowing.....	\$100.08
Fertiliser.....	\$465.48
Herbicide.....	\$102.12
Insecticide.....	\$11.86
Fungicide.....	\$0.00
Irrigation.....	\$211.38
Contract harvesting.....	\$129.52
Consultant.....	\$14.83
Levies.....	\$21.28
Insurance.....	\$42.77

B. TOTAL VARIABLE COSTS \$/ha: **\$1,099.31**

C. GROSS MARGIN (A-B) \$/ha: **\$987.19**

D. Gross margin of alternative dryland crop based on Dryland Durum Wheat (no till) **\$372.46**

E. Extra gross margin due to irrigation (C-D) **\$614.73**

F. Gross margin/ML (E÷ML water applied in irrigation) **\$245.89**

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

YIELD tonnes/ha	Feed grade \$176 /tonne	DR3	DR2	DR1	\$371 /tonne	\$421 /tonne
		\$265.00	\$284.00	\$321 /tonne		
5.0	-\$153	\$278	\$370	\$549	\$792	\$1,034
5.5	-\$78	\$397	\$498	\$695	\$962	\$1,228
6.0	-\$2	\$516	\$626	\$841	\$1,132	\$1,423
6.5	\$74	\$634	\$754	\$987	\$1,302	\$1,617
7.0	\$149	\$753	\$882	\$1,133	\$1,472	\$1,812
7.5	\$225	\$872	\$1,010	\$1,279	\$1,643	\$2,006
8.0	\$301	\$991	\$1,138	\$1,425	\$1,813	\$2,201

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

YIELD tonnes/ha	Feed grade \$176 /tonne	DR3	DR2	DR1	\$371 /tonne	\$421 /tonne
		\$265.00	\$284.00	\$321 /tonne		
5.0	-\$210	-\$38	-\$1	\$71	\$168	\$265
5.5	-\$180	\$10	\$50	\$129	\$236	\$342
6.0	-\$150	\$57	\$101	\$188	\$304	\$420
6.5	-\$120	\$105	\$153	\$246	\$372	\$498
7.0	-\$89	\$152	\$204	\$304	\$440	\$576
7.5	-\$59	\$200	\$255	\$363	\$508	\$653
8.0	-\$29	\$247	\$306	\$421	\$576	\$731

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CALENDAR OF OPERATIONS:		Machinery			Inputs			Total Cost \$/ha
Operation	Month	hrs /ha	Cost \$/hour	Total \$/ha	Rate/ha	Cost \$	Total \$/ha	
broadleaf and grass weed control eg: glyphosate 540 g/L	Dec	0.05	45.64	2.28	2.0 L	9.60/L	19.20	21.48
broadleaf weed control eg: triclopyr 600g/	Dec	with above			0.08 L	43.63/L	3.49	3.49
wetting agent	Dec	with above			0.25 L	8.84/L	2.21	2.21
broadleaf and grass weed control eg: paraquat + diquat	Jan	0.05	45.64	2.28	2.5 L	12.25/L	30.63	32.91
broadleaf and grass weed control eg: glyphosate 540 g/L	Feb	0.05	45.64	2.28	1.8 L	9.60/L	17.28	19.56
wetting agent	Feb	with above			0.25 L	8.84/L	2.21	2.21
nitrogen fertiliser (anhydrous ammonia)	Mar	with above		100 kg/N	122 Kg	1.09/kg	132.98	233.02
irrigate pre-sowing	Apr				0.5 ML	84.55/ML*	42.28	42.28
sowing #	Jun	0.17	66.34	11.28	80 Kg	1.11/kg	88.80	100.08
fertiliser (Starter Z)	Jun	with above			100 Kg	1.17/kg	117.00	117.00
wild oat control (1 year in 4)	Jun	0.05	45.64	2.28				0.57
wild oat control eg fenoxaprop-p-ethyl	Jun	with above			0.35 L	82.67/L	28.93	7.23
broadleaf weed control eg. MCPA 500	Jun	0.05	45.64	2.28	1.5 L	6.78/L	10.17	12.45
blue oat mite control-methidathion	Jul	0.05	45.64	2.28	0.09 L	44.50/L	4.01	6.29
nitrogen fertiliser (urea)	Aug	aerial		28.50	174 Kg	0.50/kg	86.96	115.46
irrigate	Aug				0.5 ML	84.55/ML*	42.28	42.28
irrigate	Sep				0.5 ML	84.55/ML*	42.28	42.28
irrigate	Oct				0.5 ML	84.55/ML*	42.28	42.28
irrigate	Oct				0.5 ML	84.55/ML*	42.28	42.28
heliolithis/armyworm control- alpha-cypermethrin; 1 in 3 years	Oct	aerial		14.50	0.24 L	9.25/L	2.22	5.57
harvest (contract)	Nov			129.52				129.52
consultant		approx \$6.00/acre						14.83
levies	Nov			1.020%				21.28
crop insurance				2.050%	of on-farm value			42.77

Input prices were correct at the time of writing (Mar 17 2009). Current fertiliser and chemical market uncertainty makes estimation of future pricing impractical.

AGRONOMIC REQUIREMENTS:

Sowing Time: Best yields obtained when sown between late May and mid June
Seed purchase costs vary widely with variety and whether growers have kept their own seed from previous seasons.

Diseases: Crown rot can and does occur in irrigation fields.
Please refer to the Winter Crops Variety Sowing Guide 2009 for stripe rust ratings for wheat varieties. Any varieties rated less than 5 are not recommended to be sown. However the individual varieties' package needs to be evaluated. If varieties rated <5 are sown two in-crop fungicides should be budgeted for and timing and product rate decisions made depending on seasonal conditions.

Weed Control: All volunteer bread wheat and barley plants should be eliminated.

Fertiliser: Adequate phosphorus is essential before applying extra nitrogenous fertiliser. Nutrient requirements should be assessed on an individual paddock basis. Moderate existing soil N amount assumed

Harvesting: Care needs to be taken when threshing, since the hard grain has a greater tendency to fracture than bread wheats. Yields over 2.5 t/ha are assumed to cost a further \$1.70 per extra 100kg.

Herbicides: Durums have a low safety margin to some chemicals: e.g. chlorsulfuron, tri-allate
A low safety margin means that an application rate above that recommended is likely to cause crop damage. Refer to "Weed Control in Winter Crops 2009" by NSW DPI for tolerance of wheat varieties to post-emergent herbicides.
To reduce the likelihood of herbicide resistance, rotate herbicide groups and weed management techniques. MCPA® 500 used for early post-emergent broadleaf weeds
Fenoxaprop-ethyl has been included for wild oats, control by rotation is better
- 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.
* calculated using diesel powered pumping from bore.

Water pumping costs:

Irrigation costs were calculated using 2009 Namoi Valley groundwater charges and pumping costs for a 90m deep bore with 85 metres total head (\$110.66/ML). Your costs are likely to be different and should be allowed for.

Water requirements

2.50 ML/ha Assumes soil profile starts with 50mm stored soil moisture and that 100mm rainfall is received in-crop.