NSW DEPARTMENT OF **PRIMARY INDUSTRIES**

DRYLAND WHEAT (Short Fallow, No Till)

Farm Enterprise Budget Series - North East NSW **Winter 2009**

1. GROSS MARGIN BUDGET: **Previous Crop**

* Additional wheat yield attributed to disease/weed break/remaining moisture

After	**INCOME:**			WHEAT Budget $/ha	CHICKPEAS Budget $/ha	CANOLA Budget $/ha	Your Budget $/ha
Wheat	2.50 tonnes/ha@	$271.00 /tonne	(PH, on farm)	$677.50			
Chickpeas*	3.00 tonnes/ha@	$271.00 /tonne	(PH, on farm)		$813.00		
Canola*	3.00 tonnes/ha@	$271.00 /tonne	(PH, on farm)			$813.00	

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:	**$677.50**	**$813.00**	**$813.00**	

VARIABLE COSTS: See following page for detail

Sowing	$56.97	$56.97	$56.97	
Fertiliser	$264.10	$210.93	$264.10	
Herbicide	$61.78	$61.78	$61.78	
Insecticide	$27.04	$27.04	$27.04	
Fungicide	$21.11	$21.11	$21.11	
Contract harvesting	$52.72	$62.32	$62.32	
Levies	$6.91	$8.29	$8.29	
Insurance	$13.89	$16.67	$16.67	
B. TOTAL VARIABLE COSTS $/ha:	**$504.52**	**$465.11**	**$518.28**	
C. GROSS MARGIN (A-B) $/ha:	**$172.98**	**$347.89**	**$294.72**	

Water use efficiency example (based on 100 year averages)

Growing season rainfall (ie in-crop): mm	317	317	317	
Stored fallow moisture: mm (25% of rainfall in fallow period assumed)	75	75	75	
Early crop water use: mm	110	110	110	
Total crop water use mm	282	282	282	
Gross margin per mm	**$0.61**	**$1.23**	**$1.05**	
kg of grain per mm	8.9	10.6	10.6	

Please refer to the "Water Use Efficiency in Northern NSW Winter Crop Enterprise Budgets" summary for more information on water use efficiency assumptions used at right.

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 each weeks delay past the optimum sowing time. Optimum sowing time needs to be balanced with risk of frost. There is a risk of frost damage if wheat is sown too early. Refer to NSW DPI "Winter Crop Variety Sowing Guide 2009" for sowing guidelines. Growers should assess soil moisture profiles and fertility levels to assist with yield estimates. Stored fallow moisture varies according to rainfall timing and intensity.

Weed Control: Weed control, if required, should be timely to be cost effective.

Herbicides: Check with your agronomist before applying herbicides in unsuitable conditions, particularly where there are sensitive crops in the area.

Metsulfuron methyl is one option for post emergent broadleaf weeds, this product may limit rotation options due to plantback periods, consult the label for details.

Fenoxaprop-p-ethyl has been included for wild oat control, but control by crop rotation is preferable.

To reduce the likelihood of herbicide resistance, rotate herbicide groups and weed management techniques.

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.

Based on the above yields, we have assumed 100 kg stored soil nitrogen/ha after chickpeas, 120-140kg nitrogen//ha after wheat or canola present in the soil profile for this budget. Your paddock nutrient requirements should be assessed with soil tests, strip trials and paddock records.

Disease: Crop rotation is necessary to minimise loss of yield due to disease. Effective grass weed control is also essential to control diseases such as crown rot. Variety selection also plays a role in minimising the impact of disease on yield and quality. **ψ** An optional stripe rust control is used, but other control and preventative measures are available also. Check the NSW DPI Disease Management Guide "Stripe Rust: Understanding the disease in wheat" for more information.

Fertiliser: Adequate phosphorus is essential before applying extra nitrogenous fertiliser.

Harvest: Yields over 2.5 t/ha are assumed to cost a further $1.48 per extra 100kg of grain harvested.

MACHINERY ASSUMPTIONS:

Tractor: pto power: 130 kW (175HP); engine power: 146 kW (196 HP)

Contract harvesting costs include $4.72/ha worth of fuel.

Machinery costs refer only to variable costs (running costs), not overhead costs.

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

After wheat

YIELD	Price				
tonnes/ha	$171 /tonne	$221 /tonne	**$271 /tonne**	$321 /tonne	$371 /tonne
1.0	- $297	- $248	- $200	- $152	- $103
1.5	- $214	- $141	- $69	$4	$77
2.0	- $131	- $34	$63	$160	$257
2.5	- $48	$73	**$194**	$315	$436
3.5	$98	$268	$437	$607	$777
4.5	$245	$463	$681	$899	$1,117
5.5	$391	$658	$924	$1,191	$1,458

After chickpeas

YIELD	Price				
tonnes/ha	$171 /tonne	$221 /tonne	**$271 /tonne**	$321 /tonne	$371 /tonne
1.0	- $244	- $195	- $147	- $98	- $50
1.7	- $133	- $52	$28	$109	$190
2.3	- $23	$90	$203	$317	$430
3.0	$78	$224	**$369**	$514	$660
4.0	$225	$419	$612	$806	$1,000
5.0	$371	$614	$856	$1,098	$1,341
6.0	$518	$809	$1,099	$1,390	$1,681

After canola

YIELD	Price				
tonnes/ha	$171 /tonne	$221 /tonne	**$271 /tonne**	$321 /tonne	$371 /tonne
1.0	- $297	- $248	- $200	- $152	- $103
1.7	- $186	- $106	- $25	$56	$137
2.3	- $76	$37	$150	$263	$376
3.0	$25	$170	**$316**	$461	$607
4.0	$172	$365	$559	$753	$947
5.0	$318	$560	$803	$1,045	$1,287
6.0	$465	$755	$1,046	$1,337	$1,628

CALENDAR OF OPERATIONS		Machinery			Inputs			Total
			Cost	Total		Cost	Total	Cost
Operation	Month	hrs /ha	$/hour	$/ha	Rate/ha	$	$/ha	**$/ha**
broadleaf and grass weed control eg: glyphosate 450 g/L	Dec	0.05	45.64	2.28	1.2 L	7.43/L	8.92	**11.20**
broadleaf weed control eg: 2,4-D amine 300 g/L	Dec	with above			1.8 L	4.23/L	7.61	**7.61**
wetting agent	Dec	with above			0.25 L	8.84/L	2.21	**2.21**
broadleaf and grass weed control eg: glyphosate 450 g/L	Jan	0.05	45.64	2.28	1.8 L	7.43/L	13.37	**15.66**
wetting agent	Jan	with above			0.25 L	8.84/L	2.21	**2.21**
nitrogen fertiliser after cereal or canola eg. anhydrous ammonia	Mar	0.17	45.91	7.80	171 kg	1.09/kg	186.10	**193.90**
nitrogen fertiliser after chickpeas eg. anhydrous ammonia	Mar	0.17	45.91	7.80	122 kg	1.09/kg	132.93	**140.73**
broadleaf and grass weed control eg: glyphosate 450 g/L	May	0.05	45.64	2.28	1.0 L	7.43/L	7.43	**9.71**
wetting agent	May	with above			0.25 L	8.84/L	2.21	**2.21**
sowing	May	0.17	66.34	11.28	50 kg	0.92/kg	45.90	**57.18**
Fertiliser (Starter 12Z)	May	with above			60 kg	1.17/kg	70.20	**70.20**
blue oat mite control (1 year in 4)	May	0.05	45.64	2.28	90 ml	#REF!	#REF!	**#REF!**
broadleaf weed control eg metsulfuron-methyl	Jun	0.05	45.64	2.28	5 g	0.20/g	1.00	**3.28**
wild oat control (1 year in 4)	Jun	0.04	45.64	1.83				**0.46**
eg fenoxaprop-p-ethyl	Jun	with above			0.35 L	82.67/L	28.93	**7.23**
fungicide for stripe rust ψ eg. Propiconazole	Aug	aerial spray		14.50	0.25 L	26.42/L	6.61	**21.11**
contract harvest- after cereal	Nov	contract		52.72				**52.72**
canola	Nov	contract		62.32				**62.32**
levies - after cereal	Nov			1.020%	of on-farm value			**6.91**
levies - after chickpeas or canola	Nov			1.020%	of on-farm value			**8.29**
crop insurance - after cereal				2.050%	of on-farm value			**13.89**
crop insurance - after chickpeas or canola				2.050%	of on-farm value			**16.67**

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