



## DRYLAND WHEAT (No Till, Short Fallow)

Farm Enterprise Budget Series - North West NSW

Winter 2012

### 1. GROSS MARGIN BUDGET:

After previous crop: **INCOME:**

Wheat	1.70 tonnes/ha@	\$275.00 /tonne (PH on farm)
Chickpeas	2.00 tonnes/ha@	\$275.00 /tonne (PH on farm)
Canola	2.00 tonnes/ha@	\$275.00 /tonne (PH on farm)

#### A. TOTAL INCOME \$/ha:

Previous Crop

WHEAT Budget \$/ha	CHICKPEAS Budget \$/ha	CANOLA Budget \$/ha	Your Budget \$/ha
\$467.50			
	\$550.00		
		\$550.00	
<b>\$467.50</b>	<b>\$550.00</b>	<b>\$550.00</b>	

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

### VARIABLE COSTS:

See next page for detail

Sowing.....	\$38.97	\$38.97	\$38.97	
Fertiliser.....	\$60.87	\$45.65	\$60.87	
Herbicide.....	\$58.41	\$56.99	\$58.41	
Fungicides.....	\$2.97	\$2.97	\$2.97	
Contract harvesting.....	\$61.24	\$61.24	\$61.24	
Levies.....	\$4.77	\$5.61	\$5.61	
Insurance.....	\$4.82	\$5.67	\$5.67	

#### B. TOTAL VARIABLE COSTS \$/ha:

<b>\$232.05</b>	<b>\$217.10</b>	<b>\$233.74</b>	
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#### C. GROSS MARGIN (A-B) \$/ha:

<b>\$235.45</b>	<b>\$332.90</b>	<b>\$316.26</b>	
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#### Water use efficiency example

Growing season rainfall (ie in-crop): mm	189	189	189	
Stored fallow moisture: mm (25% of rainfall in fallow period)	69	69	69	
Early crop water use: mm	110	110	110	
Total crop water use mm	148	148	148	
Gross margin per mm	<b>\$1.59</b>	<b>\$2.24</b>	<b>\$2.13</b>	
kg of grain per mm	11.5	13.5	13.5	

Please refer to the NSW DPI webpage  
["About gross margin budgets"](#)  
for more information on water use efficiency  
assumptions used at right.

### AGRONOMIC REQUIREMENTS:

Growers should assess soil moisture profiles and fertility levels to assist with yield targets. Stored soil moisture at sowing reduces the risk of crop failure due to variable in-crop rainfall. To reduce this risk, crops should be sown with the maximum amount of stored soil moisture. Soils in the North West can store approximately 150-200 mm in the rooting zone, which can be roughly measured at sowing using a push probe.

**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. See the NSW DPI *Winter crop variety sowing guide 2012*. Sowing time is a tradeoff between frost risk with early sowing and moisture/heat stress with later sowing.

**Fertiliser:** Nitrogen fertiliser should be assessed on an individual paddock basis considering the yield and protein levels of the previous crop and/or soil test. Other nutrient requirements (e.g. P and Zn) should be assessed with soil tests and previous strip trial results. An assumption of 40 kg/ha of N after wheat or canola and 30 kg/ha of N after chickpeas has been made for this budget.

**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. Stripe rust - If a seed dressing has not been applied, continuous monitoring of moderately susceptible/susceptible varieties will determine whether you consider foliar fungicide application to control stripe rust infection.

**Weed Control:** Weed control, if required, should be timely to be cost effective. Refer to the NSW DPI booklet *Weed control in winter crops 2012* for options, such as replacing a glyphosate spray with a paraquat/diquat.

**Herbicides:** Fenoxaprop-p-ethyl used for wild oat control 1 year in 4.

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

\*Check with your agronomist before applying herbicides in unsuitable conditions where there are sensitive crops in the area.

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.

According to the above operations, labour required is 0.22hrs/ha. Multiplying this by 1.25 to allow for machinery repair time etc, and using a labour cost of \$21.00/hr, the cost of labour is \$5.78/ha, reducing the gross margin to \$229.68/ha.

### MACHINERY ASSUMPTIONS:

Tractor: 170 KW PTO (230 HP) and 200 KW engine (265 HP)  
machinery costs refer only to variable costs (running costs), not overhead costs.

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

	YIELD tonnes/ha	On Farm Price				
		\$175 /tonne	\$225 /tonne	\$275 /tonne	\$325 /tonne	\$375 /tonne
After wheat	0.6	- \$120	- \$90	- \$61	- \$31	- \$2
	1.0	- \$57	- \$9	\$38	\$85	\$133
	1.3	\$6	\$71	\$137	\$202	\$267
	<b>1.7</b>	\$69	\$152	<b>\$235</b>	\$319	\$402
	2.3	\$172	\$284	\$397	\$510	\$622
	2.9	\$271	\$413	\$555	\$697	\$839
	3.5	\$367	\$539	\$710	\$882	\$1,053
	After chickpeas	0.7	- \$86	- \$52	- \$17	\$17
1.1		- \$12	\$44	\$99	\$155	\$210
1.6		\$63	\$139	\$216	\$293	\$370
<b>2.0</b>		\$137	\$235	<b>\$333</b>	\$431	\$529
2.7		\$250	\$380	\$511	\$641	\$772
3.3		\$357	\$520	\$684	\$847	\$1,010
4.0		\$465	\$661	\$857	\$1,053	\$1,248
After canola		0.7	- \$102	- \$68	- \$34	\$0
	1.1	- \$28	\$27	\$83	\$138	\$194
	1.6	\$46	\$123	\$200	\$276	\$353
	<b>2.0</b>	\$120	\$218	<b>\$316</b>	\$414	\$512
	2.7	\$233	\$364	\$494	\$625	\$755
	3.3	\$341	\$504	\$667	\$830	\$994
	4.0	\$448	\$644	\$840	\$1,036	\$1,232

This budget should be used as a GUIDE ONLY and should be changed by the grower to take account of movements in crop and input prices, changes in seasonal conditions and individual farm characteristics.

CALENDAR OF OPERATIONS:		Machinery			Inputs			Total
		Month	hrs /ha	Cost \$/hour	Total \$/ha	Rate/ha	Cost \$	Total \$/ha
harvest previous crop	Nov							
broadleaf and grass weed control eg: glyphosate 450 g/L	Dec	0.03	56.21	1.69	1.2 L	4.67/L	5.60	<b>7.29</b>
broadleaf weed control eg 2,4-D amine 475 g/L	Dec	with above			1.2 L	5.82/L	6.98	<b>6.98</b>
wetter - non-ionic surfactant	Dec	with above			0.25 L	6.77/L	1.69	<b>1.69</b>
broadleaf and grass weed control eg: glyphosate 450 g/L	Jan	0.03	56.21	1.69	1.0 L	4.67/L	4.67	<b>6.36</b>
broadleaf weed control eg triclopyr 600g	Jan	with above			0.12 L	19.57/L	2.35	<b>2.35</b>
wetter - non-ionic surfactant	Jan	with above			0.25 L	6.77/L	1.69	<b>1.69</b>
broadleaf and grass weed control eg: glyphosate 450 g/L	Feb	0.03	56.21	1.69	1.0 L	4.67/L	4.67	<b>6.36</b>
broadleaf weed control eg 2,4-D amine 475 g/L	Feb	with above			1.2 L	5.82/L	6.98	<b>6.98</b>
wetter - non-ionic surfactant	Feb	with above			0.25 L	6.77/L	1.69	<b>1.69</b>
broadleaf and grass weed control eg: glyphosate 450 g/L	Feb	0.03	56.21	1.69	1.0 L	4.67/L	4.67	<b>6.36</b>
wetter - non-ionic surfactant	Feb	with above			0.25 L	6.77/L	1.69	<b>1.69</b>
broadleaf and grass weed control eg: glyphosate 450 g/L	Apr	0.03	56.21	1.69	1.0 L	4.67/L	4.67	<b>6.36</b>
wetter - non-ionic surfactant	Apr	with above			0.25 L	6.77/L	1.69	<b>1.69</b>
sowing	May	0.10	76.13	7.61				<b>7.61</b>
seed	May	with above			45 kg	0.90/kg	40.32	<b>40.32</b>
nitrogen fertiliser after cereal or canola eg. urea OR	May	with above			109 kg	0.70/kg	76.09	<b>76.09</b>
nitrogen fertiliser after chickpeas eg. urea	May	with above			65 kg	0.70/kg	45.65	<b>45.65</b>
wild oat control (1 year in 4)	Jun	0.03	56.21	1.69				<b>0.42</b>
eg fenoxaprop-p-ethyl	Jun	with above			0.35 L	47.29/L	16.55	<b>4.14</b>
broadleaf weed control, ground spray eg 2,4-D amine 475 g/L	Jul	0.03	56.21	1.69	1.2 L	5.82/L	6.98	<b>8.67</b>
fungicide eg tebuconazole	Jul	with above			0.145 L	20.50/L	2.97	<b>2.97</b>
harvest (contract)	Nov			61.24				<b>61.24</b>
crop levies after wheat	Nov						1.020% of on-farm value	<b>4.77</b>
crop insurance after wheat OR							1.030% of on-farm value	<b>4.82</b>
crop levies after chickpeas or canola	Nov						1.020% of on-farm value	<b>5.61</b>
crop insurance after chickpeas or canola							1.030% of on-farm value	<b>5.67</b>

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