



## SURFACE IRRIGATED LUCERNE - Established stand

### Farm Enterprise Budget Series - Northern Zone

Summer 2012-2013

#### 1. GROSS MARGIN BUDGET:

##### INCOME:

7 cuts per season @ 1.90 t/ha per cut

Total Yield = **13.30** tonnes per hectare

@ 40 bales per tonne (25 kg bales)

60% AFIA Grade A1	320 bales/ha at	\$8.00 / bale
20% AFIA Grade B2	106 bales/ha at	\$6.00 / bale
20% AFIA Grade C3	106 bales/ha at	\$4.00 / bale

See [http://www.afia.org.au/quality/national\\_grades/](http://www.afia.org.au/quality/national_grades/) for more details on hay grades used.

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

Sample Budget	Your Budget
\$/ha	\$/ha
\$2,560.00	
\$636.00	
\$424.00	
<b>\$3,620.00</b>	

##### VARIABLE COSTS:

see following page(s) for details

Depreciation of establishment cost.....	\$105.68
Fertiliser.....	\$108.93
Herbicide.....	\$35.48
Insecticide.....	\$3.42
Irrigation.....	\$389.55
Mow, rake & bale (contract).....	\$1,773.80
Twine @ \$0.113/bale.....	\$60.29
Cart and stack 100% of hay (\$10.68/t).....	\$142.04
<b>B. TOTAL VARIABLE COSTS \$/ha:</b>	<b>\$2,619.20</b>

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

<b>\$1,000.80</b>
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##### D. GROSS MARGIN \$/ML:

<b>\$114.38</b>
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#### SENSITIVITY TABLES

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

Yield Cuts	tonnes/ha	Grade A1 \$6.00	Grade A1 \$7.00	Grade A1 \$8.00	Grade A1 \$10.00	Grade A1 \$12.00
		Grade B2 \$4.00	Grade B2 \$5.00	Grade B2 \$6.00	Grade B2 \$8.00	Grade B2 \$10.00
		Grade C3 \$2.00	Grade C3 \$3.00	Grade C3 \$4.00	Grade C3 \$5.00	Grade C3 \$6.00
		\$192 /tonne	\$232 /tonne	\$272 /tonne	\$344 /tonne	\$416 /tonne
4 cuts	5.8	-\$629	-\$397	-\$165	\$253	\$671
5 cuts	8.3	-\$440	-\$108	\$224	\$822	\$1,420
6 cuts	10.8	-\$252	\$180	\$612	\$1,390	\$2,168
<b>7 cuts</b>	<b>13.3</b>	-\$63	\$469	<b>\$1,001</b>	\$1,959	\$2,917
8 cuts	15.8	\$125	\$757	\$1,389	\$2,527	\$3,665
9 cuts	18.3	\$314	\$1,046	\$1,778	\$3,096	\$4,414
10 cuts	20.8	\$503	\$1,335	\$2,167	\$3,665	\$5,163

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

Yield Cuts	tonnes/ha	Grade A1 \$6.00	Grade A1 \$7.00	Grade A1 \$8.00	Grade A1 \$10.00	Grade A1 \$12.00
		Grade B2 \$4.00	Grade B2 \$5.00	Grade B2 \$6.00	Grade B2 \$8.00	Grade B2 \$10.00
		Grade C3 \$2.00	Grade C3 \$3.00	Grade C3 \$4.00	Grade C3 \$5.00	Grade C3 \$6.00
		\$192 /tonne	\$232 /tonne	\$272 /tonne	\$344 /tonne	\$416 /tonne
4 cuts	5.8	-\$72	-\$45	-\$19	\$29	\$77
5 cuts	8.3	-\$50	-\$12	\$26	\$94	\$162
6 cuts	10.8	-\$29	\$21	\$70	\$159	\$248
7 cuts	13.3	-\$7	\$54	<b>\$114</b>	\$224	\$333
8 cuts	15.8	\$14	\$87	\$159	\$289	\$419
9 cuts	18.3	\$36	\$120	\$203	\$354	\$504
10 cuts	20.8	\$57	\$153	\$248	\$419	\$590

# SURFACE IRRIGATED LUCERNE - Established stand

Farm Enterprise Budget Series - Northern Zone

(diesel pump from river-regulated)

Summer 2012-2013

CALENDAR OF OPERATIONS:		Machinery			Inputs			Total Cost \$/ha
Operation	Month	hrs/ha	Cost \$/hr	Total \$/ha	Rate/ha	Cost \$	Total \$/ha	
Spray - paraquat + diquat	Jul	0.10	24.74	2.47	2.5 L	9.93	24.83	<b>27.30</b>
Apply Single Super	Aug	0.42	21.78	9.15	125kg	0.42	52.50	<b>61.65</b>
Spray aphids -dimethoate	Aug	0.10	24.74	2.47	0.09 L	10.49	0.94	<b>3.42</b>
Fertiliser- #Muriate of Potash, 1 yr in 4	Aug	0.42	21.78	9.15	250kg	0.72	180.00	<b>47.29</b>
Mow, rake, bale & accumulator	Sep/Oct	contract		253.40				<b>253.40</b>
Cart & stack in shed (tractor + FEL)	Sep/Oct	contract	0.27	per bale @ 76 bales/ha per cut				<b>20.29</b>
Herbicide (haloxyfop-R)	Oct	0.10	24.74	2.47	0.1 L	57.07	5.71	<b>8.18</b>
Irrigate	Oct				1.25 ML	44.52	55.65	<b>55.65</b>
Irrigate	Nov				1.25 ML	44.52	55.65	<b>55.65</b>
Mow, rake, bale & accumulator	Nov	contract		253.40				<b>253.40</b>
Cart & stack in shed (tractor + FEL)	Nov	contract	0.27	per bale @ 76 bales/ha per cut				<b>20.29</b>
Irrigate	Nov				1.25 ML	44.52	55.65	<b>55.65</b>
Mow, rake, bale & accumulator	Dec	contract		253.40				<b>253.40</b>
Cart & stack in shed (tractor + FEL)	Dec	contract	0.27	per bale @ 76 bales/ha per cut				<b>20.29</b>
Irrigate	Dec				1.25 ML	44.52	55.65	<b>55.65</b>
Mow, rake, bale & accumulator	Dec	contract		253.40				<b>253.40</b>
Cart & stack in shed (tractor + FEL)	Dec	contract	0.27	per bale @ 76 bales/ha per cut				<b>20.29</b>
Irrigate	Feb				1.25 ML	44.52	55.65	<b>55.65</b>
Mow, rake, bale & accumulator	Feb	contract		253.40				<b>253.40</b>
Cart & stack in shed (tractor + FEL)	Feb	contract	0.27	per bale @ 76 bales/ha per cut				<b>20.29</b>
Irrigate	Mar				1.25 ML	44.52	55.65	<b>55.65</b>
Mow, rake & bale + accumulator	Mar	contract		253.40				<b>253.40</b>
Cart & stack in shed (tractor + FEL)	Mar	contract	0.27	per bale @ 76 bales/ha per cut				<b>20.29</b>
Irrigate	Apr				1.25 ML	44.52	55.65	<b>55.65</b>
Mow, rake, bale & accumulator	Apr	contract		253.40				<b>253.40</b>
Cart & stack in shed (tractor + FEL)	Apr	contract	0.27	per bale @ 76 bales/ha per cut				<b>20.29</b>

## AGRONOMIC NOTES:

**Herbicides:** Paraquat+diquat applied in July to established stands to clean up weeds.

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

**Fertilisers:** # In areas of long term irrigated hay production, there is a possibility that higher rates of potash may be required to correct chronic potassium deficiency.

**Hay storage:** The assumption is made that all of the hay is stored on farm prior to selling.

**Hay Grades:** The Australian Fodder Industry Association (AFIA) has developed a national grading system for legume and cereal hays. It is based on digestible dry matter, crude protein content and metabolisable energy.

AFIA (Incorporated in 1996) is the peak body for the hay and silage industries. Further information and a fodder vendor declaration form is available from AFIA. Phone: 03 9890 6855 Website: [www.afia.org.au](http://www.afia.org.au)

*Use of a particular brand name does NOT imply recommendation of that brand by NSW DPI.*

*Always read chemical labels and follow directions, as it is your legal responsibility to do so.*

**LABOUR REQUIREMENTS:** Labour to apply fertiliser or spray is not costed. If we assume a labour cost of \$22/hr the total labour cost would be \$30.92/hectare, reducing the gross margin to \$970/ha.

This does not include labour required to irrigate since this is more likely to be an overhead cost.

## MACHINERY ASSUMPTIONS:

Tractor: pto power: 57 KW (76 HP) FEL = front end loader

Machinery costs refer to variable costs of: fuel, oil, filters, tyres, batteries and repairs.

Mow, Rake, Bale costs: Assumes raking is done twice. Use your own costs if you use your own machinery.

**Irrigation Costs:** Estimated water usage charge of \$31.75 per ML assumed, your charges may be different. Estimated water pumping cost of \$12.77 per ML assumed, your costs may be different.

**Water use assumed:** 8.8 ML/Ha

Costs calculated using a flood/furrow system with diesel powered pumping from surface supply.