



DRYLAND LUCERNE: HAY AND CATTLE

April 2008

1. Data-Cattle

Steers purchase weight and price

\$1.90 per kg live @ 280 kg = \$532.00 per head

Steers finished weight and price

\$1.80 per kg live @ 400 kg = \$720.00 per head

Dry matter 2000
Steers/ha 1.4

2. GROSS MARGIN BUDGET:

INCOME - HAY

	1 cuts per season @ 2.00 t/ha per cut	Total Yield = 2.00 tonnes per hectare @ 40 bales per tonne (25 kg bales)	Sample Budget \$/ha	Your Budget \$/ha
60% AFIA Grade A1	48 bales/ha@	\$8.50 / bale	\$408	
20% AFIA Grade B2	16 bales/ha@	\$6.50 / bale	\$104	
20% AFIA Grade C3	16 bales/ha@	\$4.00 / bale	\$64	

See http://www.afia.org.au/quality/national_grades/ for more details on hay grades used.

INCOME - GRAZING

Grazing (will vary substantially depending on stock type, seasonal conditions, crop growth & grazing period)

1.4 hd/ha @ 0.90 kg/day x 1.80/kg liveweight	\$1,008.00	
i.e. 400 kg/hd @ \$720/hd		
A. TOTAL INCOME \$/ha:	\$1,584	

VARIABLE COSTS:

see following pages(s) for details

Hay variable costs	Depreciation of establishment cost.....		\$61.52	
	Fertilizer.....		\$102.28	
	Herbicide.....		\$44.43	
	Insecticide.....		\$0.00	
	Mow, rake & bale (contract).....		\$187.70	
	Twine @ \$0.113/bale.....		\$9.07	
	Cart and stack 100% of hay (\$48/t).....		\$96.00	
Cattle Variable costs	Purchase store steers, 280kg @ \$1.90/kg=\$532/hd.....		\$744.80	
	Drench, 5-in-1 vaccine [#] x 2, bloat capsules.....	20.00 /hd	\$28.00	
	Supplement*.....			
	Commission.....	5.0% of cattle sales	\$50.40	
	Industry Levies.....	5.00 \$/hd	\$7.00	
	Yard Dues.....	4.00 \$/hd	\$5.60	
	Freight.....	20.00 \$/hd	\$28.00	

[#] A second 5-in-1 booster may be required for pulpy kidney protection.

* Supplementary grass pasture or roughage hay may be required during periods of lush lucerne growth.

B. TOTAL VARIABLE COSTS \$/ha:	\$1,364.80	
C. GROSS MARGIN (A-B) \$/ha:	\$219.20	

SENSITIVITY TABLE

EFFECT OF HAY YIELD AND PRICE ON GROSS MARGIN PER HECTARE

Yield Cuts	tonnes/ha	Grade A1 \$4.50	Grade A1 \$6.50	Grade A1 \$8.50	Grade A1 \$10.50	Grade A1 \$12.50
		Grade B2 \$2.50	Grade B2 \$4.50	Grade B2 \$6.50	Grade B2 \$8.50	Grade B2 \$10.50
		Grade C3 \$0.00	Grade C3 \$2.00	Grade C3 \$4.00	Grade C3 \$5.00	Grade C3 \$6.00
		\$128 /tonne	\$208 /tonne	\$288 /tonne	\$360 /tonne	\$432 /tonne
1 cuts	1.0	-\$176	-\$96	-\$16	\$56	\$128
1 cuts	1.5	-\$139	-\$19	\$101	\$209	\$317
1 cuts	2.0	-\$101	\$59	\$219	\$363	\$507
1 cuts	2.5	-\$63	\$137	\$337	\$517	\$697
2 cuts	3.0	-\$213	\$27	\$267	\$483	\$699
2 cuts	3.5	-\$175	\$105	\$385	\$637	\$889
2 cuts	4.0	-\$138	\$182	\$502	\$790	\$1,078

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Northern Zone

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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	
Spray - paraquat + diquat	Jul	0.10	23.32	2.33	2.4 L	11.50/L	27.60	29.93
Spray - diuron	Jul	with above			1.0 L	14.50/kg	14.50	14.50
Apply Single Super	Aug	0.42	23.28	9.78	250kg	0.37/kg	92.50	102.28
Mow, rake 3 times and bale	Nov	contract		187.70				187.70
Cart and stack hay in shed	Nov	\$1.20	per bale @ 80 bales/ha per cut					96.00

AGRONOMIC NOTES:

Herbicides: paraquat + diquat and diuron applied to established stands to clean up weeds.

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

For more information, refer to the NSW DPI Management Guide "Weed Control in Lucerne and Pastures"

Establishment: This budget assumes a stand life of 4 years, so depreciation of establishment cost is the cost of establishment divided by four.

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

GRAZING MANAGEMENT: AGNOTE DPI-198 "**Grazing management of lucerne**": Lucerne needs a period of spelling or recovery alternated with a period of grazing. The spelling period is the key to lucerne management. Continuous stocking can cause rapid decline in plant numbers. The heavier the stocking rate, the more rapid plant death, as constant removal of new shoots depletes root reserves, especially if growing conditions are unfavourable. When grazing, aim to preserve basal buds and preferably some leaf. This allows rapid regrowth. As a general rule, remove stock when lucerne is 5 cm high.

For more detailed information see AGNOTE DPI-198 "Grazing management of lucerne"

<http://www.agric.nsw.gov.au/reader/past-management/dpi198.htm> and Agfact P2.2.25 "**Lucerne for Pasture and fodder**"

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 for carting hay from the paddock to the shed is accounted for in this budget.

Labour to apply fertiliser or spray or for livestock management is not costed.

MACHINERY ASSUMPTIONS:

Tractor: pto power: 57 KW (76 HP)

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

Mow, Rake, Bale costs: If you use your own machinery for mowing, raking and baling then substitute this cost in your own budget.