

DRYLAND LUCERNE: HAY AND CATTLE

1. Data-Cattle

Summer 2010-11

Steers purchase weight and price

\$2.00 per kg live @ 320 kg = \$640.00 per head

Steers finished weight and price

\$2.10 per kg live @	400 kg =	\$840.00 per head
	Dry matter	2000
	Steers/ha	1.4

2. GROSS MARGIN BUDGET:

INCOME - HAY Assumes most bales are prime hay quality.

1 cut per season @ 2.00 t/ha per cut

Total Yield = **2.00** tonnes per hectare
@ 40 bales per tonne (25 kg bales)

			Sample Budget	Your Budget
			\$/ha	\$/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 \$2.10/kg liveweight	\$1,176.00
i.e. 400 kg/hd @ \$840/hd	

A. TOTAL INCOME \$/ha: **\$1,752**

VARIABLE COSTS:

see following pages(s) for details

Hay variable costs	Depreciation of establishment cost (over 4 years).....	\$52.32
	Fertiliser.....	\$125.00
	Herbicide.....	\$0.00
	Insecticide.....	\$0.00
	Mow, rake & bale (contract).....	\$262.20
	Twine @ \$0.113/bale.....	\$9.07
Cattle Variable costs	Cart and stack 100% of hay (\$10.68/t).....	\$21.36
	Purchase store steers, 320kg @\$2.00/kg=\$640/hd.....	\$896.00
	Drench, vaccine#, bloat capsules.. 20.00 /hd	\$28.00
	Supplement*.....	
	Commission..... 5.0% of cattle sales	\$58.80
	Industry Levies..... 5.50 \$/hd	\$7.70
	Yard Dues..... 3.00 \$/hd	\$4.20
	Freight..... 20.00 \$/hd	\$28.00

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

Bloat capsules may need to be administered at least 7 days before grazing risky pasture, refer to NSW DPI Primefact 416, "Bloat"

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

B. TOTAL VARIABLE COSTS \$/ha: **\$1,492.64**

C. GROSS MARGIN (A-B) \$/ha: **\$259.36**

SENSITIVITY TABLE

EFFECT OF HAY YIELD AND PRICE ON GROSS MARGIN PER HECTARE

Yield	Cuts	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	-173	-93	-13	59	131
1 cuts	1.5	-117	3	123	231	339
1 cuts	2.0	-61	99	259	403	547
1 cuts	2.5	-4	196	396	576	756
2 cuts	3.0	-210	30	270	486	702
2 cuts	3.5	-154	126	406	658	910
2 cuts	4.0	-97	223	543	831	1,119

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. Estimated prices are GST-exclusive.

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Northern Zone

Summer 2010-11

Operation	Month	Machinery			Inputs			Total Cost \$/ha
		hrs/ha	Cost \$/hour	Total \$/ha	Rate/ha	Cost \$	Total \$/ha	
Apply Single Super	Aug	contract		20.00	250kg	0.42/kg	105.00	125.00
Mow, rake 3 times and bale	Nov	contract		262.20				262.20
Cart and stack hay in shed	Nov	\$0.27	per bale @ 80 bales/ha per cut					21.36

AGRONOMIC NOTES:

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

For more information, refer to the I&I NSW Management Guide "Weed Control in Pastures and Lucerne 2010"

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

Fertilisers: Nutrient requirements should be assessed with soil tests, strip trials and paddock history records.

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. Rotational grazing and spelling are the keys to lucerne management. The rest period allows the plant to renew root reserves.

Continuous stocking can cause rapid decline in plant numbers and shorten the stand life and density. 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. Avoid any grazing of lucerne crown growth points. Bloat issues need to be considered and managed while grazing cattle on lucerne. For more detailed information see **AGNOTE DPI-198 "Grazing management of lucerne"** at <http://www.dpi.nsw.gov.au/agriculture/field/pastures-and-rangelands/management/grazing-management/grazing-management-of-lucerne> and **Affact P2.2.25 "Lucerne for Pasture and fodder"**

Profitability: Profitability can vary greatly due to a number of factors including the margin between purchase price and sale price per head, the total dry matter available and therefore potential stocking rate, meeting target weight gains and therefore target sale categories and prices, requirements for supplementary feeds such as straw. Please refer to the sensitivity table for an example and factor in the seasonal and market risks in your planning activities.

Use of a particular brand name does NOT imply recommendation of that brand by I&I NSW.

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, spray or for livestock management is not costed.

MACHINERY ASSUMPTIONS:

Tractor: PTO power: 57kW (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.