



LUCERNE: Maintenance (Flood Irrigated - Border Check)

Irrigated Winter - 2012

Murray Valley &
Murrumbidgee Valley

1. GROSS MARGIN BUDGET:

INCOME:

9.00 t/ha @	\$350.00 /tonne ON FARM
6.00 t/ha @	\$200.00 /tonne ON FARM
15.00 t/ha @	\$290.00 /tonne ON FARM *
(5 cuts @ 3 t/ha/cut)	* Weighted average price

Standard Budget \$/ha	Your Budget \$/ha
\$3,150.00	
\$1,200.00	

A. TOTAL INCOME \$/ha:

\$4,350

VARIABLE COSTS:

See following page for detail

Cultivation.....	\$0
Sowing.....	\$0
Fertiliser.....	\$135
Fungicide.....	\$0
Herbicide.....	\$36
Insecticide.....	\$12
Contract hay mowing, raking.....	\$1,200
Cartage & stacking.....	\$720
Irrigation.....	\$173
B. TOTAL VARIABLE COSTS \$/ha:	\$2,276

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

\$2,074

D. GROSS MARGIN \$/ML:

\$160

SENSITIVITY TABLES

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

YIELD tonnes/ha	ON FARM PRICE (\$/tonne)					Gross Margin (\$/ha)
	\$190 /t	\$240 /t	\$290 /t	\$390 /t	\$490 /t	
10.50	\$295	\$820	\$1345	\$2395	\$3445	
12.00	\$388	\$988	\$1588	\$2788	\$3988	
13.50	\$481	\$1156	\$1831	\$3181	\$4531	
15.00	\$574	\$1324	\$2074	\$3574	\$5074	
16.50	\$667	\$1492	\$2317	\$3967	\$5617	
18.00	\$760	\$1660	\$2560	\$4360	\$6160	
19.50	\$853	\$1828	\$2803	\$4753	\$6703	

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

YIELD tonnes/ha	ON FARM PRICE (\$/tonne)					Gross Margin (\$/ML)
	\$190 /t	\$240 /t	\$290 /t	\$390 /t	\$490 /t	
10.50	\$23	\$63	\$103	\$184	\$265	
12.00	\$30	\$76	\$122	\$214	\$307	
13.50	\$37	\$89	\$141	\$245	\$349	
15.00	\$44	\$102	\$160	\$275	\$390	
16.50	\$51	\$115	\$178	\$305	\$432	
18.00	\$58	\$128	\$197	\$335	\$474	
19.50	\$66	\$141	\$216	\$366	\$516	

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CALENDAR OF OPERATIONS:		Machinery			Inputs			Total
Operation	Month	Cost		Total	Rate/ha	Cost		Total
		hrs/ha	\$/hour	\$/ha		\$	\$/ha	
Broadleaf & grass weed spray (<i>eg. Sprayseed and diuron</i>)	Jun/Jul	contract		\$10.00	2.40 L/ha	\$6.00/L	\$14.40	\$24.40
		with above			1.50 L/ha	\$7.70/L	\$11.55	\$11.55
Topdress with single super phosphate (<i>eg. superfect</i>)	Aug	0.05	\$41.38	\$2.23	350kg/ha	\$0.380/kg	\$133.00	\$135.23
Insect & mite spray (<i>eg. dimethoate</i>)	Sep	contract		\$10.00	0.15 L/ha	\$12.25/L	\$1.84	\$11.84
Mowing, raking and baling	contract	Sep-Apr	600	bales/ha @	\$2.00	\$/bale	\$1,200.00	\$1,200.00
Cartage & stacking	contract	Sep-Apr	600	bales/ha @	\$1.20	\$/bale	\$720.00	\$720.00
Irrigation*	Sep-Mar				13.0ML/ha	\$13.27/ML	\$172.51	\$172.51

This budget is ONLY A GUIDE and should be altered for movements in crop and input prices, changes in seasonal conditions and the farm characteristics.

AGRONOMIC NOTES:	See the NSW DPI publications: " <i>Lucerne for pasture and fodder</i> ", " <i>Weed control in pastures and lucerne</i> " and " <i>Insect and mite control in field crops</i> "
Prices:	<ul style="list-style-type: none"> - Manage stand well for best production, quality and persistence - Prices are estimated and GST-exclusive. - Prices based on small (25kg) bales - Prices should be \$6-8/bale for this price per tonne. - Hay prices are highly sensitive to supply and demand. Higher quality can improve returns.
Rotation:	<ul style="list-style-type: none"> - Expected productive stand life 3 - 4 years. - Terminate stand when no longer economically viable (ie less than 50 plants/m²) or weedy or thin patches. Rotate with cereals to reduce disease and insect problems.
Weed Control:	<ul style="list-style-type: none"> - Apply herbicides to dormant lucerne in winter, after cutting or grazing, to control broadleaf and grass weeds (Consult <i>Weed control in pastures and lucerne</i>). * Note that Diuron is under review by the APVMA. It can still be used used in lucerne but people need to read and consult the current use permit before use and observe requirements.
Insect Control:	<ul style="list-style-type: none"> - Regularly monitor for insects. Cut, graze or spray when necessary to control pests.
Irrigation:	<ul style="list-style-type: none"> - Good irrigation management is critical for high yields and persistence. Fast irrigation essential on flood layouts. Water use depends upon the soil type and weather (10 - 16 ML ha per season). - Irrigation scheduling allows more efficient water use and helps to avoid waterlogging. - Irrigation cost includes the variable cost only. - Water costs used in the MIA budgets are based on 2010-11 prices. - For water costs in other areas, refer to the water prices section.
Fertiliser:	<ul style="list-style-type: none"> - High inputs of phosphorus fertiliser are needed to replace nutrients removed by highly productive hay stands.
Production:	<ul style="list-style-type: none"> - Five cuts are made during the season (6-7 possible depending on season and location). - Assume 1 tonne=40 small (25kg) square bales. - Assume 9 t is good quality and 6 t is downgraded by weather, weeds, etc.
Cutting Management:	<ul style="list-style-type: none"> - For stand persistence under flood irrigation allow 2 cm regrowth before watering again to avoid scald. To avoid damage to crown buds, do not cut below 7cm.
Risk:	<ul style="list-style-type: none"> - The production of high quality lucerne hay involves significant risk (mainly weather) which potential growers should take into account.
Machinery:	<ul style="list-style-type: none"> - Machinery costs include variable costs only for the tractor and implements - Baling and mowing prices are based on contract small bale prices. - Two tractors: of 57 kW (76 HP) PTO and 63 kW (86 HP) engine; and of 130 kW (175 HP) PTO and 146 kW (196 HP) engine are assumed.
Economics:	<ul style="list-style-type: none"> - Input and crop prices are correct at the time of writing (April 2011). Market uncertainty makes estimation of future pricing impractical. - Cost of establishment should be spread over life of the stand