



FLOOD IRRIGATED LUCERNE - Maintenance

Farm Enterprise Budget Series - Murrumbidgee Valley/Murray Valley

Summer 2011/2012

1. GROSS MARGIN BUDGET: Based on small bale production.

INCOME:			Standard Budget \$/ha
9.00 t/ha	@	\$350.00 /t (on farm)	\$3,150
6.00 t/ha	@	\$250.00 /t (on farm)	\$1,500
15.00 t/ha		\$310.00 /t (on farm)*	
(5 cuts @ 3 t/ha/cut)			
A. TOTAL INCOME \$/ha:			\$4,650

VARIABLE COSTS:

See following page for detail

Cultivation and Sowing.....	\$0
Fertiliser.....	\$123
Herbicide.....	\$36
Insecticide.....	\$4
Irrigation.....	\$173
Levies.....	\$0
Cut, Rake and Bale.....	\$1,200
Cartage and Stack.....	\$720
B. TOTAL VARIABLE COSTS \$/ha:	\$2,256

C. GROSS MARGIN (A-B) \$/ha:	\$2,394
D. GROSS MARGIN \$/ML:	\$184

* weighted average price used

SENSITIVITY TABLES

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

YIELD t/ha	On Farm Price				
	\$210 /t	\$260 /t	\$310 /t	\$360 /t	\$410 /t
11.00	\$636	\$1,186	\$1,736	\$2,286	\$2,836
13.00	\$813	\$1,463	\$2,113	\$2,763	\$3,413
15.00	\$990	\$1,740	\$2,394	\$3,240	\$3,990
17.00	\$1,167	\$2,017	\$2,867	\$3,717	\$4,567
19.00	\$1,344	\$2,294	\$3,244	\$4,194	\$5,144

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

YIELD t/ha	On Farm Price				
	\$210 /t	\$260 /t	\$310 /t	\$360 /t	\$410 /t
11.00	\$49	\$91	\$134	\$176	\$218
13.00	\$63	\$113	\$163	\$213	\$263
15.00	\$76	\$134	\$184	\$249	\$307
17.00	\$90	\$155	\$221	\$286	\$351
19.00	\$103	\$176	\$250	\$323	\$396

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CALENDAR OF OPERATIONS:		Machinery			Inputs			Total
Operation	Month	hrs/ha	Cost \$/hour	Total \$/ha	Rate/ha	Cost	Total \$/ha	Cost \$/ha
Control broadleaf & grass weeds - boom spray e.g. Sprayseed® (paraquat + diquat) and Diuron	Jun/Jul	0.05	41.38	\$2.23	2.40 L/ha	\$9.26/L	\$22.22	\$24.45
		with above			1.00kg/ha	\$11.95/kg	\$11.95	\$11.95
Topdress with single super phosphate fertiliser e.g. Superfect®	Aug	0.10	16.61	\$1.58	350kg/ha	\$347.00/t	\$121.45	\$123.03
Mite/Aphid control - boom spray e.g. dimethoate	Sept	0.05	41.38	\$2.23	0.15 L/ha	\$12.40/L	\$1.86	\$4.09
Irrigation					13.0ML/ha	\$13.27/ML	\$172.51	\$172.51
Cut rake and bale		contract			600 bales	\$2.00/bale	\$1,200.00	\$1,200.00
Cartage + stacking		to farm shed			600 bales	\$1.20/bale	\$720.00	\$720.00

The budget is ONLY A GUIDE and should be altered for movements in crop and input prices, changes in seasonal conditions and the farm characteristics. Estimated prices are GST - exclusive

AGRONOMIC NOTES:	<p>See DPI NSW publications: "Lucerne for Pasture and Fodder", "Weed Control in Lucerne and Pastures" and "Insect & Mite Control in field crops".</p> <p>Manage stand well for best production, quality and persistence</p>
Prices	<ul style="list-style-type: none"> - Prices are estimated and GST-exclusive. Hay prices are highly sensitive to supply and demand. Higher quality can improve returns. - Prices based on small (25kg) bales - Price per bale basis (between \$8-\$15/bale)
Rotation	<ul style="list-style-type: none"> - Expected productive stand life 3 - 4 years. - Terminate stand when no longer economically viable (i.e. less than 50 plants/m²) or weedy or thinning. 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 "Weed control in Lucerne and Pastures").
Insect Control	<ul style="list-style-type: none"> - Regularly monitor for insects. Cut, graze or spray when necessary to control insect pests.
Irrigation	<ul style="list-style-type: none"> - Good irrigation management is critical for high yields and persistence. Fast irrigation is essential on flood layouts. - Irrigation scheduling allows efficient water use and helps to avoid waterlogging. - The MIA variable water costs are used in the budget. The budget is based on the assumption of 50% water allocation. For water costs in other irrigation districts or river pumpers, check Murrumbidgee irrigation web site. For water costs in the CIA, please go to the web site for the appropriate irrigation authority.
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). Assume 1 tonne=40 small square bales. - Assume 9 t is high 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 the next irrigation to avoid scald. To avoid damage to crown buds, do not cut stems below 7cm.
Risk	<ul style="list-style-type: none"> - The production of good 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. Two tractors: of 57 kW (77 HP) PTO and 66 kW (90 HP) engine; and of 141 kW (190 HP) PTO and 148 kW (225 HP) engine are assumed. - Baling and mowing prices are based on contract small bale prices.
Economics	<ul style="list-style-type: none"> - Cost of establishment should be spread over life of the stand

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