



2003 GRASS HAY PRODUCTION BUDGET ¹

Large Bale System

5 year stand

ITEM	EXPLANATION	PRICE PER UNIT	YIELD (ton/A) ²			YOUR BUDGET
			2.0	3.0	5.0	
RECEIPTS ³						
Grass Hay		\$65 /ton	\$130	\$195	\$325	_____
VARIABLE COSTS						
Seed (prorated over 5 years)	10 pounds	1.50 /lb	3	3	3	_____
Fertilizer ⁴						
Establishment ⁵	19 /A (prorated)		4	4	4	_____
N (lbs.)	0 65 130	0.24 /lb	0	16	31	_____
P ₂ O ₅ (lbs)	25 40 65	0.24 /lb	6	10	16	_____
K ₂ O(lbs)	60 85 110	0.13 /lb	8	11	14	_____
Lime(ton)	0.5	12 /ton	6	6	6	_____
Fuel, Oil, Grease ⁶			7	7	7	_____
Repairs ⁷			13	13	13	_____
Miscellaneous ⁸			14	15	16	_____
Int. on Oper. Cap. ⁹	6 mo	9.0%	3	4	5	_____
Hired Labor ¹⁰			0	0	0	_____
TOTAL VARIABLE COSTS	- Per Acre		63	88	115	_____
	- Per Ton		31.56	29.21	22.93	_____
FIXED COSTS						
Labor Charge ¹⁰	5 hours	9.00 /hr	45	45	45	_____
Mach. And Equip. Charge ¹¹			31	31	31	_____
Seedbed Preparation/Seeding Costs - Custom Hire ¹²			14	14	14	_____
Land Charge ¹³			50	70	90	_____
Management Charge	5% of gross revenue		7	10	16	_____
TOTAL FIXED COSTS			147	170	197	_____
TOTAL COSTS	- Per Acre		210	258	311	_____
	- Per Ton		105	86	62	_____
RETURN ABOVE VARIABLE COSTS			67	107	210	_____
RETURN ABOVE TOTAL COSTS			(80)	(63)	14	_____
RETURN TO LABOR AND MANAGEMENT ¹⁴			(29)	(8)	75	_____

¹ Does not include costs for moving bales or storage.

² Assumes a 2.5 ton yield in seeding year; yields of approximately 2.5, 3, and 4 tons, respectively, in the following years; middle yield shown reflects weighted average.

³ Based on 90% DM grass hay. Price could be higher for small square bales.

⁴ Maintenance fertilizer only. If grass acreage utilized as summer and winter pasture, potash requirements will be approximately 1/3 of that shown. Prices were quoted in October, 2002. Fertilizer prices vary over time and by area. Check with local sources for current prices.

⁵ Annual application, plus 30 lb. N at seeding (prorated). Soil test values CEC=20, P=25 ppm, K=150 ppm.

⁶ See table below for specific calculations. Lubrication costs are assumed to be 15% of fuel costs.

⁷ See table below for specific calculations.

⁸ Includes supplies, utilities, soil tests, small tools, crop insurance, etc...

⁹ Interest charged for 6 months at 9% interest rate.

¹⁰ Part or all of labor may be a variable cost if paid labor varies with acres farmed.

It's a fixed cost if labor costs do not change with acres farmed.

¹¹ Reflects 500 acres, conservation tillage. See table below for details.

¹² Seedbed preparation and seeding costs are charged at custom hire rates and prorated over 4 years. The following rates are included: Plowing-\$13, Field Cultivate-\$8, Cultimulch-\$9, Spray(3x)-\$5, Seeding-\$12.

¹³ Average based on 1999 data. Land charges vary throughout the state, check your local rates.

¹⁴ Return to labor and management is the revenue less total expenses except operator labor and management. It is a measure of the returns to the operator's labor and management.

Machinery Inventory

	Number times used	Cost	Acres/ Hr	Fuel* (\$/A)	Repairs (\$/A)
Mower	4	\$16,300	6.55	\$2.00	1.72
Hay Baler	4	\$16,800	4.4	1.60	7.76
Hay Rake	4	\$4,600	3.5	2.00	1.40
75 HP Tractor		\$30,300			1.14
60 HP Tractor		\$24,300			0.97
Pickup Truck (1/2)		\$12,500		0.10	0.05

Total per Acre **104,800** **5.70** **13.04**

Fixed Costs Rate 15%

Mach. And Equip Charge = \$31 **Price of Diesel Fuel = \$1.00 /gal**

Machinery and Equipment charge = Total Machine Inventory Cost x Fixed Costs Rate / 500 acres
 =\$104,800 x 15% / 500 acres = \$31/acre

Machines are all assumed to be new and in the first year of use. Older/used machines will likely have lower machinery costs. Size of operation will also effect cost of machinery per acre. For an analysis on machine costs for different sized operations, see economies of scale budgets in this publication

Fixed costs rate includes depreciation, interest, housing, and insurance.

*Fuel calculations are based on the implement plus tractor.