



2008 ALFALFA HAY PRODUCTION BUDGET

Spring Seeding - 4 Year Stand ¹

Authors: Barry Ward and Mark Sulc*

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*Leader, Production Business Management and Extension Forage Specialist

ITEM	EXPLANATION	YOUR PROD. Numbers	PRICE PER UNIT	YIELD (ton/A) ²				YOUR BUDGET			
				Year 1 ² 2.5	4.0	6.0	8.0				
RECEIPTS ³											
Alfalfa Hay - High Quality	60%		\$200	300.00	480.00	720.00	960.00	960.00			
Alfalfa Hay - Lower Quality	40%		\$150	150.00	240.00	360.00	480.00	480.00			
Total Alfalfa Receipts				450.00	720.00	1,080.00	1,440.00	1,440.00			
VARIABLE COSTS											
Seed ⁴	15	pounds	4.20	/lb	15.75	15.75	15.75	15.75	15.75		
Fertilizer ⁵											
P ₂ O ₅ (lbs)	50	85	110	110	0.8654	/lb	43.27	43.27	73.56	95.19	95.19
K ₂ O(lbs)	220	300	300	300	0.4842	/lb	106.52	106.52	145.25	145.25	145.25
Lime(ton)		0.5			23.5	/ton	11.75	11.75	11.75	11.75	11.75
Chemicals ⁶							30.00	17.33	17.33	17.33	17.33
Fuel, Oil, Grease ⁷							22.91	22.91	22.91	22.91	22.91
Repairs ⁸							19.12	19.12	19.12	19.12	19.12
Miscellaneous ⁹							16.00	16.00	17.00	18.00	18.00
Int. on Oper. Cap. ¹⁰	6	mo			9.0%		11.94	11.37	14.52	15.54	15.54
Custom Hire ¹¹							12.72	12.72	12.72	12.72	12.72
Hired Labor ¹²							0.00	0.00	0.00	0.00	0.00
TOTAL VARIABLE COSTS							289.97	276.73	349.90	373.56	373.56
	-Per Acre										
	-Per Ton						115.99	69.18	58.32	46.69	46.69
FIXED COSTS											
Labor Charge ¹²	5	hours			13.50	/hour	67.50	67.50	67.50	67.50	67.50
Mach. And Equip. Charge ¹³							30.12	30.12	30.12	30.12	30.12
Seedbed Preparation/Seeding Costs - Custom Hire ¹⁴							12.51	12.51	12.51	12.51	12.51
Land Charge ¹⁵							95.00	95.00	124.00	157.00	200.00
Management Charge	5%	of gross revenue					22.50	36.00	54.00	72.00	72.00
TOTAL FIXED COSTS							227.63	241.13	288.13	339.13	382.13
TOTAL COSTS							517.60	517.86	638.03	712.69	755.69
	-Per Acre										
	-Per Ton						207.04	129.47	106.34	89.09	94.46
RETURN ABOVE VARIABLE COSTS							160.03	443.27	730.10	1,066.44	1,066.44
RETURN ABOVE TOTAL COSTS							-67.60	202.14	441.97	727.31	684.31
RETURN TO LABOR AND MANAGEMENT ¹⁶							22.40	305.64	563.47	866.81	823.81
RETURN TO LAND							27.40	297.14	565.97	884.31	884.31

Values highlighted in gold may be changed to assist in computing "Your Budget" Column using macros embedded within the spreadsheet.

Values highlighted in light blue are cells embedded with macros and will be calculated for the user based on data entered.

These cells may be input manually, but macros will be overwritten!

Values highlighted in gray are stand alone cells that require direct input from the user.

¹ Assumes production of 200 acres of Alfalfa Hay (Total Farm Size:1500 Acres). Does not include storage costs.

² Assumes a 2.5 ton yield in seeding year; yields of approximately 4, 6, or 8 tons in years 2 through 4 years (depending on soil productivity)

³ Based on 86% DM alfalfa hay. Alfalfa Hay quality will often vary over the growing season. High quality alfalfa is assumed to be harvested at optimum maturity and condition. Lower quality alfalfa is assumed to be harvested at less than optimum maturity and/or condition. 60% of crop is assumed to be harvested at optimum conditions.

⁴ Expenses associated with seeding are prorated over the four-year stand life.

⁵ Annual application of maintenance fertilizer. 5-10 lb. of N. could be added at seeding.

Soil test values of CEC=20, P=25 ppm, K=150 ppm. Fertilizer prices vary over time and by area. Check with local sources for current prices.

Assumes MAP(11-52-0): 900 /ton Potash(0-0-60): 581 /ton

Year 1 Fertilizer application rates assumed to be at the 4.0 Ton yield goal.

Lime applied prior to seeding - 2 Tons prorated over the 4 year period; 0.5 ton per year.

- ⁶ Seeding year: \$30/acre (2 qts/a of Butyrac 200, 7 oz/a of Select, 1.6 oz/a of Baythoid)
 Year 2: \$12/acre (Baythroid at 2.5 oz/a for alfalfa weevil and 1.6 oz/acre of potato leafhopper)
 Year 3: \$20/acre (Sencor at 1 lb/a and Baythroid at 1.6 oz/a for PLH).
 Year 4: \$20/acre (Sencor at 1 lb/a and Baythroid at 1.6 oz/a for PLH).
 Year 2-4 Avg. = \$17.33
- ⁷ See table below for specific calculations. Lubrication costs are assumed to be 10% of fuel costs.
- ⁸ See table below for specific calculations.
- ⁹ Includes twine, other supplies, utilities, soil tests, small tools, crop insurance, etc...
- ¹⁰ Interest charged for 6 months at 9% interest rate.
- ¹¹ Custom hire includes: 8 Chemical Sprays Over 4 Year period @ \$6.36/acre = \$50.88/acre/4 years = \$12.72/acre
- ¹² 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.
- ¹³ Reflects 200 acres, conventional tillage. See table below for details.
- ¹⁴ Seedbed preparation and seeding costs are charged at custom hire rates and prorated over 4 years. The following rates per acre are included: Chisel Plow \$14.23, Field Cultivate-\$10.55, Cultimulch-\$11.90, Seeding-\$13.38=\$50.06. \$50.06 divided by 4 years = \$12.51/acre
- ¹⁵ Average based on 2007-2008 data. Land charges vary throughout the state, check your local rates.
<http://aede.osu.edu/resources/docs/pdf/UDSIO6SG-9315-IQAW-X7QLG33KLHMNAZZ6.pdf>
 Land charge in year 1 assumes you are budgeting for soil productivity capabilities of 4/Ton/Acre.(Average Productivity.)
- ¹⁶ 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.

Harvest Machinery and Equipment Inventory									
	Number times used	Machinery Cost	Acres per Year	Cost per Acre	Acres/ Hr	Fuel* (gal/A)	Hours / Year	Repairs (\$/A)	
Mower Conditioner 9 ft.	4	\$18,900	200	\$9.51	4.4	1.60	183.49	3.40	
Hay Baler - PTO Twine 1	4	\$20,000	200	\$9.56	4.4	1.60	183.49	9.24	
Hay Rake	4	\$6,300	200	\$3.02	3.5	2.00	229.23	1.92	
Hay Wagons (2)	4	\$7,500	200	\$3.77	4.4	0.40	181.82	0.40	
Fertilizer Spreader	1	\$11,660	1,500	\$0.77	25.6	0.11	58.59	0.26	
75 HP Tractor	13	\$32,000	1,500	\$2.38	-----	-----	654.79	3.70	
Pickup Truck (1/2)**	4	\$16,000	1,500	\$1.11	-----	0.20		0.20	
					Fuel	20.83			
Machinery and Equipment Charge per Acre				\$30.12	F&L	22.91	Repairs	19.12	
						Price of Diesel Fuel =	\$3.50		

Machinery cost estimates, fuel estimates and cost calculations based on information from the "Farm Machinery Cost Estimates For 2008". See the reference online at:

<http://www.extension.umn.edu/distribution/businessmanagement/DF6696.pdf>

Machinery and Equipment charge =

Cost per Acre = Machinery Cost (New Cost) Assumes 14, 12, or 10 Year Useful Life using Straight Line Depreciation,

6.0% Interest on Average Value, 0.5% Insurance Cost on Average Value and 1.0% Housing Cost on Average Value.

Salvage Values are based on ASAE formulas.

Machines are all assumed to be new and in the first year of use (Except for Semi Tractor Trailer and Pickup Truck).

*Fuel calculations are based on the implement plus tractor./ Four cuttings assumed.

**Pickup Truck assumed to be used equipment.