

# Alfalfa Hay Planning Budget

Using this planning budget, farmers growing alfalfa can estimate their costs and returns in 2026. Detailed alfalfa establishment costs are found in MU Extension publication G661, [Alfalfa Establishment Planning Budget](#) ([extension.missouri.edu/publications/g661](http://extension.missouri.edu/publications/g661)). Table 1 presents estimates for established conventional alfalfa that is baled into small square or large round bales. Assumptions were based on price forecasts as of October 2025. Detailed prices and practices are summarized in Tables 2 and 3. The production practices used to develop these cost estimates are common on Missouri farms. Farmers can modify this budget based on their circumstances. Use the “Your estimate” column to plan your operation’s costs and returns for 2026.

**Table 1. Missouri alfalfa hay planning budget for 2026 (dollars per acre).**

	Alfalfa small square bales	Alfalfa large round bales	Your estimate
<b>Income</b>			
Hay sales	1,139.00	700.00	
Other income	0.00	0.00	
Total income	1,139.00	700.00	
<b>Operating costs</b>			
Seed	0.00	0.00	
Fertilizer and soil amendments	120.50	120.50	
Crop protection chemicals	33.71	33.71	
Crop supplies, storage, and marketing	26.80	15.00	
Crop consulting and insurance	0.00	0.00	
Custom hire and rental	141.37	56.74	
Operator labor	36.99	32.56	
Machinery fuel	19.75	17.82	
Machinery repairs and maintenance	36.24	44.42	
Management	34.17	21.00	
Operating interest	16.30	12.39	
Total operating costs	465.83	354.14	
<b>Ownership costs</b>			
Farm business overhead	22.78	14.00	
Machinery ownership	92.04	98.09	
Alfalfa establishment (amortized, 4 years)	85.65	85.65	
Real estate charge	130.00	130.00	
Total ownership costs	330.47	327.74	
Total costs	796.30	681.88	
<b>Income over operating costs</b>	<b>673.17</b>	<b>345.86</b>	
<b>Income over total costs</b>	<b>342.70</b>	<b>18.12</b>	
<b>Return to land and management</b>	<b>506.87</b>	<b>169.12</b>	

Note: Totals may not sum due to rounding.

Developed by

**Ryan Milhollin**, Assistant Extension Professor, Agricultural Business and Policy; **C. Tim Schnakenberg**, Field Specialist in Agronomy; **Carson Roberts**, Assistant Research Professor, Forage Agronomy; **Katie Neuner**, Field Specialist in Agricultural Business; and **Drew Kientzy**, Research Analyst, Agricultural Business and Policy

Table 2 shows input assumptions for the alfalfa hay budgets. Price estimates reflect harvest time prices out-of-the-field. Costs or returns from storage or other marketing methods are not included. No income from government programs is added.

Table 3 details the field activities for this budget and their machinery costs. Machinery costs were estimated using typical life (years), use (hours) and performance (fuel and labor) factors for each power unit and implement used.

**Table 2. Input assumptions used in alfalfa hay planning budgets for 2026.**

Selected input quantities	Per acre	Selected input prices	Dollars per unit
Small square forage yield, bale	134	Small square alfalfa price, per bale	8.50
Large round forage yield, ton	4	Large round alfalfa price, per ton	175.00
Phosphorus rate, pounds P <sub>2</sub> O <sub>5</sub>	50	Phosphorus, per pound P <sub>2</sub> O <sub>5</sub>	0.73
Potassium rate, pounds K <sub>2</sub> O	200	Potassium, per pound K <sub>2</sub> O	0.42
Small square alfalfa operator labor, hours	1.68	Operator labor wage, per hour	22.00
Large round alfalfa operator labor, hours	1.48	Farm diesel, per gallon	2.90
Operating interest, annual percentage	7.25		

**Table 3. Machinery assumptions used in alfalfa hay planning budgets for 2026, on a per acre basis.**

Machine activity (including custom fieldwork)	Passes per acre		Fuel (gallons)	Labor (hours)	Operating costs <sup>1</sup> (dollars)	Ownership costs <sup>2</sup> (dollars)	Total costs (dollars)
	Small square	Large round					
Boom sprayer, pull-type (90 feet), 130 HP MFWD	1	1	0.13	0.02	1.91	3.49	5.41
Disk mower/conditioner (12 feet), 130 HP MFWD	4	4	3.03	0.53	37.26	42.41	79.66
Hay tedder (16 feet), 75 HP TWD	2	2	0.40	0.12	4.67	3.87	8.55
Hay rake (20 feet), 75 HP TWD	4	4	0.80	0.24	9.49	7.62	17.11
Small square baler (20 feet), 75 HP TWD	4		1.70	0.52	27.51	29.58	57.08
Round baler with net wrap (30 feet), 75 HP TWD		4	1.04	0.31	29.33	35.62	64.95
Pickup (1 ton), 4WD			0.75	0.25	12.14	5.07	17.21
Dry fertilizer application, custom charge	2	2					14.74
Accumulate/stack/haul small square bales (mechanical collection), custom charge	4						126.63
Move round bales locally, custom charge		4					42.00
<b>Total for alfalfa small square budget</b>			<b>6.81</b>	<b>1.68</b>	<b>92.98</b>	<b>92.04</b>	<b>326.39</b>
<b>Total for alfalfa large round budget</b>			<b>6.14</b>	<b>1.48</b>	<b>94.80</b>	<b>98.09</b>	<b>249.63</b>

Note: Totals may not sum due to rounding.

Abbreviations: 4WD = 4-wheel drive; TWD = 2-wheel drive tractor; MFWD = mechanical front-wheel drive tractor; HP = horsepower.

1. Machinery operating cost is the sum of fuel, repairs, maintenance and the value of labor.

2. Machinery ownership cost is the sum of machinery overhead and depreciation.

Farmers can customize this budget using the [Missouri Forage Budgets workbook \(XLSX\)](https://extension.missouri.edu/media/wysiwyg/Extensiondata/Pro/AgBusinessPolicyExtension/Docs/forage-budgets.xlsx) ([extension.missouri.edu/media/wysiwyg/Extensiondata/Pro/AgBusinessPolicyExtension/Docs/forage-budgets.xlsx](https://extension.missouri.edu/media/wysiwyg/Extensiondata/Pro/AgBusinessPolicyExtension/Docs/forage-budgets.xlsx)).



Check out the complete collection of Missouri crop and livestock enterprise budgets at [muext.us/MissouriAgBudgets](http://muext.us/MissouriAgBudgets)