

# Alfalfa Establishment Planning Budget

Using this planning budget, farmers establishing alfalfa can estimate their costs and returns for 2026. Table 1 presents estimates for conventional and Roundup Ready alfalfa during the establishment year in Missouri. Assumptions were based on price conditions 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 are encouraged to 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 establishment planning budget for 2026 (dollars per acre).**

	Conventional alfalfa	Roundup Ready alfalfa	Your estimate
<b>Income</b>			
Hay sales (60-pound bales)	561.00	561.00	
Other income	0.00	0.00	
Total income	561.00	561.00	
<b>Operating costs</b>			
Seed	58.50	138.00	
Fertilizer and soil amendments	162.50	162.50	
Crop protection chemicals	33.71	56.55	
Crop supplies, storage, and marketing	13.20	13.20	
Crop consulting and insurance	0.00	0.00	
Custom hire and rental	77.11	77.11	
Operator labor	27.30	27.30	
Machinery fuel	16.39	16.39	
Machinery repairs and maintenance	28.69	28.69	
Management	23.00	23.00	
Operating interest	15.96	19.67	
Total operating costs	456.36	562.41	
<b>Ownership costs</b>			
Farm business overhead	20.25	20.25	
Machinery ownership	76.04	76.04	
Real estate charge	130.00	130.00	
Total ownership costs	226.29	226.29	
Total costs	682.64	788.69	
<b>Income over operating costs</b>	<b>104.64</b>	<b>-1.41</b>	
<b>Income over total costs</b>	<b>-121.64</b>	<b>-227.69</b>	
<b>Return to land and management</b>	<b>31.36</b>	<b>-74.69</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 alfalfa establishment and small bale production. 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 establishment planning budget for 2026.**

Selected input quantities	Per acre	Selected input prices	Dollars per unit
Forage yield, 60 pound bales	66	Alfalfa market price, per bale	8.50
Conventional alfalfa seeding rate, pounds	15	Conventional alfalfa seed, per pound	3.90
Roundup Ready alfalfa seeding rate, pounds	15	Roundup Ready alfalfa seed, per pound	9.20
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	50	Potassium, per pound K <sub>2</sub> O	0.42
Lime rate, tons	3	Lime, per ton	35.00
Operator labor, hours	1.24	Labor wage, per hour	22.00
Operating interest, annual percentage	7.25	Farm diesel, per gallon	2.90

**Table 3. Machinery assumptions used in alfalfa establishment planning budget 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)
Tandem disk (21 feet), 160 HP MFWD	1	0.54	0.08	6.13	9.25	15.38
Cultimulcher (21 feet), 160 HP MFWD	1	0.54	0.08	5.12	8.90	14.03
Presswheel drill (16 feet), 105 HP MFWD	1	0.68	0.15	8.20	8.46	16.66
Boom sprayer, pull-type (90 feet), 160 HP MFWD	2	0.32	0.05	4.07	7.28	11.35
Disk mower/conditioner (12 feet), 105 HP MFWD	2	1.22	0.26	16.96	17.62	34.58
Hay rake (20 feet), 75 HP TWD	2	0.40	0.12	4.74	3.81	8.55
Small square baler, 105 HP MFWD	2	1.19	0.26	14.99	15.65	30.64
Pickup (1 ton), 4WD		0.75	0.25	12.14	5.07	17.21
Dry fertilizer application, custom charge						14.74
Accumulate/stack/haul small square bales (mechanical collection), custom charge						62.37
<b>Total</b>		<b>5.65</b>	<b>1.24</b>	<b>72.37</b>	<b>76.04</b>	<b>225.52</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).



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