

Alfalfa Baleage Planning Budget

Using this planning budget, farmers growing alfalfa for baleage can estimate their costs and returns for 2025. Detailed alfalfa establishment costs are found in MU Extension publication G661, [Alfalfa Establishment Planning Budget](https://extension.missouri.edu/publications/g661) (extension.missouri.edu/publications/g661). Table 1 presents estimates for harvesting established Roundup Ready alfalfa baleage in Missouri. Assumptions were based on price forecasts as of October 2024. Detailed prices and practices are summarized in Tables 2 and 3. Use the “Your estimate” column to plan your operation’s costs and returns for 2025.

Table 1. Missouri alfalfa baleage planning budget for 2025.

| | Dollars per acre ¹ | Your estimate |
|---|---------------------------------|---------------|
| Income | | |
| Baleage sales | 954.00 | |
| Other income | 0.00 | |
| Total income | 954.00 | |
| Operating costs | | |
| Seed | 0.00 | |
| Fertilizer and soil amendments | 103.50 | |
| Crop protection chemicals | 41.48 | |
| Crop supplies, storage, and marketing | 54.00 | |
| Crop consulting and insurance | 23.00 | |
| Custom hire and rental | 72.54 | |
| Machinery fuel | 21.88 | |
| Machinery repairs and maintenance | 45.46 | |
| Operator and hired labor | 35.54 | |
| Operating interest | 15.40 | |
| Total operating costs | 412.80 | |
| Ownership costs | | |
| Farm business overhead | 22.95 | |
| Machinery ownership | 110.81 | |
| Alfalfa establishment (<i>amortized, 4 years</i>) | 151.32 | |
| Real estate charge | 130.00 | |
| Total ownership costs | 415.08 | |
| Total costs | 827.88 | |
| Income over operating costs | 541.20 | |
| Income over total costs | 126.12 | |
| | Operating costs per ton, as fed | 45.87 |
| | Ownership costs per ton, as fed | 46.12 |
| | Total costs per ton, as fed | 91.99 |

1. Totals may not sum due to rounding.

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Table 2 shows input assumptions for the alfalfa baleage budget. Price estimates reflect harvest time prices. 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.

Farmers can customize this budget using the Missouri Forage Budgets spreadsheet, which can be downloaded from the forages section of the [Missouri Crop and Livestock Enterprise Budgets webpage](http://extension.missouri.edu/programs/agricultural-business-and-policy-extension/missouri-crop-and-livestock-enterprise-budgets) (extension.missouri.edu/programs/agricultural-business-and-policy-extension/missouri-crop-and-livestock-enterprise-budgets).

Table 2. Input assumptions used in alfalfa baleage planning budget for 2025.

| Selected input quantities | Per acre | Selected input prices | Dollars per unit |
|---|----------|---|------------------|
| Yield, tons, as fed | 9 | Market price, per ton | 106.00 |
| Phosphorus rate, pounds P ₂ O ₅ | 50 | Phosphorus, per pound P ₂ O ₅ | 0.55 |
| Potassium rate, pounds K ₂ O | 200 | Potassium, per pound K ₂ O | 0.38 |
| Labor, hours | 1.92 | Labor wage, per hour | 18.50 |
| Operating interest, annual percentage | 7.75 | Farm diesel, per gallon | 3.25 |

Table 3. Machinery assumptions used in alfalfa baleage planning budget for 2025, on a per acre basis.

| Machine activity (including custom fieldwork) | Trips across field | Labor (hours) | Fuel (gallons) | Operating costs ¹ (dollars) | Ownership costs ² (dollars) | Total costs (dollars) |
|--|--------------------------|------------------|-------------------|--|--|--------------------------|
| Boom sprayer, pull type (90 feet), 130 HP MFWD | 1 | 0.02 | 0.12 | 1.34 | 6.57 | 7.91 |
| Disk mower-conditioner (12 feet), 130 HP MFWD | 4 | 0.53 | 3.03 | 28.55 | 44.70 | 73.25 |
| Hay rake (30 feet), 75 HP TWD | 4 | 0.17 | 0.57 | 5.93 | 5.74 | 11.67 |
| Round baler with net wrap, 130 HP MFWD | 4 | 0.34 | 1.94 | 41.65 | 45.09 | 86.74 |
| Inline bale wrapper (60 feet) | | 0.11 | 0.33 | 6.48 | 4.47 | 10.95 |
| Pickup (1 ton), 4WD | | 0.25 | 0.75 | 9.69 | 4.24 | 13.92 |
| Dry fertilizer application, custom charge | | | | | | 14.04 |
| Move round bales on farm, custom charge | | | | | | 58.50 |
| Total³ | | 1.42 | 6.73 | 93.63 | 110.81 | 276.98 |

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.

3. 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