

Beef Backgrounding Planning Budget

Using this planning budget, beef backgrounders may estimate their costs and returns for 2024. Table 1 presents estimates for steer calves purchased and backgrounded in Missouri. Assumptions were based on price forecasts as of September 2023. Detailed inputs, feed requirements and machinery investments are summarized in Tables 2, 3, 4 and 5. The production practices used to develop these cost estimates are common in Missouri beef farms. Use the “Your estimate” column to plan your operation’s costs and returns for 2024.

Table 1. Missouri beef steer backgrounding planning budget for 2024.

	Winter backgrounding per steer ¹	Pasture backgrounding per steer ¹	Your estimate
Income			
Market steer sales	2,198.63	2,187.98	
Less death loss (1 percent)	-21.99	-21.88	
Total income	2,176.64	2,166.10	
Operating costs			
Purchased steer	1,663.56	1,784.99	
Pasture (rental rate)	0.00	43.00	
Feed, mineral and stored forage	175.88	88.78	
Labor	44.25	26.55	
Veterinary, drugs and supplies	20.00	17.00	
Marketing and hauling	54.97	54.70	
Machinery and utilities	71.14	31.86	
Livestock facility repair	4.00	1.00	
Professional fees (legal, accounting, etc.)	1.00	1.00	
Miscellaneous	4.00	4.00	
Operating interest	47.29	49.04	
Total operating costs	2,086.09	2,101.91	
Ownership costs			
Depreciation on livestock facilities	3.87	0.62	
Interest on livestock facilities	4.76	0.76	
Insurance and taxes on capital items	5.98	5.15	
Total ownership costs	14.61	6.52	
Total costs	2,100.70	2,108.44	
Income over operating costs	90.55	64.19	
Income over total costs	75.94	57.66	
Pounds of gain per steer purchased	216.85	177.25	
Feed cost per pound gain	0.81	0.74	
Breakeven steer price per pound	2.60	2.75	

¹ Totals may not sum due to rounding.

Written by
Adauto Rocha Jr. and **Wesley Tucker**, Agricultural Business and Policy; **Zachary Erwin**, Field Specialist in Livestock

Table 2. Input assumptions used in beef steer winter backgrounding planning budget for 2024.

Selected input quantities	Per unit	Selected input prices	Dollars per unit
Steer purchase weight, pounds	590	Steer purchase price, per hundredweight	281.96
Market steer sale weight, pounds	815	Market steer sale price, per hundredweight	269.77
Labor, hours per head	2.5	Labor cost, per hour	17.70
Feeding period, days	105		
Average daily gain, pounds	2.14		

Table 3. Input assumptions used in beef steer pasture backgrounding planning budget for 2024.

Selected input quantities	Per unit	Selected input prices	Dollars per unit
Steer purchase weight, pounds	590	Steer purchase price, per hundredweight	302.54
Market steer sale weight, pounds	775	Market steer sale price, per hundredweight	282.32
Labor, hours per head	1.5	Labor cost, per hour	17.70
Feeding period, days	105		
Average daily gain, pounds	1.76		

Table 4. Feed and stored forage in beef steer backgrounding planning budgets for 2024, on a per steer basis.

Feed description	Cost per unit	Winter backgrounding ¹		Pasture backgrounding ²	
		Pounds	Dollars	Pounds	Dollars
Mixed hay, per ton	165.00	1,053	86.87		
Corn, per bushel	5.00	450	40.18		
Protein supplement, per ton	275.00	270	37.13	525	72.19
Salt and minerals, per ton	1,200.00	18	10.80	27	16.38
Limestone, per hundredweight	10.00	9	0.90	2	0.21
Total		1,800	175.88	554	88.78

¹ Winter backgrounding ration assumes 105 days on feed and 2.14 pound average daily gain for a steer.

² Pasture backgrounding ration assumes 105 days on feed and 1.76 pound average daily gain for a steer.

Table 5. Machinery assumptions used in beef steer backgrounding planning budgets for 2024.

Description	Cost per hour	Winter backgrounding ¹		Pasture backgrounding ²	
		Hours	Dollars	Hours	Dollars
Tractor; 105 MFWD	53.67	25	1,341.75		
Truck	40.00	20	800.00	10.0	400.00
Livestock trailer	30.00	8	240.00	8.0	240.00
4-wheeler	12.00	40	480.00	52.5	630.00
Total			2,861.75		1,270.00
Total per steer			68.14		28.86

¹ Machinery needs for winter backgrounding budget are based on 42 steers.

² Machinery needs for pasture backgrounding budget are based on 44 steers.

Abbreviations: MFWD = mechanical front-wheel drive tractor

Farmers can also customize this budget to fit their own operations by using the [Missouri Beef Enterprise Tool](https://extension.missouri.edu/media/wysiwyg/Extensiondata/Pro/Beef/Docs/MissouriBeefEnterprise.xlsx) (extension.missouri.edu/media/wysiwyg/Extensiondata/Pro/Beef/Docs/MissouriBeefEnterprise.xlsx). Download the spreadsheet tool to keep an electronic copy of your cost and return estimates in Missouri.



Issued in furtherance of the Cooperative Extension Work Acts of May 8 and June 30, 1914, in cooperation with the U.S. Department of Agriculture, Director, Cooperative Extension, University of Missouri, Columbia, MO 65211 • MU Extension provides equal opportunity to all participants in extension programs and activities and for all employees and applicants for employment on the basis of their demonstrated ability and competence without discrimination on the basis of race, color, national origin, ancestry, religion, sex, sexual orientation, gender identity, gender expression, age, genetic information, disability or protected veteran status. • 573-882-7216 • extension.missouri.edu