

Northern Missouri Beef Cow-Calf Planning Budget

Using this planning budget, beef cow-calf farmers may estimate their costs and returns for 2023. Table 1 presents estimates for a cow-calf operation (50-cow herd size and purchased replacements) in Northern Missouri with either a fall or spring calving season. Assumptions were based on price forecasts as of September 2022. Detailed assumptions and feed requirements are summarized in Tables 2, 3 and 4. 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 2023.

Table 1. Northern Missouri beef cow-calf planning budget for 2023.

	Fall calving per cow ¹	Spring calving per cow ¹	Your estimate
Income			
Steer calf sales	526.48	519.55	
Heifer calf sales	438.13	433.14	
Cull cow sales	120.00	140.00	
Total income	1,084.61	1,092.69	
Operating costs			
Pasture (rental rate)	177.92	177.92	
Feed and stored forage	411.55	334.08	
Labor	143.36	143.36	
Veterinary, drugs and supplies	44.00	44.00	
Marketing	27.12	27.32	
Machinery and utility costs	128.32	118.36	
Livestock facility repairs	8.50	8.50	
Cow replacement	260.00	300.00	
Bull cost	50.00	50.00	
Professional fees (legal, accounting, etc.)	1.00	1.00	
Miscellaneous	6.00	6.00	
Operating interest	32.85	30.02	
Total operating costs	1,290.61	1,240.55	
Ownership costs			
Depreciation on facilities and equipment	9.10	9.10	
Interest on breeding stock, facilities and equipment	140.40	143.00	
Insurance/taxes on breeding stock and capital items	39.99	40.39	
Total ownership costs	189.49	192.49	
Total costs	1,480.09	1,433.03	
Income over operating costs	-205.99	-147.85	
Income over total costs	-395.48	-340.34	

¹ Totals may not sum due to rounding.

Table 2. Income assumptions used in Northern Missouri beef cow-calf planning budget for 2023.

Category	Percent	Weight (pounds)	Price per cwt	Calf crop (percent weaned)	Dollars per cow
Fall calving					
Steer	50	580	206.30	88	526.48
Heifers	50	540	184.40	88	438.13
Cull cows	12	1,250	80.00		120.00
Spring calving					
Steer	50	590	207.20	85	519.55
Heifers	50	550	185.30	85	433.14
Cull cows	14	1,250	80.00		140.00

Abbreviations: cwt = hundredweight

Table 3. Other assumptions used in Northern Missouri beef cow-calf planning budget for 2023.

Selected input quantities	Per unit	Selected input prices	Dollars per unit
Labor, hours	8	Labor cost, per hour	17.92
Fall calving cows replaced, percent	13	Heifer replacement value, per head	2,000.00
Spring calving cows replaced, percent	15	Bull value, per head	4,000.00

Table 4. Feed requirements in Northern Missouri beef cow-calf planning budget for 2023, on a per cow basis.

	Cost per unit	Cow (units)	Calf (units)	Bull ² (units)	Total units	Total cost per cow ³
Fall calving						
Pasture, per animal unit equivalent	16.0	10.6 ¹		0.5	11.1	177.92
Harvested forage, per pound	0.0625	4,392.0	510.0	240.0	5,142.0	321.38
Protein supplement, per pound	0.145	300.0		7.2	307.2	44.54
Salt and mineral mix, per pound	0.5	91.3			91.3	45.63
					Total	589.47
Spring calving						
Pasture, per animal unit equivalent	16.0	10.6 ¹		0.5	11.1	177.92
Harvested forage, per pound	0.0625	4,158.0		240.0	4,398.0	274.88
Protein supplement, per pound	0.145	90.0		3.6	93.6	13.57
Salt and mineral mix, per pound	0.5	91.3			91.3	45.63
					Total	512.00

¹ Cow and calf requirements are combined for pasture animal unit equivalents.

² Bull feed units are based on 4 percent of its total need being allocated to cow-calf enterprise.

³ Totals may not sum due to rounding.

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 for a cow-calf (spring or fall calving), heifer or backgrounding (drylot or pasture) operation in Missouri.