

Northern Missouri Beef Cow-Calf Planning Budget

Using this planning budget, beef cow-calf farmers may estimate their costs and returns for 2022. 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 October 2021. 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 2022.

Table 1. Northern Missouri beef cow-calf planning budget for 2022.

	Fall calving per cow ¹	Spring calving per cow ¹	Your estimate
Income			
Steer calf sales	444.38	434.12	
Heifer calf sales	370.80	362.45	
Cull cow sales	97.50	113.75	
Total income	912.68	910.33	
Operating costs			
Pasture (rental rate)	168.32	168.32	
Feed and stored forage	230.98	183.51	
Labor	140.00	140.00	
Veterinary, drugs and supplies	40.00	40.00	
Marketing	22.82	22.76	
Machinery and utility costs	105.20	97.39	
Livestock facility repairs	8.00	8.00	
Cow replacement	240.50	277.50	
Bull cost	50.00	50.00	
Professional fees (legal, accounting, etc.)	1.00	1.00	
Miscellaneous	6.00	6.00	
Operating interest	19.23	17.88	
Total operating costs	1,032.04	1,012.35	
Ownership costs			
Depreciation on facilities and equipment	7.92	7.92	
Interest on breeding stock, facilities and equipment	87.73	89.55	
Insurance/taxes on breeding stock and capital items	40.90	41.27	
Total ownership costs	136.56	138.74	
Total costs	1,168.60	1,151.09	
Income over operating costs	-119.36	-102.02	
Income over total costs	-255.92	-240.76	

¹ Totals may not sum due to rounding.

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Table 2. Income assumptions used in Northern Missouri beef cow-calf planning budget for 2022.

Category	Percent	Weight (pounds)	Price per cwt	Calf crop (percent weaned)	Dollars per cow
Fall calving					
Steer	50	580	174.13	88	444.38
Heifers	50	540	156.06	88	370.80
Cull cows	12	1,250	65.00		97.50
Spring calving					
Steer	50	590	173.13	85	434.12
Heifers	50	550	155.06	85	362.45
Cull cows	14	1,250	65.00		113.75

Abbreviations: cwt = hundredweight

Table 3. Other assumptions used in Northern Missouri beef cow-calf planning budget for 2022.

Selected input quantities	Per unit	Selected input prices	Dollars per unit
Labor, hours	8	Labor cost, per hour	17.50
Fall calving cows replaced, percent	13	Heifer replacement value, per head	1,850.00
Spring calving cows replaced, percent	15	Bull value, per head	3,750.00

Table 4. Feed requirements in Northern Missouri beef cow-calf planning budget for 2022, 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	10.0 ¹		0.5	10.5	168.32
Harvested forage, per pound	0.0375	3,660.0	425.0	200.0	4,285.0	160.69
Protein supplement, per pound	0.011	300.0		7.2	307.2	33.79
Salt and mineral mix, per pound	0.4	91.3			91.3	36.50
					Total	399.30
Spring calving						
Pasture, per animal unit equivalent	16.0	10.0 ¹		0.5	10.5	168.32
Harvested forage, per pound	0.0375	3,445.5		200.0	3,645.5	136.71
Protein supplement, per pound	0.011	90.0		3.6	93.6	10.30
Salt and mineral mix, per pound	0.4	91.3			91.3	36.50
					Total	351.83

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) (<https://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.