

Southern Missouri Beef Cow-Calf Planning Budget

This budget presents information useful to beef farmers. Table 1 provides estimates for the 2021 year on a cow-calf operation (50-cow herd size and purchased replacements) in Southern Missouri for a fall and spring calving season. Assumptions were based on price forecasts as of October 2020. Detailed assumptions and feed requirements are summarized in Tables 2, 3 and 4. The production practices used to develop these cost estimates are common for beef farms in Missouri. Farmers are encouraged to modify this budget to fit their operation.

Table 1. Southern Missouri beef cow-calf planning budget for 2021.

	Fall calving per cow ¹	Spring calving per cow ¹	Your estimate
Income			
Steer calf sales	393.81	396.13	
Heifer calf sales	326.26	329.80	
Cull cow sales	90.00	105.00	
Total income	810.08	830.93	
Operating costs			
Pasture (rental rate)	147.52	147.52	
Feed, mineral and stored forage	249.92	210.85	
Labor	124.00	124.00	
Veterinary, drugs and supplies	35.50	35.50	
Marketing	20.25	20.77	
Machinery and utility costs	101.48	94.29	
Livestock facility repairs	8.00	8.00	
Cow replacement	188.50	217.50	
Bull cost	28.00	28.00	
Professional fees (legal, accounting, etc.)	1.00	1.00	
Miscellaneous expense	6.00	6.00	
Operating interest	16.53	15.49	
Total operating costs	926.70	908.92	
Ownership costs			
Depreciation on facilities and equipment	7.92	7.92	
Interest on breeding stock, facilities and equipment	80.72	82.03	
Insurance/taxes on breeding stock and capital items	33.21	33.50	
Total ownership costs	121.85	123.44	
Total costs	1,048.55	1,032.36	
Income over operating costs	-116.62	-77.99	
Income over total costs	-238.47	-201.43	

¹ Totals may not sum due to rounding.

Table 2. Income assumptions used in Southern Missouri beef cow-calf planning budget for 2021.

Category	Percent	Weight (pounds)	Price per cwt	Calf crop (percent weaned)	Dollars per cow
Fall calving					
Steer	50	590	151.70	88	393.82
Heifers	50	550	134.82	88	326.27
Cull cows	12	1,250	60.00		90.00
Spring calving					
Steer	50	590	157.98	85	396.13
Heifers	50	550	141.09	85	329.80
Cull cows	14	1,250	60.00		105.00

Abbreviations: cwt = hundredweight

Table 3. Other assumptions used in Southern Missouri beef cow-calf planning budget for 2021.

Selected input quantities	Per unit	Selected input prices	Dollars per unit
Labor, hours per cow	8	Labor cost, per hour	15.50
Fall calving cows replaced, percent	13	Heifer replacement value, per head	1,450.00
Spring calving cows replaced, percent	15	Bull value, per head	3,000.00

Table 4. Feed requirements in Southern Missouri beef cow-calf planning budget for 2021, 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	16.00	8.7 ¹		0.5	9.2	147.52
Harvested forage, per pound	0.045	3,660.0	425.0	200.0	4,285.0	192.83
Protein supplement, per pound	0.11	180.0		7.2	187.2	20.59
Salt and mineral mix, per pound	0.40	91.3			91.3	36.50
					Total	397.44
Spring calving						
Pasture, per animal unit equivalent	16.00	8.7 ¹		0.5	9.2	147.52
Harvested forage, per pound	0.045	3,445.5		200.0	3,645.5	164.05
Protein supplement, per pound	0.11	90.0		3.6	93.6	10.30
Salt and mineral mix, per pound	0.40	91.3			91.3	36.50
					Total	358.37

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 develop custom enterprise budget by using the Missouri Beef Enterprise Tool (<https://extension.missouri.edu/media/wysiwyg/Extensiondata/Pro/Beef/Docs/MissouriBeefEnterprise.xlsx>). This spreadsheet tool allows users to make an enterprise budget for a cow-calf (spring or fall calving), heifer or backgrounding (drylot or pasture) operation.