

Dairy Heifer Planning Budget

Using this planning budget, farmers raising dairy heifers may estimate their costs and returns for 2023. Table 1 presents estimates for dairy calves purchased at birth, bred and sold at 24 months in Missouri. Assumptions were based on price forecasts as of September 2022. Detailed inputs, feed requirements and investments are summarized in Tables 2, 3 and 4. The production practices used to develop these cost estimates are common in Missouri. Use the “Your estimate” column to plan your operation’s costs and returns for 2023.

Table 1. Missouri dairy heifer planning budget for 2023.

	Per heifer sold ¹	Your estimate
Income		
Springer heifer sales (0.95 head)	1,330.00	
Cull heifer sales (0.025 head)	32.50	
Yearling heifer sales (0.025 head)	19.03	
Less death loss (4 percent) of purchased calves	-3.00	
Total income	1,378.53	
Operating costs		
Purchased heifer calf and interest	85.14	
Feed (birth to 24 months of age)	1,195.21	
Labor	179.20	
Veterinary, drugs and supplies	25.00	
Breeding costs for artificial insemination services	47.50	
Transportation and marketing	20.00	
Utilities, fuel and oil	20.00	
Building and equipment repairs	10.50	
Miscellaneous	18.00	
Operating interest	49.25	
Total operating costs	1,649.80	
Ownership costs		
Depreciation on buildings and equipment	55.80	
Interest on buildings and equipment	37.54	
Insurance and taxes on buildings and equipment	15.53	
Total ownership costs	108.86	
Total costs	1,758.66	
Income over operating costs	-271.27	
Income over total costs	-380.13	
Total cost per day per heifer sold	2.32	
Total cost per pound of gain per heifer sold	1.40	
Springer heifer breakeven price per head	1,800.14	

¹ Totals may not sum due to rounding.

Table 2. Input assumptions used in dairy heifer planning budget for 2023.

Selected input quantities	Quantity	Selected input prices	Dollars per unit
Cull heifer sale weight, pounds	1,300	Cull heifer sale price, per hundredweight	100.00
Yearling heifer sale weight, pounds	725	Yearling heifer sale price, per hundredweight	105.00
Labor, hours	10	Springer heifer sale price, per head	1,400.00
		Labor cost, per hour	17.92
		Heifer purchase price	75.00

Table 3. Feed requirements for dairy heifer planning budget for 2023.

Birth to 6 months (90 to 400 pounds)		Pre-weaning ration (90 to 180 pounds)		Transition ration (180 to 235 pounds)		Early growing ration (235 to 400 pounds)	
Feed description	Cost per unit	Units	Dollars ¹	Units	Dollars ¹	Units	Dollars ¹
Milk replacer, per pound	1.5000	50	75.00				
Calf starter, per pound	0.3310	100	33.10	100	33.10		
Alfalfa hay, per pound	0.1375	20	2.75	90	12.38	225	30.94
Calf grower, per pound	0.3100			50	15.50	450	139.50
Grass hay, per pound	0.0750					225	16.88
Pasture, per animal unit month	16.0000					0.4	6.53
Feed cost per period		110.85		60.98		193.85	
Total feed costs²		365.67					
6 to 12 months (400 to 725 pounds)		Winter ration		Spring/Fall ration		Summer ration	
Feed description	Cost per unit	Units	Dollars ¹	Units	Dollars ¹	Units	Dollars ¹
Corn gluten feed, per pound	0.1500	525	78.75			270	40.50
Corn, cracked, per pound	0.1250	387	48.38	252	31.50	234	29.25
Soybean hulls, per pound	0.1375	263	36.09	360	49.50	270	37.13
Grass hay, per pound	0.0750	1,350	101.25				
Mineral, per pound	0.6000	36	21.60	36	21.60	36	21.60
Pasture, per animal unit month	16.0000			1.1	18.00	1.7	27.00
Feed cost per period		286.07		120.60		155.48	
Average total feed costs		341.37					
12 to 24 months (725 to 1,380 pounds)		Winter ration		Spring/Fall ration		Summer ration	
Feed description	Cost per unit	Units	Dollars ¹	Units	Dollars ¹	Units	Dollars ¹
Corn gluten feed, per pound	0.1500	225	33.75			207	31.05
Corn, cracked, per pound	0.1250	135	16.88	90	11.25	117	14.63
Soybean hulls, per pound	0.1375	90	12.38	180	24.75	207	28.46
Grass hay, per pound	0.0750	1,710	128.25				
Mineral, per pound	0.6000	18	10.80	18	10.80	18	10.80
Pasture, per animal unit month	16.0000			2.1	33.68	3.2	50.52
Feed cost per period		202.05		80.48		135.46	
Average total feed costs³		498.47					

¹ Totals may not sum due to rounding.

² Feed cost adjusted to account for death loss (4 percent).

³ Feed cost adjusted to account for sale of yearling heifers (2.5 percent).

Farmers can also customize this budget by using the [Missouri Dairy Enterprise Tool](https://extension.missouri.edu/media/wysiwyg/Extensiondata/Pro/AgBusinessPolicyExtension/Docs/MODairyBudget.xlsx) (extension.missouri.edu/media/wysiwyg/Extensiondata/Pro/AgBusinessPolicyExtension/Docs/MODairyBudget.xlsx). Download the spreadsheet to keep an electronic copy of your cost and return estimates for dairy production and heifer raising.



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