

Beef Replacement Heifer Budget: 100-head

Wintered to go to Grass

Bought in Fall & Sold in Winter

Ben Eborn



Background and Assumptions

University of Idaho costs and returns estimates use economic costs—all resources are valued based on market price or opportunity cost. This budget presents typical costs and returns per head for a 100-head replacement heifer development operation.

Livestock Investment

Heifers are purchased or transferred from the cow-calf enterprise at about 500 pounds in November. The heifers are marketed or transferred back into the cow-calf enterprise at the end of December. Nine of the heifers are culled and there is a 1 percent death loss.

Winter Feeding

Heifers are held in an open feedlot for winter feeding from November through May. They are fed approximately 3 percent of their body weight in alfalfa hay per day (15-22 pounds per day). Average daily gain for the 14-month period November through mid-December the following year is 1.5 pounds. Feed prices include the purchase price and delivery costs. Monthly feed quantities are listed in Table 3. A yardage fee is included to cover the costs associated with owning and operating a feedlot.

Summer Feeding

The summer forage source is high mountain pasture. On about June 1, the heifers are trucked to summer pasture where they graze until mid-November. The heifers return to the ranch and are fed alfalfa until mid-December.

Breeding

Heifers are synchronized using a timed AI protocol and AI bred in mid-May to calve around February 1st. Calving ease clean-up bulls are turned out after the heifers are AI bred. Breeding expenses include synchronization shots, CIDR, semen, supplies, and technician costs. Clean-up bull costs are amortized over the useful life of the bull on a per heifer basis.

Veterinary/Health

Veterinary expenses include vaccinations, parasite control, pregnancy check, and any treatment for sick heifers.

Other Costs

Hauling costs are included in the budget to cover trucking to summer pasture. A miscellaneous cost covers any additional handling, supplies, etc. Marketing costs include brand inspections and health certificate. Operating interest is charged for 75 percent of the total operating costs.

Budget Format

This publication has three tables presenting a variety of costs and returns information.

Table 1 shows both expected revenue and expenses. Operating expenses are those that typically vary with the level of production and involve inputs that are used in a single production cycle. There are no ownership expenses associated with this budget.

Table 2 is a monthly summary of the cash flow of revenues and expenses based on when the operation occurs and when inputs are purchased.



Table 3 is a monthly summary of feed requirements.

Table 1: Replacement Heifer Budget, 100 Head - 2020

EBB-HFR-20

Wintered to Go to Grass, Bought in Fall, Sold in Winter

No. of Head: 100

	Weight Each	Unit	Total Number of Head or Units	Price or Cost/Unit	Total Value	Value or Cost/Head	Your Value
GROSS RETURNS							
Bred Replacement Heifers	1100	hd	90	1,450.00	130,500	1,305.00	
Cull Heifers	1000	lbs	9	1.00	9,000	90.00	
TOTAL GROSS RETURNS					\$139,500	\$1,395.00	
OPERATING COSTS							
Purchased/Transferred Heifers	500	lbs	100	1.70	85,000	850.00	
Alfalfa Hay		ton	251	150.00	37,650	376.50	
Supplement		cwt	0	13.00	0	0.00	
Yardage		hd-day	21,000	0.35	7,350	73.50	
Pasture		AUM	550	20.00	11,000	110.00	
Hauling		head	100	15.00	1,500	15.00	
Veterinary		head	100	29.13	2,913	29.13	
Breeding		head	100	69.90	6,990	69.90	
Hired Labor		hour	200	17.50	3,500	35.00	
Salt/Mineral		cwt	27	18.00	486	4.86	
Marketing		head	99	2.96	293	2.93	
Commision		head	9	25.00	225	2.25	
Miscellaneous		head	100	10.00	1,000	10.00	
Interest on Operating Capital		\$	118,430	7.00%	6,218	62.18	
TOTAL OPERATING COSTS					\$164,124	\$1,641.24	
NET RETURNS ABOVE OPERATING COSTS					(\$24,624)	-\$246.24	

Table 2: Monthly Summary of Returns and Expenses.													EBB-HFR-20		
	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Value
Production:															
Bred Replacement Heifers														130,500	130,500
Cull Heifers													9,000		9,000
Total Receipts	0	0	0	0	0	0	0	0	0	0	0	0	9,000	130,500	139,500
Operating Inputs:															
Purchased/Transferred Heifers	85,000														85,000
Alfalfa Hay	3,389	3,765	4,142	4,518	4,518	4,895	5,271						3,389	3,765	37,650
Supplement															0
Yardage	919	919	919	919	919	919	919						459	459	7,350
Pasture								2,000	2,000	2,000	2,000	2,000	1,000		11,000
Hauling								750					750		1,500
Veterinary	874					874							1,165		2,913
Breeding							6,990								6,990
Hired Labor	250	250	250	250	250	250	250	250	250	250	250	250	250	250	3,500
Salt/Mineral	35	35	35	35	35	35	35	35	35	35	35	35	35	35	486
Marketing														293	293
Commission													225		225
Miscellaneous	71	71	71	71	71	71	71	71	71	71	71	71	71	71	1,000
Interest on Operating Capital														6,218	6,218
Total Costs	90,466	4,968	5,345	5,721	5,721	6,972	13,464	3,035	2,285	2,285	2,285	2,285	7,272	4,802	164,124
Net Returns	-90,466	-4,968	-5,345	-5,721	-5,721	-6,972	-13,464	-3,035	-2,285	-2,285	-2,285			125,698	-24,624

Table 3: Monthly Feed Requirements.

Feed	Units	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Alfalfa Hay	ton	23	25	27	29	31	33	35							
Supplement	cwt														
Pasture	head								100	100	100	100	100	50	
Salt/Mineral	cwt	2	2	2	2	2	2	2	2	2	2	2	2	2	1

The Author – Ben Eborn is an Extension Ag Economist in Bear Lake County, Montpelier.

Issued in furtherance of cooperative extension work in agriculture and home economics, Acts of May 8 and June 30, 1914, in cooperation with the U.S. Department of Agriculture, Barbara Petty, Interim Director of University of Idaho Extension, University of Idaho, Moscow, Idaho 83843. The University of Idaho provides equal opportunity in education and employment on the basis of race, color, religion, national origin, gender, age, disability, or status as a Vietnam-era veteran, as required by state and federal laws.