

EBB-CC2-02

**Cow-Calf 300 Cow
Summer on Private Pasture and Federal Range
Winter Feeding Necessary**

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Background and Assumptions

This budget presents both the average costs and returns per cow for a 300-head cow-calf operation and the total costs and returns for the ranch. The forage source is private pasture and federal range (BLM and Forest Service), and feeding is necessary in the winter.

Livestock Investment

Livestock investment is 300 cows, 15 bulls, and 6 horses. Cows have a useful life of 6 years after they are placed in the breeding herd. The culling rate is 14 percent and the cow herd has a 2 percent death loss. The ranch buys yearling bulls and replaces them every 4 years. The weaned calf crop is 92 percent of the number of cows wintered.¹ Of the 54 weaned heifer calves selected from the calf crop as replacements, six are culled because of non-breeding or poor quality. This leaves a net replacement of 48 head each year.

Machinery and Equipment

The cow/calf enterprise uses a ¾-ton pickup (4x4), a 1-ton pickup (4x4), an 80 HP tractor with a loader, a stock trailer, and a gooseneck trailer. This equipment complement is minimal, but considered adequate to make the ranch operation functional. Values on these investments are calculated at 50 percent of new replacement cost to reflect typically aged but functional ranch equipment.

Haying equipment is not included in this budget as hay production is treated as a separate enterprise. Only equipment that is necessary for the cattle enterprise is included. Refer to EBB6-AH-01 for a summary of the costs and returns associated with hay production in Butte, Custer, and Lemhi counties. Hay and other feeds used as inputs in this cow/calf budget are valued at the market price received by growers (farmgate).

Buildings and Improvements

The ranch has 12 miles of 4-wire fence, one barn, one corral with working alleys, a squeeze chute, a calf cradle and a normal complement of veterinary equipment. Water is supplied from natural sources. Buildings and improvements are valued at 80 percent of new replacement cost.

Animals	Alfalfa/grass hay (lb fed/day)	Feed barley (lb fed/day)	Number of days
Replacement heifers	—	1.8	150
Replacement heifers	13	—	150
Cows	25	—	150
Bulls	28	—	150
Horses	20	—	150

Management Practices

The cows calve between January 15 and April 15. From December 1 to April 30, all cattle are fed a mixture of alfalfa and grass hay. Replacement heifers also receive a barley supplement. Monthly herd feed quantities are listed in Table 3 while daily feed quantities per animal are summarized above.

Typically, an operation uses a combination of deeded pasture and federal range. Approximately 2/3 of the cattle graze on BLM and Forest Service range while the remaining 1/3 of the cattle graze on meadow pasture. The range cattle are moved from hay meadow to BLM grazing in late April and to Forest Service grazing in June. Cows and calves are returned to previously harvested hay fields in early October, after the cattle have been gathered and worked.

The top end of the heifer calves will be kept as replacements while the rest of the heifers (84 head) plus 138 steer calves and cull animals are sold in November. The costs of selling cattle include check-off/brand inspection, sales commissions, and freight/trucking. Check-off/brand inspection costs pertain to all cattle sold in the enterprise including cull animals. Sales commission and freight costs pertain to cull animals only since they are sold through the sale yard. All steer and heifer calves are sold direct.

Veterinary care for calves includes viral treatments and 7-way vaccinations (given twice during the year), implants and BOSE vaccinations. Heifer calves are also vaccinated for Bangs. Cows and replacement heifers are treated for vibrio, leptospirosis, parasites, and given preg checks and 8-way vaccinations. Bulls are given about the same veterinary treatments as cows and replacements plus a semen/trich test.

Labor is provided by the operator and one part-time person and is valued at \$8.50 per hour. The hired labor rate includes payroll taxes and employee benefits paid by the rancher.

¹ Percent calf crop = $\frac{\text{number of calves} \times 100}{\text{number of cows wintered}}$

**Table1: Cow-Calf Budget - 300 Cow
Summer on Private Pasture and Federal Range
Winter Feeding Necessary**

EBB-CC2-02

	Weight Each	Unit	Total Number of Head or Units	Price or Cost/Unit	Total Value	Value or Cost/Head	Your Value
1. Gross Receipts							
Steer calves	5.60	cwt	138	84.00	64,915.20	216.38	_____
Heifer calves	5.20	cwt	84	79.00	34,507.20	115.02	_____
Aged bull	16.50	cwt	4	48.00	3168.00	10.56	_____
Cull cows	11.00	cwt	42	43.00	19,866.00	66.22	_____
Cull replacement heifer	9.00	cwt	6	62.00	3348.00	11.16	_____
Total Receipts					\$125,804.40	\$419.35	_____
2. Operating Costs							
Feed barley		cwt	150.01	5.00	750.06	2.50	_____
Alfalfa grass hay		ton	378.90	70.00	26,523.00	88.41	_____
Meadow hay		ton	281.25	60.00	16,875.00	56.25	_____
Federal range		AUM	1120.56	1.35	1512.76	5.04	_____
Meadow pasture		AUM	712.53	12.00	8550.34	28.50	_____
Crop aftermath		AUM	484.00	12.00	5808.00	19.36	_____
Salt		lb	10,800.00	0.06	648.00	2.16	_____
Protein supplement - 20%		cwt	228.00	8.75	1995.00	6.65	_____
Minerals		lb	4200.00	0.24	1008.00	3.36	_____
Checkoff/brand inspection		head	274.00	2.01	550.74	1.84	_____
Commission		head	52.00	15.30	795.60	2.65	_____
Freight/trucking		head	52.00	12.50	650.00	2.17	_____
Veterinary Medicine		\$	4814.13	1.00	4814.13	16.05	_____
Machinery (fuel, lubrication, repair)		\$	1587.40	1.00	1587.40	5.29	_____
Vehicles (fuel, repair)		\$	3646.88	1.00	3646.88	12.16	_____
Equipment (repair)		\$	461.80	1.00	461.80	1.54	_____
Housing and Improvements (repair)		\$	703.39	1.00	703.39	2.34	_____
Hired Labor		hour	2180.00	8.50	18,530.00	61.77	_____
Owner Labor		hour	1000.00	8.50	8500.00	28.33	_____
Interest on Operating Capital		\$	41,147.22	0.06	2571.70	8.57	_____
Total Operating Costs					\$106,481.80	\$354.94	_____
3. Income Above Operating Costs					\$19,322.60	\$64.41	_____
4. Ownership Costs							
Capital Recovery:							
Purchased Livestock		\$	5860.53	1.00	5860.53	19.54	_____
Housing and Improvements		\$	3958.98	1.00	3958.98	13.20	_____
Machinery		\$	1319.18	1.00	1319.18	4.40	_____
Equipment		\$	1202.51	1.00	1202.51	4.01	_____
Vehicles		\$	4650.42	1.00	4650.42	15.50	_____
Interest on Retained Livestock		\$	177,000.00	0.07	11,947.50	39.83	_____
Taxes and Insurance		\$	497.87	1.00	497.87	1.66	_____
Overhead		\$	2500.00	1.00	2500.00	8.33	_____
Total Ownership Costs					\$31,936.98	\$106.46	_____
5. Total Costs					\$138,418.78	\$461.40	_____
6. Returns to Risk and Management					-\$12,614.38	-\$42.05	_____

Table 4: Investment Summary.**EBB-CC2-02**

	Purchase Price	Salvage/Cull Value	Livestock Share	Useful Life	Annual Taxes and Insurance	Annual Capital Recovery ¹
Buildings, Improvements and Equipment						
Fencing CC2	\$23,000.00	\$0.00	100	25	\$69.00	\$1929.40
Corral CC2	\$8700.00	\$870.00	100	30	\$28.71	\$673.94
Barn	\$17,500.00	\$1750.00	100	30	\$57.75	\$1355.64
Calf Cradle	\$750.00	\$75.00	100	10	\$2.48	\$100.06
Gooseneck trailer	\$5500.00	\$550.00	100	20	\$18.15	\$495.33
Stock trailer	\$2500.00	\$500.00	100	20	\$9.00	\$218.88
Squeeze chute	\$2100.00	\$210.00	100	10	\$6.93	\$280.17
Vet equipment	\$1000.00	\$0.00	100	15	\$3.00	\$108.07
Total	\$61,050.00				\$195.02	\$5161.49
Purchased Livestock						
Bulls	\$25,500.00	\$12,000.00	100	4		\$4773.11
Horses	\$9600.00	\$3600.00	100	10		\$1087.42
Total	\$35,100.00					\$5860.53
Retained Livestock						
Cows	\$180,000.00	\$120,000.00	100			\$10,125.00 ²
Replacement heifers	\$32,400.00	\$21,600.00	100			\$1822.50 ²
Total	\$212,400.00					\$11,947.50²
Machinery and Vehicles						
Tractor loader	\$29,000.00	\$6400.00	50	18	\$53.10	\$1319.18
Pickup 4x4 3/4 ton	\$17,000.00	\$3400.00	75	8	\$114.75	\$1949.77
Pickup 4x4 1 ton	\$20,000.00	\$4000.00	75	6	\$135.00	\$2700.65
Total	\$66,000.00				\$302.85	\$5969.60

¹ Annual capital recovery is the method of calculating depreciation and interest recommended by the National Task Force on Commodity Costs and Returns Measurement Methods.

² Interest on average investment.

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