

EBB-CC5-02

**Cow-Calf^{3/4} 300 Cow
Summer on Federal and State Range
Winter on Harvested Feeds and Crop Aftermath**

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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 federal and state range, and some feeding is necessary in the winter.

Livestock Investment

Livestock investment is 300 cows, 18 bulls, and 6 horses. Cows have a useful life of 5 years after they are placed in the herd. The culling rate is 20 percent and the cow herd has a 1 percent death loss. The ranch buys two-year-old bulls and replaces them every 4 years. The weaned calf crop is 87 percent of the number of cows wintered.¹ Of the 67 weaned heifer calves selected from the calf crop for replacements, 5 are culled because of non-breeding or poor quality. This leaves a net replacement rate of 62 head each year.

Machinery and Equipment

The cow/calf enterprise uses a ¾-ton pickup (4x4), a 1-ton pickup (4x4), two 80 HP tractors (one with a loader), a feed wagon, a stock trailer, a gooseneck trailer, and a 4 wheeler (ATV). 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 EBB2-AH-01 for a summary of the costs and returns associated with hay production in southwestern Idaho. 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 25 miles of 4-wire fence, one barn, one two acre 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.

Management Practices

The majority of cows calve between February 15 and April 15, but a few will calve later in the year. From December 15 to April 15, all cattle except replacements are fed meadow

Animals	Alfalfa/grass hay (lb fed/day)	Protein supplement (lb fed/day)	Number of days
Replacement heifers	20	—	120
Replacement heifers	—	3	150
Cows	25	—	120
Bulls	30	—	120
Horses	20	—	120

hay. Replacement heifers are fed alfalfa hay and barley supplements. Cows are also fed protein supplements from November 1 through January 30. Monthly feed quantities for the herd are listed in Table 3 while daily feed quantities per animal are summarized above.

The cattle are moved from the ranch to federal range around April 15 and will graze there until the middle of October. There is also some state range that is grazed within the federal allotments. The cattle are moved to previously harvested hay ground in mid October after they have been gathered and worked and left there until winter-feeding begins around December 15. Costs are included in the budget for all lands that are grazed.

The top end of the heifer calves will be kept as replacements while the remaining heifers (64 head) and 131 steer calves are sold in November. Cull animals are sold in both July and December.

The costs of selling cattle include check-off/brand inspection, sales commissions, and freight/trucking. Check-off and brand inspection costs pertain to 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 8-way vaccinations given twice during the year. Heifer calves are also vaccinated for Bangs. Cows and replacement heifers are treated for viral infections, vibrio, leptos, worms, and given preg checks. Bulls are given the same veterinary treatments as cows and replacements plus a trich test.

Labor is provided by the operator and his family and valued at \$8.50 per hour. An additional person is hired on a part-time basis and paid \$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 --- 300 Cow
Summer on Federal and State Range
Winter on Harvested Feeds and Crop Aftermath

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	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	4.40	cwt	131	88.00	50,723.20	169.08	_____
Heifer calves	3.90	cwt	64	83.00	20,716.80	69.06	_____
Cull replacement heifer	8.00	cwt	5	65.00	2600.00	8.67	_____
Aged bull	18.00	cwt	5	48.00	4320.00	14.40	_____
Cull cows	11.00	cwt	59	43.00	27,907.00	93.02	_____
Total Receipts					\$106,267.00	\$354.22	_____
2. Operating Costs							
Alfalfa hay		ton	80.73	75.00	6055.13	20.18	_____
Feed barley		cwt	242.21	5.00	1211.03	4.04	_____
Meadow hay		ton	477.72	55.00	26,274.40	87.58	_____
Protein supplement - 20%		cwt	552.00	8.75	4830.00	16.10	_____
Federal range		AUM	2107.20	1.35	2844.72	9.48	_____
State range		AUM	144.00	5.33	767.52	2.56	_____
Crop aftermath		AUM	750.40	12.00	9004.80	30.02	_____
Salt		lb	6120.00	0.06	367.20	1.22	_____
Checkoff/brand inspection		head	264.00	2.01	530.64	1.77	_____
Commission		head	69.00	15.19	1048.11	3.49	_____
Freight/trucking		head	69.00	9.28	640.32	2.13	_____
Veterinary Medicine		\$	4454.19	1.00	4454.19	14.85	_____
Machinery (fuel, lubrication, repair)		\$	2271.10	1.00	2271.10	7.57	_____
Vehicles (fuel, repair)		\$	6395.57	1.00	6395.57	21.32	_____
Equipment (repair)		\$	505.30	1.00	505.30	1.68	_____
Housing and Improvements (repair)		\$	1233.42	1.00	1233.42	4.11	_____
Hired Labor		hour	480.00	8.50	4080.00	13.60	_____
Owner Labor		hour	3000.00	8.50	25,500.00	85.00	_____
Interest on Operating Capital		\$	28,101.54	0.06	1756.35	5.85	_____
Total Operating Costs					\$99,769.79	\$332.57	_____
3. Income Above Operating Costs					\$6497.21	\$21.66	_____
4. Ownership Costs							
Capital Recovery:							
Purchased Livestock		\$	6815.15	1.00	6815.15	22.72	_____
Housing and Improvements		\$	6805.02	1.00	6805.02	22.68	_____
Machinery		\$	1728.52	1.00	1728.52	5.76	_____
Equipment		\$	1335.52	1.00	1335.52	4.45	_____
Vehicles		\$	7671.00	1.00	7671.00	25.57	_____
Interest on Retained Livestock		\$	183,500.00	0.07	12,386.25	41.29	_____
Taxes and Insurance		\$	712.46	1.00	712.46	2.37	_____
Overhead		\$	1800.00	1.00	1800.00	6.00	_____
Total Ownership Costs					\$39,253.91	\$130.85	_____
5. Total Costs					\$139,023.70	\$463.41	_____
6. Returns to Risk and Management					-\$32,756.70	-\$109.19	_____

Table 4: Investment Summary.**EBB-CC5-02**

	Purchase Price	Salvage/Cull Value	Livestock Share	Useful Life	Annual Taxes and Insurance	Annual Capital Recovery ¹
Buildings, Improvements and Equipment						
Barn	\$17,500.00	\$1750.00	100	30	\$57.75	\$1355.64
Fencing	\$48,000.00	\$0.00	100	25	\$144.00	\$4026.57
Corral	\$10,600.00	\$1060.00	100	30	\$34.98	\$821.13
Water system	\$6500.00	\$0.00	100	20	\$19.50	\$601.68
Feed wagon	\$1700.00	\$170.00	100	10	\$5.61	\$226.80
Squeeze chute	\$2100.00	\$210.00	100	10	\$6.93	\$280.17
Vet equipment	\$1000.00	\$0.00	100	15	\$3.00	\$108.07
Gooseneck trailer	\$5500.00	\$550.00	100	20	\$18.15	\$495.33
Stock trailer	\$2500.00	\$250.00	100	20	\$8.25	\$225.15
Total	\$95,400.00				\$298.17	\$8140.54
Purchased Livestock						
Bulls	\$30,600.00	\$14,400.00	100	4		\$5727.73
Horses	\$9600.00	\$3600.00	100	10		\$1087.42
Total	\$40,200.00					\$6815.15
Retained Livestock						
Cows	\$180,000.00	\$120,000.00	100			\$10,125.00 ²
Replacement heifers	\$40,200.00	\$26,800.00	100			\$2261.25 ²
Total	\$220,200.00					\$12,386.25²
Machinery and Vehicles						
Tractor loader	\$29,000.00	\$6400.00	20	18	\$21.24	\$527.67
Tractor - 80hp	\$24,000.00	\$5300.00	55	18	\$48.34	\$1200.85
Pickup 4x4 3/4 ton	\$17,000.00	\$3400.00	90	4	\$137.70	\$3799.77
Pickup 4x4 1 ton	\$20,000.00	\$4000.00	90	6	\$162.00	\$3240.78
4 wheeler	\$5000.00	\$1000.00	100	10	\$45.00	\$630.45
Total	\$95,000.00				\$414.29	\$9399.52

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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