

EBB-CC1-02

**Cow-Calf – 250 Cow  
Summer on Private Range  
Winter Feeding Necessary**

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**Background and Assumptions**

This budget presents both the average costs and returns per cow for a 250-head cow-calf operation and total costs and returns for the ranch. The forage source is deeded range, with hay feeding necessary in the winter.

**Livestock Investment**

Livestock investment is 250 cows, 12 bulls, and 2 horses. Cows have a useful life of 5 years after they are placed in the breeding herd. The culling rate is 17 percent and the cow herd has a 2 percent death loss. The ranch buys two-year old bulls and replaces them every 4 years. The weaned calf crop is 90 percent of the number of cows wintered.<sup>1</sup> Of the 58 weaned heifer calves selected from the calf crop as replacements, 10 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, 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. Refer to EBB1-AH-01 for a summary of the costs and returns associated with alfalfa hay production in northern 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 35 miles of 4-wire fence, one barn, a hay shed, grain storage, two sets of corrals with working alleys, a squeeze, and 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.

<b>Animals</b>	<b>Alfalfa/grass hay (lb fed/day)</b>	<b>Feed barley (lb fed/day)</b>	<b>Number of days</b>
Replacement heifers	—	2	180
Replacement heifers	13	—	120
Cows	25	—	120
Bulls	28	—	120
Horses	20	—	120

**Management Practices**

The majority of cows calve between January 1 and late March, with some calves being born throughout the year. From December 1 to March 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.

In April, the cattle are trucked to private spring pasture where they remain until late May. They are then trucked to private summer pasture and left through October. By November 1, the cattle have been gathered, worked, and those held over are pastured on stubble fields until winter-feeding begins around December 1. 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 (65 head) plus 113 steer calves are sold in November. Cull animals are sold in June, August, and November. The costs of selling cattle include checkoff/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 viral infections, vibrio, leptospirosis, parasites, and given preg checks. 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.

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

**Table1: Cow-Calf Budget - 250 Cow  
Summer on Private Range  
Winter Feeding Necessary**

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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
<b>1. Gross Receipts</b>							
Steer calves	5.50	cwt	113	84.00	52,206.00	208.82	_____
Heifer calves	5.00	cwt	55	79.00	21,725.00	86.90	_____
Aged bull	16.50	cwt	3	48.00	2376.00	9.50	_____
Cull cows	11.00	cwt	43	43.00	20,339.00	81.36	_____
Cull replacement heifer	9.00	cwt	10	62.00	5580.00	22.32	_____
Total Receipts					\$102,226.00	\$408.90	_____
<b>2. Operating Costs</b>							
Feed barley		cwt	172.80	5.00	864.00	3.46	_____
Alfalfa grass hay		ton	434.16	70.00	30,391.20	121.56	_____
Deeded summer range		AUM	2133.60	12.00	25,603.20	102.41	_____
Crop aftermath		AUM	303.00	13.00	3939.00	15.76	_____
Salt		lb	5520.00	0.06	331.20	1.32	_____
Checkoff/brand inspection		head	224.00	2.01	450.24	1.80	_____
Commission		head	46.00	18.45	848.70	3.39	_____
Trucking/freight (to market)		head	46.00	7.61	350.06	1.40	_____
Trucking to and from pasture		head	250.00	13.13	3282.50	13.13	_____
Veterinary Medicine		\$	4195.64	1.00	4195.64	16.78	_____
Machinery (fuel, lubrication, repair)		\$	2381.10	1.00	2381.10	9.52	_____
Vehicles (fuel, repair)		\$	1604.63	1.00	1604.63	6.42	_____
Equipment (repair)		\$	461.80	1.00	461.80	1.85	_____
Housing and Improvements (repair)		\$	1483.79	1.00	1483.79	5.94	_____
Hired Labor		hour	1260.00	8.50	10,710.00	42.84	_____
Owner Labor		hour	1000.00	8.50	8500.00	34.00	_____
Interest on Operating Capital		\$	26,957.90	0.06	1684.87	6.74	_____
Total Operating Costs					\$97,081.93	\$388.33	_____
<b>3. Income Above Operating Costs</b>					\$5144.07	\$20.58	_____
<b>4. Ownership Costs</b>							
Capital Recovery:							
Purchased Livestock		\$	4180.96	1.00	4180.96	16.72	_____
Housing and Improvements		\$	9498.33	1.00	9498.33	37.99	_____
Machinery		\$	1978.76	1.00	1978.76	7.92	_____
Equipment		\$	1208.77	1.00	1208.77	4.84	_____
Vehicles		\$	2046.19	1.00	2046.19	8.18	_____
Interest on Retained Livestock		\$	149,000.00	0.07	10,057.50	40.23	_____
Taxes and Insurance		\$	600.83	1.00	600.83	2.40	_____
Overhead		\$	2300.00	1.00	2300.00	9.20	_____
Total Ownership Costs					\$31,871.34	\$127.49	_____
<b>5. Total Costs</b>					\$128,953.26	\$515.81	_____
<b>6. Returns to Risk and Management</b>					-\$26,727.26	-\$106.91	_____



**Table 4: Investment Summary.**

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	Purchase Price	Salvage/Cull Value	Livestock Share	Useful Life	Annual Taxes and Insurance	Annual Capital Recovery <sup>1</sup>
<b>Buildings, Improvements and Equipment</b>						
Fencing	\$67,200.00	\$0.00	100	25	\$201.60	\$5637.20
Corral	\$8300.00	\$830.00	100	30	\$27.39	\$642.96
Barn	\$17,500.00	\$1750.00	100	30	\$57.75	\$1355.64
Hay shed	\$19,000.00	\$1900.00	100	40	\$62.70	\$1373.84
Grain storage	\$6400.00	\$1280.00	100	30	\$23.04	\$488.69
Calf Cradle	\$750.00	\$75.00	100	10	\$2.48	\$100.06
Squeeze	\$2100.00	\$210.00	100	10	\$6.93	\$280.17
Vet equipment	\$1000.00	\$0.00	100	15	\$3.00	\$108.07
Stock trailer	\$2500.00	\$250.00	100	20	\$8.25	\$225.15
Gooseneck trailer	\$5500.00	\$550.00	100	20	\$18.15	\$495.33
<b>Total</b>	<b>\$130,250.00</b>				<b>\$411.29</b>	<b>\$10,707.10</b>
<b>Purchased Livestock</b>						
Bulls	\$20,400.00	\$9600.00	100	4		\$3818.49
Horses	\$3200.00	\$1200.00	100	10		\$362.47
<b>Total</b>	<b>\$23,600.00</b>					<b>\$4180.96</b>
<b>Retained Livestock</b>						
Cows	\$150,000.00	\$100,000.00	100			\$8437.50 <sup>2</sup>
Replacement heifers	\$28,800.00	\$19,200.00	100			\$1620.00 <sup>2</sup>
<b>Total</b>	<b>\$178,800.00</b>					<b>\$10,057.50<sup>2</sup></b>
<b>Machinery and Vehicles</b>						
Tractor loader	\$29,000.00	\$6400.00	75	18	\$79.65	\$1978.76
Pickup 4x4 3/4 ton	\$17,000.00	\$3400.00	33	8	\$50.49	\$857.90
Pickup 4x4 1 ton	\$20,000.00	\$4000.00	33	6	\$59.40	\$1188.29
<b>Total</b>	<b>\$66,000.00</b>				<b>\$189.54</b>	<b>\$4024.95</b>

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

<sup>2</sup> Interest on average investment.

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