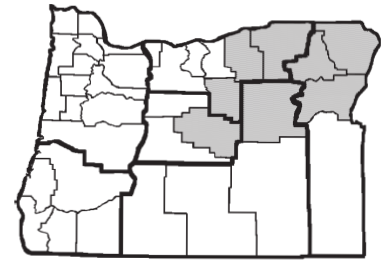


Enterprise Budget

500 Cow/Calf, Mountain Region

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This livestock enterprise budget estimates the typical costs and returns of producing calves in the mountain area of northeast Oregon. It should be used as a guide to estimate actual costs and is not representative of any particular ranch. The major assumptions used in constructing this budget are discussed below. Assistance provided by area producers is greatly appreciated. For costs and returns associated with alternate herd sizes in the mountain area, see EM 8684, EM 8685, and EM 8686.

Livestock

The enterprise consists of 500 cows, 25 bulls, and 10 horses. A 95-percent conception rate is used, and 98 percent of the pregnant cows give birth. Cow death loss is 1 percent, while a 1-percent death loss is assumed for the bulls and 5 percent for calves. Mature cows are culled at the rate of 15 percent annually, and all replacement heifers are raised (see figure on page 3).

Calves are worked in April, including branding, vaccinating, and implanting. Cows are vaccinated in April and treated for external parasites. Cows and replacement heifers are vaccinated and pregnancy tested in the fall as the cattle are gathered. Cull cows, cull replacement heifers, and calves are sold November 1.

Current market values and years of useful life for all livestock are shown in the bottom portion of Table 1. The calculations for livestock noncash fixed costs are shown in Table 2. No depreciation costs are included for cows or replacement heifers since they are raised on the ranch. For bulls and horses, which are purchased in this budget, the cost of depreciation has been included implicitly by reporting replacement purchases as costs and cull sales as revenues. The difference between these two values is the annual cost of capital replacement.

Livestock selling prices are a 3-year average (1993-1995) of farmgate prices for the Northeast region including Baker, Crook, Grant, Morrow, Umatilla, Union, and Walla Walla counties. Livestock weights are assumed typical for the mountain area.

Feed

Feed is supplied in the form of native and feeder-quality alfalfa hay, public range, and pasture. Cattle are fed hay for 4.5 months, forest service range is used for 3.5 months, privately owned spring range is grazed for 1.5 months, and stringer meadows are utilized for the remaining 2.5 months. A \$2.50-per-AUM charge covers fertilizer and irrigation expenses for the private pasture.

Salt and minerals are fed at the rate of 48 pounds per cow annually, and approximately one-third is assumed to be consumed by wildlife.

Labor

Labor provided by two families is included as a variable cost of \$27,000 per year, assuming 8 months are dedicated to the cow/calf operation and 4 months to hay production.

Capital

Opportunity costs of operating capital are charged at a rate of 10 percent for the duration of the grazing season, and 2.5 percent per year for the current market value of the ranch unit including land and livestock.

Budget

In the enterprise budget, implants, pour-on, vaccines, pregnancy testing, fly tags, dewormer, etc. are included under the line item "Vet & Medicine." Brand inspection is \$1.75 per animal sold plus a \$10-per-trip charge (three trips assumed). Materials for fence repairs cost \$1,350. "Supplies" include saddle, tack, and branding equipment. "Marketing Fees" are a flat 3 percent of the gross value of the livestock that are sold to cover marketing costs via satellite or through the auction yard, etc. "Utilities" include electricity, telephone, etc. "Legal and related expenses" cover costs associated with litigation regarding policy issues and other legal expenses. All items not included in the other budget line items, such as association dues, are accounted for under "Miscellaneous."

Machinery and Equipment

A loader tractor and hay wagon are used to feed hay. A 3/4-ton pickup is used to pull a stock trailer, for general travel, and for general ranch work. Corrals are used in the spring and fall to work cattle. Two 4-wheel ATVs are used for general ranch work.

Machinery and equipment values are based on spring 1996 replacement costs, assuming the assets are half depreciated. The upper portion of Table 1 summarizes the values assumed for machinery, equipment, and buildings as well as the hours, miles, or years associated with their use. "Working Facilities" include a squeeze chute, corrals, and scales.

Machinery and equipment costs are calculated in Table 3 for variable and fixed cost components.

Other

The commercial value of land and improvements of a whole ranch unit ranges from \$1,000 to \$2,500 per cow unit (animal unit) depending upon productivities and extent of federal land dependency. This budget assumes that the ranch as a whole is valued at \$1,750 per cow unit. The operator owns 4,100 acres of spring range and 1,480 acres of improved spring range providing 410 and 1,150 AUMs, respectively, over 1.5 months. In addition, 725 acres of stringer meadow is owned and supplies 1,425 AUMs over 2.5 months. Property taxes total \$2,643. Actual property taxes will vary with assessed value.



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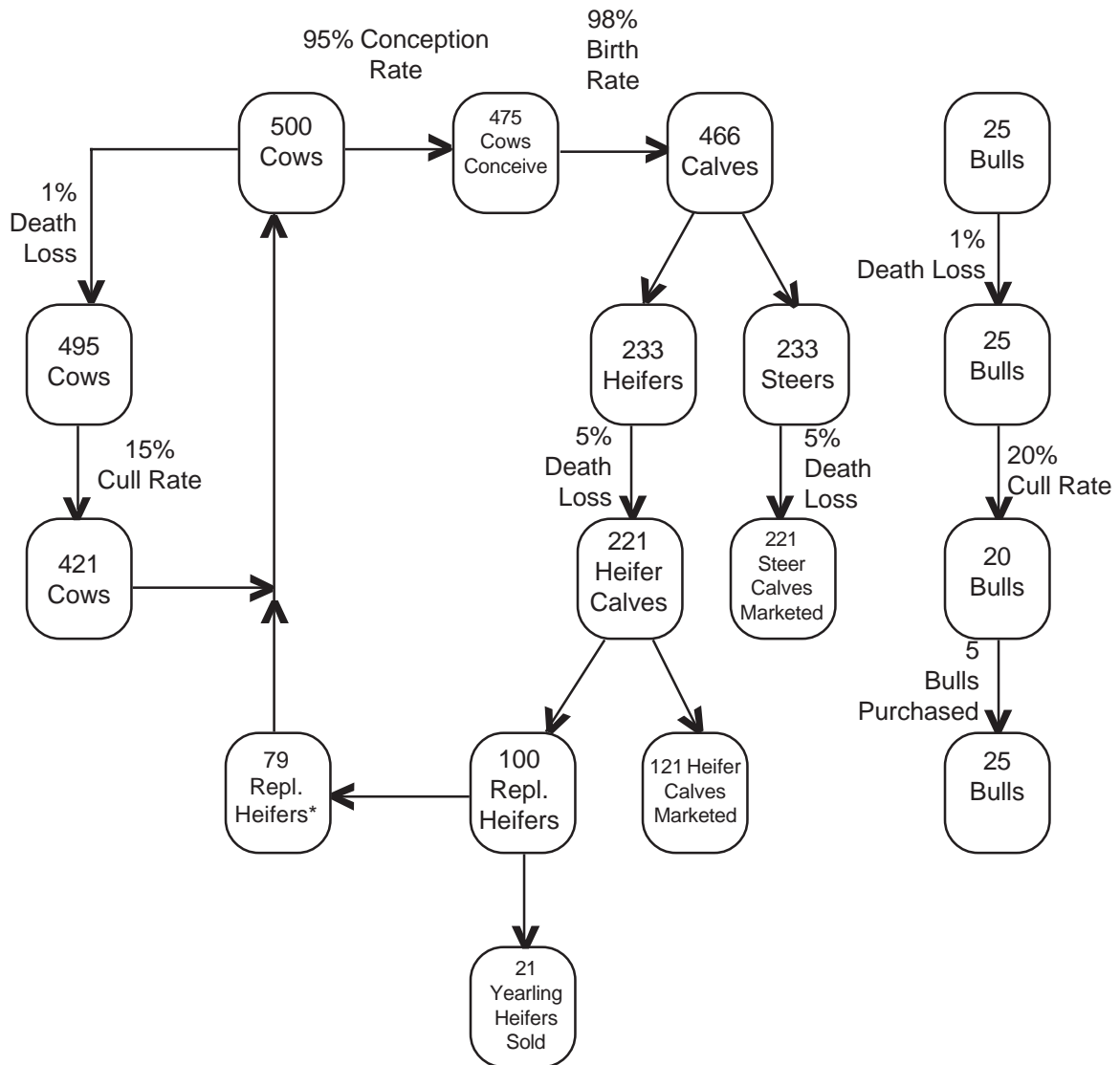
EM 8687 Enterprise Budget

COW/CALF COSTS and RETURNS Mountain Region 500-Cow Herd

<u>GROSS REVENUE by Type</u>	<u>Quantity/Unit</u>		<u>\$/Unit</u>	<u>Total</u>	<u>Per Cow</u>	<u>Your Cost</u>
Cull Bulls	5.2 hd @ 18.0 cwt		49.00	4,627.00	9.25	
Cull Cows	74.3 hd @ 11.0 cwt		40.00	32,670.00	65.34	
Cull Horse	0.50 hd @ 1.0 hd		300.00	150.00	0.30	
Heifer Calves	121.1 hd @ 5.3 cwt		72.00	45,765.00	91.53	
Open Heifers	19.5 hd @ 8.0 cwt		66.00	10,317.00	20.63	
Steer Calves	221.1 hd @ 5.8 cwt		79.00	100,440.00	200.88	
Total GROSS Revenue				\$193,969.00	\$387.93	
<u>CASH COST by Type</u>	<u>Quantity</u>	<u>Unit</u>	<u>\$/Unit</u>	<u>Total</u>	<u>Per Cow</u>	<u>Your Cost</u>
Pasture Irrigation and Fertilizer	0.00	aum	2.50	3,562.50	7.13	
Native Hay	893.00	tn	60.00	48,300.00	96.60	
Alfalfa Hay	198.00	tn	75.00	15,375.00	30.75	
Public Land Grazing Fee	2,149.00	aum	1.83	3,480.08	6.96	
Salt			3.20	1,600.00	3.20	
Minerals (custom mix)			2.40	1,200.00	2.40	
Fuel & Lube, Machinery & Equipment				4,818.00	9.64	
Interest - Operating Capital (10% for 7.5 mo)			7.11	3,544.95	7.11	
Repairs, Machinery & Equipment				5,295.62	10.59	
Fence Repair Materials				1,350.00	2.70	
Supplies			3.00	1,500.00	3.00	
Utilities				4,800.00	9.60	
Vet & Medicine			14.17	7,085.00	14.17	
Brand Inspection			1.61	803.50	1.61	
Bull Purchase			20.00	10,000.00	20.00	
Horse Purchase				1,500.00	3.00	
Marketing Fees			11.67	5,834.56	11.67	
Accounting			2.40	1,200.00	2.40	
Legal and Related Expenses			2.70	1,350.00	2.70	
Family Labor				27,000.00	54.00	
Miscellaneous			3.00	1,500.00	3.00	
Total VARIABLE Cost				\$152,769.00	\$305.54	
GROSS REVENUE minus VARIABLE Cost				\$41,201.00	\$82.40	
CASH FIXED Cost						
Machinery & Equipment Insurance & Taxes (Tables 1 & 3)				2,948.00	5.90	
Property Taxes				2,643.00	5.29	
Total CASH FIXED Cost				\$5,590.00	\$11.19	
Total VARIABLE and CASH FIXED Costs				\$158,360.00	\$316.72	
<u>OTHER COSTS and RETURNS</u>				<u>Total</u>	<u>Per Cow</u>	<u>Your Cost</u>
NET PROJECTED RETURNS OVER VARIABLE and CASH FIXED Costs				\$35,610.00	\$71.22	
Noncash Fixed Cost of Depr. & Interest (10%) on Machinery & Equip. (Tables 1 & 3)				\$19,763.00	\$39.53	
NET PROJECTED RETURNS TO LAND & LIVESTOCK OWNERSHIP				\$15,847.00	\$31.69	
Opportunity Cost of Land Ownership (\$1,750/cow-unit x 500 units@2.5%)				\$21,875.00	\$43.75	
Opportunity Cost of Livestock Ownership (Table 2)				\$6,180.00	\$12.36	
PROJECTED RETURNS NET OF ALL ECONOMIC COSTS				-\$12,208.00	-\$20.07	
PROJECTED RETURNS TO LAND & LIVESTOCK OWNERSHIP, & FAM LAB				\$42,847.00	\$85.69	

EM 8687 Enterprise Budget

COW/CALF PRODUCTION FLOWCHART Mountain Region 500-Cow Herd



* All 79 replacement heifers have been pregnancy tested and are pregnant. The conception rate of the remaining 421 cows in the brood cow herd is 94 percent.

EM 8687 Enterprise Budget

Table 1. Machinery and Livestock Cost Assumptions

Item	Size	List Price	Current Market Value	Salvage Value	Useful Life	Remaining Life	Annual Use For Ranch	Annual Use For Enterprise
MACH. & EQUIPMENT								
Loader Tractor	50 hp	\$15,000	\$9,000	\$3,000	10,000	6,000	800	540 hr
Hay Wagon		2,500	1,500	500	3,000	1,800	700	300 hr
Stock Trailer (a)		8,000	4,800	1,600	10	6	1	1 yr
Stock Trailer (b)		12,000	7,200	2,400	10	6	1	1 yr
Pickup (a)	3/4 ton	12,000	7,200	2,400	100,000	60,000	10,000	7,500 mi
Pickup (b)	3/4 ton	24,000	14,400	4,800	100,000	60,000	20,000	15,000 mi
4-Wheeler (a)		2,000	1,200	400	10,000	6,000	1,000	1,000 mi
4-Wheeler (b)		4,000	2,400	800	10,000	6,000	1,000	1,000 mi
Working Facilities		10,000	6,000	2,000	30	18	1	1 yr
Buildings		150,000	90,000	30,000	30	18	1	1 yr
LIVESTOCK								
Cows			528	440	6	3 yr		
Replacement Heifers			528	528	7	5 yr		
Horses		1,500	900	300	10	5 yr		
Bulls		2,000	1,441	882	4	2 yr		

Table 2. Livestock Opportunity Cost Calculations

Livestock	Opportunity Cost per Head	# Head	Opportunity Cost by Class of Livestock	Opportunity Cost per Cow
Bulls	28.82	25	720.50	1.44
Cows	10.56	421	4,445.76	8.89
Horses	18.00	10	180.00	0.36
Replacement Heifers	10.56	79	834.24	1.67
Total			6,180.50	\$12.36

Table 3. Machinery and Equipment Cost Calculations

Machine & Equipment	Size	Costs per Hour, Year or Mile				Total Cost	Hours, Years, or Miles per Head	Cost per Cow		
		Variable Fuel & Lube	Repair & Maint.	Fixed Depr. & Interest	Insurance & Taxes			Variable	Fixed	Total
Loader Tractor	50 hp	\$3.45	\$3.65	\$1.95	\$0.11	\$9.16	1.080 hr	\$7.67	\$2.23	\$9.90
Hay Wagon		0.00	0.72	0.81	0.02	1.55	0.600 hr	0.43	0.50	0.93
Stock Trailer (a)		0.00	100.00	960.00	48.00	1,108.50	0.002 yr	0.20	2.02	2.22
Stock Trailer (b)		0.00	80.00	1,440.00	72.00	1,592.00	0.002 yr	0.16	3.02	3.18
Pickup (a)	3/4 ton	0.07	0.08	0.14	0.04	0.33	15.000 mi	2.25	2.70	4.95
Pickup (b)	3/4 ton	0.07	0.05	0.24	0.04	0.40	30.000 mi	3.60	8.27	11.87
4-Wheeler (a)		0.69	0.01	0.24	0.01	0.95	2.000 mi	1.40	0.50	1.90
4-Wheeler (b)		0.69	0.01	0.48	0.02	1.20	2.000 mi	1.40	1.01	2.41
Working Facilities		0.00	160.00	666.67	120.00	946.67	0.002 yr	0.32	1.57	1.89
Buildings		0.00	1,400.00	10,000.00	1,800.00	13,200.00	0.002 yr	2.80	23.60	26.40
TOTAL								\$20.23	\$45.42	\$65.65

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