

Enterprise Budget

Cow/Calf, Eastern Oregon Region

Scott McNeley, undergraduate student,
John Williams, Extension agent, Wallowa County,
Jay Carr, Extension agent, Baker County, and
Brenda Turner, graduate research assistant,
Oregon State University



EM 8609, July 1995

This enterprise budget estimates the typical costs and returns of producing calves in Baker, Wallowa, and Union counties of northeastern 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.

Livestock

The herd consists of 300 cows, 15 bulls, and 5 saddle horses. A 95 percent conception rate is used, and 98 percent of the pregnant cows give birth. Calf death loss is 5 percent, while a 1 percent death loss is assumed for the cows and bulls. Mature cows are culled at the rate of 15 percent annually, and all replacement heifers are raised. A livestock production flowchart is shown on page 3.

All cows, bulls, and calves are worked and vaccinated in the spring. All bull calves are castrated and implanted with growth stimulants. Heifers do not receive growth stimulants. All the cows are treated for parasites and vaccinated in the fall. All cows and heifers are pregnancy tested in the fall. The heifers are bang's vaccinated. Calves are weaned and sold in the fall. The calves are preconditioned before they are weaned.

Current market values and years of useful and remaining life for all livestock are shown in the bottom portion of Table 1. The calculations for livestock fixed costs are shown in Table 3.

Feed

Feed is supplied in the form of hay, privately owned pasture, leased meadow aftermath, and public range. Hay is fed for 135 days at the rate of 5 lb of alfalfa and 20 lb of grass hay per day per cow. Forest Service range is used for 3 months, privately owned pasture for 2 1/2 months and leased meadow aftermath grazing for 2 months. The AUM's are overstated in the budget on a per cow basis to account for feed for bulls, replacement heifers, and saddle horses.

Salt and minerals are fed at the rate of 30 lb per cow annually, and approximately one third is assumed to be lost to wildlife.

Labor

All labor is provided by the owner/operator and is included as a noncash cost of \$10 per hour.

Capital

Costs of capital are charged at the rate of 8 percent for current and intermediate capital provided by the owner. This rate represents a real interest rate calculated by subtracting the inflation rate from the borrowing rate.

Machinery and Equipment

Machinery and equipment values are based on April 1994 replacement costs. To represent the mix of new and used equipment on individual farms, this budget assumes all the assets are half depreciated. The upper portion of Table 1 summarizes the values assumed for machinery and equipment, as well as the hours, miles, or years associated with their use.

Machinery and equipment costs are calculated in Table 2 for variable and fixed cost components. The fixed costs per cow correspond to the machinery and equipment insurance plus the noncash machinery and equipment cost shown in the budget.

Other

Three thousand acres of private pasture is owned and valued at \$85 per acre. The cost of land ownership is charged at 6 percent per year, assuming half the land is purchased with equity capital (with an opportunity cost of 4 percent) and half is purchased with borrowed capital (at a real interest rate of 8 percent). Property taxes are \$12.50 per \$1,000 of farm use assessed value. Annual fence repair is contracted out at \$100 per mile. There are 20 miles of fence on the ranch.

This budget shows a return of \$142.18 per cow over variable costs. When fixed costs are included (interest, depreciation, taxes, and insurance), a net loss of \$62.93 per cow results. (Note that this budget assumes an interest charge of 8 percent on machinery, equipment, and livestock).



EM 8609 Enterprise Budget

WHOLE RANCH COSTS AND RETURNS Eastern Oregon Region 300-cow Herd

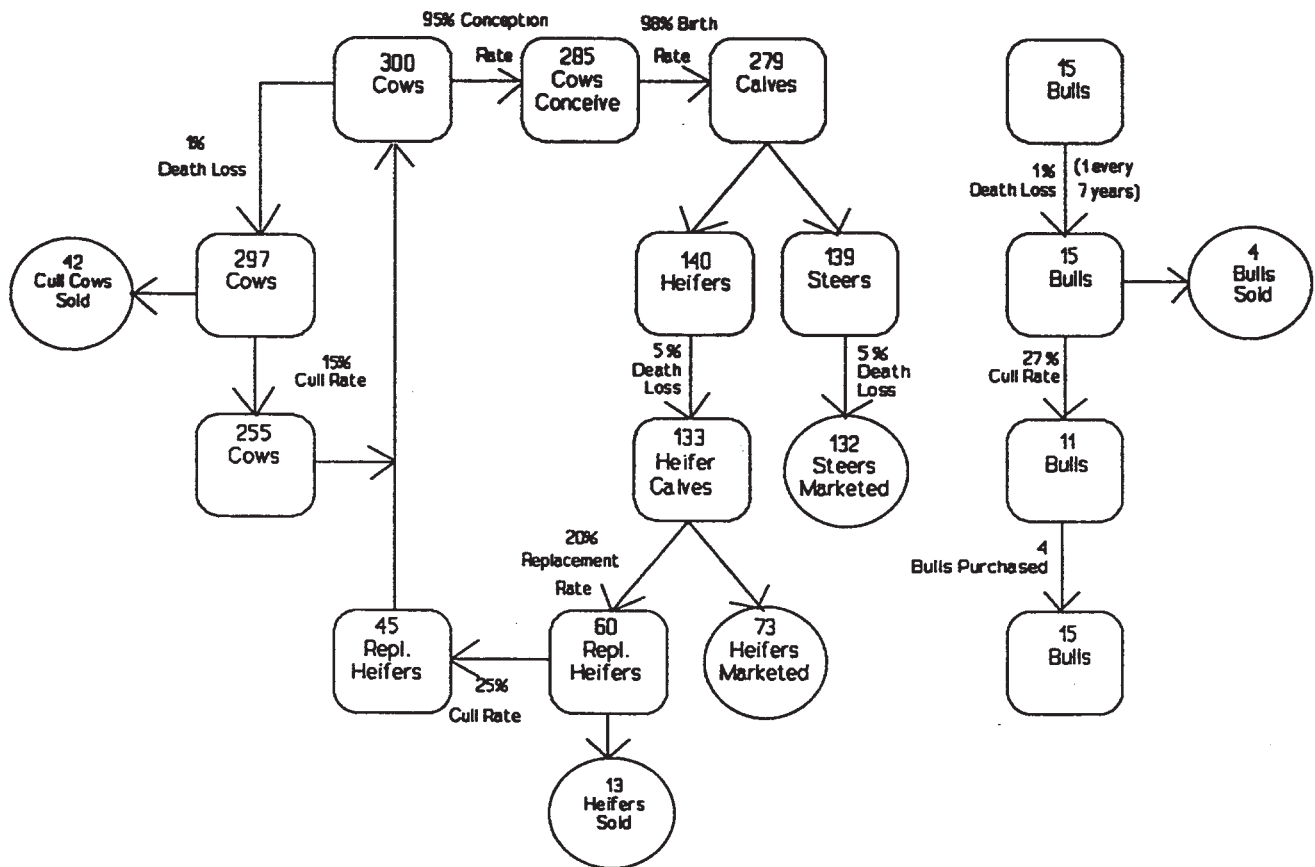
<u>GROSS INCOME Description</u>	<u>Quantity</u>	<u>Unit</u>	<u>\$/Unit</u>	<u>Total</u>	<u>Per Cow</u>	<u>Your Returns</u>
CASH Income						
Cull Bulls	4 hd 18.0	cwt	55.00	3,960	13.20	_____
Cull Cows	42 hd 10.0	cwt	50.00	21,000	70.00	_____
Heifer Calves	73 hd 5.0	cwt	84.00	28,514	95.05	_____
Open Heifers	15 hd 8.0	cwt	80.00	9,000	30.00	_____
Steer Calves	132 hd 5.25	cwt	90.00	62,370	207.90	_____
Total GROSS Income				124,844	416.17	_____
<u>VARIABLE COST Description</u>	<u>Quantity</u>	<u>Unit</u>	<u>\$/Unit</u>	<u>Total</u>	<u>Per Cow</u>	<u>Your Cost</u>
CASH Cost						
8 Way	904	dose	0.31	280	0.93	_____
Alfalfa Hay	101	ton	80.00	8,100	27.00	_____
Bang's Vaccine	133	dose	1.40	186	0.62	_____
Beef Checkoff	265	hd	1.00	265	0.88	_____
Selenium Injection	279	hd	0.28	80	0.27	_____
Brand Inspection	265	hd	0.75	199	0.66	_____
Bull Purchase	4	hd	2,000.00	8,000	26.67	_____
Custom Mineral Mix	3	ton	400.00	1,010	3.37	_____
Ear Tags	279	tag	0.54	151	0.50	_____
Fence Repair	20	mile	100.00	2,000	6.67	_____
Fly Tags	390	tag	1.37	534	1.78	_____
Forest Service Grazing Fee	1350	aum	1.97	2,660	8.87	_____
Grass Hay	405	ton	60.00	24,300	81.00	_____
Haemophilus Booster	265	dose	0.79	209	0.70	_____
Lepto Booster	300	dose	0.22	66	0.22	_____
Meadow Aftermath Grazing	639	aum	15.00	9,585	31.95	_____
Miscellaneous Veterinary	279	hd	2.00	558	1.86	_____
Pregnancy Check	300	hd	1.00	300	1.00	_____
Growth Implant	140	dose	1.10	153	0.51	_____
Redwater	330	dose	0.17	56	0.19	_____
Respiratory Vaccine	625	dose	1.08	675	2.25	_____
Salt Blocks	5	ton	120.00	540	1.80	_____
Vibrio	60	dose	0.60	36	0.12	_____
Vibrio & Lepto	360	dose	0.73	263	0.88	_____
Vitamin A & D	279	dose	0.15	44	0.15	_____
Wormer	300	hd	6.25	1,875	6.25	_____
Association Dues & Miscellaneous	1	year	250.00	250	0.83	_____
Legal Fees	1	year	1,000.00	1,000	3.33	_____
Fuel				3,353	11.18	_____
Lube				167	0.56	_____
Repair & Maintenance Off-farm				2,763	9.12	_____
Total CASH Cost				69,659	232.20	_____
NONCASH Cost						
Owner/Operator Labor				8,888	29.63	_____
Operating Capital Interest				3,402	11.34	_____
Repair & Maintenance, Owner Labor				240	0.80	_____
Total NONCASH Cost				12,530	41.77	_____
Total VARIABLE COST				82,189	273.96	_____
GROSS INCOME minus VARIABLE COST				42,655	142.18	_____

EM 8609 Enterprise Budget

WHOLE RANCH COSTS AND RETURNS Eastern Oregon Region 300-cow Herd

<u>FIXED COST Description</u>	<u>Total</u>	<u>Per Cow</u>	<u>Your Cost</u>
CASH Cost			
Machinery & Equipment Insurance and Taxes	2,239	7.46	_____
Livestock Insurance	1,354	4.51	_____
Property Taxes - Land	600	2.00	_____
Total CASH Cost	4,193	13.97	_____
NONCASH Cost			
Interest & Depreciation - Livestock	25,656	85.52	_____
Interest & Depreciation - Machinery & Equipment	16,389	54.63	_____
Land Interest Charge	<u>15,300</u>	<u>51.00</u>	_____
Total NONCASH Cost	57,345	191.15	_____
Total FIXED Cost	61,538	205.12	_____
Total ALL Costs	143,727	479.10	_____
NET PROJECTED RETURNS	-18,883	-62.93	_____

**Cow/Calf Production Flow Chart
Eastern Oregon Region
300-cow Herd**



EM 8609 Enterprise Budget

Table 1. Machinery and Livestock Cost Assumptions

Item	Size	List Price	Current Market Value	Salvage Value	Useful Life	Remaining Use	Annual Use
MACH. & EQUIPMENT							
Tractor w/ Loader	75 hp	\$47,000	\$30,550	\$14,100	10,000 hr	5,000 hr	300 hr
Hay Wagon		2,500	1,500	500	3,000 hr	1,500 hr	270 hr
3/4-ton Pickup		20,000	13,000	6,000	100,000 hr	50,000 mi	20,000 mi
4-Wheeler		4,000	2,600	1,200	10,000 hr	5,000 mi	1,000 mi
Stock Trailer	5th wheel	8,000	5,200	2,400	100,000 hr	50,000 mi	10,000 mi
Corrals		10,000	6,000	2,000	30 yr	15 yr	
Cattle Scales	15 hd	8,000	4,800	1,600	30 yr	15 yr	
Misc. Hand Tools		7,500	4,500	1,500	20 yr	10 yr	
Barn			20,000	2,000	30 yr	15 yr	
Shed			10,000	1,000	30 yr	15 yr	
LIVESTOCK							
Cows		1,000	750	500	6 yr	4 yr	
Replacement Heifers		700	600	500	7 yr	5 yr	
Saddle Horses		1,000	750	500	10 yr	5 yr	
Bulls		2,000	1,495	990	4 yr	2 yr	

Table 2. Machinery and Equipment Cost Calculations

Machine & Equipment	Size	Costs per Hour				Total Cost	Hours or Miles per Head	Cost per Cow		
		Variable Fuel & Lube	Repair & Maint.	Fixed Depr. & Interest	Insurance			Variable	Fixed	Total
Tractor w/ Loader	75 hp	\$3.75	\$5.81	\$13.21	\$1.02	23.78	1.00	\$9.55	\$14.22	\$23.78
Hay Wagon		0.00	0.72	0.85	0.06	1.62	0.90	0.64	0.82	1.46
3/4-ton Pickup		0.09	0.03	0.23	0.04	0.38	66.67	7.53	17.47	25.00
4-Wheeler		0.03	0.08	0.56	0.00	0.66	3.33	0.34	1.85	2.20
Stock Trailer	5th wheel	0.02	0.02	0.11	0.01	0.15	33.33	1.17	3.87	5.03
Corrals								0.53	4.38	4.91
Cattle Scales	15 hd							0.27	3.25	3.52
Misc. Hand Tools								0.27	3.21	3.48
Barn								0.00	8.75	8.75
Shed								0.00	4.38	4.38
TOTAL								\$20.30	\$62.20	\$82.50

Table 3. Livestock Fixed Cost Calculations

Livestock	Cost per Head			# Head	Cost per Cow			
	Depr.	Interest	Insurance		Depr.	Interest	Insurance	Total
Cows	\$0.00	\$60.00	\$3.75	300	\$0.00	\$60.00	\$3.75	\$63.75
Replacement Heifers	0.00	48.00	3.00	45	0.00	7.20	0.45	7.65
Saddle Horses	75.00	57.00	3.75	5	1.25	0.95	0.06	2.26
Bulls	252.50	69.90	5.00	15	12.63	3.50	0.25	16.38
TOTAL					\$13.88	\$71.65	\$4.51	\$90.04

Extension Service, Oregon State University, Corvallis, Lyla Houghlum, interim director. This publication was produced and distributed in furtherance of the Acts of Congress of May 8 and June 30, 1914. Extension work is a cooperative program of Oregon State University, the U.S. Department of Agriculture, and Oregon counties.



Oregon State University Extension Service offers educational programs, activities, and materials—without regard to race, color, religion, sex, sexual orientation, national origin, age, marital status, disability, and disabled veteran or Vietnam-era veteran status—as required by Title VI of the Civil Rights Act of 1964, Title IX of the Education Amendments of 1972, and Section 504 of the Rehabilitation Act of 1973. Oregon State University Extension Service is an Equal Opportunity Employer.