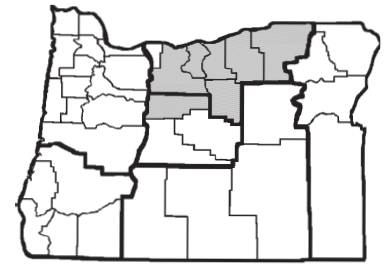


Enterprise Budget

750 Cow/Calf, North Central Plateau Region

Brenda Turner, research assistant,
Fred Obermiller, Extension range economist,
John Tanaka, Extension economist,
Bart Eleveld, Extension economist,
Bill Broderick, Gary Farnsworth, and Randy Mills, Extension agents,
Oregon State University



EM 8683, January 1998

This livestock enterprise budget estimates the typical costs and returns of producing calves in the plateau area of north central 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 plateau region, see EM 8681 and EM 8682.

Livestock

The enterprise consists of 750 cows, 38 bulls, and 8 horses. A 92-percent conception rate is used and 95 percent of the pregnant cows give birth. Cow death loss is 2 percent, while an 0.5 percent death loss is assumed for the bulls and 3 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 and replacement heifers are vaccinated and pregnancy tested in the fall as the cattle are gathered. Cull cows and cull replacement heifers are sold November 1. Calves are sold November 15.

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 north central region including Gilliam, Jefferson, Morrow, Sherman, Umatilla, Wasco, and Wheeler counties. Livestock weights are assumed typical for the plateau area.

Feed

Feeder-quality alfalfa hay is fed at the rate of 1.2 tons per cow, bull, and replacement heifer from December 15 through March 15. This accounts for supplemental feed from winter grazing. Cattle are grazed on public range from mid-June through mid-September, and on owned pasture the remainder of the year.

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 \$40,000 per year. A charge of \$4,500 is included to cover the cost of a hired rider.

Capital

Opportunity costs of 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 \$3,200. "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

Three 3/4-ton pickups are used to pull a stock trailer, for general travel, and for general ranch work. A loader tractor is used to pull a hay wagon. A semi truck is used to move cattle.

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. "Buildings" include a barn, shed, shop, and house.

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 29,000 acres of rangeland providing 5,795 AUMs over 6 months. Property taxes are charged at \$10 per \$1,000 of value and total \$2,360. Actual property taxes will vary with assessed value.



OREGON STATE UNIVERSITY EXTENSION SERVICE

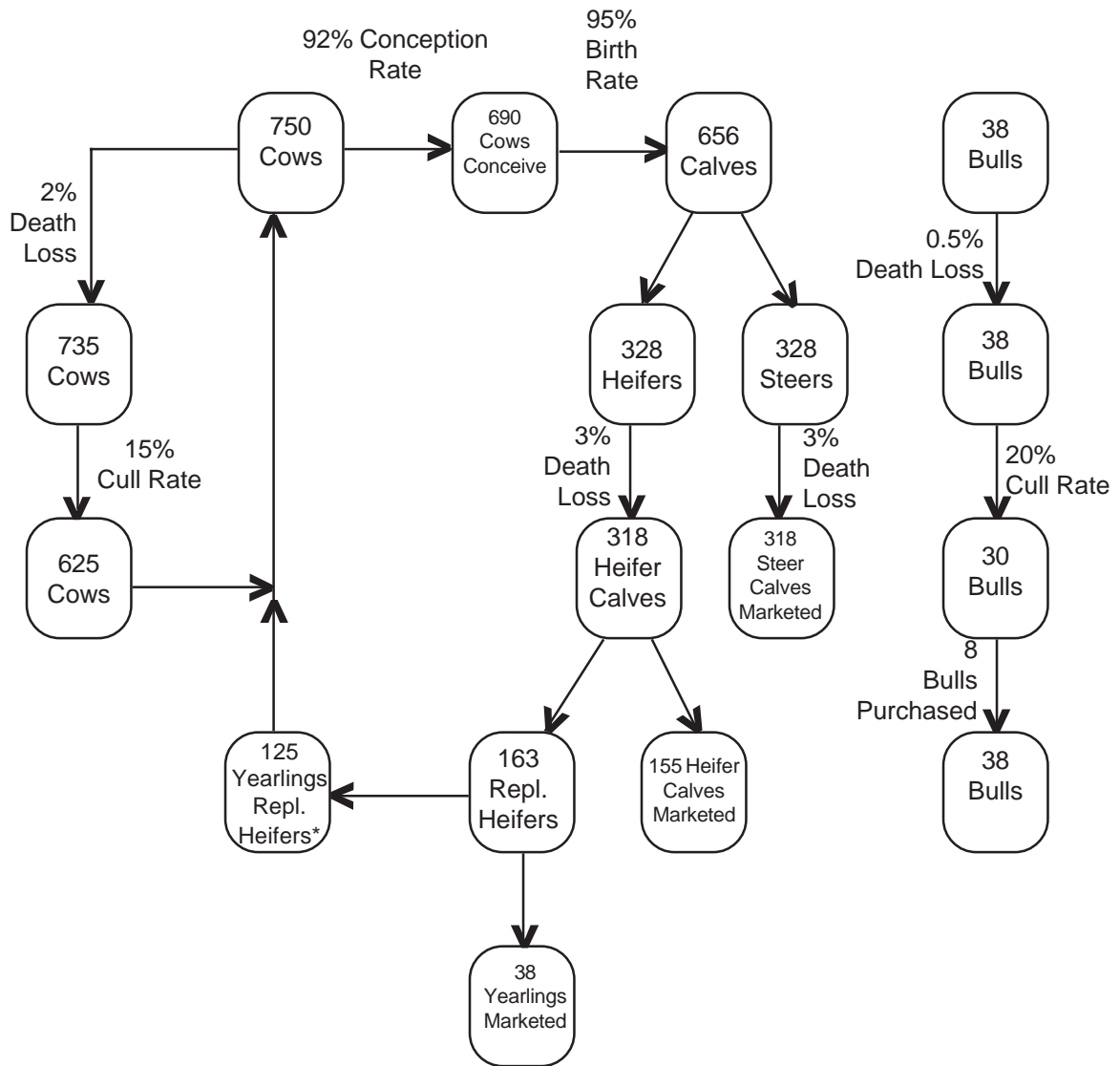
EM 8683 Enterprise Budget

COW/CALF COSTS and RETURNS North Central Plateau Region 750-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	7.7 hd @ 16.25 cwt	50.00	6,244.00	8.33	_____	
Cull Cows	110.3 hd @ 10.75 cwt	41.00	48,593.00	64.79	_____	
Cull Horse	0.5 hd @ 1.0 hd	300.00	150.00	0.20	_____	
Heifer Calves	154.2 hd @ 5.0 cwt	72.00	55,504.00	74.01	_____	
Open Heifers	34.6 hd @ 7.25 cwt	67.00	16,807.00	22.41	_____	
Steer Calves	317.9 hd @ 5.45 cwt	79.00	<u>136,879.00</u>	<u>182.51</u>	_____	
Total GROSS Revenue			\$264,177.00	\$352.25	_____	
<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>
Alfalfa Hay	1,082.00	tn	75.00	81,120.00	108.16	_____
Public Land Grazing Fee	2,745.00	aum	1.83	5,023.00	6.70	_____
Salt			3.20	2,400.00	3.20	_____
Minerals (custom mix)			2.40	1,800.00	2.40	_____
Fuel & Lube, Machinery & Equipment				5,217.00	6.96	_____
Interest - Operating Capital (10% for 9 mo)				5,745.00	7.66	_____
Hired Labor			7.66	4,500.00	6.00	_____
Repairs, Machinery & Equipment			6.00	5,943.00	7.92	_____
Fence Repair Materials				3,200.00	4.27	_____
Supplies			3.20	2,400.00	3.20	_____
Utilities				4,800.00	6.40	_____
Vet & Medicine			14.17	10,628.00	14.17	_____
Brand Inspection			1.51	1,133.00	1.51	_____
Bull Purchase			19.20	14,400.00	19.20	_____
Horse Purchase				1,500.00	2.00	_____
Marketing Fees			10.66	7,995.00	10.66	_____
Accounting			1.60	1,200.00	1.60	_____
Legal and Related Expenses			2.67	2,003.00	2.67	_____
Family Labor				40,000.00	53.33	_____
Miscellaneous			4.00	3,000.00	4.00	_____
Total VARIABLE Cost				\$204,006.00	\$272.01	_____
GROSS REVENUE minus VARIABLE Cost				\$60,172.00	\$80.23	_____
CASH FIXED Cost						
Machinery & Equipment Insurance & Taxes (Tables 1 & 3)				3,662.00	4.88	_____
Property Taxes				<u>2,360.00</u>	<u>3.15</u>	_____
Total CASH FIXED Cost				<u>\$6,022.00</u>	<u>\$8.03</u>	_____
Total VARIABLE and CASH FIXED Costs				\$210,028.00	\$280.04	_____
<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				\$54,150.00	\$72.20	_____
Noncash Fixed Cost of Depr. & Interest (10%) on Machinery & Equip. (Tables 1 & 3)				\$21,460.00	\$28.61	_____
NET PROJECTED RETURNS TO LAND & LIVESTOCK OWNERSHIP				\$32,690.00	\$43.59	_____
Opportunity Cost of Land Ownership (\$1,750/cow-unit x 750 units@2.5%)				\$32,813.00	\$43.75	_____
Opportunity Cost of Livestock Ownership (Table 2)				\$10,530.00	\$14.04	_____
PROJECTED RETURNS NET OF ALL ECONOMIC COSTS				-\$10,653.00	-\$29.18	_____
PROJECTED RETURNS TO LAND & LIVESTOCK OWNERSHIP, & FAM LAB				\$61,460.18	\$81.95	_____

EM 8683 Enterprise Budget

COW/CALF PRODUCTION FLOWCHART
 North Central Plateau Region
 750-Cow Herd



* All 125 replacement heifers have been pregnancy tested and are pregnant. The conception rate of the remaining 625 cows in the brood cow herd is 90 percent.

EM 8683 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	\$17,000	\$10,200	\$3,400	10,000	6,000	460	460 hr
Hay Wagon		3,500	2,100	700	10,000	6,000	300	300 hr
Stock Trailer		15,000	8,250	1,500	10	6	1	1 yr
Pickup (a) (4wd)	3/4 ton	3,000	1,650	300	20,000	12,000	3,000	3,000 mi
Pickup (b) (4wd)	3/4 ton	8,000	4,400	800	30,000	8,000	3,000	3,000 mi
Pickup (c) (4wd)	3/4 ton	24,000	13,200	2,400	100,000	60,000	20,000	20,000 mi
4-Wheeler (a)		2,000	1,100	200	5,000	3,000	1,000	1,000 hr
4-Wheeler (b)		4,500	2,475	450	5,000	3,000	1,000	1,000 hr
Buildings		150,000	82,500	15,000	30	18	1	1 yr
Working Facilities		30,000	16,500	3,000	30	18	1	1 yr
Mineral Feeders		6,000	3,300	600	10	6	1	1 yr
Feed Bunks		6,000	3,300	600	10	6	1	1 yr
Semi Truck		18,000	9,900	1,800	30,000	18,000	2,000	2,000 mi
LIVESTOCK								
Cows			486	441	6	3		
Replacement Heifers			486	486	7	5		
Horses		1,500	900	300	10	5		
Bulls		1,800	1,306	813	6	3		

Table 2. Livestock Opportunity Cost Calculations

Livestock	Opportunity Cost per Head	# Head	Opportunity Cost by Class of Livestock	Opportunity Cost per Cow
Bulls	32.66	38	1,240.99	1.65
Cows	12.15	625	7,590.63	10.12
Horses	22.50	8	180.00	0.24
Replacement Heifers	12.15	125	1,518.13	2.02
Total			10,529.74	\$14.04

Table 3. Machinery and Equipment Cost Calculations

Machine & Equipment	Size	Costs per Hour, Year or Mile				Total Cost	Hours, or Years, or Miles per Head	Cost per Cow		
		Fuel & Lube	Repair & Maint.	Depr. & Interest	Insurance & Taxes			Variable	Fixed	Total
Loader Tractor	50 hp	3.45	3.65	2.84	0.22	10.16	0.613 hr	\$4.35	\$1.88	\$6.23
Hay Wagon		0.00	0.68	0.75	0.07	1.50	0.400 hr	0.27	0.33	0.60
Stock Trailer		0.00	100.00	1,587.50	82.50	1,770.00	0.001 yr	0.13	2.23	2.36
Pickup (a) (4wd)	3/4 ton	0.08	0.10	0.14	0.03	0.35	4.000 mi	0.72	0.69	1.41
Pickup (b) (4wd)	3/4 ton	0.07	0.08	0.28	0.04	0.47	4.000 mi	0.60	1.29	1.89
Pickup (c) (4wd)	3/4 ton	0.07	0.05	0.22	0.05	0.39	26.667 mi	3.20	7.07	10.27
4-Wheeler (a)		0.69	0.01	0.36	0.01	1.07	1.333 hr	0.93	0.49	1.43
4-Wheeler (b)		0.69	0.02	0.81	0.02	1.54	1.333 hr	0.95	1.11	2.05
Buildings		0.00	1,000.00	8,541.67	1,650.00	11,191.67	0.001 yr	1.33	13.59	14.92
Working Facilities		0.00	250.00	1,708.33	320.00	2,288.33	0.001 yr	0.33	2.72	3.05
Mineral Feeders		0.00	170.00	635.00	66.00	871.00	0.001 yr	0.23	0.93	1.16
Feed Bunks		0.00	170.00	635.00	66.00	871.00	0.001 yr	0.23	0.93	1.16
Semi Truck		0.20	0.40	0.73	0.05	1.38	2.667 mi	1.60	2.09	3.69
TOTAL								\$14.88	\$35.34	\$50.22

© 1998 Oregon State University. This publication may be photocopied or reprinted in its entirety, without change, for noncommercial purposes. 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.