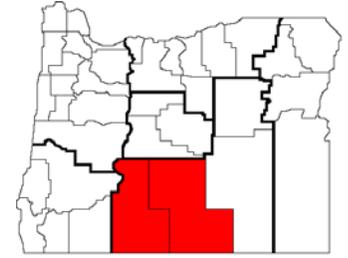


Enterprise Budget

Cow/Calf, California Winter Range, Klamath and Lake Counties

Hannah Kammeyer¹, Willie Riggs² and Clark Seavert³

¹OSU-ABM student, ²Center Director and Agricultural Economist and , Klamath Basis Research and Extension Center, and ³Agricultural Economist, respectively, all in the Department of Applied Economics, Oregon State University.



AEB 0053, September 2014

This enterprise budget estimates the typical costs and returns of producing calves on irrigated pasture in Klamath and Lake Counties of south central Oregon, utilizing leased winter range in northern California. It should be used as a guide to estimate actual costs. It does not represent 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 309 mother cows, 13 bulls, 41 replacement heifers, and 2 horses. A 95 percent conception rate is assumed, and 92 percent of the bred cows give birth. Calf death loss is 5 percent, while a 2 percent death loss is assumed for cows. Mature cows are culled at a rate of 11 percent annually and all replacement heifers are raised.

Calving begins in January and is completed by mid-March. All steer calves are implanted with a growth stimulant in the spring. Cows and replacement heifers are pregnancy-tested before shipping. Bulls are semen-tested before purchase, and again every 2 years. All cows and calves are vaccinated when they are worked in the spring. The vaccine, parasite control, and fly control costs reflect a sufficient management program to maintain a healthy herd and meet state animal health requirements. Cows, heifers, and bulls are culled in the fall.

Livestock values and years of useful and remaining life are shown in the bottom portion of Table 2. The calculations for livestock noncash fixed costs are shown in Table 3. No depreciation costs are included for cows or replacement heifers, since they are raised on the ranch. For bulls and saddle horses, purchased in this budget, 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 based on expectations for fall 2014 for the South Central region. Livestock weights are assumed typical for the area.

Feed

Irrigated pasture is utilized from May through October for 10 percent of the herd each year, and is charged at \$35 per AUM. This charge covers fertilizer and irrigation expenses. The cost of a California winter range lease is assumed to be \$200 per cow/calf pair for the season (November-April). Hay costs reflect market values, and are assumed to cover implicitly all costs associated with the enterprise. A total of 54 tons of hay are fed to the herd as well as 2 tons of block salt and 2 tons of minerals for the calves.

Labor

Two family members manage and work on the ranch, withdrawing \$72,000 annually as compensation for their labor. A hired laborer is included for one month at a cost of \$2,000.

Capital

Interest on operating capital (4.5 percent) is treated as a cash expense. One-third of the cash expenses are borrowed for 12 months. Interest on intermediate (2 percent) and long-term capital (2.5 percent) is treated as a non-cash opportunity cost to the owner.

Budget

In the enterprise budget, implants, vaccine, pregnancy testing, fly tags, wormer, etc. are included under the line item "Vet & Medicine." "Supplies" include saddle, tack, and branding equipment. "Marketing fees" are 4 percent of gross incomes of the livestock sold, to cover the costs to sell via satellite or through the auction yard, etc. Items not included in the other budget line items are accounted for under "Miscellaneous."

Machinery and Equipment

The machinery and equipment used in this budget are sufficient for a 350-cow/calf ranch in the Klamath Falls area. A detailed breakdown of machinery values is shown in the upper portion of Table 2. Estimated machinery costs are shown in Table 4. The machinery costs are estimated based on the total farm use of the machinery. Gasoline costs \$3.50 and off-road diesel \$3.75 per gallon. In Table 1, "Tractor Implements" include a 3-point blade, post-hole auger, pasture harrow, and ditcher. "Working Facilities" include a squeeze chute, corrals, and scales. The corrals consist of wood sorting pens and chutes, steel gates, and a tubular steel squeeze chute. The shed is a 40'x20' loafing shed to provide cover for equipment and sick animals.

Other

The amount of land devoted to the cow/calf operation is 750 acres valued at \$2,000 per acre. Property taxes total \$4,500. Actual property taxes will vary with assessed value. Trucking costs are based on loads shipped in November, and loads returning in spring. Preconditioning calves includes vaccinations in preparation for fall sales.

Total variable cash costs, on a per cow basis, in Table 1 are \$975 and fixed cash costs \$244, giving a net return above variable and fixed cash costs of \$18 per head and \$6,387 for the operation overall. Total variable and fixed cash costs for this size of operation is \$341,199 with total costs of \$426,553, when all costs are considered. The net projected returns are a return to management.

Table 1. 350 Head California Range, \$/Head, Economic Costs and Returns

<u>GROSS INCOME</u>							
	<u>Quantity</u>		<u>Unit</u>	<u>\$/Unit</u>	<u>Total</u>	<u>Per Cow</u>	
Steer Calves	146	hd	8.5	cwt	180.00	223,380	638.23
Yearling Heifers	106	hd	8.0	cwt	170.00	144,160	411.89
Cull Cows	34	hd	12.0	cwt	150.00	61,200	174.86
Cull Bulls	2	hd	21.0	cwt	\$100.00	\$4,200	\$12.00
Cull Horses	0.13	hd	1.0	hd	0.00	0	0.00
Total GROSS Income						\$432,940	\$1,236.97
<u>VARIABLE CASH COSTS</u>							
<u>Description</u>	<u>Quantity</u>		<u>Unit</u>	<u>\$/Unit</u>	<u>Total</u>	<u>Per Cow</u>	
Irrigated Pasture (6 months) ¹	36		AUM	\$35.00	\$7,623	\$21.78	
Lease, California Range (\$/Pair)	363		pair	200.00	72,600	207.43	
Hay (tons)	54.00		ton	240.00	12,960	37.03	
Precondition Calves (\$/Head)	247		head	6.00	1,482	4.23	
Minerals, Block Salt (\$/ton)	2.00		ton	1,000.00	2,000	5.71	
Minerals, Calves (\$/ton)	2.00		ton	270.00	540	1.54	
Trucking (\$/loaded mile)	2,500		miles	4.65	11,625	33.21	
General Labor	1.00		mon	2,000.00	2,000	5.71	
Machinery & Equipment: fuel, lube & repairs					23,039	65.83	
Fence Repair Material					1,000	2.86	
Supplies					10,000	28.57	
Utilities					10,000	28.57	
Water Assessment					29,992	85.69	
Irrigation - Electricity					30,000	85.71	
Vet & Medicine					7,500	21.43	
Brand Inspection (\$/head)	913		head	1.00	913	2.61	
Check Off (\$/head sold)	288		head	1.50	432	1.23	
Bull Purchase (head)	2		head	3,200	6,400	18.29	
Horse Purchase (\$/hd)	0.13		head	2,000	267	0.76	
Marketing Fees	4.00		pct	432,940	17,318	49.48	
Accounting & Legal					4,000	11.43	
Family Withdrawals (2 families)					72,000	205.71	
Miscellaneous					10,000	28.57	
Interest: Operating Capital	6		mons	333,691	7,508	21.45	
Total VARIABLE COSTS						\$341,199	\$974.85
<u>FIXED CASH COSTS</u>						<u>Total</u>	<u>Per Cow</u>
Property Taxes						\$4,500	\$12.86
Property Insurance						<u>14,000</u>	<u>40.00</u>
Total CASH Costs						\$18,500	\$52.86
GROSS INCOME minus VARIABLE AND FIXED CASH COSTS						\$73,241	\$209.26
<u>NON-CASH Costs</u>							
Machinery and Equipment - Depreciation & Interest						\$10,608	\$30.31
Pickup & ATV - Depreciation & Interest						5,782	16.52
Interest (Livestock Opportunity Costs)						12,964	37.04
Land Interest Charge						37,500	107.14
Total NON-CASH Costs						\$66,854	\$191.01
Total FIXED COSTS						\$85,354	\$243.87
Total of All Costs						\$426,553	\$1,218.72
Net Projected Returns						\$6,387	\$18.25

¹Additional irrigated pasture is leased for 10 percent of the herd each year.

Figure 1. 350 Head California Range Production Flowchart.

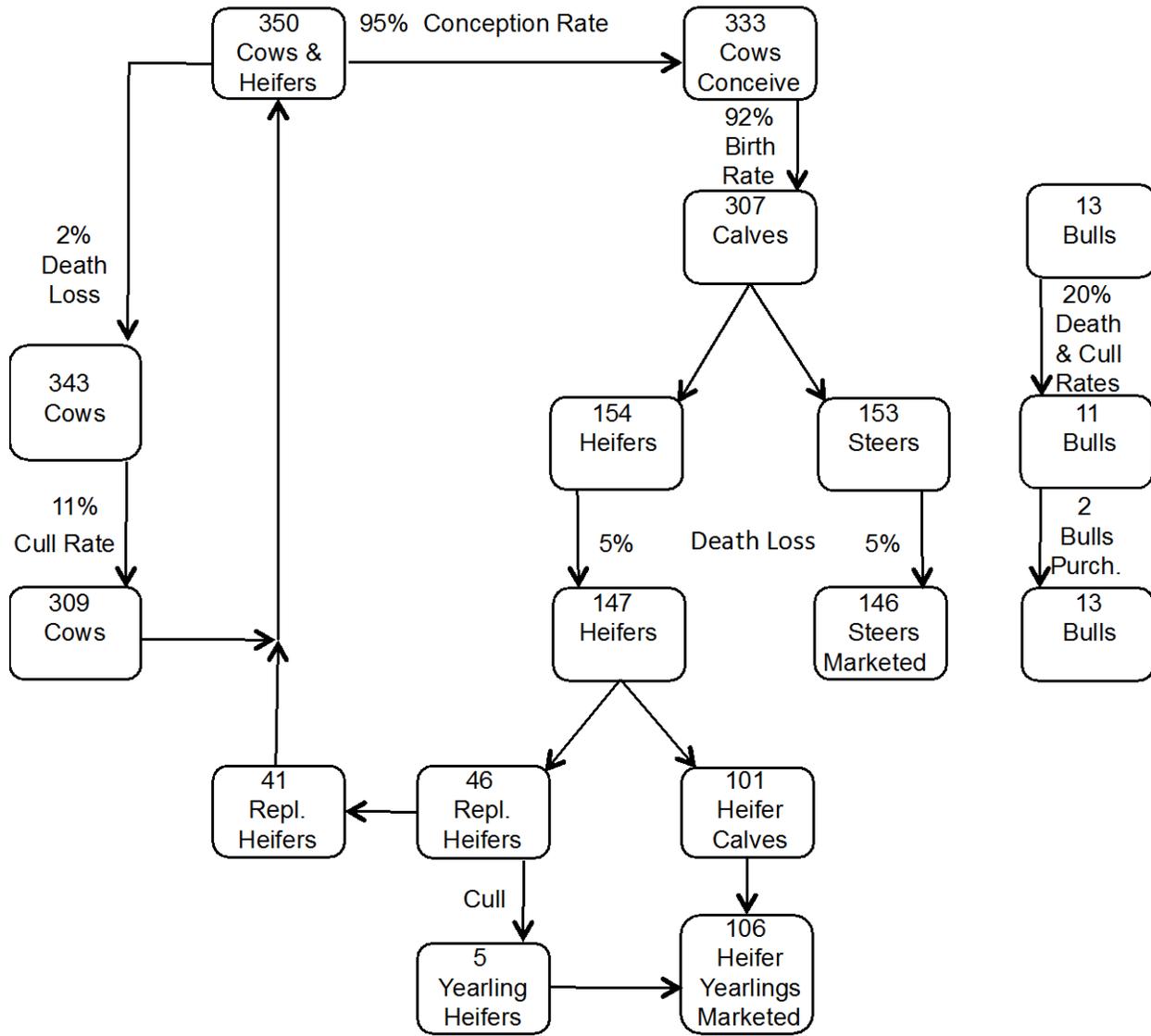


Table 2. Machinery & Livestock Cost Assumptions

Machinery & Livestock	Size & Number	Market Value	Annual Use for Farm	Expected Life (yrs)
Tractor & Loader	4 Wheel Dr 160hp, Used	\$40,000	200 hours	15
Pickup (2)	3/4 Ton 4X4	35,000	15,000 miles	10
ATV		10,000	2,000 miles	4
Tractor Implements		3,600	1 year	15
Hay Wagon		2,000	200 hours	20
Stock Trailer		12,000	100 hours	20
Mineral Feeds		300	NA	10
Feed Bunks		44,000	NA	20
Corrals, chute, etc		34,000	NA	20
Hay Barn	500 Ton	10,000	NA	30
Shop/Shed	40' x 20'	15,000	NA	30
Bulls	13	3,200	NA	4
Cows	309	1,350	NA	7
Replacement Heifers	41	1,300	NA	7
Horses	2	2,000	NA	15

Table 3. Livestock Opportunity Cost Calculations, California Winter Range

Livestock	Opportunity Cost per Head	# Head	Opportunity Cost by Class of Livestock	Opportunity Cost per Cow
Bulls	\$80.00	13	\$1,040.00	\$2.97
Cows	33.75	309	10,428.75	29.80
Horses	50.00	2	162.50	0.46
Replacement Heifers	32.50	41	<u>1,332.50</u>	<u>3.81</u>
Total			\$12,963.75	\$37.04

Table 4. Machinery & Livestock Cost Calculations

Machine	Size	----- Costs per Hour, Mile or Year -----					----- Cost per Cow -----		
		-- Variable Costs --		-- Fixed Costs --			Variable	Fixed	Total
		Fuel & Lube	Repairs & Maint.	Depreciation	Interest	Total Cost			
Tractor & Loader	4 Wheel Dr 160hp, Used	\$27.40	\$0.36	\$10.15	\$4.96	\$42.86	\$15.86	\$8.63	\$24.49
Pickup (2)	3/4 Ton 4X4	\$0.31	\$0.12	\$0.25	\$0.11	\$0.79	\$18.43	\$15.43	\$33.86
ATV		0.19	0.44	2.38	0.19	3.20	3.60	14.69	18.29
Tractor Implements		\$0	\$108	\$240	\$72	\$420	\$0.31	\$0.89	\$1.20
Hay Wagon		0	60	100	40	200	\$0.17	\$0.40	0.57
Stock Trailer		0	360	600	240	1,200	\$1.03	\$2.40	3.43
Mineral Feeds		0	9	30	6	45	\$0.03	\$0.10	0.13
Corrals, chute, etc		0	1,320	2,200	880	4,400	\$3.77	\$8.80	12.57
Hay Barn		0	1,020	1,700	680	3,400	\$2.91	\$6.80	9.71
Shop/Shed		0	450	500	300	1,250	1.29	2.29	3.57