

2003 DAIRY COW AND REPLACEMENT BUDGET -- SMALL BREED¹

Forage= 50% Corn Silage and 50% Hay

ITEM	PRICE PER UNIT	--- Pounds of Milk Sold Per Cow ² ---				YOUR BUDGET
		12,000	14,000	16,000	18,000	
RECEIPTS						
Milk Sales ³	\$13.50 /cwt	\$1,620	\$1,890	\$2,160	\$2,430	_____
Bull Calf ⁴		0	0	0	0	_____
Heifer ⁵		26	33	35	38	_____
Cull Cow ⁶	30 /cwt	99	99	99	99	_____
TOTAL RECEIPTS		1745	2022	2294	2567	_____
Variable Costs						
Feed ⁷						
Hay Equiv.	120 /ton	440	452	466	485	_____
Corn Silage	24.45 /ton	148	153	161	169	_____
Corn	2.62 /bu	155	166	181	200	_____
Soybean Meal	0.10 /lb	165	185	212	242	_____
BiCarb	0.16 /lb	15	15	13	10	_____
Limestone	0.05 /lb	6	7	4	3	_____
Mag.Ox.	0.21 /lb	2	2	3	3	_____
Salt TM	0.12 /lb	12	12	12	12	_____
DiCal Phos	0.20 /lb	5	7	8	9	_____
Selenium ⁹⁰	0.36 /lb	9	9	9	9	_____
Vitamins A,D,E	0.40 /lb	8	8	8	8	_____
Feed Additives	0.45 /lb	0	0	78	78	_____
Milk Replacer	0.85 /lb	10	10	10	10	_____
TOTAL FEED COSTS		975	1025	1165	1238	_____
Other Variable Costs						
Veterinary & Medicine		75	80	85	90	_____
Breeding, Milk Testing & Reg.		35	40	45	50	_____
Utilities		64	66	68	70	_____
Bedding ⁸		32	32	32	32	_____
Misc. & Supplies		106	106	106	106	_____
Marketing & Hauling Costs	0.50 /cwt	60	70	80	90	_____
Posilac® (bST) ⁹	5.80 /dose	0	0	93	93	_____
Interest on Oper. Capital ¹⁰	8 %	51	54	64	67	_____
TOTAL OTHER VARIABLE COSTS		423	448	573	598	_____
TOTAL VARIABLE COSTS		1398	1473	1738	1836	_____
Fixed Costs						
Labor Charge ¹¹ 60 hrs.	10.50 /hr	630	630	630	630	_____
Interest & Insurance on Cow and Calf ¹²		69	82	88	93	_____
Equipment Charge ¹³	\$630 /cow	111	111	111	111	_____
Building Charge ¹⁴	\$2,700 /cow	394	394	394	394	_____
Management Charge ¹⁵	5%	87	101	115	128	_____
TOTAL FIXED COSTS		1292	1318	1337	1357	_____
TOTAL COSTS		2690	2790	3075	3193	_____
RETURN ABOVE VARIABLE COSTS		347	549	556	731	_____
RETURN ABOVE TOTAL COSTS		(944)	(769)	(781)	(626)	_____
----- Per cwt of Milk Produced -----						
TOTAL RECEIPTS		14.55	14.44	14.34	14.26	_____
FEED COSTS		8.12	7.32	7.28	6.88	_____
TOTAL VARIABLE COSTS		11.65	10.52	10.86	10.20	_____
TOTAL COSTS		22.42	19.93	19.22	17.74	_____

FOOTNOTES TO RIGHT

¹ Enterprise budget includes the costs of a one cow lactation plus dry period as well as a replacement heifer. Dairy cows are presumed to be in the herd for three years. As a result, the dairy cow and replacement budgets include 0.38 of the feed requirements of raising a heifer. Heifer raising costs and feed requirements are given in the heifer budgets.

² "Milk Sold" equals the average pounds sold per cow over a 12-month period. It is about 95 percent of production as reported by the DHIA Rolling Herd Average.

³ The milk price is stated as the gross per cwt price less promotion and government assessment.

⁴ It is assumed that no income will be generated from bull calf sales.

⁵ Heifer receipts are based on 11 percent cull rate. Of the 11 percent, 6 percent are sold at birth and 5 percent are sold at springing. Heifer calf prices and springing heifer prices are shown below:

-----milk production-----

	12,000	14,000	16,000	18,000
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Heifer Calf	\$90	\$125	\$135	\$145
Springing Heifer	\$950	\$1,150	\$1,250	\$1,350

⁶ Cull cow receipts are based on a 33 percent cull rate, sale price at \$30 per cwt and culled animals weighing 1,000 lbs. Cull cow receipts equal $0.33 \times \$0.30/\text{lb} \times 1,000 \text{ lb}$

⁷ Feed costs are calculated assuming 10 percent and 3 percent losses for forages and other feeds, respectively. Values not in italics give requirement for the cow and replacement. Values in italics are for the cow only.

Corn silage priced at cost of production (\$19.45/ton) + \$5 handling charge. Corn priced at cost of production. Costs of production can be found in the Ohio Crop Enterprise Budgets. Feed additives were assumed to be fed to the two highest production levels and cost \$0.45/lb. Feed additives could consist of any combination of supplemental fat, special trace mineral supplements, direct-fed microbials, etc.

Item	Price	Unit	12,000		14,000		16,000		18,000	
Hay Equiv.	\$120	/ton	3.67	2.72	3.77	2.82	3.89	2.94	4.04	3.09
Corn Silage	\$24.45	/ton	6.06	4.46	6.25	4.65	6.58	4.98	6.92	5.324
Corn	\$2.62	/bu	59.0	47.2	63.3	51.5	69.2	57.4	76.2	64.4
Soybean Meal	\$0.10	/lb	1654	1526	1846	1718	2122	1994	2424	2296
BiCarb	0.16	/lb	96	96	96	96	80	80	64	64
Limestone	0.05	/lb	120	100	133	113	80	60	69	49
Mag.Ox.	0.21	/lb	11	11	10	10	13	13	13	13
Salt TM	0.12	/lb	96	82	96	82	96	82	96	82
DiCal Phos	0.20	/lb	25	11	36	22	41	27	44	30
Selenium 90	0.36	/lb	24	24	24	24	25	25	25	25
Vitamins A,D,E	0.40	/lb	20	16	20	16	20	16	20	16
Feed Additives	0.45	/lb	0	0	0	0	174	174	174	174
Milk Replacer	0.85	/lb	11		11		11		11	

⁸ Bedding is assumed to be sand. Adjust your bedding costs accordingly.

⁹ Posilac® used only at 16,000 and 18,000 lb production levels; 1 dose every two weeks for 32 weeks starting at 63rd day of lactation.

¹⁰ Interest costs are based on a 8 percent interest rate. Interest costs are calculated on 50 percent of all variable costs excluding marketing and hauling.

¹¹ Part or all of labor may be a variable cost if paid labor varies with cows milked. It's a fixed cost if labor costs do not change with cows milked. Labor charge includes workers compensation, social security, and fringe benefits.

¹² This cost is based on a 8 percent interest rate and a 0.43 insurance rate. The cow's value is based on an average of the springing heifer price (see footnote 5) and the cull cow price (see footnote 6). The heifer's value is based on an average of the calf price and springing heifer price. Total value on which the interest and insurance charge is based is the cow's value plus 0.38 times the heifer's value.

¹³ Equipment charge equals 17.6% of new equipment costs. Costs include interest, insurance, depreciation, and repairs. New equipment costs equals \$630 per cow and heifer. Equipment includes milking parlor (8 stalls), feed processing and distribution system, manure/waste system, tractor/scrapper, 1/2 pickup, and other miscellaneous items. Based on "Livestock Building and Equipment Requirements", KSU Farm Management Guide, Rodney Jones and James Murphy

¹⁴ Building charge equals 14.7% of new building costs. New building costs equal \$2,700 per cow and heifer.

Costs include interest, insurance, depreciation, and repairs. Buildings include free stall barn, heifer barn, calf shelter, feed storage, milking parlor, and fencing/corrals.

Based on "Livestock Building and Equipment Requirements", KSU Farm Management Guide, Rodney Jones and James Murphy

¹⁵ Management charge is 5 percent of total receipts.