



**2003 DAIRY COW AND REPLACEMENT BUDGET -- SMALL BREED<sup>1</sup>**  
**Forage= 80% Corn Silage and 20% Hay**

ITEM	PRICE PER UNIT	--- Pounds of Milk Sold Per Cow <sup>2</sup> ---				YOUR BUDGET
		12,000	14,000	16,000	18,000	
<b>RECEIPTS</b>						
Milk Sales <sup>3</sup>	\$13.50 /cwt	\$1,620	\$1,890	\$2,160	\$2,430	
Bull Calf <sup>4</sup>		0	0	0	0	
Heifer <sup>5</sup>		26	33	35	38	
Cull Cow <sup>6</sup>	30 /cwt	99	99	99	99	
<b>TOTAL RECEIPTS</b>		1745	2022	2294	2567	
<b>Variable Costs</b>						
Feed <sup>7</sup>						
Hay Equiv.	120 /ton	316	319	325	334	
Corn Silage	24.45 /ton	217	227	239	253	
Corn	2.62 /bu	114	122	135	150	
Soybean Meal 48%	0.10 /lb	205	227	257	290	
BiCarb	0.16 /lb	15	15	13	1	
Limestone	0.05 /lb	7	8	7	5	
Mag.Ox.	0.21 /lb	2	2	2	3	
Salt TM	0.12 /lb	12	12	7	12	
DiCal Phos	0.20 /lb	7	7	9	9	
Selenium 90	0.36 /lb	9	9	9	9	
Vitamins A,D,E	0.40 /lb	6	6	6	6	
Feed Additives	0.45 /lb	0	0	78	78	
Milk Replacer	0.85 /lb	10	10	10	10	
<b>TOTAL FEED COSTS</b>		919	964	1097	1160	
Other Variable Costs						
Veterinary & Medicine		75	80	85	90	
Breeding, Milk Testing & Reg.		35	40	45	50	
Utilities		64	66	68	70	
Bedding <sup>8</sup>		32	32	32	32	
Misc. & Supplies		106	106	106	106	
Marketing & Hauling Costs	0.50 /cwt	60	70	80	90	
Posilac® (bST) <sup>9</sup>	5.80 /dose	0	0	93	93	
Interest on Oper. Capital <sup>10</sup>	8 %	49	52	61	64	
<b>TOTAL OTHER VARIABLE COSTS</b>		421	446	570	595	
<b>TOTAL VARIABLE COSTS</b>		1340	1409	1667	1755	
<b>Fixed Costs</b>						
Labor Charge <sup>11</sup> 60 hrs.	10.50 /hr	630	630	630	630	
Interest & Insurance on Cow and Calf <sup>12</sup>		69	82	88	93	
Equipment Charge <sup>13</sup>	\$630 /cow	111	111	111	111	
Building Charge <sup>14</sup>	\$2,700 /cow	394	394	394	394	
Management Charge <sup>15</sup>	5%	87	101	115	128	
<b>TOTAL FIXED COSTS</b>		1292	1318	1337	1357	
<b>TOTAL COSTS</b>		2632	2727	3004	3112	
<b>RETURN ABOVE VARIABLE COSTS</b>		405	612	627	812	
<b>RETURN ABOVE TOTAL COSTS</b>		(887)	(705)	(710)	(545)	
----- Per cwt of Milk Produced -----						
<b>TOTAL RECEIPTS</b>		14.55	14.44	14.34	14.26	
<b>FEED COSTS</b>		7.66	6.88	6.86	6.44	
<b>TOTAL VARIABLE COSTS</b>		11.17	10.07	10.42	9.75	
<b>TOTAL COSTS</b>		21.93	19.48	18.78	17.29	

FOOTNOTES TO RIGHT



<sup>1</sup> 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.

<sup>2</sup> "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.

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

<sup>4</sup> It is assumed that no income will be generated from bull calf sales.

<sup>5</sup> 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
Heifer Calf	\$90	125	\$135	\$145
Springing Heifer	\$950	1150	\$1,250	\$1,350

<sup>6</sup> 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  $0.33 \times \$0.30/\text{lb} \times 1,000 \text{ lb}$

<sup>7</sup> 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		2.63	<i>1.68</i>	2.66	<i>1.71</i>	2.71	<i>1.76</i>	2.78	<i>1.83</i>
Corn Silage	24.45 /ton		8.89	<i>7.29</i>	9.27	<i>7.67</i>	9.79	<i>8.19</i>	10.36	<i>8.76</i>
Corn	2.62 /bu		43	<i>32</i>	47	<i>35</i>	52	<i>40</i>	57	<i>46</i>
Soybean Meal	0.10 /lb		2053	<i>1925</i>	2270	<i>2142</i>	2572	<i>2444</i>	2905	<i>2777</i>
BiCarb	0.16 /lb		96	<i>96</i>	96	<i>96</i>	80	<i>80</i>	7	<i>7</i>
Limestone	0.05 /lb		133	<i>133</i>	154	<i>154</i>	130	<i>130</i>	97	<i>97</i>
Mag.Ox.	0.21 /lb		10	<i>10</i>	10	<i>10</i>	11	<i>11</i>	13	<i>13</i>
Salt TM	0.12 /lb		96	<i>82</i>	96	<i>82</i>	56	<i>42</i>	96	<i>82</i>
DiCal Phos	0.20 /lb		35	<i>21</i>	36	<i>22</i>	43	<i>29</i>	44	<i>30</i>
Selenium 90	0.36 /lb		24	<i>24</i>	24	<i>24</i>	25	<i>25</i>	25	<i>25</i>
Vitamins A,D,E	0.40 /lb		16	<i>16</i>	16	<i>16</i>	16	<i>16</i>	16	<i>16</i>
Feed Additives	0.45 /lb		0	<i>0</i>	0	<i>0</i>	174	<i>174</i>	174	<i>174</i>
Milk Replacer	0.85 /lb		11		11		11		11	

<sup>8</sup> Bedding is assumed to be sand. Adjust your bedding costs accordingly.

<sup>9</sup> 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.

<sup>10</sup> 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.

<sup>11</sup> 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.

<sup>12</sup> 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

<sup>13</sup> 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

<sup>14</sup> 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 facilities and fencing/corrals.

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

<sup>15</sup> Management charge is 5 percent of total receipts.