

SHOW ME THE MONEY—Beginner Dairy Producer Heading for Millionaire Status!

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There's no money in dairying! Dairying is too much work! It takes too much capital to start dairying! You can't graze dairy cows profitably! You cannot out-winter dairy cattle and survive! You can't crossbreed dairy cows! You can't start dairying with high priced land and cows! You can't be profitable with 15,000 pounds of milk per cow! One person cannot handle 80 cows! Profiting \$1,000 per crop acre or \$1,000 per cow for return to labor cannot be done! Earning \$30-\$50 per labor hour milking cows is impossible! Landlords are better off getting rid of the dairy cows and cash cropping the farm! You can't earn 20% return on assets dairying! You need more than 80 cows or 80 acres to make it dairying! The naysayers go on and on.....

Enough is enough! There is money in dairying! All the negative statements above can be translated to realistic, positive statements as all these things are being done on Midwestern dairy farms.

Millionaire Model Grazing farm number three has done all of the above. The young producer began planning and signing contracts in the fall of 2002 for a 32 stall barn on 70 acres near Dubuque, IA. The producer and tenant built a swing 10 milking parlor in a lean-to on the stall barn, put freestalls in the barn along with a fence-line feeder and small manure pit. Much of the land was converted to rotationally grazed pasture. The producer paid half of improvements and the landlord paid the other half and they split the labor bill as well.

In the following three years, 33 cowlts (single row freestalls) were added along a cement lane for a total of 80 stalls. The costs of these improvements were split between producer and tenant as well.

The producer started out as a sharemilker with \$0 net worth, earning 25% of the milkcheck in return for his labor in year one. In years two and three the producer took ownership of the cows on a note from a private lender. Ninety cows valued at \$1,200 each at that time were purchased in 2003, along with \$15,000 in machinery. The machinery line grew to \$48,000 by 2007. In 2007, the producer still held \$35,000 in debt.

A projected budget was created with the assistance of ISU Extension. Pages three and four depict the financial budget in 2003, which was the startup year along with four years of financial data from years 2004, 2005, 2006 and 2007. In addition, the four year average and a per cow average for the four years is included in the columns to the right.

Yes, there were some good to great milk prices during those four years averaging \$17.11 per hundredweight for milk from crossbred dairy cows with a Jersey and Holstein base. The cows produced just over 15,000 pounds of milk on average. The return to labor after an equity charge was taken out was \$84,277 and ranged from \$55,577 in 2006 to \$134,080 in 2007. Not too bad for a young guy who didn't go to college! Where else can a young person earn that much, granted with taking some financial risks.

Thanks to the grazing and crossbreeding, the cull rate averaged under 20% per year which earned the producer an average of \$24,150 in breeding livestock gains per year. The producer averaged approximately 31 hours of labor per cow thanks to the seasonal calving, the low-cost parlor and the grazing and feeding systems employed on the farm. The low labor cost is also credited to the purchase of much of the feed, rather than growing the crops. Labor earnings per hour ranged from \$25.26 to \$44.69 and averaged \$34.99. Again, not bad!

The average milk production costs, with all labor and equity charges included was \$12.97 per hundredweight over the four years. The gross income per hundredweight equivalent was \$17.11 for a net profit per hundredweight of \$4.14 with labor, equity and all other costs already accounted for.

The producer began with 1.1 million pounds of milk sold per worker in 2004 and grew to 1.4 million pounds of milk sold per worker in 2007. The producer began with 12,820 pounds of milk sold per acre in 2004 and grew to 20,838 pounds of milk sold per acre in 2007. The producer began with 13,197 pounds of milk sold per cow in 2004 and grew to 16,208 pounds of milk sold per cow in 2007.

Returns to assets averaged 34.31%. Borrowing money to start operations at 6.5% leaves a profit of 27.81% for every dollar borrowed. To this author, that seems like a good use of borrowed money. The operating profit margin averaged 27.97% and the asset turnover ratio averaged 120.36%. Thus, the operation profited about 28 cents for every dollar of gross income and grossed enough income to pay for all the assets being used in about 10 months. Granted milk prices were good, but even if milk prices were at the \$12.97 average cost throughout the four years, this producer would still have earned enough to pay for family living and debt service.

With all this taken into account, the **Dairy TRANS** analysis depicts this beginning producer's financial operations as **SUPERB with a rating of 164.75%**.

The feed budget employed by this 70 acre operation, buying corn silage out of the field, is in the chart below at the bottom of this page.

In sum, increasing net worth from \$0 to over \$300,000 over a five year period while providing for family living and reducing debt down to \$35,000 is no small task. **Yet, that is what this producer did.** Granted, the producer did receive assistance in rent between \$2,000 to \$3,000 per year from established fair market value rental rates from the landlord. But, at the same time the young producer gave sweat equity in helping modernize an existing small dairy farm. The producer also benefited \$1,000 to \$2,000 per year from a private financier who allowed the producer to begin with limited equity and took a risk. And, the milk price average was good to great. But, even when accounting for this assistance and the milk price, this producer still made great strides to becoming a millionaire dairy producer. **They just needed a little help!**

Therefore, the millionaire dairy farm model is a realistic model that can be successfully employed. Landlords and bankers are encouraged to assist young producers to put this model in place for the future of agriculture and the dairy industry. **What can we do as an industry to get young producers started?**

Feed Production and Dairy Cow Stocking Rate Calculator				
Milk per cow, annual	16000	lbs	Feed Wastage Rate	20%
Estimated cow weight	1300	lbs	Herd Cull Rate	20%
Average Heifer Weight	650	lbs	Dairy Cow and Heifers	10.75 tons DM
Dairy Cow Intake/daily	42.60	lbs DM	Dairy Cow Annually	9.33 tons DM
Dairy Heifer Intake/daily	16.25	lbs DM	Dairy Heifer Annually	3.56 tons DM
<u>Dairy Cows Supported</u>	<u>92.2</u>	<u>cows</u>	<u>Dairy Cows with Heifers</u>	<u>80.0</u> <u>cows</u>
				<u>32.0</u> <u>heifers</u>
Crop	Acres	Average DM Yield	Total Dry Matter	
Alfalfa	80.00	4.00 tons	320.00 tons	
Corn Silage	20.00	7.50 tons	150.00 tons	
Other Forage	0.00	3.00 tons	0.00 tons	
Corn Grain	0.00	180.00 bushels	0.00 tons	
Soybeans	0.00	55.00 bushels	0.00 tons	
Forage Purchased	----	150.00 tons	127.50 tons	
Supplements	----	292.00 tons	30	262.80 tons
Totals	100.00	4.70 tons	860.30 tons	

MODEL Grazier # 3	Budgeted	Actual YR2	Actual YR 3	Actual YR 4	Actual YR5	Average	Per Cow	Misc
	2003	2004	2005	2006	2007	2004-07	2003 Not Included!	
Productive Crop Acres	70	70	70	70	70	70.00	0.92	
Average Number of Cows	80	68	70	77	90	76.25		
Total Assets on Farm	\$142,000	\$132,558	\$194,100	\$226,343	\$338,514	\$222,879	\$2,923	
Non-farm Income	\$0	\$0	\$0	\$0	\$0	\$0	\$0.00	
Family Living Expenses	\$30,000	\$30,000	\$30,000	\$18,000	\$24,000	\$25,500	\$334.43	
Capital Purchases	\$0	\$19,600	\$9,000	\$8,400	\$14,800	\$12,950	\$169.84	
Ending Cash Flow	\$10,609	\$27,488	-\$9,696	\$12,191	\$44,136	\$18,530	Pre-Tax Dollars!!	
Ending Cash Flow Ratio	7.81%	19.00%	-5.41%	6.44%	15.52%	8.89%		
Milk Price	\$12.00	\$18.35	\$15.85	\$13.53	\$20.71	\$17.11		pounds
Milk Hundred weight Equiv.	12,199	10,596	10,515	15,152	16,663	13,231	173.53	17,353
Milk Hundredweights	11,200	8,974	9,934	12,295	14,587	11,448	150.13	15,013
Milk Sales	\$134,400	\$164,669	\$157,498	\$166,407	\$302,092	\$197,667	\$2,592	
Cull Cow Sales ~10-17%	\$7,000	\$2,868	\$2,414	\$4,948	\$6,623	\$4,213	\$55.26	
Calf Sales	\$4,300	\$3,630	\$4,383	\$6,802	\$4,600	\$4,854	\$63.66	
Crop Sales	\$0	\$0	\$0	\$0	\$0	\$0	\$0.00	
Other Income	\$700	\$1,001	\$2,424	\$2,131	\$2,530	\$2,022	\$26.51	
Total Cash Income	\$146,400	\$172,168	\$166,719	\$180,288	\$315,845	\$208,755	\$2,738	per cwt eq.
Veterinary, Medicine	\$2,500	\$4,777	\$2,854	\$3,009	\$2,850	\$3,373	\$44.23	\$0.25
Dairy Supplies	\$2,500	\$6,305	\$9,525	\$10,212	\$12,176	\$9,555	\$125.30	\$0.72
Breeding Fees	\$2,000	\$2,256	\$1,002	\$1,179	\$1,388	\$1,456	\$19.10	\$0.11
Feed Purchased	\$56,180	\$47,057	\$58,645	\$70,394	\$130,849	\$76,736	\$1,006.38	\$5.80
Repairs	\$1,500	\$1,026	\$4,107	\$2,220	\$6,429	\$3,446	\$45.19	\$0.26
Seed, Chem, Fert	\$1,650	\$180	\$1,397	\$1,683	\$4,350	\$1,903	\$24.95	\$0.14
Fuel, Gas, and Oil	\$600	\$1,748	\$3,380	\$4,932	\$7,721	\$4,445	\$58.30	\$0.34
Utilities	\$2,000	\$3,498	\$3,527	\$4,676	\$5,137	\$4,210	\$55.21	\$0.32
Interest Paid	\$7,000	\$3,900	\$5,640	\$4,890	\$3,390	\$4,455	\$58.43	\$0.34
Labor Hired	\$1,000	\$0	\$12,745	\$12,380	\$12,694	\$9,455	\$124.00	\$0.71
Rent, Lease and Hire	\$19,600	\$16,864	\$15,906	\$14,409	\$17,485	\$16,166	\$212.01	\$1.22
Property Taxes	\$0	\$0	\$0	\$0	\$0	\$0	\$0.00	\$0.00
Farm Insurance	\$1,200	\$965	\$978	\$978	\$1,020	\$985	\$12.92	\$0.07
Other Cash Expense	\$3,300	\$6,504	\$5,150	\$8,835	\$7,449	\$6,985	\$91.60	\$0.53
Total Cash Expense	\$101,030	\$95,080	\$124,856	\$139,797	\$212,938	\$143,168	\$1,878	\$10.82
Net Cash Income	\$45,370	\$80,988	\$41,863	\$40,491	\$102,907	\$66,562	\$873	\$5.03
Inventory Change	(\$4,000)	\$9,472	\$26,095	\$21,385	\$44,235	\$25,297	\$331.76	\$1.91
Net Farm Income	\$41,370	\$90,460	\$67,958	\$61,876	\$147,142	\$91,859	\$1,205	\$6.94
Equity@	\$3,023	\$7,081	\$3,880	\$11,196	\$13,063	\$8,805	\$115	\$0.67
Return to Labor	\$38,347	\$83,379	\$64,078	\$55,570	\$134,080	\$84,277	\$1,105	\$6.37
Inventory Adjustments--Feed	\$4,800	\$0	-\$804	\$4,785	(\$265)	\$929	\$12.18	\$0.07
Supplies and Other	\$0	-\$28	\$0	\$0	\$0	-\$7	-\$0.09	\$0.00
Breeding Livestock	\$0	\$22,300	\$24,800	\$20,000	\$29,500	\$24,150	\$316.72	\$1.83
Income Change	\$0	\$11,272	\$23,995	\$24,785	\$29,235	\$22,322	\$292.74	\$1.69
Prepaid Expenses	\$0	-\$4,000	\$0	\$0	\$20,000	\$4,000	\$52.46	\$0.30
Accounts Payable	\$0	\$0	\$0	\$0	\$0	\$0	\$0.00	\$0.00
Machinery & Equipment	(\$4,000)	\$10,000	\$10,100	\$5,000	\$11,800	\$9,225	\$120.98	\$0.70
Land and Buildings	\$0	\$800	\$0	\$0	(\$2,000)	-\$300	-\$3.93	-\$0.02
Other Adjustments	\$0	\$0	\$0	\$0	\$0	\$0	\$0.00	\$0.00
Expense Change	\$4,000	-\$6,800	(\$10,100)	(\$5,000)	(\$29,800)	-\$12,925	-\$169.51	-\$0.98
Capital Purchases Minus Sales Adj.	\$0	\$19,600	\$8,000	\$8,400	\$14,800	\$12,700	\$166.56	\$0.96
Depreciation COST	\$4,000	\$11,813	\$12,000	\$18,013	\$0	\$10,457	\$137.13	\$0.79
Depreciation FM Value	\$4,000	\$1,800	\$2,200	\$3,000	\$3,000	\$2,500	\$32.79	\$0.19
Unpaid Labor Cost	\$25,000	\$30,000	\$25,000	\$25,000	\$30,000	\$27,500	\$360.66	\$2.08
Unpaid Labor Hours	3,000	2,400	1,820	2,200	3,000	2,355	31 hrs/cow	
Labor Full Time Equivalents	1.00	0.80	0.80	1.00	1.00	0.90		
Labor Earnings Per Hour	\$12.78	\$34.81	\$35.21	\$25.26	\$44.69	\$34.99		

Inventory Adjustments--Feed	\$4,800	\$0	-\$804	\$4,785	(\$265)	\$929	\$12.18	\$0.07
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Unpaid Labor Hours	3,000	2,400	1,820	2,200	3,000	2,355		
Labor Full Time Equivalents	1.00	0.80	0.80	1.00	1.00	0.90		
Labor Earnings Per Hour	\$12.78	\$34.81	\$35.21	\$25.26	\$44.69	\$34.99		31 hrs/cow
Gross Income per Cwt. Eq.	\$12.00	\$18.35	\$15.85	\$13.53	\$20.71	\$17.11		
Gross Expense per Cwt. Eq.	\$10.91	\$13.30	\$12.61	\$11.52	\$14.46	\$12.97		
Net Income per cwt.	\$1.09	\$5.05	\$3.25	\$2.02	\$6.25	\$4.14		
Cash Income--	\$146,400	\$172,168	\$166,719	\$180,288	\$315,845	\$208,755	\$2,738	
Adjusted Income	\$0	\$22,272	\$23,995	\$24,785	\$29,235	\$25,072	\$329	
Total Income	\$146,400	\$194,440	\$190,714	\$205,073	\$345,080	\$233,827	\$3,067	
Cash Costs	\$101,030	\$95,080	\$124,856	\$139,797	\$212,938	\$143,168	\$1,878	
Adjusted Costs	\$4,000	\$12,800	(\$2,100)	\$3,400	(\$15,000)	-\$225	-\$3	
Overhead Costs	\$28,023	\$33,011	\$28,880	\$31,306	\$43,063	\$34,065	\$447	
Total Costs	\$133,053	\$140,891	\$151,636	\$174,503	\$241,001	\$177,008	\$2,321	
RETURN OVER COSTS	\$13,347	\$53,549	\$39,078	\$30,570	\$104,080	\$56,819	\$745	
Adj. Gross Return per FTE Labor.....	\$139,429	\$243,051	\$238,393	\$205,073	\$345,080	\$257,899		
Return to All Labor per FTE Labor.....	\$37,473	\$104,436	\$96,029	\$67,950	\$146,774	\$103,797		
Number of Cows per FTE Labor.....	76	85	88	77	90	85		
Cwts. of Milk Sold per FTE Labor.....	10,667	11,217	12,418	12,295	14,587	12,629		
Pounds of Milk Sold per Cow.....	14,000	13,197	14,192	15,968	16,208	14,891		
Productive Crop Acres per Cow.....	0.90	1.03	1.00	0.91	0.78	0.93		
Capital Cost per Cow.....	\$175	\$128	\$167	\$184	\$216	\$174		
All Labor Costs per Cow.....	\$325	\$441	\$539	\$485	\$474	\$485		
Fixed Cost per Cow (DIRTI)	\$209	\$157	\$240	\$226	\$299	\$231		
Capital Invested per Cow.....	\$1,725	\$1,593	\$2,408	\$2,394	\$3,135	\$2,383		
Net Farm Income per Crop Acre.....	\$591	\$1,237	\$971	\$884	\$2,102	\$1,298		
Lbs. Milk Produced per Crop Acre.....	16,000	12,820	14,192	17,564	20,838	16,353		
Adj. Gross Cash Income/Crop Acre.....	\$2,091	\$2,778	\$2,724	\$2,930	\$4,930	\$3,340		
Machinery Investment/Crop Acre	\$129	\$170	\$314	\$421	\$541	\$362		
Fuel, Gas and Oil Cost/Crop Acre.....	\$9	\$25	\$48	\$70	\$110	\$64		
Repair Cost per Crop Acre.....	\$21	\$15	\$59	\$32	\$92	\$49		
Fert/Chem/Seed Cost/Crop Acre.....	\$24	\$3	\$20	\$24	\$62	\$27		
Livestock over Total Investment %	85%	80%	83%	75%	72%	77.58%		
Cash Exp./Cash Inc.w/o Labor&Int.....	64%	53%	64%	68%	62%	61.78%		
All Labor as Percent of Total Costs.....	20%	21%	25%	21%	18%	21.33%		
Fixed Cost as Percent of Total Cost.....	13%	8%	11%	10%	11%	9.95%		
**Net Farm Income From Operations	\$41,370	\$86,560	\$67,958	\$61,876	\$147,142	\$90,884		
**Rate of Return on Assets.....	16.46%	51.23%	27.45%	20.15%	38.43%	34.31%		
**Rate of Return on Equity.....	32.49%	93.91%	55.36%	29.24%	44.84%	55.84%		
**Operating Profit Margin.....	15.96%	31.09%	25.48%	20.37%	34.93%	27.97%		
**Asset Turnover Ratio.....	103%	165%	108%	99%	110%	120.36%		
**Operating Expense Ratio.....	64%	53%	60%	66%	56%	58.57%		
**Depreciation Expense Ratio.....	3%	1%	1%	1%	1%	1.10%		
**Net Farm Income Ratio.....	28%	45%	36%	30%	43%	38.50%		
Estimated % Interest Paid	7.60%	6.00%	5.70%	6.00%	6.50%	6.05%		
Dairy TRANS Profit Status is.....	SUPERB!	SUPERB!	SUPERB!	SUPERB!	SUPERB!	SUPERB!		
Dairy TRANS Performance Rating	101.00%	219.00%	137.00%	124.00%	179.00%	164.75%		

*Model Graziers
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