DAIRY FARM BUSINESS SUMMARY

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PRO-DAIRY

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NEW YORK LARGE HERD FARMS, 300 COWS OR LARGER 2005

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2005 DAIRY FARM BUSINESS SUMMARY
LARGE HERD DAIRY FARMS
300 Cows or Larger

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2005 DAIRY FARM BUSINESS SUMMARY
LARGE HERD DAIRY FARMS[1]

INTRODUCTION

Dairy farmers throughout New York state have been participating in Cornell Cooperative Extension Farm Business Summary and Analysis Programs since the early 1950's. Managers of each participating farm business receive a comprehensive summary and analysis of the farm business.

Larger farms employ different technologies and management systems, and thus, achieve different efficiencies than smaller farms. This makes comparisons of a large farm's performance to the average of farms of all sizes not as meaningful as comparing to the average of similar sized farms. This report contains a summary and analysis of dairy farms with 300 or more cows. In addition, farms are sorted into three categories for many comparisons, 300 to 400 cows, 401 to 599 cows, and 600 and more cows per farm.

Farm managers should determine their business performance and then compare it with that of other similar farms. In this manner, strengths and areas for improvement can be identified. A goal that many managers set is to strive to be in the top 20 percent of farms for many of the production and financial benchmarks. Each manager should select and then revise annually the goals which their business strives to achieve.

Program Objective

The primary objective of the Dairy Farm Business Summary, DFBS, is to help farm managers improve the business and financial management of their dairy farm through appropriate use of historical farm data and the application of modern farm business analysis techniques. This information can also be used to track changes within the business, establish goals that will enable the business to better meet its objectives, compare the performance of the farm to other dairy producers, and establish a basis for financial projection of planned changes within the business.

Format

This report is comprised of six sections. The first section charts the progress of the large herd farm business over two years. Sixty-nine of the large herd farms participated in the summary the last two years. The averages of selected business factors are presented for these farms and the changes that occurred from 2004 to 2005 are calculated.

The second section contains charts for additional analysis of large herd farms. The top 20 percent large farms (by rate of return on assets without appreciation) are compared to the average for all 74 large herd farms that participated in the 2005 DFBS program. Also presented is information concerning dairy enterprise efficiency, and milking parlor efficiency.

The summary and analysis section lists the average data for the 74 large herd farms that participated in the 2005 DFBS program. The format follows that of the individual farm DFBS printout and contains a brief explanation of each table and chart with comparisons to the top 20 percent large farms.

The fourth section presents a condensed summary and selected business factors for farms with 300-400 cows, 401-599 cows, and farms with 600 and more cows.

The fifth section contains the income and expense profiles for the 300-400 cow farms, 401-599 cow farms, and 600 and more cow farms on a per cow and per hundredweight of milk basis.

The sixth section contains business charts for key measures of farm performance.

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[1] The large herd summary is comprised of farms with 300 or more cows. Albany, Allegany, Cayuga, Chenango, Clinton, Columbia, Cortland, Erie, Genesee, Jefferson, Lewis, Livingston, Madison, Montgomery, Niagara, Oneida, Ontario, Orleans, Rensselaer, St. Lawrence, Saratoga, Schuyler, Tompkins, Washington, Wayne, Wyoming, and Yates counties had farms of this size participating in 2005. This report was written by Jason Karszes, Senior Extension Associate, Pro-Dairy and Wayne A. Knoblauch, Professor, Farm Management. Linda Putnam was in charge of data preparation. Faye Butts prepared the publication. Data were collected by Cornell Cooperative Extension educators across the state. We also acknowledge the cooperation of Western New York and First Pioneer Farm Credit Associations and Dehm Associates, for their assistance in data collection.

PROGRESS OF THE FARM BUSINESS

The 2005 business year for the New York State dairy industry was a continuation of the return to profitability that occurred in 2004. While net milk prices decreased 4.2 percent from the record high levels in 2004, they were still quite strong, averaging $15.23. Growing conditions were variable across the state, with higher quality haylage and sufficient tons of corn silage being produced outside of the areas that were impacted by drought conditions. With the overall improvement in forage quality, milk production per cow increased, leading to decreases in feed costs and offsetting increases in key input costs. The combination of these factors led to a year that, while less profitable than 2004, averaged strong profits and continued increases in farm net worth.

For both 2004 and 2005, 69 farms that averaged more than 300 cows in New York participated in the Dairy Farm Business Summary Program (DFBS), administered by Cornell Cooperative Extension and Cornell University. The tables on the following two pages show selected factors and receipts and expenses per cow and per hundredweight from the 69 farms that participated in the DFBS project each of the last two years.

Comparing your business' performance with average data from these DFBS dairy farms can help you establish goals for your business. It is equally important to determine the progress your business has made over the past two or three years, to compare this progress to your goals, and to set goals for the future.

Milk Income. Gross milk prices decreased 3.8 percent percent, or $0.63 per hundredweight. Milk marketing expenses increased 4 cents to $0.74 per hundredweight. These two changes led to a decrease of 4.2 percent in net milk price received on farm, averaging $15.23 per hundredweight. With the generally improved growing conditions in 2005, forage quality has improved over previous years. Higher quality forage coupled with an increase in rBst availability resulted in an increase of 668 pounds of milk per cow in 2005, which has offset the decrease of 419 pounds that occurred in 2004. With the increase in milk production, butterfat and protein production also increased per cow, with no change in the percent component levels. With milk production per cow increasing and the 69 farms increasing herd size 3.9 , or 27 cows, to 716 cows, total milk shipped off the farm increased 7 percent to almost 17 million pounds per farm. The combination of increased herd size and increased milk per cow offset the decrease in milk prices and the total milk revenue for the farm showed a small increase. With the generally improved growing conditions, hay dry matter yields fell slightly, corn yields increased, and overall quality was generally better.

Cost control. With the increase in herd size, worker equivalents increased by 1.9 percent. Since this increase was smaller than the increase in herd size, labor efficiency increased, with cows per worker increasing by 1 to 44. The increase in cows per worker coupled with the increase in milk sold per cow led to an increase of 5 percent to 1,049,558 pounds milk sold per worker. Hired labor costs per worker equivalent increased 2.0 percent; however, with labor efficiency increasing, the cost per hundredweight for hired labor actually fell 2.1 percent to $2.84.

Improved forage quality and slightly decreased purchased grain and concentrate prices, coupled with an increase in milk production, purchased grain and concentrates per hundredweight decreased 11 percent to $4.13 per hundredweight.

While the two major variable operating expenses decreased on a per hundredweight basis, 17 other expense items showed increases on a per hundredweight basis, led by increases in interest and fuel. These increases largely offset the decrease in labor and purchased grain and concentrates, with total farm operating costs per hundredweight only decreasing 5 cents to $14.63 per hundredweight.

Decrease in Earnings. While milk prices did fall in 2005, the combination of increased herd size, increased milk production per cow, increased labor efficiency and a small decrease in total farm operating costs offset some of the impact of the decrease in milk price and resulted in a 14 percent decrease in farm earnings for the year. Net farm income without appreciation decreased to $367,939. Net farm income with appreciation decreased 0.9 percent to $592,823. Increasing cattle prices contributed to appreciation in 2005.

- Labor and management income per operator/manager decreased 25.3 percent to $111,462.
- Rate of return to all capital without appreciation decreased 18.5 percent to 7.5 percent. Rate of return on equity capital without appreciation decreased 31.1 percent to 9.3 percent.
- Farm net worth increased by 16.2 percent from the previous year.
- Debt to asset ratio fell 9.1 percent to 0.40.

Overall, 2005 was a solid year for the 300 cow and larger farms and continued the recovery that began in 2004 from the low earning years and difficult times in 2002 and 2003. While, on average, profits did decrease from 2004, the changes on individual farms varied, with some farms actually doing better in 2005 than they did in 2004. The importance of trend analysis is to identify what areas changed, ask why they changed, and look at what you can do differently in the future to influence that change. If you would like help in developing and looking at the trends in your business, contact your local extension office and become involved in a financial management education program.

PROGRESS OF THE FARM BUSINESS

Same 69 Large Herd Dairy Farms, 2004 & 2005

Selected Factors	Average of 69 Farms 2004	Average of 69 Farms 2005	Percent Change
Size of Business			
Average number of cows	689	716	3.9
Average number of heifers	540	580	7.4
Milk sold, lbs.	15,862,444	16,971,355	7.0
Worker equivalent	15.87	16.17	1.9
Total tillable acres	1,319	1,370	3.9
Rates of Production			
Milk sold per cow, lbs.	23,034	23,702	2.9
Butterfat per cow, lbs.[2]	818	844	3.2
Protein per cow, lbs.[2]	682	699	2.5
Hay DM per acre, tons	3.9	3.8	-2.6
Corn silage per acre, tons	18.0	19.1	6.1
Labor Efficiency & Costs			
Cows per worker	43	44	2.3
Milk sold per worker, lbs.	999,524	1,049,558	5.0
Hired labor cost per cwt.	$2.90	$2.84	-2.1
Hired labor cost per worker	$34,181	$34,866	2.0
Hired labor cost as % of milk sales	17.5%	17.8%	1.7
Cost Control			
Grain & concentrate purchased as % of milk sales	28%	26%	-7.1
Grain & concentrate per cwt. milk	$4.64	$4.13	-11.0
Dairy feed & crop expense per cwt. milk	$5.63	$5.16	-8.4
Labor & machinery costs per cow	$1,305	$1,359	4.1
Total farm operating costs per cwt. sold	$14.68	$14.63	-0.3
Interest costs per cwt. milk	$0.54	$0.63	16.7
Operating cost of producing cwt. of milk	$12.62	$12.48	-1.1
Capital Efficiency(average for the year)			
Farm capital per cow	$6,556	$6,977	6.4
Machinery & equipment per cow	$1,126	$1,203	6.8
Asset turnover ratio	0.70	0.67	-4.3
Income Generation			
Gross milk sales per cow	$3,824	$3,784	-1.1
Gross milk sales per cwt.	$16.60	$15.97	-3.8
Net milk sales per cwt.	$15.90	$15.23	-4.2
Dairy cattle sales per cow	$295	$253	-14.2
Dairy calf sales per cow	$49	$68	38.8
Profitability			
Net farm income without appreciation	$427,750	$367,939	-14.0
Net farm income with appreciation	$598,167	$592,823	-0.9
Labor & mgt. income per operator/manager	$149,168	$111,462	-25.3
Rate of return on equity capital w/o appreciation	13.5%	9.3%	-31.1
Rate of return on all capital without appreciation	9.2%	7.5%	-18.5
Financial Summary			
Farm net worth, end year	$2,683,488	$3,118,229	16.2
Debt to asset ratio	0.44	0.40	-9.1
Farm debt per cow	$2,951	$2,886	-2.2

[2]Average of 63 large herd dairy farms that provided this data.

RECEIPTS AND EXPENSES PER COW AND PER HUNDREDWEIGHT

Same 69 Large Herd Dairy Farms, 2004 & 2005

	2004		2005	
Item	Per Cow	Per Cwt.	Per Cow	Per Cwt.
Average number of cows	689		716	
Cwt. of milk sold		158,624		169,714
ACCRUAL OPERATING RECEIPTS				
Milk	$3,824	$16.60	$3,784	$15.97
Dairy cattle	295	1.28	253	1.07
Dairy calves	49	0.21	68	0.29
Other livestock	7	0.03	5	0.02
Crops	62	0.27	55	0.23
Miscellaneous receipts	127	0.55	169	0.71
Total Receipts	$4,365	$18.95	$4,334	$18.29
ACCRUAL OPERATING EXPENSES				
Hired labor	$668	$2.90	$673	$2.84
Dairy grain & concentrate	1,069	4.64	979	4.13
Dairy roughage	61	0.27	66	0.28
Nondairy feed	0	0.00	0	0.00
Professional nutritional services	2	0.01	1	0.00
Machine hire, rent & lease	58	0.25	51	0.22
Machine repair & vehicle expense	170	0.74	175	0.74
Fuel, oil & grease	89	0.39	121	0.51
Replacement livestock	29	0.13	27	0.11
Breeding	47	0.21	52	0.22
Veterinary & medicine	141	0.61	152	0.64
Milk marketing	161	0.70	177	0.74
Bedding	71	0.31	80	0.34
Milking supplies	72	0.31	78	0.33
Cattle lease	3	0.01	4	0.02
Custom boarding	79	0.34	85	0.36
bST expense	43	0.18	58	0.24
Livestock professional fees	10	0.04	10	0.04
Other livestock expense	19	0.08	20	0.08
Fertilizer & lime	66	0.29	78	0.33
Seeds & plants	53	0.23	51	0.21
Spray & other crop expense	40	0.17	43	0.18
Crop professional fees	7	0.03	6	0.03
Land, building, fence repair	45	0.19	55	0.23
Taxes	43	0.19	48	0.20
Real estate rent/lease	58	0.25	64	0.27
Insurance	32	0.14	34	0.14
Utilities	77	0.34	87	0.36
Interest paid	124	0.54	150	0.63
Other professional fees	22	0.10	21	0.09
Miscellaneous	23	0.10	23	0.10
Total Operating Expenses	$3,382	$14.68	$3,468	$14.63
Expansion livestock	67	0.29	38	0.16
Extraordinary expense	1	0.01	2	0.01
Machinery depreciation	170	0.74	191	0.81
Real estate depreciation	122	0.53	121	0.51
Total Expenses	$3,742	$16.25	$3,820	$16.12
Net Farm Income Without Appreciation	$621	$2.70	$514	$2.17

TOP 20 PERCENT COMPARISON TO AVERAGE AND FACTORS CONCERNING DAIRY ENTERPRISE AND PARLOR EFFICIENCY

In 2005, 20 of the 74 farms with over 300 cows filled out a supplementary data collection form in order to gain information on additional performance factors for dairy farms. Reported below are the averages and business charts for these factors. Each category is sorted independently, therefore farms that are the highest or lowest in one column may not necessarily be the highest or lowest in the next column. Please note that this is only descriptive data from 20 farms and only represents these 20 farms. See the Glossary beginning on page 51 for definitions of the factors in the table below.

On the following page selected factors for the top 20 percent of large herd farms as sorted by rate of return on all assets without appreciation are compared to the same factors for the average of all 74 farms over 300 cows that participated in the DFBS project in 2005. It is useful to see what factors are different between the average and the top 20% and to ask questions about where your own business fits into these factors.

Fourteen farms that were in the top 20 percent in 2005 were also in the summary in 2004. The table on page 7 shows income and expenses for these farms for both 2004 and 2005. Identifying the changes that occurred on these farms provides insight into what happened on the most profitable farms. How your farm changed in comparison should provide valuable management information.

SUPPLEMENTAL FARM BUSINESS CHART

20 Large Herd Farms, 2005

Milking System Only

Quintile	Pounds of Milk Harvested Per Hour of Milking Labor	Total Cows Milked Per Hour of Milking Labor Per Day	Pounds of Milk Harvested per Machine Per Year
Average of Highest Quintile	2,404	35	908,064
↓	1,849	29	660,974
	1,460	25	535,394
	1,248	21	419,195
Average of Lowest Quintile	1,070	18	245,468
Overall Average	1,606	26	553,819

Dairy Enterprise Only

Quintile	Worker Equivalents	Cows per Worker Equivalent	Pounds Sold per Worker Equivalent
Average of Highest Quintile	11.62	188	4,160,820
↓	8.46	124	2,690,206
	6.41	97	2,283,687
	4.30	87	1,932,366
Average of Lowest Quintile	3.26	65	1,495,038
Overall Average	6.81	112	2,512,423

TOP 20 PERCENT VS. AVERAGE
74 Large Herd Dairy Farms, 2005

Selected Factors	Average 74 Farms	Average Top 20% Farms	Percent Difference
Size of Business			
Average number of cows	711	821	15.4
Average number of heifers	574	633	10.3
Milk sold, lbs.	16,863,169	19,986,851	18.5
Worker equivalent	16.07	17.70	10.1
Total tillable acres	1,377	1,432	4.0
Rates of Production			
Milk sold per cow, lbs.	23,721	24,347	2.6
Butterfat per cow, lbs.[3]	848	882	4.0
Protein per cow, lbs. [3]	702	728	3.7
Hay DM per acre, tons	3.66	3.84	4.9
Corn silage per acre, tons	19.02	19.96	4.9
Labor Efficiency & Costs			
Cows per worker	44	46	4.6
Milk sold/worker, lbs.	1,049,357	1,129,147	7.6
Hired labor cost/cwt.	$2.82	$2.62	-7.1
Hired labor cost/hired worker	$34,598	$34,804	0.6
Hired labor cost as % of milk sales	17.7%	16.1%	-9.0
Cost Control			
Grain & conconcentrate purchased as % of milk sales	26%	24%	-7.7
Grain & conconcentrate per cwt. milk	$4.13	$3.93	-4.8
Dairy feed & crop expense per cwt. milk	$5.15	$4.91	-4.7
Labor & machinery costs/cow	$1,362	$1,287	-5.5
Total farm operating costs per cwt. sold	$14.63	$13.79	-5.7
Interest costs per cwt. milk	$0.64	$0.53	-17.2
Milk marketing costs per cwt. milk sold	$0.74	$0.71	-4.1
Operating cost of producing cwt. of milk	$12.45	$11.63	-6.6
Net milk income over purchased feed costs per cow	$2,505	$2,674	6.8
Capital Efficiency (average for the year)			
Farm capital per cow	$7,040	$6,335	-10.0
Machinery & equipment per cow	$1,203	$980	-18.5
Asset turnover ratio	0.66	0.76	15.2
Income Generation			
Gross milk sales per cow	$3,779	$3,969	5.0
Gross milk sales per cwt.	$15.93	$16.30	2.3
Net milk sales per cwt.	$15.19	$15.59	2.6
Dairy cattle sales per cow	$252	$267	6.0
Dairy calf sales per cow	$67	$55	-17.9
Profitability			
Net farm income without appreciation	$366,065	$703,464	92.2
Net farm income with appreciation	$580,241	$930,127	60.3
Labor & mgt. income per oper./manager	$111,199	$238,373	114.4
Rate of return on equity capital w/o appreciation	9.2%	18.4%	100.0
Rate of return on all capital w/o appreciation	7.5%	13.4%	78.7
Financial Summary			
Farm net worth, end of year	$3,124,183	$3,575,432	14.4
Debt to asset ratio	0.40	0.35	-12.5
Farm debt per cow	$2,901	$2,286	-21.2

[3]Average of large herd dairy farms that provided this data.

RECEIPTS AND EXPENSES PER COW AND PER HUNDREDWEIGHT

Same 14 Top 20% Large Herd Dairy Farms, 2004 & 2005

	2004		2005	
Item	Per Cow	Per Cwt.	Per Cow	Per Cwt.
Average Number of Cows	799		846	
Cwt. of Milk Sold		186,402		206,097
Accrual Operating Receipts				
Milk	$3,961	$16.98	$3,979	$16.32
Dairy cattle	351	1.51	269	1.10
Dairy calves	57	0.24	54	0.22
Other livestock	11	0.05	4	0.02
Crops	45	0.19	70	0.29
Miscellaneous receipts	100	0.43	155	0.64
Total	$4,525	$19.40	$4,530	$18.59
Accrual Operating Expenses				
Hired labor	$633	$2.71	$636	$2.61
Dairy grain & concentrate	1,047	4.49	959	3.94
Dairy roughage	81	0.35	91	0.38
Nondairy feed	0	0.00	0	0.00
Professional nutritional services	1	0.00	0	0.00
Machine hire, rent & lease	85	0.36	71	0.29
Machine repair & vehicle expense	158	0.68	159	0.65
Fuel, oil & grease	88	0.38	118	0.48
Replacement livestock	46	0.20	34	0.14
Breeding	44	0.19	49	0.20
Veterinary & medicine	132	0.57	146	0.60
Milk marketing	161	0.69	176	0.72
Bedding	67	0.29	75	0.31
Milking supplies	77	0.33	73	0.30
Cattle lease	6	0.02	5	0.02
Custom boarding	77	0.33	95	0.39
bST expense	40	0.17	59	0.24
Livestock professional fees	10	0.04	8	0.03
Other livestock expense	20	0.09	19	0.08
Fertilizer & lime	66	0.28	69	0.28
Seeds & plants	53	0.23	44	0.18
Spray & other crop expense	29	0.12	27	0.11
Crop professional fees	9	0.04	8	0.03
Land, building & fence repair	53	0.23	66	0.27
Taxes	36	0.15	42	0.17
Real estate rent/lease	59	0.25	57	0.23
Insurance	31	0.13	31	0.13
Utilities	71	0.30	80	0.33
Interest paid	120	0.51	132	0.54
Other professional fees	10	0.04	11	0.05
Miscellaneous	25	0.11	27	0.11
Total Operating Expenses	$3,332	$14.28	$3,368	$13.82
Expansion livestock	119	0.51	23	0.09
Extraordinary Expense	2	0.01	1	0.00
Machinery depreciation	150	0.64	161	0.66
Real Estate depreciation	121	0.52	121	0.50
Total Expenses	$3,724	$15.96	$3,674	$15.07
Net Farm Income without appreciation	802	3.44	856	3.51

Supplementary Information

Each year DFBS cooperators volunteer to complete supplementary data collection forms looking at selected management aspects of the business or specific research areas being studied. This is in addition to the normal DFBS data collection form. Two areas that were examined this year were the source of dairy replacements and the breakdown of the milk income and marketing expenses. Following is a summary of this information.

SOURCE OF DAIRY REPLACEMENTS
21 Large Herd Dairy Farms, 2005

Animals Entering Herd	Average
Number calving in 2005 for first time	268
Animals purchased, %[4]	8
Animals raised by farm, %[5]	92
Current Heifer Inventory	
Raised on dairy, %	86
Raised by a custom grower, %	14

[4]Animals purchased are animals purchased from a different farm and were not the farm's genetics.
[5]Animals raised by farm are animals that were born on the farm and entered the herd, which includes animals raised by the farm or custom grower.

On the average farm, 268 animals calved for the first time in 2005. The breakdown on the source of these animals was 8 percent purchased and 92 percent raised by the farm. Of the current heifer inventory, 86 percent were raised on the dairy and 14 percent were being raised by a custom grower. There is increased interest in evaluating the dairy replacement enterprise.

Milk Income and Marketing Expense Breakdown

Starting January 1st, 2000, the northeast switched to multiple components pricing, which changed the format of the milk check and how farmers received payment for their milk. To examine the breakdown of the gross milk income and the marketing expenses, 58 farms filled out a detailed form for all the different sources of income for milk sales and the milk marketing expenses on an accrual basis. This information is reported in the following two tables. The tables are divided into six different areas, each representing a different area of income or expenses.

The first section looks at the value of the milk components on a per cwt. basis. The second area looks at the Producer Price Differential. The third area looks at the premiums a farm receives. Any premiums not specifically noted as quality or volume related are included in market premiums. The fourth area looks at the expenses associated with marketing milk. A new line item in this section is the expenses associated with utilizing forward contracting or hedging programs to market milk, such as commission or broker fees. The fifth area is income from the compact program or from forward contracting or hedging programs. The sixth area is the patronage dividends or refunds from the milk cooperatives. Equity purchased in the milk cooperative utilizing a monthly deduction from the milk check or a percent of the patronage dividend is treated as a capital purchase and is not a milk marketing expense. The cumulative total for these six areas is the net price received on farms. For participating farms, the net farm price can be found on page 13 of the DFBS report.

The table on page 9 reports the averages for these different areas. The table on page 10 contains the range for each of the individual lines of the report. This table is in farm business chart format with each item sorted independently and ranked by fifths. Numbers for the different areas will not add to the totals for that quintile or to the net price received because the highest farms for each item were averaged, not the same farms throughout the six areas. This table shows the range of income and expenses received by farms for all the different areas.

For your individual farm, compare your accrual numbers following this same format to look at how you compare to other farms in your region and to identify possible areas to generate additional revenue.

AVERAGE[6] MILK INCOME AND MARKETING REPORT
58 Large Herd Dairy Farms, 2005

	Pounds	Percent	Price/Pound	Total	$/Cwt of Milk
BASE FARM PRICE					
Butterfat	580,476.29	3.63%	$ 1.71	$ 995,373.02	$ 6.22
Protein	481,332.34	3.01%	$ 2.46	$ 1,184,178.26	$ 7.40
Solids	914,691.90	5.72%	$ 0.12	$ 114,191.17	$ 0.71
Total Component Contribution					$ 14.33
PPD	16,002,904.59			$ 123,321.43	$ 0.77
Base Farm Price					$ 15.10
Premiums					
Quality				$ 35,750.98	$ 0.22
Volume				$ 54,668.48	$ 0.34
Market Premiums				$ 55,546.03	$ 0.35
Total Premiums					$ 0.91
BASE FARM PRICE + PREMIUM					$ 16.02
Deductions					
Promo				$ 25,136.59	$ 0.16
Hauling + Stop Charges.				$ 83,604.48	$ 0.52
Market Fees & Coop Dues				$ 14,176.62	$ 0.09
Total Deductions					$ 0.77
BASE FARM PRICE + PREMIUMS - DEDUCTIONS					$ 15.25
Marketing Programs					
Futures Contracts, Forward Contracting, Etc.				$ -8,396.10	$ -0.05
Total Marketing Income					$ -0.05
Patronage Dividends				$ 13,375.17	$ 0.08
NET PRICE RECEIVED ON FARM, ALL SOURCES					**$ 15.28**
PPD - Hauling, per cwt., $ per cwt.					$ 0.25
PPD - Hauling + Market Premiums, per cwt., $ per cwt.					$ 0.60
Net Marketing Value (PPD + Total Premiums – Total Deductions), $ per cwt.					$ 0.91

[6]Each calculation of an average is independent of all others. Therefore, math operations on the detail will not result in the totals. However, detail in the "$/Cwt of Milk" column will result in the totals.

MILK PRICE INFORMATION BY QUINTILE[7]
(Each Category Sorted Independently)
58 Large Herd Dairy Farms, 2005

	Lowest Quintile	←			Highest Quintile
Butterfat, %	3.44	3.57	3.63	3.69	3.92
Protein, %	2.91	2.97	3.00	3.04	3.19
Other Solids, %	5.55	5.68	5.71	5.73	5.97
Butterfat, $ per Cwt.	5.87	6.11	6.21	6.31	6.78
Protein, $ per Cwt.	7.09	7.29	7.38	7.48	7.86
Other solids, $ per Cwt.	0.67	0.69	0.70	0.70	0.88
Total Component Value per Cwt.	**$ 13.79**	**$ 14.12**	**$ 14.30**	**$ 14.49**	**$ 15.29**
PPD, $ per Cwt.	0.50	0.57	0.67	0.88	1.25
Base Farm Price per Cwt.	**$ 14.35**	**$ 14.79**	**$ 15.10**	**$ 15.40**	**$ 16.22**
Quality, $ per Cwt.	0.03	0.11	0.19	0.24	0.44
Volume, $ per Cwt.	0.02	0.20	0.30	0.40	0.71
Market premium, $ per Cwt.	0.00	0.08	0.19	0.43	0.80
Total Premium, $ per Cwt.	**0.38**	**0.66**	**0.81**	**0.98**	**1.28**
Base Farm Price + Premiums per Cwt.	**$ 14.98**	**$ 15.53**	**$ 15.92**	**$ 16.31**	**$ 17.22**
Promotion, $ per Cwt.	0.14	0.15	0.15	0.15	0.24
Hauling, $ per Cwt.	0.30	0.39	0.44	0.54	0.95
Market fees & coop dues per Cwt.	0.01	0.05	0.07	0.11	0.14
Total Marketing Expenses per Cwt.	**$ 0.52**	**$ 0.63**	**$ 0.71**	**$ 0.80**	**$ 1.18**
Base + Premiums – Deductions per Cwt.	**$ 14.34**	**$ 14.87**	**$ 15.16**	**$ 15.49**	**$ 16.27**
Futures contract, forward contracting, $ per Cwt.	-0.19	0.00	0.00	0.00	0.04
Total Marketing Income, $ per Cwt.	**$ -0.19**	**$ 0.00**	**$ 0.00**	**$ 0.00**	**$ 0.04**
Patronage Dividends, $ per Cwt.	**$ 0.00**	**$ 0.00**	**$ 0.00**	**$ 0.05**	**$ 0.46**
Net Price Received From All Sources, $ per Cwt.	**$ 14.48**	**$ 14.97**	**$ 15.24**	**$ 15.52**	**$ 16.28**
PPD – Hauling, $ per cwt.	**$ 0.00**	**$ 0.15**	**$ 0.24**	**$ 0.36**	**$ 0.51**
PPD – Hauling + Market Premiums, $ per cwt.	**$ 0.10**	**$ 0.29**	**$ 0.41**	**$ 0.72**	**$ 1.22**
Net Marketing Value (PPD + Total Premiums – Total Deductions), $ per cwt.	**$ 0.00**	**$ 0.49**	**$ 0.73**	**$ 0.97**	**$ 1.60**

[7]Each calculation of an average is independent of all others. Therefore, math operations on the detail will not result in the totals.

SUMMARY AND ANALYSIS OF THE FARM BUSINESS

Business Characteristics

Planning the optimal management strategies is a crucial component of operating a successful farm. Various combinations of farm resources, enterprises, business arrangements, and management techniques are used by the dairy farmers in this region. The following table shows important farm business characteristics and the number of farms with each characteristic.

BUSINESS CHARACTERISTICS
74 Large Herd Dairy Farms, 2005

Type of Farm	Number
Dairy	74
Dairy – cash crop	0

Type of Ownership	Number
Owner	73
Renter	1

Type of Business	Number
Single proprietorship	16
Partnership	17
Limited Liability Corporation	28
Subchapter S Corporation	12
Subchapter C Corporation	1

Business Record System	Number
Account Book	1
Accounting Service	5
On-Farm Computer	68
Other	0

BST Usage	Number
Used consistently	53
Used inconsistently	7
Started Use in 2005	0
Stopped Use in 2005	1
Not Used	13
Average % bst usage of those reporting	64%

Type of Barn	Number
Stanchion/Tie-Stall	0
Freestall	72
Combination	2

Milking System	Number
Pipeline	0
Herringbone Conventional	25
Herringbone Rapid Exit	15
Parallel	28
Parabone	1
Rotary	1
Other	4

Milking Frequency	Number
2x/day	16
3x/day	55
Other	3

Production Records	Number
Testing Service	56
On-Farm System	15
Other	0
None	3

Breed	Percent
Holstein	94
Jersey	4
Other	2

Income Statement

In order for an income statement to accurately measure farm income, it must include cash transactions and accrual adjustments (changes in accounts payable, accounts receivable, inventories, and prepaid expenses).

Cash paid is the actual cash outlay during the year and does not necessarily represent the cost of goods and services actually used in 2005.

Change in inventory: Increases in inventories of supplies and other purchased inputs are subtracted in computing accrual expenses because they represent purchased inputs not actually used during the year. Decreases in purchased inventories are added to expenses because they represent inputs purchased in a prior year and used this year.

CASH AND ACCRUAL FARM EXPENSES
74 Large Herd Dairy Farms, 2005

Expense Item	Cash Paid	-	Change in Inventory or Prepaid Expense		+	Change in Accounts Payable	=	Accrual Expenses
Hired Labor	$ 477,407		$ 1,508	<<		$ -120		$ 475,780
Feed								
Dairy grain & concentrate	744,237		39,728			-8,460		695,870
Dairy roughage	45,108		-494			78		45,680
Nondairy	47		-27			0		74
Professional nutritional services	873		1			0		871
Machinery								
Mach. hire, rent/lease	42,256		226	<		-1,765		40,266
Mach. rep. & farm veh. exp	131,037		2,620			-1,107		127,311
Fuel, oil & grease	87,803		1,536			464		86,730
Livestock								
Replacement livestock	17,695		0	<<		0		17,695
Breeding	38,157		647			-311		37,200
Vet & medicine	108,119		408			431		108,142
Milk marketing	123,792		0	<<		861		124,653
Bedding	55,328		396			662		55,595
Milk supplies	56,823		1,724			-13		55,086
Cattle lease/rent	2,679		0	<		0		2,679
Custom boarding	56,863		37	<<		169		56,996
bST expense	39,686		602			967		40,052
Livestock professional fees	7,549		359			55		7,245
Other livestock expense	16,020		-328			-289		16,059
Crops								
Fertilizer & lime	63,426		5,446			-2,504		55,476
Seeds & plants	40,929		4,745			528		36,712
Spray, other crop exp.	31,166		1,286			96		29,976
Crop professional fees	4,249		159			107		4,198
Real Estate								
Land/bldg./fence repair	41,279		-69			556		41,903
Taxes	33,198		-899	<<		227		34,324
Rent & lease	46,000		483	<<		-424		45,094
Other								
Insurance	23,879		-341	<<		59		24,280
Utilities (farm share)	62,393		107	<<		134		62,420
Interest paid	105,986		1	<<		1,487		107,472
Other professional fees	14,539		20			-34		14,484
Miscellaneous	17,528		15			-728		16,786
Total Operating Expenses	$ 2,536,051		$ 59,893			$ -9,053		$ 2,467,105
Expansion livestock	$ 26,851		$ 0	<<		$ 0		$ 26,851
Extraordinary expense	$ 1,154		$ 0			$ 0		$ 1,154
Machinery depreciation								$ 134,032
Building depreciation								$ 85,984
Total Accrual Expenses								$ 2,715,127

Change in prepaid expenses (noted above by <<) is a net change in non-inventory expenses that have been paid in advance of their use. If 2005 funds used to prepay 2006 leases exceed the amount of 2005 leases prepaid in 2004, the amount of this excess is subtracted to exclude it from 2005 accrual lease expenses. The excess prepaid lease is charged against the future year's business operation. A decrease in prepaid lease is added to accrual expenses because it represents use of resources during this year that were paid for in past years.

Change in accounts payable: An increase in accounts payable from beginning to end of year is added when calculating accrual expenses because these expenses were incurred (resources used) in 2005 but not paid for. A decrease is subtracted because the resource was used before 2005.

Accrual expenses are the costs of inputs actually used in this year's production. They are the total of cash paid, as well as changes in inventory, prepaid expenses, and accounts payable.

CASH AND ACCRUAL FARM RECEIPTS
74 Large Herd Dairy Farms, 2005

Receipt Item	Cash Receipts	+	Change in Inventory	+	Change in Accounts Receivable	=	Accrual Receipts
Milk sales	$2,690,514				$ -4,165		$ 2,686,350
Dairy cattle	125,200		$ 53,432		340		178,972
Dairy calves	39,195		8,546		69		47,810
Other livestock	6,361		-828		158		5,691
Crops	27,247		12,544		2,184		41,975
Government receipts	76,079		0 [8]		886		76,964
Custom machine work	7,178				-429		6,749
Gas tax refund	217				0		217
Other	37,737				-226		37,511
Less nonfarm noncash cap.			1,047 [9]				1,047
Total Receipts	$3,009,727		$ 72,648		$ -1,183		$ 3,081,192

[8] Change in advanced government receipts.
[9] Gifts or inheritances of cattle or crops included in inventory

Cash receipts include the gross value of milk checks received during the year plus all other payments received from the sale of farm products, services, and government programs. Nonfarm income is not included in calculating farm profitability.

Changes in inventory of assets produced by the business are calculated by subtracting beginning of year values from end of year excluding appreciation. Increases in livestock inventory caused by herd growth and/or quality are added, and decreases caused by herd reduction and/or quality are subtracted. Changes in inventories of crops grown are also included. An annual increase in advanced government receipts is subtracted from cash income because it represents income received in 2005 for the 2006 crop year in excess of funds earned for 2005. Likewise, a decrease is added to cash government receipts because it represents funds earned for 2005 but received in 2004.

Changes in accounts receivable are calculated by subtracting beginning year balances from end year balances. The January milk check for this December's marketings compared with the previous January's check is included as a change in accounts receivable.

Accrual receipts represent the value of all farm commodities produced and services actually generated by the farm business during the year.

Profitability Analysis

Farm operators[10] contribute labor, management, and equity capital to their businesses and the combination of these resources, and the other resources used in the business, determines profitability. Farm profitability can be measured as the return to all family resources or as the return to one or more individual resources such as labor and management.

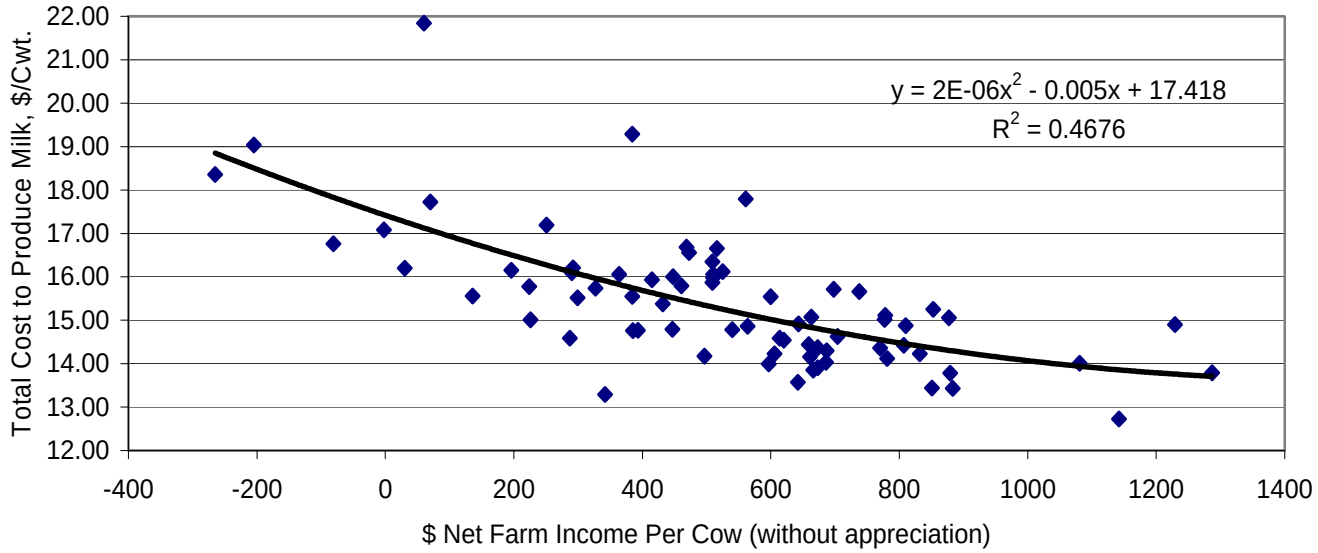
Net farm income is the return to the farm operators and other unpaid family members for their labor, management, and equity capital. It is the farm family's net annual return from working, managing, financing, and owning the farm business. This is not a measure of cash available from the year's business operation. Cash flow is evaluated later in this report.

Net farm income is computed both with and without appreciation. Appreciation represents the change in values caused by annual changes in prices of livestock, machinery, real estate inventory, and stocks and certificates (other than Farm Credit). Appreciation is a major factor contributing to changes in farm net worth and must be included for a complete profitability analysis.

NET FARM INCOME
74 Large Herd Dairy Farms, 2005

Item	Average 74 Farms Total	Average 74 Farms Per Cow	Average Top 20%[11] Farms Total	Average Top 20%[11] Farms Per Cow
Total accrual receipts	$ 3,081,192		$ 3,708,473	
Appreciation: Livestock	100,251		99,071	
Machinery	30,359		47,599	
Real Estate	81,340		80,201	
Other Stock/Certificates	2,226		-208	
Total Including Appreciation	$ 3,295,368		$ 3,935,136	
Total accrual expenses	2,715,127		3,005,009	
Net Farm Income (with appreciation)	$ 580,241	$816	$ 930,127	$1,133
Net Farm Income (w/o appreciation)	$ 366,065	515	$ 703,464	$857

TOTAL COST TO PRODUCE MILK VS. NET FARM INCOME PER COW
74 Large Herd Dairy Farms, 2005



[10]Operators are the individuals who are integrally involved in the operation and management of the farm business. They are not limited to those who own the farm or are formal members of the partnership or corporation.

[11]Top 20% of large herd farms by rate of return on all assets without appreciation.

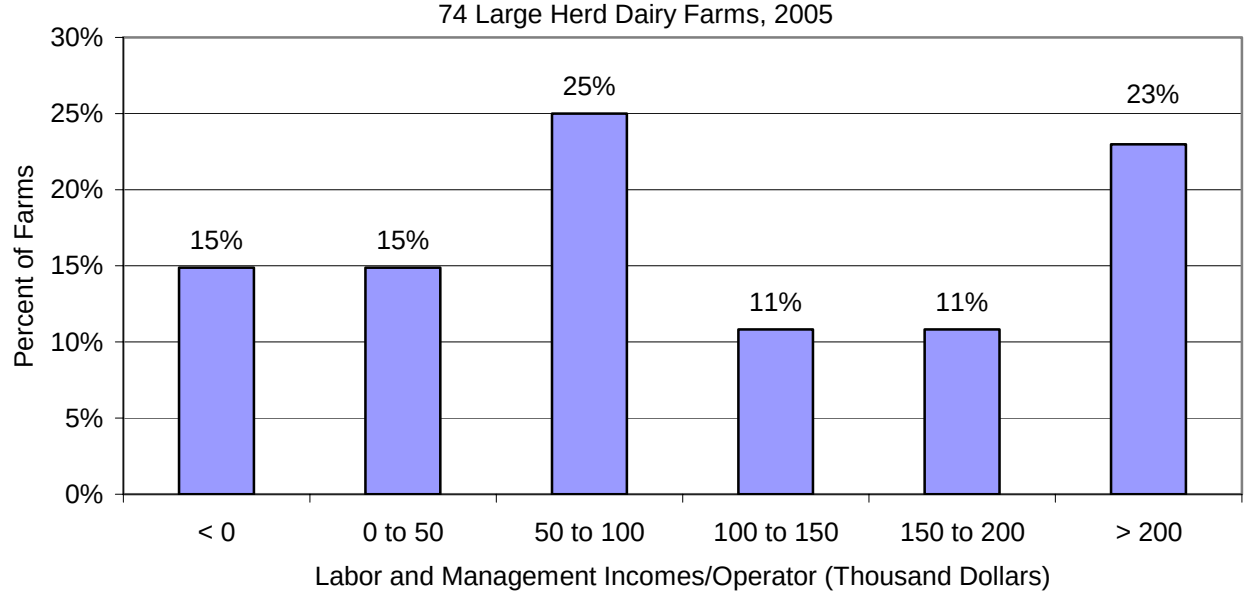
Labor and management income is the return which farm operators receive for their labor and management used in operating the farm business. Appreciation is not included as part of the return to labor and management because it results from ownership of assets rather than management of the farm business. Labor and management income is calculated by deducting a charge for unpaid family labor and the opportunity cost of using equity capital, at a real interest rate of five percent, from net farm income excluding appreciation. The interest charge of five percent reflects the long-term average rate of return above inflation that a farmer might expect to earn in comparable risk investments.

LABOR AND MANAGEMENT INCOME
74 Large Herd Dairy Farms, 2005

Item	Average 74 Farms	Average Top 20% Farms
Net farm income without appreciation	$ 366,065	$ 703,464
Family labor unpaid @ $2,200 per month	- 2,227	- 1,232
Interest on $2,917,777 ($3,222,486 for top 20%) average equity capital @ 5% real rate	- 145,889	- 161,124
Labor & Management Income per Farm (1.96 operators/farm; 2.27 operators for top 20%)	$ 217,949	$ 541,108
Labor & Management Income per Operator/Manager	$ 111,199	$ 238,373

Labor and management income per operator averaged $111,199 on these 74 farms in 2005. Returns to labor and management were less than $50,000 on 30 percent of the farms. Labor and management income per operator ranged from $50,000 to $150,000 on 36 percent of the farms while 34 percent showed labor and management incomes of $150,000 or more per operator.

DISTRIBUTION OF LABOR & MANAGEMENT INCOMES PER OPERATOR
74 Large Herd Dairy Farms, 2005



Return on equity capital measures the net return remaining for the farmer's equity or owned capital after a charge has been made for the owner-operator's labor and management. The earnings or amount of net farm income allocated to labor and management is the opportunity cost of operators' labor and management estimated by the cooperators. Return on equity capital is calculated with and without appreciation. The rate of return on equity capital is determined by dividing the amount returned by the average farm net worth or equity capital. Return on total capital is calculated by adding interest paid to the return on equity capital and then dividing by average farm assets to calculate the rate of return on total capital.

RETURN ON EQUITY CAPITAL AND RETURN ON TOTAL CAPITAL

74 Large Herd Dairy Farms, 2005

Item	Average 74 Farms	Average Top 20% Farms
Net farm income with appreciation	$ 580,241	$ 930,127
Family labor unpaid @ $2,200 per month	- 2,227	- 1,232
Value of operators' labor & management	- 95,510	- 109,647
Return on equity capital with appreciation	$ 482,504	$ 819,248
Interest paid	+ 107,472	+ 105,475
Return on total capital with appreciation	$ 589,976	$ 924,723
Return on equity capital without appreciation	$ 268,328	$ 592,585
Return on total capital without appreciation	$ 375,800	$ 698,061
Rate of return on average equity capital:		
with appreciation	16.5%	25.4 %
without appreciation	9.2%	18.4 %
Rate of return on average total capital:		
with appreciation	11.8%	17.8 %
without appreciation	7.5%	13.4 %
Net farm income from operations ratio	0.12	0.19

Farm and Family Financial Status

The first step in evaluating the financial position of the farm is to construct a balance sheet which identifies all the assets and liabilities of the business. The second step is to evaluate the relationship between assets, liabilities, and net worth and changes that occurred during the year.

Financial lease obligations are included in the balance sheet. The present value of all future payments is listed as a liability since the farmer is committed to make the payments by signing the lease. The present value is also listed as an asset, representing the future value the item has to the business. For 2005, leases were discounted by 7.25 percent.

Advanced government receipts are included as current liabilities. Government payments received in 2005 that are for participation in the 2006 program are the end year balance and payments received in 2004 for participation in the 2005 program are the beginning year balance.

Current Portion or principal due in the next year for intermediate and long term debt is included as a current liability.

2005 FARM BUSINESS & NONFARM BALANCE SHEET

74 Large Herd Dairy Farms, 2005

Farm Assets	Jan. 1	Dec. 31	Farm Liabilities & Net Worth	Jan. 1	Dec. 31
Current			Current		
Farm cash, checking & savings	$ 26,721	$ 32,910	Accounts payable	$ 93,024	$ 83,972
Accounts receivable	185,691	184,508	Operating debt	126,829	117,878
Prepaid expenses	6,113	7,773	Short Term	11,797	5,771
Feed & supplies	475,503	546,281	Advanced govt. receipts	0	0
			Current Portion:		
			Intermediate	163,749	179,613
			Long Term	48,726	59,323
Total Current	$ 694,029	$ 771,472	Total Current	$ 444,125	$ 446,557
Intermediate			Intermediate		
Dairy cows:			Structured debt		
owned	$ 872,020	$ 943,930	1-10 years	$ 824,249	$ 840,892
leased	1,889	951	Financial lease		
Heifers	469,514	559,807	(cattle/machinery)	12,359	8,992
Bulls/other livestock	6,744	5,941	Farm Credit stock	11,834	14,101
Mach./equipment owned	806,151	885,077	Total Intermediate	$ 848,442	$ 863,985
Mach./equipment leased	10,470	8,041			
Farm Credit stock	11,834	14,101			
Other stock/certificate	112,286	118,493			
Total Intermediate	$2,290,907	$2,536,342			
			Long Term		
Long Term			Structured debt		
Land/buildings:			>10 years	$ 766,125	$ 779,200
owned	$1,785,127	$1,906,110	Financial lease		
leased	13,618	11,823	(structures)	13,618	11,823
Total Long Term	$1,798,745	$1,917,933	Total Long Term	$ 779,743	$ 791,023
			Total Farm Liab.	$2,072,310	$ 2,101,565
Total Farm Assets	$4,783,681	$5,225,747	FARM NET WORTH	$2,711,371	$ 3,124,182

Nonfarm Assets, Liabilities & Net Worth (Average of 27 farms reporting)

Assets	Jan. 1	Dec. 31	Liabilities & Net Worth	Jan. 1	Dec. 31
Personal cash, checking & savings	$ 3,293	$ 4,574	Nonfarm Liabilities	$ 2,416	$ 3,196
Cash value life insurance	39,390	46,006			
Nonfarm real estate	261,854	277,175			
Auto (personal share)	9,759	8,759			
Stocks & bonds	57,631	63,918			
Household furnishings	6,815	6,630			
All other nonfarm assets	12,104	13,851			
Total Nonfarm Assets	$ 390,846	$ 420,913	NONFARM NET WORTH	$ 388,430	$ 417,717

Farm & Nonfarm Assets, Liabilities, and Net Worth[12]	Jan. 1	Dec. 31
Total Assets	$ 5,174,527	$ 5,646,660
Total Liabilities	2,074,726	2,104,761
TOTAL FARM & NONFARM NET WORTH	$ 3,099,801	$ 3,541,899

[12]Assumes that average nonfarm assets and liabilities for the nonreporting farms were the same as for those reporting.

Balance sheet analysis involves examination of relative asset and debt levels for the business. Percent equity is calculated by dividing end of year net worth by end of year assets and multiplying by 100. The debt to asset ratio is compiled by dividing liabilities by assets. Low debt to asset ratios reflect business solvency and the potential capacity to borrow. Debt levels per productive unit represent old standards that are still useful if used with measures of cash flow and repayment ability.

BALANCE SHEET ANALYSIS
74 Large Herd Dairy Farms, 2005

Item		Average 74 Farms		Average Top 20% Farms
Financial Ratios - Farm:				
Percent equity		60%		65%
Debt/asset ratio: total		0.40		0.35
long-term		0.41		0.25
intermediate/current		0.40		0.39
Leverage Ratio		0.67		0.53
Current Ratio		1.73		2.33
Working Capital: $324,916	as % of Total Expenses:	12%	$600,571	20%
Farm Debt Analysis:				
Accounts payable as % of total debt		4%		4%
Long-term liabilities as a % of total debt		38%		23%
Current & intermediate liabilities as a % of total debt		62%		77%
Cost of term debt (weighted average)		5.7%		5.5%

	Average 74 Farms		Average Top 20% Farms	
Farm Debt Levels:	Per Cow	Per Tillable Acre Owned	Per Cow	Per Tillable Acre Owned
Total farm debt	$ 2,901	$ 3,153	$ 2,286	$ 3,312
Long-term debt	1,092	1,187	525	760
Long-term & intermediate	2,284	2,483	1,742	2,524
Intermediate & current debt	1,809	1,966	1,762	2,552

Farm inventory balance is an accounting of the value of assets used on the balance sheet and the changes that occur from the beginning to end of year. Changes in the livestock inventory are included in the dairy analysis. Net investment indicates whether the capital stock is being expanded (positive) or depleted (negative).

FARM INVENTORY BALANCE
74 Large Herd Dairy Farms, 2005

Item	Average of 74 Farms			
		Real Estate		Machinery & Equipment
Value beginning of year		$ 1,785,127		$ 806,151
Purchases	$ 193,143 [13]		$ 191,638	
Gift/inheritance	+ 0		+ 63	
Lost capital	- 61,808			
Sales	- 5,708		- 9,102	
Depreciation	- 85,984		- 134,032	
Net investment		= 39,643		= 48,567
Appreciation		+ 81,340		+ 30,359
Value end of year		$ 1,906,110		$ 885,077

[13] $30,635 land and $162,508 buildings and/or depreciable improvements.

Statement of Owner Equity

The Statement of Owner Equity has two purposes. It allows (1) verification that the accrual income statement and market value balance sheet are interrelated and consistent (in accountants terms, they reconcile) and (2) identification of the causes of change in equity that occurred on the farm during the year. The Statement of Owner Equity allows you to determine to what degree the change in equity was caused by (1) earnings from the business, and nonfarm income, in excess of withdrawals being retained in the business (called retained earnings), (2) outside capital being invested in the business or farm capital being removed from the business (called contributed/withdrawn capital) and (3) increases or decreases in the value (price) of assets owned by the business (called change in valuation equity).

Retained earnings is an excellent indicator of farm generated financial progress.

STATEMENT OF OWNER EQUITY (RECONCILIATION)
74 Large Herd Dairy Farms, 2005

Item	Average 74 Farms		Average Top 20% Farms	
Beginning of year farm net worth		$ 2,711,371		$2,869,540
Net farm income w/o appreciation	$ 366,065		$ 703,464	
+ Nonfarm cash income	+ 4,574		+ 5,601	
- Personal withdrawals & family expenditures excluding nonfarm borrowings	- 155,700		- $ 223,182	
Retained Earnings		+$ 214,939		+ $ 485,882
Nonfarm noncash transfers to farm	$ 1,110		$ 310	
+ Cash used in business from nonfarm capital	+ 43,959		+ 26,896	
- Note/mortgage from farm real estate sold (nonfarm)	- 0		- 0	
Contributed/Withdrawn Capital	=	+$ 45,069		+ $ 27,206
Appreciation	$ 214,176		$ 226,663	
- Lost capital	- 61,808		- 32,372	
Change in Valuation Equity		+$ 152,368		+ $ 194,291
Imbalance/Error		- -435		- 1,487
End of year farm net worth[14]		=$ 3,124,182		= $3,575,432
Change in net worth w/apprec.		$ 412,811		$ 705,892
Change in Net Worth				
Without appreciation		$ 198,635		$ 479,230
With appreciation		$ 412,811		$ 705,892

[14]May not add due to rounding.

Cash Flow Statement

Completing an annual cash flow statement is an important step in understanding the sources and uses of funds for the business. Understanding last year's cash flow is the first step toward planning and managing cash flow for the current and future years.

The annual cash flow statement is structured to show net cash provided by operating activities, investing activities, financing activities and from reserves. All cash inflows and outflows, including beginning and end balances, are included. Therefore, the sum of net cash provided from all four activities should be zero. Any imbalance is the error from incorrect accounting of cash inflows/outflows.

ANNUAL CASH FLOW STATEMENT

74 Large Herd Dairy Farms, 2005

Item		Average 74 Farms	
Cash Flow from Operating Activities			
Cash farm receipts	$ 3,009,727		
- Cash farm expenses	2,536,051		
- Extraordinary expense	1,154		
= Net cash farm income		$ 472,522	
Personal withdrawals/family expenses including nonfarm debt payments	$ 156,084		
- Nonfarm income	4,574		
- Net cash withdrawals from the farm		$ 151,510	
= Net Provided by Operating Activities			$ 321,012
Cash Flow From Investing Activities			
Sale of Assets: Machinery	$ 9,102		
+ real estate	5,708		
+ other stock/cert.	9,488		
= Total asset sales		$ 24,298	
Capital purchases: expansion livestock	$ 26,851		
+ machinery	191,638		
+ real estate	193,143		
+ other stock/cert.	13,470		
- Total invested in farm assets		$ 425,102	
= Net Provided by Investment Activities			$ -400,804
Cash Flow From Financing Activities			
Money borrowed (inter. & long term)	$ 306,716		
+ Money borrowed (short-term)	3,532		
+ Increase in operating debt	0		
+ Cash from nonfarm cap. used in business	43,959		
+ Money borrowed - nonfarm	384		
= Cash inflow from financing		$ 354,591	
Principal payments (inter. & long-term)	$ 250,536		
+ Principal payments (short-term)	9,559		
+ Decrease in operating debt	8,951		
- Cash outflow for financing		$ 269,046	
= Net Provided by Financing Activities			$ 85,546
Cash Flow From Business			
Beginning farm cash, checking & savings		$ 26,721	
- Ending farm cash, checking & savings		32,910	
= Net Provided from Reserves			$ -6,189
Imbalance (error)			$ -435

ANNUAL CASH FLOW STATEMENT

15 Top 20% Large Herd Dairy Farms, 2005

Item	Average Top 20% Farms		
Cash Flow from Operating Activities			
Cash farm receipts	$3,558,348		
- Cash farm expenses	2,951,645		
- Extraordinary expense	846		
= Net cash farm income		$ 605,857	
Personal withdrawals/family expenses including nonfarm debt payments	$ 223,182		
- Nonfarm income	5,601		
- Net cash withdrawals from the farm		$ 217,582	
= Net Provided by Operating Activities			$ 388,276
Cash Flow From Investing Activities			
Sale of Assets: Machinery	$ 6,589		
+ real estate	0		
+ other stock/cert.	29,185		
= Total asset sales		$ 35,774	
Capital purchases: expansion livestock	$ 18,066		
+ machinery	152,230		
+ real estate	115,106		
+ other stock/cert.	18,245		
- Total invested in farm assets		$ 303,647	
= Net Provided by Investment Activities			$ -267,873
Cash Flow From Financing Activities			
Money borrowed (inter. & long term)	$ 264,813		
+ Money borrowed (short-term)	6,591		
+ Increase in operating debt	0		
+ Cash from nonfarm cap. used in business	26,896		
+ Money borrowed - nonfarm	0		
= Cash inflow from financing		$ 298,301	
Principal payments (inter. & long-term)	$ 361,638		
+ Principal payments (short-term)	10,373		
+ Decrease in operating debt	17,094		
- Cash outflow for financing		$ 389,105	
= Net Provided by Financing Activities			$ -90,804
Cash Flow From Business			
Beginning farm cash, checking & savings		$ 29,568	
- Ending farm cash, checking & savings		57,680	
= Net Provided from Reserves			$ -28,112
Imbalance (error)			$ 1,487

Repayment Analysis

A valuable use of cash flow analysis is to compare the debt payments planned for the last year with the amount actually paid. The measures listed below provide a number of different perspectives on the repayment performance of the business. However, the critical question to many farmers and lenders is whether planned payments can be made in 2006. The cash flow projection worksheet on the next page can be used to estimate repayment ability, which can then be compared to planned 2006 debt payments shown below.

FARM DEBT PAYMENTS PLANNED

Large Herd Dairy Farms, 2004 & 2005

	Same 69 Dairy Farms			Same 14 Top 20% Farms		
	2005 Payments		Planned	2005 Payments		Planned
Debt Payments	Planned	Made	2006	Planned	Made	2006
Long-term	$ 96,412	$ 116,480	$ 110,280	$ 56,628	$ 85,383	$ 63,093
Intermediate-term	226,292	241,351	241,154	329,612	387,922	296,980
Short-term	4,455	8,890	4,897	7,033	6,686	1,972
Operating (net reduction)	11,080	49,224	15,234	12,476	57,883	7,147
Accounts payable (net reduction)	3,634	19,967	0	0	34,310	0
Total	$ 341,873	$ 435,912	$ 371,565	$ 405,749	$ 572,183	$ 369,193
Per cow	$ 477	$ 609		$ 480	$ 677	
Per cwt. 2005 milk	$ 2	$ 3		$ 2	$ 3	
Percent of total 2005 receipts	11%	14%		11%	15%	
Percent of 2005 milk receipts	13%	16%		12%	17%	

The cash flow coverage ratio and debt coverage ratio measure the ability of the farm business to meet its planned debt payments schedule. The ratios show the percentage of payments planned for 2005 (as of December 31, 2004) that could have been made with the amount available for debt service in 2005. Farmers who did not participate in DFBS in 2004 have their 2005 cash flow coverage ratio based on planned debt payments for 2006.

COVERAGE RATIOS

Same 69 Large Herd Dairy Farms, 2004 & 2005

Item	Average	Item	Average
Cash Flow Coverage Ratio		Debt Coverage Ratio	
Cash farm receipts	$ 3,027,699	Net farm income (w/o apprec.)	$ 367,939
- Cash farm expenses	2,549,570	+ Depreciation	223,400
+ Interest paid (cash)	105,833	+ Interest paid (accrual)	107,426
- Net personal withdrawals from farm[15]	142,946	- Net personal withdrawals from farm[15]	142,946
(A) = Amount Available for Debt Service	$ 441,016	(A') = Repayment Capacity	$ 555,820
(B) = Debt Payments Planned for 2005 (as of December 31, 2004)	$ 341,873	(B) = Debt Payments Planned for 2005 (as of December 31, 2004)	$ 341,873
(A/B) = Cash Flow Coverage Ratio for 2005	1.29	(A'/B) = Debt Coverage Ratio for 2005	1.63

Same 14 Top 20% Dairy Farms, 2004 & 2005

(A) = Amount Available for Debt Service	$ 517,062	(A') = Repayment Capacity	$ 855,031
(B) = Debt Payments Planned for 2005	405,749	(B) = Debt Payments Planned for 2005	405,749
(A/B) = Cash Flow Coverage Ratio for 2005	1.27	(A'/B) = Debt Coverage Ratio for 2005	2.11

[15]Personal withdrawals and family expenditures less nonfarm income and nonfarm money borrowed. If family withdrawals are excluded, or inaccurately included, the cash flow coverage ratio will be incorrect.

ANNUAL CASH FLOW WORKSHEET

74 Large Herd Dairy Farms, 2005

Item	Average 74 Farms Per Cow	Average 74 Farms Per Cwt.	Total
Number cows and cwt. Milk	711	168,632	
Accrual Operating Receipts			
Milk	$ 3,779	$ 15.93	$ 2,686,350
Dairy cattle	252	1.06	178,972
Dairy calves	67	0.28	47,810
Other livestock	8	0.03	5,691
Crops	59	0.25	41,975
Misc. receipts	169	0.71	120,394
Total	$ 4,334	$ 18.27	$ 3,081,192
Accrual Operating Expenses			
Hired labor	$ 669	$ 2.82	$ 475,780
Dairy grain & concentrate	979	4.13	695,870
Dairy roughage	64	0.27	45,680
Nondairy feed	0	0.00	74
Professional nutritional services	1	0.01	871
Mach. Hire/rent/lease	57	0.24	40,266
Mach. Repair & farm vehicle expense	179	0.75	127,311
Fuel, oil & grease	122	0.51	86,730
Replacement livestock	25	0.10	17,695
Breeding	52	0.22	37,200
Vet & medicine	152	0.64	108,142
Milk marketing	175	0.74	124,653
Bedding	78	0.33	55,595
Milking supplies	77	0.33	55,086
Cattle lease	4	0.02	2,679
Custom boarding	80	0.34	56,996
bST expense	56	0.24	40,052
Livestock professional fees	10	0.04	7,245
Other livestock expense	23	0.10	16,059
Fertilizer & lime	78	0.33	55,476
Seeds & plants	52	0.22	36,712
Spray/other crop expenses	42	0.18	29,976
Crop professional fees	6	0.02	4,198
Land, building, fence repair	59	0.25	41,903
Taxes	48	0.20	34,324
Real estate rent/lease	63	0.27	45,094
Insurance	34	0.14	24,280
Utilities	88	0.37	62,420
Other professional fees	20	0.09	14,484
Miscellaneous	24	0.10	16,786
Total Less Interest Paid	$ 3,319	$ 13.99	$ 2,359,633
Net Accrual Operating Income (without interest paid)	$ 1,015	$ 4.28	$ 721,558
- Change in livestock/crop inventory[16]	102	0.43	72,648
- Change in accounts receivable	-2	-0.01	-1,183
- Change in feed/supply inventory[17]	84	0.36	59,894
+ Change in accounts payable[18]	-15	-0.06	-10,539
NET CASH FLOW	$ 815	$ 3.44	$ 579,661
- Net personal withdrawals from farm (see footnote on p. 22)	$ 212	$ 0.89	$ 150,757
Available for Farm Debt Payments & Investments	$ 603	$ 2.54	$ 428,905
- Farm debt payments	603	2.54	429,086
Available for Farm Investment	$ 0	$ 0.00	$ -181
- Capital purchases: cattle, machinery & improvements	$ 598	$ 2.52	$ 425,102
Additional Capital Needed	$ 598	$ 2.52	$ 425,283

[16]Includes change in advance government receipts.
[17]Includes change in prepaid expenses.
[18]Excludes change in interest account payable.

ANNUAL CASH FLOW WORKSHEET

15 Top 20% Large Herd Dairy Farms, 2005

Item	Average Top 20% Farms Per Cow	Per Cwt.	Total
No. cows or cwt. milk	821	199,869	
Accrual Operating Receipts			
Milk	$ 3,969	$ 16.30	$ 3,258,514
Dairy cattle	267	1.10	219,578
Dairy calves	55	0.23	45,221
Other livestock	4	0.01	2,955
Crops	67	0.28	55,120
Misc. receipts	155	0.64	127,086
Total	$ 4,517	$ 18.55	$ 3,708,473
Accrual Operating Expenses			
Hired labor	$ 638	$ 2.62	$ 523,917
Dairy grain & concentrate	956	3.93	785,147
Dairy roughage	95	0.39	77,710
Nondairy feed	0	0.00	352
Professional nutritional services	0	0.00	275
Mach. hire/rent/lease	76	0.31	62,164
Mach. repair & farm vehicle expense	161	0.66	132,239
Fuel, oil & grease	118	0.48	96,729
Replacement livestock	33	0.14	27,081
Breeding	50	0.20	40,700
Vet & medicine	146	0.60	120,002
Milk marketing	173	0.71	141,829
Bedding	74	0.31	61,042
Milking supplies	72	0.30	59,094
Cattle lease	5	0.02	4,120
Custom boarding	91	0.38	74,992
bST expense	57	0.23	46,856
Livestock professional fees	8	0.03	6,193
Other livestock expense	18	0.07	14,929
Fertilizer & lime	67	0.28	55,022
Seeds & plants	43	0.18	35,662
Spray/other crop expenses	27	0.11	22,218
Crop professional fees	8	0.03	6,351
Land, building, fence repair	64	0.26	52,650
Taxes	42	0.17	34,279
Real estate rent/lease	56	0.23	46,139
Insurance	31	0.13	25,481
Utilities	81	0.33	66,219
Other professional fees	11	0.05	9,420
Miscellaneous	26	0.11	21,256
Total Less Interest Paid	$ 3,228	$ 13.26	$ 2,650,068
Net Accrual Operating Income (without interest paid)	$ 1,289	$ 5.30	$ 1,058,405
- Change in livestock/crop inventory[19]	147	0.60	120,389
- Change in accounts receivable	36	0.15	29,735
- Change in feed/supply inventory[20]	205	0.84	168,637
+ Change in accounts payable[21]	-34	-0.14	-28,182
NET CASH FLOW	$ 867	$ 3.56	$ 711,462
- Net personal withdrawals from farm(see footnote p.22)	$ 265	$ 1.09	$ 217,582
Available for Farm Debt Payments & Investments	$ 602	$ 2.47	$ 493,880
- Farm debt payments	685	2.81	562,289
Available for Farm Investment	$ -83	$ -0.34	$ -68,409
- Capital purchases: cattle, machinery & improvements	$ 370	$ 1.52	$ 303,647
Additional Capital Needed	$ 453	$ 1.86	$ 372,056

[19]Includes change in advance government receipts.
[20]Includes change in prepaid expenses.
[21]Excludes change in interest account payable.

Cropping Analysis

The cropping program is an important part of the dairy farm business and often represents opportunities for improved productivity and profitability. A complete evaluation of what the available land resources are, how they are being used, how well crops are producing, and what it costs to produce them is important to evaluating alternative cropping and feed purchasing alternatives.

LAND RESOURCES AND CROP PRODUCTION
74 Large Herd Dairy Farms, 2005

Item	Average 74 Farms			Average Top 20% Farms		
Land	Owned	Rented	Total	Owned	Rented	Total
Tillable	666	711	1,377	574	858	1,432
Nontillable	41	10	51	27	2	29
Other nontillable	234	8	242	252	22	274
Total	941	729	1,670	853	882	1,735
Crop Yields	Farms	Acres[22]	Prod/Acre	Farms	Acres	Prod/Acre
Hay crop	73	641	3.66 tn DM	14	758	3.84 tn DM
Corn silage	70	561	19.02 tn	13	648	19.96 tn
Other forage	5	118	2.51 tn DM	0	0	0.00 tn DM
Total forage	73	1,187	4.90 tn DM	14	1,359	5.18 tn DM
Corn grain	36	220	140 bu	3	273	139 bu
Oats	6	75	59 bu	0	0	0 bu
Wheat	12	118	55 bu	1	146	58 bu
Other crops	22	132		5	90	
Tillable pasture	10	131		3	327	
Idle tillable	19	76		2	29	
Total Tillable Acres	74	1,377		15	1,432	

[22]This column represents the average acreage for the farms producing that crop. Average acreages including those farms not producing were corn grain 107, oats 6, wheat 19, tillable pasture 18 and idle 20.

Average crop acres and yields compiled for the region are for the farms reporting each crop. Yields of forage crops have been converted to tons of dry matter using dry matter coefficients reported by the farmers. Grain production has been converted to bushels of dry grain equivalent based on dry matter information provided.

The following crop/dairy ratios indicate the relationship between forage production, forage production resources, and the dairy herd.

CROP/DAIRY RATIOS
73 Large Herd Dairy Farms, 2005 [23]

Item	Average 73 Farms	Average Top 20% Farms
Total tillable acres per cow	1.96	1.82
Total forage acres per cow	1.66	1.62
Harvested forage dry matter, tons per cow	8.15	8.38

[23] Excludes farms that do not harvest forages.

Cropping Analysis (continued)

A number of cooperators have allocated crop expenses among the hay crop, corn, and other crops produced. Fertilizer and lime, seeds and plants, and spray and other crop expenses have been computed per acre and per production unit for hay and corn. Additional expense items such as fuels, labor, and machinery repairs are not included. Rotational grazing was used on one farm.

CROP RELATED ACCRUAL EXPENSES
Large Herd Dairy Farms Reporting, 2005

Item	Total Per Till. Acre	All Corn Per Acre	Corn Silage Per Ton DM	Corn Grain Per Dry Sh. Bu.	Hay Crop Per Acre	Hay Crop Per Ton DM
No. of farms reporting	73[22]	11			11	
Ave. number of acres	1,396	495			539	
Fertilizer/lime	$ 40.36	$ 52.22	$ 8.69	$ 0.16	$ 46.63	$ 15.73
Seed/plants	25.94	41.59	7.51	0.14	19.00	6.43
Spray/other crop exp.	21.42	47.11	7.77	0.17	3.61	0.93
TOTAL	$ 87.72	$ 140.92	$ 23.97	$ 0.47	$ 69.24	$ 23.09
Average Top 20% Farms:						
No. of farms reporting	14[24]					
Ave. number of acres	1,533					
Fertilizer/lime	$ 37.88					
Seeds/plants	22.56					
Spray/other crop exp.	16.07					
TOTAL	$ 76.51					

[24] Excludes farms that do not harvest forages.

Most machinery costs are associated with crop production with crop production and should be analyzed with the crop enterprise. Total machinery expenses include the major fixed costs (interest and depreciation), as well as the accrual operating costs. Although machinery costs have not been allocated to individual crops, they are shown below per total tillable acre.

ACCRUAL MACHINERY EXPENSES [25]
73 Large Herd Dairy Farms, 2005

Machinery Expense Item	Average 73 Farms Total Expenses	Average 73 Farms Per Till. Acre	Average Top 20% Farms Total Expenses	Average Top 20% Farms Per Till. Acre
Fuel, oil & grease	$ 87,236	$ 62.51	$ 100,082	$ 65.30
Mach. repairs & farm veh. exp.	128,276	91.91	137,623	89.79
Machine hire, rent & lease	39,979	28.65	62,235	40.60
Interest (5%)	42,997	30.81	41,359	26.98
Depreciation	134,844	96.62	135,109	88.15
Total	$ 433,332	$ 310.50	$ 476,408	$ 310.82

[25] Excludes farms that do not harvest forages.

Dairy Analysis

Analysis of the dairy enterprise can reveal a great deal about the strengths and weaknesses of the dairy farm business. Information on the following pages should be used in conjunction with DHI and other dairy production information. Changes in dairy herd size and market values that occur during the year are identified in the table below. The change in inventory value without appreciation is attributed to physical changes in herd size and quality. Any change in inventory is included as an accrual farm receipt when calculating all of the profitability measures on pages 14 through 16.

Dairy Analysis (continued)

DAIRY HERD INVENTORY
74 Large Herd Dairy Farms, 2005

	Dairy Cows		Heifers					
			Bred		Open		Calves	
Item	No.	Value	No.	Value	No.	Value	No.	Value
Average 74 Farms:								
Beginning year (owned)	695	$ 872,020	206	$ 246,214	191	$150,727	156	$ 72,573
+ Change w/o apprec.		30,055		20,620		2,758		8,546
+ Appreciation		41,855		31,128		15,059		12,183
End year (owned)	718	$ 943,930	223	$ 297,962	194	$168,544	174	$ 93,302
End including leased	724							
Average number	711		574 (all age groups)					
Average Top 20% Farms:								
Beginning year (owned)	794	$ 995,727	221	$ 270,773	212	$181,367	186	$ 82,810
+ Change w/o apprec.		37,240		44,147		221		5,727
+ Appreciation		29,430		34,914		18,018		16,590
End of year (owned)	820	$1,062,397	253	$ 349,834	213	$199,606	195	$105,127
End including leased	832							
Average number	821		633 (all age groups)					

Total milk sold and milk sold per cow along with components produced are extremely valuable measures of size and productivity, respectively, on the dairy farm. These measures of milk output are based on pounds of milk marketed during the year. Farm managers on DHI should compare milk sold per cow with their rolling herd average on the test date nearest December 31 to see how close the DHI estimate of milk produced is to actual milk sales.

MILK PRODUCTION
74 Large Herd Dairy Farms, 2005

Item	Average 74 Farms	Average Top 20% Farms
Total milk sold, lbs.	16,863,169	19,986,851
Milk sold per cow, lbs.	23,721	24,347
Butterfat per cow, lbs.	852 [26]	880
Protein per cow, lbs.	706 [26]	833
Other solids per cow, lbs.	1,343 [26]	1,386
Total components per cow, lbs.	2,901 [26]	3,099

[26] This data is an average for the 72 farms that provided the data.

ANIMALS LEAVING THE HERD
74 Large Herd Dairy Farms, 2005

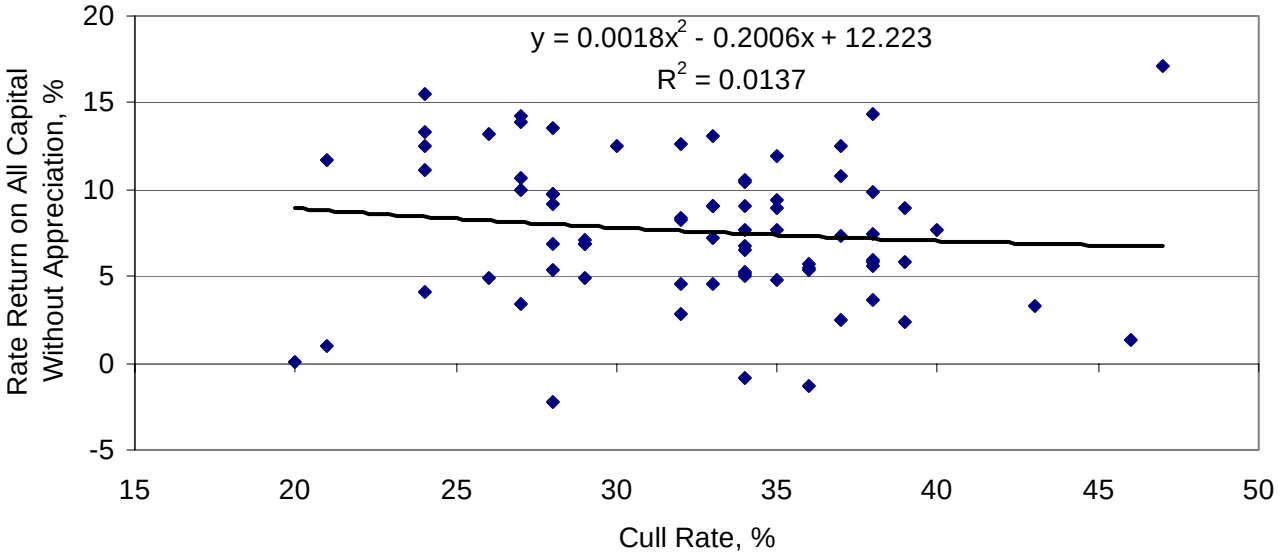
	Average 74 Farms		Average Top 20% Farms	
	Number	Percent[27]	Number	Percent[27]
Cows sold for beef	193	27.1	225	27.5
Cows sold for dairy	10	1.4	2	0.2
Cows died	44	6.2	34	4.1
Culling rate[28]	---	33.3	---	31.6

[27] Percent of average number of cows in the herd.
[28] Cows sold for beef plus cows died.

Cull rate measures the turnover of cows within the dairy herd and is comprised of both animals that die on the farm and animals that are sold as beef. Cull rates are impacted by the herd management skills of the farm owners and where the business is in terms of growth cycles and cow life cycles. The following two charts look at the relationship between percent cull rates, milk production and profit levels. There is no significant relationship between cull rate and these two measures for 2005. A curvilinear relationship has existed in prior years.

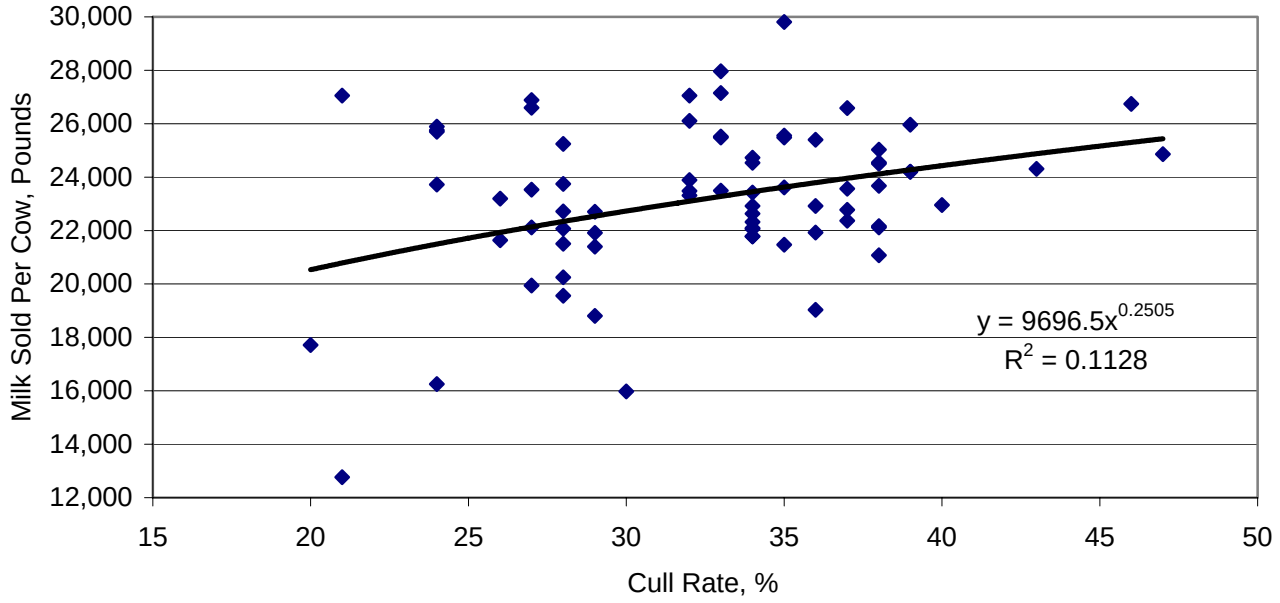
RETURN TO ALL CAPITAL WITHOUT APPRECIATION VERSUS CULL RATE

74 Large Herd Dairy Farms, 2005



MILK SOLD PER COW VERSUS CULL RATE

74 Large Herd Dairy Farms, 2005



The cost of producing milk has been compiled using the whole farm method and is featured in the following table. Accrual receipts from milk sales can be compared with the accrual costs of producing milk per cow and per hundredweight of milk. Using the whole farm method, operating costs of producing milk are estimated by deducting nonmilk accrual receipts from total accrual operating expenses including expansion livestock purchased. Purchased inputs cost of producing milk are the operating costs plus depreciation. Total costs of producing milk include the operating costs of producing milk plus depreciation on machinery and buildings, the value of unpaid family labor, the value of operators' labor and management, and the interest charge for using equity capital.

ACCRUAL RECEIPTS FROM DAIRY AND COST OF PRODUCING MILK

74 Large Herd Dairy Farms, 2005

	Average 74 Farms			Average Top 20% Farms		
Item	Total	Per Cow	Per Cwt.	Total	Per Cow	Per Cwt.
Accrual Costs of Producing Milk						
Operating costs	$ 2,099,115	$ 2,953	$12.45	$ 2,323,650	$ 2,831	$ 11.63
Purchased inputs costs	$ 2,320,285	$ 3,264	$13.76	$ 2,555,050	$ 3,112	$ 12.78
Total Costs	$ 2,563,910	$ 3,607	$15.20	$ 2,827,053	$ 3,444	$ 14.14
Accrual Receipts From Milk	$ 2,686,350	$ 3,779	$15.93	$ 3,258,514	$ 3,969	$ 16.30
Net Milk Receipts	$ 2,561,697	$ 3,548	$15.19	$ 3,116,684	$ 3,725	$ 15.59
Net Farm Income w/o appreciation	$ 366,065	$ 515	$2.17	$ 703,464	$ 857	$ 3.52
Net Farm Income with appreciation	$ 580,241	$ 816	$3.44	$ 930,127	$ 1,133	$ 4.65

The accrual operating expenses most commonly associated with the dairy enterprise are listed in the table below. Evaluating these costs per unit of production enables an evaluation of the dairy enterprise.

DAIRY RELATED ACCRUAL EXPENSES

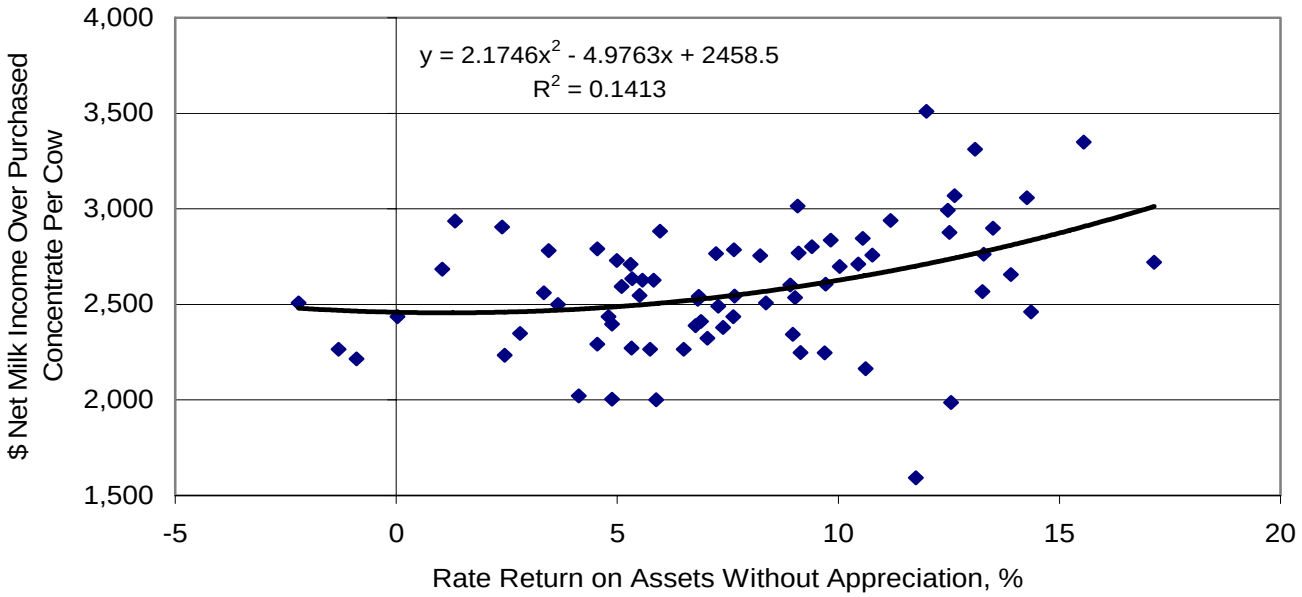
74 Large Herd Dairy Farms, 2005

	Average 74 Farms		Average Top 20% Farms	
Item	Per Cow	Per Cwt.	Per Cow	Per Cwt.
Purchased dairy grain & concentrate	$ 979	$4.13	$ 956	$ 3.93
Purchased dairy roughage	64	0.27	95	0.39
Total Purchased Dairy Feed	$ 1,043	$4.40	$ 1,051	$ 4.32
Purchased grain & concentrate as % of milk receipts	26%		24 %	
Purchased feed & crop expense	$ 1,221	$5.15	$ 1,196	$ 4.91
Purchased feed & crop expense as % of milk receipts	32%		31 %	
Breeding	$ 52	$0.22	$ 50	$ 0.20
Veterinary & medicine	152	0.64	146	0.60
Milk marketing	175	0.74	173	0.71
Bedding	78	0.33	74	0.31
Milking supplies	77	0.33	72	0.30
Cattle lease	4	0.02	5	0.02
Custom boarding	80	0.34	91	0.38
bST expense	56	0.24	57	0.23
Livestock professional fees	10	0.04	8	0.03
Other livestock expenses	23	0.10	18	0.07

Net milk income over purchased concentrates per cow is a measure that incorporates the cost of purchased feed along with the milk produced per cow and the price received for the component production. It is one of the key measures used to evaluate the effectiveness of the feeding program. Below is the relationship between net milk income over purchased concentrates and return on assets without appreciation.

NET MILK INCOME OVER PURCHASED CONCENTRATE PER COW VERSUS RETURN ON ASSETS

74 Large Herd Dairy Farms, 2005



With the change to component milk pricing in 2000, component production has become a focus point for dairy managers. The table below examines the relationship between net milk income over feed cost and cost, price, and milk composition characteristics. The table and charts on page 32 and 33 present costs of producing milk and profitability on the basis of butterfat and protein produced.

COMPONENT PRODUCTION AND COSTS PER CWT BY NET MILK INCOME OVER PURCHASED GRAIN AND CONCENTRATE PER COW

72 Large Herd Dairy Farms, 2005

Net Milk Income Over Purchased Grain & Concentrate Per Cow	Milk Production Per Cow	Butterfat pounds Per Cow	Protein Pounds Per Cow	Purchased Feed Costs Per Cwt.	Operating Cost of Producing Milk	Net Milk Price Per Cwt.
$ 3,156	26,996	986	$ 822	$ 4.48	$ 12.01	$ 15.69
2,861	25,315	902	760	4.08	12.21	15.22
2,768	25,060	900	748	4.60	12.27	15.12
2,701	23,624	857	697	4.18	12.49	15.26
2,608	23,949	865	720	4.17	12.62	14.90
2,532	22,809	825	682	4.61	12.97	15.53
2,453	22,251	837	681	4.33	13.01	15.39
2,353	23,002	822	685	4.50	11.96	14.69
2,256	20,919	746	630	4.10	12.11	14.83
1,998	18,131	712	570	5.12	12.15	16.11

Cost of Producing Milk

The cost of producing milk has been compiled below using the whole farm method. The following steps are used in the calculations.

1. The cost of expansion livestock is added to total accrual operating expenses to offset any related inventory increase included in accrual receipts.

2. Accrual milk sales are deducted form total accrual receipts to get total accrual nonmilk receipts which are used to represent total nonmilk operating costs.

3. Total accrual nonmilk receipts are subtracted from total accrual operating expenses including expansion livestock to calculate the operating costs of producing milk.

4. Machinery depreciation and building depreciation are added to operating costs to determine the purchased inputs cost of producing milk.

5. The opportunity costs of equity capital, operator's labor and operator's management and the value of unpaid family labor are added to all other costs to obtain the total costs of producing milk. This cost includes all the operating, depreciation, and imputed costs of producing milk.

COST OF PRODUCING MILK WHOLE FARM METHOD CALCULATIONS

74 Large Herd Dairy Farms, 2005

Item	Average 74 Farms		Average Top 20% Farms	
Total Accrual Operating Expenses	$ 2,467,105		$ 2,755,543	
Expansion Livestock, Accrual	+ 26,851		+ 18,066	
1. Total Accrual Operating Expenses, Including Expansion Livestock		$ 2,493,956		$ 2,773,609
Total Accrual Receipts	$ 3,081,192		$ 3,708,473	
Milk Sales, Accrual	- 2,686,350		- 3,258,514	
2. Total Accrual Nonmilk Receipts		- 394,842		- 449,959
3. Operating Costs of Producing Milk		$ 2,099,114		$ 2,323,650
Cwt. of Milk Sold	÷ 168,632		÷ 199,869	
Operating Costs/Cwt.	= $12.45		= $11.63	
Machinery Depreciation		+ 134,032		+ 131,084
Building Depreciation		+ 85,984		+ 99,469
Extraordinary Expenses		+ 1,154		+ 847
4. Purchased Inputs Cost of Producing Milk		$ 2,320,284		$ 2,555,050
Cwt. of Milk Sold	÷ 168,632		÷ 199,869	
Purchased Inputs Cost/Cwt.	= $13.76		= $12.78	
Family Labor Unpaid ($2,200/month)		+ 2,227		+ 1,232
Real Interest on Equity Cap.		+ 145,889		+ 161,124
Value of Operators' Labor & Management		+ 95,510		+ 109,647
5. Total Costs of Producing Milk		$ 2,563,910		$ 2,827,053
Cwt. Milk Sold	÷ 168,632		÷ 199,869	
Total Costs/Cwt.	= $15.20		= $14.14	

RECEIPTS AND EXPENSES PER HUNDREDWEIGHT OF BUTTERFAT AND PROTEIN[29]

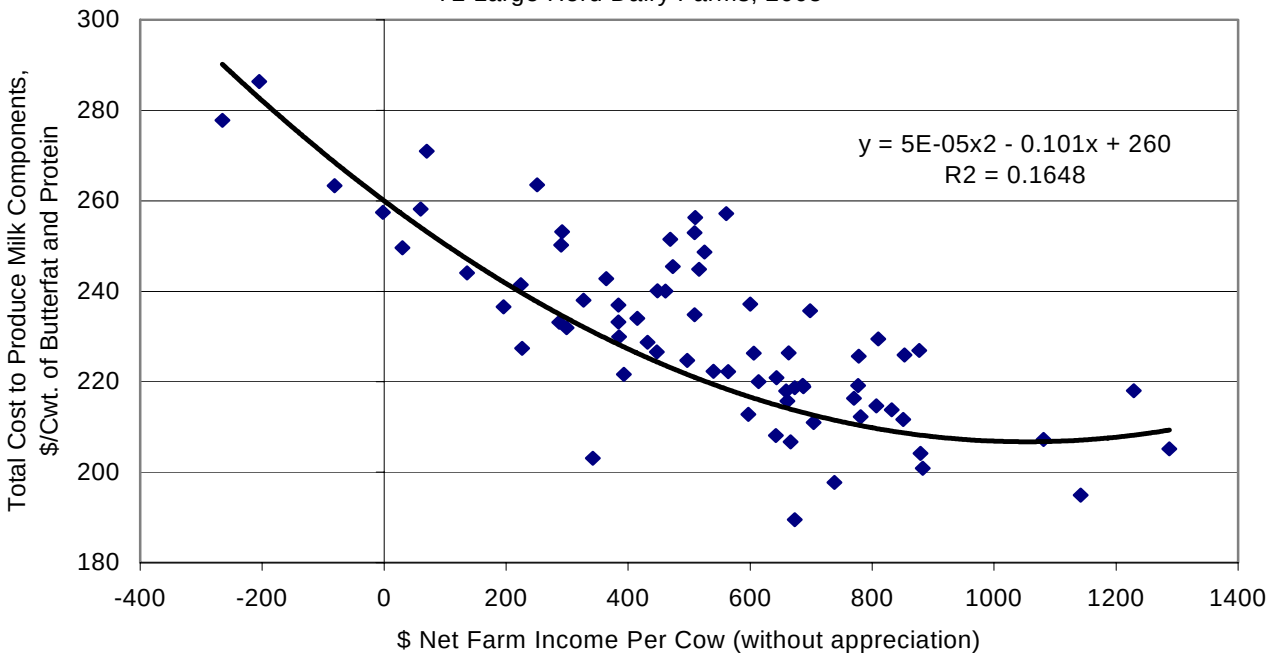
Same 49 Large Herd Dairy Farms, 2004 & 2005

Item	Average Same 49 Large Herd Dairy Farms 2004	Average Same 49 Large Herd Dairy Farms 2005	Average Top 20% Farms 2004	Average Top 20% Farms 2005
Cwt. of butterfat and protein sold	10,199.72	11,084.59	12,784.58	14,215.89
Accrual Operating Receipts				
Milk	$253.20	$241.90	$254.37	$244.90
Dairy cattle	20.83	16.61	24.37	17.14
Dairy calves	3.35	4.53	3.57	3.28
Other livestock	0.46	0.30	0.89	0.30
Crops	4.87	2.87	2.67	3.73
Miscellaneous receipts	8.21	11.32	5.94	8.65
Total Operating Receipts	$290.91	$277.53	$291.82	$277.99
Accrual Operating Expenses				
Hired labor	$43.49	$41.98	$37.15	$37.56
Dairy grain & concentrate	69.34	62.36	65.53	58.13
Dairy roughage	4.56	4.53	5.79	6.26
Nondairy feed	0.00	0.00	0.00	0.00
Professional nutritional services	0.15	0.00	0.00	0.00
Machine hire, rent & lease	4.26	3.47	5.79	4.77
Machine repair & vehicle expense	10.95	10.72	10.55	9.69
Fuel, oil & grease	5.78	7.55	5.35	7.01
Replacement livestock	1.82	1.96	2.23	2.83
Breeding	3.19	3.17	2.97	2.98
Veterinary & medicine	9.28	9.66	8.77	9.54
Milk marketing	10.64	11.48	10.25	10.88
Bedding	4.87	4.98	4.16	4.47
Milking supplies	4.56	4.98	5.05	4.77
Cattle lease	0.15	0.30	0.00	0.00
Custom boarding	4.56	5.13	5.20	6.86
bST expense	2.89	3.77	2.82	4.02
Livestock professional fees	0.76	0.75	0.74	0.45
Other livestock expense	1.37	1.36	1.04	1.04
Fertilizer & lime	4.41	5.13	4.01	4.47
Seeds & plants	3.50	3.17	3.57	2.68
Spray & other crop expense	2.89	2.87	2.08	1.79
Crop professional fees	0.46	0.45	0.59	0.60
Land, building & fence repair	2.74	3.77	3.71	4.47
Taxes	2.59	2.42	2.23	1.94
Real estate rent/lease	3.95	4.38	2.53	2.83
Insurance	2.28	2.26	2.23	2.09
Utilities	5.17	5.74	4.31	4.62
Interest paid	8.52	9.66	6.39	6.71
Other professional fees	1.22	1.21	0.74	0.45
Miscellaneous	1.22	1.36	1.34	1.34
Total Operating Expenses	$221.57	$220.61	$207.13	$205.25
Expansion livestock	5.63	2.72	9.06	0.89
Extraordinary Expense	0.15	0.15	0.15	0.15
Machinery depreciation	11.41	12.08	9.81	10.14
Real Estate depreciation	7.91	7.85	8.62	8.50
Total Expenses	$246.66	$242.96	$234.76	$224.92
Net Farm Income without appreciation	$44.25	$34.58	$57.06	$53.06

[29]Average data for farms that provided complete milk component data for 2004 – 2005.

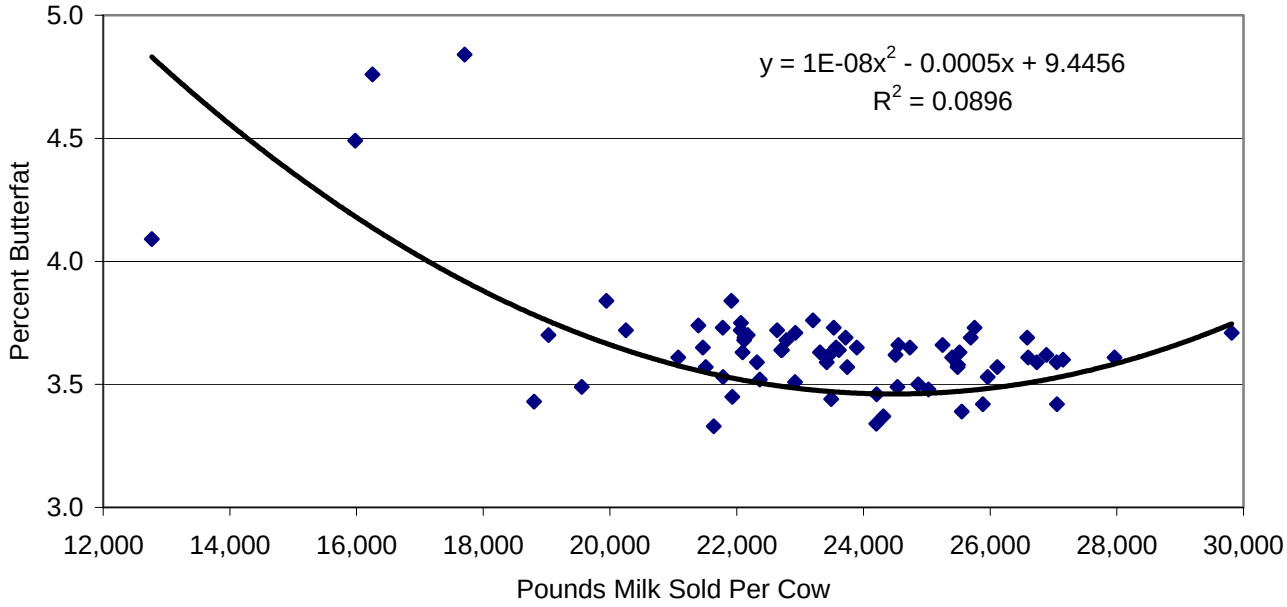
TOTAL COST TO PRODUCE BUTTERFAT & PROTEIN COMPONENTS VS. NET FARM INCOME PER COW

72 Large Herd Dairy Farms, 2005



POUNDS MILK SOLD PER COW VERSUS PERCENT BUTTERFAT

72 Large Herd Dairy Farms, 2005



Capital and Labor Efficiency Analysis

Capital efficiency factors measure how intensively the capital is being used in the farm business. Measures of labor efficiency are key indicators of management's success in generating products per unit of labor input.

CAPITAL EFFICIENCY
74 Large Herd Dairy Farms, 2005

Item	Per Worker	Per Cow	Per Tillable Acre	Per Tillable Acre Owned
Average 74 Farms:				
Farm capital	$ 311,432	$ 7,040	$ 3,634	$ 7,509
Real estate		2,614		2,788
Machinery & equipment	53,197	1,203	621	
Ratios				
Asset turnover ratio	Operating Expense	Interest Expense	Depreciation Expense	
0.66	0.77	0.03	0.07	
Average Top 20% Farms:				
Farm capital	$ 293,820	$ 6,335	$ 3,631	$ 9,060
Real estate		2,050		2,931
Machinery & equipment	45,444	980	562	
Ratios				
Asset turnover ratio	Operating Expense	Interest Expense	Depreciation Expense	
0.76	0.72	0.03	0.06	

LABOR FORCE INVENTORY AND ANALYSIS
74 Large Herd Dairy Farms, 2005

Labor Force	Months	Age	Years of Education	Value of Labor & Mgmt.
Operator number 1	13.34	49	14	$ 51,159
Operator number 2	9.03	44	13	32,639
Operator number 3	3.11	40	12	9,172
Operator number 4	1.33	45	15	2,541
Family paid	6.26			
Family unpaid	1.01			
Hired	158.76			
Total	192.84 / 12 = 16.07 Worker Equivalent			
	1.96 Operator/Manager Equivalent			
Average Top 20% Farms:				
Total	212.41 / 12 = 17.70 Worker Equivalent			
Operator's	2.27 Operator/Manager Equivalent			

Labor	Average 74 Farms		Average Top 20% Farms	
Efficiency	Total	Per Worker	Total	Per Worker
Cows, average number	711	44	821	46
Milk sold, pounds	16,863,169	1,049,357	19,986,851	1,129,147
Tillable acres	1,377	86	1,432	81

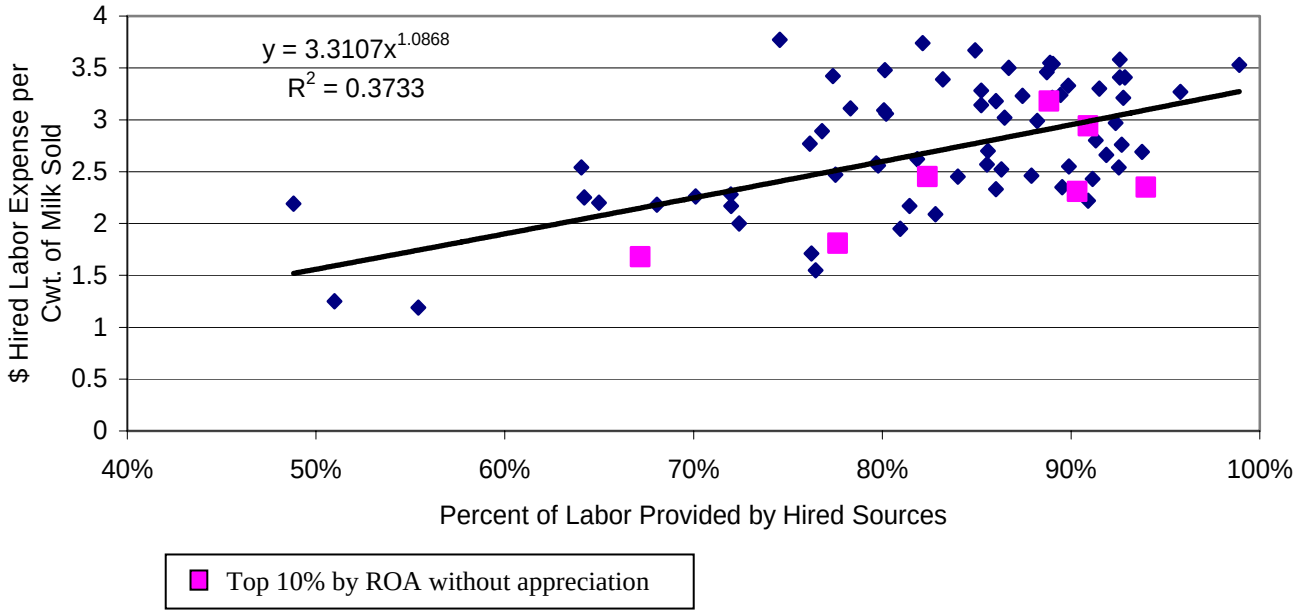
	Average 74 Farms			Average Top 20% Farms		
Labor Costs	Total	Per Cow	Per Cwt.	Total	Per Cow	Per Cwt.
Value of operator(s) labor ($2,200/mo.)	$ 58,982	$ 83	$0.35	$ 68,662	$ 84	$ 0.34
Family unpaid ($2,200/mo.)	2,222	3	0.01	1,232	1	0.01
Hired	475,780	669	2.82	523,917	638	2.62
Total Labor	$ 536,984	$ 755	$3.18	$ 593,811	$ 723	$ 2.97
Machinery Cost	431,082	606	2.56	462,435	563	2.31
Total Labor & Machinery	$ 968,066	$ 1,361	$5.74	$ 1,056,246	$ 1,286	$ 5.28
Hired labor expense per hired worker equiv.	$ 34,598			$ 34,804		
Hired labor expense as % of milk sales	17.7%			16.1%		

Labor Cost Evaluation

Labor costs have been the first or second largest expense on large dairy farms in New York the last four years. A key factor to track on these farms is hired labor expense per cwt. milk sold. The chart below shows the relationship between hired labor expenses per cwt. and percent of labor provided by hired labor sources and can be used to see how your farms' expense compares to other farms. To calculate percent of labor provided by hired sources use the worksheet below.

HIRED LABOR EXPENSE PER CWT OF MILK SOLD VERSUS PERCENT OF LABOR PROVIDED BY HIRED SOURCES

74 Large Herd Dairy Farms, 2005



Worksheet for Determining Percent of Labor From Hired Sources

Divide total hired and family paid months of labor by the total months of labor provided from all sources. These values can be found on page 14 of your farm's Dairy Farm Business Summary report.

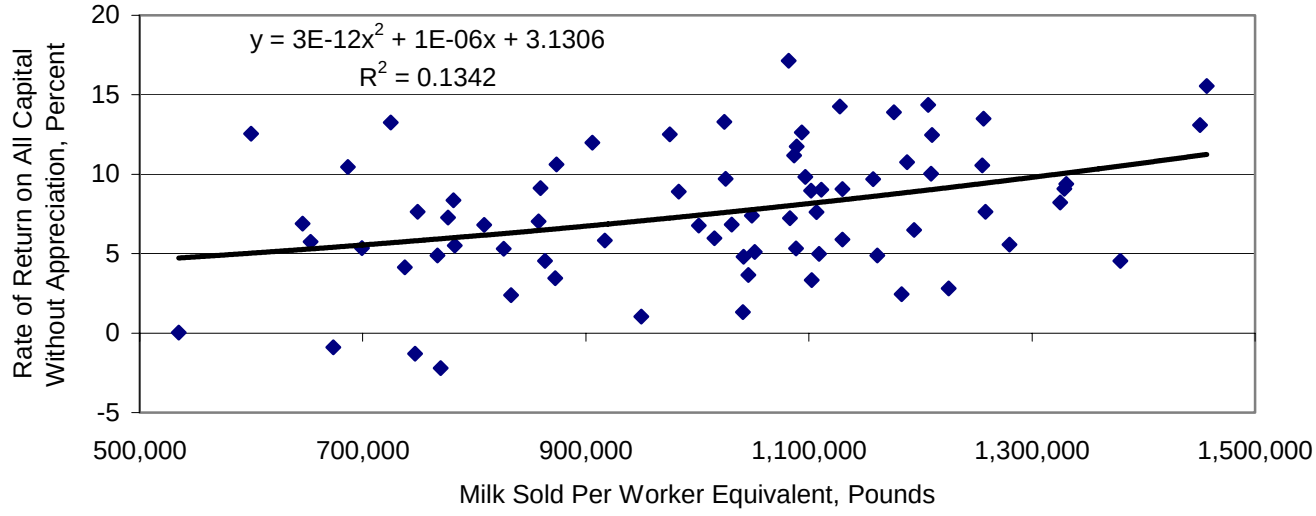
Months of hired labor		_____	
Months of family paid labor	+	_____	
Total hired labor	=		_____
Total Labor Months	÷		_____
Percent of labor from hired sources	x 100 =		_____%

The table below is the business chart for labor costs on a per worker and per hour basis and shows the range of costs for these farms. Hired Labor expenses are all expenses that are associated with labor, and are not just payroll. The chart below shows the relationship between labor efficiency and return on all capital without appreciation. Labor efficiency improvements are one method that is used to allow the business to reward their employees while maintaining their labor costs per cwt. of milk produced. A second area is improved cost control of day to day activities, which is one reason why some farms can generate higher than average profits while having some of the higher labor costs per cwt. of milk sold.

Hired Labor Expense Business Charts
74 Large Herd Dairy Farms, 2005

Decile	Hired Labor Expense per Cwt	Hired Labor Expense as % of Milk Sales	Hired Labor Expense per Hired Worker Equivalent	Hired Labor Expense per Hour
Average of Lowest Decile	$ 1.64	10%	$ 23,848	$ 8.64
	2.18	13	27,147	9.84
	2.35	14	28,647	10.38
	2.51	15	30,085	10.90
	2.65	16	31,973	11.58
	2.91	17	33,223	12.04
	3.14	19	34,670	12.56
	3.27	20	37,274	13.51
	3.44	21	39,311	14.24
Average of Highest Decile	3.63	23	43,622	15.81

RATE OF RETURN ON ALL CAPITAL WITHOUT APPRECIATION VERSUS MILK SOLD PER WORKER EQUIVALENT
74 Large Herd Dairy Farms, 2005



CONDENSED SUMMARY & SELECTED BUSINESS FACTORS

CONDENSED FARM BUSINESS SUMMARY FOR THREE LARGE HERD GROUPS

74 Large Herd Dairy Farms, 2005

Item	19 Farms with 300-400 Cows		24 Farms with 401-599 Cows		31 Farms with ≥600 Cows	
	Per Cow	Per Cwt.	Per Cow	Per Cwt.	Per Cow	Per Cwt.
ACCRUAL EXPENSES						
Hired labor	$609	$2.67	$578	$2.59	$714	$2.93
Dairy grain & concentrate	940	4.12	898	4.02	1,015	4.16
Dairy roughage	45	0.20	62	0.28	69	0.28
Nondairy feed	0	0.00	0	0.00	0	0.00
Professional nutritional services	2	0.01	1	0.00	1	0.01
Machine hire, rent & lease	47	0.21	84	0.38	49	0.20
Machine repairs & farm vehicle expense	216	0.95	185	0.83	170	0.70
Fuel, oil & grease	143	0.63	118	0.53	119	0.49
Replacement livestock	46	0.20	4	0.02	28	0.12
Breeding	52	0.23	49	0.22	54	0.22
Veterinary & medicine	132	0.58	147	0.66	158	0.65
Milk marketing	180	0.79	163	0.73	179	0.73
Bedding	66	0.29	65	0.29	85	0.35
Milking supplies	82	0.36	66	0.30	81	0.33
Cattle lease & rent	2	0.01	3	0.01	4	0.02
Custom boarding	45	0.20	71	0.32	90	0.37
bST expense	50	0.22	35	0.16	65	0.27
Livestock professional fees	8	0.04	10	0.04	11	0.04
Other livestock expense	22	0.10	23	0.10	23	0.09
Fertilizer & lime	87	0.38	81	0.36	75	0.31
Seeds & plants	50	0.22	55	0.25	51	0.21
Spray & other crop expense	51	0.22	45	0.20	40	0.16
Crop professional fees	3	0.01	5	0.02	7	0.03
Land, building & fence repair	49	0.22	74	0.33	56	0.23
Taxes & rent	109	0.47	98	0.53	117	0.48
Utilities	99	0.43	84	0.37	87	0.36
Interest paid	154	0.67	149	0.66	152	0.62
Other professional fees	16	0.07	23	0.10	20	0.08
Misc. (including insurance)	59	0.26	54	0.24	59	0.24
Total Operating Expenses	$3,363	$14.75	$3,231	$14.44	$3,579	$14.67
Expansion livestock	12	0.05	71	0.32	31	0.13
Extraordinary expense	3	0.01	2	0.01	1	0.01
Machinery depreciation	192	0.84	177	0.79	192	0.79
Building depreciation	128	0.56	116	0.52	128	0.53
Total Accrual Expenses	$3,698	$16.21	$3,597	$16.08	$3,931	$16.13
ACCRUAL RECEIPTS						
Milk sales	$3,672	$16.11	$3,562	$15.93	$3,877	$15.90
Dairy cattle	250	1.10	278	1.24	243	0.99
Dairy calves	64	0.28	54	0.24	73	0.30
Other livestock	13	0.05	25	0.11	1	0.00
Crops	71	0.31	59	0.26	57	0.23
Miscellaneous receipts	190	0.83	184	0.82	160	0.66
Total Accrual Receipts	$4,260	$18.68	$4,162	$18.60	$4,411	$18.08
PROFITABILITY ANALYSIS (Total)						
Net farm income (without appreciation)	$195,751		$285,920		$524,795	
Net farm income (with appreciation)	$273,988		380,081		$922,908	
Labor & management income	$111,150		179,358		$305,581	
Number of operators	1.90		1.93		2.01	
Labor & management income/operator	$58,500		$92,932		$152,030	
Rates of return on: Equity capital w/o apprec.	7.4%		9.5%		9.3%	
Equity capital w/ apprec.	12.1%		14.1%		18.5%	
All capital w/o apprec.	6.7%		7.9%		7.5%	
All capital w/ apprec.	9.7%		10.6%		12.6%	

SELECTED BUSINESS FACTORS FOR THREE LARGE HERD GROUPS

74 Large Herd Dairy Farms, 2005

Item	19 Farms with 300-400 Cows	24 Farms with 401-599 Cows	31 Farms with ≥ 600 Cows
Cropping Program Analysis			
Total Tillable acres	745	1,142	1,946
Tillable acres rented[30]	385	627	975
Hay crop acres[30]	374	494	899
Corn silage acres[30]	252	392	809
Hay crop, tons DM/acre	3.6	3.5	3.8
Corn silage, tons/acre	19.9	18.1	19.2
Forage DM per cow, tons	8.6	8.6	7.9
Tillable acres/cow	2.1	2.4	1.8
Fertilizer & lime expense/tillable acre	$44.36	$35.51	$41.51
Machinery cost/tillable acre	$315	$267	$329
Dairy Analysis			
Number of cows	349	503	1,093
Number of heifers	282	399	888
Milk sold, lbs.	7,956,414	11,255,844	26,663,304
Milk sold/cow, lbs.	22,805	22,359	24,385
Operating cost of prod. milk/cwt.	$12.23	$12.07	$12.61
Total cost of prod. milk/cwt.	$15.61	$15.09	$15.19
Price/cwt. milk sold	$16.11	$15.93	$15.90
Purchased dairy feed/cow	$985	$960	$1,084
Purchased dairy feed/cwt. milk	$4.32	$4.29	$4.45
Purchased grain & concentrate as % of milk receipts	26%	25%	26%
Purchased feed & crop expense/cwt. milk	$5.16	$5.12	$5.15
Capital Efficiency			
Farm capital/worker	$276,780	$293,508	$326,982
Farm capital/cow	$7,513	$6,874	$7,007
Real estate/cow	$2,893	$2,498	$2,601
Machinery investment/cow	$1,495	$1,276	$1,119
Asset turnover ratio	0.60	0.63	0.68
Labor Efficiency			
Worker equivalent	9.47	11.79	23.43
Operator/manager equivalent	1.90	1.93	2.01
Milk sold/worker, lbs.	840,170	954,627	1,138,120
Cows/worker	37	43	47
Labor cost/cow	$780	$698	$771
Financial Measures			
Percent equity	64%	61%	59%
Debt/asset ratio - long term	0.29	0.49	0.42
Debt/asset ratio - intermediate & current	0.41	0.35	0.41
Change in net worth with appreciation	$161,948	$234,333	$707,479
Total farm debt per cow	$2,791	$2,704	$2,994
Debt payments made per cow	$540	$588	$630
Debt payments as % of milk sales	15%	17%	16%
Amount available for debt service	$238,295	$332,694	$655,205
Debt coverage ratio for 2005	1.77	1.74	1.57

[30]Average of all farms, not only those reporting data.

INCOME AND EXPENSE PROFILES BY HERD SIZE

Use two of the following six tables to make an income and expense profile for your dairy farm business. The first two tables represent farms with 300 to 400 cows. The second two tables are of farms with 401-599 cows. The third set of tables is of farms with 600 or more cows. The figures in the quintile columns represent the average of the top 20 percent to the bottom 20 percent for each receipt and expenditure category. Each line is computed independently. The farms that comprise the top 20 percent in milk sales do not necessarily make up the top 20 percent of any other category. On each line circle the income and cost measures closest to the one for your farm. Then draw a vertical line connecting your circles on each table. The strongest profile will be a relatively straight line on the left side of the table.

RECEIPTS AND EXPENSES PER COW

19 Large Herd Dairy Farms with 300 – 400 Cows, 2005

	QUINTILE				
Item	1	2	3	4	5
Accrual Operating Receipts					
Milk	$4,403	$3,873	$3,650	$3,433	$3,208
Dairy cattle	418	324	241	201	117
Dairy calves	139	78	56	40	23
Other livestock	72	2	0	0	0
Crops	254	104	55	25	-36
Miscellaneous receipts	280	234	194	164	95
Total Operating Receipts	$5,102	$4,487	$4,185	$4,003	$3,753
Accrual Operating Expenses					
Hired labor	$390	$480	$639	$749	$855
Dairy grain & concentrate	729	836	952	1,072	1,198
Dairy roughage	0	0	11	25	229
Nondairy feed	0	0	0	0	0
Professional nutritional services	0	0	0	0	10
Machinery hire/rent/lease	0	11	30	70	142
Mach. repair & farm vehicle exp.	158	182	194	239	330
Fuel, oil & grease	101	124	136	168	200
Replacement livestock	0	0	1	16	256
Breeding	18	38	51	74	90
Veterinary & medicine	78	109	129	157	208
Milk marketing	109	153	177	209	283
Bedding	20	43	56	83	149
Milking supplies	41	64	83	108	119
Cattle lease	0	0	0	0	14
Custom boarding	0	0	0	75	200
bST expense	0	29	58	78	100
Livestock professional fees	0	0	5	14	31
Other livestock expense	0	1	17	33	72
Fertilizer & lime	38	61	81	100	178
Seeds & plants	24	37	48	64	86
Spray/other crop expenses	15	31	56	63	101
Crop professional fees	0	0	0	5	13
Land, building, fence repair	19	35	45	60	94
Taxes	12	46	63	71	85
Real estate rent/lease	10	27	55	74	142
Insurance	22	28	32	38	55
Utilities	65	78	98	121	144
Interest	76	120	147	187	273
Other professional fees	2	8	14	24	40
Miscellaneous	10	17	21	32	53
Total Operating Expenses	$2,743	$3,190	$3,431	$3,652	$3,980
Expansion livestock	0	0	0	9	67
Extraordinary expense	0	0	0	0	21
Machinery depreciation	101	143	176	217	344
Building depreciation	26	76	142	180	243
Net Farm Income w/o Appreciation	$1,060	$738	$599	$454	$96

RECEIPTS AND EXPENSES PER CWT. OF MILK SOLD
19 Large Herd Dairy Farms with 300 – 400 Cows, 2005

Item	QUINTILE 1	2	3	4	5
Accrual Operating Receipts					
Milk	$17.69	$16.33	$16.09	$15.65	$15.23
Dairy cattle	1.72	1.40	1.14	0.87	0.53
Dairy calves	0.63	0.34	0.24	0.18	0.10
Other livestock	0.31	0.01	0.00	0.00	0.00
Crops	1.20	0.44	0.25	0.11	-0.15
Miscellaneous receipts	1.34	1.02	0.87	0.67	0.41
Total Operating Receipts	$20.63	$19.08	$18.66	$18.21	$17.44
Accrual Operating Expenses					
Hired labor	$1.89	$2.27	$2.58	$3.16	$3.61
Dairy grain & concentrate	3.28	3.79	4.24	4.58	5.03
Dairy roughage	0.00	0.00	0.05	0.11	0.92
Nondairy feed	0.00	0.00	0.00	0.00	0.00
Professional nutritional services	0.00	0.00	0.00	0.00	0.05
Machinery hire/rent/lease	0.00	0.05	0.13	0.30	0.71
Mach. repair & farm vehicle exp.	0.65	0.81	0.88	1.10	1.44
Fuel, oil & grease	0.45	0.52	0.61	0.76	0.87
Replacement livestock	0.00	0.00	0.01	0.08	1.08
Breeding	0.09	0.17	0.23	0.31	0.36
Veterinary & medicine	0.36	0.47	0.57	0.72	0.84
Milk marketing	0.50	0.65	0.80	0.93	1.19
Bedding	0.09	0.20	0.26	0.35	0.59
Milking supplies	0.18	0.29	0.36	0.43	0.60
Cattle lease	0.00	0.00	0.00	0.00	0.06
Custom boarding	0.00	0.00	0.00	0.30	0.85
bST expense	0.00	0.14	0.25	0.32	0.38
Livestock professional fees	0.00	0.00	0.02	0.06	0.13
Other livestock expense	0.00	0.01	0.07	0.16	0.32
Fertilizer & lime	0.17	0.26	0.33	0.45	0.93
Seeds & plants	0.10	0.16	0.21	0.29	0.40
Spray/other crop expenses	0.07	0.14	0.22	0.30	0.43
Crop professional fees	0.00	0.00	0.00	0.02	0.05
Land, building, fence repair	0.08	0.16	0.21	0.26	0.43
Taxes	0.06	0.19	0.25	0.32	0.40
Real estate rent/lease	0.05	0.12	0.23	0.36	0.63
Insurance	0.09	0.12	0.14	0.18	0.25
Utilities	0.30	0.33	0.42	0.53	0.65
Interest	0.31	0.52	0.66	0.92	1.22
Other professional fees	0.01	0.03	0.06	0.10	0.18
Miscellaneous	0.04	0.07	0.10	0.14	0.24
Total Operating Expenses	$13.27	$14.20	$14.64	$15.32	$17.00
Expansion livestock	0.00	0.00	0.00	0.04	0.30
Extraordinary expense	0.00	0.00	0.00	0.00	0.09
Machinery depreciation	0.43	0.60	0.77	0.97	1.77
Building depreciation	0.11	0.34	0.57	0.82	1.14
Net Farm Income w/o Appreciation	$4.12	$3.58	$2.58	$1.95	$0.38

RECEIPTS AND EXPENSES PER COW

24 Large Herd Dairy Farms with 401 – 599 Cows, 2005

Item	QUINTILE 1	2	3	4	5
Accrual Operating Receipts					
Milk	$4,391	$3,752	$3,565	$3,380	$2,855
Dairy cattle	538	295	253	215	132
Dairy calves	113	85	55	32	-1
Other livestock	166	7	0	0	-5
Crops	221	133	62	-3	-86
Miscellaneous receipts	372	240	171	131	73
Total Operating Receipts	$5,102	$4,541	$4,182	$3,836	$3,340
Accrual Operating Expenses					
Hired labor	$325	$511	$584	$691	$806
Dairy grain & concentrate	677	857	906	959	1,148
Dairy roughage	0	3	20	52	251
Nondairy feed	0	0	0	0	3
Professional nutritional services	0	0	0	0	6
Machinery hire/rent/lease	14	48	79	103	194
Mach. repair & farm vehicle exp.	102	153	189	218	295
Fuel, oil & grease	68	97	124	141	177
Replacement livestock	0	0	0	0	23
Breeding	16	34	47	66	88
Veterinary & medicine	63	109	146	181	247
Milk marketing	96	118	157	192	269
Bedding	16	44	65	85	119
Milking supplies	30	47	64	85	114
Cattle lease	0	0	0	0	22
Custom boarding	0	0	0	37	367
bST expense	0	1	21	66	99
Livestock professional fees	0	1	10	16	25
Other livestock expense	0	10	18	34	60
Fertilizer & lime	33	50	64	105	176
Seeds & plants	18	40	53	77	96
Spray/other crop expenses	8	31	42	53	96
Crop professional fees	0	0	3	9	17
Land, building, fence repair	27	40	58	91	168
Taxes	13	31	39	63	77
Real estate rent/lease	11	27	45	83	120
Insurance	18	26	32	40	55
Utilities	57	70	83	100	119
Interest	68	119	138	175	282
Other professional fees	2	6	14	34	74
Miscellaneous	2	9	20	28	51
Total Operating Expenses	$2,553	$3,040	$3,207	$3,444	$4,029
Expansion livestock	0	0	2	56	372
Extraordinary expense	0	0	0	0	9
Machinery depreciation	82	115	159	219	348
Building depreciation	44	87	117	137	229
Net Farm Income w/o Appreciation	$868	$729	$595	$457	$252

RECEIPTS AND EXPENSES PER CWT. OF MILK SOLD
24 Large Herd Dairy Farms with 401 – 599 Cows, 2005

Item	QUINTILE 1	2	3	4	5
Accrual Operating Receipts					
Milk	$17.95	$16.48	$15.88	$15.61	$14.57
Dairy cattle	2.62	1.33	1.08	0.93	0.60
Dairy calves	0.62	0.36	0.23	0.14	-0.01
Other livestock	0.74	0.03	0.00	0.00	-0.02
Crops	1.04	0.58	0.28	-0.01	-0.41
Miscellaneous receipts	1.75	1.06	0.74	0.60	0.36
Total Operating Receipts	$21.52	$19.79	$18.88	$17.86	$16.43
Accrual Operating Expenses					
Hired labor	$1.60	$2.15	$2.65	$3.21	$3.52
Dairy grain & concentrate	3.28	3.66	4.01	4.41	5.22
Dairy roughage	0.00	0.02	0.09	0.26	1.06
Nondairy feed	0.00	0.00	0.00	0.00	0.02
Professional nutritional services	0.00	0.00	0.00	0.00	0.03
Machinery hire/rent/lease	0.06	0.22	0.36	0.54	0.83
Mach. repair & farm vehicle exp.	0.48	0.68	0.84	0.98	1.31
Fuel, oil & grease	0.30	0.48	0.56	0.63	0.72
Replacement livestock	0.00	0.00	0.00	0.00	0.09
Breeding	0.08	0.16	0.23	0.28	0.37
Veterinary & medicine	0.31	0.50	0.66	0.78	1.04
Milk marketing	0.45	0.60	0.72	0.79	1.12
Bedding	0.07	0.20	0.27	0.36	0.61
Milking supplies	0.16	0.22	0.28	0.37	0.46
Cattle lease	0.00	0.00	0.00	0.00	0.10
Custom boarding	0.00	0.00	0.00	0.17	1.51
bST expense	0.00	0.00	0.10	0.29	0.38
Livestock professional fees	0.00	0.01	0.04	0.07	0.12
Other livestock expense	0.00	0.05	0.09	0.16	0.28
Fertilizer & lime	0.14	0.24	0.31	0.43	0.96
Seeds & plants	0.09	0.18	0.25	0.33	0.41
Spray/other crop expenses	0.04	0.13	0.18	0.25	0.45
Crop professional fees	0.00	0.00	0.01	0.05	0.08
Land, building, fence repair	0.12	0.21	0.28	0.40	0.64
Taxes	0.05	0.13	0.19	0.28	0.42
Real estate rent/lease	0.05	0.12	0.22	0.39	0.55
Insurance	0.08	0.12	0.14	0.18	0.26
Utilities	0.28	0.33	0.38	0.43	0.51
Interest	0.28	0.55	0.63	0.88	1.22
Other professional fees	0.01	0.04	0.06	0.15	0.33
Miscellaneous	0.01	0.04	0.09	0.14	0.21
Total Operating Expenses	$12.88	$13.67	$14.39	$15.27	$16.74
Expansion livestock	0.00	0.00	0.01	0.22	1.56
Extraordinary expense	0.00	0.00	0.00	0.00	0.04
Machinery depreciation	0.39	0.52	0.70	0.95	1.66
Building depreciation	0.20	0.35	0.51	0.66	1.14
Net Farm Income w/o Appreciation	$4.35	$3.19	$2.64	$2.16	$1.07

RECEIPTS AND EXPENSES PER COW

31 Large Herd Dairy Farms with 600 or More Cows, 2005

Item	QUINTILE 1	2	3	4	5
Accrual Operating Receipts					
Milk	$4,396	$4,046	$3,832	$3,726	$3,495
Dairy cattle	381	281	235	210	158
Dairy calves	129	83	71	58	28
Other livestock	9	0	0	0	-5
Crops	196	121	72	9	-85
Miscellaneous receipts	306	208	166	135	78
Total Operating Receipts	$5,030	$4,581	$4,406	$4,263	$4,006
Accrual Operating Expenses					
Hired labor	$555	$632	$703	$791	$885
Dairy grain & concentrate	873	961	1,014	1,094	1,211
Dairy roughage	0	9	28	62	224
Nondairy feed	0	0	0	0	0
Professional nutritional services	0	0	0	0	9
Machinery hire/rent/lease	10	25	40	58	120
Mach. repair & farm vehicle exp.	103	134	166	215	290
Fuel, oil & grease	79	99	109	141	201
Replacement livestock	0	0	0	6	154
Breeding	32	45	54	63	89
Veterinary & medicine	113	144	158	169	209
Milk marketing	136	153	166	181	304
Bedding	34	66	82	103	131
Milking supplies	31	55	76	103	145
Cattle lease	0	0	0	0	16
Custom boarding	0	3	32	106	234
bST expense	8	42	67	88	111
Livestock professional fees	0	1	9	15	26
Other livestock expense	0	6	21	32	94
Fertilizer & lime	31	56	73	100	155
Seeds & plants	20	44	54	66	90
Spray/other crop expenses	4	32	43	50	76
Crop professional fees	0	0	3	12	25
Land, building, fence repair	21	34	52	73	113
Taxes	23	38	47	56	82
Real estate rent/lease	20	37	56	82	139
Insurance	18	27	31	41	62
Utilities	58	76	86	105	126
Interest	68	130	161	182	254
Other professional fees	2	8	13	20	42
Miscellaneous	5	14	22	37	57
Total Operating Expenses	$3,191	$3,376	$3,526	$3,703	$4,241
Expansion livestock	0	0	0	17	170
Extraordinary expense	0	0	0	0	7
Machinery depreciation	125	162	180	226	341
Building depreciation	35	76	121	193	289
Net Farm Income w/o Appreciation	$925	$641	$490	$291	$58

RECEIPTS AND EXPENSES PER CWT. OF MILK SOLD
31 Large Herd Dairy Farms with 600 or More Cows, 2005

Item	QUINTILE 1	2	3	4	5
Accrual Operating Receipts					
Milk	$16.90	$16.33	$15.99	$15.71	$15.18
Dairy cattle	1.63	1.14	0.96	0.87	0.65
Dairy calves	0.56	0.33	0.30	0.24	0.11
Other livestock	0.04	0.00	0.00	0.00	-0.02
Crops	0.83	0.50	0.30	0.04	-0.34
Miscellaneous receipts	1.23	0.86	0.67	0.59	0.32
Total Operating Receipts	$19.74	$18.97	$18.31	$17.67	$17.01
Accrual Operating Expenses					
Hired labor	$2.35	$2.60	$2.93	$3.25	$3.51
Dairy grain & concentrate	3.71	3.91	4.22	4.47	4.88
Dairy roughage	0.00	0.04	0.11	0.25	0.95
Nondairy feed	0.00	0.00	0.00	0.00	0.00
Professional nutritional services	0.00	0.00	0.00	0.00	0.04
Machinery hire/rent/lease	0.04	0.10	0.17	0.24	0.49
Mach. repair & farm vehicle exp.	0.43	0.56	0.65	0.90	1.18
Fuel, oil & grease	0.32	0.41	0.46	0.57	0.81
Replacement livestock	0.00	0.00	0.00	0.02	0.67
Breeding	0.13	0.19	0.22	0.26	0.36
Veterinary & medicine	0.47	0.61	0.64	0.68	0.86
Milk marketing	0.57	0.63	0.68	0.75	1.23
Bedding	0.14	0.27	0.33	0.44	0.52
Milking supplies	0.13	0.22	0.31	0.42	0.60
Cattle lease	0.00	0.00	0.00	0.00	0.06
Custom boarding	0.00	0.01	0.13	0.44	1.01
bST expense	0.04	0.17	0.28	0.36	0.43
Livestock professional fees	0.00	0.00	0.04	0.06	0.11
Other livestock expense	0.00	0.03	0.08	0.13	0.39
Fertilizer & lime	0.13	0.23	0.30	0.43	0.63
Seeds & plants	0.08	0.17	0.22	0.29	0.38
Spray/other crop expenses	0.02	0.13	0.18	0.21	0.32
Crop professional fees	0.00	0.00	0.01	0.05	0.11
Land, building, fence repair	0.09	0.14	0.21	0.29	0.47
Taxes	0.10	0.16	0.19	0.23	0.34
Real estate rent/lease	0.08	0.16	0.23	0.34	0.58
Insurance	0.07	0.11	0.13	0.18	0.25
Utilities	0.24	0.32	0.36	0.42	0.52
Interest	0.28	0.52	0.68	0.76	1.09
Other professional fees	0.01	0.04	0.05	0.08	0.17
Miscellaneous	0.03	0.06	0.09	0.15	0.23
Total Operating Expenses	$13.12	$14.10	$14.73	$15.52	$16.84
Expansion livestock	0.00	0.00	0.00	0.07	0.73
Extraordinary expense	0.00	0.00	0.00	0.00	0.03
Machinery depreciation	0.51	0.66	0.77	0.94	1.40
Building depreciation	0.14	0.32	0.50	0.81	1.16
Net Farm Income w/o Appreciation	$3.67	$2.63	$2.05	$1.24	$0.24

FARM BUSINESS CHART

The Farm Business Chart is a tool which can be used in analyzing your business. Compare your business by drawing a line through or near the figure in each column which represents your current level of performance. The ten figures in each column represent the average of each 10 percent or decile of farms included in this summary. Each column of the chart is independent of the others. The farms which are in the top 10 percent for one factor would not necessarily be the same farms which make up the 10 percent for any other factor. Use this information to identify business areas where more challenging goals are needed.

FARM BUSINESS CHART FOR FARM MANAGEMENT COOPERATORS

74 Large Herd Dairy Farms, 2005

Size of Business			Rates of Production			Labor Efficiency	
Worker Equivalent	Number of Cows	Pounds Milk Sold	Pounds Milk Sold Per Cow	Tons Hay Crop DM/Acre	Tons Corn Silage Per Acre	Cows Per Worker	Pounds Milk Sold Per Worker
(14)[31]	(12)	(12)	(12)	(11)	(11)	(14)	(14)
35.4	1,794	44,262,549	27,523	5.9	25	61	1,364,458
24.7	1,113	27,482,795	26,085	4.9	22	53	1,231,728
20.7	934	22,643,041	25,389	4.4	21	51	1,170,118
17.1	732	17,325,123	24,529	4.0	20	48	1,112,745
14.7	604	14,717,495	23,775	3.7	19	45	1,088,537
13.5	550	12,520,829	23,345	3.4	18	43	1,040,698
11.7	470	10,666,113	22,671	2.9	18	41	971,543
10.6	415	8,958,626	22,061	2.7	17	37	849,345
9.3	362	7,932,975	21,365	2.5	16	34	763,894
6.9	320	6,843,750	17,504	1.9	14	30	652,294

Cost Control

Grain Bought Per Cow	% Grain is of Milk Receipts	Machinery Costs Per Cow	Labor & Machinery Costs Per Cow	Feed & Crop Expenses Per Cow	Feed & Crop Expenses Per Cwt. Milk
(12)	(12)	(14)	(14)	(12)	(12)
$687	21%	$403	$995	$915	$4.31
828	23	495	1,141	1,047	4.55
868	24	547	1,227	1,087	4.78
916	25	584	1,319	1,149	4.91
952	25	615	1,393	1,190	5.03
975	27	652	1,442	1,241	5.27
1,030	28	684	1,489	1,264	5.51
1,086	28	720	1,539	1,324	5.65
1,133	29	769	1,629	1,402	5.79
1,242	32	948	1,800	1,525	6.57

[31]( ) = page number of the participant's DFBS where factor is located.
CALC=Need to calculate for each farm; refer to the Glossary for definition.

Cost Control (con't)

Hired Labor Expense			Expenses Per Cwt.		
Per Cwt.	Per Hired Worker Equiv.	As % of Milk Sales	Milk Marketing	Veterinary & Medicine	Other Livestock
(14)	(14)	(14)	(15)	(15)	(15)
$1.64	$23,848	10%	$0.45	$0.32	$0.00
2.18	27,147	13	0.55	0.43	0.00
2.35	28,647	14	0.59	0.51	0.01
2.51	30,085	15	0.64	0.59	0.04
2.65	31,973	16	0.66	0.63	0.07
2.91	33,223	17	0.72	0.65	0.10
3.14	34,670	19	0.75	0.68	0.13
3.27	37,274	20	0.82	0.74	0.16
3.44	39,311	21	0.97	0.83	0.21
3.63	43,622	23	1.32	1.00	0.45

Machinery & Crop Expense		Cost of Producing Milk			
		Operating Cost		Total Cost	
Per Tillable Acre	Per Ton Dry Matter	Per Cow	Per Cwt.	Per Cow	Per Cwt.
(CALC)	(CALC)	(12)	(12)	(12)	(12)
$256	$63	$2,042	$10.25	$2,754	$13.49
315	76	2,490	11.00	3,195	14.08
350	82	2,609	11.41	3,327	14.41
378	91	2,709	11.81	3,435	14.76
391	98	2,844	12.09	3,542	15.01
414	105	2,941	12.46	3,637	15.49
435	110	3,059	12.99	3,729	15.83
474	119	3,219	13.34	3,853	16.10
511	140	3,402	13.74	4,023	16.61
799	430	3,692	15.11	4,443	18.75

bST Expense Per Cow	bST Expense Per Cwt.	Percent Herd On bST	Culling Rate	Expense Ratios		
				Operating	Depreciation	Interest
(12)	(12)	(12)	(12)	(14)	(14)	(14)
$ 0	$0.00	0%	23%	66%	3%	1%
1	0.00	0	27	71	4	2
10	0.04	3	28	73	6	3
31	0.15	24	31	75	6	3
49	0.21	49	33	76	7	3
63	0.27	61	34	78	8	4
75	0.31	75	35	79	9	4
86	0.35	84	37	80	9	4
96	0.38	94	38	84	11	6
113	0.43	103	42	89	13	7

Income Generation

Milk Receipts Per Cwt.	Net Milk Receipts Per Cwt.	Milk Receipts Per Cow	Dairy Cattle Sales Per Cow	Dairy Calf Sales Per Cow
(12)	(12)	(12)	(12)	(12)
$18.03	$17.02	$4,539	$510	$152
16.76	15.83	4,217	361	96
16.43	15.60	4,000	309	87
16.20	15.45	3,847	272	77
16.07	15.33	3,763	254	69
15.94	15.21	3,700	236	60
15.75	15.09	3,588	220	51
15.55	14.86	3,481	198	38
15.25	14.63	3,367	176	26
14.75	14.09	2,962	103	6

Debt Management

Farm Debt Per Cow		Cost of	Planned Debt Payments	
Total	Intermediate & Long Term	Borrowed Capital	Per Cow	Per Cwt.
(7)	(7)	(7)	(10)	(10)
$1,161	$794	3.0%	$ 69	$0.00
1,895	1,382	5.0	259	0.88
2,363	1,703	5.5	334	1.00
2,559	2,047	6.0	394	1.00
2,814	2,267	6.0	447	1.71
3,085	2,490	6.0	501	2.00
3,339	2,664	6.0	542	2.00
3,507	2,844	6.0	600	2.00
3,974	3,172	6.4	703	2.57
4,688	3,665	7.4	832	3.14

Cash Flow Analysis

Amount Available for Family Living, Debt Service & Investment		Personal Withdrawals & Family Expenditures		Cash Flow Coverage
Per Cow	Per Cwt.	Per Cow	Per Cwt.	Ratio
(16)	(16)	(CALC)	(CALC)	(10)
$1,218	$5.74	$605	$2.61	3.64
1,101	4.84	343	1.57	2.29
984	4.34	260	1.13	1.92
939	4.10	212	0.91	1.58
897	3.93	185	0.80	1.31
843	3.75	158	0.63	1.23
778	3.37	134	0.56	1.12
709	3.00	121	0.50	0.95
646	2.64	97	0.45	0.76
525	2.14	64	0.29	0.38

Capital Efficiency

Farm Capital Per Cow	Real Estate Investment Per Cow	Machinery Investment Per Cow	Total Labor Cost Per Worker Equivalent	Asset Turnover Ratio
(14)	(14)	(14)	(CALC)	(14)
$4,766	$929	$648	$24,555	1.00
5,916	1,810	855	27,003	0.79
6,484	2,124	996	28,121	0.73
6,816	2,395	1,137	29,374	0.69
7,043	2,559	1,286	31,018	0.66
7,404	2,810	1,373	32,158	0.62
7,739	3,063	1,486	33,517	0.59
8,109	3,368	1,637	35,336	0.56
8,721	3,797	1,811	37,966	0.53
9,862	4,626	2,084	41,894	0.46

Solvency					Liquidity	
		Debt to Asset Ratios			Working Capital	
Percent Equity	Leverage Ratio	Total	Current/ Intermediate	Long Term	as % of Total Expenses	Current Ratio
(7)	(7)	(7)	(7)	(7)	(7)	(7)
85%	0.19	0.16	0.16	0.00	39.9%	6.15%
74	0.36	0.27	0.23	0.00	23.6	3.46
71	0.44	0.30	0.27	0.10	20.0	2.82
67	0.55	0.35	0.31	0.24	18.0	2.38
63	0.64	0.39	0.35	0.30	14.4	2.06
59	0.78	0.44	0.40	0.40	11.1	1.74
55	0.90	0.47	0.47	0.50	8.6	1.49
51	1.04	0.51	0.54	0.62	4.8	1.26
45	1.29	0.56	0.62	0.75	-0.3	1.01
35	2.26	0.66	0.77	1.14	-13.4	0.60

Profitability				
Labor and	Rate Return to Equity Capital		Rate Return to All Capital	
Mgmt. Income Per Operator	Without Appreciation	With Appreciation	Without Appreciation	With Appreciation
(4)	(4)	(4)	(4)	(4)
$417,080	29.2%	45.5%	14.6%	20.3%
252,041	16.4	27.8	12.6	17.3
181,757	14.9	22.6	10.8	15.2
147,511	13.1	19.6	9.4	13.6
107,780	11.4	17.4	8.4	12.3
86,751	9.1	14.9	7.2	11.0
67,958	6.6	13.0	6.1	9.8
45,171	5.0	11.2	5.2	8.9
10,896	3.2	7.2	3.9	6.4
-99,700	-4.1	-2.7	0.4	1.2

Profitability, Continued				
Net Farm Income Without Appreciation		Net Farm Income From Operations	Net Income Efficiency	Net Milk Income Over Purchased Feed
Per Cow	Per Cwt.	Ratio	Ratio	Costs Per Cow
(12)	(12)	(4)	(CALC)	(CALC)
$1,054	$4.44	23%	23%	$3,156
816	3.69	20	13	2,873
723	3.20	17	11	2,771
663	2.78	15	10	2,693
606	2.58	13	8	2,597
524	2.38	12	8	2,530
467	2.01	11	7	2,453
374	1.62	9	7	2,353
258	1.08	6	5	2,256
-32	-0.15	-1	2	1,998

IDENTIFY AND SET GOALS

If businesses are to be successful, they must have direction. Written goals help provide businesses with an identifiable direction over both the long and short term. Goal setting is as important on a dairy farm as it is in other businesses. Written goals are a tool which farm operators can use to ensure that the business continues to move in the proper direction. Goals should be SMART:

1. Goals should be **S**pecific.

2. Goals should be **M**easurable.

3. Goals should be **A**chievable but challenging.

4. Goals should be **R**ewarding.

5. Goals should designate a **T**ime when each goal will be achieved.

Goal setting on a dairy farm does not have to be a complex process. In many cases it provides a process for writing down and agreeing on goals that you have already given some thought to. It is also important to remember that once you write out your goals they are not cast in concrete. If a change takes place which has a major impact on the farm business, the goals should be reworked to accommodate that change. Refer to your goals as often as necessary to keep the farm business progressing.

It is important to identify both objectives (long-range) and goals (short-range) when looking at the future of your farm business.

A suggested format for writing out your goals is as follows:

a. Begin with a mission statement which describes why the business exists based on the preferences and values of the owners.

b. Identify 4-6 objectives.

c. Identify SMART goals.

Worksheet for Setting Goals

I. Mission and Objectives

_____

_____

_____

_____

_____

_____

_____

_____

Worksheet for Setting Goals (Continued)

II. Goals

What	How	When	Who is Responsible

Summarize Your Business Performance

The Farm Business Charts on pages 45-48 can be used to help identify strengths and weaknesses of your farm business. Identify three major strengths and three areas of your farm business that need improvement.

Strengths:____________________________________

Needs improvement:____________________________

GLOSSARY AND LOCATION OF COMMON TERMS

Some of the following definitions include formulas for calculating the factor being described. Page references to the individual Dairy Farm Business Summary are provided in parentheses for ease of calculation for your farm.

Accounts Payable - Open accounts or bills owed to feed and supply firms, cattle dealers, veterinarians and other providers of farm services and supplies.

Accounts Receivable - Outstanding receipts from items sold or sales proceeds not yet received, such as the payment for December milk sales received in January.

Accrual Expenses - (defined on page 13).

Accrual Receipts - (defined on page 13).

Annual Cash Flow Statement - (defined on page 20).

Appreciation - (defined on page 14).

Asset Turnover Ratio - The ratio of total farm income to total farm assets, calculated by dividing total accrual operating receipts plus appreciation by average total farm assets.

Balance Sheet - A "snapshot" of the business financial position at a given point in time, usually December 31. The balance sheet equates the value of assets to liabilities plus net worth.

Capital Efficiency - The amount of capital invested per production unit. Relatively high investments per worker with low to moderate investments per cow imply efficient use of capital.

Cash From Nonfarm Capital Used in the Business - Transfers of money from nonfarm savings or investments to the farm business where it is used to pay operating expenses, make debt payments and/or capital purchases.

Cash Flow Coverage Ratio - (defined on page 22).

Cash Paid - (defined on page 11).

Cash Receipts - (defined on page 13).

Change in Accounts Payable - (defined on page 11).

Change in Accounts Receivable - (defined on page 11).

Change in Inventory - (defined on page 11).

Cost of Borrowed Capital - A weighted average of the cost of borrowed capital to the farm. Calculate by multiplying end of year principal of each loan that is borrowed by the interest rate for each loan at that time. Add up each amount that is calculated for each loan and then divide by total amount of borrowed funds. Do not include accounts payable. This information is found on pages 10 & 11 of the data entry form.

Cows per Worker Equivalent for the Dairy Enterprise - Determined by dividing the average number of milking and dry cows by the number of worker equivalents in the dairy enterprise.

Culling Rate – Culling rate is calculated by dividing the number of animals that left the herd for culling purposes and that died by the average number of milking and dry cows for the year.

Current Portion - (defined on page 16).

Dairy (farm) - A farm business where dairy farming is the primary enterprise, operating and managing this farm is a full-time occupation for one or more people and cropland is owned.

Dairy Enterprise Only – Dairy enterprise only represents the estimate of labor hours, hired and family, that was utilized to operate the dairy. This estimate includes all labor to milk, feed, scrape, and take care of the milking and dry cows. Labor to take care of dairy replacements, produce crops, and spread manure was excluded. Labor efficiency numbers calculated for the dairy enterprise only help evaluate the labor efficiency of the dairy and the overall business.

Debt Coverage Ratio – (defined on page 22).

Debt Per Cow - Total end-of-year debt divided by end-of-year number of cows.

Debt to Asset Ratios - (defined on page 18).

Deferred Taxes - (defined on page 17).

Depreciation Expense Ratio - The percentage of Total Accrual Receipts that is charged to depreciation expense. Machinery Depreciation (DFBS p. 3) plus Building Depreciation (p. 3) divided by Total Accrual Receipts (p. 3) times 100.

Dry Matter - The amount or proportion of dry material that remains after all water is removed. Commonly used to measure dry matter percent and tons of dry matter in feed.

Equity Capital - The farm operator/manager's owned capital or farm net worth.

Expansion Livestock - Purchased dairy cattle and other livestock that cause an increase in herd size from the beginning to the end of the year.

Farm Debt Payments as Percent of Milk Sales - Amount of milk income committed to debt repayment, calculated by dividing planned debt payments by total milk receipts. A reliable measure of repayment ability, see page 22.

Farm Debt Payments Per Cow - Planned or scheduled debt payments per cow represent the repayment plan scheduled at the beginning of the year divided by the average number of cows for the year. This measure of repayment ability is used in the Financial Analysis Chart.

Financial Lease - A long-term non-cancellable contract giving the leassee use of an asset in exchange for a series of lease payments. The term of a financial lease usually covers a major portion of the economic life of the asset. The lease is a substitute for purchase. The lessor retains ownership of the asset.

Hired Labor Expense per Hired Worker Equivalent - The total cost to the farm per hired worker equivalent. Divide accrual hired labor expense (DFBS p. 2) by number of hired plus family paid worker equivalents (p. 14).

Hired Labor Expense as % of Milk Sales - The percentage of the gross milk receipts that is used for labor expense. Divide accrual hired labor expense (DFBS p. 2) by accrual milk sales (p. 3).

Income Statement - A complete and accurate account of farm business receipts and expenses used to measure profitability over a period of time such as one year or one month.

Interest Expense Ratio - The percentage of Total Accrual Receipts that is used for interest expense. Total Accrual Interest (DFBS p. 3) divided by Total Accrual Receipts (p. 3) times 100.

Labor and Management Income - (defined on page 15).

Labor and Management Income Per Operator - The return to the owner/manager's labor and management per full-time operator.

Labor Efficiency - Production capacity and output per worker.

Leverage Ratio - Dollars of debt per dollar of equity, computed by dividing total liabilities by total equity.

Liquidity - Ability of business to generate cash to make debt payments or to convert assets to cash.

Machinery & Crop Expenses per Tillable Acre - A measure of the cost to produce crops on a tillable acre basis. Add total crop expenses (DFBS p. 2) and total machinery expenses (p. 11), then divide by number of tillable acres, owned & rented (p. 11).

Machinery & Crop Expense per Ton Dry Matter - A measure of the cost per ton of DM to produce a crop. It is not a measure of total costs to produce feed. Add total crop expenses (DFBS p. 2) and total machinery expenses (p. 11), then divide by total forage, production, tons DM (p. 11).

Milk Sold per Worker Equivalent for the Dairy Enterprise – Determined by dividing the total amount of milk produced in the year by the number of worker equivalents in the dairy enterprise

Milking System Only – The milking center of dairy farms is a major investment and utilizes a significant portion of the farm labor. Producers provided estimates concerning the number of labor hours per day spent employed in the milking center and the number of milking units utilized. The labor represents time spent to set up, milk cows, and clean the milking center during a 24-hour period. Time spent to move cows to and from the milking center is not included.

Net Farm Income - (defined on page 14).

Net Farm Income from Operations Ratio - The percentage of each gross dollar that is generated that is net farm income. Net Farm Income without Appreciation (DFBS p. 4) divided by Total Accrual Receipts (p. 3) times 100.

Net Farm Income without Appreciation per Cwt. - The amount of net farm income, without appreciation, per cwt., that the farm generated. Divide net farm income without appreciation (DFBS p. 4) by number of cwt. of milk sold, which is total milk sold (p. 12) divided by 100.

Net Farm Income without Appreciation per Cow - The amount of net farm income, without appreciation, per cow that the farm generated. Divide net farm income without appreciation (DFBS p. 4) by average number of cows for the year (p. 12).

Net Income Efficiency Ratio - A measure of how efficiently the business is in generating net income, taking into account the differences in number of operators, debt levels, and amount of unpaid family labor being used on a farm. Net farm income without appreciation minus unpaid family labor charge (DFBS p. 4), plus Accrual Interest Paid (p. 3), divided by number of operators (p. 4), divided by Total Accrual Receipts (p. 3) times 100.

Net Milk Income over Purchased Feed Costs per Cow – A measure of the overall performance of the feeding program for the dairy. Gross milk sales per cow minus milk marketing expenses per cow minus purchased grain and concentrates per cow.

Net Milk Receipts per Cwt. - The mail box price received by farmers before any farmer authorized assignments or deductions. Accrual Receipts from milk, per cwt. (DFBS p. 12) minus accrual milk marketing expense per cwt. (p. 12).

Net Worth - The value of assets less liabilities equal net worth. It is the equity the owner has in owned assets.

Operating Costs of Producing Milk - (defined on page 29).

Operating Expense Ratio - The percentage of Total Accrual Receipts that is used for operating expenses, excluding interest & depreciation. Total Accrual Expenses (DFBS p. 3) minus Machinery Depreciation (p. 3), minus Building Depreciation (p. 3), minus Accrual Interest Expense (p. 3), divided by Total Accrual Receipts (p. 3) times 100.

Opportunity Costs - The cost or charge made for using a resource based on its value in its most likely alternative use. The opportunity cost of a farmer's labor and management is the value he/she would receive if employed in his/her most qualified alternative position.

Other Livestock Expenses - All other dairy herd and livestock expenses not included in more specific categories. Other livestock expenses include; bedding, DHIC, milk house and parlor supplies, livestock board, registration fees and transfers.

Percent Herd on bST – Percent of maximum number of cow days per year that could be supplemented following label restrictions that were treated with bST.

Personal Withdrawals and Family Expenditures Including Nonfarm Debt Payments - All the money removed from the farm business for personal or nonfarm use including family living expenses, health and life insurance, income taxes, nonfarm debt payments, and investments.

Personal Withdrawals & Family Expenditures per Cwt. - The amount of money on a per cwt. basis that the family uses for family living and personal expenses. This is the total amount, per cwt., used by the family, including farm and nonfarm income. Personal withdrawals/family expense, including nonfarm debt payments (DFBS p. 9) divided by pounds milk sold (p. 12) divided by 100.

Personal Withdrawals & Family Expenditures per Cow - The amount of money on a per cow basis that the family used for family living and personal expenses. This is the total amount, per cow, used by the family, including farm and nonfarm income. Personal withdrawals/family expense, including nonfarm debt payments (DFBS p. 9) divided by average number of cows (p. 12).

Pounds of Milk Harvested per Hour of Milking Labor – Calculated by dividing the total pounds milk produced by the total number of labor hours used to operate the milking center for one year. The total number of labor hours is estimated by multiplying the number of hours to operate the milking center for one day, which was provided by the participating dairies, by 365. Operating the milking center includes setting up, milking, and washing down the milking center, but doesn't include time spent to bring cows to and from the milking center.

Pounds of Milk Harvested per Machine Per Year – Calculated by dividing the total pounds of milk produced for the year by the number of milking machines in the milking center.

Profitability - The return or net income the owner/manager receives for using one or more of his or her resources in the farm business. True "economic profit" is what remains after deducting all the costs including the opportunity costs of the owner/manager's labor, management, and equity capital.

Purchased Inputs Cost of Producing Milk - (defined on page 29).

Repayment Analysis - an evaluation of the business' ability to make planned debt payments.

Replacement Livestock - Dairy cattle and other livestock purchased to replace those that were culled or sold from the herd during the year.

Return on Equity Capital - (defined on page 16).

Return on Total Capital - (defined on page 16).

Solvency - The extent or ability of assets to cover or pay liabilities. Debt/asset and leverage ratios are common measure of solvency.

Total Costs of Producing Milk - (defined on page 29).

Total Cows Milked Per Hour of Milking Labor Per Day – Determined by dividing the average number of milking and dry cows by the labor hours required to operate the milking center for a one day period.

Total Labor Costs per Worker Equivalent, All Labor - The average cost per worker equivalent when considering all labor (hired, paid family, family non-paid, and operators) used on the farm and total costs for this labor. Total Labor Cost (p. 14) divided by number of worker equivalents (p. 14).

Whole Farm Method - A procedure used to calculate costs of producing milk on dairy farms without using enterprise cost accounts. All non-milk receipts are assigned a cost equal to their sale value and deducted from total farm expenses to determine the costs of producing milk.

Worker Equivalents for the Dairy Enterprise – Determined by the farmer estimating how many of hours of labor are spent in the milking center and dairy complex performing all routine tasks. Labor spent in the field or in the dairy replacement enterprise is excluded. The daily labor estimate is multiplied by 365 days and then divided by 2,760 hours to get the number of worker equivalents.

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