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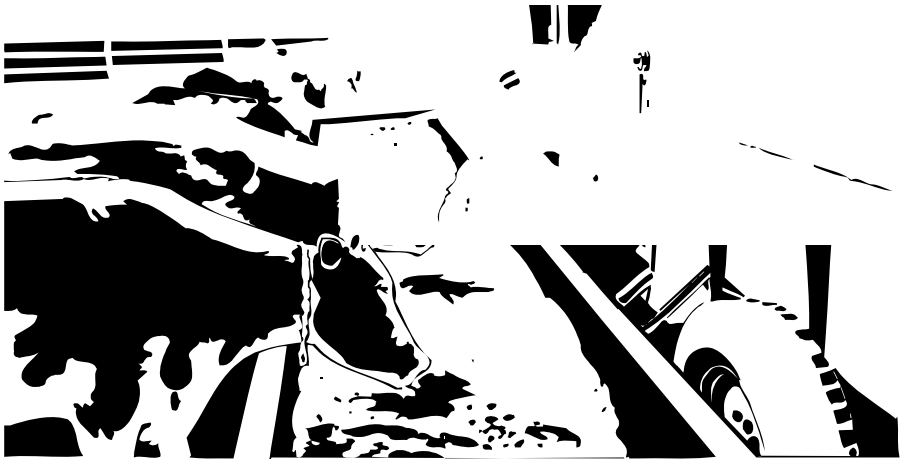

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2008 DAIRY FARM BUSINESS SUMMARY
LARGE HERD DAIRY FARMS
300 Cows or Larger

Table of Contents

2008 DAIRY FARM BUSINESS SUMMARY AND ANALYSIS
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 500 cows, 501 to 799 cows, and 800 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 and Analysis Project, 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. Eighty-three 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 2007 to 2008 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 90 large herd farms that participated in the 2008 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 90 large herd farms that participated in the 2008 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 300-500 cows, 501-799 cows, and farms with 800 and more cows.

The fifth section contains the income and expense profiles for the 300-500 cow farms, 501-799 cow farms, and 800 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, Cayuga, Chautaugua, Chenango, Clinton, Cortland, Erie, Genesee, Jefferson, Lewis, Livingston, Madison, Montgomery, Niagara, Oneida, Onondaqa, Ontario, Orleans, Otsego, Rensselaer, Saratoga, Schuyler, St. Lawrence, Tompkins, Washington, Wayne, Wyoming, and Yates counties had farms of this size participating in 2008. 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 and Rella Moag assisted in the preparation of 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 2008 business year for the New York State dairy industry was quite different than 2007, while milk prices remained strong, dramatic changes in key cost areas led to a significant drop in profitability. Growing conditions generally were good across the state with increased yields; however, there was some variation across the state and some loss of quality depending on the region. While there were challenges for the 2008 crop year, many farms were able to take advantage of the good corn silage from 2007 and average milk production increased. While milk prices fell slightly from the record highs in 2007, the costs associated with energy and feed continued to increase, leading to higher operating costs. The combination of these factors led to a year that, while significantly lower than 2007, was profitable for the average farm participating in this project.

For both 2007 and 2008, 83 farms that averaged more than 300 cows in New York participated in the Dairy Farm Business Summary and Analysis 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 83 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 5.4 percent to $19.26, a decrease of $1.09 per hundredweight. Milk marketing expenses increased 6 cents to $0.82 per hundredweight. These two changes led to a decrease of 5.9 percent in net milk price received on the farm, averaging $18.43 per hundredweight. With the improved forage quality from 2007, milk production per cow increased 3.1 percent to 24,680 pounds per cow. With the increase in milk output per cow partially offsetting the decrease in milk price, gross milk revenue per cow decreased 2.4 percent. Average herd size for the participating farms increased by 3.1 percent to 797 cows. With both milk sold per cow and herd size increasing, total milk pounds shipped per farm increased 6.3 percent. With the generally favorable growing conditions in 2008, hay yield increased 21.9 percent and corn silage yield increased 6.3 percent, leading to a positive increase in forage inventory and a 47 percent increase in crop revenue per cow, averaging $197 per cow. With all factors combined, total revenue per cow fell less than 1 percent, decreasing $51 per cow to $5,407.

Cost Control. Cost management was a challenge for the average dairy farm in 2008, with 18 of the cost categories showing an increase per hundredweight, even with the increased output per cow. Purchased grain and concentrates led the way, increasing 20.3 percent, or 99 cents, to $5.87 per hundredweight. Direct fuel purchased by the farm increased 26 cents per hundredweight, or 41.3 percent over the previous year. Other costs impacted by increased energy costs also increased, specifically fertilizer and milk marketing expenses. While the majority of cost areas did increase, interest costs showed a decrease of 31.3 percent, driven by lower borrowing costs.

Worker equivalents increased 4.7 percent, slightly faster than the growth in herd size. However, the change was close enough that the cows per worker stayed the same at 45. Coupled with the increase in milk sold per cow, milk sold per worker equivalent increased 1.6 percent. Hired labor costs per worker equivalent increased 3.6 percent; however, the slight increase in efficiency partially offset this increase and labor costs per hundredweight increased 3.1 percent.

With increased input costs driving up many cost areas, even though milk output per cow improved, the increase in costs led to a 9.5 percent increase in total farm operating costs per hundredweight to $17.87.

Capital Investment. With strong earnings from 2007 and positive earnings in 2008, the average investment in the farm increased 9.9 percent to $8,772. A combination of increased forage inventories, increased values of land and machinery, and additional investment in the farm offset small decreases in cattle prices through the end of the year.

Decrease in Earnings. With the 9.5 percent increase in operating costs and the 3.9 percent decrease in total revenue per hundredweight, profits decreased significantly. Net farm income without appreciation decreased to $483,799. Net farm income with appreciation decreased to $602,144.

- Labor and management income per operator/manager decreased nearly 67 percent, from $388,494 in 2007 to $128,755 in 2008.
- Rate of return to all capital without appreciation decreased to 6.8 percent, from 15.9 percent in 2007. Rate of return on equity capital without appreciation decreased to 8.1 percent.
- Farm net worth increased by 5.4 percent, with approximately 50 percent of this increase through retained earnings.
- Debt to asset ratio increased 5.9 percent to 0.36, reflecting the increased borrowings reinvested into the operations in 2008.

Overall, 2008 was a year of average earnings, and a dramatically different year than 2007, for the 300 cow and larger farms. While, on average, profits did decrease from 2007, the changes on individual farms varied, with some farms actually showing little change from 2007. 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 83 Large Herd Dairy Farms, 2007 & 2008

Selected Factors	Average of 83 Farms 2007	Average of 83 Farms 2008	Percent Change
Size of Business			
Average number of cows	773	797	3.1
Average number of heifers	621	665	7.1
Milk sold, lbs.	18,500,129	19,671,976	6.3
Worker equivalent	17.10	17.90	4.7
Total tillable acres	1,482	1,595	7.6
Rates of Production			
Milk sold per cow, lbs.	23,931	24,680	3.1
Butterfat per cow, lbs.[2]	870	897	3.1
Protein per cow, lbs.[2]	742	756	1.9
Hay DM per acre, tons	3.2	3.9	21.9
Corn silage per acre, tons	19.0	20.2	6.3
Labor Efficiency & Costs			
Cows per worker	45	45	0.0
Milk sold per worker, lbs.	1,081,879	1,098,993	1.6
Hired labor cost per cwt.	$2.90	$2.99	3.1
Hired labor cost per worker	$36,032	$37,339	3.6
Hired labor cost as % of milk sales	14.2%	15.5%	9.2
Cost Control			
Grain & concentrate purchased as % of milk sales	24%	30%	25.0
Grain & concentrate per cwt. milk	$4.88	$5.87	20.3
Dairy feed & crop expense per cwt. milk	$6.05	$7.22	19.3
Labor & machinery costs per cow	$1,451	$1,612	11.1
Total farm operating costs per cwt. sold	$16.32	$17.87	9.5
Interest costs per cwt. milk	$0.80	$0.55	-31.3
Operating cost of producing cwt. of milk	$13.98	$15.42	10.3
Net milk income over purchased feed costs per cow	$3,477	$3,057	-12.1
Capital Efficiency(average for the year)			
Farm capital per cow	$7,981	$8,772	9.9
Machinery & equipment per cow	$1,309	$1,467	12.1
Asset turnover ratio	0.74	0.63	-14.9
Income Generation			
Gross milk sales per cow	$4,870	$4,753	-2.4
Gross milk sales per cwt.	$20.35	$19.26	-5.4
Net milk sales per cwt.	$19.59	$18.43	-5.9
Dairy cattle sales per cow	$281	$297	5.7
Dairy calf sales per cow	$33	$27	-18.2
Profitability			
Net farm income without appreciation	$939,605	$483,799	-48.5
Net farm income with appreciation	$1,272,745	$602,144	-52.7
Labor & mgt. income per operator/manager	$388,494	$128,755	-66.9
Rate of return on equity capital w/o appreciation	21.3%	8.1%	-62.0
Rate of return on all capital without appreciation	15.9%	6.8%	-57.2
Financial Summary (excluding deferred taxes)			
Farm net worth, end year	$4,421,159	$4,658,105	5.4
Debt to asset ratio	0.34	0.36	5.9
Farm debt per cow	$2,920	$3,194	9.4

[2]Average of 79 large herd dairy farms that provided this data.

RECEIPTS AND EXPENSES PER COW AND PER HUNDREDWEIGHT

Same 83 Large Herd Dairy Farms, 2007 & 2008

	2007		2008	
Item	Per Cow	Per Cwt.	Per Cow	Per Cwt.
Average number of cows	773		797	
Cwt. of milk sold		185,001		196,720
ACCRUAL OPERATING RECEIPTS				
Milk	$4,870	$20.35	$4,753	$19.26
Dairy cattle	281	1.17	297	1.20
Dairy calves	33	0.14	27	0.11
Other livestock	7	0.03	10	0.04
Crops	134	0.56	197	0.80
Miscellaneous receipts	132	0.55	123	0.50
Total Receipts	$5,458	$22.81	$5,407	$21.91
ACCRUAL OPERATING EXPENSES				
Hired labor	$ 693	$ 2.90	$ 738	$ 2.99
Dairy grain & concentrate	1,167	4.88	1,448	5.87
Dairy roughage	74	0.31	84	0.34
Nondairy feed	0	0.00	0	0.00
Professional nutritional services	1	0.00	1	0.00
Machine hire, rent & lease	83	0.35	85	0.34
Machine repair & vehicle expense	187	0.78	208	0.84
Fuel, oil & grease	151	0.63	220	0.89
Replacement livestock	18	0.08	24	0.10
Breeding	56	0.23	65	0.27
Veterinary & medicine	163	0.68	174	0.71
Milk marketing	182	0.76	204	0.82
Bedding	81	0.34	91	0.37
Milking supplies	86	0.36	96	0.39
Cattle lease	5	0.02	2	0.01
Custom boarding	75	0.31	90	0.37
bST expense	70	0.29	65	0.26
Livestock professional fees	11	0.05	13	0.05
Other livestock expense	18	0.07	18	0.07
Fertilizer & lime	84	0.35	105	0.42
Seeds & plants	65	0.27	84	0.34
Spray & other crop expense	51	0.21	52	0.21
Crop professional fees	6	0.03	9	0.03
Land, building, fence repair	81	0.34	78	0.32
Taxes	48	0.20	47	0.19
Real estate rent/lease	66	0.28	70	0.29
Insurance	41	0.17	43	0.17
Utilities	98	0.41	101	0.41
Interest paid	191	0.80	137	0.55
Other professional fees	23	0.09	27	0.11
Miscellaneous	29	0.12	32	0.13
Total Operating Expenses	$3,904	$16.32	$4,409	$17.87
Expansion livestock	29	0.12	50	0.20
Extraordinary expense	1	0.00	2	0.01
Machinery depreciation	189	0.79	204	0.83
Real estate depreciation	119	0.50	136	0.55
Total Expenses	$4,242	$17.73	$4,801	$19.46
Net Farm Income Without Appreciation	$1,215	$ 5.08	$ 607	$ 2.46

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

In 2008, 36 farms across all herd sizes 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 36 farms and only represents these 36 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 90 farms over 300 cows that participated in the DFBS project in 2008. 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.

The eighteen farms that were in the top 20 percent in 2008 were also in the summary in 2007. The table on page 7 shows income and expenses for these farms for both 2007 and 2008. 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

36 New York Dairy Farms, 2008

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	2,491	41	855,153
↓	1,658	27	663,565
↓	1,445	23	431,143
↓	1,246	20	342,675
Average of Lowest Quintile	789	13	191,538
Overall Average	1,553	25	506,769

Dairy Enterprise Only

Quintile	Worker Equivalents	Cows per Worker Equivalent	Pounds Sold per Worker Equivalent
Average of Highest Quintile	17.42	125	2,693,516
↓	9.70	79	1,768,111
↓	6.07	62	1,427,227
↓	3.79	50	1,191,228
Average of Lowest Quintile	2.39	36	821,391
Overall Average	8.14	72	1,611,217

TOP 20 PERCENT VERSUS AVERAGE
90 Large Herd Dairy Farms, 2008

Selected Factors	Average 90 Farms	Average Top 20% Farms	Percent Difference
Size of Business			
Average number of cows	842	967	14.9
Average number of heifers	708	824	16.4
Milk sold, lbs.	20,911,413	25,535,399	22.1
Worker equivalent	18.75	20.45	9.1
Total tillable acres	1,657	1,660	0.2
Rates of Production			
Milk sold per cow, lbs.	24,838	26,399	6.3
Butterfat per cow, lbs.[3]	900	950	5.6
Protein per cow, lbs. [3]	759	805	6.1
Hay DM per acre, tons	3.8	3.7	-2.6
Corn silage per acre, tons	20.3	22.2	9.4
Labor Efficiency & Costs			
Cows per worker	45	47	4.4
Milk sold/worker, lbs.	1,115,573	1,248,929	12.0
Hired labor cost/cwt.	$2.94	$2.67	-9.2
Hired labor cost/hired worker	$37,339	$37,109	-1.2
Hired labor cost as % of milk sales	15.3%	14.0%	-8.5
Cost Control			
Grain & concentrate purchased as % of milk sales	30%	29%	-3.3
Grain & concentrate per cwt. milk	$5.80	$5.53	-4.7
Dairy feed & crop expense per cwt. milk	$7.17	$6.75	-5.9
Labor & machinery costs/cow	$1,591	$1,481	-6.9
Total farm operating costs per cwt. sold	$17.72	$16.06	-9.4
Interest costs per cwt. milk	$0.53	$0.40	-24.5
Milk marketing costs per cwt. milk sold	$0.81	$0.75	-7.4
Operating cost of producing cwt. of milk	$15.25	$13.66	-10.4
Net milk income over purchased feed costs per cow	$3,085	$3,352	8.7
Capital Efficiency (average for the year)			
Farm capital per cow	$8,834	$8,520	-3.6
Machinery & equipment per cow	$1,439	$1,374	-4.5
Asset turnover ratio	0.63	0.68	7.9
Income Generation			
Gross milk sales per cow	$4,770	$5,040	5.7
Gross milk sales per cwt.	$19.21	$19.09	-0.6
Net milk sales per cwt.	$18.39	$18.34	-0.3
Dairy cattle sales per cow	$310	$309	-0.3
Dairy calf sales per cow	$27	$29	7.4
Profitability			
Net farm income without appreciation	$540,672	$1,083,355	100.4
Net farm income with appreciation	$626,710	$1,155,321	84.4
Labor & management income per operator/manager	$143,753	$417,649	190.5
Rate of return on equity capital without appreciation	8.5%	16.3%	91.8
Rate of return on all capital without appreciation	7.2%	12.9%	79.2
Financial Summary (excluding deferred taxes)			
Farm net worth, end of year	$5,069,190	$6,108,128	20.5
Debt to asset ratio	0.34	0.29	-14.7
Farm debt per cow	$3,058	$2,523	-17.5

[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, 2007 & 2008

	2007		2008	
Item	Per Cow	Per Cwt.	Per Cow	Per Cwt.
Average Number of Cows	816		856	
Cwt. of Milk Sold		211,004		228,697
Accrual Operating Receipts				
Milk	$5,287	$20.45	$5,147	$19.27
Dairy cattle	306	1.19	302	1.13
Dairy calves	57	0.22	27	0.10
Other livestock	2	0.01	1	0.00
Crops	85	0.33	224	0.84
Miscellaneous receipts	107	0.41	90	0.34
Total	$5,843	$22.60	$5,791	$21.69
Accrual Operating Expenses				
Hired labor	$ 731	$ 2.83	$ 749	$ 2.80
Dairy grain & concentrate	1,241	4.80	1,459	5.46
Dairy roughage	80	0.31	90	0.34
Nondairy feed	0	0.00	0	0.00
Professional nutritional services	2	0.01	2	0.01
Machine hire, rent & lease	79	0.31	74	0.28
Machine repair & vehicle expense	164	0.63	184	0.69
Fuel, oil & grease	139	0.54	200	0.75
Replacement livestock	16	0.06	21	0.08
Breeding	55	0.21	60	0.22
Veterinary & medicine	145	0.56	168	0.63
Milk marketing	180	0.70	202	0.76
Bedding	80	0.31	73	0.27
Milking supplies	86	0.33	98	0.37
Cattle lease	2	0.01	0	0.00
Custom boarding	68	0.26	89	0.33
bST expense	84	0.32	77	0.29
Livestock professional fees	11	0.04	15	0.06
Other livestock expense	15	0.06	13	0.05
Fertilizer & lime	68	0.26	82	0.31
Seeds & plants	52	0.20	70	0.26
Spray & other crop expense	55	0.21	41	0.15
Crop professional fees	6	0.02	4	0.02
Land, building & fence repair	90	0.35	77	0.29
Taxes	40	0.15	42	0.16
Real estate rent/lease	51	0.20	55	0.21
Insurance	41	0.16	37	0.14
Utilities	100	0.39	101	0.38
Interest paid	160	0.62	115	0.43
Other professional fees	21	0.08	25	0.10
Miscellaneous	23	0.09	26	0.10
Total Operating Expenses	$3,885	$15.03	$4,249	$15.91
Expansion livestock	35	0.14	11	0.04
Extraordinary Expense	0	0.00	1	0.00
Machinery depreciation	201	0.78	217	0.81
Real Estate depreciation	112	0.43	120	0.45
Total Expenses	$4,233	$16.38	$4,598	$17.21
Net Farm Income without appreciation	$1,610	$ 6.23	$1,193	$ 4.47

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
36 New York Dairy Farms, 2008

Animals Entering Herd	Average
Number calving in 2008 for first time	221.0
Animals purchased, %[4]	4.5
Animals raised by farm, %[5]	95.5
Current Heifer Inventory	
Raised on dairy, %	78.6
Raised by a custom grower, %	21.4

[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, 221 animals calved for the first time in 2008. The breakdown on the source of these animals was 4.5 percent purchased and 95.5 percent raised on the farm. Of the current heifer inventory, 78.6 percent were raised on the dairy and 21.4 percent were 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, 85 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 line item in this section is the expense associated with utilizing forward contracting or hedging programs to market milk, such as commission or broker fees. The fifth area is income 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
85 Large Herd Dairy Farms, 2008

	Pounds	Percent	Price/Pound	Total	$/Cwt of Milk
BASE FARM PRICE					
Butterfat	754,513.72	3.63%	$1.57	$1,186,121.95	$ 5.70
Protein	635,928.04	3.06%	$3.88	$2,467,584.05	$ 11.87
Solids	1,187,338.19	5.71%	$0.06	$67,401.65	$ 0.32
Total Component Contribution					$ 17.89
PPD	20,796,389.54			$59,305.92	$ 0.29
Base Farm Price					$ 18.18
Premiums					
Quality				$45,333.48	$ 0.22
Volume				$70,797.16	$ 0.34
Market Premiums				$96,658.64	$ 0.46
Total Premiums					$ 1.02
BASE FARM PRICE + PREMIUM					$ 19.20
Deductions					
Promo				$31,189.28	$ 0.15
Hauling + Stop Charges.				$111,508.93	$ 0.54
Market Fees & Coop Dues				$29,890.06	$ 0.14
Total Deductions					$ 0.83
BASE FARM PRICE + PREMIUMS – DEDUCTIONS					$ 18.37
Marketing Programs					
Futures Contracts, Forward Contracting, Etc.				$-9,079.04	$ -0.04
Total Marketing Income					$ -0.04
Patronage Dividends				$15,801.67	$ 0.08
NET PRICE RECEIVED ON FARM, ALL SOURCES					**$ 18.41**
PPD - Hauling, per cwt., $ per cwt.					$-0.25
PPD - Hauling + Market Premiums, per cwt., $ per cwt.					$ 0.21
Net Marketing Value (PPD + Total Premiums – Total Deductions), $ per cwt.					$ 0.48

[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)
85 Large Herd Dairy Farms, 2008

	Lowest Quintile	←		→	Highest Quintile
Butterfat, %	3.51	3.59	3.65	3.71	3.88
Protein, %	2.97	3.03	3.05	3.09	3.18
Other Solids, %	5.61	5.70	5.72	5.74	5.79
Butterfat, $ per Cwt.	5.50	5.61	5.70	5.80	6.08
Protein, $ per Cwt.	11.55	11.75	11.85	11.98	12.44
Other solids, $ per Cwt.	0.31	0.32	0.32	0.33	0.39
Total Component Value per Cwt.	**$ 17.49**	**$ 17.72**	**$ 17.88**	**$ 18.08**	**$ 18.74**
PPD, $ per Cwt.	0.07	0.15	0.25	0.39	0.79
Base Farm Price per Cwt.	**$ 17.68**	**$ 17.97**	**$ 18.17**	**$ 18.45**	**$ 19.26**
Quality, $ per Cwt.	0.07	0.15	0.21	0.29	0.43
Volume, $ per Cwt.	0.00	0.14	0.33	0.47	0.69
Market premium, $ per Cwt.	-0.03	0.17	0.34	0.64	1.00
Total Premium, $ per Cwt.	**0.51**	**0.80**	**0.96**	**1.14**	**1.41**
Base Farm Price + Premiums per Cwt.	**$ 18.42**	**$ 18.87**	**$ 19.19**	**$ 19.49**	**$ 20.36**
Promotion, $ per Cwt.	0.15	0.15	0.15	0.15	0.15
Hauling, $ per Cwt.	0.30	0.41	0.50	0.59	1.06
Market fees & coop dues per Cwt.	0.05	0.11	0.15	0.17	0.21
Total Marketing Expenses per Cwt.	**$ 0.57**	**$ 0.70**	**$ 0.78**	**$ 0.89**	**$ 1.36**
Base + Premiums – Deductions per Cwt.	**$ 17.66**	**$ 18.09**	**$ 18.36**	**$ 18.63**	**$ 19.32**
Futures contract, forward contracting, $ per Cwt.	-0.20	0.00	0.00	0.00	0.03
Total Marketing Income, $ per Cwt.	**$ -0.20**	**$ 0.00**	**$ 0.00**	**$ 0.00**	**$ 0.03**
Patronage Dividends, $ per Cwt.	**$ 0.00**	**$ 0.00**	**$ 0.00**	**$ 0.03**	**$ 0.45**
Net Price Received From All Sources, $ per Cwt.	**$ 17.70**	**18.17**	**$ 18.39**	**$ 18.70**	**$ 19.38**
PPD – Hauling, $ per cwt.	**$ -0.51**	**$ -0.35**	**$ -0.23**	**$ -0.12**	**$ 0.02**
PPD – Hauling + Market Premiums, $ per cwt.	**$- 0.30**	**$ -0.12**	**$ 0.08**	**$ 0.39**	**$ 0.86**
Net Marketing Value (PPD + Total Premiums – Total Deductions), $ per cwt.	**$ -0.03**	**$ 0.22**	**$ 0.40**	**$ 0.63**	**$ 0.96**

[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
90 Large Herd Dairy Farms, 2008

Type of Farm	Number
Dairy	90
Dairy – cash crop	0

Type of Ownership	Number
Owner	89
Renter	1

Type of Business	Number
Single proprietorship	15
Partnership	19
Limited Liability Corporation	41
Subchapter S Corporation	11
Subchapter C Corporation	4

Business Record System	Number
Account Book	3
Accounting Service	6
On-Farm Computer	80
Other	1

BST Usage (reporting this is optional)	Number
Used consistently	33
Used inconsistently	2
Started Use in 2008	1
Stopped Use in 2008	0
Not Used	11
Average % bst usage of those reporting	85%

Type of Barn	Number
Stanchion/Tie-Stall	0
Freestall	87
Combination	3

Milking System	Number
Pipeline	0
Herringbone Conventional	25
Herringbone Rapid Exit	15
Parallel	40
Parabone	3
Rotary	4
Other	3

Milking Frequency	Number
2x/day	20
3x/day	61
Other	9

Production Records	Number
Testing Service	72
On-Farm System	17
Other	0
None	1

Breed	Percent
Holstein	96
Jersey	2
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 2008.

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
90 Large Herd Dairy Farms, 2008

Expense Item	Cash Paid	-	Change in Inventory or Prepaid Expense	+	Change in Accounts Payable	=	Accrual Expenses
Hired Labor	$ 615,179		$ 1,170		$ 778		$ 614,786
Feed							
Dairy grain & concentrate	1,201,408		-7,402		4,243		1,213,054
Dairy roughage	71,928		4,895		5,778		72,811
Nondairy	47		0		0		47
Professional nutritional services	1,609		0		5		1,614
Machinery							
Mach. hire, rent/lease	65,201		-289		2,116		67,606
Mach. rep. & farm veh. exp	170,620		-1,046		1,078		172,744
Fuel, oil & grease	182,903		-344		414		183,662
Livestock							
Replacement livestock	23,119		0		0		23,119
Breeding	53,676		248		850		54,279
Vet & medicine	145,731		-873		657		147,262
Milk marketing	168,791		301		1,228		169,719
Bedding	76,251		1,685		371		74,938
Milk supplies	78,778		-440		343		79,561
Cattle lease/rent	2,068		0		0		2,068
Custom boarding	90,375		1,508		935		89,802
bST expense	55,269		263		186		55,192
Livestock professional fees	9,830		-336		62		10,228
Other livestock expense	17,012		96		109		17,025
Crops							
Fertilizer & lime	75,358		-14,406		1,069		90,833
Seeds & plants	70,723		2,833		1,619		69,508
Spray, other crop exp.	37,491		-3,977		460		41,928
Crop professional fees	10,555		-180		-76		10,659
Real Estate							
Land/bldg./fence repair	72,389		1,170		372		71,591
Taxes	40,150		595		-156		39,399
Rent & lease	54,566		-759		48		55,372
Other							
Insurance	36,401		864		-27		35,510
Utilities (farm share)	84,849		-474		-302		85,021
Interest paid	110,946		0		54		111,001
Other professional fees	21,066		299		104		20,871
Miscellaneous	24,942		188		424		25,178
Total Operating Expenses	$3,669,233		$-14,410		$22,743		$3,706,387
Expansion livestock	$ 36,328		21		120		36,428
Extraordinary expense	$ 1,349		0		0		1,349
Machinery depreciation							171,529
Building depreciation							114,163
Total Accrual Expenses							$4,029,855

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 2008 funds used to prepay 2009 leases exceed the amount of 2008 leases prepaid in 2007, the amount of this excess is subtracted to exclude it from 2008 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 2008 but not paid for. A decrease is subtracted because the resource was used before 2008.

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
90 Large Herd Dairy Farms, 2008

Receipt Item	Cash Receipts	+	Change in Inventory	+	Change in Accounts Receivable	=	Accrual Receipts
Milk sales	$4,096,945				$-80,676		$4,016,269
Dairy cattle	157,885		$100,826		2,231		260,942
Dairy calves	20,334		2,056		-74		22,316
Other livestock	6,440		1,229		-33		7,636
Crops	34,596		122,134		3,405		160,136
Government receipts	33,548		0[8]		22		33,569
Custom machine work	5,043				2,002		7,045
Gas tax refund	292				-22		269
Other	59,125				3,219		62,344
Less nonfarm noncash cap.			0[9]				0
Total Receipts	$4,414,208		$226,245		$ -69,927		$4,570,527

[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 2008 for the 2009 crop year in excess of funds earned for 2008. Likewise, a decrease is added to cash government receipts because it represents funds earned for 2008 but received in 2007.

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.

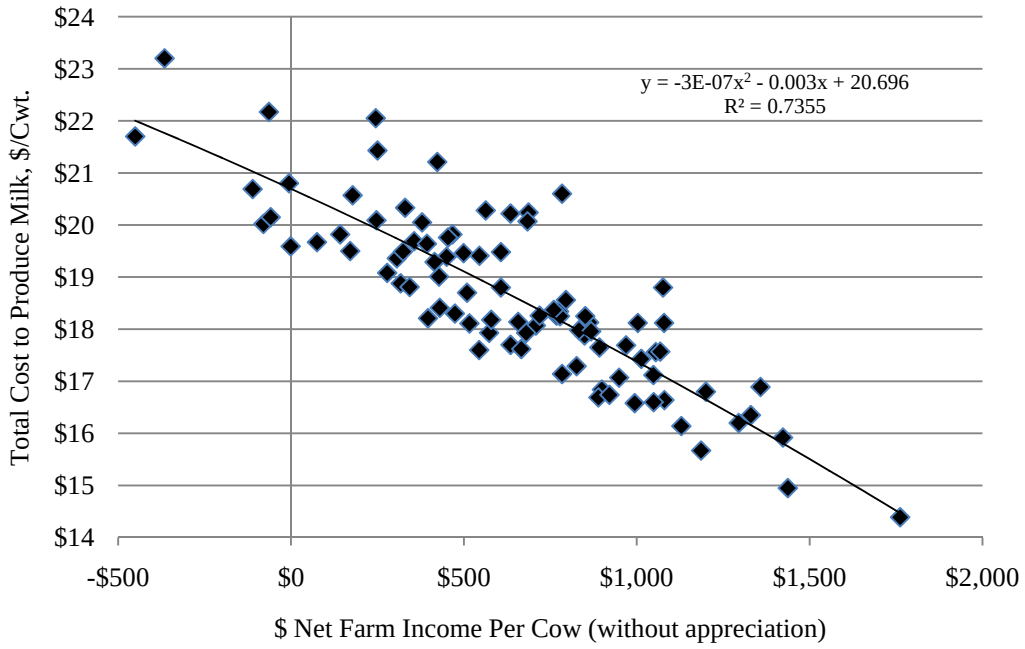
Net farm income is the return to the farm operators and other unpaid family members for their labor, management, and equity capital. It is the farm family's net annual return from working, managing, financing, and owning the farm business. This is not a measure of cash available from the year's business 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
90 Large Herd Dairy Farms, 2008

Item	Average 90 Farms Total	Average 90 Farms Per Cow	Average Top 20%[11] Farms Total	Average Top 20%[11] Farms Per Cow
Total accrual receipts	$ 4,570,527		$ 5,494,684	
Appreciation: Livestock	-104,887		-31,011	
Machinery	37,587		27,691	
Real Estate	140,145		60,349	
Other Stock/Certificates	13,193		14,936	
Total Including Appreciation	$ 4,656,565		$ 5,566,650	
Total accrual expenses	4,029,855		4,411,329	
Net Farm Income (with appreciation)	$ 626,710	$744	$ 1,155,321	$1,194
Net Farm Income (w/o appreciation)	$ 540,672	$642	$ 1,083,355	$1,120

TOTAL COST TO PRODUCE MILK VS. NET FARM INCOME PER COW
90 Large Herd Dairy Farms, 2008



[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.

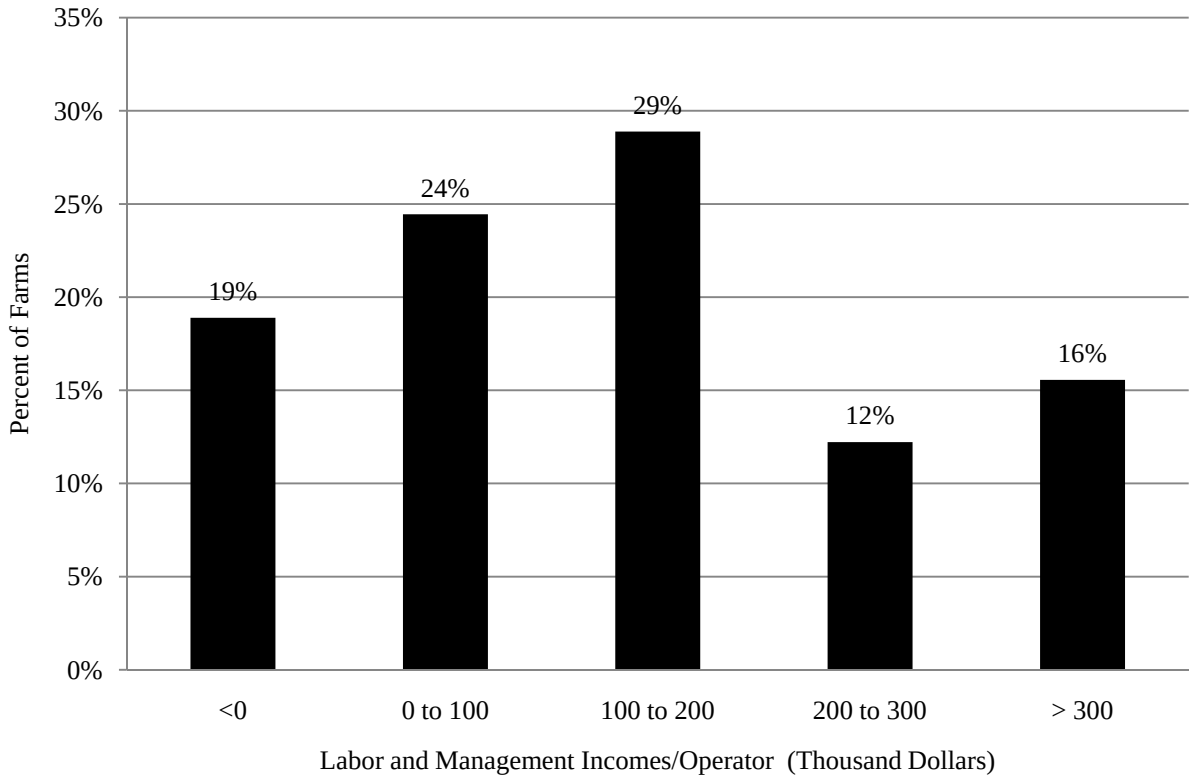
Labor and management income is the return which farm operators receive for their labor and management used in operating the farm business. Appreciation is not included as part of the return to labor and management because it results from ownership of assets rather than management of the farm business. 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
90 Large Herd Dairy Farms, 2008

Item	Average 90 Farms	Average Top 20% Farms
Net farm income without appreciation	$ 540,672	$ 1,083,355
Family labor unpaid @ $2,500 per month	- 1,400	- 444
Interest on $4,949,086 ($5,871,075 for top 20%) average equity capital @ 5% real rate	- 247,454	- 293,554
Labor & Management Income per Farm (2.03 operators/farm; 1.89 operators for top 20%)	$ 291,818	$ 789,357
Labor & Management Income per Operator/Manager	$ 143,753	$ 417,649

Labor and management income per operator averaged $143,753 on these 90 farms in 2008. Returns to labor and management were less than $100,000 on 43 percent of the farms. Labor and management income per operator ranged from $100,000 to $200,000 on 29 percent of the farms while 28 percent showed labor and management incomes per operator greater than $200,000.

DISTRIBUTION OF LABOR & MANAGEMENT INCOMES PER OPERATOR
90 Large Herd Dairy Farms, 2008



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
90 Large Herd Dairy Farms, 2008

Item	Average 90 Farms	Average Top 20% Farms
Net farm income with appreciation	$ 626,710	$ 1,155,321
Family labor unpaid @ $2,500 per month	- 1,400	- 444
Value of operators' labor & management	- 118,141	- 126,472
Return on equity capital with appreciation	$ 507,169	$ 1,028,405
Interest paid	+ 111,001	+ 102,177
Return on total capital with appreciation	$ 618,170	$ 1,130,582
Return on equity capital without appreciation	$ 421,131	$ 956,439
Return on total capital without appreciation	$ 532,132	$ 1,058,616
Rate of return on average equity capital:		
with appreciation	10.3%	17.5%
without appreciation	8.5%	16.3%
Rate of return on average total capital:		
with appreciation	8.3%	13.7%
without appreciation	7.2%	12.9%
Net farm income from operations ratio	0.12	0.20

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 2008, leases were discounted by 8.15 percent.

Advanced government receipts are included as current liabilities. Government payments received in 2008 that are for participation in the 2009 program are the end year balance and payments received in 2007 for participation in the 2008 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.

2008 FARM BUSINESS & NONFARM BALANCE SHEET

90 Large Herd Dairy Farms, 2008

Farm Assets	Jan. 1	Dec. 31	Farm Liabilities & Net Worth	Jan. 1	Dec. 31
Current			Current		
Farm cash, checking & savings	$ 36,143	$ 32,826	Accounts payable	$ 72,317	$ 95,181
Accounts receivable	370,380	300,453	Operating debt	165,263	217,389
Prepaid expenses	13,095	15,815	Short Term	9,667	5,809
Feed & supplies	802,966	907,991	Advanced govt. receipts	0	0
			Current Portion:		
			Intermediate	161,370	205,852
			Long Term	70,098	73,689
Total Current	$ 1,222,584	$ 1,257,085	Total Current	$ 478,715	$ 597,920
Intermediate			Intermediate		
Dairy cows:			Structured debt		
owned	$ 1,244,414	$ 1,236,625	1-10 years	$ 923,650	$ 1,007,060
leased	901	715	Financial lease		
Heifers	727,902	733,946	(cattle/machinery)	3,020	2,476
Bulls/other livestock	9,755	10,723	Farm Credit stock	1,583	1,674
Mach./equipment owned	1,123,891	1,294,908	Total Intermediate	$ 928,254	$ 1,011,209
Mach./equipment leased	2,119	1,761			
Farm Credit stock	1,583	1,674			
Other stock/certificate	143,496	165,008			
Total Intermediate	$ 3,254,061	$ 3,445,360			
			Long Term		
Long Term			Structured debt		
Land/buildings:			>10 years	$ 936,873	$ 1,022,647
owned	$ 2,696,177	$ 2,998,521	Financial lease		
leased	360	306	(structures)	360	306
Total Long Term	$ 2,696,537	$ 2,998,827	Total Long Term	$ 937,233	$ 1,022,953
			Total Farm Liab.	$2,344,201	$ 2,632,082
Total Farm Assets	$ 7,173,182	$ 7,701,272	FARM NET WORTH	$4,828,981	$ 5,069,190

Nonfarm Assets, Liabilities & Net Worth (Average of 24 farms reporting)

Assets	Jan. 1	Dec. 31	Liabilities & Net Worth	Jan. 1	Dec. 31
Personal cash, checking & savings	$ 10,550	$ 6,240	Nonfarm Liabilities	$ 4,195	$ 3,279
Cash value life insurance	72,252	81,035			
Nonfarm real estate	273,333	273,333			
Auto (personal share)	7,021	6,625			
Stocks & bonds	132,070	101,802			
Household furnishings	3,958	4,083			
All other nonfarm assets	10,921	9,360			
Total Nonfarm Assets	$ 510,105	$ 482,478	NONFARM NET WORTH	$505,910	$ 479,200

Farm & Nonfarm Assets, Liabilities, and Net Worth[12]	Jan. 1	Dec. 31
Total Assets	$ 7,683,287	$ 8,183,750
Total Liabilities	2,348,396	2,635,361
TOTAL FARM & NONFARM NET WORTH	$ 5,334,891	$ 5,548,389

[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
90 Large Herd Dairy Farms, 2008

Item		Average 90 Farms		Average Top 20% Farms
Financial Ratios - Farm:				
Percent equity		66%		71%
Debt/asset ratio: total		0.34		0.29
long-term		0.34		0.22
intermediate/current		0.34		0.32
Leverage Ratio		0.52		0.40
Current Ratio		2.10		2.55
Working Capital: $659,166	as % of Total Expenses:	16%	$1,065,771	24%
Farm Debt Analysis:				
Accounts payable as % of total debt		4%		3%
Long-term liabilities as a % of total debt		39%		28%
Current & intermediate liabilities as a % of total debt		61%		72%
Cost of term debt (weighted average)		4.5%		4.8%

	Average 90 Farms		Average Top 20% Farms	
Farm Debt Levels:	Per Cow	Per Tillable Acre Owned	Per Cow	Per Tillable Acre Owned
Total farm debt	$ 3,058	$ 3,220	$ 2,523	$ 3,027
Long-term debt	1,188	1,251	702	842
Long-term & intermediate	2,363	2,488	1,819	2,182
Intermediate & current debt	1,869	1,968	1,822	2,185

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
90 Large Herd Dairy Farms, 2008

Item	Average of 90 Farms			
		Real Estate		Machinery & Equipment
Value beginning of year		$ 2,696,177		$ 1,123,891
Purchases	$ 450,381 [13]		$ 319,377	
Gift/inheritance	+ 0		+ 0	
Lost capital	- 153,134			
Sales	- 20,884		- 14,419	
Depreciation	- 114,163		- 171,529	
Net investment		= 162,200		= 133,429
Appreciation		+ 140,145		+ 37,587
Value end of year		$ 2,998,522		$ 1,294,907

[13] $91,276 land and $217,056 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)
90 Large Herd Dairy Farms, 2008

Item	Average 90 Farms		Average Top 20% Farms	
Beginning of year farm net worth		$ 4,828,981		$5,634,022
Net farm income without appreciation	$ 540,672		$ 1,083,355	
+ Nonfarm cash income	+ 8,469		+ 9,427	
- Personal withdrawals & family expenditures excluding nonfarm borrowings	- 276,189		- $ 564,992	
Retained Earnings		+$ 272,952		+ $ 527,790
Nonfarm noncash transfers to farm	$ 0		$ 0	
+ Cash used in business from nonfarm capital	+ 38,449		+ 18,020	
- Note/mortgage from farm real estate sold (nonfarm)	- 0		- 0	
Contributed/Withdrawn Capital	=	+$ 38,449		+ $ 18,020
Appreciation	$ 86,038		$ 17,966	
- Lost capital	- 153,134		- 139,509	
Change in Valuation Equity		+$ -67,096		+ $ -67,544
Imbalance/Error		- 4,096		- 4,160
End of year farm net worth[14]		=$ 5,069,190		= $6,108,128
Change in net worth with appreciation		$ 240,209		$ 474,107
Change in Net Worth				
Without appreciation		$ 154,171		$ 402,141
With appreciation		$ 240,209		$ 474,107

[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
90 Large Herd Dairy Farms, 2008

Item		Average 90 Farms	
Cash Flow from Operating Activities			
Cash farm receipts	$ 4,414,208		
- Cash farm expenses	3,669,233		
- Extraordinary expense	1,349		
= Net cash farm income		$ 743,626	
Personal withdrawals/family expenses including nonfarm debt payments	$ 276,189		
- Nonfarm income	8,469		
- Net cash withdrawals from the farm		$ 267,720	
= Net Provided by Operating Activities			$ 475,906
Cash Flow From Investing Activities			
Sale of Assets: Machinery	$ 14,419		
+ real estate	20,884		
+ other stock & certificates	8,928		
= Total asset sales		$ 44,231	
Capital purchases: expansion livestock	$ 36,328		
+ machinery	319,377		
+ real estate	450,381		
+ other stock & certificates	17,246		
- Total invested in farm assets		$ 823,332	
= Net Provided by Investment Activities			$ -779,101
Cash Flow From Financing Activities			
Money borrowed (intermediate & long term)	$ 526,964		
+ Money borrowed (short-term)	8,978		
+ Increase in operating debt	52,125		
+ Cash from nonfarm capital used in business	38,449		
+ Money borrowed - nonfarm	0		
= Cash inflow from financing		$ 626,517	
Principal payments (intermediate & long-term)	$ 309,708		
+ Principal payments (short-term)	12,836		
+ Decrease in operating debt	0		
- Cash outflow for financing		$ 322,544	
= Net Provided by Financing Activities			$ 303,973
Cash Flow From Business			
Beginning farm cash, checking & savings		$ 36,143	
- Ending farm cash, checking & savings		32,826	
= Net Provided from Reserves			$ 3,317
Imbalance (error)			$ 4,095

ANNUAL CASH FLOW STATEMENT
18 Top 20% Large Herd Dairy Farms, 2008

Item		Average Top 20% Farms	
Cash Flow from Operating Activities			
Cash farm receipts	$5,322,362		
- Cash farm expenses	4,180,997		
- Extraordinary expense	1,268		
= Net cash farm income		$ 1,140,097	
Personal withdrawals/family expenses including nonfarm debt payments	$ 564,992		
- Nonfarm income	9,427		
- Net cash withdrawals from the farm		$ 555,565	
= Net Provided by Operating Activities			$ 584,532
Cash Flow From Investing Activities			
Sale of Assets: Machinery	$ 14,411		
+ real estate	41,839		
+ other stock & certificate	953		
= Total asset sales		$ 57,203	
Capital purchases: expansion livestock	$ 7,489		
+ machinery	354,509		
+ real estate	455,168		
+ other stock & certificate	24,263		
- Total invested in farm assets		$ 841,429	
= Net Provided by Investment Activities			$ -784,226
Cash Flow From Financing Activities			
Money borrowed (intermediate & long term)	$ 497,689		
+ Money borrowed (short-term)	15,993		
+ Increase in operating debt	44,910		
+ Cash from nonfarm capital used in business	18,020		
+ Money borrowed - nonfarm	0		
= Cash inflow from financing		$ 576,612	
Principal payments (intermediate & long-term)	$ 346,353		
+ Principal payments (short-term)	38,495		
+ Decrease in operating debt	0		
- Cash outflow for financing		$ 384,848	
= Net Provided by Financing Activities			$ 191,764
Cash Flow From Business			
Beginning farm cash, checking & savings		$ 61,705	
- Ending farm cash, checking & savings		49,616	
= Net Provided from Reserves			$ 12,089
Imbalance (error)			$ 4,159

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 2009. The cash flow projection worksheet on the next page can be used to estimate repayment ability, which can then be compared to planned 2009 debt payments shown below.

FARM DEBT PAYMENTS PLANNED
Large Herd Dairy Farms, 2007 & 2008

	Same 83 Dairy Farms			Same 14 Top 20% Farms		
	2008 Payments		Planned	2008 Payments		Planned
Debt Payments	Planned	Made	2009	Planned	Made	2009
Long-term	$ 116,102	$ 135,299	$ 109,919	$ 73,959	$ 80,234	$ 59,653
Intermediate-term	261,358	280,515	269,784	354,042	424,408	328,195
Short-term	4,292	8,264	5,034	6,698	23,968	386
Operating (net reduction)	26,317	25,717	3,849	121,571	9,148	4,343
Accounts payable (net reduction)	3,947	6,276	1,205	21,009	17,506	0
Total	$ 412,015	$ 456,070	$ 389,791	$ 577,279	$ 555,265	$ 392,576
Per cow	$ 517	$ 572		$ 674	$ 648	
Per cwt. 2008 milk	$ 2.09	$ 2.32		$ 2.52	$ 2.43	
Percent of total 2008 receipts	10%	11%		12%	11%	
Percent of 2008 milk receipts	11%	12%		13%	13%	

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 2008 (as of December 31, 2007) that could have been made with the amount available for debt service in 2008. Farmers who did not participate in DFBS in 2007 have their 2008 cash flow coverage ratio based on planned debt payments for 2009.

COVERAGE RATIOS
Same 83 Large Herd Dairy Farms, 2007 & 2008

Item	Average	Item	Average
Cash Flow Coverage Ratio		Debt Coverage Ratio	
Cash farm receipts	$ 4,166,284	Net farm income (without appreciation)	$ 483,799
- Cash farm expenses	3,459,119	+ Depreciation	270,588
+ Interest paid (cash)	108,796	+ Interest paid (accrual)	108,855
- Net personal withdrawals from farm[15]	262,509	- Net personal withdrawals from farm[15]	262,509
(A) = Amount Available for Debt Service	$ 553,453	(A') = Repayment Capacity	$ 600,733
(B) = Debt Payments Planned for 2008 (as of December 31, 2007)	$ 412,015	(B) = Debt Payments Planned for 2008 (as of December 31, 2007)	$ 412,015
(A/B) = Cash Flow Coverage Ratio for 2008	1.34	(A'/B) = Debt Coverage Ratio for 2008	1.46

Same 14 Top 20% Dairy Farms, 2007 & 2008

(A) = Amount Available for Debt Service	$ 609,396	(A') = Repayment Capacity	$ 799,413
(B) = Debt Payments Planned for 2008	$ 577,279	(B) = Debt Payments Planned for 2008	$ 577,279
(A/B) = Cash Flow Coverage Ratio for 2008	1.06	(A'/B) = Debt Coverage Ratio for 2008	1.38

[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

90 Large Herd Dairy Farms, 2008

Item	Average 90 Farms Per Cow	Per Cwt.	Total
Number cows and cwt. Milk	842	209,114	
Accrual Operating Receipts			
Milk	$4,770	$19.21	$4,016,269
Dairy cattle	310	1.25	260,942
Dairy calves	27	0.11	22,316
Other livestock	9	0.04	7,636
Crops	190	0.77	160,136
Misc. receipts	123	0.49	103,228
Total Operating Receipts	$5,429	$21.86	$4,570,527
Accrual Operating Expenses			
Hired labor	$ 730	$ 2.94	$ 614,786
Dairy grain & concentrate	1,441	5.80	1,213,054
Dairy roughage	86	0.35	72,811
Nondairy feed	0	0.00	47
Professional nutritional services	2	0.01	1,614
Machinery hire/rent/lease	80	0.32	67,606
Machinery repair & farm vehicle expense	205	0.83	172,744
Fuel, oil & grease	218	0.88	183,662
Replacement livestock	27	0.11	23,119
Breeding	64	0.26	54,279
Veterinary & medicine	175	0.70	147,262
Milk marketing	202	0.81	169,719
Bedding	89	0.36	74,938
Milking supplies	94	0.38	79,561
Cattle lease	2	0.01	2,068
Custom boarding	107	0.43	89,802
bST expense	66	0.26	55,192
Livestock professional fees	12	0.05	10,228
Other livestock expense	20	0.08	17,025
Fertilizer & lime	108	0.43	90,833
Seeds & plants	83	0.33	69,508
Spray/other crop expenses	50	0.20	41,928
Crop professional fees	13	0.05	10,659
Land, building, fence repair	85	0.34	71,591
Taxes	47	0.19	39,399
Real estate rent/lease	66	0.26	55,372
Insurance	42	0.17	35,510
Utilities	101	0.41	85,021
Other professional fees	25	0.10	20,871
Miscellaneous	30	0.12	25,178
Total Less Interest Paid	$4,270	$17.19	$3,595,386
Net Accrual Operating Income (without interest paid)	$1,158	$ 4.66	$ 975,140
- Change in livestock/crop inventory[16]	269	1.08	226,245
- Change in accounts receivable	-83	-0.33	-69,927
- Change in feed/supply inventory[17]	-17	-0.07	-14,410
+ Change in accounts payable[18]	27	0.11	22,689
NET CASH FLOW	$1,017	$ 4.09	$ 855,921
- Net personal withdrawals from farm (see footnote on page 22)	318	1.28	267,361
Available for Farm Debt Payments & Investments	$ 699	$ 2.81	$ 588,560
- Farm debt payments	553	2.23	465,984
Available for Farm Investment	$ 146	$ 0.59	$ 122,576
- Capital purchases: cattle, machinery & improvements	978	3.94	823,332
Additional Capital Needed	$ 832	$ 3.35	$ 700,756

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

ANNUAL CASH FLOW WORKSHEET

18 Top 20% Large Herd Dairy Farms, 2008

Item	Average Top 20% Farms		
	Per Cow	Per Cwt.	Total
No. cows or cwt. milk	967	255,354	
Accrual Operating Receipts			
Milk	$5,040	$19.09	$4,874,719
Dairy cattle	309	1.17	298,892
Dairy calves	29	0.11	27,785
Other livestock	1	0.00	839
Crops	204	0.77	197,063
Misc. receipts	99	0.37	95,387
Total Operating Receipts	$5,681	$21.52	$5,494,684
Accrual Operating Expenses			
Hired labor	$ 706	$ 2.67	$ 682,473
Dairy grain & concentrate	1,459	5.53	1,411,733
Dairy roughage	115	0.44	111,347
Nondairy feed	0	0.00	0
Professional nutritional services	6	0.02	6,001
Mach. hire/rent/lease	70	0.27	67,921
Mach. repair & farm vehicle expense	179	0.68	173,211
Fuel, oil & grease	196	0.74	189,732
Replacement livestock	40	0.15	38,872
Breeding	59	0.22	57,161
Veterinary & medicine	171	0.65	165,660
Milk marketing	199	0.75	192,721
Bedding	72	0.27	69,980
Milking supplies	88	0.33	85,038
Cattle lease	2	0.01	2,373
Custom boarding	88	0.33	85,249
bST expense	86	0.32	82,908
Livestock professional fees	14	0.05	14,009
Other livestock expense	19	0.07	18,281
Fertilizer & lime	79	0.30	75,950
Seeds & plants	70	0.26	67,246
Spray/other crop expenses	34	0.13	33,222
Crop professional fees	25	0.09	24,043
Land, building, fence repair	81	0.31	78,760
Taxes	41	0.15	39,511
Real estate rent/lease	51	0.19	49,438
Insurance	37	0.14	35,406
Utilities	102	0.39	98,971
Other professional fees	21	0.08	20,340
Miscellaneous	21	0.08	20,416
Total Less Interest Paid	$4,133	$15.66	$3,997,969
Net Accrual Operating Income			
(without interest paid)	$1,547	$ 5.86	$1,496,715
- Change in livestock/crop inventory[19]	300	1.14	290,370
- Change in accounts receivable	-122	-0.46	-118,048
- Change in feed/supply inventory[20]	94	0.35	90,457
+ Change in accounts payable[21]	10	0.04	9,573
NET CASH FLOW	$1,286	$ 4.87	$1,243,509
- Net personal withdrawals from farm(see footnote page 22)	574	2.17	555,083
Available for Farm Debt Payments & Investments	$ 712	$ 2.70	$ 688,426
- Farm debt payments	528	2.00	510,939
Available for Farm Investment	$ 183	$ 0.70	$ 177,487
- Capital purchases: cattle, machinery & improvements	870	3.30	841,429
Additional Capital Needed	$ 687	$ 2.60	$ 663,942

[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
90 Large Herd Dairy Farms, 2008

Item	Average 90 Farms			Average Top 20% Farms		
Land	Owned	Rented	Total	Owned	Rented	Total
Tillable	817	839	1,657	813	846	1,660
Nontillable	28	10	38	10	10	20
Other nontillable	196	4	200	116	1	117
Total	1,041	853	1,895	939	858	1,796
Crop Yields	Farms	Acres[22]	Prod/Acre	Farms	Acres	Prod/Acre
Hay crop	89	756	3.79 tn DM	17	867	3.73 tn DM
Corn silage	87	623	20.32 tn	17	669	22.15 tn
Other forage	7	121	3.55 tn DM	0	0	0.00 tn DM
Total forage	89	1,365	5.18 tn DM	17	1,549	5.37 tn DM
Corn grain	63	319	146 bu	10	292	154 bu
Oats	5	46	67 bu	0	0	0 bu
Wheat	12	120	64 bu	2	104	79 bu
Other crops	26	137		5	72	
Tillable pasture	8	231		0	0	
Idle tillable	11	80		2	16	
Total Tillable Acres	90	1,657		18	1,660	

[22]This column represents the average acreage for the farms producing that crop. Average acreages including those farms not producing were corn grain 223, oats 3, wheat 16, tillable pasture 21, and idle 10.

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
89 Large Herd Dairy Farms, 2008 [23]

Item	Average 89 Farms	Average Top 20% Farms
Total tillable acres per cow	1.98	1.78
Total forage acres per cow	1.62	1.56
Harvested forage dry matter, tons per cow	8.36	8.40

[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 three farms.

CROP RELATED ACCRUAL EXPENSES
Large Herd Dairy Farms Reporting, 2008

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	89[24]	7			7	
Ave. number of acres	1,675	567			522	
Fertilizer/lime	$ 53.75	$ 11.16	$ 9.12	$ 0.28	$ 37.41	$ 6.53
Seed/plants	41.51	5.78	8.27	0.25	20.43	3.03
Spray/other crop exp.	26.23	4.10	7.83	0.29	14.91	0.44
TOTAL	$ 121.49	$ 21.04	$ 25.22	$ 0.82	$ 72.75	$ 10.00
Average Top 20% Farms:						
No. of farms reporting	17[24]					
Ave. number of acres	1,757					
Fertilizer/lime	$ 48.61					
Seeds/plants	45.57					
Spray/other crop exp.	22.64					
TOTAL	$ 116.82					

[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]
89 Large Herd Dairy Farms, 2008

Machinery Expense Item	Average 89 Farms Total Expenses	Average 89 Farms Per Tillable Acre	Average Top 20% Farms Total Expenses	Average Top 20% Farms Per Tillable Acre
Fuel, oil & grease	$ 184,945	$ 110.40	$ 196,807	$ 112.00
Mach. repairs & farm veh. exp.	174,073	103.91	180,196	102.55
Machine hire, rent & lease	68,019	40.60	70,101	39.89
Interest (5%)	61,240	36.56	70,329	40.02
Depreciation	173,405	103.51	201,992	114.95
Total	$ 661,681	$ 394.98	$ 719,425	$ 409.41

[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
90 Large Herd Dairy Farms, 2008

	Dairy Cows		Heifers					
			Bred		Open		Calves	
Item	No.	Value	No.	Value	No.	Value	No.	Value
Average 90 Farms:								
Beginning year (owned)	817	$1,244,414	253	$ 384,324	237	$227,936	190	$115,642
+ Change w/o apprec.		50,218		31,425		19,183		2,056
+ Appreciation		-58,007		-18,508		-14,750		-13,362
End year (owned)	852	$1,236,625	272	$ 397,241	258	$232,369	193	$104,335
End including leased	861							
Average number	842		708 (all age groups)					
Average Top 20% Farms:								
Beginning year (owned)	928	$1,325,636	292	$ 412,998	258	$229,987	227	$113,911
+ Change w/o apprec.		51,436		39,600		33,613		-3,794
+ Appreciation		-8,019		-7,780		-6,656		-8,422
End of year (owned)	965	$1,369,053	318	$ 444,818	293	$256,943	223	$121,694
End including leased	976							
Average number	967		824 (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
90 Large Herd Dairy Farms, 2008

Item	Average 90 Farms	Average Top 20% Farms
Total milk sold, lbs.	20,911,413	25,535,399
Milk sold per cow, lbs.	24,838	26,399
Butterfat per cow, lbs.	900 [26]	950
Protein per cow, lbs.	759 [26]	805
Total butterfat and protein per cow, lbs	1,659[26]	1,755
Other solids per cow, lbs.	1,417 [26]	1,507
Total components per cow, lbs.	3,076 [26]	3,262

[26] This data is an average for the 85 farms that provided the data.

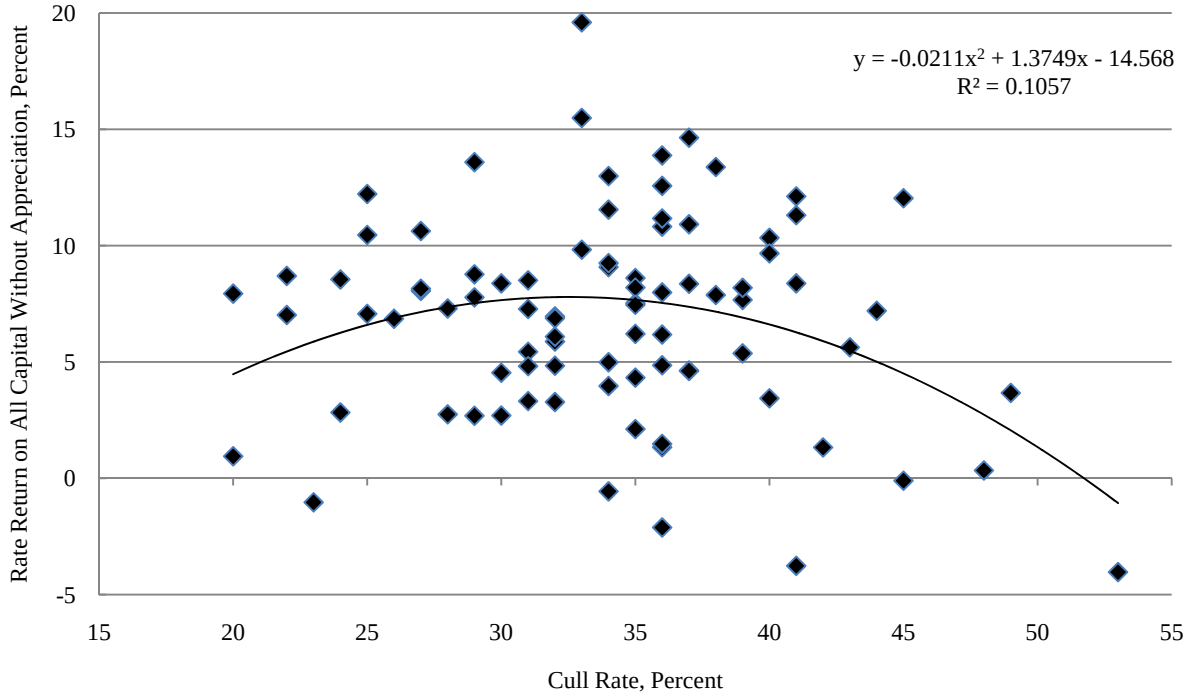
ANIMALS LEAVING THE HERD
90 Large Herd Dairy Farms, 2008

	Average 90 Farms		Average Top 20% Farms	
	Number	Percent[27]	Number	Percent[27]
Cows sold for beef	221	26.2	258	26.7
Cows sold for dairy	14	1.7	9	0.9
Cows died	64	7.6	74	7.7
Culling rate[28]	---	34.0	---	34.0

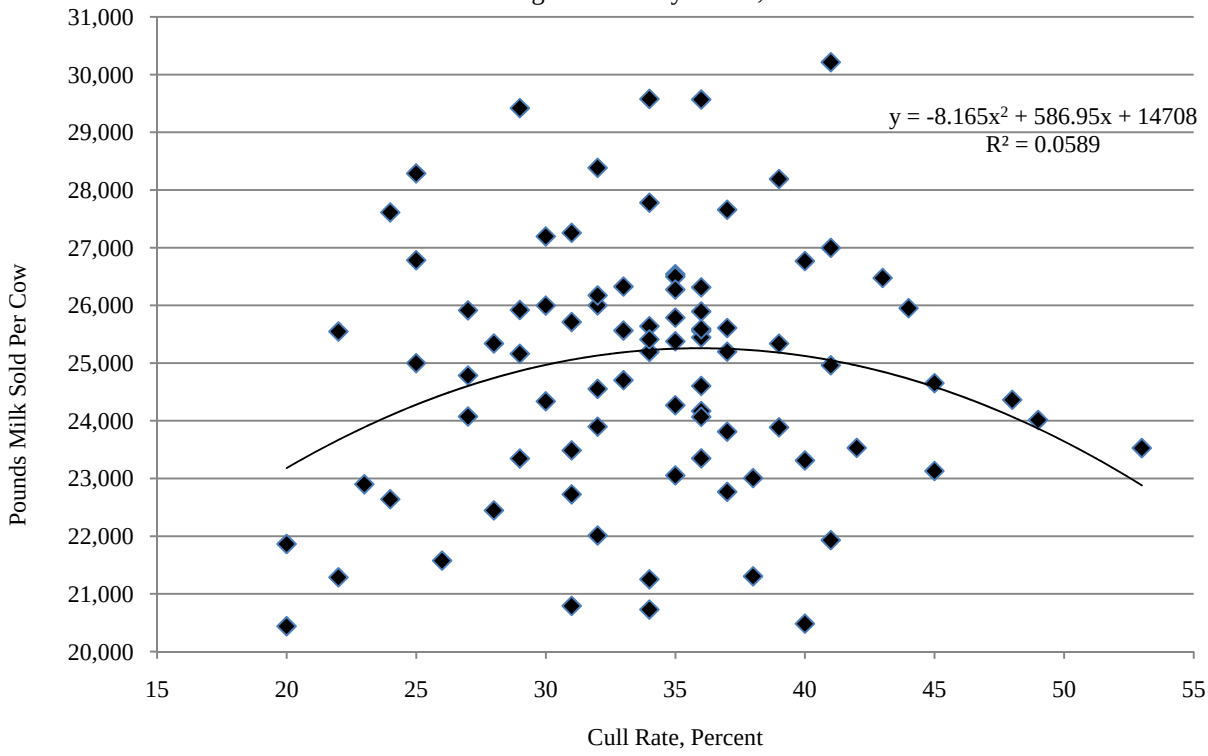
[27] Percent of average number of cows in the herd.
[28] Cows sold for beef plus cows died.

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 a curvilinear relationship between cull rate and these two measures for 2008.

RETURN TO ALL CAPITAL WITHOUT APPRECIATION VERSUS CULL RATE
90 Large Herd Dairy Farms, 2008



MILK SOLD PER COW VERSUS CULL RATE
90 Large Herd Dairy Farms, 2008



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

90 Large Herd Dairy Farms, 2008

	Average 90 Farms			Average Top 20% Farms		
Item	Total	Per Cow	Per Cwt.	Total	Per Cow	Per Cwt.
Accrual Costs of Producing Milk						
Operating costs	$ 3,188,556	$ 3,787	$15.25	$ 3,487,669	$ 3,606	$ 13.66
Purchased inputs costs	$ 3,475,597	$4,128	$16.62	$ 3,791,364	$ 3,920	$ 14.85
Total Costs	$ 3,842,592	$ 4,564	$18.38	$ 4,211,833	$ 4,354	$ 16.49
Accrual Receipts From Milk	$ 4,016,269	$ 4,770	$19.21	$ 4,874,719	$ 5,040	$ 19.09
Net Milk Receipts	$ 3,846,550	$ 4,526	$18.39	$ 4,681,997	$ 4,811	$ 18.34
Net Farm Income without appreciation	$ 540,672	$ 642	$ 2.59	$ 1,083,355	$ 1,120	$ 4.24
Net Farm Income with appreciation	$ 626,710	$ 744	$ 3.00	$ 1,155,321	$ 1,194	$ 4.52

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

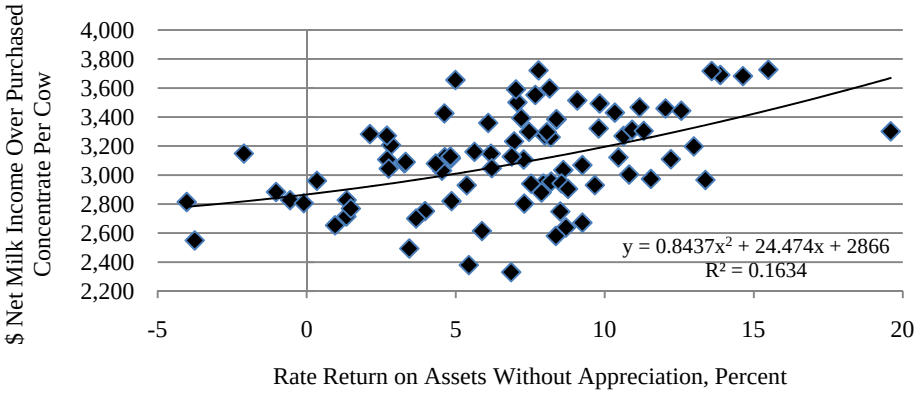
90 Large Herd Dairy Farms, 2008

	Average 90 Farms		Average Top 20% Farms	
Item	Per Cow	Per Cwt.	Per Cow	Per Cwt.
Purchased dairy grain & concentrate	$ 1,441	$5.80	$ 1,459	$ 5.53
Purchased dairy roughage	86	0.35	115	0.44
Total Purchased Dairy Feed	$ 1,527	$6.15	$ 1,574	$ 5.96
Purchased grain & concentrate as % of milk receipts	30%		29%	
Purchased feed & crop expense	$ 1,780	$7.17	$ 1,782	$ 6.75
Purchased feed & crop expense as % of milk receipts	38%		35%	
Breeding	$ 64	$0.26	$ 59	$ 0.22
Veterinary & medicine	175	0.70	171	0.65
Milk marketing	202	0.81	199	0.75
Bedding	89	0.36	72	0.27
Milking supplies	95	0.38	88	0.33
Cattle lease	2	0.01	2	0.01
Custom boarding	107	0.43	88	0.33
bST expense	66	0.26	86	0.32
Livestock professional fees	12	0.05	14	0.05
Other livestock expenses	20	0.08	19	0.07

Net milk income over purchased feed cost per cow is a measure that incorporates the cost of purchased grain and concentrates 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 feed cost per cow and return on assets without appreciation.

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

90 Large Herd Dairy Farms, 2008



With the change to component milk pricing in 2000, component production has become a focus point for dairy managers. The table and chart below examine the relationship between net milk income over purchased grain and concentrates 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.

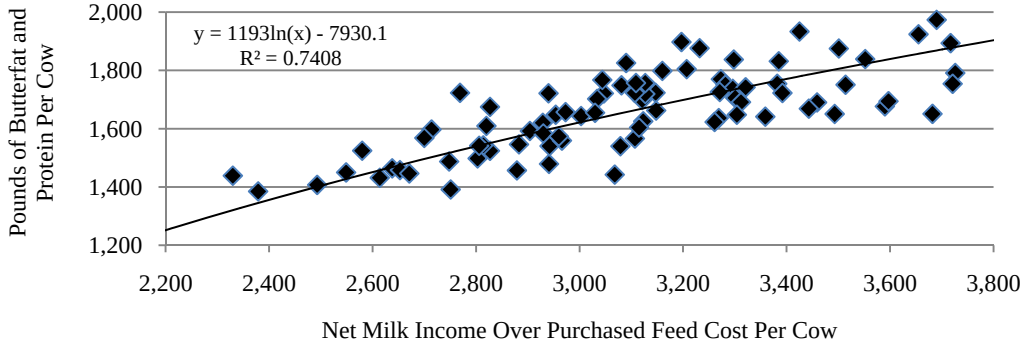
COMPONENT PRODUCTION AND COSTS PER HUNDREDWEIGHT BY NET MILK INCOME OVER PURCHASED FEED COST PER COW

90 Large Herd Dairy Farms, 2008

Net Milk Income Over Purchased Feed Cost 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.
$ 3,719	27,357	977	$ 844	$ 5.39	$ 14.16	$ 18.75
3,463	26,430	959	814	6.22	15.48	18.66
3,317	25,752	933	790	5.95	14.96	18.37
3,224	26,172	950	805	5.95	15.20	18.24
3,120	25,158	923	763	6.34	15.66	18.48
3,053	24,858	910	761	6.58	15.29	18.47
2,948	23,814	872	726	6.36	14.92	18.18
2,840	23,288	850	704	6.26	16.24	18.31
2,706	21,935	832	685	6.40	16.32	18.76
2,332	19,170	713	584	6.96	15.32	18.73

POUNDS BUTTERFAT AND PROTEIN PER COW VERSUS NET MILK INCOME OVER PRUCHASED FEED COST PER COW

90 Large Herd Dairy Farms, 2008



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
90 Large Herd Dairy Farms, 2008

Item	Average 90 Farms		Average Top 20% Farms	
Total Accrual Operating Expenses	$ 3,706,387		$ 4,100,146	
Expansion Livestock, Accrual	+ 36,428		+ 7,489	
1. Total Accrual Operating Expenses, Including Expansion Livestock		$ 3,742,815		$ 4,107,635
Total Accrual Receipts	$ 4,570,527		$ 5,494,684	
Milk Sales, Accrual	- 4,016,269		- 4,874,719	
2. Total Accrual Nonmilk Receipts		- 554,258		- 619,965
3. Operating Costs of Producing Milk		$ 3,188,557		$ 3,487,670
Cwt. of Milk Sold	÷ 209,114		÷ 255,354	
Operating Costs/Cwt.	= $15.25		= $13.66	
Machinery Depreciation		+ 171,529		+ 191,024
Building Depreciation		+ 114,163		+ 111,402
Extraordinary Expenses		+ 1,349		+ 1,268
4. Purchased Inputs Cost of Producing Milk		$ 3,475,598		$ 3,791,364
Cwt. of Milk Sold	÷ 209,114		÷ 255,354	
Purchased Inputs Cost/Cwt.	= $16.62		= $14.85	
Family Labor Unpaid ($2,500/month)		+ 1,400		+ 444
Real Interest on Equity Capital		+ 247,454		+ 293,554
Value of Operators' Labor & Management		+ 118,141		+ 126,472
5. Total Costs of Producing Milk		$ 3,842,593		$ 4,211,834
Cwt. Milk Sold	÷ 209,114		÷ 255,354	
Total Costs/Cwt.	= $18.38		= $16.49	

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

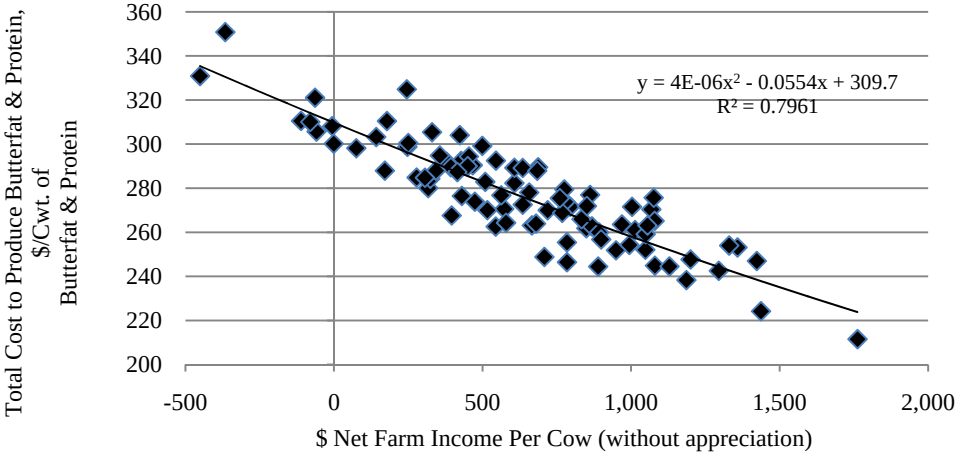
Same 78 Large Herd Dairy Farms, 2007 & 2008

Item	Average Same 78 Large Herd Dairy Farms 2007	Average Same 78 Large Herd Dairy Farms 2008	Average Top 20% Farms 2007	Average Top 20% Farms 2008
Cwt. of butterfat and protein sold	12,439.16	13,229.28	13,710.00	14,945.89
Accrual Operating Receipts				
Milk	$302.77	$287.73	$308.12	$289.14
Dairy cattle	17.91	17.98	17.83	17.93
Dairy calves	2.05	1.62	3.49	1.52
Other livestock	0.46	0.66	0.14	0.72
Crops	8.45	11.80	6.85	13.88
Miscellaneous receipts	8.32	7.64	6.64	5.29
Total Operating Receipts	$339.95	$327.43	$343.07	$328.48
Accrual Operating Expenses				
Hired labor	$42.94	$44.37	$41.80	$41.21
Dairy grain & concentrate	73.08	88.08	72.06	79.75
Dairy roughage	4.82	5.30	4.94	5.83
Nondairy feed	0.01	0.00	0.00	0.01
Professional nutritional services	0.06	0.06	0.14	0.13
Machine hire, rent & lease	5.22	5.08	5.28	5.26
Machine repair & vehicle expense	11.49	12.40	9.92	10.65
Fuel, oil & grease	9.28	13.20	8.18	11.30
Replacement livestock	1.20	1.54	0.82	1.04
Breeding	3.52	3.97	3.17	3.30
Veterinary & medicine	10.14	10.48	8.51	9.26
Milk marketing	11.51	12.48	10.51	11.30
Bedding	5.02	5.45	4.59	4.09
Milking supplies	5.31	5.73	4.74	5.35
Cattle lease	0.21	0.09	0.08	0.00
Custom boarding	4.97	5.75	3.52	4.46
bST expense	4.32	3.95	4.68	4.28
Livestock professional fees	0.70	0.75	0.65	0.80
Other livestock expense	1.11	1.08	0.94	0.67
Fertilizer & lime	5.30	6.36	4.60	5.69
Seeds & plants	4.06	5.03	3.17	4.23
Spray & other crop expense	3.28	3.16	3.12	2.09
Crop professional fees	0.41	0.51	0.39	0.28
Land, building & fence repair	4.95	4.70	5.79	4.27
Taxes	2.99	2.85	2.78	2.49
Real estate rent/lease	4.16	4.27	3.21	3.04
Insurance	2.63	2.66	2.36	2.18
Utilities	6.13	6.07	6.14	6.00
Interest paid	12.11	8.40	10.13	6.75
Other professional fees	1.42	1.68	1.18	1.34
Miscellaneous	1.80	1.92	1.38	1.50
Total Operating Expenses	$244.14	$267.36	$228.81	$238.52
Expansion livestock	1.89	3.18	1.83	0.56
Extraordinary expense	0.07	0.11	0.00	0.06
Machinery depreciation	11.85	12.50	12.56	12.89
Real Estate depreciation	7.57	8.36	7.54	8.03
Total Expenses	$265.52	$291.52	$250.73	$260.05
Net Farm Income without appreciation	$74.43	$35.91	$92.34	$68.43

[29]Average data for farms that provided complete milk component data for 2007 – 2008.

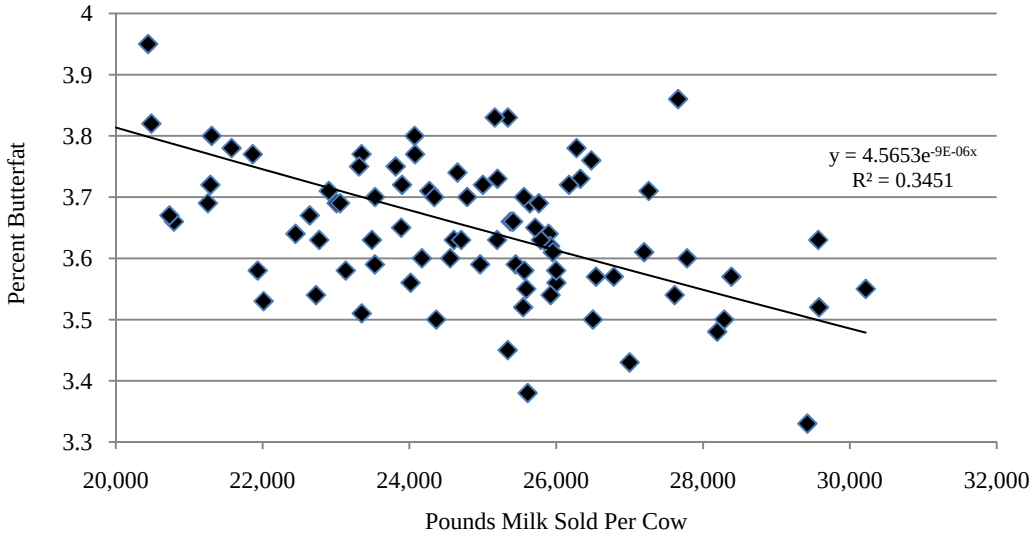
TOTAL COST TO PRODUCE BUTTERFAT & PROTEIN VERSUS NET FARM INCOME PER COW

90 Large Herd Dairy Farms, 2008



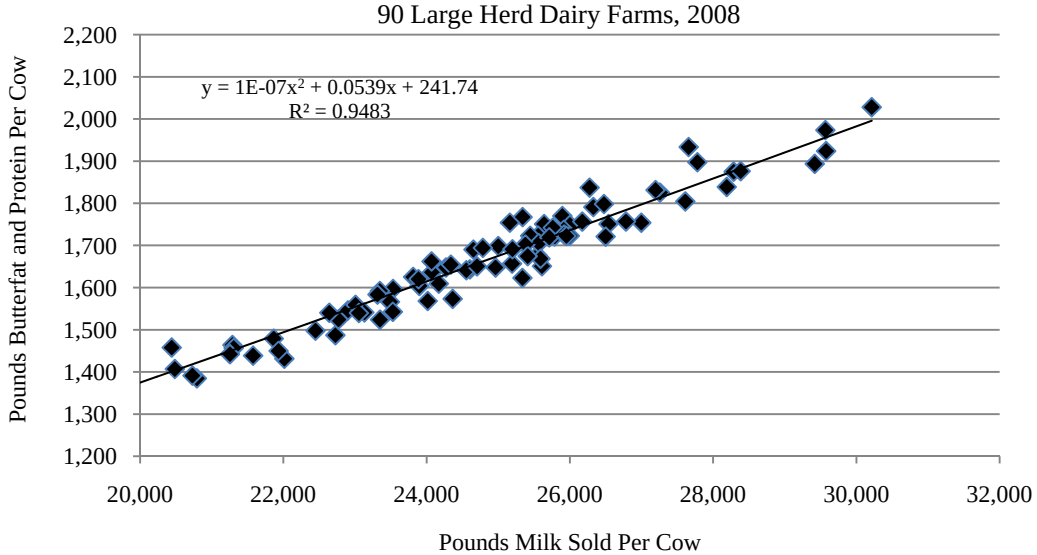
POUNDS MILK SOLD PER COW VERSUS PERCENT BUTTERFAT

90 Large Herd Dairy Farms, 2008



POUNDS OF BUTTERFAT AND PROTEIN PER COW VERSUS POUNDS MILK SOLD PER COW

90 Large Herd Dairy Farms, 2008



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
90 Large Herd Dairy Farms, 2008

Item	Per Worker	Per Cow	Per Tillable Acre	Per Tillable Acre Owned
Average 90 Farms:				
Farm capital	$ 396,652	$ 8,834	$ 4,489	$ 9,098
Real estate		3,382		3,484
Machinery & equipment	64,605	1,439	731	
Ratios				
Asset turnover ratio	Operating Expense	Interest Expense	Depreciation Expense	
0.63	0.79	0.02	0.06	
Average Top 20% Farms:				
Farm capital	$ 402,989	$ 8,520	$ 4,966	$ 10,133
Real estate		3,038		3,613
Machinery & equipment	64,999	1,374	801	
Ratios				
Asset turnover ratio	Operating Expense	Interest Expense	Depreciation Expense	
0.68	0.73	0.02	0.06	

LABOR FORCE INVENTORY AND ANALYSIS
90 Large Herd Dairy Farms, 2008

Labor Force	Months	Age	Years of Education	Value of Labor & Mgmt.
Operator number 1	12.58	52	15	$ 57,701
Operator number 2	9.05	46	14	39,192
Operator number 3	3.55	45	15	15,542
Operator number 4	1.62	49	16	5,706
Family paid	4.71			
Family unpaid	0.56			
Hired	192.87			
Total	224.94 / 12 = 18.75 Worker Equivalent			
	2.03 Operator/Manager Equivalent			
Average Top 20% Farms:				
Total	245.35 / 12 = 20.45 Worker Equivalent			
Operator's	1.89 Operator/Manager Equivalent			

Labor Efficiency	Average 90 Farms Total	Average 90 Farms Per Worker	Average Top 20% Farms Total	Average Top 20% Farms Per Worker
Cows, average number	842	45	967	47
Milk sold, pounds	20,911,413	1,115,573	25,535,399	1,248,929
Tillable acres	1,657	88	1,660	81

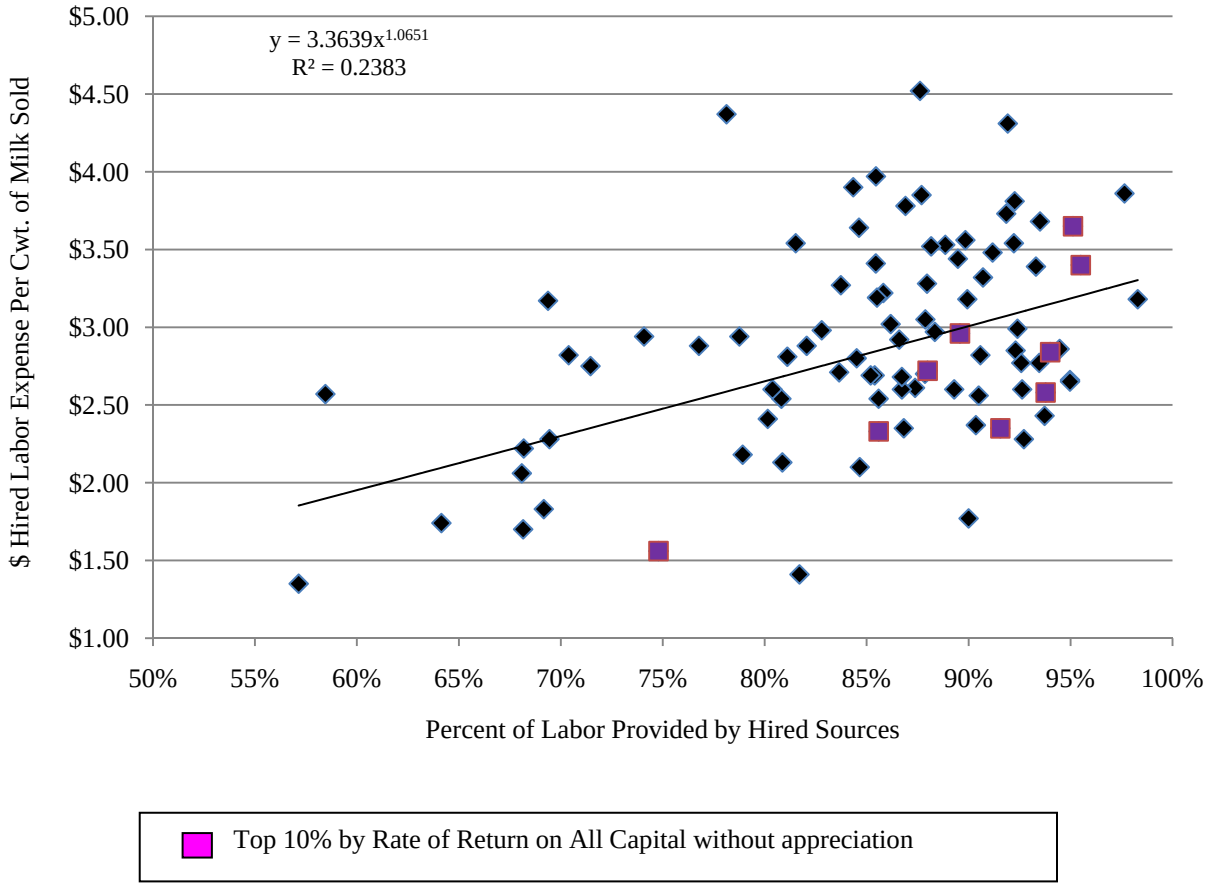
Labor Costs	Average 90 Farms Total	Average 90 Farms Per Cow	Average 90 Farms Per Cwt.	Average Top 20% Farms Total	Average Top 20% Farms Per Cow	Average Top 20% Farms Per Cwt.
Value of operator(s) labor ($2,500/month)	$ 66,970	$ 80	$0.32	$ 61,200	$ 63	$ 0.24
Family unpaid ($2,500/month)	1,399	2	0.01	450	1	0.00
Hired	614,786	730	2.94	682,473	706	2.67
Total Labor	$ 683,156	$ 812	$3.27	$ 744,123	$ 769	$ 2.91
Machinery Cost	656,107	779	3.14	688,349	712	2.70
Total Labor & Machinery	$1,339,263	$ 1,591	$6.40	$ 1,432,471	$ 1,481	$ 5.61
Hired labor expense per hired worker equiv.		$ 37,339			$ 37,109	
Hired labor expense as % of milk sales		15.3%			14.0%	

Labor Cost Evaluation

Labor costs have been the first or second largest expense on large dairy farms in New York the last five 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

90 Large Herd Dairy Farms, 2008



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.

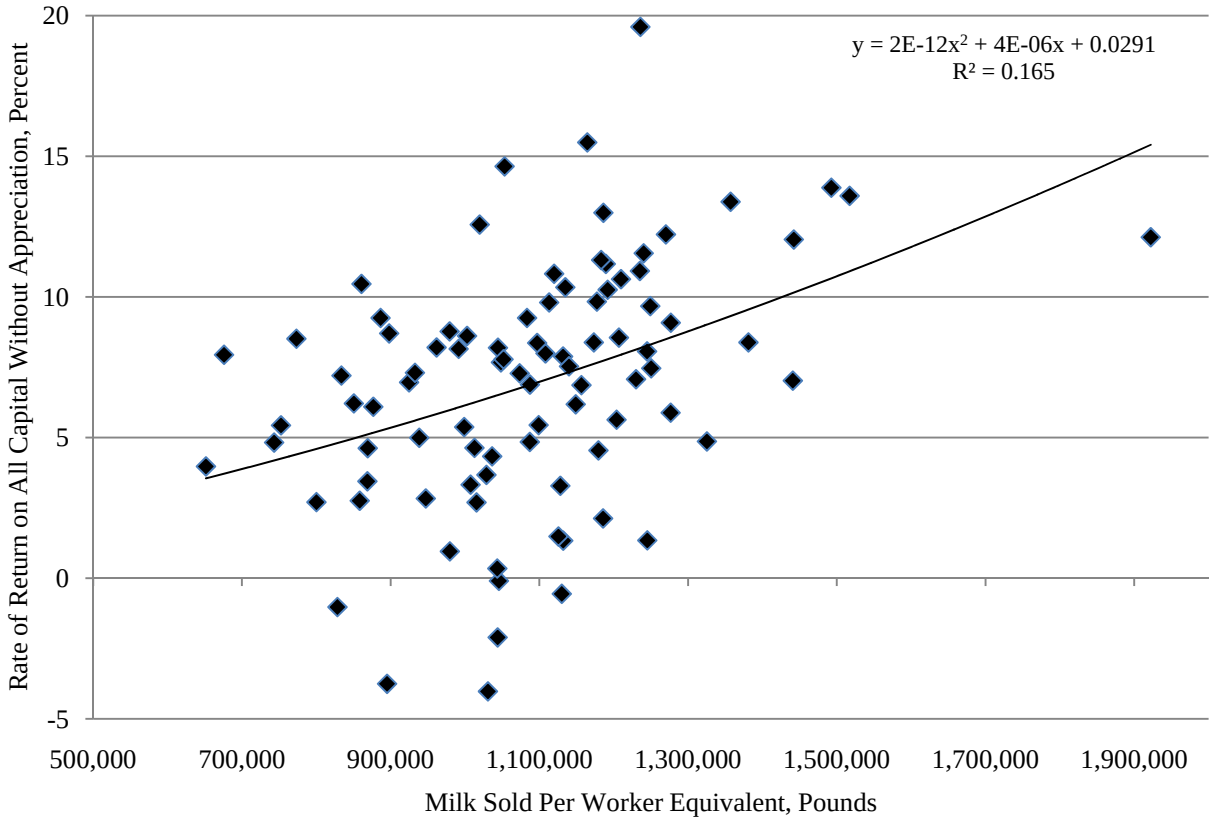
Months of hired labor		_____		
Months of family paid labor	+	_____		
Total hired labor	=		_____	
Total Labor Months	÷		_____	
Percent of labor from hired sources	x 100 =			_____%

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 hundredweight 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 hundredweight of milk sold.

HIRED LABOR EXPENSE BUSINESS CHARTS
90 Large Herd Dairy Farms, 2008

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	$ 1.72	9%	$ 27,933	$ 10.12
↓	2.28	12	30,210	10.95
	2.54	13	31,536	11.43
	2.65	14	32,529	11.79
	2.77	15	34,148	12.37
	2.90	15	35,469	12.85
	3.08	16	37,914	13.74
	3.36	17	40,336	14.61
	3.60	19	42,500	15.40
Average of Highest Decile	4.04	21	49,279	17.85

RATE OF RETURN ON ALL CAPITAL WITHOUT APPRECIATION VERSUS MILK SOLD PER WORKER EQUIVALENT
90 Large Herd Dairy Farms, 2008



CONDENSED SUMMARY & SELECTED BUSINESS FACTORS

CONDENSED FARM BUSINESS SUMMARY FOR THREE LARGE HERD GROUPS

90 Large Herd Dairy Farms, 2008

Item	27 Farms with 300-500 Cows		27 Farms with 501-799 Cows		36 Farms with ≥800 Cows	
	Per Cow	Per Cwt.	Per Cow	Per Cwt.	Per Cow	Per Cwt.
ACCRUAL EXPENSES						
Hired labor	$ 673	$ 2.85	$ 691	$ 2.78	$ 758	$ 3.02
Dairy grain & concentrate	1,395	5.92	1,445	5.81	1,450	5.77
Dairy roughage	76	0.32	106	0.43	81	0.32
Nondairy feed	0	0.00	0	0.00	0	0.00
Professional nutritional services	1	0.00	1	0.00	2	0.01
Machine hire, rent & lease	105	0.45	100	0.40	67	0.27
Machine repairs & farm vehicle expense	228	0.97	204	0.82	200	0.80
Fuel, oil & grease	230	0.98	221	0.89	214	0.85
Replacement livestock	27	0.12	62	0.25	14	0.06
Breeding	61	0.26	71	0.29	63	0.25
Veterinary & medicine	159	0.67	180	0.72	177	0.70
Milk marketing	207	0.88	225	0.91	191	0.76
Bedding	83	0.35	102	0.41	86	0.34
Milking supplies	98	0.42	92	0.37	95	0.38
Cattle lease & rent	2	0.01	0	0.00	3	0.01
Custom boarding	71	0.30	109	0.44	114	0.45
bST expense	34	0.14	51	0.20	79	0.31
Livestock professional fees	14	0.06	11	0.04	12	0.05
Other livestock expense	25	0.11	31	0.12	15	0.06
Fertilizer & lime	121	0.51	106	0.43	105	0.42
Seeds & plants	81	0.34	83	0.33	83	0.33
Spray & other crop expense	58	0.25	54	0.22	46	0.18
Crop professional fees	7	0.03	12	0.05	14	0.06
Land, building & fence repair	68	0.29	96	0.38	85	0.34
Taxes & rent	108	0.45	105	0.42	116	0.46
Utilities	102	0.43	101	0.41	101	0.40
Interest paid	122	0.52	132	0.53	134	0.53
Other professional fees	24	0.10	20	0.08	27	0.11
Misc. (including insurance)	69	0.29	75	0.30	72	0.29
Total Operating Expenses	$4,248	$18.03	$4,486	$18.03	$4,406	$17.54
Expansion livestock	28	0.12	49	0.20	44	0.18
Extraordinary expense	1	0.00	3	0.01	1	0.00
Machinery depreciation	184	0.78	200	0.81	210	0.83
Building depreciation	132	0.56	113	0.45	145	0.58
Total Accrual Expenses	$4,593	$19.49	$4,852	$19.50	$4,807	$19.14
ACCRUAL RECEIPTS						
Milk sales	$4,555	$19.33	$4,860	$19.54	$4,786	$19.05
Dairy cattle	287	1.22	315	1.27	313	1.25
Dairy calves	48	0.20	18	0.07	25	0.10
Other livestock	13	0.06	0	0.00	11	0.05
Crops	197	0.84	218	0.88	178	0.71
Miscellaneous receipts	118	0.50	98	0.39	133	0.53
Total Accrual Receipts	$5,220	$22.15	$5,510	$22.15	$5,446	$21.68
PROFITABILITY ANALYSIS (Total)						
Net farm income (without appreciation)	$252,576		$434,107		$836,668	
Net farm income (with appreciation)	$306,956		$505,024		$957,790	
Labor & management income	$120,534		$246,122		$454,552	
Number of operators	1.72		1.86		2.38	
Labor & management income/operator	$70,078		$132,324		$190,988	
Rates of return on: Equity capital w/o apprec.	6.6%		8.8%		8.9%	
Equity capital w/ apprec.	8.8%		10.7%		10.4%	
All capital w/o apprec.	6.1%		7.4%		7.3%	
All capital w/ apprec.	7.6%		8.7%		8.4%	

SELECTED BUSINESS FACTORS FOR THREE LARGE HERD GROUPS

90 Large Herd Dairy Farms, 2008

Item	27 Farms with 300-500 Cows	27 Farms with 501-799 Cows	36 Farms with ≥ 800 Cows
Cropping Program Analysis			
Total Tillable acres	930	1,334	2,443
Tillable acres rented[30]	513	721	1,173
Hay crop acres[30]	423	607	1,072
Corn silage acres[30]	293	492	916
Hay crop, tons DM/acre	3.6	3.6	4.0
Corn silage, tons/acre	19.4	20.2	20.6
Forage DM per cow, tons	8.6	8.7	8.2
Tillable acres/cow	1.8	2.1	1.9
Fertilizer & lime expense/tillable acre	$49.74	$55.97	$55.16
Machinery cost/tillable acre	$358	$392	$407
Dairy Analysis			
Number of cows	403	659	1,308
Number of heifers	337	559	1,097
Milk sold, lbs.	9,488,782	16,401,960	32,860,475
Butterfat & protein, lbs./cow	1,599	1,690	1,660
Milk sold/cow, lbs.	23,563	24,875	25,118
Operating cost of prod. milk/cwt.	$15.33	$15.62	$15.09
Total cost of prod. milk/cwt.	$18.89	$18.66	$18.16
Price/cwt. milk sold	$19.33	$19.54	$19.05
Purchased dairy feed/cow	$1,471	$1,552	$1,531
Purchased dairy feed/cwt. milk	$6.24	$6.24	$6.10
Purchased grain & concentrate as % of milk receipts	30%	30%	30%
Purchased feed & crop expense/cwt. milk	$7.37	$7.26	$7.09
Net milk income over purchased feed costs per cow	$2,945	$3,180	$3,141
Capital Efficiency			
Farm capital/worker	$358,909	$372,919	$416,633
Farm capital/cow	$8,957	$8,580	$8,901
Real estate/cow	$3,552	$3,063	$3,464
Machinery investment/cow	$1,591	$1,514	$1,375
Asset turnover ratio	0.60	0.65	0.62
Labor Efficiency			
Worker equivalent	10.05	15.17	27.95
Operator/manager equivalent	1.72	1.86	2.38
Milk sold/worker, lbs.	944,392	1,081,032	1,175,758
Cows/worker	40	43	47
Labor cost/cow	$824	$787	$818
Financial Measures			
Percent equity	70%	66%	65%
Debt/asset ratio - long term	0.33	0.33	0.35
Debt/asset ratio - intermediate & current	0.29	0.34	0.35
Change in net worth with appreciation	$127,884	$268,261	$303,414
Total farm debt per cow	$2,765	$2,972	$3,158
Debt payments made per cow	$553	$582	$573
Debt payments as % of milk sales	12%	12%	12%
Amount available for debt service	$303,205	$566,199	$761,132
Debt coverage ratio for 2008	1.67	1.73	1.29

[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 500 cows. The second two tables are of farms with 501-799 cows. The third set of tables is of farms with 800 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

27 Large Herd Dairy Farms with 300 – 500 Cows, 2008

	QUINTILE				
Item	1	2	3	4	5
Accrual Operating Receipts					
Milk	$5,241	$4,858	$4,718	$4,360	$3,756
Dairy cattle	454	382	284	229	120
Dairy calves	150	69	37	23	-18
Other livestock	59	13	0	0	-4
Crops	559	251	165	83	-63
Miscellaneous receipts	250	147	93	65	41
Total Operating Receipts	$6,049	$5,566	$5,316	$4,889	$4,369
Accrual Operating Expenses					
Hired labor	$376	$605	$701	$822	$913
Dairy grain & concentrate	1,005	1,301	1,391	1,559	1,798
Dairy roughage	0	0	19	59	361
Nondairy feed	0	0	0	0	0
Professional nutritional services	0	0	0	0	5
Machinery hire/rent/lease	7	32	101	155	269
Mach. repair & farm vehicle exp.	119	171	207	276	382
Fuel, oil & grease	128	198	235	265	335
Replacement livestock	0	0	0	0	174
Breeding	22	50	62	76	101
Veterinary & medicine	96	135	167	186	228
Milk marketing	124	177	211	238	313
Bedding	28	68	83	100	152
Milking supplies	43	68	98	134	156
Cattle lease	0	0	0	0	11
Custom boarding	0	0	0	71	326
bST expense	0	0	34	60	92
Livestock professional fees	1	9	16	23	27
Other livestock expense	0	3	14	45	71
Fertilizer & lime	29	74	119	157	241
Seeds & plants	32	64	78	94	136
Spray/other crop expenses	8	38	56	76	122
Crop professional fees	0	0	1	4	29
Land, building, fence repair	24	49	68	86	125
Taxes	20	37	52	69	80
Real estate rent/lease	11	30	49	73	133
Insurance	22	32	40	45	64
Utilities	58	88	100	118	160
Interest	41	88	103	159	234
Other professional fees	6	13	20	27	56
Miscellaneous	8	17	26	37	58
Total Operating Expenses	$3,350	$4,021	$4,256	$4,609	$5,167
Expansion livestock	0	0	0	7	143
Extraordinary expense	0	0	0	0	4
Machinery depreciation	99	138	167	213	307
Building depreciation	61	89	110	173	223
Net Farm Income w/o Appreciation	$1,040	$858	$637	$471	$212

RECEIPTS AND EXPENSES PER CWT. OF MILK SOLD

27 Large Herd Dairy Farms with 300 – 500 Cows, 2008

Item	QUINTILE 1	2	3	4	5
Accrual Operating Receipts					
Milk	$20.26	$19.65	$19.39	$19.15	$18.56
Dairy cattle	2.34	1.55	1.18	0.92	0.53
Dairy calves	0.61	0.31	0.15	0.10	-0.06
Other livestock	0.30	0.05	0.00	0.00	-0.02
Crops	2.37	1.11	0.75	0.35	-0.27
Miscellaneous receipts	1.10	0.67	0.39	0.28	0.17
Total Operating Receipts	$24.84	$22.86	$21.89	$21.45	$20.42
Accrual Operating Expenses					
Hired labor	$1.79	$2.62	$2.93	$3.22	$3.84
Dairy grain & concentrate	4.76	5.60	6.06	6.39	6.84
Dairy roughage	0.00	0.00	0.07	0.25	1.65
Nondairy feed	0.00	0.00	0.00	0.00	0.00
Professional nutritional services	0.00	0.00	0.00	0.00	0.02
Machinery hire/rent/lease	0.03	0.14	0.43	0.67	1.27
Mach. repair & farm vehicle exp.	0.53	0.71	0.93	1.22	1.53
Fuel, oil & grease	0.60	0.84	0.93	1.17	1.39
Replacement livestock	0.00	0.00	0.00	0.00	0.72
Breeding	0.10	0.22	0.25	0.31	0.40
Veterinary & medicine	0.44	0.59	0.70	0.75	0.98
Milk marketing	0.55	0.77	0.86	1.02	1.36
Bedding	0.12	0.29	0.34	0.43	0.60
Milking supplies	0.20	0.29	0.41	0.55	0.66
Cattle lease	0.00	0.00	0.00	0.00	0.05
Custom boarding	0.00	0.00	0.00	0.28	1.38
bST expense	0.00	0.00	0.14	0.24	0.35
Livestock professional fees	0.01	0.04	0.07	0.10	0.12
Other livestock expense	0.00	0.02	0.06	0.19	0.32
Fertilizer & lime	0.12	0.32	0.55	0.69	1.03
Seeds & plants	0.15	0.27	0.33	0.41	0.57
Spray/other crop expenses	0.03	0.15	0.22	0.34	0.51
Crop professional fees	0.00	0.00	0.00	0.02	0.13
Land, building, fence repair	0.10	0.19	0.29	0.41	0.57
Taxes	0.09	0.16	0.23	0.30	0.36
Real estate rent/lease	0.05	0.13	0.23	0.31	0.59
Insurance	0.09	0.14	0.17	0.20	0.28
Utilities	0.27	0.38	0.42	0.49	0.65
Interest	0.17	0.39	0.50	0.68	0.95
Other professional fees	0.02	0.05	0.09	0.13	0.22
Miscellaneous	0.04	0.07	0.11	0.15	0.26
Total Operating Expenses	$15.75	$17.19	$18.46	$18.97	$20.41
Expansion livestock	0.00	0.00	0.00	0.03	0.77
Extraordinary expense	0.00	0.00	0.00	0.00	0.02
Machinery depreciation	0.43	0.56	0.70	0.95	1.36
Building depreciation	0.26	0.40	0.50	0.71	0.93
Net Farm Income w/o Appreciation	$4.37	$3.92	$2.84	$1.96	$0.89

RECEIPTS AND EXPENSES PER COW
27 Large Herd Dairy Farms with 501 – 800 Cows, 2008

Item	QUINTILE 1	2	3	4	5
Accrual Operating Receipts					
Milk	$5,589	$5,127	$4,847	$4,611	$4,238
Dairy cattle	578	374	307	249	85
Dairy calves	76	31	20	12	-30
Other livestock	6	0	0	0	-3
Crops	492	290	223	141	18
Miscellaneous receipts	178	125	94	65	37
Total Operating Receipts	$6,461	$5,685	$5,494	$5,256	$4,765
Accrual Operating Expenses					
Hired labor	$503	$620	$673	$740	$950
Dairy grain & concentrate	1,173	1,343	1,503	1,574	1,712
Dairy roughage	1	21	59	114	382
Nondairy feed	0	0	0	0	1
Professional nutritional services	0	0	0	0	6
Machinery hire/rent/lease	5	48	78	129	272
Mach. repair & farm vehicle exp.	115	184	210	232	304
Fuel, oil & grease	156	196	225	253	297
Replacement livestock	0	0	0	14	318
Breeding	42	59	75	86	98
Veterinary & medicine	122	155	183	213	246
Milk marketing	120	176	205	249	397
Bedding	44	88	102	123	162
Milking supplies	50	70	90	117	147
Cattle lease	0	0	0	0	2
Custom boarding	0	3	36	107	410
bST expense	0	15	62	83	105
Livestock professional fees	0	2	12	17	27
Other livestock expense	0	11	18	27	97
Fertilizer & lime	37	86	103	124	194
Seeds & plants	40	71	85	100	125
Spray/other crop expenses	22	46	54	63	92
Crop professional fees	0	1	6	13	41
Land, building, fence repair	32	68	91	124	192
Taxes	11	35	43	56	74
Real estate rent/lease	14	39	54	86	140
Insurance	20	35	41	54	69
Utilities	60	89	108	117	148
Interest	32	87	139	189	242
Other professional fees	3	9	14	23	60
Miscellaneous	7	22	28	36	74
Total Operating Expenses	$3,774	$4,184	$4,515	$4,731	$5,372
Expansion livestock	0	0	0	5	265
Extraordinary expense	0	0	0	0	21
Machinery depreciation	79	162	226	260	305
Building depreciation	25	78	116	144	236
Net Farm Income w/o Appreciation	$1,138	$828	$664	$477	$252

RECEIPTS AND EXPENSES PER CWT. OF MILK SOLD
27 Large Herd Dairy Farms with 501 – 800 Cows, 2008

Item	QUINTILE 1	2	3	4	5
Accrual Operating Receipts					
Milk	$21.13	$19.82	$19.33	$19.10	$18.69
Dairy cattle	2.33	1.56	1.24	1.02	0.31
Dairy calves	0.31	0.12	0.08	0.05	-0.14
Other livestock	0.02	0.00	0.00	0.00	-0.02
Crops	2.01	1.19	0.93	0.58	0.07
Miscellaneous receipts	0.70	0.52	0.37	0.28	0.15
Total Operating Receipts	$24.69	$22.65	$22.22	$21.57	$20.26
Accrual Operating Expenses					
Hired labor	$1.97	$2.58	$2.78	$3.16	$3.60
Dairy grain & concentrate	4.90	5.52	5.83	6.48	6.75
Dairy roughage	0.01	0.09	0.24	0.48	1.45
Nondairy feed	0.00	0.00	0.00	0.00	0.00
Professional nutritional services	0.00	0.00	0.00	0.00	0.02
Machinery hire/rent/lease	0.02	0.21	0.34	0.51	1.05
Mach. repair & farm vehicle exp.	0.48	0.74	0.85	0.95	1.21
Fuel, oil & grease	0.63	0.79	0.92	1.01	1.23
Replacement livestock	0.00	0.00	0.00	0.06	1.24
Breeding	0.16	0.25	0.30	0.36	0.40
Veterinary & medicine	0.49	0.63	0.73	0.84	1.04
Milk marketing	0.53	0.72	0.81	0.95	1.54
Bedding	0.19	0.33	0.40	0.51	0.71
Milking supplies	0.20	0.31	0.36	0.45	0.58
Cattle lease	0.00	0.00	0.00	0.00	0.01
Custom boarding	0.00	0.01	0.14	0.44	1.58
bST expense	0.00	0.07	0.23	0.31	0.41
Livestock professional fees	0.00	0.01	0.05	0.07	0.12
Other livestock expense	0.00	0.05	0.08	0.11	0.37
Fertilizer & lime	0.16	0.37	0.41	0.49	0.75
Seeds & plants	0.16	0.30	0.35	0.40	0.50
Spray/other crop expenses	0.09	0.19	0.22	0.25	0.38
Crop professional fees	0.00	0.01	0.02	0.05	0.16
Land, building, fence repair	0.14	0.28	0.35	0.50	0.76
Taxes	0.05	0.14	0.18	0.23	0.31
Real estate rent/lease	0.06	0.15	0.23	0.36	0.56
Insurance	0.08	0.14	0.18	0.21	0.29
Utilities	0.25	0.37	0.42	0.48	0.58
Interest	0.13	0.34	0.55	0.77	0.97
Other professional fees	0.01	0.04	0.05	0.10	0.23
Miscellaneous	0.03	0.09	0.12	0.14	0.27
Total Operating Expenses	$16.05	$17.19	$18.48	$19.04	$20.00
Expansion livestock	0.00	0.00	0.00	0.02	1.03
Extraordinary expense	0.00	0.00	0.00	0.00	0.08
Machinery depreciation	0.32	0.60	0.90	1.10	1.34
Building depreciation	0.10	0.32	0.46	0.63	0.94
Net Farm Income w/o Appreciation	$4.75	$3.34	$2.66	$1.88	$1.02

RECEIPTS AND EXPENSES PER COW

36 Large Herd Dairy Farms with 800 or More Cows, 2008

Item	QUINTILE 1	2	3	4	5
Accrual Operating Receipts					
Milk	$5,404	$5,042	$4,888	$4,598	$4,089
Dairy cattle	506	331	287	250	157
Dairy calves	70	32	19	9	-10
Other livestock	87	0	0	0	-8
Crops	428	266	163	91	22
Miscellaneous receipts	353	144	101	80	53
Total Operating Receipts	$6,199	$5,843	$5,504	$5,211	$4,648
Accrual Operating Expenses					
Hired labor	$537	$678	$737	$868	$1,002
Dairy grain & concentrate	1,040	1,361	1,504	1,629	1,794
Dairy roughage	6	25	50	82	289
Nondairy feed	0	0	0	0	0
Professional nutritional services	0	0	0	0	16
Machinery hire/rent/lease	6	30	54	96	172
Mach. repair & farm vehicle exp.	132	169	197	228	290
Fuel, oil & grease	154	192	214	239	286
Replacement livestock	0	0	0	1	73
Breeding	31	48	62	75	103
Veterinary & medicine	123	161	179	196	225
Milk marketing	118	171	188	207	293
Bedding	29	67	92	107	142
Milking supplies	37	67	90	106	165
Cattle lease	0	0	0	0	13
Custom boarding	0	3	39	114	318
bST expense	18	82	89	96	116
Livestock professional fees	0	5	14	18	26
Other livestock expense	0	0	5	19	67
Fertilizer & lime	37	70	92	112	213
Seeds & plants	38	68	84	99	132
Spray/other crop expenses	8	36	46	62	101
Crop professional fees	0	0	1	11	79
Land, building, fence repair	31	57	75	98	152
Taxes	24	38	48	58	79
Real estate rent/lease	21	32	59	102	153
Insurance	20	29	43	54	78
Utilities	70	86	103	118	146
Interest	43	102	139	177	251
Other professional fees	5	14	18	30	70
Miscellaneous	6	15	27	39	70
Total Operating Expenses	$3,537	$4,284	$4,477	$4,690	$5,220
Expansion livestock	0	0	0	0	192
Extraordinary expense	0	0	0	0	8
Machinery depreciation	122	162	220	261	326
Building depreciation	72	98	138	183	249
Net Farm Income w/o Appreciation	$1,365	$949	$721	$349	$-75

RECEIPTS AND EXPENSES PER CWT. OF MILK SOLD

36 Large Herd Dairy Farms with 800 or More Cows, 2008

Item	QUINTILE 1	2	3	4	5
Accrual Operating Receipts					
Milk	$20.05	$19.35	$19.06	$18.86	$18.42
Dairy cattle	2.21	1.32	1.13	0.99	0.63
Dairy calves	0.28	0.14	0.08	0.03	-0.04
Other livestock	0.47	0.00	0.00	0.00	-0.03
Crops	1.73	1.18	0.62	0.36	0.07
Miscellaneous receipts	1.37	0.57	0.41	0.31	0.22
Total Operating Receipts	$24.13	$22.64	$21.72	$20.88	$20.27
Accrual Operating Expenses					
Hired labor	$2.31	$2.69	$2.87	$3.38	$3.99
Dairy grain & concentrate	4.52	5.42	5.95	6.34	6.86
Dairy roughage	0.02	0.10	0.19	0.34	1.29
Nondairy feed	0.00	0.00	0.00	0.00	0.00
Professional nutritional services	0.00	0.00	0.00	0.00	0.06
Machinery hire/rent/lease	0.03	0.11	0.21	0.38	0.78
Mach. repair & farm vehicle exp.	0.57	0.70	0.75	0.89	1.14
Fuel, oil & grease	0.60	0.77	0.85	0.97	1.13
Replacement livestock	0.00	0.00	0.00	0.00	0.30
Breeding	0.12	0.19	0.24	0.30	0.42
Veterinary & medicine	0.50	0.63	0.69	0.79	0.95
Milk marketing	0.52	0.69	0.76	0.82	1.10
Bedding	0.11	0.26	0.36	0.43	0.58
Milking supplies	0.16	0.27	0.35	0.42	0.65
Cattle lease	0.00	0.00	0.00	0.00	0.05
Custom boarding	0.00	0.01	0.15	0.45	1.29
bST expense	0.07	0.31	0.34	0.38	0.46
Livestock professional fees	0.00	0.02	0.06	0.07	0.10
Other livestock expense	0.00	0.00	0.02	0.07	0.26
Fertilizer & lime	0.14	0.27	0.36	0.44	1.09
Seeds & plants	0.15	0.26	0.34	0.41	0.51
Spray/other crop expenses	0.03	0.14	0.19	0.24	0.40
Crop professional fees	0.00	0.00	0.00	0.04	0.30
Land, building, fence repair	0.15	0.23	0.29	0.38	0.60
Taxes	0.10	0.15	0.18	0.24	0.34
Real estate rent/lease	0.08	0.13	0.24	0.40	0.61
Insurance	0.08	0.12	0.18	0.22	0.31
Utilities	0.29	0.35	0.40	0.47	0.58
Interest	0.17	0.39	0.55	0.74	1.08
Other professional fees	0.02	0.05	0.07	0.11	0.28
Miscellaneous	0.02	0.06	0.10	0.16	0.30
Total Operating Expenses	$14.94	$16.57	$17.83	$19.17	$20.33
Expansion livestock	0.00	0.00	0.00	0.00	0.81
Extraordinary expense	0.00	0.00	0.00	0.00	0.03
Machinery depreciation	0.47	0.70	0.89	1.04	1.30
Building depreciation	0.27	0.39	0.55	0.74	1.09
Net Farm Income w/o Appreciation	$5.49	$3.79	$2.86	$1.45	$-0.36

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

90 Large Herd Dairy Farms, 2008

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)
40.3	2,019	51,009,186	28,787	6.9	26	63	1,461,732
28.9	1,245	32,113,692	26,903	5.1	24	52	1,249,696
23.6	1,052	27,010,448	26,097	4.3	23	49	1,198,478
20.7	917	22,767,153	25,680	4.0	22	47	1,156,259
17.0	752	19,186,869	25,335	3.8	21	45	1,116,961
15.5	657	15,570,048	24,663	3.6	20	43	1,063,795
13.4	569	13,430,466	23,970	3.2	19	42	1,026,484
11.4	464	11,053,405	23,235	3.0	18	41	970,167
9.5	404	9,563,673	22,142	2.8	18	36	881,926
7.2	341	7,409,188	18,453	2.0	16	31	767,629

Cost Control

Grain Bought Per Cow	% Grain is of Milk Receipts	Net Milk Income Over Purchased Feed Cost Per Cow	Machinery Costs Per Cow	Labor & Machinery Costs Per Cow	Feed & Crop Expenses Per Cow	Feed & Crop Expenses Per Cwt. Milk
(12)	(12)	(CALC)	(14)	(14)	(12)	(12)
$929	22%	$3,719	$512	$1,094	$1,273	$5.61
1,164	26	3,476	641	1,340	1,455	6.28
1,295	28	3,339	706	1,461	1,576	6.71
1,344	29	3,254	729	1,544	1,658	6.98
1,394	30	3,131	759	1,596	1,722	7.18
1,500	31	3,073	797	1,640	1,833	7.37
1,552	32	2,968	845	1,694	1,913	7.64
1,618	33	2,868	898	1,751	1,984	7.85
1,692	35	2,735	973	1,861	2,111	8.17
1,840	36	2,366	1,088	2,082	2,270	8.94

[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)
$1.72	$27,933	9%	$0.39	$0.41	$0.00
2.28	30,210	12	0.64	0.53	0.00
2.54	31,536	13	0.67	0.58	0.00
2.65	32,529	14	0.73	0.62	0.01
2.77	34,148	14	0.77	0.67	0.03
2.90	35,469	15	0.80	0.71	0.06
3.08	37,914	16	0.84	0.75	0.09
3.36	40,336	17	0.93	0.81	0.11
3.60	42,500	18	1.10	0.87	0.22
4.04	49,279	21	1.56	1.10	0.42

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)
$351	$83	$2,546	$12.09	$3,426	$15.87
408	97	3,192	13.39	3,986	16.88
442	105	3,352	14.04	4,145	17.57
466	115	3,541	14.41	4,356	18.01
497	122	3,662	15.10	4,535	18.22
528	128	3,869	15.64	4,661	18.63
555	135	4,053	16.21	4,782	19.33
619	144	4,300	16.75	4,989	19.72
686	163	4,418	17.27	5,193	20.22
1,017	413	4,687	18.38	5,427	21.54

bST Expense Per Cow	bST Expense Per Cwt.	Culling Rate	Expense Ratios		
			Operating	Depreciation	Interest
(12)	(12)	(12)	(14)	(14)	(14)
$ 0	$0.00	20%	0.67	0.02	0.00
0	0.00	26	0.72	0.04	0.01
1	0.00	29	0.74	0.05	0.01
35	0.15	31	0.77	0.05	0.02
60	0.24	33	0.79	0.06	0.02
77	0.29	35	0.80	0.06	0.02
85	0.32	36	0.82	0.07	0.03
90	0.35	37	0.85	0.08	0.03
99	0.38	40	0.87	0.09	0.04
118	0.47	45	0.93	0.11	0.05

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)
$20.94	$19.86	$5,629	$591	$130
19.93	19.02	5,196	429	68
19.65	18.83	5,056	372	43
19.42	18.66	4,951	324	32
19.29	18.47	4,822	300	24
19.15	18.32	4,718	274	20
19.03	18.24	4,586	248	16
18.85	18.07	4,438	227	7
18.70	17.87	4,263	160	-2
18.33	17.53	3,665	62	-40

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)
$639	$247	2.2%	$ 21	$0.00
1,480	900	4.0	251	0.89
2,118	1,544	4.0	336	1.11
2,481	1,945	4.0	403	2.00
2,810	2,140	4.0	461	2.00
3,328	2,518	4.3	516	2.00
3,687	2,931	5.0	565	2.22
4,039	3,253	5.0	637	3.00
4,542	3,652	6.0	743	3.00
5,146	4,265	6.8	919	3.56

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)
$1,763	$7.18	$972	$3.63	7.63
1,351	5.64	405	1.68	3.11
1,244	5.06	341	1.43	2.28
1,157	4.68	296	1.26	1.81
1,086	4.34	244	1.01	1.54
1,008	4.07	213	0.89	1.34
911	3.59	192	0.78	1.16
785	3.24	164	0.67	0.99
641	2.88	111	0.47	0.81
411	1.74	74	0.30	0.16

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)
$5,694	$1,358	$597	$28,389	1.07
7,222	2,354	917	30,155	0.78
7,765	2,705	1,107	31,302	0.71
8,187	2,891	1,257	32,035	0.69
8,517	3,050	1,383	33,479	0.66
8,883	3,366	1,526	34,852	0.63
9,303	3,654	1,692	36,964	0.59
9,792	3,947	1,899	39,036	0.53
10,783	4,428	2,127	40,717	0.50
12,078	5,910	2,422	46,938	0.45

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)
92%	0.08	0.08	0.07	0.00	43.1%	20.05%
82	0.22	0.18	0.17	0.02	28.6	4.39
76	0.31	0.23	0.22	0.09	24.2	3.18
72	0.38	0.28	0.26	0.18	22.0	2.68
67	0.48	0.33	0.30	0.27	18.4	2.42
64	0.57	0.36	0.35	0.33	15.3	2.13
59	0.69	0.41	0.39	0.42	12.1	1.89
54	0.85	0.46	0.45	0.54	8.4	1.58
50	1.00	0.50	0.53	0.67	2.0	1.11
39	1.70	0.61	0.68	0.96	-6.1	0.80

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)
$687,480	21.7%	28.0%	14.3%	17.6%
312,503	15.1	18.2	11.2	13.0
234,203	12.2	15.6	9.6	11.6
163,001	10.3	13.3	8.4	10.4
131,329	9.2	10.8	7.8	8.8
104,268	7.9	9.6	7.0	7.8
63,790	5.9	8.0	5.5	7.1
31,370	4.2	5.6	4.3	5.2
-31,395	1.1	1.3	2.5	2.2
-212,885	-5.8	-4.6	-1.0	-0.9

Profitability, Continued			
Net Farm Income Without Appreciation		Net Farm Income From Operations	Net Income Efficiency
Per Cow	Per Cwt.	Ratio	Ratio
(12)	(12)	(4)	(CALC)
$1,347	$5.42	24%	19%
1,052	4.42	20	13
916	3.91	17	11
808	3.29	15	9
703	2.95	13	8
587	2.29	10	7
470	1.94	9	6
373	1.56	7	5
237	0.96	4	3
-118	-0.52	-2	1

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, 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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OTHER A.E.M. EXTENSION BULLETINS

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