2011

Northeast Dairy Farm Summary

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Highlights of the 2011 Northeast Dairy Farm Summary

- 532 dairy farms participated in the 2011 ***Northeast Dairy Farm Summary.***
- Profitability improved for a second consecutive year. Net earnings increased to $797 per cow in 2011, up from $396 per cow in 2010. Farm milk price also increased $3.83 per hundredweight (cwt.) to $21.53.
- Costs were up considerably in 2011, reaching record levels. Net cost of production was $18.10 per cwt. This consists of total costs, including family living less non-milk income. Total cost of production was up significantly to $21.31 per cwt. in 2011, including depreciation and family living.
- Specific operating cost categories were up dramatically in 2011. Feed expense increased from $1,273 per cow in 2010 to $1,578 in 2011. Fuel was up 35 percent and crop inputs were up 15 percent.
- Productivity measures were up. Per cow production was up by 1.9 percent from 2010 at 23,244 pounds (lbs.). Milk sold per worker was up 8.9 percent to 1,085,617 lbs. Total number of cows per herd was also up by 20 head to 326.
- Cash flow was more than sufficient to meet all financial commitments (e.g., operating expenses, debt repayment, family living and income taxes) and cover some capital purchases. Breakeven milk price was also $18.10 per cwt.
- Reserve debt capacity improved to $5,135 per cow, driving the five-year average up as well to $2,118.
- Balance sheets improved to near pre-2009 levels. Percent net worth increased from 68 to 72 percent and debt-per-cow decreased from $3,337 per cow to $3,166.

Profile of the Average Dairy Farmer

	2010	2011
Number of Cows	306	326
Milk Sold per Cow	22,809 lbs.	23,244 lbs.
Milk Sold per Worker	997,100 lbs.	1,085,617 lbs.
Milk Price per Cwt.	$17.70	$21.53
Net Cost of Production per Cwt.	$15.97	$18.10
Net Worth	68%	72%
Net Earnings per Cow	$396	$797
Return on Assets	5.2%	8.4%

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Introduction

The purpose of Farm Credit's annual ***Dairy Farm Summary (DFS)*** is to assess the financial health and progress of Northeast dairy farm businesses. It is intended to provide dairy producers, Farm Credit personnel, Northeast public policy makers and dairy leaders with a better understanding of the current status and future prospects for the Northeast's largest farm industry.

The ***Dairy Farm Summary*** is a unique project within the U.S. dairy industry as a major ongoing regional summary of actual dairy farm business results. It is the result of cooperation and hard work by many people. We are grateful to the 532 dairy producers who allowed their financial and production records to be used in this study. Further, we appreciate the teamwork and timeliness of Farm Credit staff across the Northeast who helped customers close out their books and provide the information. The ***DFS*** contains five years of financial data for dairy farms in New York, New England and New Jersey.

We believe this sample of 532 farm operations represents a solid cross section of better-than-average Northeast dairy farm businesses, most of which maintain loan relationships with Farm Credit. All farms received the majority of their income from milk sales. Partnerships and corporations were adjusted to a sole proprietor basis in order to be included. Farms with unusual events, such as a large expansion, a major herd health problem or other type of business disruption were excluded from the sample. Each farm's data was carefully reviewed to ensure that both cash flow and net worth reconciled. This approach ensures a high level of integrity for the financial results presented in the ***2011 Dairy Farm Summary***.

The ***DFS*** tends to focus discussion on the "average farm," which, in reality, does not exist. By focusing on the average, we are able to highlight changes: 1) of Northeast dairy farms over time; 2) within the individual herd size groups; and 3) within the top and bottom profitability groups. While the use of averages leads to an effective discussion with respect to change, it tends to minimize both the best and worst conditions experienced by farms within the sample, as it pushes everything to the mathematical middle. It should also be noted that the ***DFS*** benchmark uses weighted averages based on hundredweights (cwts.) of milk sold.

Many refer to a three-year dairy cycle with respect to milk price, which usually consists of one year of depressed prices, followed by an up-year and then a third of middle-of-the road price levels. This pattern generally continued during the past three years starting with 2009's low price of $13.80, next $18.07 in 2010 and now a record-high milk price of $21.53 per cwt. in 2011. Net earnings followed and were up to $797 for the average ***DFS*** farm, despite the highest net cost of

production in the history of the study. As you read this summary, it is important to keep the following in mind:

1. Milk prices continued to climb in 2011, but so did costs of production, particularly feed, fuel and crop input costs. Nonetheless, 2011 marked a second consecutive increase in profitability for Northeast dairy farmers. Net earnings improved from $396 in 2010 to $797 in 2011.
2. Dairy farmers worked to shore up balance sheets in 2011, continuing the recovery from 2009 and in preparation of the next downturn. Equity and liquidity measures have solidly improved. The average farm's financial position has more or less returned to pre-2009 levels.
3. Cash flow for many farms permitted modest deleveraging and capital replacement. Deferred maintenance and machinery and equipment replacement occurred as capital purchases were up.

Without question, navigating through the past several years has been challenging for dairy management. As lenders, financial service providers and consultants heavily involved with Northeast dairy producers, Farm Credit is fully aware of the challenges in managing milk price volatility and rising input costs experienced by Northeast dairy producers from year to year. For the sake of comparison, we have remained consistent in focusing on the average farm while discussing 2011 results and also multiyear averages in the ***2011 Dairy Farm Summary***.

Figure 1

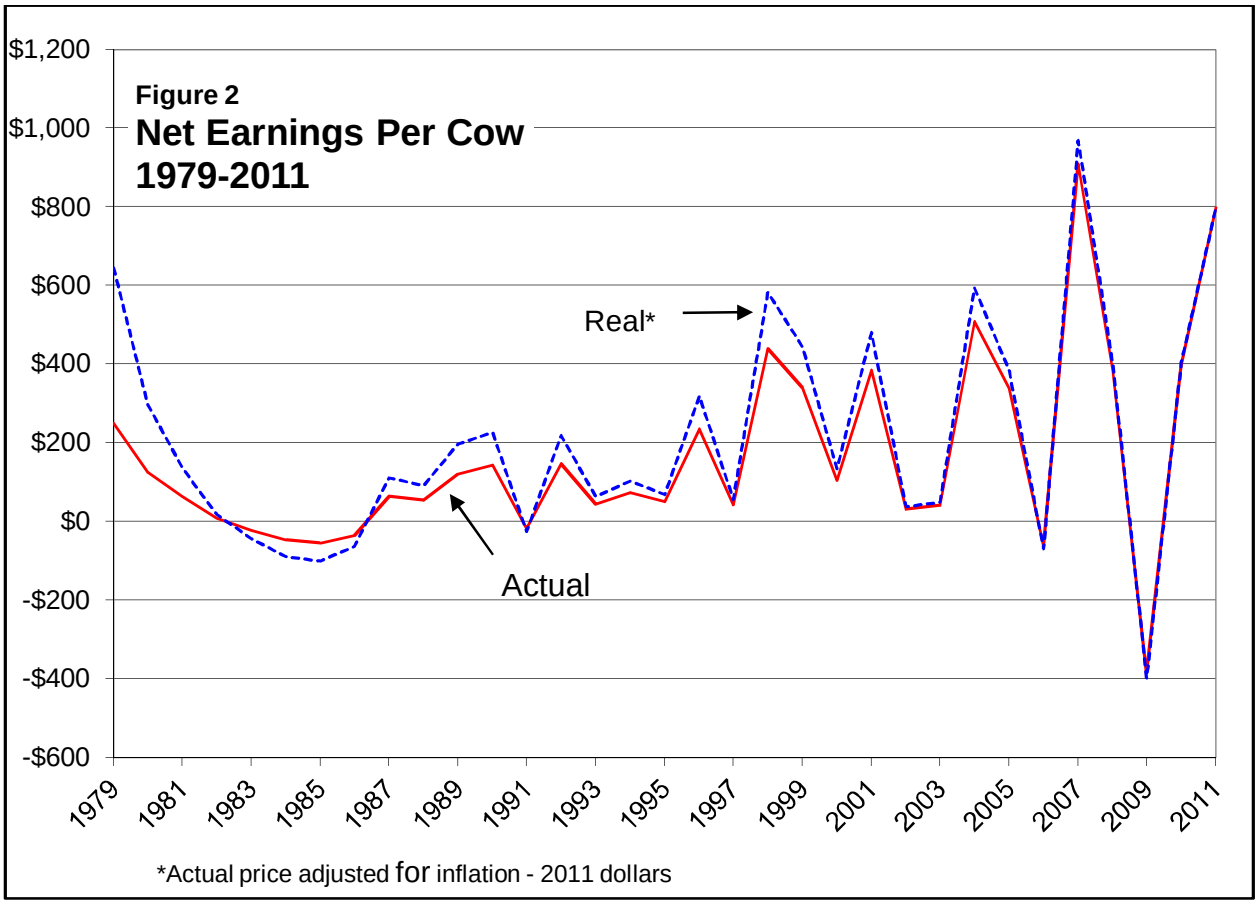
Dairy Farm Profitability

	Net Earnings per Cow[1]	Return on Assets[2]	Return on Equity[3]
2007	$ 908	11.7%	13.8%
2008	$ 383	5.1%	5.2%
2009	($ 386)	(2.6%)	(5.4%)
2010	$ 396	5.2%	5.8%
2011	$ 797	8.4%	10.3%
5-Year Average	$ 420	5.6%	5.9%

[1]*Net earnings includes nonfarm income.*

[2]*Return on assets = (net earnings + interest) / average total assets*

[3]*Return on equity = net earnings / average net worth*



Analysis of 2011

Profitability Improved Again in 2011

Profitability improvement continued for the Northeast dairy industry in 2011 with a healthy increase of $401 in average net earnings per cow**.** While the strong cash flow in 2011 enabled some producers to restore their financial positions to pre-2009 levels, many others have not yet caught up on repaying the additional debt that they took on to survive during 2009. Net earnings were $797 per cow, which is above the five-year average of $420. Income was up as the milk price climbed $3.83 per cwt. to $21.53 in 2011. Cost of production also jumped 13 percent per cow, year-over-year, largely due to increases in feed, fuel and crop input costs. In terms of both actual and real dollars, 2011 is second only to 2007 in terms of profitability in the history of the ***Northeast Dairy Farm Summary***.

This summary uses three measures of profitability, each of which provides a useful perspective on dairy farm financial performance:

- **Net earnings per cow** measures sheer dollars of profit earned relative to the size of the operation and includes all sources of income, including nonfarm sources.
- **Return on assets (ROA)** measures profit earned relative to the present market value of total farm assets. This indicates the earning power of each dollar invested in the farming operation, regardless of whether it comes from the farm operator or was borrowed from a lender.
- **Return on equity (ROE)** measures profit earned relative to the farmer's equity investment in the operation. This measure is the best indicator of how the dairy producer's investment is paying off compared to how it might pay off if invested another way.

The importance of long-range business planning cannot be overstated given the year-to-year fluctuations in milk price, cost of inputs and profitability experienced by the Northeast dairy industry. That a single year does not provide an accurate picture of the industry's long-term operating performance is still true for years such as 2011. To further illustrate, when ranked, four of the last six years account for both the top two years for profitability in the ***DFS*** history and also the bottom two. Given these extremes, multiyear averages create a more accurate picture of the industry. If we look at both a shorter- and longer-term average, we see similar results (Figure 2A). Continued year-to-year volatility confirms the challenging business climate faced by Northeast dairy producers. It may, however, offer higher average returns over the course of the cycle for those who are able to manage the ups and downs.

Figure 2A **Comparison of Multi-year Averages**	**Three-Year Average**	**Five-Year Average**	**Ten-Year Average**
Net Earnings per Cow	$269	$420	$295
Return on Assets	3.7%	5.6%	4.6%
Return on Equity	3.6%	5.9%	4.5%

It is important to differentiate net earnings (profit) from cash flow. Farmers rely on cash flow to pay ongoing bills, but cash flow is not an accurate measure of profitability. Net earnings are an accrual measure of profit that represents a farm business's ability to provide an economic return for the operator's investment and management. It offers the most complete picture of a farm's profitability by adjusting cash farm income and expenses to reflect changes in inventories, accounts receivable, accounts payable and prepaid expenses. (See Glossary.)

Milk Price Continues to Climb

The average farm milk price at $21.53 per cwt. was up nearly 20 percent over 2010's $17.70. It was $2.66 above the five-year average of $18.57 (Figure 3A). In terms of actual milk prices, 2011 ranked highest in the 32 years of the ***DFS***. However, to better understand the true story of how milk prices have changed over time, we must account for the impact of inflation (Figure 3B). In terms of "real" inflation-adjusted rankings, 2011 drops to 14th. The first year of the ***DFS,*** 1979, ranks first. There were no payments in the Milk Income Loss Contract (MILC) program in 2011.

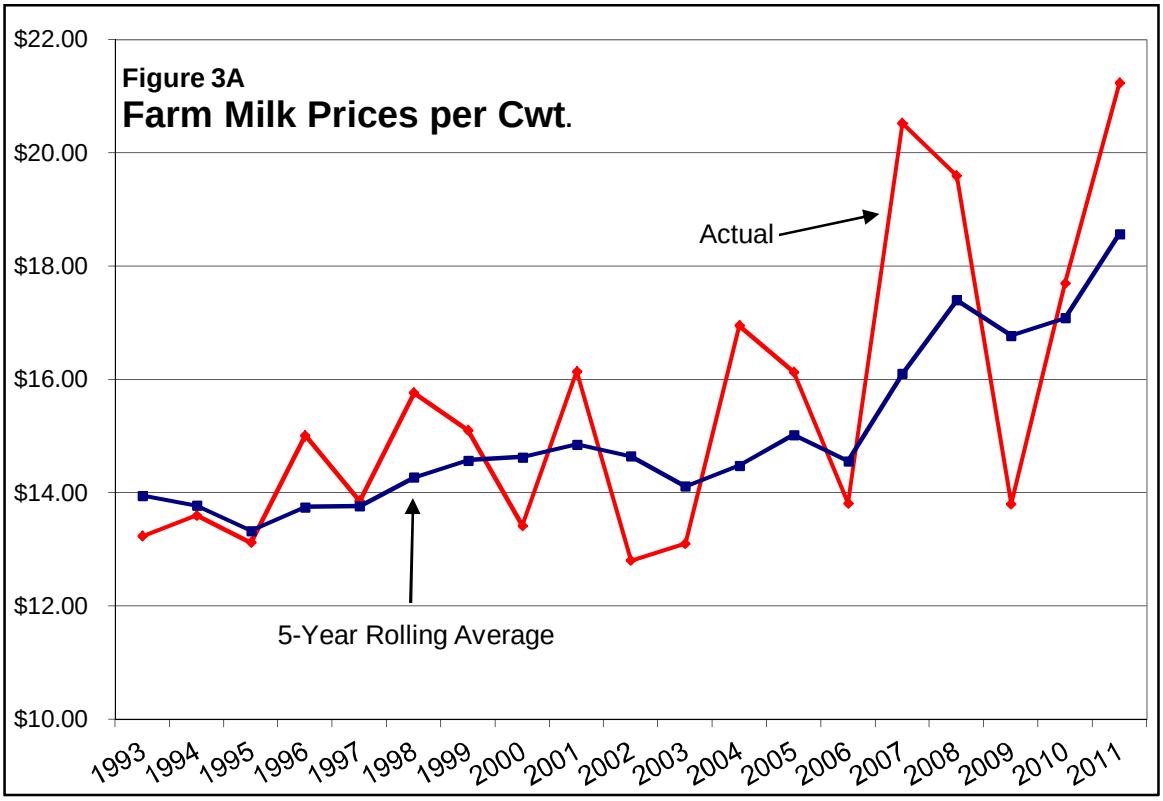


Figure 3A
Farm Milk Prices per Cwt.
$22.00
$20.00
$18.00
$16.00
$14.00
$12.00
$10.00
Actual
5-Year Rolling Average
1993
1994
1995
1996
1997
1998
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2008
2009
2010
2011

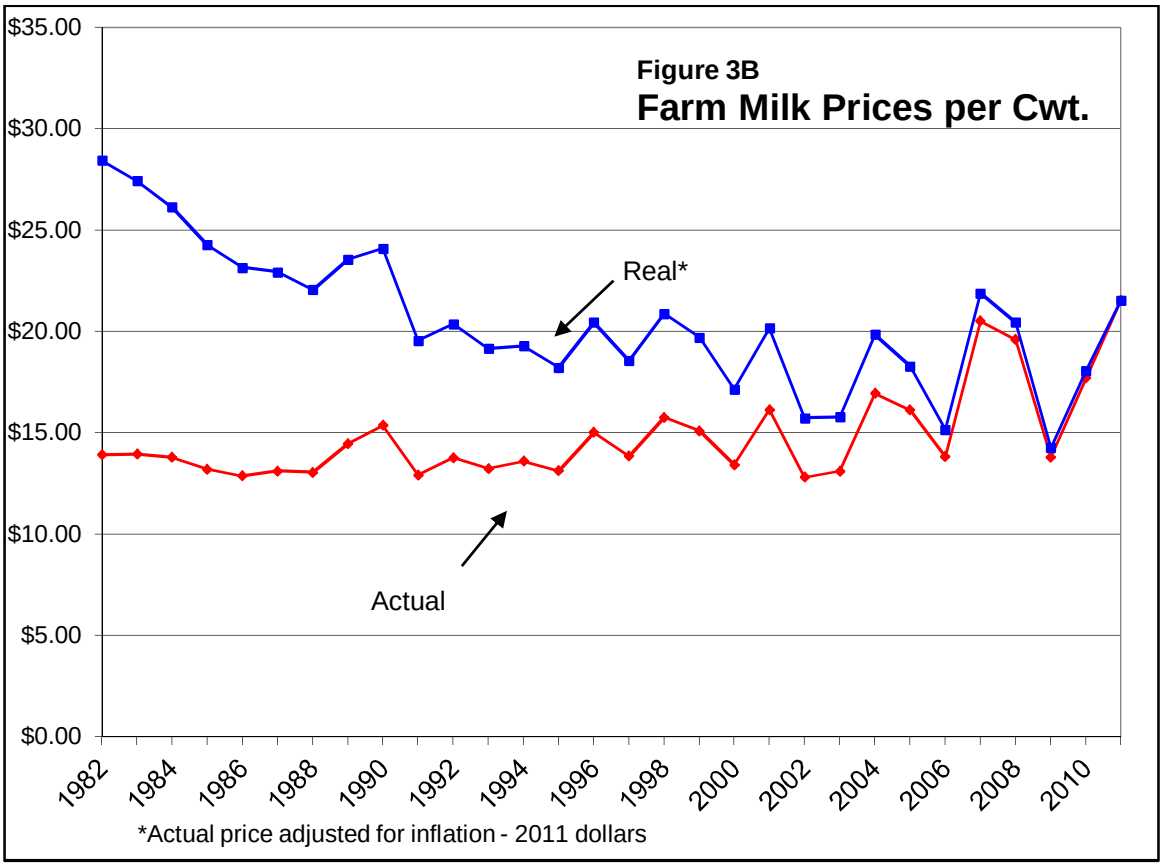


Figure 3B
Farm Milk Prices per Cwt.
$35.00
$30.00
$25.00
$20.00
$15.00
$10.00
$5.00
$0.00
Real*
Actual
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
2004
2006
2008
2010
*Actual price adjusted for inflation - 2011 dollars

Monthly milk price fluctuations seemed relatively steady as they moved in either direction. The low price (Boston Blend) was January at $17.01 per cwt. and the high was $23.22 per cwt. in August. Several factors have contributed to increased milk price volatility. Changes in export markets and domestic demand, as well as shifts in supply, affect prices. Increased global market activity has quickened the pace by which production is required to adjust, further contributing to price volatility. Investment decisions should include an analysis of management's ability to cope with price and earnings volatility.

Cost of Production Up Significantly

The net cost of production, up 13 percent in 2011 over 2010, was the highest in ***Dairy Farm Summary*** history. Three key figures to review for 2011's cost of production analysis of the average dairy farm in the ***DFS*** include:

- Cash operating expenses were $19.30 per cwt.
- Total costs were $21.32 per cwt.
- Net cost of production (NCOP) was $18.11 per cwt.

These are all up significantly over 2010: $2.21, $2.33 and $2.14 respectively (Figure 4A). While we typically report the *net* cost of production, it is important to note total costs in order to represent all expenses associated with producing milk. Usually a dairy farm has other farm income, such as cattle sales, crop sales, and payments from government programs, (e.g., the MILC program). When we report the *net* cost of production, we show total costs less non-milk income to demonstrate the costs directly relying upon milk sales alone.

Figure 4A

The Cost of Producing Milk – Accrual Basis

	2007	2008	2009	2010	2011
			Dollars per Cwt.		
Feed	$ 5.29	$ 6.19	$ 5.58	$ 5.58	$ 6.79
Labor	2.87	2.94	2.88	2.81	2.96
Interest	0.84	0.59	0.55	0.58	0.52
Marketing	0.89	0.98	0.93	0.94	0.87
Crop	1.11	1.30	1.12	1.10	1.28
Other	6.44	6.92	5.78	6.08	6.87
Adjusted Cash Operating Expenses	$17.44	$18.92	$16.84	$17.09	$19.29
+ Depreciation	1.25	1.40	1.32	1.23	1.33
+ Family Living	0.76	0.87	0.74	0.67	0.69
Total Costs	$19.45	$21.19	$18.90	$18.99	$21.31
- Non-Milk Income[1]	3.15	3.31	3.37	3.02	3.21
Net Cost of Production[2]	$16.30	$17.88	$15.53	$15.97	$18.10

[1]Non-milk income includes cattle, crop and other income adjusted for inventory changes.
[2]Before any return on equity. Each 1 percent return on equity would be equivalent to another $0.35 added to the net cost of production for 2011.

Driven by a 22 percent per cwt. increase in feed expense, which is the largest single category of farm expenses, the elevated cost of production in 2011 should not come as a surprise to anyone. Lower coarse grain supplies globally, a shorter-than-expected corn crop nationally and a tough growing year locally all combined for higher feed expenses in both grain and forage purchases as well as tighter inventory levels. The majority of producers who grew their own grain were not able to produce as much as they have in recent years.

Other categories with large increases include fuel, crop inputs (chemicals and sprays; fertilizer and lime; and seeds and plants), repair, other expenses and labor. Gasoline, fuel and oil costs were up 35 percent in 2011 over 2010, following a trend of rising oil prices. Similarly crop inputs were also up by 15 percent. Presumably Northeast dairy producers caught up on deferred maintenance that they put off in the lower margin years of 2009 and 2010 as repair expenses were also up considerably to $318 per cow in 2011 after averaging $235 for the previous two years. The "other" expense cost category was also up 34 percent over 2010. Finally labor was up $0.18 per cwt. or 6 percent. Given the large increase in costs, producers were able to gain a slight advantage on a per cwt. basis by producing more milk per cow (Figure 4B).

Figure 4B Specific Cost Categories	2010		2011		Percent Increase	
	22,809 Lbs. per Cow		*23,244 Lbs. per Cow*			
	per Cow	*per Cwt.*	*per Cow*	*per Cwt.*	*per Cow*	*per Cwt.*
Feed	$1,273	$5.58	$1,578	$6.79	24%	22%
Fuel	$180	$0.79	$249	$1.07	38%	35%
Crop Inputs	$253	$1.11	$298	$1.28	18%	15%
Repair	$249	$1.09	$318	$1.37	28%	26%
Other	$121	$0.53	$165	$0.71	37%	34%
Labor	$641	$2.81	$690	$2.97	8%	6%

It is important to note that the $18.10 net cost of production includes no return on the producer's equity investment. While it is debatable what an appropriate return on equity (ROE) might be, earning some level of return should be a business objective. For the average ***DFS*** producer, each 1 percent return on equity is equivalent to an additional $0.35 per cwt. If we were to include a 5 percent ROE goal, for example, this would be equivalent to a $19.85 net cost of production. It is important to note that the cost of producing milk varies between regions as well as by herd size, among other factors.

Figure 4C compares NCOP by our two main regions for 2010 and 2011. New York producers typically have an advantage in lower costs and higher production per cow over producers in New England. Additionally, with the ability to grow more feed, they generally have higher non-milk income driven by more crop sales and are also able to grow more grain for their own use. However, certain states in New England, including Connecticut, Maine and Massachusetts have individual state assistance programs for dairy farmers, which help supplement dairy farm income. The difference in net cost of production is wider in 2011 than 2010 between the two regions, with New York producing milk at $1.77 per cwt. less than New England.

Figure 4C **NCOP by Region**	*Cost per Cwt.*			
	New York *381 farms*		**New England** *151 farms*	
	2010	**2011**	**2010**	**2011**
Feed	$ 5.34	$ 6.40	$ 6.40	$ 7.80
Labor	2.79	2.93	2.86	3.06
Interest	0.58	0.54	0.58	0.48
Marketing	0.93	0.87	0.98	0.88
Crop	1.11	1.30	1.09	1.22
Other	5.96	6.71	6.49	7.28
Adjusted Cash Operating Expenses	$ 16.71	$ 18.75	$ 18.39	$ 20.71
+ Depreciation	1.25	1.37	1.19	1.23
+ Family Living	0.64	0.70	0.75	0.65
Total Costs	$ 18.60	$ 20.82	$ 20.33	$ 22.59
- Non-Milk Income	2.60	2.87	3.13	2.87
Net Cost of Production	$ 16.00	$ 17.95	$ 17.20	$ 19.72

In Figure 4D, we compare the NCOP by herd-size category. The largest herds had the smallest increase in NCOP at 11.1 percent. The smallest herds were the next group that was able to control costs the best with a 13 percent increase. Generally larger herds have an advantage in spreading costs out over more units, driving per-unit cost down. Smaller herds have lower labor costs and higher non-milk income per unit, however family living and other costs are usually higher. The groups in the middle had the toughest time controlling costs, specifically the 90- to 149 cows group. This group continues to be the most challenged with the highest NCOP of $19.60 per cwt.

Figure 4D **NCOP by Herd Size**	*Cost per Cwt.*							
	89 Cows or Less *111 farms*		**90 - 149 Cows** *117 farms*		**150 - 299 Cows** *125 farms*		**300+ Cows** *179 farms*	
	2010	**2011**	**2010**	**2011**	**2010**	**2011**	**2010**	**2011**
Feed	5.05	6.22	$ 5.26	$ 6.30	5.63	6.75	$ 5.75	$ 6.86
Labor	1.49	1.59	2.26	2.39	2.87	3.00	2.99	3.08
Interest	0.69	0.63	0.61	0.60	0.59	0.57	0.58	0.51
Marketing	1.03	0.99	1.08	1.05	0.98	0.95	0.93	0.83
Crop	1.45	1.59	1.34	1.64	1.25	1.38	1.05	1.21
Other	6.80	7.79	6.71	7.83	6.39	7.53	6.03	6.62
Adjusted Cash Operating Expenses	$ 16.51	$ 18.82	$17.25	$19.82	$17.73	$20.18	$ 17.33	$ 19.11
+ Depreciation	2.17	2.42	1.90	2.10	1.53	1.65	1.08	1.15
+ Family Living	2.43	2.55	1.62	1.99	1.05	1.08	0.41	0.43
Total Costs	$ 21.11	$ 23.78	$20.76	$23.91	$20.31	$22.91	$ 18.82	$ 20.70
- Non-Milk Income	4.45	4.95	3.70	4.31	3.44	3.69	2.85	2.95
Net Cost of Production	$ 16.66	$ 18.83	$17.06	$19.60	$16.86	$19.22	$ 15.97	$ 17.75
Total NCOP Increase per Cwt.		$ 2.17		$ 2.53		$ 2.35		$ 1.78
Percentage NCOP Increase		**13.0%**		**14.8%**		**14.0%**		**11.1%**

In an industry noted for growing volatility of milk prices, the ability to control expenditures, improve efficiency and adjust to changing input costs is critical to a dairy producer's financial performance.

Herd Size and Production Increases

The number of cows per farm increased from 306 head to 326 in the 2011 ***DFS*** sample. Driven both by this higher cow number as well as increased milk production per cow of 435 pounds, total milk production per farm was up 8.6 percent to 7,577,544 pounds. Milk sold per worker was also up considerably by 8.8 percent to 1,085,617 pounds in 2011. These are the highest productivity measures in the history of the study.

In order to more accurately look at real growth in herd size, a group of the same farms that have been included consecutively in the benchmark for the past 10 years is shown in Figure 5A. Growth has been steady over the past decade for this group of 51 farms, starting with an average

326 head in 2002 and ending with 432 head in 2011. They averaged a 3.2 percent annual growth rate in individual farm herd size over the time period, with total growth of 32 percent.

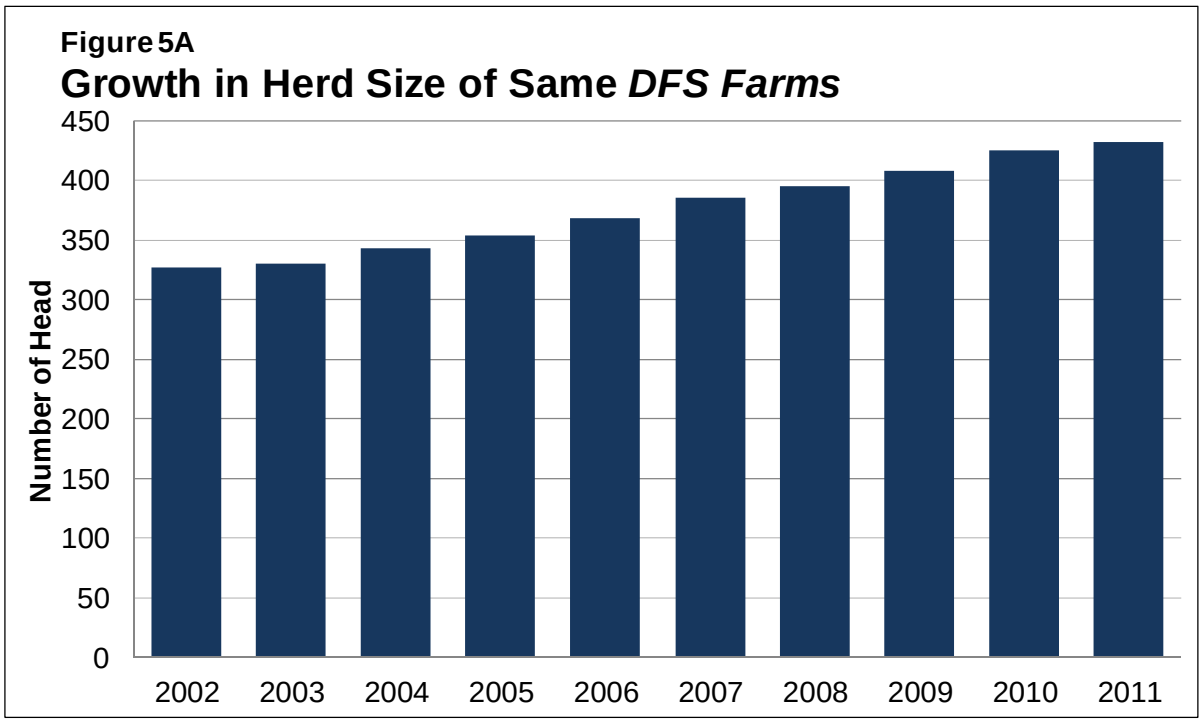


Figure 5B illustrates the close relationship between labor productivity, cow productivity, employee compensation and overall dairy farm profitability. As more cows are handled per worker, milk sold per worker increases. Milk sold per worker and per cow share a close positive relationship. That is as one goes up, typically so does the other. More milk per cow is favorable in terms of greater productivity, producing more milk and driving gross revenue — one of the key factors in profitability. While milk sold per cow correlates positively with adjusted net earnings per cow, more important is a low net cost of production, which is promoted by better labor efficiency.

Figure 5B

Labor Productivity Spurs Profits

Pounds of Milk Sold per Worker	Number of Cows	Cows per Worker	Milk Sold per Cow	Labor & Family Living per Person[1]	Labor & Family Living per Cwt.[1]	Adjusted Net Earnings per Cow[2]
499,999 or less	75	26	16,413	$20,336	$5.07	$326
500,000-599,999	96	29	19,282	$26,195	$4.79	$376
600,000-699,999	155	33	19,860	$30,810	$4.74	$545
700,000-799,999	176	37	20,604	$32,727	$4.38	$578
800,000-899,999	192	41	21,195	$33,693	$4.00	$658
900,000-999,999	233	45	21,627	$37,077	$3.91	$715
1 to 1.099 million	398	48	22,268	$38,318	$3.67	$804
1.1 to 1.199 million	538	49	23,570	$40,339	$3.54	$903
1.2 to 1.399 million	585	56	23,189	$42,470	$3.34	$958
1.4 million or more	663	69	24,023	$48,046	$2.95	$1,043

[1]Includes operator and other family labor

[2]Net earnings per cow less net non-farm income

Figure 5B also shows increasing labor and family living expenses per person as milk sold per worker increases, but those farms with higher labor efficiency have a lower cost per cwt. for labor and family living. For example, those farms selling less than 500,000 pounds of milk per worker have the lowest average labor and family living expense per person at $20,336, but on a per cwt. basis, their cost is $5.07. In contrast, those selling 1.4 million or more pounds of milk per person have a labor and family living cost of $2.95 per cwt. despite paying almost 2.5 times per person. Thus the efficiency gained also allows for greater flexibility with respect to employee compensation.

Figure 6
Capital Efficiency

Farm Size	Pounds Sold Per Worker	Pounds Sold Per Cow	Total Assets Per Cwt.[1]	Asset Turnover[2]	Return on Assets[3]
Less than 90 Cows	600,779	19,502	$83	0.32	3.4%
90 to 149 Cows	737,133	19,678	$70	0.38	3.4%
150 to 299 Cows	962,431	21,398	$58	0.45	5.3%
300 Cows and Over	1,207,150	24,126	$41	0.62	10.5%
All Farms	1,085,617	23,244	$47	0.54	8.4%

[1]Total assets divided by cwt. of milk sold
[2]Asset turnover = value of farm production / average total assets
[3]Return on assets = (net earnings + interest) / average total assets

An obvious question is: How much additional investment is required to get higher labor productivity? Based on the four herd size groups, as labor efficiency increased, the required investment per cwt. of milk sold decreased as shown in Figure 6. For example, the small farm group produced 45 percent less milk per worker than the average of all farms, but required 77 percent more investment ($83 versus $47 per cwt.). Return on assets was positive for all groups, though the largest group was the most profitable with the greatest return on investment.

Cash Flow Also Rebounded

Cash flow is another measure of financial health for a dairy operation or any business. There is a minimum requirement of cash for each business to meet its ongoing commitments such as operating costs, overhead, debt principal payments and family living. What remains can be used for capital replacement, to build liquidity, retirement investment, etc. The cash margin improved in 2011 to $3.43 per cwt., up from $1.37 in 2010 and a negative $2.22 in 2009 (Figure 7). It was second only to 2007's result of $4.14 per cwt., which is the highest in ***DFS*** history.

Figure 7

Cash Flow Analysis per Cwt.

	2007	2008	2009	2010	2011
Actual Milk Price	$20.52	$ 19.59	$ 13.80	$ 17.70	$21.53
Cash Required	19.53	21.09	19.14	19.31	21.36
- Other Income	3.15	3.19	3.12	2.98	3.26
Breakeven Milk Price	$ 16.38	$ 17.90	$ 16.02	$ 16.33	$18.10
Cash Margin	$ 4.14	$ 1.69	$ (2.22)	$ 1.37	$ 3.43

Cash Margin Definitions

Total cash operating expenses	*Cattle sales*
+ Family living expense and income tax	*+ Capital sales*
+ Scheduled principal payments	*+ Crop sales*
	+ Other farm & non-farm income
= Cash required	*= Other income*

Figure 7 shows the trend in cash margins experienced by the average dairy farm in the summary since 2007. Due to the substantial inflation of farm costs in 2007-08 and again in 2011, the breakeven milk price has moved up significantly from the area of $14 per cwt. that was common pre-2007. Also, breakeven milk price has exhibited substantial volatility during this time. Milk prices have moved up in most of these years, setting new records in 2007 and 2011. The net result has been very volatile cash margin, the difference between actual and breakeven milk price. Interestingly, 2007 cash margin still stands as a record high despite the fact that 2011 milk price was virtually the same as in 2007.

Given the high level of volatility in the dairy industry, making a financial decision based on a single year's performance would be dangerous. Figure 7 further illustrates this point:

- Cash margin in 2011 and 2007 was very strong.
- 2008 and 2010 cash flow was adequate.
- Cash flow produced in 2009 was well below breakeven.

This level of variability makes financial management more challenging, stressing the importance of a long-range view of cash flow. Timing of major capital expenditures, managing debt load, building liquidity for the tight years and adjusting family withdrawals are all means of managing volatility. Some producers have also adopted risk management strategies involving both input costs and milk prices as well as linking employee compensation to annual operating results.

Debt Capacity Again Strong

Debt capacity measures the maximum amount of capital debt a farmer could repay from cash generated from the farm business and nonfarm sources. It is determined primarily by cash flow and, to a lesser extent, by interest rates. Reserve debt capacity is the difference between debt capacity and the actual amount of capital debt invested in the business. It is a buffer against financial adversity that could arise within the business, such as herd health problems or crop failure, or from the marketplace, such as low milk prices or high feed costs. It represents the amount by which capital debt can be increased above existing levels and still be repaid from that year's cash flow. In 2011, there were more than sufficient farm earnings to provide adequate cash flow to service debt for the average ***DFS*** farm, propelling debt capacity and reserve debt capacity to a higher-than-average level (Figure 8).

Figure 8
Debt Capacity

	2007	2008	2009	2010	2011
			Dollars Per Cow		
Debt Capacity	$ 7,617	$ 4,837	$ (383)	$ 4,770	$ 8,074
- Capital Debt	2,530	2,691	3,038	3,126	2,939
RESERVE DEBT CAPACITY	$ 5,087	$ 2,146	$(3,421)	$ 1,644	$ 5,135
5-Year Average Reserve Debt Capacity[1]	$ 2,458	$ 2,347	$ 1,033	$ 946	$ 2,118
Debt Payments as a Percent of Milk Sales	12%	12%	17%	13%	11%
Average Farm Credit Interest Rate[2]					
Intermediate Term	7.7%	5.1%	4.1%	4.1%	4.1%
Long Term	7.6%	5.4%	4.4%	4.6%	4.5%

[1]5-year rolling average includes pre-2007 data.
[2]Average interest rates for Northeast region ACAs excluding benefit of patronage dividends
**A term of 60 months for intermediate term and 300 months for long-term debt is assumed.*

Interesting to note is the similarity between reserve debt capacity in 2007 and 2011. However, this comparison is substantially impacted by historically low interest rates during 2011. If we were to rerun 2011 debt payments at 2007 interest rates, the average farm would lose more than $1,000 per cow of both debt capacity and reserve debt capacity, leaving $7,057 and $4,118 per cow respectively. Debt payments in 2011 also include an additional $409 per cow of capital debt that

needs to be serviced. In planning for the future, it is important not to be lulled into thinking that today's low interest rates will last indefinitely. At some point, the Federal Reserve will begin to increase rates and this will impact debt requirements and capacity for those farmers who are priced on the variable rate plan.

Also shown on the graph is the five-year average for reserve debt capacity. In 2011, it was $2,118 per cow, up from the previous two years. Judging a single year in the volatile dairy business would not be adequate to truly evaluate the capability of the industry. That said, dairy producers require an increased margin of safety as borrowing up to debt capacity could leave a business highly vulnerable, particularly in a climate of rising interest rates. Managing debt load across year-to-year cycles remains a complex and critical management consideration. Discipline and properly positioning businesses for the inevitable downturns in the dairy industry is necessary to manage adversity. Farm Credit's lenders and consultants are available to assist in creating business plans.

Capital Purchases Up

Northeast dairy farmers increased capital spending by 62 percent in 2011, up significantly over 2009 and 2010 (Figure 9). The majority of capital purchases were for replacement machinery and equipment, with some buildings and land improvement. Total capital purchases per farm were $253,628, which is also significantly above the five-year average of $187,043. The rate of reinvestment improved to 6.9 percent, bringing the five-year average up to 6.1 percent.

Figure 9
Capital Purchases

	Per Farm	Per Cow	% of Total Assets[1]
2007	$175,895	$ 635	6.4%
2008	$235,824	$ 867	8.2%
2009	$122,988	$ 444	4.3%
2010	$146,880	$ 480	4.6%
2011	$253,628	$ 778	6.9%
5-Year Average	$187,043	$ 641	6.1%

[1]Majority of capital purchases is for machinery and equipment, which provides an approximate rate of reinvestment.

Figure 10 shows a Sources and Use Statement on a per cow basis for the average Northeast dairy farmer. It shows all sources of cash inflows for the business and how it was used, including what was available to cover capital purchases.

Figure 10
Sources and Use Statement

	2007	2008	2009	2010	2011
Sources:			***Dollars per Cow***		
Net Farm Income[1]	$ 745	$ 765	$ 113	$ 507	$ 916
Net Nonfarm Income	44	42	40	41	41
Sale of Capital	57	30	35	50	50
Savings Withdrawn	11	15	30	22	18
Money Borrowed	285	586	780	411	329
TOTAL SOURCES	$1,143	$1,438	$ 998	$1,031	$1,354
Uses:					
Family Living	$ 178	$ 194	$ 166	$ 153	$ 160
Capital Purchases	635	867	444	480	778
Debt Principal Payments	330	377	388	398	416
TOTAL USES	$1,143	$1,438	$ 998	$1,031	$1,354
Percent Capital Purchases Financed[2]	46%	69%	176%	86%	42%

[1]Cash basis – No accrual adjustment to expenses
[2]Money borrowed / capital purchases

Total sources were up again in 2011 to $1,354 per cow. Net cash farm income was the main driver of this increase, up nearly 81 percent over 2010 to $916 per cow. As previously discussed, capital purchases were up as were debt principal payments, however new money borrowed was down 20 percent in 2011. Given 2011's positive net margin, the proportion of funds borrowed for capital purchases fell to 42 percent in 2011, a considerable improvement, particularly over 2009.

Net worth, or owner's equity, measures the wealth of the farm business owner. It is measured at each year's end in the ***DFS*** in order to accurately compare changes in net worth. Net worth is an indicator of the ability of the business to absorb financial losses and to collateralize additional borrowing. It is also a measure of the amount that could be redeployed if the business is liquidated.

The average ***DFS*** dairy farmer's net worth in 2011 was up to $8,178 per cow from $7,091 in 2010. Percent net worth improved to pre-2009 levels at 72 percent (Figure 11). Solvency remains solid for the average ***DFS*** farm, meaning that the average ***DFS*** participant has more than enough farm assets to liquidate, if needed, in order to satisfy all farm debts, selling fees and the resulting income tax liability.

Figure 11
Change in Financial Position

	Change in NW per Cow	Percent Net Worth [1]	Current Ratio [2]	Quick Ratio[3]	Asset Turnover[4]
2007	$867	73%	3.0	1.5	0.57
2008	$366	72%	2.5	1.0	0.49
2009	($637)	68%	2.0	0.8	0.37
2010	$115	68%	2.3	0.9	0.47
2011	$1,087	72%	2.8	1.2	0.52

[1]Percent net worth = Owner's net worth / total assets
[2]Current ratio = Current assets / current liabilities
[3]Quick ratio = Current assets - inventory / current liabilities
[4]Asset turnover = Value of farm production / average total assets

There is an important distinction between growth in net worth resulting from earnings and that resulting from market revaluation. Net earnings are the result of profits from dairy farming. Market revaluation generally occurs most noticeably in farm real estate, but it also happens in personal property. While machinery and equipment ordinarily depreciate, livestock values go up or down based on market conditions. For the few years leading up to 2008, livestock asset values per cow (including youngstock) increased to $2,419. Cattle values then decreased two years in a row in 2009 and 2010. They were up slightly by $61 per cow in 2011 to $2,307 (Table A-3). Replacement heifer prices remained somewhat depressed in the Northeast and across the country; however beef prices were up, which helped increase the overall value. The average ***DFS*** farm

raises a relatively large amount of replacement heifers as reflected in youngstock as a percent of cows at 88.4 percent.

Liquidity is the ability of the farm operator to convert short-term assets (current assets) to cash to meet short-term obligations (current liabilities) as they become due. Its importance cannot be overstressed in a volatile industry, such as dairy. The current and quick ratios are two measures of liquidity. In 2011, the average dairy farm had a current ratio of 2.8, an improvement from 2.3 in 2010 and 2.0 in 2009 (Figure 11). Better cash flow in 2011 as well as sufficient inventories relative to current liabilities helped to improve this ratio. However, as inventory on a dairy farm is primarily feed for on-farm use and not truly intended to be directly converted into cash to pay bills, subtracting inventory from the current ratio produces the quick ratio and provides a closer look at a dairy farm's true liquidity situation. The quick ratio of 1.2 at the end of the year further demonstrates improved liquidity positioning in 2011.

Finally, asset turnover is commonly used to measure the efficiency of total capital invested in the business by determining gross revenue dollars generated for every dollar invested. The higher the asset turnover ratio, the more efficiently the investment is working for the business: greater asset turnover should translate into a higher return on assets (ROA). In 2011, asset turnover for the average dairy business was 0.52. This means that $0.52 of gross revenue was generated for every $1 invested in assets, up from 2009 and 2010 but still below 2007.

Net Margin Differences Amplified in 2011

The average farm in the ***DFS*** improved net earnings $401 per cow to $797 in 2011. This follows another year of improvement as the average net earnings were $396 per cow in 2010, up from a loss of $385 per cow in 2009. However, the wide range of profits was dramatic. Some farms lost more than $1,000 per cow while others posted nearly $2,000 in gain. Figure 12 demonstrates the range of profitability between the top and bottom profit groups. Farms in the summary are ranked by profit margin and divided into four quartiles of equal numbers. For the sake of comparison, the all-farm average is also included.

Figure 12

Range of 2011 Profits

	Bottom 25%	All Farms	Top 25%
Number of Farms	133	532	133
Average Number of Cows	184	326	436
Milk Sold per Cow (lbs.)	20,215	23,244	24,736
Milk Sold per Worker (lbs.)	832,123	1,085,617	1,202,324
Net Earnings			
Per Farm	($27,600)	$259,822	$623,044
Per Cow	($150)	$797	$1,429
Per Cwt.	($0.74)	$3.43	$5.78
Return on Assets[1]	(0.3%)	8.4%	14.1%
Return on Equity[1]	(1.6%)	10.7%	18.3%

[1]ROA and ROE calculations do not include asset appreciation

There was a $1,579 difference in net earnings per cow between the top and bottom groups. This is significantly larger than last year's difference which stood at $1,130. Similarly on a per cwt. basis, the top farms posted over $6.00 more net earnings than the least profitable farms with a gain of $5.78 while the bottom group lost $0.74. Several management factors contribute to this disparity. Also shown in Figure 12 are two productivity measures. The Top 25% group sells 22 percent more milk per cow and 45 percent more milk per worker than the Bottom 25%, which contributes to the bottom line.

Another area where the top profit group excels is in the net cost of production. Figure 13 shows the difference in the cost of producing milk between the most and least profitable groups. In 2011, while both groups sustained increases from 2010, the top group was able to control costs better with an increase of 12 percent while the bottom group saw a 19 percent rise. The difference between the two widened to $6.62 per cwt. in 2011, which is the largest gap of the past five years. Interesting to note, the bottom group also received a slightly higher milk price of $21.61 per cwt. compared to the top group's $21.24.

Figure 13

Cost of Producing Milk by Profit Groups

	2007	2008	2009	2010	2011
Net Cost of Production*			***Dollars per Cwt.***		
Bottom 25%	$19.17	$21.35	$18.22	$18.91	$22.53
Top 25%	14.46	15.90	13.12	14.16	15.91
Difference	$ 4.71	$ 5.45	$ 5.10	$ 4.75	$ 6.62

**Before any return on equity*

To summarize, over the years, the ***DFS*** has determined that there is no simple, one-dimensional explanation as to why some farms do a great deal better than others. There are, however, two consistent conclusions about differences in farm profitability:

- The interaction of factors, rather than any single factor, explains why one dairy farm is more profitable than another.
- No unique combination of factors is common to highly profitable farms. Many combinations appear to work well, which provides dairy farmers with the opportunity to create their own formula for success.

Certainly, high milk production per cow influences profitability. However, Figure 14A illustrates that by itself, high production per cow does not guarantee superior profitability, as a significant number of high production farms fall in the lower profit groups. However, very few low production farms fall in the top profit group.

The importance of balancing production with total costs to achieve profitability is much more obvious (Figure 14B). As NCOP decreases, the possibility of higher profits increases on nearly a straight line. Cost control, production ability, buying savvy, labor management and wise capital spending determine the cost of production. The ability of dairy producers and their management teams to consistently stay on top of these challenges determines profitability.

Figure 14A

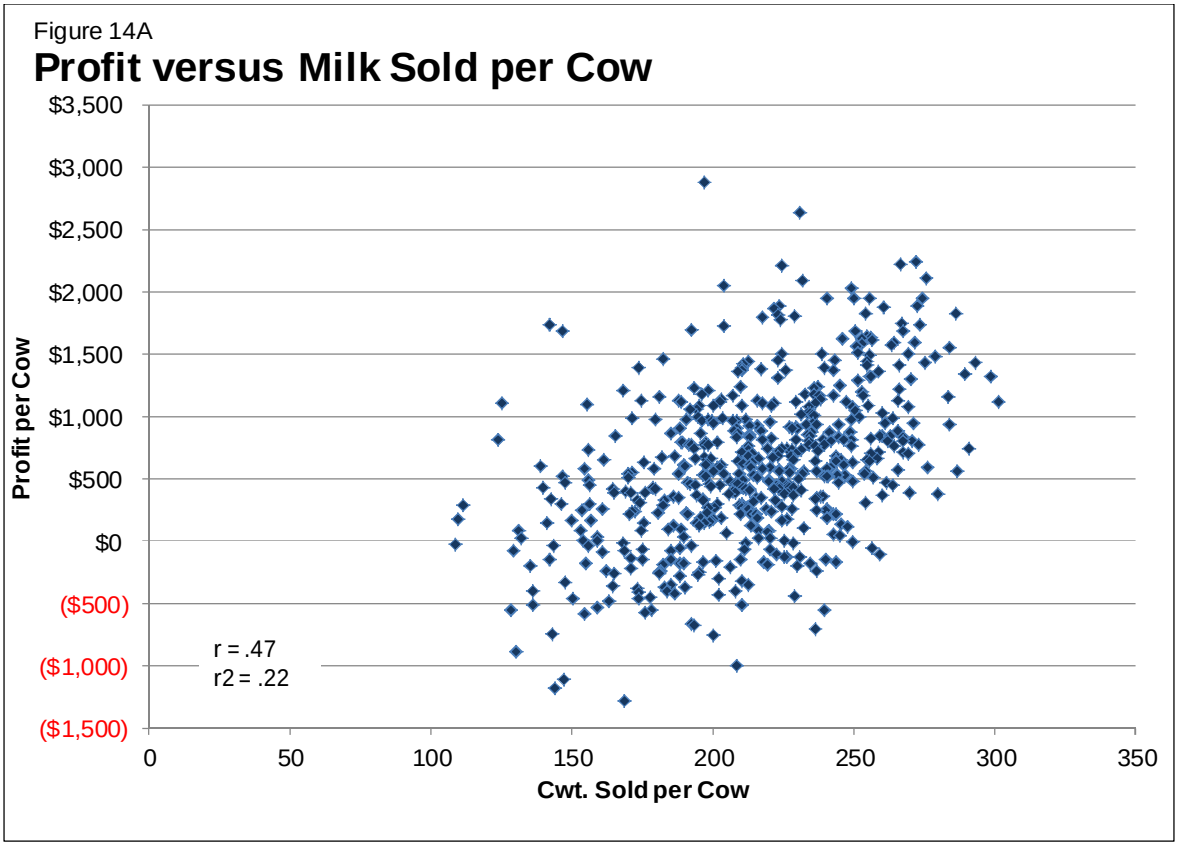
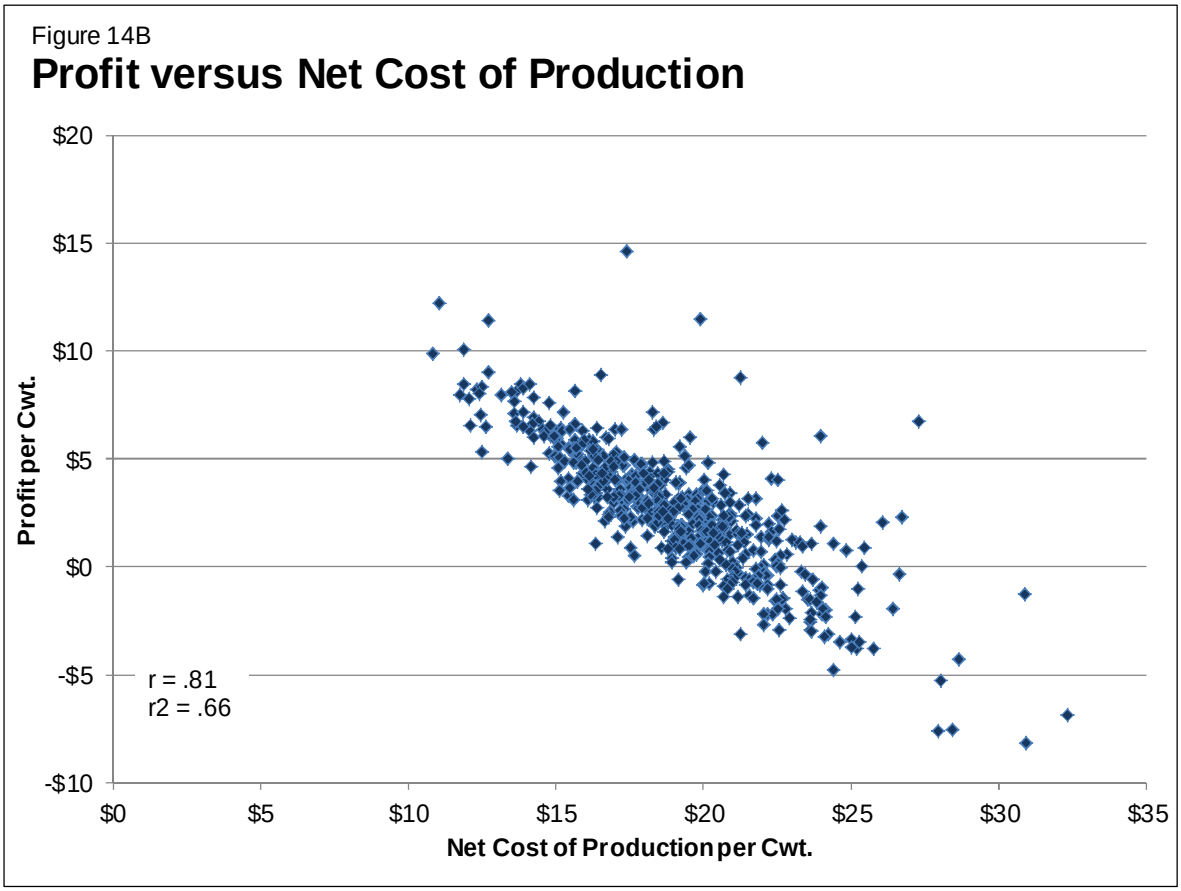


Figure 14B



Above average management is critical to profits, but "above average" is difficult to quantify. Successful managers have been able to identify and leverage their individual management strengths on which to build a profitable dairy business. In short, these managers have developed a management strategy that fits their personalities and resources.

Figure 15
Winning Management Styles of Top 25%

	Great with Cows	Labor Efficient	Better Milk Price	Tight with a Buck	Balanced
Number of Farms	25	42	27	30	8
Average Number of Cows	442	689	264	235	189
Milk Sold per Cow (lbs.)	26,499	24,931	20,647	21,390	21,299
Milk Sold per Worker (lbs.)	996,534	1,481,164	815,785	878,033	822,391
Net Cost of Production Per Cwt.	$15.54	$15.45	$18.00	$13.80	$19.37
Milk Price per Cwt.	$20.83	$21.18	$22.23	$20.74	$20.74
Net Earnings per Cow	$1,456	$1,455	$1,305	$1,523	$1,101
Net Earnings per Cwt.	$5.50	$5.86	$6.49	$7.18	$5.21
Return on Assets (%)	14.2%	15.3%	9.9%	12.3%	6.4%
Percent Net Worth (%)	75%	73%	79%	70%	80%

Of the 133 farms included in 2011's top profit quartile, 115 exhibited distinct management styles, while the remaining eight farms displayed a more balanced approach. Figure 15 breaks down these styles of farms excelling in the corresponding management factor. For example, farms included in the Great with Cows group outperformed all others in producing the most milk per cow. The greatest number of farms fell into the Labor Efficient group with 42.

Great with Cows: These farmers spend more time and money on cow productivity. Average milk sold of 26,499 pounds per cow is the highest among the five styles. High production allowed them to produce and sell 996,534 pounds of milk per worker, second only to the Labor Efficient group.

Labor Efficient: Superior labor management and the largest herd size enabled this group to be the most labor efficient, with milk sold per worker of nearly 1.5 million pounds. In addition to labor efficiency, this group reported the second highest milk sold per cow. Consisting of larger farms, this management style typically gains labor efficiencies from economies of scale.

Better Milk Price: This group received $22.23 per cwt./ for their milk, $0.99 more than average for the top profit group. Higher milk prices could be the result of high milk fat or protein content; negotiated premiums for quality, volume, and/or specialty markets. These producers have struck a balance between per cwt. profits that are above average with lower milk per cow as well as below-average net earnings per cow.

Tight with a Buck: These operators excel at cost control, achieving the lowest cost of production at $13.80 per cwt. Although milk per cow and milk per worker are below the top profit group average, these farmers have implemented tight cost control to achieve superior results. The rewards of managing costs are easily seen in the highest earnings per cow and per cwt.

Balanced: These are good, all-around managers. Although profits are less than the other styles, these farmers are able to respond quickly to adversity affecting their businesses. This management style is well suited to smaller farms where family members provide most of the production labor.

The common theme is that top-profit farmers have reached a profitable balance between milk production per cow and costs through a variety of management styles. However, top-profit makers will continue to be held to a higher standard of performance (e.g., average milk per cow continues to rise). This is especially true with any major change, such as the next generation joining the operation. At some point, farmers might consider changing or refining their strategy to better compete in a dynamic business climate.

Larger Farms Have the Edge on Profitability

Average farm sizes in the Northeast and across the country have continually increased for many decades. The ***DFS*** has concluded that profitability has more to do with successful management of all aspects of the business than any other factor. However, there are strong correlations in the data regarding size of farm, efficiency, pounds of milk sold per cow, cost of production and ultimately profitability.

As a group, the largest size group was by far the most profitable of the four size groups with $914 net earnings per cow in 2011 (Figure 16). The 300^{+} cow group contributed two out of every three farms in the top profit quartile, and 50 percent of these large farms were in the top profit group, while another 29 percent were in the second profit quartile. This group was also:

- The most productive on a milk-sold-per-cow and per-worker measure
- The lowest per-cow investor in productive assets and therefore had the highest asset turnover rate
- The lowest cost producer with the lowest net cost of production.

It is important to note that the other three size groups were all represented in the top profit quartile, but obviously in much smaller proportions. This is important because it shows that there is opportunity to achieve superior profitability over the range of farm sizes.

Figure 16
Farm Size and Profitability

	89 Cows or Less	90-149 Cows	150-299 Cows	300 Cows or More
Average Number of Cows	65	115	206	712
Milk Sold per Cow (lbs.)	19,502	19,678	21,398	24,126
Milk Sold per Worker (lbs.)	600,779	737,133	962,431	1,207,150
Net Cost Production per Cwt.	$ 18.83	$ 19.60	$ 19.22	$ 17.75
Milk Price per Cwt.	$ 20.93	$ 21.21	$ 21.52	$ 21.19
Assets per Cow	$16,757	$14,614	$12,976	$10,352
Asset Turnover	0.29	0.34	0.41	0.57
Percent Net Worth (%)	83%	79%	76%	69%
Net Earnings per Cow	$ 429	$ 353	$ 540	$ 914
Return on Assets (%)	3.4%	3.4%	5.3%	10.5%

Being large, however, is no guarantee of profitability as there were 37 farms from the 300^{+} size group achieving below average profitability. Again, this is indicative of success being all about successful management.

Conclusion

While milk prices and profitability were up in 2011, so was the cost of production. Dairy producers in the Northeast were finally able to return balance sheets to pre-2009 levels after two years of catch-up. They built liquidity, paid down debt and improved equity. At the same time they were able to make some much needed capital replacement purchases and improve reserve debt capacity. The past several years have been a roller coaster ride bringing substantial changes to the industry as well as to management approaches.

Northeast dairy producers are sharpening the skills needed to manage through dairy cycles. Strategies are as different as the individual characteristics of the farms within this study. Positioning your farm for success is crucial to meeting industry challenges. This summary presented various proven management strategies that have consistently resulted in above-average performance. Working closely with your Farm Credit loan officer and/or business consultant to assess your strengths and weaknesses and develop a strategy to position your farm to meet the challenges of the industry is now more critical than ever.

We hope that this year's edition of the ***Northeast Dairy Farm Summary*** is a useful tool for doing just that. It remains critical that dairy farmers and those who serve them continue to seek answers in order to have a healthy, profitable Northeast dairy industry. The entire ***Farm Credit team*** of loan officers, farm accounting professionals and business consultants are eager and prepared to help Northeast dairy farmers achieve a financially successful future.

Financial Records

The following 17 tables present the detailed financial data on which this summary was based. These tables are organized into four sets:

- Tables A-1 through A-5 are **COMPARISONS BETWEEN YEARS**
- Tables B-1 through B-3 are **COMPARISONS BETWEEN HERD SIZES**
- Tables C-1 through C-6 are **COMPARISONS BETWEEN PROFIT GROUPS**
- Tables D-1 through D-3 are **COMPARISONS BETWEEN GEOGRAPHICAL REGIONS**

Each set includes a condensed Earnings Worksheet, a Balance Sheet Summary, and a page of Evaluation Factors. The Comparison between Years also includes a Trend Sheet (Table A-5). The 2007 to 2011 data series includes New England, New Jersey, and New York farms.

Please note the following cautions to properly use this data:

- Cattle purchased for replacements are considered operating expenses, but cattle purchased for expansion are capital purchases. The accrual adjustment Change in the Inventory of Raised Livestock is calculated by subtracting purchases for expansion from the total increase in cattle inventory value.
- Depreciation is calculated by applying a standard percentage of depreciation to various asset classes in order to be able to compare consistent numbers from year to year and avoid variations driven by changes in tax laws.
- Appreciation and revaluation of capital assets do not appear in the Earnings Statements. They are, however, included on the Balance Sheets.
- Current liabilities on the Balance Sheet include both current debts as well as the current portion of intermediate-term and long-term liabilities.
- The depreciation categories were combined into one single line item.
- Other Receipts include MILC program payments.
- Supply expenses include BST costs.

Your ***Farm Credit Team*** of ag finance specialists encourages you to review the following financial data thoughtfully and thoroughly. The data allows you to identify your strengths and weaknesses and to improve your operation for the future. For further information please contact your local Farm Credit office.

TABLE A-1. COMPARISON BETWEEN YEARS — EARNINGS WORKSHEET

	2007	2008	2009	2010	2011
Number of Farms	550	540	544	524	532
Average Number of Cows	277	272	277	306	326
Receipts	DOLLARS PER FARM				
Milk Sales	$1,242,653	$1,188,471	$ 849,215	$1,235,483	$1,631,221
Cattle Sales	50,858	51,132	42,725	59,075	86,137
Crop Sales	60,221	72,590	23,782	61,818	65,395
Other	49,516	47,009	105,029	56,094	65,441
CASH RECEIPTS (a)	$1,403,248	$1,359,202	$1,020,751	$1,412,470	$1,848,194
Accrual Adjustments					
+ Change in Inventory-Raised Livestock	18,026	18,318	25,055	21,431	$ 12,927
VALUE OF FARM PRODUCTION (c)	$1,421,274	$1,377,520	$1,045,806	$1,433,901	$1,861,121
Expenses					
Chemicals & Sprays	$ 13,637	$ 14,165	$ 13,346	$ 13,733	$ 17,202
Custom Hire	33,905	35,794	35,469	44,716	48,485
Feed	320,627	375,467	343,271	389,544	514,478
Fertilizer & Lime	33,661	44,428	33,246	35,966	48,540
Freight & Trucking (Marketing)	53,899	59,734	57,543	65,645	65,960
Gasoline, Fuel & Oil	49,052	67,866	41,983	54,964	81,067
Insurance	16,847	16,878	15,954	17,242	19,944
Interest	50,606	35,559	34,011	40,519	39,733
Labor	174,113	178,284	177,165	195,873	224,937
Rent	21,322	21,050	19,113	23,144	26,920
Repairs	77,221	78,788	61,789	75,888	103,965
Seed & Plants	19,906	20,045	22,397	27,267	30,883
Supplies	68,808	71,733	64,877	76,957	82,408
Taxes	16,406	16,375	16,027	17,605	19,533
Utilities	29,936	29,908	27,839	32,751	35,328
Veterinary & Medicine	51,416	52,937	34,861	39,649	44,922
Other	21,206	22,219	34,594	37,819	53,616
Cow Replacements	3,959	6,206	3,046	3,441	4,063
ADJUSTED CASH OPERATING EXPENSES[1](b)	$1,056,527	$1,147,436	$1,036,531	$1,192,723	$1,461,984
Accrual Adjustments					
+ Depreciation	75,940	84,776	81,399	86,142	100,598
ADJUSTED FARM OPERATING EXPENSES (d)	$1,132,467	$1,232,212	$1,117,930	$1,278,865	$1,562,582
NET FARM INCOME (a) - (b)	$ 346,721	$ 211,766	$ (15,780)	$ 219,747	$ 386,210
NET FARM EARNINGS (c) - (d)	$ 288,807	$ 145,308	$ (72,124)	$ 155,036	$ 298,539
+ Net Nonfarm Income	12,424	11,477	10,981	12,512	13,437
- Family Living & Income Taxes	49,960	52,505	45,681	46,587	52,147
NET EARNINGS	$ 251,271	$ 104,280	$(106,824)	$ 120,961	$ 259,829

[1]Expenses adjusted for changes in accounts payable, prepaid expenses and supply inventories to remove the effects of tax planning and reflect only one year's expenses.

TABLE A-2. COMPARISON BETWEEN YEARS — EARNINGS WORKSHEET PER CWT.

	2007	2008	2009	2010	2011
Number of Farms	550	540	544	524	532
Average Number of Cows	277	272	277	306	326
Receipts	DOLLARS PER CWT. OF MILK				
Milk Sales	$20.52	$19.59	$13.80	$17.70	$21.53
Cattle Sales	0.84	0.84	0.69	0.85	1.14
Crop Sales	0.99	1.20	0.39	0.89	0.86
Other	0.82	0.78	1.70	0.79	0.86
CASH RECEIPTS (a)	$23.17	$22.41	$16.58	$20.23	$24.39
Accrual Adjustments					
+ Change in Inventory-Raised Livestock	0.30	0.30	0.41	0.31	0.17
VALUE OF FARM PRODUCTION (c)	$23.47	$22.71	$16.99	$20.54	$24.56
Expenses					
Chemicals & Sprays	$ 0.23	$ 0.23	$ 0.22	$0.20	$ 0.23
Custom Hire	0.56	0.59	0.58	0.64	0.64
Feed	5.29	6.19	5.58	5.58	6.79
Fertilizer & Lime	0.56	0.73	0.54	0.52	0.64
Freight & Trucking (Marketing)	0.89	0.98	0.93	0.94	0.87
Gasoline, Fuel & Oil	0.81	1.12	0.68	0.79	1.07
Insurance	0.28	0.28	0.26	0.25	0.26
Interest	0.84	0.59	0.55	0.58	0.52
Labor	2.87	2.94	2.88	2.81	2.97
Rent	0.35	0.35	0.31	0.33	0.36
Repairs	1.27	1.30	1.00	1.09	1.37
Seed & Plants	0.33	0.33	0.36	0.39	0.41
Supplies	1.14	1.18	1.05	1.10	1.09
Taxes	0.27	0.27	0.26	0.25	0.26
Utilities	0.49	0.49	0.45	0.47	0.47
Veterinary & Medicine	0.85	0.87	0.57	0.57	0.59
Other	0.35	0.38	0.57	0.53	0.71
Cow Replacements	0.07	0.10	0.05	0.05	0.05
ADJUSTED CASH OPERATING EXPENSES[1](b)	$17.45	$18.92	$16.84	$17.09	$19.30
Accrual Adjustments					
+ Depreciation	1.25	1.40	1.32	1.23	1.33
ADJUSTED FARM OPERATING EXPENSES (d)	$18.70	$20.32	$18.16	$18.32	$20.63
NET FARM INCOME (a) - (b)	$ 5.72	$ 3.49	$(0.26)	$ 3.14	$ 5.09
NET FARM EARNINGS (c) - (d)	$ 4.77	$ 2.39	$(1.17)	$ 2.22	$ 3.93
+ Net Nonfarm Income	0.21	0.19	0.18	0.18	0.18
- Family Living & Income Taxes	0.82	0.87	0.74	0.67	0.69
NET EARNINGS	$ 4.16	$ 1.71	$(1.73)	$ 1.73	$ 3.42

[1]Expenses adjusted for changes in accounts payable, prepaid expenses and supply inventories to remove the effects of tax planning and reflect only one year's expenses.

TABLE A-3. COMPARISON BETWEEN YEARS — BALANCE SHEET SUMMARY — DECEMBER 31

	2007	2008	2009	2010	2011
Number of Farms	550	540	544	524	532
Average Number of Cows	277	272	277	306	326
	DOLLARS PER FARM				
Assets					
Livestock	$ 675,448	$ 658,025	$ 624,350	$ 687,340	$ 752,107
Feed & Crops	206,869	245,383	232,653	280,216	328,481
Machinery & Equipment	470,868	532,044	521,389	560,602	662,191
Farm–Land & Buildings	1,066,173	1,139,883	1,210,781	1,345,946	1,422,083
All Other	342,861	292,317	267,604	317,016	532,822
TOTAL ASSETS	$2,762,219	$2,867,652	$2,856,777	$3,191,120	$3,697,684
TOTAL LIABILITIES	$ 754,788	$ 796,979	$ 924,444	$1,021,138	$1,032,076
TOTAL NET WORTH	$2,007,431	$2,070,673	$1,932,333	$2,169,982	$2,665,608
	DOLLARS PER COW				
Assets					
Livestock	$2,438	$ 2,419	$ 2,254	$ 2,246	$ 2,307
Feed & Crops	747	903	840	916	1,008
Machinery & Equipment	1,699	1,956	1,882	1,832	2,031
Farm-Land & Buildings	3,850	4,191	4,372	4,398	4,362
All Other	1,238	1,074	965	1,036	1,634
TOTAL ASSETS	$9,972	$10,543	$10,313	$10,428	$11,342
TOTAL LIABILITIES	$2,725	$ 2,930	$ 3,337	$ 3,337	$ 3,164
TOTAL NET WORTH	$7,247	$ 7,613	$ 6,976	$ 7,091	$ 8,178
	DOLLARS PER CWT. OF MILK				
Assets					
Livestock	$11.15	$10.85	$10.14	$9.85	$ 9.93
Feed & Crops	3.42	4.05	3.78	4.01	4.33
Machinery & Equipment	7.78	8.77	8.48	8.03	8.74
Farm–Land & Buildings	17.61	18.79	19.67	19.29	18.77
All Other	5.64	4.82	4.35	4.54	7.03
TOTAL ASSETS	$45.60	$47.28	$46.42	$45.72	$48.80
TOTAL LIABILITIES	$12.46	$13.14	$15.02	$14.63	$13.62
TOTAL NET WORTH	$33.14	$34.14	$31.40	$31.09	$35.18
PERCENT NET WORTH	73%	72%	68%	68%	72%

TABLE A-4. COMPARISON BETWEEN YEARS — EVALUATION FACTORS

	2007	2008	2009	2010	2011
Number of Farms	550	540	544	524	532
Average Number of Cows	277	272	277	306	326
Worker Equivalents	6.0	6.0	6.0	7.0	7.0
Cows per Worker	46	45	46	44	47
Pounds of Milk Sold per Worker	1,009,500	1,010,917	1,025,783	997,100	1,085,617
Pounds of Milk Sold	6,057,000	6,065,500	6,154,700	6,979,700	7,577,606
Pounds of Milk Sold per Cow	21,866	22,300	22,219	22,809	23,244
Milk Price per Cwt.	$20.52	$19.59	$13.80	$17.70	$21.53
Total Crop Acres	668	670	653	714	769
Crop Acres per Cow	2.4	2.5	2.4	2.3	2.4
Feed Cost per Cow	$1,158	$ 1,380	$1,239	$1,273	$1,578
Feed as a Percent of Milk Sales	26%	32%	40%	32%	32%
Feed & Crop Expense per Cow[1]	$1,400	$1,670	$1,488	$1,525	$1,875
Feed & Crop Expense per Cwt.	$6.40	$7.49	$6.70	$6.69	$8.07
Machinery Costs per Cow[2]	$714	$832	$667	$723	$869
Machinery Costs per Cwt.	$3.27	$3.73	$3.00	$3.17	$3.74
Labor & Family Living per Cow	$796	$833	$796	$788	$849
Labor & Family Living per Cwt.	$3.64	$3.74	$3.58	$3.45	$3.65
Assets per Cow	$9,972	$10,543	$10,313	$10,428	$11,342
Debt per Cow	$2,725	$ 2,930	$ 3,337	$3,337	$3,164
Net Worth per Cow	$7,247	$7,613	$ 6,976	$7,091	$8,178
Percent Net Worth	73%	72%	68%	68%	72%

[1]Feed & crop expense = Feed + seed & plants + fertilizer + chemicals & spray
[2]Machinery costs = Machinery repairs + fuel & oil + custom hire + machinery & equipment depreciation

TABLE A-5. COMPARISON BETWEEN YEARS — TREND ANALYSIS

ADJUSTED FINANCIAL CONDITION AS OF DECEMBER 31	2007	2008	2009	2010	2011
Current Assets	$ 430,480	$ 421,962	$ 375,649	$ 451,846	$ 576,196
Intermediate Assets	1,258,297	1,298,525	1,263,302	1,384,848	1,582,712
Fixed Assets	1,073,442	1,147,165	1,217,826	1,354,426	1,538,776
TOTAL ASSETS	$2,762,219	$2,867,652	$2,856,777	$3,191,120	$3,697,684
Change (+ or -) from Prior Years	$ 544,116	$ 105,433	$ (10,875)	$ 334,343	$ 506,564
Current Liabilities	$ 144,693	$ 169,274	$ 190,121	$ 192,897	$ 209,387
Intermediate Liabilities	326,208	340,970	414,998	471,119	426,589
Long-Term Liabilities	283,887	286,735	319,325	357,122	396,100
TOTAL LIABILITIES	$ 754,788	$ 796,979	$ 924,444	$1,021,138	$1,032,076
Change (+ or -) from Prior Years	$ 80,649	$ 42,191	$ 127,465	$ 96,694	$ 10,938
NET WORTH	$2,007,431	$2,070,673	$1,932,333	$2,169,982	$2,665,608
Change (+ or -) from Prior Years	$ 463,467	$ 63,242	$(138,340)	$ 237,649	$ 495,626
% Net Worth	73%	72%	68%	68%	72%

I & E FARM (CASH BASIS) DATE:	12/31/2007[1]	12/31/2008	12/31/2009	12/31/2010	12/31/2011
Sales - Primary Product	$1,242,653	$1,188,471	$ 849,215	$1,235,483	$1,631,221
Sales - Secondary Product	50,858	51,132	42,725	59,075	86,137
Other Farm Income	109,737	119,599	128,811	117,912	130,836
TOTAL FARM INCOME	$1,403,248	$1,359,202	$1,020,751	$1,412,470	$1,848,194
FARM EXPENSES	$1,056,527	$1,147,436	$1,036,531	$1,192,723	$1,461,984
NET FARM INCOME	$ 346,721	$ 211,766	$ (15,780)	$ 219,747	$ 386,210
ADD: Interest	50,606	35,559	34,011	40,519	39,733
TOTAL AVAILABLE - Farm	$ 397,327	$ 247,325	$ 18,231	260,266	$ 425,943
ADD: Net Nonfarm Income	$ 12,424	$ 11,477	$ 10,981	$ 12,512	$ 13,437
Sale Capital Assets	15,699	8,151	9,594	15,407	16,436
TOTAL FUNDS AVAILABLE (a)	$ 425,450	$ 266,953	$ 38,806	$ 288,185	$ 455,816
Family Living + Income Taxes	$ 49,960	$ 52,205	$ 45,681	$ 46,587	$ 52,147
Debt Service Requirement	142,012	138,109	141,497	162,520	175,259
TOTAL FUNDS REQUIRED (b)	$ 191,972	$ 190,314	$ 187,178	$ 209,107	$ 227,406
EXCESS (DEFICIT) (a – b)	$ 233,478	$ 76,639	$(148,372)	$ 79,078	$ 228,410

[1]Corrected from 2007 *DFS*

TABLE B-1. 2011 DATA BY HERD SIZE — EARNINGS WORKSHEET

	HERD SIZE				
	89 COWS OR LESS	90-149 COWS	150-299 COWS	300 COWS OR MORE	ALL FARMS
Number of Farms	111	117	125	179	532
Average Number of Cows	65	115	206	712	326
Receipts	DOLLARS PER COW				
Milk Sales	$4,102	$4,209	$4,651	$5,193	$5,004
Cattle Sales	296	244	259	265	264
Crop Sales	318	293	239	176	201
Other	202	188	223	196	201
CASH RECEIPTS (a)	$4,918	$4,934	$5,372	$5,830	$5,670
Accrual Adjustments					
+ Change in Inventory-Raised Livestock	(- 36)	8	7	54	40
VALUE OF FARM PRODUCTION (c)	$4,882	$4,942	$5,379	$5,884	$5,710
Expenses					
Chemicals & Sprays	38	48	45	56	53
Custom	79	114	157	154	149
Feed	1213	1240	1445	1656	1578
Fertilizer & Lime	162	170	149	145	149
Freight & Trucking (Marketing)	193	206	204	201	202
Gasoline, Fuel & Oil	243	250	262	245	249
Insurance	90	78	68	56	61
Interest	124	119	121	122	122
Labor	310	471	642	742	690
Rent	60	68	77	86	83
Repairs	309	323	320	318	319
Seed & Plants	110	105	102	91	95
Supplies	242	244	266	251	253
Taxes	104	83	66	54	60
Utilities	134	116	111	105	108
Veterinary, Medicine & Breeding	94	100	117	148	138
Other	153	141	147	171	164
Cow Replacements	12	24	19	10	12
ADJUSTED CASH OPERATING EXPENSES[1] (b)	$3,670	$3,900	$4,318	$4,611	$4,485
Accrual Adjustments					
+ Depreciation	471	414	352	278	309
ADJUSTED FARM OPERATING EXPENSES (d)	$4,141	$4,314	$4,670	$4,889	$4,794
NET FARM INCOME (a) - (b)	$1,248	$1,034	$1,054	$1,219	$1,185
NET FARM EARNINGS (c) - (d)	741	628	709	995	916
+ Net Nonfarm Income	186	116	62	21	41
- Family Living & Income Taxes	498	391	231	102	160
NET EARNINGS	$ 429	$ 353	$ 540	$ 914	$ 797

[1]Expenses adjusted for changes in accounts payable, prepaid expenses and supply inventories to remove the effects of tax planning and reflect only one year's expenses.

TABLE B-2. 2011 DATA BY HERD SIZE — BALANCE SHEET SUMMARY

DECEMBER 31, 2011

	HERD SIZE				
	89 COWS OR LESS	90-149 COWS	150-299 COWS	300 COWS OR MORE	ALL FARMS
Number of Farms	111	117	125	179	532
Average Number of Cows	65	115	206	712	326
	ASSETS PER COW				
Cash & Accounts Receivable	$ 618	$ 527	$ 485	$ 511	$ 515
Feed & Crop Inventory	1,004	1,025	1000	1,005	1,007
Supplies & Prepaid Expenses	122	112	152	212	192
Other Current Assets	141	$ 78	$ 47	$ 46	$ 53
TOTAL CURRENT ASSETS	$ 1,885	$ 1,742	$ 1,684	$ 1,774	$ 1,767
Dairy Livestock	$ 2,221	$ 2,178	$ 2,377	$ 2,304	$ 2,307
Machinery & Equipment	3,577	3,046	2,460	1,743	2,031
Other Intermediate Assets	1,086	1,132	677	415	517
TOTAL INTERMEDIATE ASSETS	$ 6,884	$ 6,356	$ 5,514	$ 4,462	$ 4,855
Farm Real Estate	$ 7,614	$ 5,939	$ 5,351	$ 3,797	$ 4,362
Other Fixed Assets	374	577	427	319	358
TOTAL FIXED ASSETS	$ 7,988	$ 6,516	$ 5,778	$ 4,116	$ 4,720
TOTAL ASSETS	$16,757	$14,614	$12,976	$10,352	$11,342
	LIABILITIES PER COW				
Accounts Payable	$ 44	$ 90	$ 104	$ 52	$ 63
Farm Credit Short-Term Loans	39	77	107	149	133
Other Current Liabilities	461	433	426	450	444
TOTAL CURRENT LIABILITIES	$ 544	$ 600	$ 637	$ 651	$ 640
Farm Credit Intermediate Term	$1,005	$ 920	$ 945	$1,121	$1,077
Other Intermediate Liabilities	333	260	286	211	232
TOTAL INTERMEDIATE LIABILITIES	$1,338	$1,180	$1,231	$1,332	$1,309
Farm Credit Long-Term Real Estate	$ 765	$1,015	$ 992	$1,078	$1,050
Other Long-Term Liabilities	248	227	220	142	165
TOTAL LONG-TERM LIABILITIES	$1,013	$1,242	$1,212	$1,220	$1,215
TOTAL LIABILITIES	$2,895	$3,022	$3,080	$3,203	$3,164
	NET WORTH PER COW				
OWNER'S NET WORTH	$13,862	$11,592	$ 9,896	$ 7,149	$ 8,178
TOTAL LIABILITIES & NET WORTH	$16,757	$14,614	$12,976	$10,352	$11,342
PERCENT NET WORTH	83%	79%	76%	69%	72%

TABLE B-3. 2011 DATA BY HERD SIZE — EVALUATION FACTORS

	HERD SIZE				
	89 COWS OR LESS	90-149 COWS	150-299 COWS	300 COWS OR MORE	ALL FARMS
Number of Farms	111	117	125	179	532
Average Number of Cows	65	115	206	712	326
Worker Equivalents	2.1	3.1	4.6	14.2	7.0
Cows per Worker	31	37	45	50	47
Pounds of Milk Sold per Worker	600,779	737,133	962,431	1,207,150	1,085,617
Pounds of Milk Sold	1,267,643	2,262,998	4,407,934	17,177,742	7,577,606
Pounds of Milk Sold per Cow	19,502	19,678	21,398	24,126	23,244
Milk Price per Cwt.	$20.93	$21.21	$21.52	$21.19	$21.53
Total Crop Acres	242	400	557	1,485	769
Crop Acres per Cow	3.7	3.5	2.7	2.1	2.4
Crop Acres per Worker	115	130	122	104	110
Feed Cost per Cow	$1,213	$1,240	$1,445	$1,656	$1,578
Feed Cost per Cwt.	$6.22	$6.30	$6.75	$ 6.86	$6.79
Feed as a Percent of Milk Sales	30%	29%	31%	32%	32%
Feed & Crop Expense per Cow[1]	$1,523	$1,563	$1,741	$1,948	$1,875
Feed & Crop Expense per Cwt.	$7.81	$7.94	$8.14	$8.07	$8.07
Machinery Cost per Cow[2]	$907	$917	$923	$846	$869
Machinery Costs per Cwt.	$4.65	$4.66	$4.31	$3.51	$3.74
Labor & Family Living per Cow	$808	$862	$872	$844	$849
Labor & Family Living per Cwt.	$4.14	$4.38	$4.08	$3.50	$3.65
Assets per Cow	$16,757	$14,614	$12,976	$10,352	$11,343
Debt per Cow	$2,895	$3,022	$3,080	$3,203	$3,164
Net Worth per Cow	$13,862	$11,592	$9,896	$7,149	$8,178
Percent Return on Assets[3]	3.4%	3.4%	5.3%	10.5%	8.4%
Percent Return on Equity[4]	3.4%	3.3%	5.8%	13.8%	10.7%

[1]Feed & crop expense = Feed + seed & plants + fertilizer + chemicals & sprays

[2]Machinery cost = Machinery repairs + custom hire + fuel & oil + machinery & equipment depreciation

[3]Return on assets = (Net earnings + interest) ÷ average assets

[4]Return on equity = Net earnings ÷ average net worth

TABLE C-1. 2011 DATA BY PROFIT GROUPS — EARNINGS WORKSHEET

	PROFIT GROUP				
	BOTTOM 25%	THIRD 25%	SECOND 25%	TOP 25%	ALL FARMS
Number of Farms	133	133	133	133	532
Average Number of Cow	184	259	426	436	326
Receipts	DOLLARS PER COW				
Milk Sales	$4,404	$4,749	$5,037	$5,364	$5,004
Cattle Sales	267	263	263	265	264
Crop Sales	139	132	149	318	201
Other	158	177	221	214	201
CASH RECEIPTS (a)	$4,968	$5,321	$5,670	$6,161	$5,670
Accrual Adjustments					
+ Change in Inventory-Raised Livestock	(- 88)	(- 9)	55	107	40
VALUE OF FARM PRODUCTION (c)	$4,880	$5,312	$5,725	$6,268	$5,710
Expenses					
Chemicals & Sprays	55	41	49	62	53
Custom	131	178	161	126	149
Feed	1,563	1,579	1,601	1,558	1,578
Fertilizer & Lime	178	149	144	142	149
Freight & Trucking (Marketing)	204	212	190	208	202
Gasoline, Fuel & Oil	272	243	250	240	249
Insurance	83	65	55	56	61
Interest	114	125	134	111	122
Labor	636	644	732	692	689
Rent	86	68	101	72	83
Repairs	334	315	305	328	319
Seed & Plants	112	78	95	97	95
Supplies	272	271	250	236	253
Taxes	74	66	52	58	60
Utilities	114	104	107	110	108
Veterinary & Medicine	124	121	149	142	138
Other	162	161	165	162	165
Cow Replacements	24	12	15	5	12
ADJUSTED CASH OPERATING EXPENSES[1] (b)	$4,538	$4,432	$4,555	$4,405	$4,485
Accrual Adjustments					
+ Depreciation	345	315	287	311	309
ADJUSTED FARM OPERATING EXPENSES (d)	$4,883	$4,747	$4,842	$4,716	$4,794
NET FARM INCOME (a) - (b)	$ 430	$ 889	$1,115	$1,756	$1,185
NET FARM EARNINGS (c) - (d)	(- 3)	565	$ 883	$1,552	$ 916
+ Net Nonfarm Income	54	53	30	39	41
- Family Living & Income Taxes	201	175	131	162	160
NET EARNINGS	$(-150)	$ 443	$ 782	$1,429	$ 797

[1]Expenses adjusted for changes in accounts payable, prepaid expenses and supply inventories to remove the effects of tax planning and reflect only one year's expenses.

TABLE C-2. 2011 DATA BY PROFIT GROUPS — BALANCE SHEET SUMMARY

December 31, 2011

	PROFIT GROUP				
	BOTTOM 25%	THIRD 25%	SECOND 25%	TOP 25%	ALL FARMS
Number of Farms	133	133	133	133	532
Average Number of Cows	184	259	426	436	326
	ASSETS PER COW				
Cash & Accounts Receivable	$ 465	$ 421	$ 475	$ 628	$ 515
Feed & Crop Inventory	930	889	972	1145	1007
Supplies & Prepaid Expenses	76	117	170	308	192
Other Current Assets	46	36	45	71	53
TOTAL CURRENT ASSETS	$ 1,517	$ 1,463	$ 1,662	$ 2,152	$ 1,767
Dairy Livestock	$ 2,370	$ 2,194	$ 2,285	$ 2,364	$ 2,307
Machinery & Equipment	2,329	2,091	1,853	2,040	2,031
Other Intermediate Assets	595	597	436	513	517
TOTAL INTERMEDIATE ASSETS	$ 5,294	$ 4,882	$ 4,574	$ 4,917	$ 4,855
Farm Real Estate	$ 5,316	$ 4,729	$ 3,968	$ 4,117	$ 4,362
Other Fixed Assets	384	396	292	388	358
TOTAL FIXED ASSETS	$ 5,700	$ 5,125	$ 4,260	$ 4,505	$ 4,720
TOTAL ASSETS	$12,511	$11,470	$10,496	$11,574	$11,342
	LIABILITIES PER COW				
Accounts Payable	$ 139	$ 79	$ 46	$ 37	$ 63
Farm Credit Short-Term Loans	122	111	113	171	133
Other Current Liabilities	378	428	487	446	444
TOTAL CURRENT LIABILITIES	$ 639	$ 618	$ 646	$ 654	$ 640
Farm Credit Intermediate Term	$ 857	$1,064	$1,183	$1,072	$1,077
Other Intermediate Liabilities	270	223	273	179	232
TOTAL INTERMEDIATE LIABILITIES	$1,127	$1,287	$1,456	$1,251	$1,309
Farm Credit Long-Term Real Estate	$1,177	$1,103	$1,040	$ 973	$1,050
Other Long-Term Liabilities	172	113	183	174	165
TOTAL LONG-TERM LIABILITES	$1,349	$1,216	$1,223	$1,147	$1,215
TOTAL LIABILITIES	$3,115	$3,121	$3,325	$3,052	$3,164
	NET WORTH PER COW				
OWNER'S NET WORTH	$ 9,396	$ 8,349	$ 7,171	$ 8,522	$ 8,178
TOTAL LIABILITIES & NET WORTH	$12,511	$11,470	$10,496	$11,574	$11,342
PERCENT NET WORTH	75%	73%	68%	74%	72%

TABLE C-3. 2011 DATA BY PROFIT GROUPS — EVALUATION FACTORS

	PROFIT GROUP				
	BOTTOM 25%	THIRD 25%	SECOND 25%	TOP 25%	ALL FARMS
Number of Farms	133	133	133	133	532
Average Number of Cows	184	259	426	436	326
Worker Equivalents	4.47	5.61	8.86	8.98	7.00
Cows per Worker	41	46	48	49	47
Pounds of Milk Sold per Worker	832,123	1,023,607	1,135,842	1,202,324	1,085,617
Pounds of Milk Sold	3,719,588	5,742,438	10,063,558	10,784,842	7,577,606
Pounds of Milk Sold per Cow	20,215	22,172	23,623	24,736	23,244
Milk Price per Cwt.	$21.61	$21.23	$21.08	$21.24	$21.53
Total Crop Acres	537	598	948	994	769
Crop Acres per Cow	2.9	2.3	2.2	2.3	2.4
Crop Acres per Worker	120	107	107	111	110
Feed Cost per Cow	$1,563	$1,579	$1,601	$1,558	$1,578
Feed Cost per Cwt.	$7.73	$7.12	$8.00	$6.30	$6.79
Feed as a Percent of Milk Sales	36%	33%	32%	29%	32%
Feed & Crop Expense per Cow[1]	$1,908	$1,847	$1,889	$1,859	$1,875
Feed & Crop Expense per Cwt.	$9.44	$8.33	$8.00	$7.52	$8.07
Machinery Cost per Cow[2]	$912	$894	$930	$845	$869
Machinery Cost per Cwt.	$4.51	$4.03	$3.94	$3.42	$3.74
Labor & Family Living per Cow	$837	$819	$863	$854	$849
Labor & Family Living per Cwt.	$4.14	$3.69	$3.65	$3.45	$3.65
Assets per Cow	$10,198	$12,512	$10,495	$11,574	$11,342
Debt per Cow	$3,115	$3,121	$3,324	$3,052	$3,164
Net Worth per Cow	$9,397	$8,348	$7,171	$8,522	$8,178
Percent Return on Assets[3]	(-0.3%)	5.0%	9.0%	14.1%	8.4%
Percent Return on Equity[4]	(-1.6%)	5.3%	11.7%	18.3%	10.7%

[1]Feed & crop expense = Feed + seed & plants + fertilizer + chemicals & spray
[2]Machinery cost = Machinery repairs + custom hire + fuel & oil + machinery & equipment depreciation
[3]Return on assets = (Net earnings + interest) ÷ average assets
[4]Return on equity = Net earnings ÷ average net worth

TABLE C-4. 2011 DATA BY PROFIT GROUPS - THE COST OF PRODUCING MILK

	Bottom 25%	All Farm Average	Top 25%
	DOLLARS PER CWT.		
Feed	$ 7.73	$ 6.79	$ 6.30
Labor	3.15	2.96	2.80
Interest	0.56	0.52	0.45
Marketing	1.01	0.87	0.84
Crop	1.71	1.28	1.22
Other	8.29	6.87	6.21
Adjusted Cash Operating Expenses	$22.45	$19.30	$17.81
+ Depreciation	1.71	1.33	1.26
+ Family Living	0.99	0.69	0.65
Total Costs	$25.15	$21.31	$19.72
– Non-Milk Income[1]	2.62	3.21	3.81
Net Cost of Production[2]	$22.53	$18.10	$15.91

[1]Non-milk income includes accrual basis cattle, crop, other income, and nonfarm income.
[2]Before any return on equity.

TABLE C-5. 2011 DATA BY PROFIT GROUPS - CASH MARGINS

	2007	2008	2009	2010	2011
Bottom Profit Group					
Actual Milk Price	$20.26	$19.78	$13.70	$17.59	$ 21.61
Breakeven Milk Price	18.62	20.76	18.25	18.30	21.59
CASH MARGIN	$ 1.64	$(0.98)	$(4.55)	$(0.71)	$ 0.02
Top Profit Group					
Actual Milk Price	$20.68	$19.78	$13.90	$17.64	$21.24
Breakeven Milk Price	14.80	16.29	14.13	15.12	16.21
CASH MARGIN	$ 5.88	$ 3.49	$(0.23)	$ 2.52	$ 5.03

TABLE C-6. 2011 DATA BY PROFIT GROUPS - RESERVE DEBT CAPACITY

	Bottom 25%	All Farm Average	Top 25%
	DOLLARS PER COW		
Debt Capacity	$3,802	$8,074	$11,347
– Capital Debt	2,824	2,939	2,817
RESERVE DEBT CAPACITY	$ 978	$5,135	$ 8,530

TABLE D-1. 2011 DATA BY REGIONS — EARNINGS WORKSHEET

	REGIONS[1]			
	NEW YORK	NEW ENGLAND	ALL FARMS	TOP 25%
Number of Farms	381	151	532	133
Average Number of Cows	324	334	326	426
Receipts	DOLLARS PER COW			
Milk Sales	$5,020	$4,949	$5,004	$5,364
Cattle Sales	262	268	264	265
Crop Sales	238	109	201	318
Other	173	271	201	214
CASH RECEIPTS (a)	$5,693	$5,597	$5,670	$6,161
Accrual Adjustments				
+ Change in Inventory-Raised Livestock	$ 45	$ 27	$ 40	$ 107
VALUE OF FARM PRODUCTION (c)	$5,738	$5,624	$5,710	$6,268
Expenses				
Chemicals & Sprays	58	39	53	62
Custom	141	167	149	126
Feed	1,502	1,762	1,578	1,558
Fertilizer & Lime	146	157	149	142
Freight & Trucking (Marketing)	204	198	202	208
Gasoline, Fuel & Oil	244	259	249	240
Insurance	56	73	61	56
Interest	127	109	122	111
Labor	689	692	690	692
Rent	83	82	83	72
Repairs	317	323	319	328
Seed & Plants	101	79	95	97
Supplies	240	285	253	236
Taxes	66	44	60	58
Utilities	106	115	108	110
Veterinary & Medicine	142	127	138	142
Other	167	159	164	162
Cow Replacements	13	11	12	5
ADJUSTED CASH OPERATING EXPENSES[2](b)	$4,402	$4,681	$4,485	$4,405
Accrual Adjustments				
Depreciation	321	278	309	311
ADJUSTED FARM OPERATING EXPENSES (d)	$4,723	$4,959	$4,794	$4,716
NET FARM INCOME (a) - (b)	$1,291	$ 916	$1,185	$1,756
NET FARM EARNINGS (c) - (d)	$,015	$ 665	$ 916	$1,552
+ Net Nonfarm Income	39	46	41	39
- Family Living & Income Taxes	165	146	160	162
NET EARNINGS	$ 889	$ 565	$ 797	$1,429

[1]Regions are divided by state, not federal milk orders.
[2]Expenses adjusted for changes in accounts payable, prepaid expenses and supply inventories to remove the effects of tax planning and reflect only one year's expenses.

TABLE D-2. 2011 DATA BY REGIONS — BALANCE SHEET SUMMARY

DECEMBER 31, 2011

	REGIONS[1]			
	NEW YORK	NEW ENGLAND	ALL FARMS	TOP 25%
Number of Farms	381	151	532	133
Average Number of Cows	324	334	326	426
	ASSETS PER COW			
Cash & Accounts Receivable	$ 536	$ 460	$ 515	$ 628
Feed & Crop Inventory	1073	840	1007	1145
Supplies & Prepaid Expenses	207	155	192	308
Other Current Assets	56	49	53	71
TOTAL CURRENT ASSETS	$ 1,872	$ 1,504	$ 1,767	$ 2,152
Dairy Livestock	$ 2,309	$ 2,294	$ 2,307	$ 2,364
Machinery & Equipment	2,120	1,804	2,031	2,040
Other Intermediate Assets	477	611	517	513
TOTAL INTERMEDIATE ASSETS	$ 4,906	$ 4,709	$ 4,855	$ 4,917
Farm Real Estate	$ 4,238	$ 4,649	$ 4,362	$ 4,117
Other Fixed Assets	305	489	358	388
TOTAL FIXED ASSETS	$ 4,543	$ 5,138	$ 4,720	$ 4,505
TOTAL ASSETS	$11,321	$11,351	$11,342	$11,574
	LIABILITIES PER COW			
Accounts Payable	$ 57	$ 77	$ 63	$ 37
Farm Credit Short-Term Loans	127	147	133	171
Other Current Liabilities	464	402	444	446
TOTAL CURRENT LIABILITIES	$ 648	$ 626	$ 640	$ 654
Farm Credit Intermediate Term	$ 1,160	$ 869	$ 1,077	$ 1,072
Other Intermediate Liabilities	213	276	232	179
TOTAL INTERMEDIATE LIABILITIES	$ 1,373	$ 1,145	$ 1,309	$ 1,251
Farm Credit Long-Term Real Estate	$ 1,077	$ 983	$ 1,050	$ 973
Other Long-Term Liabilities	146	209	165	174
TOTAL LONG-TERM LIABILITES	$ 1,223	$ 1,192	$ 1,215	$ 1,147
TOTAL LIABILITIES	$ 3,244	$ 2,963	$ 3,164	$ 3,052
	NET WORTH PER COW			
OWNER'S NET WORTH	$ 8,077	$ 8,388	$ 8,178	$ 8,522
TOTAL LIABILITIES & NET WORTH	$11,321	$11,351	$11,342	$11,574
PERCENT NET WORTH	71%	74%	72%	74%

[1]Regions are divided by state, not federal milk orders.

TABLE D-3. 2011 DATA BY REGIONS — EVALUATION FACTORS

	REGIONS[1]			
	NEW YORK	NEW ENGLAND	ALL FARMS	TOP 25%
Number of Farms	381	151	532	133
Average Number of Cows	324	334	326	426
Worker Equivalents	7.09	6.72	6.98	8.03
Cows per Worker	46	50	47	47
Pounds of Milk Sold per Worker	1,072,999	1,122,980	1,085,617	1,128,254
Pounds of Milk Sold	7,607,566	7,546,426	7,577,606	9,059,879
Pounds of Milk Sold per Cow	23,480	22,594	23,244	23,968
Milk Price Per Cwt.	$21.05	$21.70	$21.53	$21.41
Total Crop Acres	794	707	769	879
Crop Acres per Cow	2.5	2.1	2.4	2.3
Crop Acres per Worker	112	105	110	109
Feed Cost per Cow	$1,502	$1,762	$1,578	$1,623
Feed Cost per Cwt.	$6.40	$7.80	$6.79	$6.77
Feed as a Percent of Milk Sales	30%	36%	32%	31%
Feed & Crop Expense per Cow[2]	$1,807	$2,037	$1,875	$1,930
Feed & Crop Expense per Cwt.	$7.70	$9.02	$8.07	$8.05
Machinery Cost per Cow[3]	$864	$877	$869	$845
Machinery Cost per Cwt.	$3.68	$3.88	$3.74	$3.52
Labor & Family Living per Cow	$853	$838	$849	$958
Labor & Family Living per Cwt.	$3.63	$3.71	$3.65	$4.00
Assets per Cow	$11,321	$11,351	$11,342	$11,911
Debt per Cow	$3,244	$2,963	$3,164	$3,169
Net Worth per Cow	$8,077	$8,388	$8,178	$8,742
Percent Return on Assets[4]	9.4%	6.2%	8.4%	9.1%
Percent Return on Equity[5]	11.7%	6.1%	10.7%	18.3%

[1]Regions are divided by states, not federal milk orders.
[2]Feed & crop expense = Feed + seed & plants + fertilizer + chemicals & spray
[3]Machinery cost = Machinery repairs + machine hire + fuel & oil + machinery & equipment depreciation
[4]Return on assets = (Net earnings + interest) / average assets. In contrast, the balance sheet shows the year-end values.
[5]Return on equity = Net earnings ÷ average net worth