DAIRY FARM MANAGEMENT

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BUSINESS SUMMARY NEW YORK STATE 2007

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ABSTRACT

Business and financial records for 2007 from 250 New York dairy farm businesses are summarized and analyzed. This analysis demonstrates the use of cash accounting with accrual adjustments to measure farm profitability, financial performance, and costs of producing milk. Traditional methods of analyzing dairy farm businesses are combined with evaluation techniques that show the relationship between good management performance and financial success.

The farms in the project averaged 358 cows per farm and 22,983 pounds of milk sold per cow, which represent above average size and management level for New York dairy farms. Net farm income excluding appreciation, which is the return to the operator's labor, management, capital, and other unpaid family labor, averaged $410,358 per farm. The rate of return to all capital invested in the farm business including appreciation averaged 18.2 percent.

Differences in profitability between farms continue to widen. Average net farm income excluding appreciation of the top 10 percent of farms was $1,658,164, while the lowest 10 percent was $3,007. Rates of return on equity with appreciation ranged from positive 55 percent to negative 7 percent for the highest decile and the lowest decile of farms, respectively.

Large freestall farms averaged the highest milk output per cow and per worker, the lowest total cost of production and investment per cow, and the greatest returns to labor, management and capital. Farms milking three times a day (3X) were larger, produced more milk per cow and had higher net farm incomes in 2007 than herds milking two times per day (2X). Operating costs per hundredweight of milk were $0.47 per hundredweight greater for 3X than 2X milking herds, while output per cow was 4,306 pounds higher. In 2007, farms supplementing the herd with bovine somatotropin (bST) attained higher rates of milk production per cow, had larger herds and were more profitable than farms not supplementing with bST for all measures of profitability. Farms adopting intensive grazing generally produced less milk per cow than non-grazing farms but averaged higher labor and management incomes per operator. One should not conclude that adoption of these technologies alone were responsible for differences in performance.

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INTRODUCTION[1]

Dairy farm business summary (DFBS) projects are an integral part of Cornell Cooperative Extension's agricultural educational program in New York State. The Department of Applied Economics and Management of the College of Agriculture and Life Sciences at Cornell University, and County and Regional Extension staff, cooperate in sponsoring DFBS projects. In 2007, over 320 dairy farms participated, including dairy owners, renters, full-time, part-time, and out-of-state farms. Business records submitted by dairy farmers from 46 New York counties provide the basis for continuing Extension programs, data for applied studies, and for use in the classroom. Regardless of the use of the data, confidentiality of individual farm data is maintained.

Cornell Cooperative Extension educators enroll the cooperators and collect the records. In addition, assistance is provided by individual consultants Bruce Dehm and Charles Radick, and by consultants from Farm Credit of Western New York and First Pioneer Farm Credit. Each cooperator receives a detailed summary and analysis of his or her business. All educators are using a computer in their offices or on the farm to process and return the individual farm business reports for immediate use. The program used to generate the farm business reports can be found at the website http://dfbs.cornell.edu. Regional reports are prepared by Cornell faculty and used by DFBS cooperators and other farmers to compare their farm performance with regional averages. The DFBS program helps farmers improve accounting and financial analysis techniques, develop managerial skills, solve business and financial management problems and plan the future of their business. For more information, please visit http://dfbs.aem.cornell.edu

Individual farm records from the 6 regions and 46 counties of the State (Figure 1, page 2) have been combined and the total data set analyzed to determine the effects of different levels of price, technology, and management on dairy farm incomes. This study provides current dairy farm business information for use by farmers, Cooperative Extension staff, teachers, and others concerned with the New York dairy industry.

Trend Analysis

Farms in New York have changed dramatically over the past 50 years. Farms are larger, more efficient with greater rates of production and generally more profitable. Changes have also occurred in recent years especially in regard to costs and milk price (see pages 3-7).

Farms Included

Data from 250 specialized dairy farms are included in the main body of this report starting on page 8. These farms do NOT represent the "average" for all dairy farms in the State. Participation was on a voluntary basis, therefore, not all areas or types of operations were proportionately represented (Figure 1, page 2). Participants represent more than 4.5 percent of the milk cow operations in New York (see Appendix Table A3). The 250 specialized dairy farms represent a cross section of better than average commercial dairy farm owner/operators in the State. Dairy farm renters, dairy-cash crop farmers with crop sales exceeding 10 percent of milk sales, part-time dairy operators, and organic farms are not included in the main body of this report. Data on dairy farm renters are summarized separately in the supplemental information section of the publication.

Features

Accrual adjustment procedures have been used to provide the most accurate accounting of farm receipts and farm expenses for measuring farm profits. An explanation of these procedures is found on page 9. Five measures of farm profitability; net farm income, labor and management income, return on equity, return on all capital, and return to all labor and management are calculated on pages 11 through 14. The balance sheet is presented with the current portion of intermediate and long-term debt identified as a current liability, on pages 14 and 15. The statement of owner equity, which shows the interrelationship between farm profitability, non-farm cash flows and net worth is presented on page 17. A detailed cash flow statement, as well as budgeting data and debt repayment analysis are presented on pages 18 through 20.

The whole farm method of calculating the cost of producing milk is detailed on pages 28 through 33. The operating cost, purchased inputs cost and total cost of producing 100 pounds of milk are developed and analyzed. Farm business charts for farms with conventional and freestall housing are presented on pages 63 through 67. Specific studies of the performance of dairy farms using bST, rotational grazing and three times (3X) a day milking are presented on pages 71, 76 and 77.

Acknowledgements

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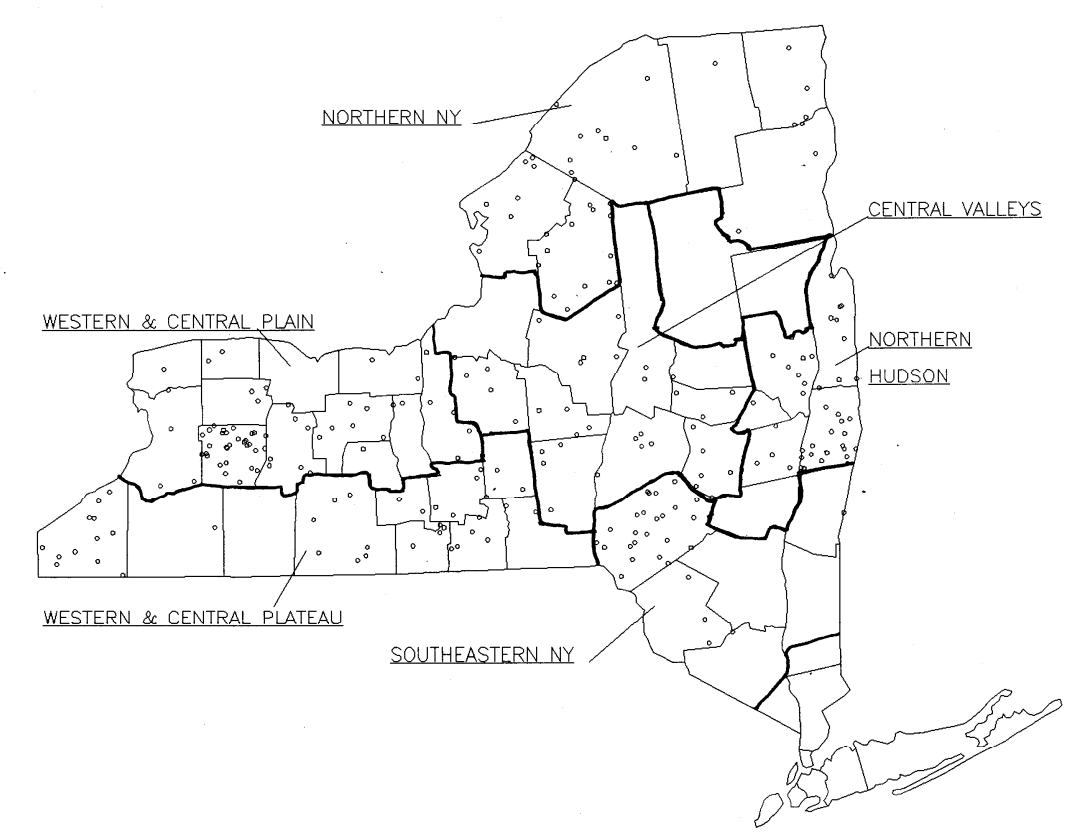
[1] This report was written by Wayne A. Knoblauch, Professor; Linda D. Putnam and Daniel Murray, Extension Support Specialists in the Department of Applied Economics and Management at Cornell University; Jason Karszes, Senior Extension Associate, Pro-Dairy; and Rella Moag, Work Study Student.

Figure 1.

LOCATION OF THE 250 NEW YORK DAIRY FARMS IN THE 2007 DAIRY FARM BUSINESS SUMMARY



2007 Regional Summary Publications

Region	Publications	Author(s)
Western and Central Plain	E.B. 2008-07	Wayne A. Knoblauch, Linda D. Putnam, Jason Karszes, John Hanchar, Kyle Getty, & Joan S. Petzen
Northern Hudson	E.B. 2008-10	George J. Conneman, Linda D. Putnam, Cathy S. Wickswat, Sandra A. Buxton, Richard C. Smith & Jason Karszes
Western and Central Plateau	E.B. 2008-13	Wayne A. Knoblauch, Linda D. Putnam, Jason Karszes, James W. Grace, David L. Munsee, Joan S. Petzen, & Lynn A. O'Brien
Southeastern New York	E.B. 2008-14	Wayne A. Knoblauch, Linda D. Putnam, Mariane Kiraly, Joseph J. Walsh, Larry R. Hulle, & Cathly S. Wickswat
Central Valleys	E.B. 2008-17	Wayne A. Knoblauch, Jason Karszes , Daniel Murray, Charles Z. Radick, Cathy S. Wickswat, James P. Manning, Bonnie Collins, David Balbian, George Allhusen, Sandra A. Buxton, Linda D. Putnam, & Rella Moag
Northern New York	E.B. 2008-18	Wayne A. Knoblauch, Linda D. Putnam, Jason Karszes, Peggy Murray, Frans Vokey, Molly Ames, Anita Deming, Jessica Prosper, & Rella Moag

FIFTY YEARS OF NEW YORK STATE DAIRY FARM BUSINESS DATA

New York dairy farming has changed dramatically over the past 50 years (Table 1, page 4). Dairy cows per farm on cooperating farms increased 10 fold between 1957 and 2007 with nearly a doubling in herd size over the last 10 years. The DFBS sample is not representative of all farms in New York State. New York Agricultural Statistics Service data indicate the average herd in the state increased in size about two and a half times over the same 50-year period. Milk output per cow increased 159 percent with the largest increase occurring between 1986 and 1996. Labor efficiency, measured by pounds of milk sold per worker, is up 502 percent on DFBS farms, and the operating cost of producing milk increased more than 655 percent with the largest jump occurring between 1967 and 1977.

There is a large increase in farm capital invested per farm, up 6846 percent since 1957. Net farm income per farm increased 800 percent (adjusted for 2007 dollars). Labor and management income per operator is up 325 percent from 50 years ago (adjusted for 2007 dollars) as 2007 was a high income year. This is a reflection of the increased variability over the last 10 years. Some factors could not be calculated with 1957 and 1967data because liabilities, interest paid, and appreciation were not available in those years. Farm net worth excluding deferred taxes has increased 111 percent over the last 30 years and return on equity capital increased 578 percent since 1977.

FOUR YEARS OF VARIABILITY

Recognition and evaluation of the progress that has occurred on farms can best be achieved by studying the same farms over a period of time. Table 2, page 5, presents average data from 165 farms that were DFBS cooperators each year since 2004. Chart 1 shows the price received for milk in comparison to the operating cost of producing a hundredweight of milk for these farms. The higher milk price and higher costs in 2007 still provided dairy farmers with the highest operating margin per hundredweight of $6.37.

Average net farm income without appreciation in 2007 was 100 percent above the 2004 average, and 978 percent above the 2006 average. Net worth increased 17 percent in 2004, increased 15 percent in 2005, increased 2 percent in 2006, and increased 27 percent in 2007.

The last four years have been a period requiring skillful decision making and improved management skills on the part of New York dairy farm operators. Risk management skills, including output price management, are becoming more important to farm business success.

Chart 1.

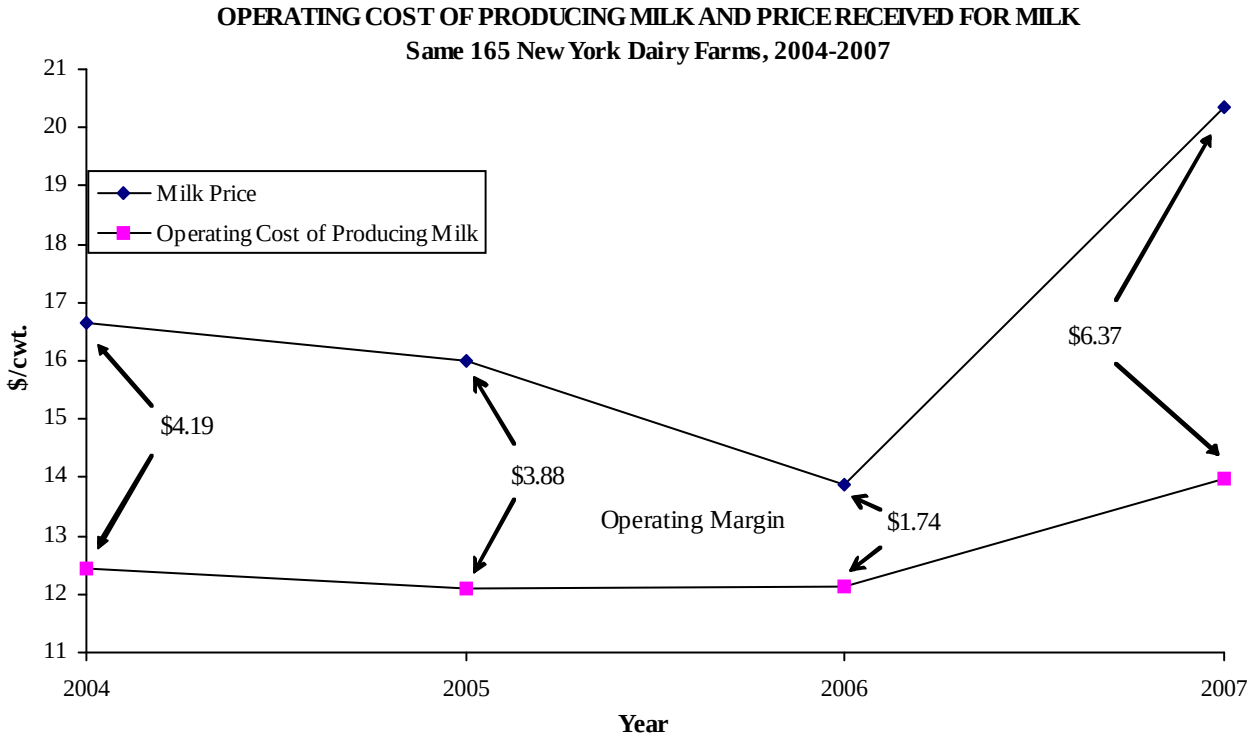


Table 1.

COMPARISON OF FARM BUSINESS SUMMARY DATA
New York Dairy Farms, 1957 - 2007

Selected Factors	1957	1967	1977	1987	1997	2007
Number of farms	464	548	570	426	253	250
Size of Business						
Average number of cows	33	51	71	101	190	358
Average number of heifers	20	33	51	79	139	289
Milk sold, cwt.	2,931	6,166	9,648	16,498	39,809	82,315
Worker equivalent	1.80	1.90	2.50	3.19	5.01	8.40[4]
Total tillable acres	100[2]	138[2]	219[2]	305	462	758
Rates of Production						
Milk sold per cow, lbs.	8,884	12,100	13,600	16,351	20,651	22,983
Hay DM per acre, tons	2.1	2.6	2.3	2.7	2.5	3.0
Corn silage per acre, tons	11	17	14	16	16	19
Labor Efficiency						
Cows per worker	18	27	28	32	38	43[4]
Milk sold per worker, lbs.	162,883	324,500	385,920	516,728	784,604	980,234[4]
Cost Control						
Grain & conc. as % of milk sales	26%	26%	28%	24%	33%	24%
Dairy feed & crop expense/cwt.	$1.80	$1.74	$3.56	$4.11	$5.39	$6.13
Operating cost of prod. cwt. milk	$1.41	$1.77	$9.05	$9.33	$11.76	$14.02
Total cost of producing cwt. milk	$3.98	$6.80	$11.09	$13.55	$14.71	$17.46
Milk receipts per cwt. milk	$4.65	$5.25	$9.76	$12.89	$13.65	$20.34
Capital Efficiency						
Total farm capital	$43,444	$91,810	$296,248	$594,713	$1,177,289	$3,017,709
Farm capital per cow	$1,316	$1,800	$4,173	$5,894	$6,196	$8,426
Machinery & equipment per cow	$278	$137	$778	$1,057	$1,108	$1,448
Real estate per cow	$617	$834	$2,137	$2,805	$2,650	$3,356
Livestock investment per cow	$304	$435	$793	$1,214	$1,463	$2,244
Asset turnover ratio	0.46	0.48	0.36	0.46	0.52	0.67
Profitability						
Net farm income without apprec.[5]	NA[3]	NA[3]	$47,420	$64,401	$47,637	$410,358
Net farm income with apprec.[5]	$61,800	$81,283	$61,795	$106,226	$60,809	$556,376
Labor & management income per operator/manager[5]	$44,524	$46,643	$10,333	$20,207	$413	$189,019
Rate of return on:						
Equity capital with appreciation	NA	NA	3.6%	8.1%	0.4%	24.4%
All capital with appreciation	NA	NA	4.6%	8.1%	3.2%	18.2%
All capital without appreciation	NA	NA	3.2%	4.2%	2.4%	13.4%
Financial Summary, End Year						
Farm net worth	NA	NA	$189,104	$398,209	$685,665	$2,200,655
Change in net worth with apprec.	NA	NA	NA	$35,023	$1,446	$453,526
Debt to asset ratio	NA	NA	0.36	0.35	0.43	0.32
Farm debt per cow	NA	NA	$1,509	$2,046	$2,611	$2,878

[2]Acres of cropland harvested.
[3]NA = not available.
[4]Based on hours actually worked by owner/operator instead of standard 12 months per full-time owner/operator.
[5]Adjusted for inflation using Consumer Price Index – 2007 dollars.

Table 2.

COMPARISON OF FARM BUSINESS SUMMARY DATA
Same 165 New York Dairy Farms, 2004 - 2007

Selected Factors	2004	2005	2006	2007
Milk receipts per cwt. milk	$16.64	$15.99	$13.86	$20.36
Size of Business				
Average number of cows	379	392	412	417
Average number of heifers	294	315	334	336
Milk sold, cwt.	85,059	91,192	95,810	97,116
Worker equivalent[6]	9.02	9.23	9.49	9.66
Total tillable acres	787	818	843	859
Rates of Production				
Milk sold per cow, lbs.	22,427	23,236	23,249	23,277
Hay DM per acre, tons	3.6	3.5	3.3	3.1
Corn silage per acre, tons	18	19	19	19
Labor Efficiency				
Cows per worker[6]	42	43	43	43
Milk sold per worker, lbs.[6]	943,004	987,992	1,009,584	1,005,341
Cost Control				
Grain & concentrate purchased as % of milk sales	27%	25%	29%	24%
Dairy feed & crop expense per cwt. milk	$5.57	$5.07	$5.03	$6.10
Operating cost of producing cwt. milk	$12.45	$12.11	$12.12	$13.99
Total cost of producing cwt. milk	$15.50	$15.23	$15.22	$17.27
Hired labor cost per cwt.	$2.75	$2.69	$2.67	$2.79
Interest paid per cwt.	$0.53	$0.62	$0.77	$0.79
Labor & machinery costs per cow	$1,330	$1,382	$1,372	$1,487
Capital Efficiency, Average for Year				
Farm capital per cow	$6,916	$7,377	$7,654	$8,243
Machinery & equipment per cow	$1,195	$1,287	$1,332	$1,429
Real estate per cow	$2,733	$2,837	$2,999	$3,172
Livestock investment per cow	$1,865	$2,007	$2,091	$2,223
Asset turnover ratio	0.65	0.63	0.53	0.69
Profitability				
Net farm income without appreciation	$245,280	$231,822	$45,480	$490,091
Net farm income with appreciation	$337,449	$359,519	$145,525	$650,060
Labor & management income per operator/manager	$105,763	$84,303	$-35,540	$227,910
Rate return on:				
Equity capital with appreciation	17.2%	15.9%	3.5%	25.6%
All capital with appreciation	11.9%	11.9%	4.5%	18.9%
All capital without appreciation	8.4%	7.4%	1.3%	14.2%
Financial Summary, End Year				
Farm net worth	$1,670,451	$1,928,193	$1,986,225	$2,504,588
Change in net worth with appreciation	$246,800	$252,733	$29,338	$532,535
Debt to asset ratio	0.39	0.36	0.39	0.32
Farm debt per cow	$2,767	$2,775	$2,965	$2,843

[6]Based on hours actually worked by owner/operator instead of standard 12 months per full-time owner/operator.

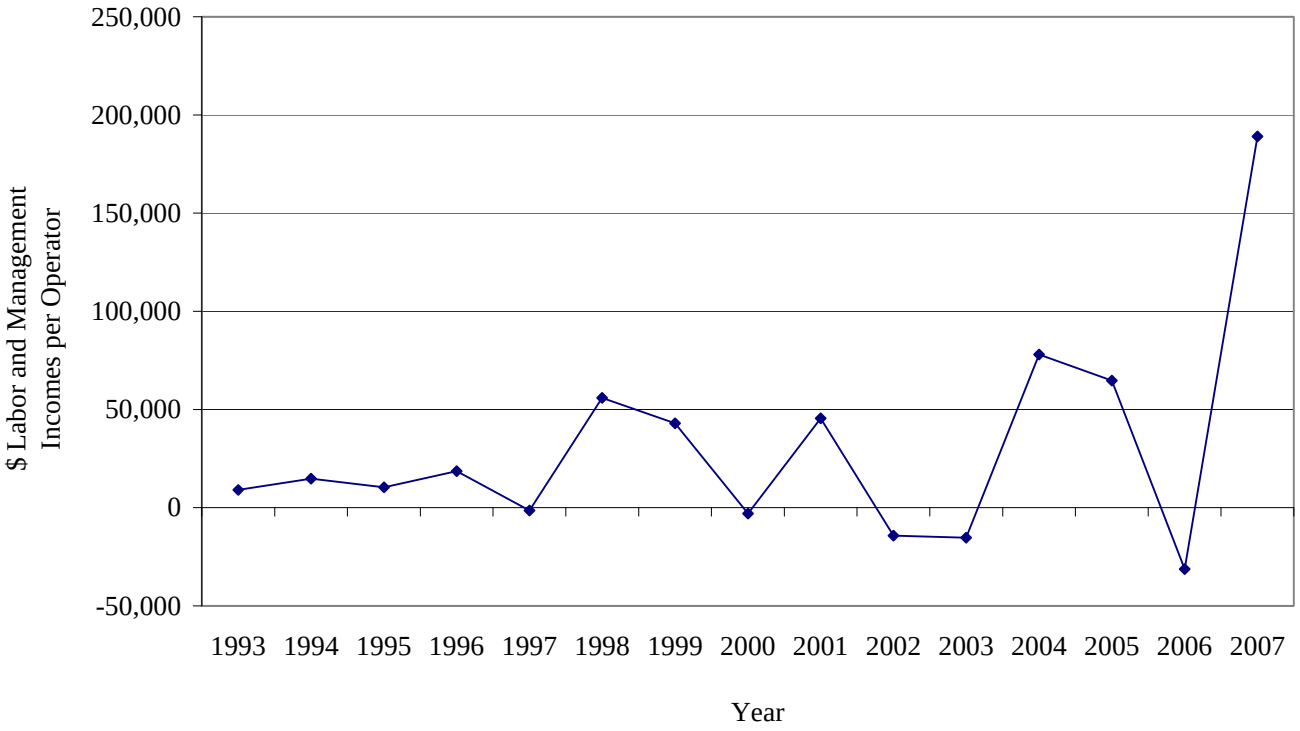
ADJUSTING PROFIT, PRICE AND COSTS FOR INFLATION

Labor and management incomes per operator in 2007 were at an all-time high, when measured in nominal (actual) value (Chart 2). Over the period 1993 to 2007, labor and management incomes per operator did not exceed $25,000 except for $55,000 in 1998, nearly $43,000 in 1999, over $45,000 in 2001, over $78,000 in 2004, nearly $65,000 in 2005 and $189,019 in 2007. The reader is reminded that the average herd size of DFBS participating farms steadily increased from 130 cows to 358 cows over this period.

Chart 2.

LABOR AND MANAGEMENT INCOMES PER OPERATOR

Dairy Farm Business Summary Farms, 1993-2007



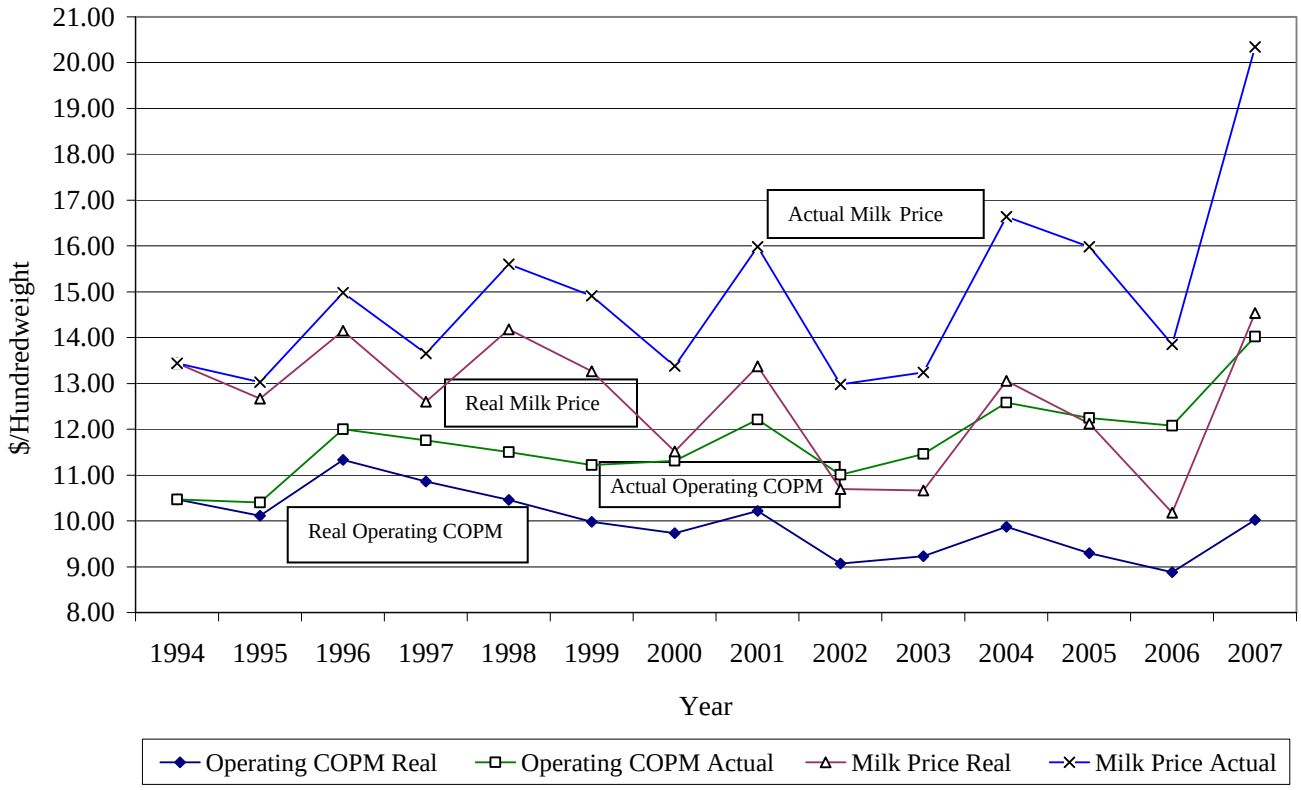
Milk prices in 2007 averaged $20.34 per hundredweight in actual dollars (Chart 3). However, the 2007 milk price, adjusted for inflation, in 1994 dollars, would have been only $14.54 per hundredweight.

Operating cost of producing milk (actual) had been very constant from 1994 through 1995 (Chart 3). Feed costs were higher in 1996 and so were operating costs of producing milk. Operating costs were on a downward trend from 1996 through 2000. Operating costs then increased in 2001, fell in 2002, and increased in 2003 and 2004, but remained higher than the early 1990's. Operating costs decreased slightly in 2005 and 2006 but increased nearly $2 per hundredweight in 2007. Real costs of producing milk per hundredweight have been on a downward trend over this 14-year period except for increases in 1996, 2001, 2004 and 2007.

Chart 3.

OPERATING COST OF PRODUCING MILK AND MILK PRICE[7]

Dairy Farm Business Summary Farms, 1994-2007



[7] Actual operating cost of producing milk as well as milk price are adjusted for inflation, to obtain real values, using the Consumer Price Index–1994 dollars.

SUMMARY AND ANALYSIS OF THE FARM BUSINESS

Business Characteristics and Resources Used

Recognition of important business characteristics and identification of the farm resources used is necessary for evaluating management performance. The combination of resources used and management practices employed is known as farm organization. Important farm business characteristics and the number of farms reporting these characteristics for 2007 are presented in the following table.

Table 3.

BUSINESS CHARACTERISTICS AND RESOURCES USED
250 New York Dairy Farms, 2007

Dairy Livestock (number)	Cows	Heifers
Beginning of Year	346	281
End of Year	358	297
Average for Year	358	289

Type of Business	Number	Percent
Sole Proprietorship	118	48
Partnership	58	23
Limited Liability Corp.	56	22
Subchapter S Corporation	13	5
Subchapter C Corporation	5	2

Barn Type	Number	Percent
Stanchion	67	27
Freestall	168	67
Combination	15	6

Milking System	Number	Percent
Bucket & Carry	0	0
Dumping Station	1	1
Pipeline	71	28
Herringbone Conventional	76	30
Herringbone Rapid Exit	20	8
Parallel	56	22
Parabone	6	2
Rotary	1	1
Other	19	8

Milking Frequency	Number	Percent
2 times per day	166	67
3 times per day	73	29
Other	11	4

Business Records	Number	Percent
Account Book	39	16
Accounting Service	46	18
On-Farm Computer	161	64
Other	4	2

Dairy Records	Number	Percent
Testing Service	189	75
On Farm System	29	12
Other	3	1
None	29	12

bST Usage	Number	Percent
Used consistently	92	37
Used inconsistently	8	3
Started using in 2007	2	1
Stopped using in 2007	1	1
Not used in 2007	147	59
Average % usage, if used	51%	

Labor Force	Average	Percent
Operators	22.2	22
Family Paid	5.0	5
Family Unpaid	2.3	2
Hired	71.3	71
Total Months	100.8	100

	Average
Operators (total = 405)	1.62
Age	47
Education	13 years
Estimated value of labor & management/farm	$69,103

	Farms Reporting	
Land Used	Number	Average
Total acres:		
Owned	250	545
Rented	228	439
Tillable acres:		
Owned	250	373
Rented	225	428
Total	250	758

Breed of Herd	
Holstein	91%
Jersey	5%
Other	4%

There were 405 full-time operator equivalents on the 250 dairy farms for an average of 1.62 operators per farm. The operators averaged 51 years of age and 15 years of formal education. Additional data on the labor force is in Table 44.

All 250 farm businesses included in this dairy summary own farm real estate. Dairy farm renters are summarized separately later in this publication. However, 225 of the dairy farm owners rented an average of 428 acres of tillable land in 2007. The 250 farms averaged 758 total tillable acres per farm of which 385 acres were rented. Tables 19 and 25 contain additional information on land use and the dairy herd.

Accounting Procedures

Accrual accounting adjustments are made to cash receipts and expenses to accurately measure annual receipts, expenses, and farm profitability. These procedures express the true value and cost of production for the year, regardless of whether cash was received or expended in this year. Cash expenses and cash receipts are used when evaluating the cash flow position of the business.

The accrual accounting adjustments consider changes in accounts payable and receivable, prepaid expenses, and changes in inventory of not only such items as crops and livestock, but also the inventory of production items such as fertilizer, seed and fuel. In this manner, the total cost of production and the total value of production are obtained to provide an accurate representation of profitability in that year.

Accrual adjustments are complemented by accounting procedures used to separate changes in inventory of capital assets into changes caused by price and those caused by quality or quantity changes. Separating price changes (appreciation) from physical changes in the farm inventory are important in determining farm profitability. Appreciation of farm assets is included in the return to farm capital, but excluded from the return to labor and management.

Income Statement - Expenses

The accrual income statement begins with an accounting of all farm business expenses. Farm business expenditures are grouped into the following nine major categories:

1. Hired labor includes gross wages plus the farm share of social security, workers' compensation insurance, employee health insurance and other employee benefits paid by the farm employer.

2. Feed expenses are divided into purchased dairy grain and concentrate, purchased dairy roughage and all feed purchased for nondairy livestock to allow more thorough analysis of dairy herd feeding costs. The costs of growing grain and roughage are not included in cash and accrual feed expenses.

3. Machinery costs represent all the operating costs of using machinery on the farm. Ownership costs are excluded here but are included in the analysis of machinery costs presented on page 22.

4. Livestock expenses include the cost of supplies and services directly associated with the care and maintenance of the dairy herd, such as breeding, veterinary, bedding, milking supplies and custom boarding expenses plus milk marketing costs. The purchase of replacement cattle is considered a herd maintenance expense while expansion livestock is not.

5. Crop expenses include the costs of fertilizer, lime, seeds, spray and other crop supplies.

6. Real estate expenses are the direct costs associated with owning and maintaining farm land and buildings.

7. Other includes insurance, the farm share of utilities, interest paid on all farm indebtedness and miscellaneous costs.

8. Expansion livestock is purchased dairy cattle and other livestock that cause an increase in herd size from the beginning to the end of the year. It is a nonoperating cost included in total expenses.

9. Depreciation of machinery and buildings are nonoperating costs included in total expenses. Depreciation charges are based on those reported for income tax purposes.

Cash and accrual farm expenses are summarized below. Total operating accrual expenses for the 250 farms averaged $3,712 per day and 92 percent of total farm accrual expenses. Cash paid is the actual amount of money paid out during the year and does not necessarily represent the cost of goods and services actually used.

Table 4.

CASH AND ACCRUAL FARM EXPENSES
250 New York Dairy Farms, 2007

Expense Item	Cash Paid	-	Change in Inventory or Prepaid Expense	+	Change in Accounts Payable	=	Accrual Expenses	Per-cent
Hired Labor	$222,392		$351 <<		$19		$222,060	16
Feed								
Dairy grain & concentrate	448,783		38,510		-8,797		401,476	30
Dairy roughage	27,465		986		154		26,633	2
Nondairy livestock	473		5		0		468	<1
Professional nutritional services	337		-10 <<		-9		338	<1
Machinery								
Machinery hire, rent & lease	33,720		55 <<		-572		33,094	2
Machinery repairs & farm vehicle expense	74,535		1,041		-1,954		71,540	5
Fuel, oil & grease	57,106		1,021		-981		55,104	4
Livestock								
Replacement livestock	6,125		0 <<		0		6,125	<1
Breeding	21,317		910		-375		20,033	1
Veterinary & medicine	55,813		1,774		-568		53,472	4
Milk marketing	66,245		0 <<		-78		66,167	5
Bedding	26,823		387		-542		25,894	2
Milking Supplies	35,308		1,397		-675		33,236	2
Cattle lease & rent	1,420		0 <<		-49		1,371	<1
Custom boarding	23,838		92 <<		-368		23,378	2
bST expense	20,853		349 <<		108		20,612	2
Livestock professional fees	5,070		469 <<		-47		4,554	<1
Other livestock expense	7,344		191		39		7,192	1
Crops								
Fertilizer & lime	44,256		9,939		-1,003		33,314	2
Seeds & plants	34,419		10,637		-691		23,091	2
Spray & other crop expense	19,349		1,157		-457		17,736	1
Crop professional fees	2,443		281 <<		-89		2,072	<1
Real Estate								
Land, building & fence repair	26,910		377		-346		26,187	2
Taxes	19,364		398 <<		-39		18,927	1
Rent & lease	24,204		464 <<		-366		23,374	2
Other								
Insurance	16,076		282<<		-66		15,728	1
Utilities	36,799		211<<		-247		36,341	3
Interest paid	68,203		52<<		-174		67,977	5
Other professional fees	7,919		160 <<		-60		7,699	1
Miscellaneous	9,853		30		-17		9,806	1
Total Operating	$1,444,764		$71,514		$-18,251		$1,354,999	100
Expansion livestock	$10,422		0 <<		5		$10,427	
Extraordinary expense	$582		0		0		$582	
Machinery depreciation							$68,060	
Building depreciation							$40,914	
TOTAL ACCRUAL EXPENSES							$1,474,982	

Change in inventory represents feeds and supplies purchased this year but not used (positive change), and similar items purchased in a prior year and used this year (negative change). For example, purchased dairy grain and concentrate inventory increased $38,510.

Prepaid expenses (noted by « in Table 4) are advance payments made for services and noninventory items to be used in future years. For example, advance payments for rent increased an average of $464 per farm in 2007, and that increase is subtracted from cash rent to determine the correct 2007 accrual rental expense.

Changes in accounts payable reflect supplies/services used in this year's production but not paid for (positive change), and payments for production inputs used in a prior year (negative change).

Accrual expenses are cash expenses adjusted for changes in inventory, prepaid expenses and accounts payable. They are the total costs of inputs actually used in this year's business. Total change in inventory and prepaid expenses equals $71,514 and total change in accounts payable equals $-18,251.

Income Statement - Receipts

Cash and accrual farm receipts are presented in the following table. Total cash receipts averaged $1,756,591 per farm. Total accrual receipts averaged $1,885,340 per farm. Accrual receipts were greater than cash receipts due primarily to dairy herd growth and increases in crop inventory. Cow numbers increased an average of 12 head per farm and the homegrown feed inventory per farm increased $31,174. Homegrown feed inventory per cow increased $69 from beginning to end of year.

Table 5.

CASH AND ACCRUAL FARM RECEIPTS
250 New York Dairy Farms, 2007

Receipt Item	Cash Receipts	+	Change in Inventory	+	Change in Accounts Receivable	=	Accrual Receipts	Percent
Milk sales	$1,612,764				$61,406		$1,674,170	89
Dairy cattle	59,693		$34,566		496		94,756	5
Dairy calves	11,967		-411		36		11,592	1
Other livestock	3,073		235		4		3,312	<1
Crops	17,186		31,174		908		49,268	3
Government receipts	24,863		-19		-42		24,801	1
Custom machine work	3,007				56		3,063	<1
Gas tax refund	277				8		285	<1
Other	23,760				332		24,092	1
- Nonfarm noncash Capital[9]			(-) 0				(-) 0	
Total	$1,756,591		$65,544		$63,204		$1,885,340	100

[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 for the sale of farm products, services and government programs.

Accrual receipts represent the value of all farm commodities produced and services actually provided by the farmer during the year. Increases in livestock inventory caused by herd growth and/or quality, are included. Decreases in inventory caused by herd reduction are deducted. Changes in inventories of crops grown are included. Changes in advanced government receipts are the amount by which government payments received for participating in a future year's program have changed from 2006 to 2007. An increase requires a negative adjustment to cash receipts while a decrease is a positive adjustment. Changes in accounts receivable include the difference between the January milk check for December 2007 marketings and the previous January's check, and other delayed payments.

Nonfarm noncash capital are gifts and inheritances of cattle and crops received by the farm owner/operator, and included in inventory or used in the business during the year. They are deducted from growth in inventory and reduce accrual receipts because they came from outside the farm business. Gifts and inheritances of machinery and real estate are accounted for in Table 12.

Profitability Analysis

Farm owners/operators contribute labor, management, and capital to their businesses. The best combination of these resources produces optimum profits. Farm profits 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 total combined return to the farm operator(s) 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 with and without appreciation. Appreciation represents the change in farm inventory values caused by changes in prices during the year. Appreciation is a major factor contributing to changes in farm net worth and must be included in the profitability analysis. Net appreciation totaled $146,017 per farm in 2007. On the average, farm real estate appreciated $54,131 or 5 percent of beginning fair market value. Machinery appreciated 3.9 percent while dairy cattle prices appreciated 9.7 percent in 2007.

Average data from 25 farms with the highest rates of return to all capital (without appreciation) are compared with the 250 farm average in Table 8 and in many of the following tables. Net farm income without appreciation averaged $1,089,809 per farm on the top 10 percent farms, 166 percent greater than the 250-farm average.

Table 6.

NET FARM INCOME
250 New York Dairy Farms, 2007

Item	Average 250 Farms		Average Top 10% Farms[10]	
	Per Farm	Per Cow	Per Farm	Per Cow
Total accrual receipts	$1,885,340		$3,610,006	
+ Appreciation: Livestock	72,650		66,675	
Machinery	18,742		27,069	
Real Estate	54,131		69,887	
Other Stock & Certificates	494		257	
= Total including appreciation	$2,031,358		$ 3,773,893	
- Total accrual expenses	1,474,982		2,520,196	
= Net Farm Income (with appreciation)	$556,376	$1,553	$1,253,697	$2,049
Net Farm Income (without appreciation)	$410,358	$1,145	$1,089,809	$1,781

[10]Average of 25 farms with highest rates of return to all capital (without appreciation).

Labor and management income is the part of net farm income without appreciation returned to the operator(s') labor and management. Appreciation is not included as part of the return to labor and management. Labor and management income is determined by deducting the charge for unpaid family labor and the cost of using equity capital at a real interest rate of 5 percent, from net farm income excluding appreciation. The interest charge reflects the long-term average rate of return above inflation that a farmer might expect to earn in comparable risk investments. Operator(s') labor is not included in unpaid family labor.

Labor and management income per operator measures the return to one full-time operator's labor and management. A full-time operator provides 12 months of labor and management.

Table 7.

LABOR AND MANAGEMENT INCOME
250 New York Dairy Farms, 2007

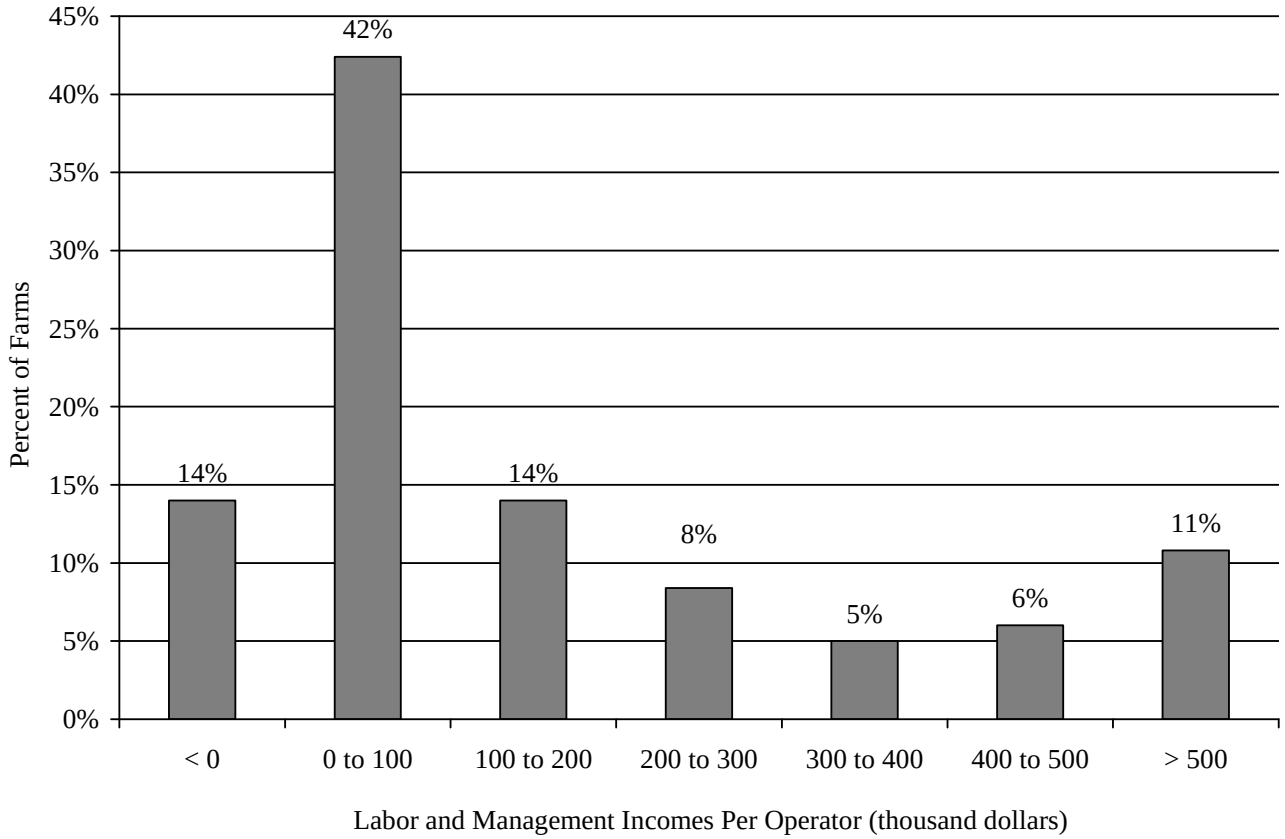
Item	Average 250 Farms		Average Top 10% Farms[11]
Net farm income without appreciation	$ 410,358		$1,089,809
- Family labor unpaid @ $2,400 per month	5,453		2,909
- Real interest @ 5% on $1,973,892 equity capital for average & $3,257,387 for the top 10% farms	98,695		162,869
= Labor & Management Income (1.62 operators)	$306,210	(1.85 operators)	$924,031
Labor & Management Income per Operator	$189,019		$499,476

[11]Average of 25 farms with highest rates of return to all capital (without appreciation).

Labor and management income per operator averaged $189,019 on these 250 dairy farms in 2007. The range in labor and management income per operator was from less than $-200,000 to more than $1,340,000. Returns to labor and management were negative on 14 percent of the farms. Labor and management incomes per operator were between $0 and $300,000 on 64 percent of the farms while 22 percent showed labor and management incomes of $300,000 or more per operator.

Chart 4.

DISTRIBUTION OF LABOR & MANAGEMENT INCOMES PER OPERATOR
250 New York Dairy Farms, 2007



Return to 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 and unpaid family labor. The earnings or amount of net farm income allocated to labor and management is the opportunity cost or value of operator(s') 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 year's average farm net worth or equity capital. Return to all 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 average total capital. Net farm income from operations ratio is net farm income (without appreciation) divided by total accrual receipts.

Table 8.

RETURN TO CAPITAL
250 New York Dairy Farms, 2007

Item	Average 250 Farms	Average Top 10% Farms[12]
Net farm income with appreciation	$556,376	$1,253,697
- Family labor unpaid at $2,400 per month	5,453	2,909
- Value of operators' labor & management	69,103	95,833
= Return to equity capital with appreciation	$481,819	$1,154,954
+ Interest paid	67,977	86,994
= Return to all capital with appreciation	$549,796	$1,241,948
Return to equity capital without appreciation	$335,801	$991,067
Return to all capital without appreciation	$403,778	$1,078,061
Rate of return on average equity capital:		
with appreciation	24.4%	35.5%
without appreciation	17.0%	30.4%
Rate of return on all capital:		
with appreciation	18.2%	26.2%
without appreciation	13.4%	22.7%
Net farm income from operations ratio	0.22	0.30

[12]Average of 25 farms with highest rates of return to all capital (without appreciation).

Return to all labor and management is another measure of profitability of a business that can be calculated. It is calculated by adding the charge for unpaid family labor and the hired labor expense to labor and management income. Table 9 shows that farms with higher return to all capital with appreciation also had significantly higher return per hour to all labor and management.

Table 9.

RETURN TO ALL LABOR AND MANAGEMENT BY RETURN TO ALL CAPITAL WITH APPRECIATION
250 New York Dairy Farms, 2007

	Quartile by Return to All Capital With Appreciation			
Item	Lowest 25%	3rd 25%	2nd 25%	Top 25%
Return to all capital with appreciation	$18,145	$113,113	$484,843	$1,598,703
Rate of return on all capital with appreciation	2.4%	10.1%	17.0%	21.6%
Total returns to all labor & management	$28,416	$108,989	$477,839	$1,534,649
Worker equivalent	2.39	3.26	8.45	19.67
Return per worker equivalent	$11,900	$33,436	$56,527	$78,027
Returns/hour (2,760 hours/worker/year)	$4.31	$12.11	$20.48	$28.27

Farm and Family Financial Status

Evaluating the financial status of the farm business and the farm family is an important part of business analysis. The first step is to inventory all the assets, determine all liabilities and fill out the balance sheet. The second step is to analyze the complete balance sheet by evaluating the relationships between assets and liabilities and changes made during the year.

Table 10.

2007 FARM BUSINESS AND NONFARM BALANCE SHEET
250 New York Dairy Farms, 2007

Farm Assets	Jan. 1	Dec. 31	Farm Liabilities & Net Worth	Jan. 1	Dec. 31
Current			Current		
Farm cash, checking & savings	$17,911	$18,215	Accounts payable	$52,183	$33,937
Accounts receivable	80,453	143,657	Operating debt	56,994	60,463
Prepaid expenses	1,821	4,625	Short term	6,546	4,197
Feed & supplies	247,017	346,900	Advanced gov't. receipt	0	19
Total Current	$247,203	$513,398	Current portion:		
			Intermediate	77,908	87,466
			Long term	24,198	27,480
			Total Current	$217,829	$213,562
Intermediate			Intermediate		
Dairy Cows:			Structured debt		
owned	$472,261	$536,695	1-10 years	$439,601	$421,094
leased	880	878	Financial lease		
Heifers	272,304	314,613	(cattle & machinery)	3,765	3,633
Bulls & other livestock	4,221	4,519	Farm Credit stock	3,607	982
Mach. & equip. owned	483,629	548,248	Total Intermediate	$446,973	$425,709
Mach. & equip. leased	2,885	2,765			
Farm Credit stock	3,607	982	Long Term		
Other stock & certificates	56,469	66,032	Structured debt		
Total Intermediate	$1,296,256	$1,474,722	$\geq$ 10 years	$380,730	$402,209
Long Term			Financial lease		
Land & buildings:			(structures)	266	355
owned	$1,149,202	$1,254,015	Total Long Term	$380,996	$402,564
leased	266	355			
Total Long Term	$1,149,468	$1,254,370	Total Farm Liabilities	$1,045,798	$1,041,835
Total Farm Assets	$2,792,927	$3,242,490	FARM NET WORTH	$1,747,129	$2,200,655

Nonfarm Assets[13]	Jan.1	Dec. 31	Nonfarm Liabilities[13] & Net Worth	Jan. 1	Dec. 31
Personal cash, checking & savings	$11,706	$13,790	Nonfarm Liabilities	$2,048	$2,433
Cash value life insurance	25,506	28,965	NONFARM NET WORTH	$275,618	$289,161
Nonfarm real estate	161,431	162,926	FARM & NONFARM[14]	Jan. 1	Dec. 31
Auto (personal share)	9,114	10,036	Total Assets	$3,070,593	$3,534,084
Stocks & bonds	51,577	56,708	Total Liabilities	1,047,846	1,044,268
Household furnishings	8,864	8,822			
All other	9,466	10,346	TOTAL FARM & NON-FARM NET WORTH	$2,022,747	$2,498,816
Total Nonfarm	$277,666	$291,594			

[13]Average of 107 farms completing the nonfarm balance sheet.
[14]Sum of average farm values for 250 farms and nonfarm values for 107 farms.

Financial lease obligations are included in the balance sheet. The present values of all future payments are listed as liabilities since the farmer (lessee) is committed to making the payments. The present values are also listed as assets, representing the future value the item has to the business.

The farm balance sheet analysis includes financial and debt ratios and factors measuring levels of debt. Percent equity is calculated by dividing farm net worth by farm assets. Equity increases as the value of assets increase more than liabilities. The debt to asset ratios reflect strength in solvency and the potential capacity to borrow. The debt analysis ratios show how well the debt is structured and managed. The leverage ratio is the dollars of debt per dollar of equity, computed by dividing total farm liabilities by farm net worth. Debt levels per unit of productive capacity include some old standards that are still useful if used with measures of cash flow and repayment ability.

Table 11.

FARM BALANCE SHEET ANALYSIS
250 New York Dairy Farms, 2007

Item	Average 250 Farms		Average Top 10% Farms[15]	
Farm Financial Ratios:				
Percent equity	68%		72%	
Debt/asset ratio: total	0.32		0.28	
long term	0.32		0.31	
intermediate & current	0.32		0.27	
Leverage Ratio:	0.47		0.40	
Current Ratio:	2.40		2.85	
Working Capital: $299,835 Dollars as % of Total Expenses:	20%		$692,035	27%
Farm Debt Analysis:				
Accounts payable as % of total debt	3%		3%	
Long term liabilities as % of total debt	39%		38%	
Current & intermediate liabilities as % of total debt	61%		62%	
Cost of term debt (weighted average)	6.2%		6.0%	
Farm Debt Levels:	Per Cow	Per Tillable Acre Owned	Per Cow	Per Tillable Acre Owned
Total farm debt	$2,878	$2,790	$2,348	$2,984
Long term debt	1,112	1,078	899	1,143
Intermediate & long term	2,288	2,218	1,754	2,230
Intermediate & current debt	1,766	1,712	1,449	1,841

[15]Average of 250 farms with highest rates of return to all capital (without appreciation).

The farm inventory balance accounts for the changes in the values of major farm assets from the beginning to the end of the year.

Table 12.

FARM INVENTORY BALANCE
250 New York Dairy Farms, 2007

Item	Real Estate		Machinery & Equipment		Livestock
Value beginning of year		$1,149,202		$483,629	$748,786
Purchases	$130,017[16]		$118,828		
+ nonfarm noncash transfer[17]	1,232		26		
- Lost capital	33,892				
- Net sales	5,762		4,916		
- Depreciation	40,914		68,060		
= Net Investment		50,682		45,877	34,390
+ Appreciation		54,131		18,742	72,650
Value end of year		$1,254,015		$548,248	$855,827

[16]$38,004 land and $92,013 buildings and/or depreciable improvements.
[17]Gifts and inheritances of property transferred into the farm business from outside.

The Statement of Owner Equity has two purposes. It allows (1) verification that the accrual income statement and market value balance sheet are 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 the farmer to determine to what degree the changes in equity were caused by (1) earnings from the business, and nonfarm income, (in excess of withdrawals) being retained in the business (retained earnings), (2) outside capital invested in the business or farm capital 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 are an excellent indicator of farm generated financial progress.

Table 13.

STATEMENT OF OWNER EQUITY (RECONCILIATION)
250 New York Dairy Farms, 2007

Item	Average 250 Farms		Average Top 10% Farms[19]	
Beginning of year farm net worth		$1,747,129		$2,777,945
Net farm income without appreciation	$410,358		$1,089,809	
+ Nonfarm cash income	7,274		2,882	
- Personal withdrawals & family expenditures and income taxes, excluding nonfarm borrowings	101,892		248,104	
RETAINED EARNINGS		+ $315,740		+ $844,587
Nonfarm noncash transfers to farm	$1,258		$0	
+ Cash used in business from nonfarm capital	25,348		11,645	
- Note or mortgage from farm real estate sold (nonfarm)	240		0	
CONTRIBUTED/WITHDRAWN CAPITAL		+ $26,366		+ $11,645
Appreciation	$146,018		$163,887	
- Lost capital	33,892		56,776	
CHANGE IN VALUATION EQUITY		+ $112,126		+ $107,111
IMBALANCE/ERROR		- $706		- $ 4,460
End of year farm net worth[18]		$2,200,655		$3,736,828
Change in Net Worth				
Without appreciation	$307,508		$794,996	
With appreciation	$453,526		$958,883	

[18]May not add due to rounding.
[19]Average of 25 farms with highest rates of return to all capital (without appreciation).

Cash Flow Summary and Analysis

Completing an annual cash flow statement is an important step in understanding and organizing the sources and uses of funds for the business. It is also a means useful in determining accuracy and completeness of the data. Understanding last year's cash flow is the first step in 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 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 flows.

Table 14.

ANNUAL CASH FLOW STATEMENT
250 New York Dairy Farms, 2007

Item		Average 250 farms	
Cash Flow from Operating Activities			
Cash farm receipts	$1,756,591		
- Cash farm expenses	1,444,764		
- Extraordinary expense	582		
= Net cash farm income		$311,245	
Personal withdrawals & family expenses including nonfarm debt payments	$102,122		
- Nonfarm income	7,274		
- Net cash withdrawals from the farm		$94,848	
= Net Provided by Operating Activities			$216,397
Cash Flow From Investing Activities			
Sale of assets: machinery	$4,916		
+ real estate	5,522		
+ other stock & certificates	1,614		
= Total asset sales		$12,052	
Capital purchases: expansion livestock	$10,422		
+ machinery	118,828		
+ real estate	130,017		
+ other stock & certificates	10,682		
- Total invested in farm assets		$269,949	
+ Net Provided by Investment Activities			$-257,897
Cash Flow From Financing Activities			
Money borrowed (intermediate & long term)	$164,081		
+ Money borrowed (short term)	5,815		
+ Increase in operating debt	3,470		
+ Cash from nonfarm capital used in business	25,348		
+ Money borrowed - nonfarm	230		
= Cash inflow from financing		$198,944	
Principal payments (intermediate & long term)	$148,273		
+ Principal payments (short term)	8,165		
+ Decrease in operating debt	0		
- Cash outflow for financing		$156,438	
= Net Provided by Financing Activities			$42,506
Cash Flow From Reserves			
Beginning farm cash, checking & savings		$17,911	
- Ending farm cash, checking & savings		$18,215	
= Net Provided from Reserves			$-304
Imbalance (error)			$702

Table 15.

ANNUAL CASH FLOW DATA
250 New York Dairy Farms, 2007

Item	Average 250 Farms Total	Per Cow	Per Cwt.	Average Top 10% Farms[21] Total	Per Cow	Per Cwt.
Average number of cows and cwt. milk		358	82,315		612	154,445
Accrual Operating Receipts						
Milk	$1,674,170	$4,674	$20.34	$3,210,031	$5,246	$20.78
Dairy cattle	94,756	265	1.15	188,775	308	1.22
Dairy calves	11,592	32	0.14	27,060	44	0.18
Other livestock	3,312	9	0.04	110	0	0.00
Crops	49,268	138	0.60	112,601	184	0.73
Miscellaneous receipts	52,242	146	0.63	71,428	117	0.46
Total	$1,885,340	$5,264	$22.90	$3,610,006	$5,899	$23.37
Accrual Operating Expenses						
Hired labor	$ 222,060	$ 620	$ 2.70	$ 402,390	$ 658	$ 2.61
Dairy grain & concentrate	401,476	1,121	4.88	760,552	1,243	4.92
Dairy roughage	26,633	74	0.32	38,585	63	0.25
Nondairy feed	468	1	0.01	38	0	0.00
Professional nutritional services	338	1	0.00	613	1	0.00
Machinery hire, rent & lease	33,094	92	0.40	62,694	102	0.41
Machinery repairs & vehicle expense	71,540	200	0.87	108,435	177	0.70
Fuel, oil & grease	55,104	154	0.67	92,136	151	0.60
Replacement livestock	6,125	17	0.07	206	0	0.00
Breeding	20,033	56	0.24	31,711	52	0.21
Veterinary & medicine	53,472	149	0.65	81,830	134	0.53
Milk marketing	66,167	185	0.80	128,549	210	0.83
Bedding	25,894	72	0.31	48,344	79	0.31
Milking supplies	33,236	93	0.40	56,832	93	0.37
Cattle lease	1,371	4	0.02	3,724	6	0.02
Custom boarding	23,378	65	0.28	38,497	63	0.25
bST expense	20,612	58	0.25	40,515	66	0.26
Livestock professional fees	4,554	13	0.06	5,852	10	0.04
Other livestock expense	7,192	20	0.09	6,717	11	0.04
Fertilizer & lime	33,314	93	0.40	45,690	75	0.30
Seeds & plants	23,091	64	0.28	37,668	62	0.24
Spray/other crop expense	17,736	50	0.22	31,595	52	0.20
Crop professional fees	2,072	6	0.03	6,564	11	0.04
Land, building & fence repair	26,187	73	0.32	51,484	84	0.33
Taxes	18,927	53	0.23	24,237	40	0.16
Real estate rent & lease	23,374	65	0.28	36,380	59	0.24
Insurance	15,728	44	0.19	22,531	37	0.15
Utilities	36,341	101	0.44	59,467	97	0.39
Miscellaneous	17,505	49	0.21	26,192	43	0.17
Total Less Interest Paid	$1,287,022	$3,594	$ 15.64	$2,250,027	$3,677	$ 14.57
Net Accrual Operating Income (without interest paid)	$ 598,318	$1,671	$ 7.27	$1,359,978	$2,222	$ 8.81
- Change in livestock & crop inventory	65,544	183	$ 0.80	203,125	332	1.32
- Change in accounts receivable	63,204	176	0.77	131,024	214	0.85
- Change in feed & supply inventory	71,514	200	0.87	176,455	288	1.14
+ Change in accounts payable[20]	-18,077	-50	-0.22	-2,465	-4	-0.02
NET CASH FLOW	$ 379,979	$1,061	4.62	$ 846,909	1,384	5.48
- Net personal withdrawals & family exp.	93,603	261	1.14	245,213	401	1.59
Available for Farm Debt Payments & Invest.	$ 286,376	$ 800	$ 3.48	$ 601,696	$ 983	$ 3.90
- Farm debt payments	266,283	743	3.23	613,123	1,002	3.97
Cash available for Farm Investments	$ 20,093	$ 56	$ 0.24	$ -11,427	$ -19	$-0.07

[20]Exclude change in interest account payable.
[21]Average of 25 farms with highest rates of return to all capital (without appreciation).

Repayment Analysis

The second step in cash flow planning and management is to compare and evaluate debt payments planned and made last year, and then to estimate the payments required in the current year. It is helpful to compare and evaluate a farm's repayment position by using debt payments per unit of production and receipt/debt payment ratios. The data below are from farms that completed summaries for both 2006 and 2007.

Table 16.

FARM DEBT PAYMENTS PLANNED
Same 217 New York Dairy Farms, 2006 & 2007

	Same 217 Dairy Farms			Same 25 Top 10% Farms		
	2007 Payments		Planned	2007 Payments		Planned
Debt Payments	Planned	Made	2008	Planned	Made	2008
Long term	$54,326	$77,897	$55,739	$63,304	$224,374	$64,000
Intermediate term	120,771	147,535	122,612	175,829	315,057	161,685
Short term	3,047	9,141	3,161	14,560	24,852	10,206
Operating (net reduction)	6,746	22,078	11,034	11,907	32,467	46,860
Accts. payable (net reduction)	1,256	24,169	1,583	1,200	16,373	11,765
Total	$186,145	$280,819	$194,130	$266,800	$613,123	$294,516
Per cow	$498	$751		$436	$1,002	
Per cwt. 2007 milk	$2.15	$3.25		$1.73	$3.97	
% of 2007 milk receipts	11%	16%		9%	19%	

The cash flow coverage ratio and debt coverage ratio measure the ability of the farm business to meet its planned debt payments from normal operation of the business. Debt coverage ratio indicates the income generated to make payments while cash flow coverage ratio shows the cash available to make payments.

Table 17.

COVERAGE RATIOS
Same 217 New York Dairy Farms, 2006 & 2007

Item	Average	Item	Average
Cash Flow Coverage Ratio		Debt Coverage Ratio	
Cash farm receipts	$1,845,249	Net farm income (without apprec.)	$ 441,765
- Cash farm expenses	1,514,687	+ Depreciation	116,817
+ Interest paid (cash)	69,723	+ Interest paid (accrual)	69,480
- Net personal withdrawals from farm[22]	96,601	- Net personal withdrawals from farm[22]	96,601
(A) = Amount Available for Debt Service	$303,684	(A') = Repayment Capacity	$531,462
(B) = Debt Payments Planned for 2007 (as of December 31, 2006)	$186,145	(B) = Debt Payments Planned for 2007 (as of December 31, 2006)	$186,145
(A/ B)= Cash Flow Coverage Ratio for 2007	1.63	(A'/B)= Debt Coverage Ratio for 2007	2.86
Same 25 Top 10% Dairy Farms, 2006 & 2007			
(A) = Amount Available for Debt Service	$601,696	(A') = Repayment Capacity	$1,098,068
(B) = Debt Payments Planned for 2007	266,800	(B) = Debt Payments Planned for 2007	266,800
(A/ B)= Cash Flow Coverage Ratio for 2007	2.26	(A'/B)= Debt Coverage Ratio for 2007	4.12

[22]Personal withdrawals and family expenditures less nonfarm income and nonfarm money borrowed. If excluded, the coverage ratios will represent repayment ability of the farm only.

The debt to asset ratio is a good measure of the current relationship between assets and liabilities, but not the business' ability to meet cash flow obligations. Even with a debt to asset ratio of less than 40 percent, 11.6 percent of the farms had a cash flow coverage ratio less than 1.0.

Table 18.

DEBT TO ASSET RATIO VS. CASH FLOW COVERAGE
250 New York Dairy Farms, 2007

	Cash Flow Coverage Ratio (Farm & Nonfarm)			
Debt/Asset Ratio	<.5	.5 to .99	1 to 1.49	>=1.5
	percent of farms			
<40%	5.6	6.0	19.6	44.8
40 to 70%	2.8	4.8	6.4	8.4
70% & over	0.0	0.8	0.4	0.4

Cropping Program Analysis

The cropping program is an important part of the dairy farm business that is sometimes overlooked and often neglected. A complete evaluation of available land resources, how they are used, and what it costs to produce the crops, are required to evaluate alternative cropping and feed purchase choices.

Table 19.

LAND RESOURCES AND CROP PRODUCTION
250 New York Dairy Farms, 2007

Item	Average 250 Farms			Average Top 10% Farms[23]		
Land	Owned	Rented	Total	Owned	Rented	Total
Tillable	373	385	758	495	691	1,186
Nontillable pasture	41	11	52	26	10	36
Other nontillable	130	5	135	176	13	189
Total	544	401	945	697	714	1,411
Crop Yields	Farms	Acres	Prod/Acre	Farms	Acres	Prod/Acre
Hay crop	243	375	3.0 tn DM	24	594	2.9 tn DM
Corn silage	214	302	18.9 tn	24	493	18.5 tn
			6.4 tn DM			6.2 tn DM
Other forage	16	50	2.3 tn DM	0	0	0.0 tn DM
Total forage	243	643	4.4 tn DM	24	1,087	4.4 tn DM
Corn grain	98	190	134 bu	10	203	146 bu
Oats	12	44	65 bu	0	0	0.0 bu
Wheat	17	103	51 bu	2	103	64 bu
Other crops	57	151		4	277	
Tillable pasture	43	79		0	0	
Idle	39	41		6	41	

[23]Average of 25 farms with highest rates of return to all capital (without appreciation).

Crop acres and yields are the average for the farms reporting each crop. All but 7 of the 250 farms produced hay or hay crop silage in 2007. Eighty-six percent produced corn silage, 39 percent grew and harvested corn grain, and 5 percent grew oats for grain. Although 43 farms used tillable pasture in 2007, only 32 farms reported using rotational grazing.

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.

Crop acres represent planted acres, therefore, any unharvested acres are reflected in lower yields per acre.

The following measures of crop management indicate how effectively the land resource is being used and how well total forage requirements are being met. These measures are the averages of farms that grow forages.

Table 20.

CROP MANAGEMENT FACTORS
250 New York Dairy Farms, 2007

Item	Average 250 Farms	Average Top 10% Farms[24]
Total tillable acres per cow	2.15	1.95
Total forage acres per cow	1.79	1.72
Harvested forage dry matter, tons per cow	7.92	7.58

[24]Average of 25 farms with highest rates of return to all capital (without appreciation).

Twenty-seven cooperators allocated direct crop related expenses to hay crop and corn. The data in Table 21 have been compiled to show the average crop related production expenses per acre and per unit for these crops. Note that labor and machinery costs have not been included. Total corn expenses are allocated to corn silage and corn grain based on the proportion of acres in each crop. In Table 21, the total per tillable acre represents 243 farms that grew forages. The expenses for hay and corn crops are for 27 farms.

Table 21.

CROP RELATED ACCRUAL EXPENSES
New York Dairy Farms, 2007

	Average 243 Farms	Average 27 Farms		Average 27 Farms		
	Total per Tillable	Hay Crop Per	Hay Crop Per	All Corn Per	Corn Silage Per Ton	Corn Grain Per Dry
Espenses	Acre	Acre	Ton DM	Acre	DM	Shell Bu.
Fertilizer & lime	$39.92	$35.84	$14.71	$68.55	$12.00	$0.20
Seeds & plants	25.04	8.74	5.05	45.55	8.04	0.14
Spray & other crop exp.	19.33	9.15	10.09	51.67	8.35	0.16
Total	$84.29	$53.73	$29.85	$165.77	$28.39	$0.50
Ave. Top 10% Farms:[25]	Average 24 Farms					
Fertilizer & lime	$47.19	----------Only 3 Farms Reported----------				
Seeds & plants	40.39					
Spray & other crop exp.	24.12					
Total	$111.70					

[25]Average of farms with highest rates of return to all capital (without appreciation).

Most machinery costs are associated 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. Machinery costs have not been allocated to individual crops, but they are calculated per total tillable acre.

Table 22.

ACCRUAL MACHINERY EXPENSES
243 New York Dairy Farms That Grow Forages, 2007

	Average 243 Farms		Average Top 10% Farms[26]	
Machinery Expense Item	Total Expenses	Per Tillable Acre	Total Expenses	Per Tillable Acre
Fuel, oil & grease	$55,583	$71.92	$95,686	$77.43
Machinery repairs & vehicle expense	71,900	93.04	112,706	91.20
Machine hire, rent & lease	33,907	43.87	65,240	52.79
Interest (5%)	26,331	34.07	37,962	30.72
Depreciation	69,034	89.33	100,763	81.54
Total	$256,755	$332.23	$412,358	$333.68

[26]Average of 24 farms that grow forages with highest rates of return to all capital (without appreciation).

Table 23.

CROP RELATED ACCRUAL EXPENSES FOR HAY CROP PRODUCTION PER ACRE
27 New York Dairy Farms, 2007

Item	Tons of Hay Crop Dry Matter Per Acre			
	<2.0	2.0-2.5	2.5-3.0	≥3.0
Hay crop, tons DM per acre	1.6	2.3	2.7	3.4
Farms reporting crop expense breakdowns	6	8	4	9
Average number hay crop acres for farms reporting	300	143	487	398
Accrual Hay Crop Expenses Per Acre				
Fertilizer & lime	$9.80	$39.43	$39.87	$48.23
Seeds & plants	4.17	7.38	6.75	13.89
Spray & other crop expenses	4.68	15.03	12.98	5.21
Total	$18.65	$61.84	$59.60	$67.33
Accrual Hay Crop Expenses Per Ton DM				
Fertilizer & lime	$6.67	$16.54	$13.89	$13.25
Seeds & plants	2.65	3.14	2.65	3.73
Spray & other crop expenses	2.68	6.41	4.94	1.34
Total	$12.00	$26.09	$21.48	$18.32

Table 24.

CROP RELATED ACCRUAL EXPENSES FOR CORN PRODUCTION PER ACRE
27 New York Dairy Farms, 2007

Item	Tons Corn Silage Per Acre			Dry Shelled Bushels of Corn Grain Per Acre	
	<15	15-20	≥20	<130	≥130
Corn yield per acre	12.9	17.1	24.2	113	136
Farms reporting crop expense breakdowns	7	13	7	5	5
Average number corn acres for farms reporting	81	285	342	389	400
Accrual Corn Crop Expenses Per Acre					
Fertilizer & lime	$14.69	$10.44	$12.66	$11.70	$9.39
Seeds & plants	2.96	1.87	5.50	2.24	1.69
Spray & other crop expenses	1.02	3.54	6.21	2.57	1.02
Total	$18.67	$15.85	$24.37	$16.51	$12.10
Accrual Corn Crop Expenses Per Ton DM or Bushel[27]	Per Ton DM of Corn Silage			Per Dry Shell Bushel of Corn Grain	
Fertilizer & lime	$19.18	$10.10	$8.34	$0.53	$0.53
Seeds & plants	12.67	6.14	6.96	0.45	0.29
Spray & other crop expense	6.32	9.02	9.12	0.42	0.43
Total	$38.17	$25.26	$24.42	$1.40	$1.25

[27]Total corn expenses are allocated to corn silage and corn grain based on the proportion of acres in each crop.

It is important to observe that as hay crop yields per acre increased, crop related expenses per acre increased. Hay crop expenses per ton of dry matter varied as yields increased. However, the highest cost per ton of dry matter is reported for the yield of 2.0 - 2.5 tons per dry matter. For corn silage, crop expenses per ton of dry matter are lowest at the highest level of production. Corn grain shows the highest cost per acre for the low yield, with the high yield category producing the lowest cost per bushel. A limited number of cooperators providing data by crop limits the strength of these conclusions.

Dairy Program Analysis

An analysis of the dairy enterprise can be the most important step in evaluating the strengths and weaknesses of the dairy farm business. Changes in dairy herd size and market values are identified in the table below. The change in inventory value without appreciation is attributed to physical changes in herd size and quality. This change in inventory is included as an accrual farm receipt when calculating profitability.

Table 25.

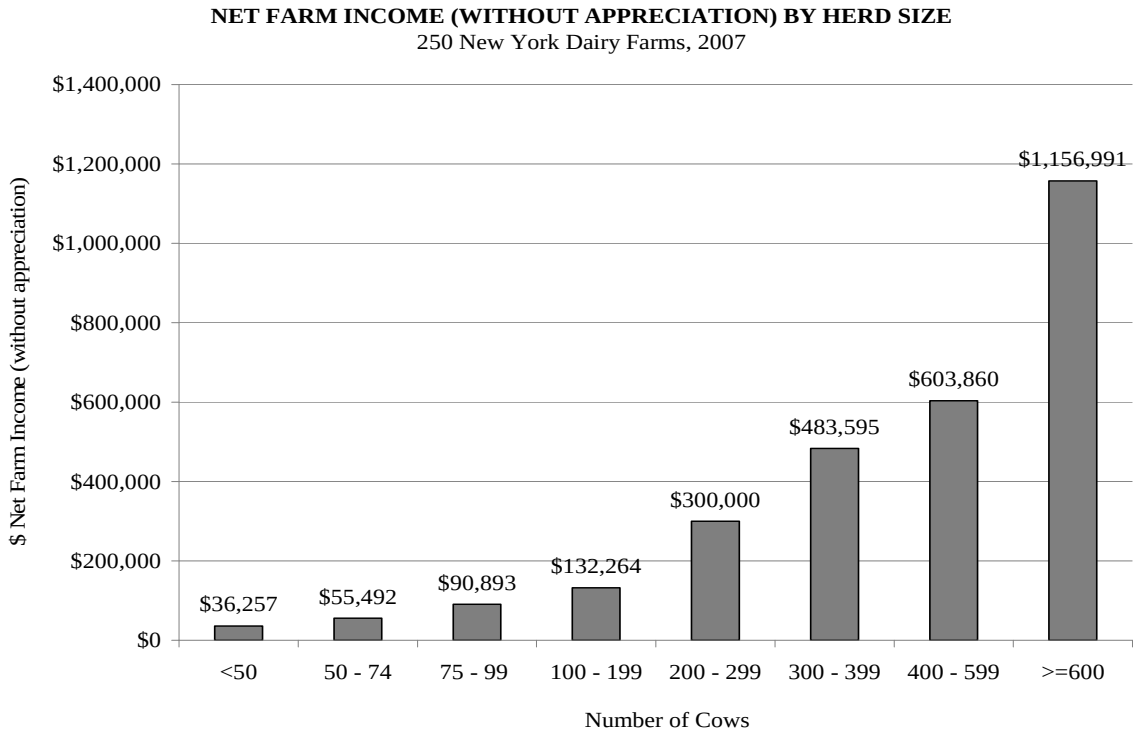
DAIRY HERD INVENTORY
250 New York Dairy Farms, 2007

	Dairy Cows		Heifers					
			Bred		Open		Calves	
Item	No.	Value	No.	Value	No.	Value	No.	Value
Beg. year (owned)	346	$472,261	103	$141,222	97	$86,128	81	$44,954
+ Change w/o apprec.		17,571		8,629		8,366		-411
+ Appreciation		46,863		14,213		6,770		4,742
End year (owned)	358	$536,695	109	$164,064	106	$101,264	82	$49,285
End including leased	362							
Average number	358		289	(all age groups)				
Average Top 10% Farms:[28]								
Beg. year (owned)	569	$773,200	177	$245,059	153	$136,731	143	$77,461
+ Change w/o apprec.		67,666		13,060		15,077		9,231
+ Appreciation		38,956		15,356		6,786		5,632
End year (owned)	613	$879,822	186	$273,476	168	$158,594	158	$92,323
End including leased	629							
Average number	612		494	(all age groups)				

[28]Average of 25 farms with highest rates of return to all capital (without appreciation).

Historically, there has been a strong relationship between farm size and net farm income on well-managed dairy farms. In 2007, there was a consistent increase in net farm incomes as herd size increased (Chart 5). For more information on herd size comparisons, see pages 48-57.

Chart 5.



Total milk sold and milk sold per cow are extremely valuable measures of productivity on the dairy farm. These measures of milk output are based on pounds of milk marketed during the year.

Table 26.

MILK PRODUCTION
250 New York Dairy Farms, 2007

Item	Average 250 Farms	Average Top 10% Farms[29]
Total milk sold, lbs.	8,231,516	15,444,527
Milk sold per cow, lbs.	22,983	25,239

[29]Average of 25 farms with highest rates of return to all capital (without appreciation).

Farms with higher rates of production tend to have higher net farm income. This is due to more cows per farm, not necessarily higher net farm income per cow. In 2007, farms with higher milk production per cow and more cows did have higher labor and management incomes per operator.

Table 27.

MILK SOLD PER COW AND FARM INCOME MEASURES
250 New York Dairy Farms, 2007

Pounds of Milk Sold Per Cow	Number of Farms	Average Number of Cows	Net Farm Income without Appreciation	Net Farm Income Per Cow	Labor & Management Income/Operator
Under 16,000	41	105	$63,275	$601	$16,819
16,000 to 16,999	10	170	178,175	1,047	78,387
17,000 to 17,999	12	90	73,829	818	21,113
18,000 to 18,999	10	105	104,147	995	40,445
19,000 to 19,999	22	187	133,592	715	48,250
20,000 to 20,999	21	342	380,145	1,113	145,435
21,000 to 21,999	24	342	377,573	1,103	191,725
22,000 to 22,999	21	469	470,789	1,003	227,263
23,000 to 23,999	30	465	552,363	1,188	197,184
24,000 to 24,999	22	527	651,719	1,237	298,631
25,000 & over	38	700	937,116	1,339	427,746

The relationship between milk output per cow and net farm income on all dairy farms is shown in Table 27 above and is diagrammed in Charts 6 and 7 on page 26. Each spot on each scatter diagram represents one of the 250 farms.

Historically, net farm income per cow has increased as pounds of milk sold per cow increased. This relationship was generally true in 2007 (see Table 27 and Charts 6 and 7). As pounds of milk sold per cow increased, total net farm income and also net farm income per cow increased with some fluctuation, especially at the lower production levels.

The trend lines on charts on the following pages were completed using regression techniques. The predictive formulas and R^2 are presented for each relationship. An R^2 of 1.00 indicates a perfect relationship between the data and the trend line. An R^2 of .30 for example, is interpreted as the trend line explaining 30% of the variability in the relationship. The higher the R^2, the better the trend line fits the data. With a low R^2, other factors, not measured, are important in explaining the relationship. The very low R^2 value for Charts 8 and 9 indicate that there are little statistical relationship in the 2007 data.

Chart 6.

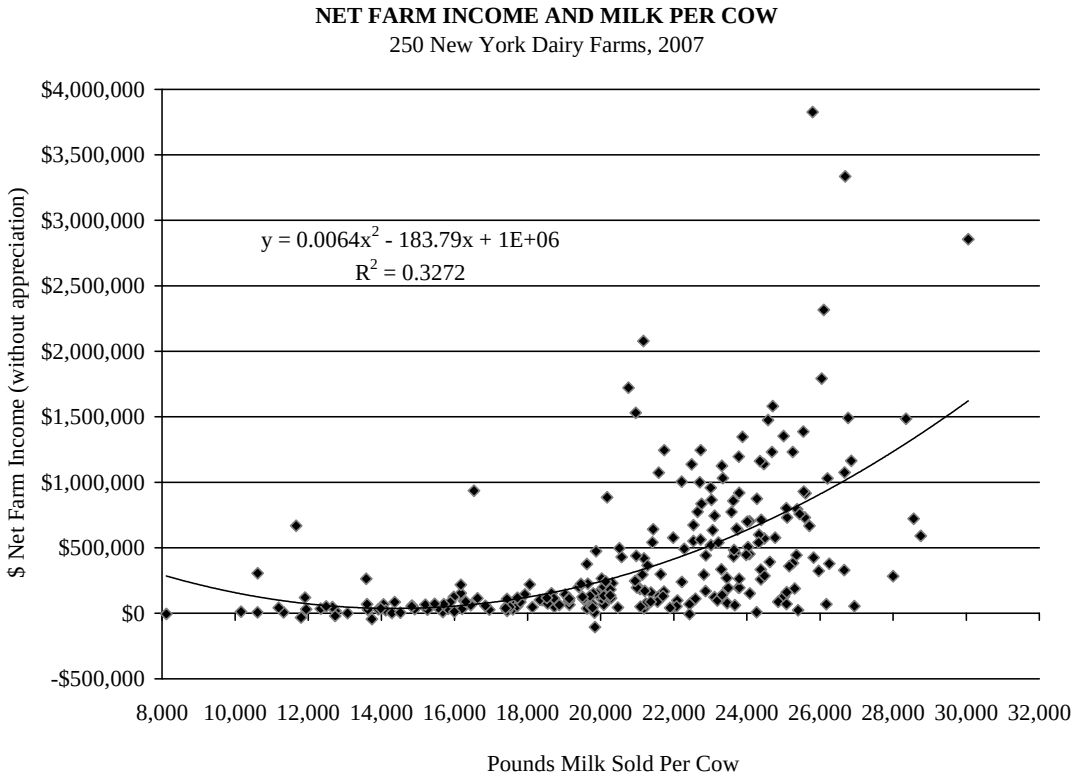
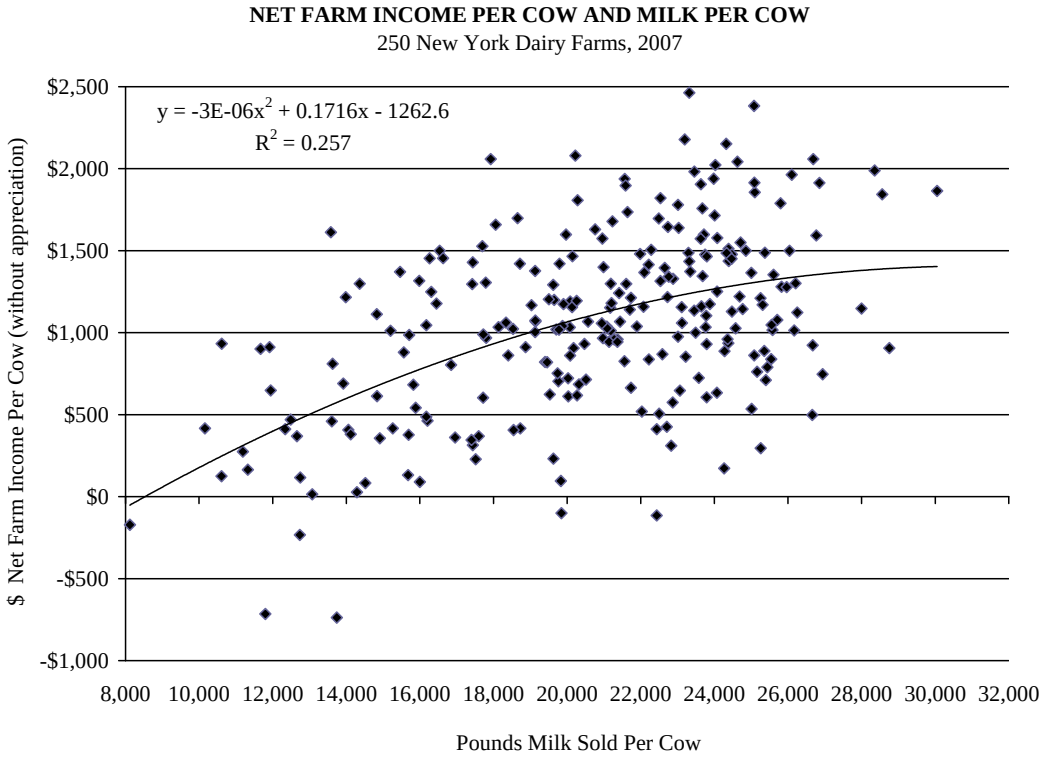


Chart 7.



Charts 8 and 9 show relationships between cull rates and milk production and net farm income per cow. For the 2007 year, supplementary information concerning dairy replacements was collected from 39 participating farms. The culling chart (Table 28) reports the decile range of reported factors for the different information that was collected. The average culling rate was 31.0 percent, sell rate was 24.7 percent, and death rate was 6.3 percent. The average number of cows sold for beef equaled 89, four cows were sold for dairy, and 23 cows died. Please refer to the glossary for definitions of the different terms and how the measures were calculated.

Chart 8.

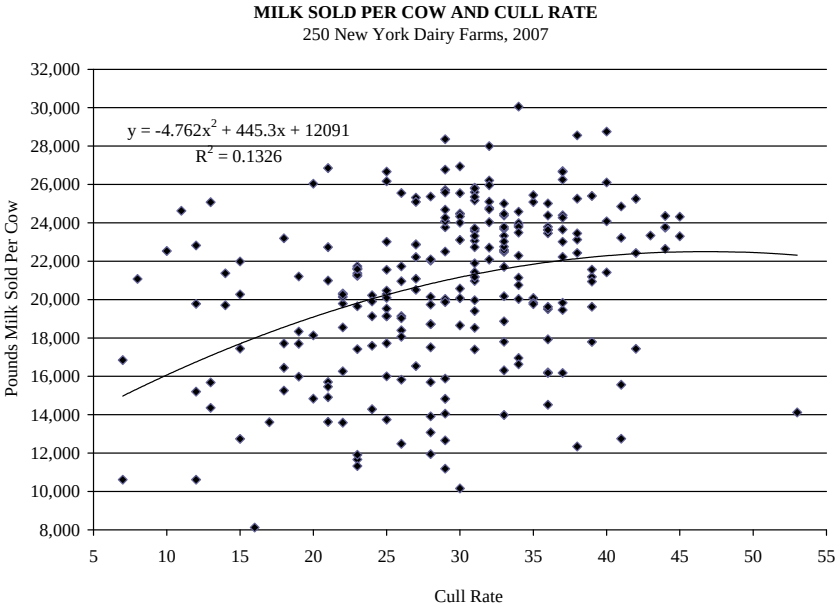


Chart 9.

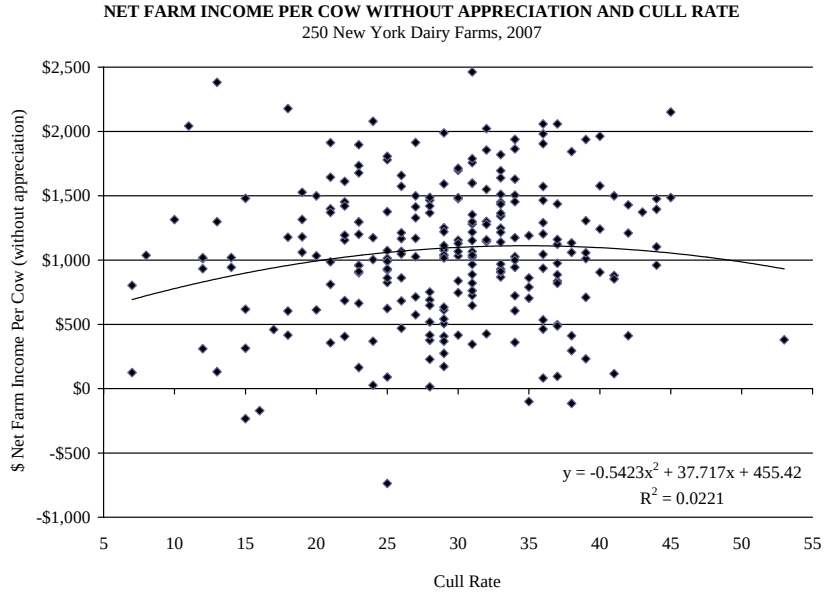


Table 28.

CULLING RATE AND DAIRY REPLACEMENT INFORMATION
New York Dairy Farms, 2007

Decile	Sell Rate	Death Rate	Cull Rate	Value of Cows Sold	Value of Animals Purchased	Percent of Replacements Purchased	Percent of Heifers Custom Raised
	- - - - - - - - -249 Farms[30]- - - - - - - -				$/head (54 Farms)	- - - - - - - - - - - - 39 Farms[30] - - - - - - - - - -	
1	10%	0%	14%	$263	$1,136	0%	0%
2	16	2	21	384	1,426	0	0
3	19	3	24	458	1,635	0	0
4	21	4	27	502	1,792	0	0
5	23	5	29	539	1,920	0	0
6	25	5	31	571	2,056	0	0
7	26	6	32	617	2,279	0	0
8	29	7	34	700	2,495	1	6
9	32	9	37	840	3,235	2	28
10	37	14	42	1,362	4,995	56	66

[30]249 participating farms provided culling information. Thirty-nine farms provided supplemental information on heifer acquisitions.

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 from total accrual receipts to get total accrual nonmilk receipts, which are used to represent total nonmilk operating costs. This assumes that costs equal revenues for nonmilk costs.

3. Total accrual nonmilk receipts are subtracted from total accrual operating expenses including expansion livestock to calculate the operating cost 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 cost 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 cost of producing milk. This cost includes all the operating, depreciation, and imputed costs of producing milk.

Table 29.

COST OF PRODUCING MILK, WHOLE FARM METHOD
250 New York Dairy Farms, 2007

Item	Average 250 Farms		Average Top 10% Farms[31]	
Total Accrual Operating Expenses	$1,354,999		$2,337,021	
Expansion Livestock, Accrual	+ 10,427		+ 16,458	
1. Total Accrual Operating Expenses, Including Expansion Livestock		$1,365,426		$2,353,479
Total Accrual Receipts	$1,885,340		$3,610,006	
Milk Sales, Accrual	- 1,674,170		- 3,210,031	
2. Total Accrual Nonmilk Receipts		- $211,170		-$ 399,975
3. Operating Cost of Producing Milk		$1,154,256		$1,953,505
Machinery Depreciation		+ 68,060		+ 96,804
Building Depreciation		+ 40,914		+ 69,674
Extraordinary Expense		+ 582		+ 239
4. Purchased Inputs Cost of Producing Milk		$1,263,813		$2,120,222
Family Labor Unpaid ($2,400/month)		+ 5,453		+ 2,909
Real Interest on Equity Capital		+ 98,695		+162,869
Value of Operator's Labor & Management		+ 69,103		+ 95,833
5. Total Costs of Producing Milk		$1,437,064		$2,381,833
6. Costs Per Cwt.:				
Cwt. Milk Sold	82,315		154,445	
Operating Cost Per Cwt.	$14.02		$12.65	
Purchased Inputs Cost Per Cwt.	$15.35		$13.73	
Total Cost Per Cwt.	$17.46		$15.42	

[31]Average of 25 farms with highest rates of return to all capital (without appreciation).

Costs of producing milk per hundredweight are presented for eight expenditure categories in Table 30. The whole farm method assumption that accrual nonmilk receipts represent nonmilk operating costs is used in computing net costs. A $31,174 average increase in crop inventories per farm, ($0.38 per hundredweight of milk), is included in crop sales on the 250 farms. The top 10 percent farms had a $98,131 average increase in crop inventories per farm ($0.64 per hundredweight of milk).

Table 30.

ITEMIZED COSTS OF PRODUCING MILK PER HUNDREDWEIGHT
BASED ON WHOLE FARM DATA
250 New York Dairy Farms, 2007

Item	Average 250 Farms		Average Top 10% Farms[33]	
Dairy grain and concentrate	$4.88		$4.92	
Dairy roughage	0.32		0.25	
Nondairy feed	0.01		0.00	
Professional nutritional services	0.00		0.00	
Total feed expense		$5.21		$5.17
Crop expense		0.93		0.78
- Crop sales and government receipts[32]		0.90		0.95
Net Feed and Crop Expense		$5.24		$5.00
Hired labor		2.70		2.61
Operator's and family labor		0.91		0.64
Total Labor Expense		$3.61		$3.25
Machine repairs, fuel and hire		1.94		1.71
Machinery depreciation		0.83		0.63
- Gas tax refunds and custom work		0.04		0.05
Net Machinery Expense		$2.73		$2.29
Replacement and expansion cattle purchases		0.20		0.11
- Sales and inventory growth		1.33		1.40
Net Cattle Purchases		$-1.13		$-1.29
Milk marketing costs		0.80		0.83
All other livestock expense excluding purchases		2.30		2.04
Net Livestock Expense		$3.10		$2.87
Real estate repairs, rent and taxes		0.83		0.73
Building depreciation		0.50		0.45
Total Real Estate Expense		$1.33		$1.18
Interest paid		0.83		0.56
Interest on equity		1.20		1.05
Total Interest Expense		$2.03		$1.61
Other operating and miscellaneous expenses		0.84		0.71
- Miscellaneous income		0.29		0.20
Net Miscellaneous Expenses		$ 0.55		$0.51
Total Cost of Producing Milk		$17.46		$15.42
Purchased Inputs Cost		$15.35		$13.73
Total Operating Cost		$14.02		$12.65

[32]Non-crop related government payments may bias the results.
[33]Average of 25 farms with highest rates of return to all capital (without appreciation).

Costs of producing milk per hundredweight are presented in the table below for 217 farms that participated both in 2006 and 2007. Costs of production increased in all expense categories when 2007 data were compared to 2006.

Table 31.

ITEMIZED COSTS OF PRODUCING MILK PER HUNDREDWEIGHT
BASED ON WHOLE FARM DATA
Same 217 New York Dairy Farms, 2006 & 2007

Item	2006		2007		Percent Change
Dairy grain and concentrate	$4.03		$4.89		21.3%
Dairy roughage	0.26		0.31		19.2%
Nondairy feed	0.00		0.01		
Professional nutritional services	0.00		0.00		
Total feed expense		$4.29		$5.21	21.5%
Crop expense		0.74		0.92	
- Crop sales and government receipts[34]		0.95		0.93	
Net Feed and Crop Expense		$4.08		$5.20	27.5%
Hired labor		2.60		2.71	
Operator's and family labor		0.87		0.87	
Total Labor Expense		$3.47		$3.58	3.2%
Machine repairs, fuel and hire		1.64		1.93	
Machinery depreciation		0.75		0.84	
- Gas tax refunds and custom work		0.04		0.04	
Net Machinery Expense		$2.35		$2.73	16.2%
Replacement and expansion cattle purchases		0.25		0.18	
- Sales and inventory growth		1.42		1.31	
Net Cattle Purchases		$-1.17		$-1.13	3.4%
Milk marketing costs		0.79		0.80	
All other livestock expense excluding purchases		2.18		2.26	
Net Livestock Expense		$2.97		$3.06	3.0%
Real estate repairs, rent and taxes		0.71		0.82	
Building depreciation		0.51		0.51	
Total Real Estate Expense		$1.22		$1.33	9.0%
Interest paid		0.77		0.80	
Interest on equity		1.06		1.20	
Total Interest Expense		$1.83		$2.00	9.3%
Other operating and miscellaneous expenses		0.78		0.85	
- Miscellaneous income		0.26		0.29	
Net Miscellaneous Expenses		$0.52		$0.56	7.7%
Total Cost of Producing Milk		$15.28		$17.34	13.5%
Purchased Inputs Cost		$13.35		$15.27	14.4%
Total Operating Cost		$12.07		$13.91	15.2%
Average Price Received for Milk		$13.85		$20.38	47.2%

[34]Non-crop related government payments may bias the results.

The three measures of the accrual cost of producing milk calculated on a per cow and per hundredweight basis are compared with accrual receipts from milk sales in Table 32.

Table 32.

COST OF PRODUCING MILK, ACCRUAL RECEIPTS FROM DAIRY, AND PROFITABILITY
250 New York Dairy Farms, 2007

Item	Average 250 Farms			Average Top 10% Farms[35]		
	Total	Per Cow	Per Cwt.	Total	Per Cow	Per Cwt.
Accrual Cost of Producing Milk						
Operating Cost	$1,154,256	$3,223	$14.02	$1,953,505	$3,192	$12.65
Purchased Inputs Cost	1,263,813	3,529	15.35	2,120,222	3,465	13.73
Total Cost	1,437,064	4,012	17.46	2,381,833	3,892	15.42
Accrual Receipts from Milk	$1,674,170	$4,675	$20.34	$3,210,031	$5,246	$20.78
Net Milk Receipts	1,608,003	4,045	19.53	3,081,483	4,791	19.95
Profitability						
Net Farm Income without Appreciation	$410,358	$1,146	$4.99	$1,089,809	$1,781	$7.06
Net Farm Income with Appreciation	$556,376	$1,553	$6.76	$1,253,697	$2,049	$8.12

[35]Average of 25 farms with highest rates of return to all capital (without appreciation).

The operating cost of producing milk on all 250 dairy farms averaged $14.02 per hundredweight, leaving $6.32 to cover depreciation, unpaid labor and operator resources.

The total cost of producing milk on all 250 dairy farms averaged $17.46 per hundredweight, $2.88 less than the average price received for milk sold from these farms during 2007. The imputed costs or charge for the operator's labor, management and equity capital averaged $2.04 per hundredweight in 2007; however, the farm operator received $4.92 per hundredweight for these inputs. The 25 most profitable farms held their operating costs to $12.65 per hundredweight and their total cost of producing milk averaged $15.42 per hundredweight. This left a profit of $5.36 per hundredweight of milk sold.

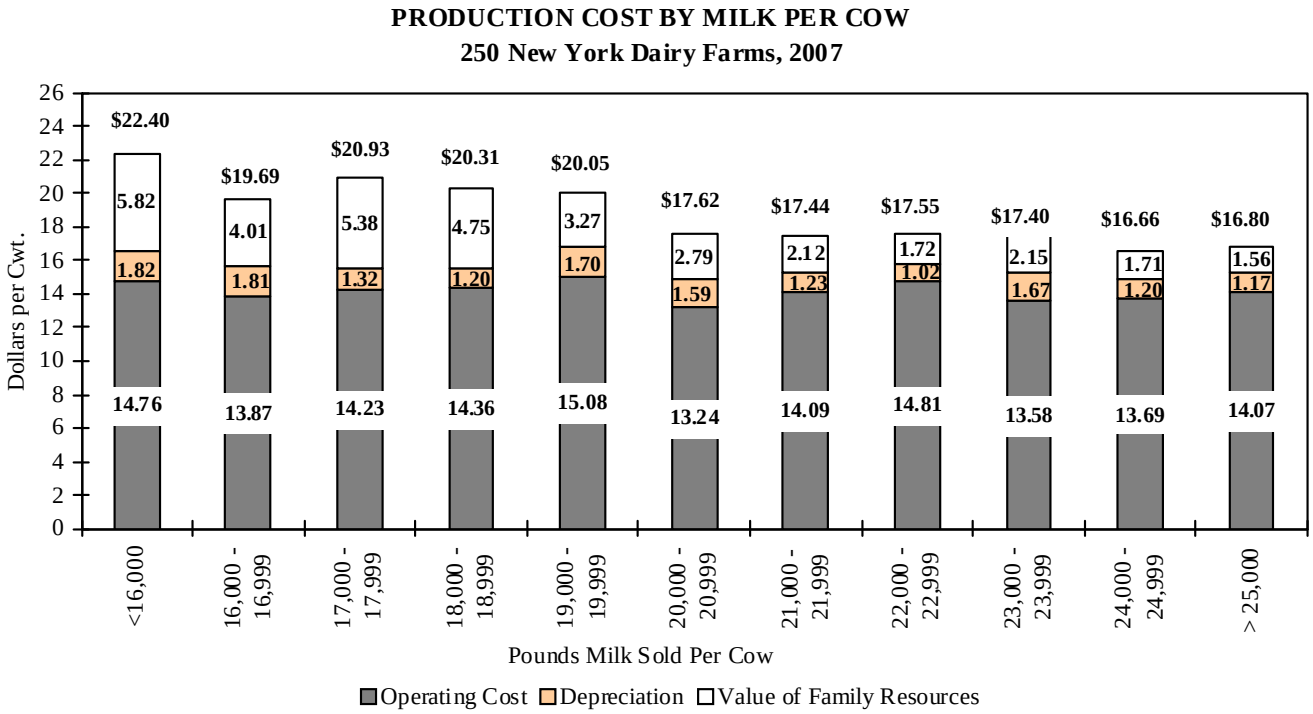
The strong relationship between milk output per cow and the total cost of producing milk is shown in Table 33 and Chart 10 on page 32. Farms selling less than 19,000 pounds of milk per cow had average total costs of production of $20.83 per hundredweight while those selling 19,000 pounds and over averaged $17.65 for a difference of $3.18 per hundredweight.

Table 33.

FARM COST OF PRODUCING MILK BY MILK SOLD PER COW
250 New York Dairy Farms, 2007

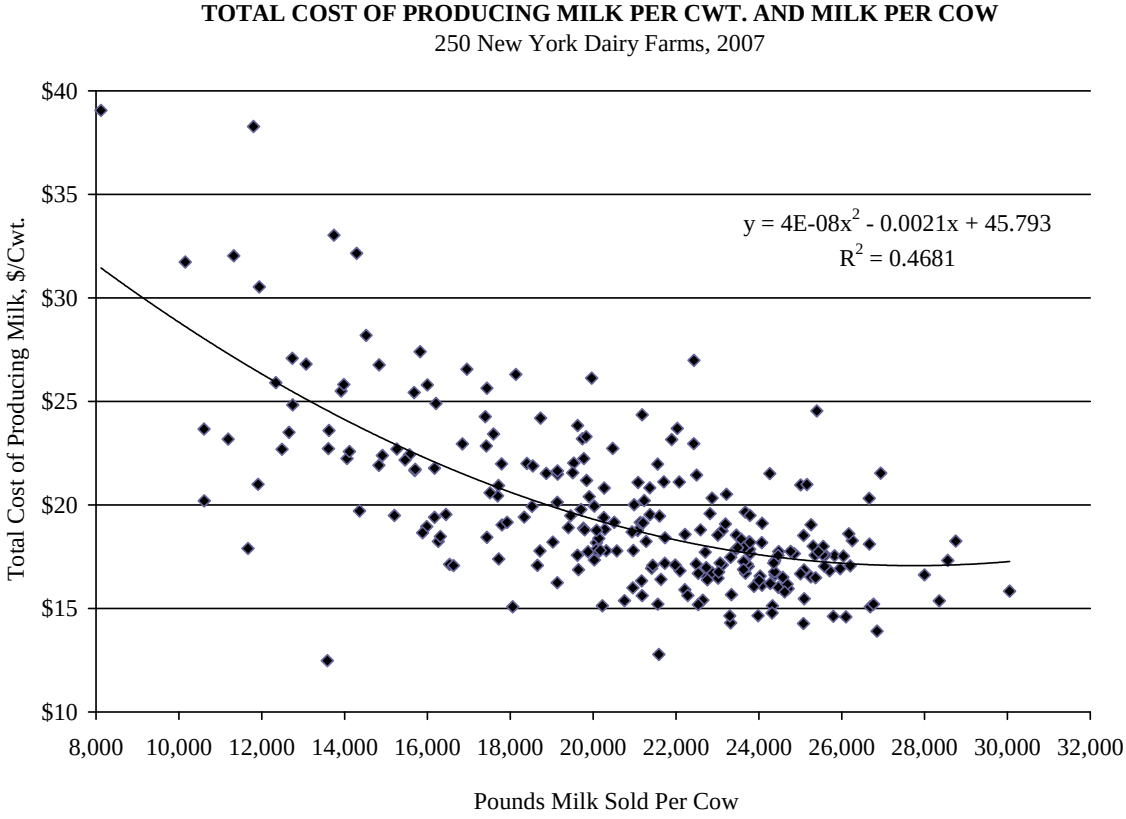
Pounds Milk Sold Per Cow	Costs per Hundredweight					Accrual Receipts From Milk Per Cwt.	Return Per Cwt. To Operator's Labor, Mgmt. & Capital
	Operating Costs		Costs of Producing Milk				
	Hired Labor	Dairy Grain & Concentrate	Total Operating	Purchased Inputs	Total		
Under 16,000	$1.76	$5.16	$14.76	$16.58	$22.40	$21.13	$3.97
16,000-16,999	2.77	5.14	13.87	15.68	19.69	22.07	6.11
17,000-17,999	1.63	5.21	14.23	15.55	20.93	20.20	4.04
18,000-18,999	1.24	5.30	14.36	15.56	20.31	20.94	4.69
19,000-19,999	2.40	5.10	15.08	16.78	20.05	20.42	3.43
20,000-20,999	2.53	4.77	13.24	14.83	17.62	20.26	5.38
21,000-21,999	2.72	4.65	14.09	15.32	17.44	20.46	5.08
22,000-22,999	2.71	4.81	14.81	15.83	17.55	20.27	4.41
23,000-23,999	2.48	4.79	13.58	15.25	17.40	20.31	5.01
24,000-24,999	3.12	4.51	13.69	14.95	16.66	20.01	5.08
25,000 & over	2.83	5.08	14.07	15.24	16.80	20.34	5.11

Chart 10.



The relationship between total cost of producing milk and milk sold per cow is diagrammed in Chart 11. It shows that as milk sold per cow increases, on the average, total cost of production generally decreases.

Chart 11.



Data in Table 34 and Chart 12 show that the average total cost of production generally declines as herd size increases. This is attributable to spreading fixed costs over more units of output.

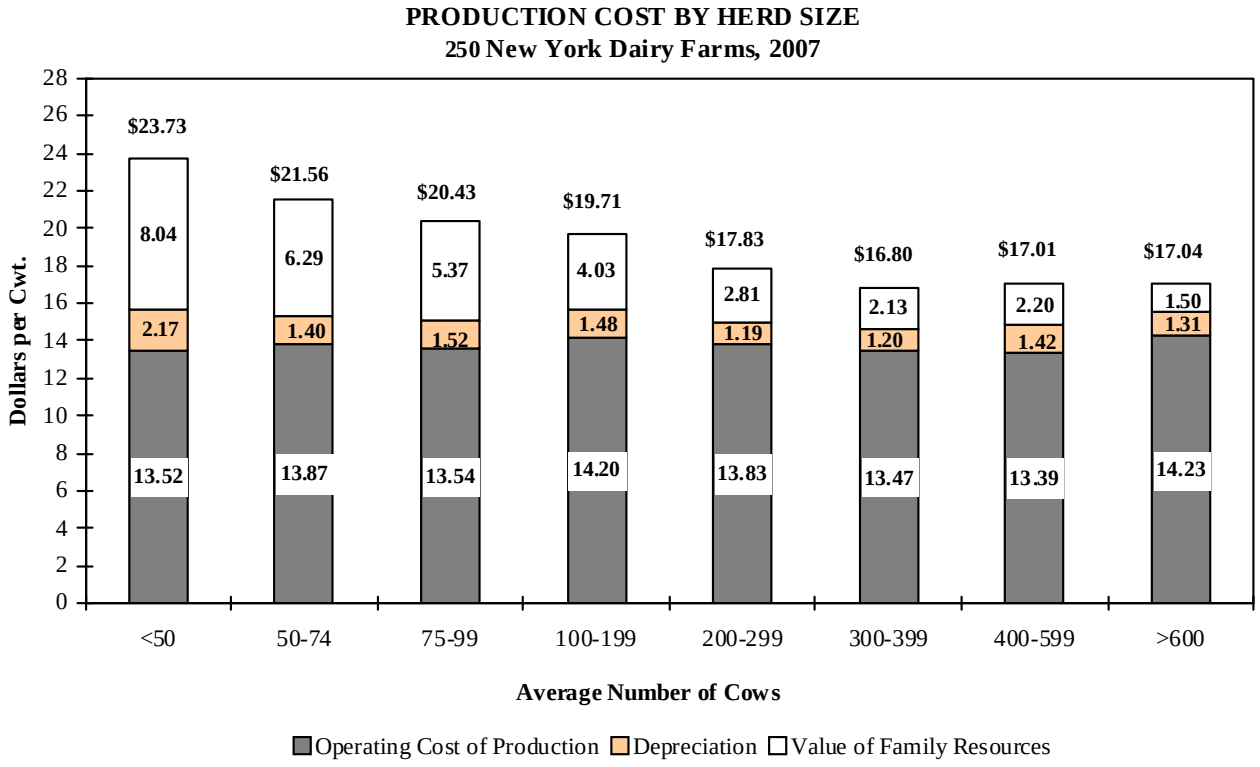
Total operating costs are lowest at the 400 to 599 herd size group followed by the 300 to 399 herd size category. Hired labor cost generally increases with herd size, while purchased dairy grain and concentrate are not related to herd size.

Table 34.

FARM COST OF PRODUCING MILK BY HERD SIZE
250 New York Dairy Farms, 2007

	Costs per Hundredweight						
	Operating Costs		Costs of Producing Milk				
Number of Cows	Hired Labor	Dairy Grain & Concentrate	Total Operating	Purchased Inputs	Total	Accrual Receipts From Milk	Return Per Cwt. To Operator's Labor, Mgmt. & Capital
Under 50	$0.86	$4.74	$13.52	$15.69	$23.73	$20.58	$3.83
50 to 74	1.08	4.85	13.87	15.27	21.56	20.20	4.33
75 to 99	1.45	5.32	13.54	15.06	20.43	20.66	4.82
100 to 199	1.84	5.01	14.20	15.68	19.71	20.48	4.59
200 to 299	2.30	4.66	13.83	15.02	17.83	20.28	5.22
300 to 399	2.57	4.94	13.47	14.67	16.80	20.68	5.93
400 to 599	2.61	4.66	13.39	14.81	17.01	20.43	5.58
600 and over	2.97	4.91	14.23	15.54	17.04	20.26	4.71

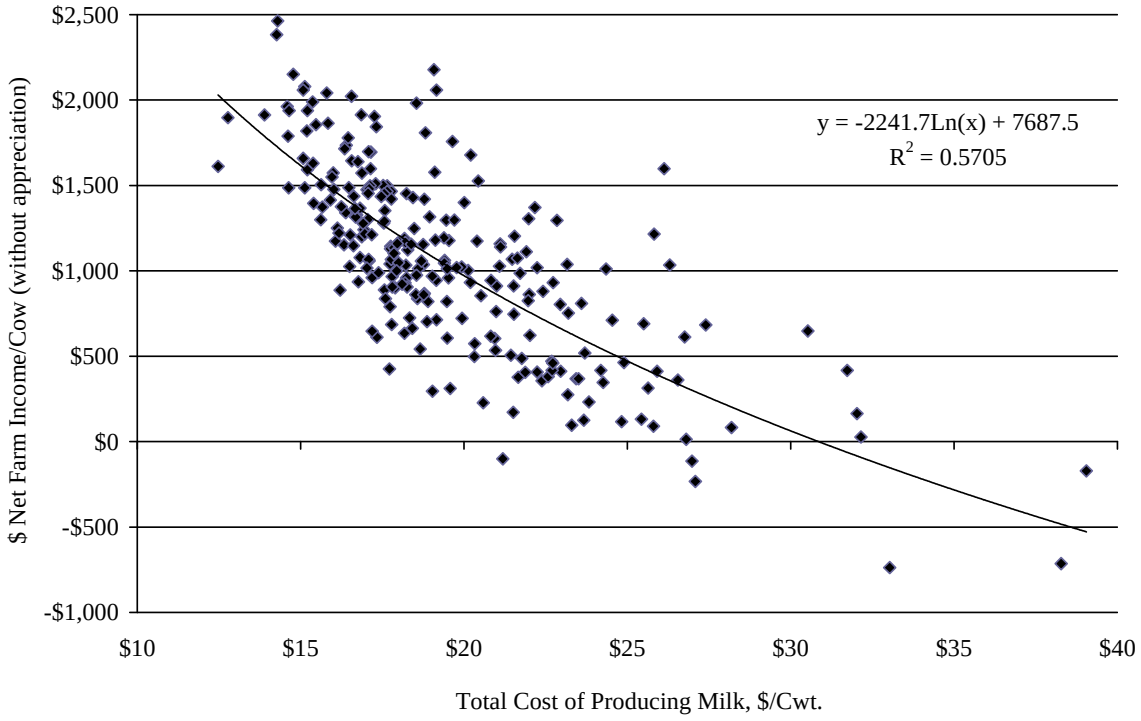
Chart 12.



The importance of cost control and its impact on farm profitability are illustrated in Chart 13. As the total cost of producing milk per hundredweight increased, net farm income per cow fell. All farms had a positive net farm income per cow until the total cost of producing milk exceeded $21 per hundredweight. The majority of the farms with costs greater than $26 per hundredweight experienced negative net farm incomes per cow.

Chart 13.

NET FARM INCOME PER COW AND TOTAL COST OF PRODUCING MILK PER HUNDREDWEIGHT
250 New York Dairy Farms, 2007



Cost of Producing Milk (continued)

A ten-year comparison of the average costs and returns of producing milk per hundredweight is presented in Table 35 on page 36. Average individual operating and overhead expenses per hundredweight of milk sold are reported on all specialized dairy farms included in the New York State Summary from 1998 through 2007. In 2007, the average operating cost of producing milk increased 16.1 percent after decreasing one percent from 2005 to 2006. The average return per hundredweight to operator labor, management, and capital was $4.49 higher in 2007, 1020 percent above 2006. In only three years during the last ten years has milk price exceeded the total cost of producing milk. The years were 1998, 2001, 2004, and 2007.

Hired labor expense per hundredweight has increased consistently from 1998 to 2005, remained constant in 2005, decreased three percent in 2006, and increased five percent in 2007. Hired labor expense was $2.06 in 1998 and has risen to $2.70 in 2007. Thus, even as pounds of milk sold per worker have increased from 821,565 in 1998 to 980,234 in 2007, labor expense per worker has increased even more rapidly. Some of this effect is due to increasing farm size where a larger portion of the labor force is comprised of hired workers. Another effect is an increase in hired labor cost per worker as shown by a 12 percent increase in hired labor expense per hired worker equivalent from 1998 to 2007.

Purchased feed expense per hundredweight of milk can fluctuate greatly, as much as $1.30 per hundredweight. At $3.91 in 2000, it was at its lowest in the past ten years. In 2007, purchased feed expense was at its highest in the past ten years at $5.21, due mostly to demand for corn for ethanol and the U.S. dollar foreign exchange rate.

Interest paid on debt per hundredweight of milk sold has fluctuated over this period. In 1998, interest expense was $0.89 per hundredweight. In 2003, interest expense was at a ten-year low of $0.56 per hundredweight, increasing to $0.83 in 2007. Property taxes per hundredweight of milk have decreased by 9 percent during this ten-year period. Property taxes were $0.21 per hundredweight in 1998, and $0.23 in 2007. This is due to productivity increases and more of the land resources being rented, rather than owned, and fewer acres per cow.

A ten-year comparison of selected average business factors for all specialized DFBS farms is presented in Table 36 on page 37. The reader is reminded that the same farms are not in the survey each year. Average cow numbers are up 70 percent, tillable acres have increased 53 percent, and milk sold per farm has jumped 87 percent since 1998. Capital investment per cow has increased 37 percent over the last ten years. Labor and management income per operator increased 704 percent in 2007 compared to 2006, farm net worth increased three percent, and percent equity increased 10 percent in 2007 compared to 2006.

Hay crop yields were 3.1 tons dry matter per acre in 1998 and 3.0 tons dry matter per acre in 2007. Corn silage yields, as fed, have varied more widely and were 18.9 tons per acre in 2007. As yields increased, fertilizer and lime expense increased $9.00 per tillable acre, from $31 to $40 per acre. Pounds of milk sold per cow increased by 10 percent, from 20,900 pounds in 1998 to 22,983 pounds in 2007.

Average number of workers per farm increased by 3.05 and operators/managers per farm were stable. Cows per worker equivalent increased from 39 in 1998 to 43 in 2007, but labor cost per cow increased from $609 to $784 over the same time period.

The asset turnover ratio ranged from 0.61 to 0.67. Total accrual receipts as a proportion of total farm assets equals asset turnover ratio. Percent equity was 59 percent in 1998, was relatively constant over the next eight years, and increased to 68 percent in 2007.

Table 35.

TEN YEAR COMPARISON: AVERAGE COST OF PRODUCING MILK PER HUNDREDWEIGHT
New York Dairy Farms, 1998 to 2007

Item	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Operating Expenses										
Hired labor	$2.06	$2.14	$2.25	$2.41	$2.44	$2.51	$2.67	$2.66	$2.58	$2.70
Purchased feed	4.18	3.96	3.91	4.25	4.10	4.29	4.88	4.37	4.30	5.21
Machinery repair, vehicle expense & rent	1.12	1.18	1.06	1.21	1.01	.91	1.09	1.07	1.04	1.27
Fuel, oil & grease	.25	.24	.34	.32	.28	.33	.41	.53	.58	.67
Replacement livestock	.24	.24	.23	.20	.16	.15	.16	.11	.07	.07
Breeding fees	.16	.17	.17	.19	.21	.19	.21	.22	.23	.24
Veterinary & medicine	.45	.47	.51	.54	.56	.56	.59	.62	.65	.65
Milk marketing	.53	.49	.69	.63	.65	.69	.72	.76	.80	.80
Other dairy expenses	1.09	1.13	1.16	1.26	1.25	1.30	1.27	1.32	1.29	1.41
Fertilizer & lime	.35	.35	.29	.33	.27	.26	.30	.34	.31	.40
Seeds & plants	.22	.20	.19	.20	.20	.20	.24	.22	.23	.28
Spray & other crop expense	.24	.24	.22	.25	.22	.19	.20	.19	.19	.25
Land, building & fence repair	.27	.27	.21	.26	.19	.14	.21	.25	.22	.32
Taxes	.21	.21	.20	.21	.20	.21	.22	.23	.21	.23
Insurance	.17	.16	.16	.14	.16	.15	.16	.16	.17	.19
Utilities (farm share)	.32	.31	.32	.33	.34	.34	.36	.39	.41	.44
Interest paid	.89	.83	.95	.82	.61	.56	.57	.65	.78	.83
Misc. (including rent)	.41	.44	.45	.42	.44	.40	.43	.37	.45	.49
Total Operating Expenses	$13.15	$13.02	$13.31	$13.98	$13.27	$13.39	$14.67	$14.54	$14.51	$16.46
Less: Nonmilk cash receipts	1.18	1.44	1.83	1.49	1.91	1.57	1.70	1.96	1.94	1.75
Increase in grown feed & supplies	.25	.25	.11	.10	.12	.27	.17	.12	.22	.39
Increase in livestock	.22	.11	.06	.52	.23	.09	.22	.21	.27	.30
OPERATING COST OF MILK PRODUCTION	$11.50	$11.22	$11.31	$11.87	$11.01	$11.46	$12.58	$12.25	$12.08	$14.02
Overhead Expenses										
Depreciation: machinery & buildings	$1.08	$1.14	$1.20	$1.30	$1.39	$1.23	$1.32	$1.32	$1.26	$1.32
Unpaid labor	.11	.11	.10	.10	.08	.10	.07	.06	.07	.07
Operator(s) labor [36]	.74	.80	.79	.74	.74	.70	.67	.61	.63	.65
Operator(s) management (5% of cash receipts)	.82	.83	.76	.87	.75	.73	.90	.90	.79	1.07
Interest on farm equity capital (5%)	.85	.86	.88	.91	.89	.85	.92	1.02	1.06	1.20
Total Overhead Expenses	$3.60	$3.74	$3.73	$3.92	$3.85	$3.61	$3.88	$3.91	$3.81	$4.31
TOTAL COST OF MILK PRODUCTION	$15.10	$14.96	$15.04	$15.79	$14.86	$15.07	$16.46	$16.16	$15.89	$18.33
AVERAGE FARM PRICE OF MILK	$15.60	$14.91	$13.38	$15.98	$12.98	$13.24	$16.64	$15.98	$13.85	$20.34
Return per cwt. to operator labor, capital & mgmt.	$2.91	$2.44	$0.77	$2.71	$0.50	$0.45	$2.67	$2.35	$0.44	$4.93
Rate of return on farm equity capital	8.0%	4.7%	-4.4%	6.0%	-5.6%	-5.7%	6.0%	4.1%	-4.6%	13.4%

[36] 1998 = $1,600/month, 1999 = $1,800/month, 2000 = $1,900/month, 2001 = $2,000/month, 2002 = $2,100/month, 2003 through 2005 = $2,200/month, 2006 = $2,300/month, and 2007 = $2,400/month of operator labor.

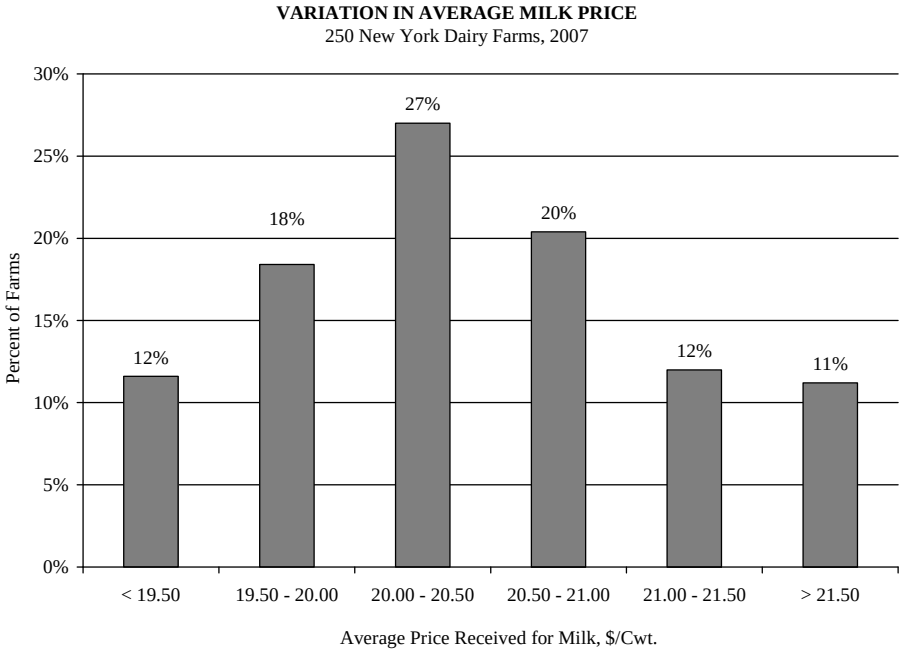
Table 36.

TEN YEAR COMPARISON: SELECTED BUSINESS FACTORS
New York Dairy Farms, 1998 to 2007

Item	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Number of farms	305	314	294	228	219	201	200	225	240	250
Cropping Program										
Total tillable acres	497	516	566	618	660	659	701	729	730	758
Tillable acres rented	232	234	262	290	337	323	345	365	360	385
Hay crop acres	239	248	274	302	323	321	339	361	366	364
Corn silage acres	175	186	192	210	232	233	245	246	249	258
Hay crop, tons DM/acre	3.1	2.9	3.3	2.8	3.1	3.2	3.5	3.2	3.2	3.0
Corn silage, tons/acre	18.0	16.3	15.1	16.5	15.4	17.2	17.7	18.8	18.4	18.9
Fertilizer & lime exp./tillable acre	$31	$32	$27	$32	$27	$28	$31	$33	$30	$40
Machinery cost/cow	$471	$502	$513	$554	$520	$497	$565	$624	$618	$708
Dairy Analysis										
Number of cows	210	224	246	277	297	314	334	340	350	358
Number of heifers	155	164	186	207	226	240	260	270	283	289
Milk sold, cwt.	43,954	47,932	52,871	60,290	66,177	70,105	73,767	78,250	80,862	82,315
Milk sold/cow, lbs.	20,900	21,439	21,516	21,762	22,312	22,302	22,070	22,998	23,083	22,983
Purchased dairy feed/cwt. milk	$4.18	$3.96	$3.91	$4.25	$4.10	$4.27	$4.86	$4.37	$4.29	$5.20
Purchased grain & concentrate as % of milk receipts	26%	25%	27%	25%	30%	30%	27%	26%	29%	24%
Purchased feed & crop exp/cwt.milk	$5.00	$4.75	$4.61	$5.03	$4.79	$4.92	$5.60	$5.12	$5.02	$6.13
Capital Efficiency										
Farm capital/cow	$6,161	$6,368	$6,535	$6,755	$6,794	$6,748	$7,010	$7,508	$7,762	$8,426
Real estate/cow	$2,537	$2,562	$2,615	$2,713	$2,612	$2,722	$2,809	$2,950	$3,030	$3,356
Machinery investment/cow	$1,118	$1,163	$1,225	$1,222	$1,261	$1,208	$1,226	$1,314	$1,384	$1,448
Asset turnover ratio	0.61	0.59	0.54	0.63	0.53	0.54	0.64	0.60	0.52	0.67
Labor Efficiency										
Worker equivalent	5.35	5.71	6.11	6.72	7.21	7.50	7.97	8.18	8.19	8.40
Operator/manager equivalent	1.62	1.76	1.83	1.94	1.82	1.86	1.64	1.60	1.63	1.62
Milk sold/worker, lbs.	821,565	839,432	865,325	897,167	917,854	934,733	925,553	956,698	987,530	980,234
Cows/worker	39	39	40	41	41	42	42	42	43	43
Labor cost/cow	$609	$653	$674	$706	$725	$738	$752	$765	$757	$784
Hired labor exp./hired worker equiv.	$31,092	$27,910	$29,309	$31,448	$31,755	$32,659	$33,311	$33,539	$34,071	$34,924
Profitability & Financial Analysis										
Labor & mgmt. income/operator	$55,917	$42,942	$-2,908	$45,479	$-14,243	$-15,360	$78,061	$64,745	$-31,269	$189,019
Farm net worth, end year	$798,297	$865,626	$942,881	$1,181,055	$1,173,836	$1,207,964	$1,466,674	$1,690,427	$1,736,505	$2,200,655
Percent equity	59%	58%	57%	60%	57%	56%	60%	63%	62%	68%

The average or mean price per hundredweight of milk sold is calculated by dividing gross milk receipts by total pounds of milk sold. The average price for the 250 farms was $20.34 but there was considerable variation among the individual farms. The variation in average price received and the distribution of farms around the mean is shown below.

Chart 14.



Forty-seven percent of the farms received from $20.00 to $21.00 per hundredweight of milk sold. Twenty-three percent of the farms received $21.00 or more and 30 percent received less than $20.00 per hundredweight. Location and organization of markets are factors contributing to the difference in average milk prices on these dairy farms. Management practices on farms as well as in milk companies also affect farm milk prices. Seasonality of production and milk components are two variables that affect milk price. More milk price analysis by component can be found on pages 40 and 41.

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 the comparison of different size dairy farms for strengths and areas for improvement.

Table 37.

DAIRY RELATED ACCRUAL EXPENSES
250 New York Dairy Farms, 2007

	Average 250 Farms		Average Top 10% Farms[37]	
Item	Per Cow	Per Cwt.	Per Cow	Per Cwt.
Purchased dairy grain & concentrate	$1,121	$4.88	$1,243	$4.92
Purchased dairy roughage	74	.32	63	.25
Total Purchased Dairy Feed	$1,195	$5.20	$1,306	$5.17
Purchased grain & concentrate as % of milk receipts	24%		24%	
Purchased feed & crop expense	$1,408	$6.13	$1,505	$5.96
Purchased feed & crop expense as % of milk receipts	31%		30%	
Breeding	$56	$.24	$52	$.21
Veterinary & medicine	149	.65	134	.53
Milk marketing	185	.80	210	.83
Bedding	72	.31	79	.31
Milking Supplies	93	.40	93	.37
Cattle lease	4	.02	6	.02
Custom boarding	65	.28	63	.25
bST expense	58	.25	66	.26
Other livestock expense	33	.15	21	.08

[37]Average of 25 farms with highest rates of return to all capital (without appreciation).

Feed costs per cow and per hundredweight of milk sold are influenced by a number of factors. These cost measures are affected by the amount of homegrown grains fed, quality and quantity of the roughage harvested, and the number of youngstock. Feed costs are also influenced by the farmer's ability to purchase grains and concentrates at reasonable prices and to balance nutrients fed with energy and protein requirements.

Purchased dairy grain and concentrates per cow is calculated by dividing the total accrual expenses for dairy grains and concentrates purchased by the average number of cows. Because this also included the amount spent for calf and heifer feed, it actually represents feed cost for one cow and associated replacements being raised (averaged 0.81 animals in 2007).

Purchased feed and crop expense per hundredweight of milk is one of the most useful feed cost measures because it accounts for some of the variations in feeding and cropping programs, and milk production between herds. It includes all purchased feeds used on the farm, and it includes crop expenses that are associated with feed production. It does not represent total feed costs because machinery, labor and other costs of producing feed crops are excluded.

Purchased grain and concentrates as percent of milk sales is calculated by dividing feed purchased by milk receipts. This is another useful measure of feed efficiency although variations in homegrown grains fed, heifers fed, and milk prices can have an impact. Purchased feed and crop expense as percent of milk sales removes much of the variation caused by the feeding of home grown grains.

Cost control has an important effect on farm profitability. The relationship between purchased feed and crop expense per hundredweight of milk and farm profitability is shown below. On average, farms with feed and crop expenses exceeding $7.00 reported below average profits. Net milk income over purchased concentrate per cow shows a similar relationship when compared to rate of return on assets without appreciation (Chart 15).

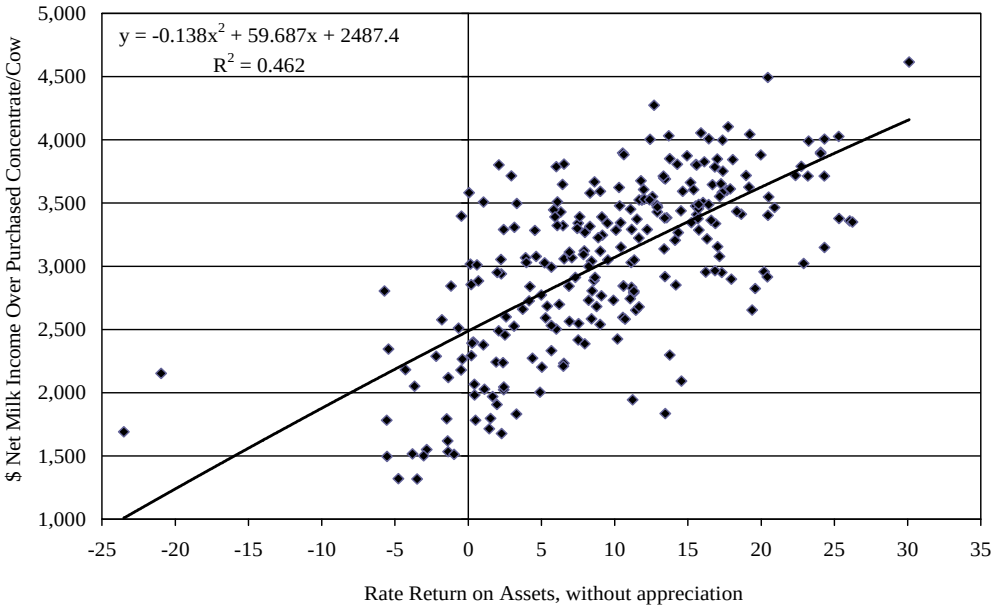
Table 38.

PURCHASED FEED AND CROP EXPENSE PER HUNDREDWEIGHT OF MILK AND FARM INCOME MEASURES
250 New York Dairy Farms, 2007

Feed & Crop Expense Per Cwt. of Milk	Number of Farms	Number of Cows	Forage Dry Matter Harvested Per Cow	Pounds Milk Per Cow	Net Farm Income Without Appreciation	Labor & Management Income Per Operator	Labor & Management Per Operator Per Cow
$7.50 or more	33	229	6.3	20,631	$139,817	$52,138	$228
7.00 to 7.49	31	308	8.4	24,290	398,650	182,206	591
6.50 to 6.99	34	442	7.6	21,616	448,781	208,692	472
6.00 to 6.49	34	386	8.3	23,664	402,760	170,129	441
5.50 to 5.99	55	445	8.3	23,518	558,199	239,140	537
5.00 to 5.49	23	403	7.8	23,791	531,548	284,869	707
Less than 5.00	40	263	7.9	22,637	343,458	177,266	674

Chart 15.

NET MILK INCOME OVER PURCHASED CONCENTRATE PER COW VERSUS RETURN ON ASSETS
250 New York Dairy Farms, 2007



Milk Income and Marketing Expense Breakdown

Starting January 1st, 2000, the Northeast switched to multiple component 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, 173 farms filled out a detailed form including 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 sections, each representing a different area of income or expense. The cumulative total for these six sections is the net price received on farms. MILC payments are not included as a milk receipt, but as a government receipt.

Table 39 reports the averages for the 173 farms providing the data. Table 40 on page 41 contains the quintile averages for each of the individual lines of the report. This table is in a farm business chart format with each item sorted independently and ranked by fifths. Numbers for the different sections will not add to the totals for that quintile or to the net price received because each item is sorted independently. This table shows the range of income and expenses received by farms for all the different sections. More milk price information was presented on page 38.

Table 39.

AVERAGE[38] MILK INCOME AND MARKETING REPORT
173 New York Dairy Farms, 2007

	Pounds	Percent	Price/Pound	Total	$/Cwt of Milk
BASE FARM PRICE					
Butterfat	376,288.39	3.64%	$1.46	$548,934.03	$5.32
Protein	314,681.67	3.05%	$3.49	$1,097,029.84	$10.62
Solids	593,434.01	5.75%	$0.41	$242,934.71	$2.35
Total Component Contribution					$18.29
PPD	10,326,797.75			$100,758.86	$0.98
Base Farm Price					$19.27
Premiums					
Quality				$20,235.22	$0.20
Volume				$32,507.61	$0.31
Market Premiums				$60,505.88	$0.59
Total Premiums					$1.10
BASE FARM PRICE + PREMIUM					$20.37
Deductions					
Promotion				$16,043.82	$0.16
Hauling + Stop Charges.				$52,801.78	$0.51
Market Fees & Coop Dues				$12,944.55	$0.13
Total Deductions					$0.80
BASE FARM PRICE + PREMIUMS – DEDUCTIONS					$19.57
Marketing Programs					
Futures Contracts, Forward Contracting, Etc.				-$8,916.26	-$0.09
Total Marketing Income					-$0.09
Patronage Dividends				$9,105.64	$0.09
NET PRICE RECEIVED ON FARM, ALL SOURCES					**$19.57**
PPD – Hauling, per cwt.					$0.47
PPD – Hauling + Market Premiums, per cwt.					$1.06
Net Marketing Value, per cwt. (PPD + Total Premiums - Total Deductions)					$1.28

[38]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. Average herd size for these 173 farms is 441 cows.

Table 40.

MILK PRICE INFORMATION BY QUINTILE[39]
(Each Category Sorted Independently)
173 New York Dairy Farms, 2007

	Lowest Quintile	←		→	Highest Quintile
Butterfat, %	3.47	3.60	3.67	3.76	4.12
Protein, %	2.94	3.01	3.05	3.11	3.26
Other Solids, %	5.60	5.71	5.74	5.76	5.82
Butterfat, $ per Cwt.	4.54	5.28	5.40	5.53	6.01
Protein, $ per Cwt.	8.93	10.53	10.71	10.97	11.56
Other solids, $ per Cwt.	1.97	2.39	2.41	2.44	2.74
Total Component Value per Cwt.	**$15.83**	**$18.22**	**$18.53**	**$18.86**	**$19.96**
PPD, $ per Cwt.	0.63	0.82	0.97	1.17	1.49
Base Farm Price per Cwt.	**$16.63**	**$19.16**	**$19.54**	**$19.99**	**$21.17**
Quality, $ per Cwt.	0.02	0.10	0.17	0.25	0.44
Volume, $ per Cwt.	0.00	0.03	0.15	0.30	0.62
Market premium, $ per Cwt.	0.05	0.19	0.33	0.51	0.98
Total Premium, $ per Cwt.	**0.33**	**0.55**	**0.77**	**0.99**	**1.41**
Base Farm Price + Premiums per Cwt.	**$19.40**	**$19.91**	**$20.32**	**$20.82**	**$21.96**
Promotion, $ per Cwt.	0.15	0.15	0.15	0.15	0.26
Hauling, $ per Cwt.	0.28	0.42	0.52	0.69	1.10
Market fees & coop dues per Cwt.	0.00	0.07	0.11	0.16	0.22
Total Marketing Expenses per Cwt.	**$0.54**	**$0.70**	**$0.81**	**$0.98**	**$1.39**
Base + Premiums – Deductions per Cwt.	**$18.59**	**$19.13**	**$19.43**	**$19.92**	**$20.94**
Futures contract, forward contracting, $ per Cwt.	-0.17	0.00	0.00	0.00	0.00
Total Marketing Income, $ per Cwt.	**-$0.17**	**$0.00**	**$0.00**	**$0.00**	**$0.00**
Patronage Dividends, $ per Cwt.	**$0.00**	**$0.00**	**$0.00**	**$0.04**	**$0.40**
Net Price Received From All Sources, $ per Cwt.	**$18.59**	**$19.18**	**$19.55**	**$19.97**	**$20.98**
PPD - Hauling, $ per cwt.	**0.04**	**0.32**	**0.42**	**0.56**	**0.74**
PPD - Hauling + Market Premiums, $ per cwt.	**0.30**	**0.60**	**0.78**	**0.99**	**1.54**
Net Marketing Value, $ per cwt. (PPD + Total Premiums - Total Deductions)	**0.31**	**0.69**	**0.94**	**1.19**	**1.69**

[39]Data for each category are calculated independently of all others. Therefore, summation of individual categories will not equal total categories.

Capital and Labor Efficiency Analysis

Capital efficiency factors show how intensively capital is being used in the farm business. Capital efficiency can be measured as investment per worker and per cow. It can also be measured in terms of the relationship to farm receipts.

Table 41.

CAPITAL EFFICIENCY
250 New York Dairy Farms, 2007

Item (Average for Year)	Per Worker	Per Cow	Per Tillable Acre	Per Tillable Acre Owned
Farm capital	$359,251	$8,426	$3,980	$8,081
Real estate		$3,356		$3,219
Machinery & equipment	$61,758	$1,448	$684	
Ratios				
Asset turnover	Operating Expense	Interest Expense		Depreciation Expense
0.67	0.69	0.04		0.06
Average Top 10% Farms:[40]				
Farm capital	$351,124	$7,746	$3,995	$9,573
Real estate		$2,764		$3,416
Machinery & equipment	$54,121	$1,194	$616	
Ratios				
Asset turnover ratio	Operating Expense	Interest Expense		Depreciation Expense
0.80	0.63	0.02		0.05

[40]Average of 25 farms with highest rates of return to all capital (without appreciation).

Asset turnover ratio measures the relationship between capital investment and farm receipts. It is computed by dividing the year's total farm accrual receipts including appreciation by the average farm assets. The relationship the asset turnover ratio has to farm profitability and other factors is shown in the following table. As a general rule, dairy farmers should aim for an asset turnover ratio of 0.6 or higher. The operational ratios reflect the relationship of expense categories to total farm receipts. The sum of the operating, interest, and depreciation expense ratios expresses total farm expenses per dollar of total farm receipts.

Table 42.

ASSET TURNOVER AND PROFITABILITY
250 New York Dairy Farms, 2007

Ratio	Number of Farms	Number of Cows	Farm Capital (average for year) Per Cow	Farm Capital (average for year) Per Worker	Labor & Management Income Per Operator	Net Farm Income (without appreciation)
≥ .80	32	702	$6,470	$301,648	$367,228	$755,288
.70 to .79	45	580	7,852	328,615	310,956	716,350
.60 to .69	50	424	8,812	393,981	208,996	483,316
.50 to .59	40	280	9,933	420,222	136,585	350,916
.40 to .49	37	133	11,432	409,326	52,490	142,206
Less than .40	46	79	13,683	425,856	6,719	59,139

Measures of labor efficiency are key indicators of the work accomplished by an average worker. The 25 farms with the highest rates of return on all capital (without appreciation) were above the average of all 250 farms in all measures of labor efficiency except tillable acres per worker. The top 10 percent averaged two more cows per worker and sold 17 percent more milk per worker than the average of all farms.

Table 43.

LABOR EFFICIENCY
250 New York Dairy Farms, 2007

Labor Efficiency	Average Farms Total	Average Farms Per Worker[41]	Average Top 10% Farms[42] Total	Average Top 10% Farms[42] Per Worker[41]
Cows, average number	358	43	612	45
Milk sold, pounds	8,231,516	980,234	15,444,527	1,144,463
Tillable acres	758	90	1,187	88

[41]The method used to calculate worker equivalent incorporates the number of hours actually worked by the owner/operators, instead of using a standard 12 months for each full-time owner/operator of the business. A full-time month is specified to be 230 hours of labor per month.

[42]Average of 25 farms with highest rates of return to all capital (without appreciation).

The labor force averaged 8.40 full-time worker equivalents per farm (based on 230 hours per month). Twenty-two percent of the labor was supplied by the farm operator/managers. There were two operators on 137 farms, three on 35 farms, and 13 farms reported four or more operators.

Labor costs, labor efficiency, and farm profitability are closely related. Farms with high rates of return can attribute some of their success to the control of labor and machinery costs. Labor and machinery costs average $1,410 per cow and $5.58 per hundredweight on the 25 farms in the top decile.

Table 44.

LABOR FORCE INVENTORY AND COST ANALYSIS
250 New York Dairy Farms, 2007

Labor Force	Months[43]	Age	Years of Education	Value of Labor & Management
Operator number 1	13.7	51	14	$42,031
Operator number 2	6.2	47	14	19,670
Operator number 3	1.7	47	14	5,197
Operator number 4	0.6	42	15	2,205
Family paid	5.0			Total $69,103
Family unpaid	2.3			
Hired	71.3			
Total	100.8	÷ 12 =	8.40 Worker Equivalent	
			1.62 Operator/Manager Equivalent	
Average Top 10% Farms:[44]				
Total	162	÷ 12 =	16.50 Worker Equivalent	
Operators'			1.85 Operator/Manager Equivalent	

	Average 250 Farms			Avg. Top 10% Farms[44]	
Labor Costs	Total	Per Cow	Per Cwt.	Per Cow	Per Cwt.
Value operators' labor ($2,400/mo.)	$53,280	$149	$.65	$99	$.39
Family unpaid ($2,400/mo.)	5,448	15	.07	5	.02
Hired	222,060	620	2.70	658	2.61
Total Labor	$280,788	$784	$3.41	$761	$3.03
Machinery Cost	253,737	708	3.08	648	2.57
Total Labor & Machinery	$534,525	$1,492	$6.49	$1,410	$5.58
Hired labor exp. per hired worker equiv.	$34,924			$35,646	
Hired labor exp. as % of milk sales	13.3%			12.5%	

[43]See footnote number 41 in Table 43.
[44]Average of 25 farms with highest rates of return to all capital (without appreciation).

The relationship of labor efficiency to net farm income is positive over the range in efficiency levels. The higher outputs of milk sold per worker are partially attributable to higher producing cows. In 2007, increased labor efficiency generally resulted in larger net farm incomes.

Table 45.

MILK SOLD PER WORKER AND NET FARM INCOME
250 New York Dairy Farms, 2007

Pounds of Milk Sold Per Worker	No. of Farms	No. of Cows	Pounds Milk Per Cow	Net Farm Income (without appreciation)	Labor & Management Income Per Operator
Under 400,000	26	57	14,702	$29,456	$-5,926
400,000 to 499,999	22	73	16,699	63,123	19,725
500,000 to 599,999	20	106	19,131	103,685	38,074
600,000 to 699,999	31	130	19,188	118,242	45,086
700,000 to 799,999	26	238	21,871	282,825	122,455
800,000 to 899,999	24	347	22,826	334,033	142,417
900,000 to 999,999	30	403	22,978	497,014	216,741
1,000,000 to 1,099,999	28	498	22,725	545,225	217,115
1,100,000 & over	43	925	24,432	1,142,992	488,420

Farm Business Charts

The Farm Business Chart is a tool which can be used in analyzing a business by drawing a line through the figure in each column which represents the current level of management performance. The figure at the top of each column is the average of the top 10 percent of the 250 farms for that factor. The other figures in each column are the average for the second 10 percent, third 10 percent, etc. **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 top 10 percent for any other factor.

The cost control factors are ranked from low to high, but the lowest cost is not necessarily the most profitable. In some cases, the "best" management position is somewhere near the middle or average. Many things affect the level of costs, and must be taken into account when analyzing the factors.

Table 46.

FARM BUSINESS CHART FOR FARM MANAGEMENT COOPERATORS
250 New York Dairy Farms, 2007

Size of Business			Rates of Production			Labor Efficiency	
Worker Equiv-alent	No. 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
28.1	1,314	32,322,710	26,645	5.2	26	61	1,309,445
17.1	773	18,291,548	24,891	4.0	23	50	1,121,656
11.9	494	11,182,833	23,916	3.5	21	46	1,026,711
8.1	346	7,739,127	23,029	3.1	20	43	943,700
5.2	217	4,765,001	21,916	2.8	19	40	849,317
4.0	149	2,798,701	20,742	2.6	18	36	764,401
3.2	108	2,051,550	19,708	2.4	17	34	662,962
2.7	80	1,444,394	18,062	2.1	16	30	569,954
2.2	60	1,035,063	15,732	1.8	15	25	454,811
1.6	41	684,234	12,412	1.2	12	20	314,396

Cost Control					
Grain Bought Per Cow	% Grain is of Milk Receipts	Machinery Costs Per Cow	Labor & Machinery Costs Per Cow	Feed & Crop Expenses Per Cow	Feed & Crop Expenses Per Cwt. Milk
$515	15%	$430	$1,088	$705	$4.28
726	19	551	1,294	948	4.96
814	20	605	1,373	1,067	5.45
894	22	648	1,436	1,160	5.77
991	23	700	1,513	1,262	5.95
1,066	25	757	1,595	1,341	6.22
1,134	26	821	1,693	1,426	6.60
1,205	27	899	1,817	1,511	7.00
1,305	29	995	2,020	1,609	7.44
1,492	35	1,251	2,388	1,831	9.03

The profitability section shows the variation in farm income by decile and enables a dairy farmer to determine where he or she ranks by using several measures of farm profitability. Remember that each column is independently established and the farms making up the top decile in the first column will not necessarily be on the top of any other column. The dairy farmer who ranks at or near the top of most of these columns is in a very enviable position.

Farm Business Charts for farms with freestall barns and 150 cows or less, 150 to 300 cows, and more than 300 cows, and farms with conventional barns with 60 cows or less and more than 60 cows are discussed in the supplemental section on pages 66-70.

Table 46. (continued)

FARM BUSINESS CHART FOR
FARM MANAGEMENT COOPERATORS
250 New York Dairy Farms, 2007

Milk Receipts Per Cow	Milk Receipts Per Cwt.	Operating Cost Milk Production Per Cow	Operating Cost Milk Production Per Cwt.	Total Cost Milk Production Per Cow	Total Cost Milk Production Per Cwt.
$5,473	$22.53	$1,631	$9.70	$2,801	$14.86
5,036	21.38	2,096	11.55	3,306	16.34
4,850	20.97	2,385	12.46	3,536	16.99
4,689	20.70	2,632	12.97	3,708	17.60
4,473	20.48	2,812	13.56	3,885	18.16
4,247	20.32	2,990	14.03	4,024	18.91
4,002	20.12	3,139	14.57	4,173	19.99
3,719	19.87	3,353	15.44	4,351	21.53
3,252	19.62	3,627	16.41	4,566	23.15
2,599	19.04	4,077	19.13	5,111	28.29

Profitability						
Net Farm Income Without Appreciation			Net Farm Income With Appreciation		Labor & Management Income	
Total	Per Cow	Operations Ratio	Total	Per Cow	Per Farm	Per Operator
$1,658,164	$1,985	0.37	$2,258,907	$2,580	$1,350,735	$828,820
881,033	1,602	0.31	1,159,819	2,039	690,457	422,319
593,261	1,424	0.28	786,149	1,861	459,165	250,521
385,119	1,262	0.26	537,897	1,674	267,642	163,957
227,152	1,131	0.23	323,558	1,540	154,444	94,290
142,549	1,021	0.21	182,217	1,407	91,721	57,044
102,171	909	0.19	131,539	1,231	56,345	42,053
68,086	722	0.16	97,870	987	30,338	23,345
43,034	467	0.11	63,898	733	2,284	1,427
3,007	67	0.01	21,902	280	-41,030	-36,506

Financial Analysis and Management

Analysis and astute management of farm financial affairs must receive high priority if the farm business is to be successful and if the farm family is to achieve a reasonable living standard.

The farm finance checklist and the financial analysis chart are provided to serve as guidelines. Dairy farmers can determine how their financial management measures up by comparing with average data from other farms.

Table 47.

A FARM FINANCE CHECKLIST
250 New York Dairy Farms, 2007

	Average 250 Farms		Average Top 10% Farms[45]	
How farm assets are being used (average for the year):				
Total assets (capital) per cow	$8,426		$7,746	
Farm assets in livestock	27%		28%	
Farm assets in farm real estate	40%		36%	
Farm assets in machinery	17%		15%	
Measures of debt capacity & debt structure:				
Equity in the business	68%		72%	
Farm debt per cow	$2,878		$2,348	
Long term debt/asset ratio[46]	0.32		0.31	
Intermediate & current term debt/asset ratio[46]	0.32		0.27	
Intermediate & current term debt as % of total	61%		62%	
Debt repayment ability:[47]				
Cash flow coverage ratio	1.63		2.26	
Debt coverage ratio	2.86		4.12	
Debt payments made per cow	$751		$1,002	
Debt payments made as % of milk receipts	16%		19%	
Indicators of annual financial progress:	Amount	Percent	Amount	Percent
Annual change in farm assets	+$449,563	+16.1%	+$948,370	+22.2%
Annual change in farm debt	-$3,962	-0.4%	-$10,514	-0.7%
Annual change in farm net worth	+$453,525	+26.0%	+$958,883	+34.5%

[45]Twenty-five farms with highest rates of return on all capital (without appreciation).
[46]Long or intermediate and current term debt divided by long or intermediate and current term assets.
[47]Average of 217 farms that participated in DFBS both in 2006 and 2007. Twenty-five top 10 percent farms that participated both years.

The most profitable farms carried $530 less debt per cow, the average equity in their businesses was four percent higher than that of the average of all 250 farms, and they had a greater ability to make 2008 debt payments. Because, with higher income they were able to pay down debt, it does not mean that lower debt farms are more profitable.

Average farm debt grew 16.5 percentage points faster than assets during 2007 on the 250 dairy farms. Average farm net worth increased 26 percent.

The farm financial analysis chart is designed just like the farm business chart on pages 44-45 and may be used to measure the financial health of the farm business. Most of the financial measures are defined on pages 16, 18, 22, and 42 in this publication.

Table 48.

FINANCIAL ANALYSIS CHART
250 New York Dairy Farms, 2007

Liquidity/Repayment							
Planned Debt Payments Per Cow	Available for Debt Service Per Cow	Cash Flow Coverage Ratio	Debt Coverage Ratio	Debt Payments as Percent of Milk Sales	Debt Per Cow	Working Capital as % of Total Expenses	Current Ratio
$92	$1,522	6.22	9.80	2%	$203	55%	36.91
233	1,106	2.82	4.47	6	992	38	5.77
315	977	2.24	3.60	8	1,678	30	4.12
387	881	1.91	3.09	10	2,100	26	3.23
454	813	1.65	2.74	11	2,515	23	2.59
517	737	1.44	2.29	12	2,881	19	2.21
566	655	1.26	1.88	13	3,265	14	1.83
626	534	1.08	1.60	15	3,711	10	1.52
735	377	0.84	1.11	19	4,170	4	1.07
1,007	-5	-0.08	0.02	28	5,777	-12	0.49

Solvency				Operational Ratios		
		Debt/Asset Ratio		Operating	Interest	Depreciation
Leverage Ratio[48]	Percent Equity	Current & Intermediate	Long Term	Expense Ratio	Expense Ratio	Expense Ratio
0.02	98%	0.01	0.00	0.54	0.00	0.02
0.11	90	0.09	0.00	0.59	0.01	0.03
0.19	84	0.15	0.01	0.62	0.02	0.04
0.29	78	0.20	0.10	0.65	0.03	0.05
0.36	74	0.25	0.21	0.67	0.03	0.05
0.45	69	0.29	0.29	0.69	0.04	0.06
0.54	65	0.34	0.39	0.71	0.05	0.07
0.67	60	0.42	0.50	0.73	0.05	0.08
0.94	52	0.53	0.63	0.78	0.06	0.10
1.68	39	0.70	0.89	0.87	0.09	0.14

Efficiency (Capital)					Profitability	
Asset Turnover (ratio)	Real Estate Investment Per Cow	Machinery Investment Per Cow	Total Farm Assets Per Cow	Change in Net Worth With Appreciation	Percent Rate of Return with Appreciation on: Equity	Investment[49]
0.95	$1,504	$634	$5,726	$1,980,666	55%	29%
0.78	2,240	876	6,959	969,490	36	24
0.72	2,696	1,111	7,431	612,376	29	21
0.68	3,012	1,358	7,894	396,561	23	18
0.62	3,388	1,559	8,452	238,455	19	15
0.57	3,752	1,792	9,113	137,890	14	12
0.50	4,339	2,003	10,060	98,507	11	10
0.44	5,105	2,256	11,046	69,452	7	7
0.37	6,374	2,599	12,687	37,054	3	4
0.26	10,220	3,766	16,830	-5,198	-7	-2

[48]Dollars of debt per dollar of equity, computed by dividing total liabilities by total equity.
[49]Return on all farm capital (no deduction for interest paid) divided by total farm assets.

Herd Size Comparisons

The 250 New York dairy farms have been sorted into eight herd size categories and averages for the farms in each category are presented in Tables 49 through 53. Note that after the less than 50 cow category, the herd size categories increase by 25 cows up to 100 cows, by 100 cows up to 400 cows, and by 200 cows up to 600 cows.

As herd size increases, the net farm income increases (Table 49). Net farm income without appreciation averaged $36,257 per farm for the less than 50 cow farms and $1,156,991 per farm for those with more than 600 cows. Return to all capital without appreciation also generally increased as herd size increased.

It is more than size of herd that determines profitability on dairy farms. Farms with 600 and more cows averaged $1,136 net farm income per cow while 50 cow dairy farms averaged $879 net farm income per cow. The 300 to 399 herd size category had the highest net farm income per cow at $1,376, while the 400 to 599 herd size category had the second highest net farm income per cow at $1,287. Other factors that affect profitability and their relationship to the size classifications are shown in Table 50.

Table 49.

COWS PER FARM AND FARM FAMILY INCOME MEASURES
250 New York Dairy Farms, 2007

Number of Cows	Number of Farms	Average Number of Cows	Net Farm Income Without Appreciation	Net Farm Income Per Cow	Labor & Management Income Per Operator	Return to All Capital Without Appreciation
Under 50	26	41	$36,257	$879	$6,234	1.0%
50 to 74	32	63	55,492	878	18,162	2.9%
75 to 99	23	88	90,893	1,039	38,548	5.8%
100 to 199	54	142	132,264	929	47,317	6.9%
200 to 299	20	252	300,000	1,189	116,014	11.2%
300 to 399	17	351	483,595	1,376	228,039	17.1%
400 to 599	25	469	603,860	1,287	217,138	14.6%
600 & over	53	1,019	1,156,991	1,136	474,094	15.3%

This year, net farm income per cow did not exhibit the usual increase as herd size increased. Most herd size categories saw an increase in operating cost of producing milk from a year earlier (Table 50). Net farm income per cow will increase as farms become larger if the costs of increased purchased inputs are offset by greater and more efficient output.

The farms with more than 600 cows averaged more milk sold per cow than any other size category (Table 50). With 24,024 pounds of milk sold per cow, farms in the largest herd size group averaged 17.6 percent more milk output per cow than the average of all herds in the summary with less than 600 cows.

Many dairy farmers who have been willing and able to employ and manage the labor required to milk 3 times per day have been successful. Only one percent of the 81 DFBS farms with less than 100 cows used a milking frequency greater than 2 times per day. As herd size increased, the percent of herds using a higher milking frequency increased. Farms with 100 to 200 cows reported 11 percent of the herds milking more often than 2 times per day, the 200-299 cow herds reported 35 percent, 300-399 cow herds reported 47 percent, 400-599 cow herds reported 52 percent, and the 600 cow and larger herds reported 72 percent exceeding the 2 times per day milking frequency.

Table 50.

COWS PER FARM AND RELATED FARM FACTORS
250 New York Dairy Farms, 2007

Number of Cows	Average Number of Cows	Milk Sold Per Cow (lbs.)	Milk Sold Per Worker (cwt.)	Tillable Acres Per Cow	Forage DM Per Cow (tons)	Farm Capital Per Cow	Cost of Producing Milk Per Cwt.	
							Operating	Total
Under 50	41	17,977	4,118	4.0	7.8	$13,618	$13.52	$23.73
50 to 74	63	17,842	4,747	3.4	7.7	10,328	13.87	21.56
75 to 99	88	18,538	5,505	2.9	8.8	9,863	13.54	20.43
100 to 199	142	19,369	7,368	2.7	8.5	9,675	14.20	19.71
200 to 299	252	22,571	9,460	2.5	8.9	9,270	13.83	17.83
300 to 399	351	22,902	9,058	2.1	7.9	7,712	13.47	16.80
400 to 599	469	22,886	9,316	2.4	8.9	8,772	13.39	17.01
600 & over	1,019	24,024	11,310	1.9	7.5	7,945	14.23	17.04

Bovine somatotropin (bST), was used to a greater extent on the large herd farms. bST was used consistently during 2007 on 12 percent of the herds with less than 100 cows, 30 percent of the farms with 100 to 299 cows and on 63 percent of the farms with 300 cows and more.

Milk output per worker has always shown a strong correlation with net farm income. The farms with 100 cows or more averaged over 930,240 pounds of milk sold per worker while the farms with less than 100 cows averaged less than 479,000 pounds per worker.

In achieving the highest productivity per cow and per worker, the largest farms had the fewest crop acres per cow and below average forage dry matter harvested per cow. However, the larger farms generally purchased more roughage per cow. The largest farms had the most efficient use of farm capital with an average investment of $7,945 per cow.

The 17 farms with 300-399 cows had the lowest total cost of producing milk at $16.80 per hundredweight. The 53 farms with more than 600 cows held their average total costs of producing milk to $17.04 per hundredweight, $2.54 below the $19.58 average for the remaining 197 dairy farms.

Tables 51 through 53 show progress of the farm businesses that have participated in DFBS in each of the last five years for three herd size groups.

A detailed list of accrual expenses, receipts and a profitability analysis is presented in Table 54, on pages 53 and 54 for the eight herd size categories. Purchased feed is the largest expense on all farms, regardless of size. However, larger farms find hired labor expense as the second largest expense category.

Assets, liabilities and financial measures are presented in Table 55 on pages 55-58. All herd size categories saw an increase in net worth during 2007. The largest herd size category experienced an increase in net worth of $1,301,770. However, percent equity went down as assets increased. The largest herds had the lowest percent equity; while the smaller herds averaged 79 percent.

Selected business factors by herd size group are presented in Table 56 on pages 59 and 60. George Warren, father of farm business management at Cornell, said in his 1918 farm management text that larger farms are, on average, more profitable; but no farm is large enough to guarantee a profit. For a more detailed analysis of large herd farms, see Dairy Farm Business Summary, New York Large Herd Farms, 300 Cows or Larger, 2007. For analysis of smaller herds, see Dairy Farm Business Summary, New York Small Herd Farms, 80 Cows or Fewer, 2007. Both publications are available from Linda Putnam, Department of Applied Economics and Management, Cornell University, 305 Warren Hall, Ithaca, New York 14853-7801; phone 607-255-8429; e-mail ldp2@cornell.edu. Visit the Department of Applied Economics and Management website http://aem.cornell.edu for a list of all department publications and a publication order form.

Table 51.

PROGRESS OF FARM BUSINESSES WITH LESS THAN 100 COWS

Same 41 New York Dairy Farms, 2003 - 2007

Selected Factors	2003	2004	2005	2006	2007
Milk receipts per cwt. milk	$13.14	$16.89	$15.85	$13.84	$20.53
Size of Business					
Average number of cows	61	60	61	61	62
Average number of heifers	46	46	49	52	54
Milk sold, cwt.	11,089	10,937	11,484	11,328	11,554
Worker equivalent	2.26	2.21	2.31	2.25	2.30
Total tillable acres	190	192	191	190	190
Rates of Production					
Milk sold per cow, lbs.	18,215	18,244	18,878	18,660	18,687
Hay DM per acre, tons	2.2	2.4	2.2	2.3	2.0
Corn silage per acre, tons	15	16	16	14	16
Labor Efficiency					
Cows per worker	27	27	26	27	27
Milk sold per worker, lbs.	490,670	494,897	497,124	503,475	502,348
Cost Control					
Grain & concen. purchased as % of milk sales	33%	27%	28%	33%	24%
Dairy feed & crop expense per cwt. milk	$5.47	$5.86	$5.61	$5.87	$6.45
Operating cost of producing cwt. milk	$10.20	$12.12	$11,40	$11.58	$13.78
Total cost of producing cwt. milk	$16.68	$18.93	$17.97	$18.60	$20.83
Hired labor cost per cwt.	$0.74	$0.77	$0.86	$0.78	$0.97
Interest paid per cwt.	$0.53	$0.56	$0.62	$0.77	$0.78
Labor & machinery costs per cow	$1,493	$1,594	$1,596	$1,632	$1,735
Replacement livestock expense	$2,585	$3,798	$2,380	$1,834	$1,542
Expansion livestock expense	$504	$749	$1,352	$156	$59
Capital Efficiency					
Farm capital per cow	$8,487	$8,999	$9,401	$9,886	$10,272
Machinery & equipment per cow	$1,755	$1,843	$1,949	$2,065	$2,136
Real estate per cow	$3,925	$4,179	$4,299	$4,541	$4,662
Livestock investment per cow	$1,810	$1,897	$2,032	$2,166	$2,237
Asset turnover ratio	0.37	0.43	0.42	0.34	0.45
Profitability					
Net farm income without appreciation	$20,893	$37,647	$36,926	$11,623	$64,243
Net farm income with appreciation	$31,101	$55,093	$59,310	$19,859	$82,770
Labor & management income per operator/manager	$-8,482	$6,957	$4,917	$-18,282	$24,475
Rate return on:					
Equity capital with appreciation	-2.6%	3.8%	4.6%	-5.0%	8.1%
All capital with appreciation	-0.8%	4.0%	4.7%	-2.3%	7.7%
All capital without appreciation	-2.7%	0.7%	0.8%	-3.7%	4.8%
Financial Summary, End Year					
Farm net worth	$388,875	$420,176	$453,494	$457,551	$522,076
Change in net worth with appreciation	$9,083	$33,258	$35,491	$-2,717	$61,024
Debt to asset ratio	0.26	0.24	0.23	0.24	0.21
Farm debt per cow	$2,232	$2,195	$2,200	$2,422	$2,211

Table 52.

PROGRESS OF FARM BUSINESSES WITH 100-499 COWS
Same 59 New York Dairy Farms, 2003 - 2007

Selected Factors	2003	2004	2005	2006	2007
Milk receipts per cwt. milk	$13.33	$16.91	$16.17	$13.93	$20.54
Size of Business					
Average number of cows	241	244	249	258	267
Average number of heifers	184	185	199	212	217
Milk sold, cwt.	50,644	51,294	53,482	55,652	58,072
Worker equivalent	6.31	6.48	6.52	6.64	6.77
Total tillable acres	571	579	609	622	635
Rates of Production					
Milk sold per cow, lbs.	21,038	21,029	21,491	21,545	21,752
Hay DM per acre, tons	3.32	3.5	3.1	3.2	3.1
Corn silage per acre, tons	17	18	19	17	19
Labor Efficiency					
Cows per worker	38	38	38	39	39
Milk sold per worker, lbs.	802,594	791,577	820,281	838,140	857,779
Cost Control					
Grain & concen. purchased as % of milk sales	31%	27%	26%	29%	24%
Dairy feed & crop expense per cwt. milk	$5.02	$5.66	$5.18	$5.04	$6.24
Operating cost of producing cwt. milk	$11.30	$12.66	$12.08	$12.13	$13.95
Total cost of producing cwt. milk	$14.92	$16.41	$15.95	$15.84	$17.79
Hired labor cost per cwt.	$2.40	$2.54	$2.53	$2.53	$2.57
Interest paid per cwt.	$0.52	$0.54	$0.64	$0.76	$0.75
Labor & machinery costs per cow	$1,283	$1,380	$1,421	$1,404	$1,519
Replacement livestock expense	$9,133	$8,781	$10,105	$7,068	$5,624
Expansion livestock expense	$2,221	$4,198	$5,796	$4,159	$4,814
Capital Efficiency					
Farm capital per cow	$7,153	$7,482	$7,946	$8,080	$8,618
Machinery & equipment per cow	$1,412	$1,457	$1,543	$1,579	$1,629
Real estate per cow	$2,887	$3,016	$3,187	$3,245	$3,420
Livestock investment per cow	$1,784	$1,858	$1,972	$2,039	$2,163
Asset turnover ratio	0.49	0.57	0.55	0.47	0.64
Profitability					
Net farm income without appreciation	$36,734	$146,405	$141.988	$30,777	$309,161
Net farm income with appreciation	$83,106	$204,805	$217,325	$88,562	$415,762
Labor & management income per operator/manager	$-13,701	$55,678	$43,961	$-26,610	$135,569
Rate return on:					
Equity capital with appreciation	2.0%	12.0%	11.5%	1.6%	21.5%
All capital with appreciation	2.8%	9.4%	9.5%	3.1%	17.0%
All capital without appreciation	0.1%	6.2%	5.7%	0.3%	12.3%
Financial Summary, End Year					
Farm net worth	$1,134,090	$1,261,648	$1,406,471	$1,432,423	$1,782,219
Change in net worth with appreciation	$39,014	$125,227	$130,331	$20,458	$338,929
Debt to asset ratio	0.36	0.33	0.31	0.32	0.28
Farm debt per cow	$2,588	$2,517	$2,586	$2,638	$2,519

Table 53.

PROGRESS OF FARM BUSINESSES WITH MORE THAN 500 COWS

Same 43 New York Dairy Farms, 2003 - 2007

Selected Factors	2003	2004	2005	2006	2007
Milk receipts per cwt. milk	$13.29	$16.53	$15.96	$13.86	$20.31
Size of Business					
Average number of cows	848	903	937	987	978
Average number of heifers	656	702	751	795	785
Milk sold, cwt.	201,409	210,299	226,657	238,472	237,251
Worker equivalent	18.25	19.55	20.17	20.84	21.16
Total tillable acres	1,524	1,633	1,692	1,758	1,789
Rates of Production					
Milk sold per cow, lbs.	23,739	23,288	24,202	24,158	24,267
Hay DM per acre, tons	3.5	4.0	3.9	3.6	3.4
Corn silage per acre, tons	18	18	19	20	19
Labor Efficiency					
Cows per worker	46	46	46	47	46
Milk sold per worker, lbs.	1,103,608	1,075,696	1,123,733	1,144,301	1,121,224
Cost Control					
Grain & concen. purchased as % of milk sales	30%	28%	25%	29%	24%
Dairy feed & crop expense per cwt. milk	$4.96	$5.53	$5.03	$5.00	$6.10
Operating cost of producing cwt. milk	$11.58	$12.44	$12.27	$12.27	$14.14
Total cost of producing cwt. milk	$13.99	$14.95	$14.91	$14.90	$16.96
Hired labor cost per cwt.	$2.75	$2.88	$2.82	$2.78	$2.91
Interest paid per cwt.	$0.53	$0.52	$0.61	$0.77	$0.82
Labor & machinery costs per cow	$1,198	$1,267	$1,337	$1,332	$1,455
Replacement livestock expense	$23,768	$29,463	$25,278	$11,062	$15,508
Expansion livestock expense	$64,344	$67,534	$37,636	$66,504	$24,526
Capital Efficiency					
Farm capital per cow	$6,240	$6,399	$6,899	$7,178	$7,825
Machinery & equipment per cow	$1,005	$1,016	$1,117	$1,168	$1,285
Real estate per cow	$2,431	$2,421	$2,515	$2,655	$2,841
Livestock investment per cow	$1,787	$1,851	$2,008	$2,105	$2,258
Asset turnover ratio	0.61	0.73	0.69	0.59	0.75
Profitability					
Net farm income without appreciation	$105,753	$596,537	$538,939	$79,561	$1,152,178
Net farm income with appreciation	$244,770	$815,059	$857,416	$315,102	$1,538,060
Labor & management income per operator/manager	$-18,645	$231,204	$179,570	$-63,129	$453,969
Rate return on:					
Equity capital with appreciation	5.1%	22.8%	19.9%	4.7%	30.3%
All capital with appreciation	4.6%	14.1%	13.6%	5.3%	21.0%
All capital without appreciation	2.0%	10.3%	8.7%	2.0%	16.0%
Financial Summary, End Year					
Farm net worth	$2,805,543	$3,413,602	$4,047,475	$4,130,852	$5,290,671
Change in net worth with appreciation	$117,549	$628,872	$630,630	$51,620	$1,241,265
Debt to asset ratio	0.49	0.44	0.40	0.44	0.36
Farm debt per cow	$3,099	$2,900	$2,893	$3,119	$3,023

Table 54.

FARM BUSINESS SUMMARY BY HERD SIZE
250 New York Dairy Farms, 2007

Item Farm Size:	Less than 50 Cows	50 to 74 Cows	75 to 99 Cows	100 to 199 Cows
Number of farms	26	32	23	54
ACCRUAL EXPENSES				
Hired labor	$6,400	$12,211	$23,597	$50,791
Dairy grain & concentrate	35,121	54,718	86,295	138,284
Dairy roughage	3,979	7,315	4,135	5,589
Nondairy feed	11	4	0	535
Professional nutritional services	0	105	87	71
Machine hire, rent & lease	2,401	4,401	5,320	16,655
Machine repairs & farm vehicle expense	10,320	15,676	20,813	34,765
Fuel, oil & grease	6,450	8,533	13,136	24,090
Replacement livestock	1,290	1,137	872	2,796
Breeding	2,830	3,125	3,860	6,564
Veterinary & medicine	4,153	5,307	8,196	14,809
Milk marketing	9,223	10,785	16,827	26,573
Bedding	1,960	1,554	3,127	6,668
Milking supplies	3,561	6,787	6,783	11,169
Cattle lease & rent	0	0	290	47
Custom boarding	92	2,210	3,402	3,785
bST expense	323	772	1,494	2,708
Livestock professional fees	935	1,016	1,444	1,740
Other livestock expense	2,137	3,058	3,807	4,970
Fertilizer & lime	3,196	4,325	7,496	16,168
Seeds & plants	1,316	2,220	3,982	7,763
Spray & other crop expense	1,350	2,054	3,669	6,787
Crop professional fees	133	34	280	466
Land, building & fence repair	2,119	3,154	4,976	8,349
Taxes & rent	5,330	8.553	9,745	19,961
Utilities	5,938	8,813	11,401	15,333
Interest paid	7,326	10,367	16,844	21,072
Other professional fees	757	855	1,197	1,778
Misc. (including insurance)	4,424	5,567	7,709	12,460
Total Operating Expenses	$123,074	$184,655	$270,786	$462,747
Expansion livestock	0	0	104	2,383
Extraordinary expense	294	31	341	259
Machinery depreciation	11,022	11,646	15,889	28,694
Building depreciation	4,717	4,158	8,409	11,948
Total Accrual Expenses	$139,107	$200,490	$295,529	$506,031
ACCRUAL RECEIPTS				
Milk sales	$152,516	$227,688	$335,277	$564,735
Dairy cattle	9,028	8,854	21,846	24,221
Dairy calves	420	4,103	1,921	5,094
Other livestock	1,220	1,538	24	1,060
Crops	3,873	2,576	12,458	15,067
Miscellaneous receipts	8,308	11,224	14,894	28,118
Total Accrual Receipts	$175,365	$255,983	$386,422	$638,295
PROFITABILITY ANALYSIS				
Net farm income (without appreciation)	$36,257	$55,492	$90,893	$132,264
Net farm income (with appreciation)	$51,301	$75,667	$121,429	$174,924
Labor & management income	$6,546	$24,518	$48,570	$74,287
Number of operators	1.05	1.35	1.26	1.57
Labor & management income/operator	$6,234	$18,162	$38,548	$47,317
Rates of return on: Equity capital w/o apprec.	-0.4%	1.8%	5.6%	7.0%
Equity capital with appreciation	3.1%	6.0%	10.8%	11.1%
All capital without appreciation	1.0%	2.9%	5.8%	6.9%
All capital with appreciation	3.7%	6.0%	9.4%	10.0%

Table 54. (continued)

FARM BUSINESS SUMMARY BY HERD SIZE
250 New York Dairy Farms, 2007

Item	Farm Size:	200 to 299 Cows	300 to 399 Cows	400 to 599 Cows	600 or More Cows
Number of farms		20	17	25	53
ACCRUAL EXPENSES					
Hired labor		$131,072	$206,506	$280,494	$726,944
Dairy grain & concentrate		265,450	397,246	500,644	1,201,404
Dairy roughage		18,166	36,105	25,369	81,366
Nondairy feed		933	0	2,042	340
Professional nutritional services		202	153	592	1,017
Machine hire, rent & lease		45,111	34,447	42,531	84,859
Machine repairs & farm vehicle expense		56,560	69,607	101,149	187,091
Fuel, oil & grease		42,968	55,675	77,602	150,686
Replacement livestock		2,448	13,495	411	18,900
Breeding		12,756	17,925	27,461	59,339
Veterinary & medicine		33,350	50,009	75,613	164,047
Milk marketing		44,091	71,820	80,900	188,862
Bedding		19,223	28,088	28,166	82,544
Milking supplies		22,891	29,163	46,310	96,768
Cattle lease & rent		645	318	1,229	5,367
Custom boarding		18,058	20,745	22,671	79,399
bST expense		10,497	14,670	18,893	75,615
Livestock professional services		4,161	4,597	6,350	11,979
Other livestock expense		4,535	3,956	7,581	17,758
Fertilizer & lime		30,095	25,549	59,311	85,707
Seeds & plants		19,152	20,980	34,278	67,169
Spray & other crop expense		16,913	15,702	22,087	51,412
Crop professional fees		1,677	994	3,810	6,344
Land, building & fence repair		13,627	19,034	37,997	80,745
Taxes & rent		29,045	39,125	45,873	122,037
Utilities		26,580	35,729	46,137	99,365
Interest paid		38,486	61,098	96,986	202,144
Other professional fees		5,973	6,639	12,143	22,986
Misc. (including insurance)		17,536	23,136	30,138	70,616
Total Operating Expenses		$932,178	$1,302,513	$1,734,768	$4,042,810
Expansion livestock		7,324	10,282	27,467	27,692
Extraordinary expense		2,472	88	685	886
Machinery depreciation		43,002	53,327	94,187	194,710
Building depreciation		22,154	43,132	57,895	122,839
Total Accrual Expenses		$1,007,131	$1,409,343	$1,915,002	$4,388,938
ACCRUAL RECEIPTS					
Milk sales		$1,155,069	$1,663,984	$2,193,715	$4,959,474
Dairy cattle		55,763	96,166	134,087	287,890
Dairy calves		4,181	17,125	19,946	29,493
Other livestock		2,950	1,608	10,722	6,318
Crops		34,240	59,053	87,073	135,250
Misc. receipts		54,928	55,002	73,320	127,504
Total Accrual Receipts		$1,307,131	$1,892,938	$2,518,863	$5,545,929
PROFITABILITY ANALYSIS					
Net farm income (without appreciation)		$300,000	$483,595	$603,860	$1,156,991
Net farm income (with appreciation)		$393,498	$622,254	$864,958	$1,566,561
Labor & management income		$213,466	$387,666	$464,676	$905,520
Number of operators		1.84	1.70	2.14	1.91
Labor & management income/operator		$116,014	$228,039	$217,138	$474,094
Rates of return on: Equity capital w/o apprec.		13.3%	22.5%	18.6%	20.8%
Equity capital with appreciation		18.8%	30.2%	28.2%	29.0%
All capital without appreciation		11.2%	17.1%	14.6%	15.3%
All capital with appreciation		15.2%	22.2%	20.9%	20.4%

Table 55.

FARM FAMILY FINANCIAL SITUATION BY HERD SIZE
250 New York Dairy Farms, 2007

Item	Farms with: Less than 50 Cows Jan. 1	Less than 50 Cows Dec. 31	50 to 74 Cows Jan. 1	50 to 74 Cows Dec. 31
ASSETS				
Farm cash, checking & savings	$3,478	$4,980	$3,589	$6,922
Accounts receivable	7,923	11,333	13,291	21,445
Prepaid expenses	73	216	14	193
Feed & supplies	23,409	28,026	35,225	41,425
Livestock[50]	100,758	105,921	139,005	149,610
Machinery & equipment[50]	94,678	100,841	119,164	134,605
Farm Credit stock	271	258	377	489
Other stock & certificates	903	1,040	5,490	5,951
Land & buildings[50]	315,410	323,419	307,350	321,080
Total Farm Assets	$546,903	$576,034	$623,504	$681,719
Personal cash, checking & savings	$24,104	$25,580	$8,633	$10,258
Cash value of life insurance	10,513	10,700	11,491	11,453
Nonfarm real estate	21,667	21,667	11,765	11,765
Auto (personal share)	6,833	6,098	8,888	7,892
Stocks & bonds	25,107	24,863	22,275	24,724
Household furnishings	13,467	13,467	13,294	13,353
All other	1,293	1,133	1,176	1,303
Nonfarm Assets[51]	$102,985	$103,507	$77,523	$80,747
Farm & Nonfarm Assets	$649,888	$679,541	$701,027	$762,466
LIABILITIES				
Accounts payable	$2,955	$3,369	$10,734	$9,547
Operating debt	5,113	2,652	8,485	7,283
Short term	15	923	2,140	1,520
Advanced government receipt	0	0	0	0
Current Portion:				
Intermediate	7,708	8,819	8,696	12,105
Long Term	3,465	3,753	4,739	5,080
Intermediate[52]	54,009	51,734	58,440	56,852
Long term[50]	54,300	49,882	78,853	72,987
Total Farm Liabilities	$127,565	$121,132	$172,086	$165,373
Nonfarm Liabilities[51]	1,743	1,087	2,344	1,679
Farm & Nonfarm Liabilities	$129,308	$122,219	$174,430	$167,052
Farm Net Worth (Equity Capital)	$419,337	$454,902	$451,418	$516,346
Farm & Nonfarm Net Worth	$520,580	$557,322	$526,597	$595,414

FINANCIAL MEASURES	Less than 50 Cows	50 to 74 Cows
Percent Equity	79%	76%
Debt/asset ratio-long term	0.15	0.23
Debt/asset ratio-intermediate & current	0.28	0.26
Change in net worth with appreciation	$35,565	$64,928
Total farm debt per cow	$2,949	$2,593
Debt payments made per cow	$657	$705
Debt payments as % of milk sales	17%	19%
Amount available for debt service	$35,207	$41,346
Cash flow coverage ratio for 2007	1.64	1.45
Debt coverage ratio for 2007	2.14	2.16

[50]Includes discounted lease payments.
[51]Average of farms reporting nonfarm assets and liabilities for 2007.
[52]Includes Farm Credit stock & discounted lease payments for cattle & machinery.

Table 55. (cont'd)

FARM FAMILY FINANCIAL SITUATION BY HERD SIZE
250 New York Dairy Farms, 2007

Farms with:	75 to 99 Cows		100 to 199 Cows	
Item	Jan. 1	Dec. 31	Jan. 1	Dec. 31
ASSETS				
Farm cash, checking & savings	$5,207	$8,435	$9,989	$14,866
Accounts receivable	16,118	26,191	33,045	51,398
Prepaid expenses	109	369	515	771
Feed & supplies	52,609	69,469	87,744	113,706
Livestock[53]	197,843	220,315	308,845	333,068
Machinery & equipment[53]	167,402	170,955	276,858	300,861
Farm Credit stock	823	827	1278	1,120
Other stock & certificates	10,925	12,013	17,163	19,217
Land & buildings[53]	375,277	391,533	574,800	610,026
Total Farm Assets	$826,313	$900,107	$1,310,235	$1,445,034
Personal cash, checking & savings	$799	$903	$18,896	$19,160
Cash value of life insurance	22,346	37,368	14,469	15,488
Nonfarm real estate	36,804	29,077	81,300	85,000
Auto (personal share)	6,700	10,177	7,754	8,500
Stocks & bonds	36,361	41,841	64,177	82,381
Household furnishings	6,692	6,692	8,650	8,500
All other	11,665	12,614	25,416	29,103
Nonfarm Assets[54]	$121,367	$138,672	$220,662	$248,131
Farm & Nonfarm Assets	$947,680	$1,038,779	$1,530,897	$1,693,165
LIABILITIES				
Accounts payable	$30,995	$12,742	$18,032	$10,312
Operating debt	10,028	13,473	20,081	16,823
Short term	464	396	1050	3,811
Advanced government receipt	0	211	0	0
Current Portion:				
Intermediate	18,957	21,432	29,544	34,923
Long Term	5,955	6,057	9,932	11,615
Intermediate[55]	107,217	88,072	133,729	130,383
Long term[53]	109,244	115,420	120,966	125,935
Total Farm Liabilities	$282,860	$257,803	$333,334	$333,801
Nonfarm Liabilities[54]	2,077	4,110	1,310	1,863
Farm & Nonfarm Liabilities	$284,937	$261,913	$334,644	$335,664
Farm Net Worth (Equity Capital)	$543,453	$642,304	$976,900	$1,111,233
Farm & Nonfarm Net Worth	$662,743	$776,866	$1,196,253	$1,357,501

FINANCIAL MEASURES	75 to 99 Cows	100 to 199 Cows
Percent equity	71%	77%
Debt/asset ratio-long term	0.29	0.21
Debt/asset ratio-intermediate & current	0.28	0.25
Change in net worth with appreciation	$98,851	$134,333
Total farm debt per cow	$2,855	$2,343
Debt payments made per cow	$747	$595
Debt payments as % of milk sales	19%	15%
Amount available for debt service	$53,440	$98,001
Cash flow coverage ratio for 2007	1.43	1.60
Debt coverage ratio for 2007	2.67	2.51

[53]Includes discounted lease payments.
[54]Average of farms reporting nonfarm assets and liabilities for 2007.
[55]Includes Farm Credit stock & discounted lease payments for cattle & machinery.

Table 55. (cont'd)

FARM FAMILY FINANCIAL SITUATION BY HERD SIZE
250 New York Dairy Farms, 2007

Farms with:	200 to 299 Cows		300 to 399 Cows	
Item	Jan. 1	Dec. 31	Jan. 1	Dec. 31
ASSETS				
Farm cash, checking & savings	$11,006	$21,413	$8,583	$14,476
Accounts receivable	67,853	114,673	86,562	161,596
Prepaid expenses	480	1,014	2,404	5,344
Feed & supplies	203,634	243,006	231,190	357,521
Livestock[56]	556,148	613,185	675,974	779,628
Machinery & equipment[56]	409,101	456,632	486,062	564,747
Farm Credit stock	2,040	1,218	2,215	1,391
Other stock & certificates	54,854	60,131	45,444	51,163
Land & buildings[56]	902,966	958,165	922,570	1,022,603
Total Farm Assets	$2,208,082	$2,469,437	$2,461,004	$2,958,469
Personal cash, checking & savings	$6,944	$7,406	$2,990	$3,380
Cash value of life insurance	16,781	21,085	39,154	42,921
Nonfarm real estate	690,889	692,650	39,111	5,278
Auto (personal share)	10,556	12,500	7,944	5,278
Stocks & bonds	46,774	59,868	84,738	96,795
Household furnishings	5,889	5,889	3,278	2,889
All other	2,889	2,889	6,802	262
Nonfarm Assets[57]	$780,722	$802,287	$184,017	$192,914
Farm & Nonfarm Assets	$2,988,804	$3,271,724	$2,645,021	$3,151,383
LIABILITIES				
Accounts payable	$38,858	$22,102	$52,176	$28,225
Operating debt	34,271	33,760	56,415	66,275
Short term	9,036	6,983	4,331	7,475
Advanced government receipt	0	0	0	0
Current Portion:				
Intermediate	50,819	57,691	71,539	77,147
Long Term	16,223	18,463	19,506	23,123
Intermediate[58]	246,839	241,437	439,179	413,986
Long term[56]	263,483	260,682	292,520	292,463
Total Farm Liabilities	$659,529	$641,117	$935,667	$908,694
Nonfarm Liabilities[57]	1,495	2,672	6,181	5,945
Farm & Nonfarm Liabilities	$661,024	$643,789	$941,848	$914,639
Farm Net Worth (Equity Capital)	$1,548,553	$1,828,320	$1,525,337	$2,049,775
Farm & Nonfarm Net Worth	$2,327,780	$2,627,935	$1,703,173	$2,236,744

FINANCIAL MEASURES	200 to 299 Cows	300 to 399 Cows
Percent equity	74%	69%
Debt/asset ratio-long term	0.27	0.29
Debt/asset ratio-intermediate & current	0.25	0.32
Change in net worth with appreciation	$279,767	$524,438
Total farm debt per cow	$2,509	$2,516
Debt payments made per cow	$576	$679
Debt payments as % of milk sales	12.6%	14.3%
Amount available for debt service	$196,615	$308,843
Cash flow coverage ratio for 2007	1.77	1.91
Debt coverage ratio for 2007	2.90	3.54

[56]Includes discounted lease payments.
[57]Average of farms reporting nonfarm assets and liabilities for 2007.
[58]Includes Farm Credit stock & discounted lease payments for cattle & machinery.

Table 55. (cont'd)

FARM FAMILY FINANCIAL SITUATION BY HERD SIZE
250 New York Dairy Farms, 2007

Farms with:	400 to 599 Cows		More than 600 Cows	
Item	Jan. 1	Dec. 31	Jan. 1	Dec. 31
ASSETS				
Farm cash, checking & savings	$30,013	$16,421	$47,114	$40,020
Accounts receivable	117,314	196,832	218,215	407,436
Prepaid expenses	1,324	5,181	6,396	16,108
Feed & supplies	328,306	487,212	714,335	1,015,371
Livestock[59]	971,487	1,153,315	2,117,341	2,438,282
Machinery & equipment[59]	678,861	741,866	1,191,253	1,384,259
Farm Credit stock	3,262	1,000	11,975	1,331
Other stock & certificates	65,637	69,832	174,142	210,534
Land & buildings[59]	1,582,969	1,778,658	2,949,875	3,244,310
Total Farm Assets	$3,779,174	$4,450,317	$7,430,645	$8,757,653
Personal cash, checking & savings	$23,333	$25,000	$7,028	$15,302
Cash value of life insurance	13,779	14,450	67,229	71,434
Nonfarm real estate	13,333	13,333	444,095	452,429
Auto (personal share)	38,577	38,577	4,528	8,583
Stocks & bonds	88,000	78,833	71,981	66,668
Household furnishings	8,333	5,333	7,111	7,167
All other	0	0	12,570	16,302
Nonfarm Assets[60]	$185,356	$178,527	$614,542	$637,884
Farm & Nonfarm Assets	$3,964,530	$4,628,844	$8,045,187	$9,395,537
LIABILITIES				
Accounts payable	$51,671	$28,198	$150,621	$105,932
Operating debt	87,797	82,067	163,010	183,812
Short term	7,711	6,977	19,871	6,048
Advanced government receipts	0	0	0	0
Current Portion:				
Intermediate	96,872	122,274	217,010	251,865
Long Term	41,079	44,971	65,122	74,654
Intermediate[61]	561,968	493,362	1,380,013	1,319,262
Long term[59]	568,964	614,483	1,090,611	1,169,922
Total Farm Liabilities	$1,418,063	$1,395,332	$3,086,257	$3,111,495
Nonfarm Liabilities[60]	2,063	0	1,028	2,621
Farm & Nonfarm Liabilities	$1,420,126	$1,395,332	$3,087,285	$3,114,116
Farm Net Worth (Equity Capital)	2,361,111	3,054,985	4,344,388	5,646,158
Farm & Nonfarm Net Worth	$2,554,404	$3,233,512	$4,957,902	$6,281,421

FINANCIAL MEASURES	400 to 599 Cows	More than 600 Cows
Percent equity	69%	64%
Debt/asset ratio-long term	0.35	0.36
Debt/asset ratio-intermediate & current	0.29	0.35
Change in net worth with appreciation	$693,874	$1,301,770
Total farm debt per cow	$2,918	$3,030
Debt payments made per cow	$802	$787
Debt payments as % of milk sales	17%	16%
Amount available for debt service	$405,188	$822,759
Cash flow coverage ratio for 2007	1.64	1.60
Debt coverage ratio for 2007	2.85	2.86

[59]Includes discounted lease payments.
[60]Average of farms reporting nonfarm assets and liabilities for 2007.
[61]Includes Farm Credit stock & discounted lease payments for cattle & machinery.

Table 56.

SELECTED BUSINESS FACTORS BY HERD SIZE
250 New York Dairy Farms, 2007

Item / Farms with:	Less than 50 Cows	50 to 74 Cows	75 to 99 Cows	100 to 199 Cows
Number of farms	26	32	23	54
Cropping Program Analysis				
Total Tillable acres	156	204	245	385
Tillable acres rented[62]	80	67	122	185
Hay crop acres[62]	122	149	169	226
Corn silage acres[62]	15	27	63	99
Hay crop, tons DM/acre	1.8	2.1	2.2	2.7
Corn silage, tons/acre	18	16	17	18
Oats, bushels/acre	0	38	0	48
Forage DM per cow, tons	7.8	7.7	8.8	8.5
Tillable acres/cow	4.0	3.4	2.9	2.7
Fertilizer & lime expense/tillable acre	$22.48	$26.62	$35.88	$42.54
Total machinery costs	$32,412	$47,711	$65,670	$119,933
Machinery cost/tillable acre	$218	$221	$256	$306
Dairy Analysis				
Number of cows	41	63	88	142
Number of heifers	34	49	79	115
Milk sold, lbs.	741,186	1,127,428	1,622,453	2,757,919
Milk sold/cow, lbs.	17,977	17,842	18,538	19,369
Operating cost of producing milk/cwt.	$13.52	$13.87	$13.54	$14.20
Total cost of producing milk/cwt.	$23.73	$21.56	$20.43	$19.71
Price/cwt. milk sold	$20.58	$20.20	$20.66	$20.48
Purchased dairy feed/cow	$948	$982	$1,033	$1,010
Purchased dairy feed/cwt. milk	$5.28	$5.50	$5.57	$5.22
Purchased grain & concentrate as % of milk receipts	23%	24%	26%	25%
Purchased feed & crop expense/cwt. milk	$6.08	$6.27	$6.52	$6.35
Cull rate	26.7%	25.9%	27.8%	26.9%
Capital Efficiency				
Farm capital/worker	$311,927	$274,207	$292,614	$368,351
Farm capital/cow	$13,618	$10,328	$9,863	$9,675
Farm capital/tillable acre owned	$7,369	$4,798	$6,996	$6,868
Real estate/cow	$7,747	$4,973	$4,381	$4,160
Machinery investment/cow	$2,371	$2,008	$1,933	$2,029
Asset turnover ratio	0.34	0.42	0.48	0.49
Labor Efficiency				
Worker equivalent	1.80	2.38	2.95	3.74
Operator/manager equivalent	1.05	1.35	1.26	1.57
Milk sold/worker, lbs.	411,770	474,707	550,451	736,755
Cows/worker	23	27	30	38
Labor cost/cow	$1,202	$998	$905	$761
Labor cost/tillable acre	$317	$310	$323	$281

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

Table 56. (cont'd)

SELECTED BUSINESS FACTORS BY HERD SIZE
250 New York Dairy Farms, 2007

Item — Farms with:	200 to 299 Cows	300 to 399 Cows	400 to 599 Cows	600 or More Cows
Number of farms	20	17	25	53
Cropping Program Analysis				
Total Tillable acres	603	734	1,143	1,877
Tillable acres rented[63]	315	436	577	963
Hay crop acres[63]	259	366	512	808
Corn silage acres[63]	193	248	403	724
Hay crop, tons DM/acre	3.1	3.0	3.2	3.4
Corn silage, tons/acre	20	20	19	19
Oats, bushels/acre	0	58	60	82
Forage DM per cow, tons	8.9	7.9	8.9	7.5
Tillable acres/cow	2.5	2.1	2.4	1.9
Fertilizer & lime exp./tillable acre	$50.92	$32.58	$51.37	$47.91
Total machinery costs	$210,806	$239,326	$350,987	$681,250
Machinery cost/tillable acre	$339	$326	$307	362
Dairy Analysis				
Number of cows	252	351	469	1,019
Number of heifers	196	275	394	816
Milk sold, lbs.	5,694,738	8,046,476	10,735,437	24,475,767
Milk sold/cow, lbs.	22,571	22,902	22,886	24,024
Operating cost of producing milk/cwt.	$13.83	$13.47	$13.39	$14.23
Total cost of producing milk/cwt.	$17.83	$16.80	$17.01	$17.04
Price/cwt. milk sold	$20.28	$20.68	$20.43	$20.26
Purchased dairy feed/cow	$1,124	$1,233	$1,121	$1,259
Purchased dairy feed/cwt. milk	$4.98	$5.39	$4.90	$5.24
Purchased grain & concentrate as % of milk receipts	23%	24%	23%	24%
Purchased feed & crop expense/cwt. milk	$6.17	$6.17	$6.01	$6.10
Cull rate	32.7%	28.4%	32.1%	31.9%
Capital Efficiency				
Farm capital/worker	$388,498	$305,151	$357,183	$374,036
Farm capital/cow	$9,270	$7,712	$8,772	$7,945
Farm capital/tillable acre owned	$8,136	$9,118	$7,275	$8,861
Real estate/cow	$3,688	$2,768	$3,583	$3,040
Machinery investment/cow	$1,716	$1,495	$1,514	$1,264
Asset turnover ratio	0.60	0.75	0.68	0.74
Labor Efficiency				
Worker equivalent	6.02	8.88	11.52	21.64
Operator/manager equivalent	1.84	1.70	2.14	1.91
Milk sold/worker, lbs.	945,970	905,795	931,626	1,130,956
Cows/worker	42	40	41	47
Labor cost/cow	$773	$766	$753	$776
Labor cost/tillable acre	$324	$367	$309	$421

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

SUPPLEMENTAL INFORMATION

Comparisons of business performance by farms buying or growing forages, types of housing and herd size, bST usage, rotational grazers, milking frequency, same farms over 10 years, and dairy region are presented in this section. Farm receipts and expenses per cow and per hundredweight of milk sold for different levels of milk output and herd size groups, plus additional data, are included.

A word of caution to the reader on the interpretation of these data: It is the combination of resources and practices, and implementation of business management strategies by farmers that determine business performance. Examining one factor, while not holding all others constant, can lead to erroneous conclusions of cause and effect relationships. As an example, farms using bST have higher pounds of milk sold per cow. Is it exclusively bST or is it that farms using bST would have higher milk production per cow without bST? Keep this distinction in mind when reviewing the following data.

Comparison for Farms That Buy All Feed Versus Farms That Grow Forages

Farms specializing in only milk production are a growing trend in New York. In 2007, 11 participating farms, including owners and renters, purchased the majority of their feed, including all forages. Less than 10 acres of crops were harvested by the average farm. Table 57 highlights the income and expenses for these 11 farms compared to the income and expenses for 136 farms of similar size that grew their forages. Table 58 compares selected business factors for the two groups of farms. In 2007, the 11 farms buying forages had, on average, higher measures of profitability than the similar size farms growing forages. While pounds of milk sold per cow and milk receipts per cow were higher, operating costs of producing milk were also $1.01 per hundredweight higher.

Comparison by Type of Barn and Herd Size

When analyzing a dairy farm business by comparing it to a group of farms, it is important that the group of farms have as many of the same physical characteristics as possible as the farm being analyzed. To assist in this endeavor, dairy farms in the summary have been divided into those with freestall and those with conventional housing. Conventional housing includes stanchion and tiestall barns. Within each group, is a further classification by size of the dairy herd. Table 59 on page 65 includes the average values for the resulting five groups of dairy farms. The average size in the five groups ranges from 45 cows on the small conventional farms to 765 cows on the largest freestall farms. The largest freestall farms averaged the highest milk output per cow and per worker, the lowest total cost of production and investment per cow, and the greatest returns to labor, management and capital.

Farm business charts have been computed for each of the five housing and herd size categories and are on pages 66-70. By comparing the farm's performance on the most appropriate business chart, a farm manager will be better able to evaluate his or her business performance. Each column of the farm business chart is independent of the others.

Comparison of Farms by bST Usage

Farms adopting bovine somatotropin (bST) sold more milk per cow and had larger herds (Table 65). Farms using bST were also more profitable in 2007. Operating costs of producing a hundredweight of milk were $0.09 lower on farms using bST.

Farms not using bST showed a 2.1 percent increase in pounds of milk sold per cow, from 18,785 pounds in 2003 to 19,181 pounds in 2007. Farms using bST increased milk sold per cow 3.7 percent, from 23,708 pounds per cow in 2003 to 24,586 pounds per cow in 2007. Farms that used bST in 2003 through 2007 were larger, and increased in size more rapidly than did farms not supplementing with bST. Farms not using bST increased by 16 cows, from an average of 148 cows in 2003 to 164 in 2007. Farms adopting bST increased by 117 cows, up to 589 cows in 2007. Both those using bST and those not using bST saw an increase in net worth. Debt to asset ratio and debt per cow changed very little over the study period. The reader is again reminded that bST is not solely responsible for the total changes; size and other factors are also significant.

Comparison of Data, Same Farms, 1998 - 2007

Follow ten years of growth, change and progress made by 54 New York DFBS farms in Table 66, pages 72 and 73. Milk receipts per hundredweight are higher by $4.62. Profitability is significantly higher in 2007 when compared to 1998. Care should be exercised in using these data to indicate change in the dairy industry since the composition of the sample of farms is different from the state as a whole, and there is considerable year-to-year variability in milk prices.

Receipts and Expenses per Hundredweight of Milk and Per Cow

Average accrual receipts and expenses per cow and per hundredweight of milk sold are listed for 63 dairy farms selling less than 18,000 pounds of milk per cow, 76 farms with 18,000 to 21,999 pounds of milk sold per cow, and 111 dairy farms selling 22,000 pounds and more in Table 67 on page 74. Table 68 on page 75 provides the same list of average accrual receipts and expenses for 61 farms averaging less than 80 cows per farm, 68 farms with 80 to 180 cows and 121 farms with 180 cows or more.

These data are very useful for forward planning or budgeting when a farmer or planner does not have complete and accurate data from his or her own farm business. It is important to use the costs and returns per unit of output that most closely fit the level of production and herd size that is included in the plan. For example, an expansion budget for a 20,000 pound herd should include higher feed costs per cow than a budget for an 18,000 pound herd. Herds with more than 180 cows must budget for higher hired labor costs per cow than smaller herds. These data should also be adjusted to the operating characteristics of the farm being budgeted. Most farms are not average. It is always better to have data on the specific farm being budgeted.

Intensive Grazing Farms vs. Non-Grazing Farms

In 2007, 36 of the DFBS cooperators practiced intensive grazing. Intensive grazing means the dairy herd was on pasture for three months or more and was moved to a new paddock every third day or less and at least 30 percent of the forage was from pasture. The farms using intensive grazing are compared with a control group of non-grazing farms in Table 69. The control group is a selection of non-grazing dairy farms of similar size. In 2007, average profitability was higher on intensive grazing farms. Operating costs of producing milk were $0.45 per hundredweight lower while total costs were $0.02 per hundredweight higher than the costs of production on the control farms. Table 69 also includes a comparison of 18 profitable grazing farms to 47 profitable non-grazing farms. A publication containing detailed information on New York farms using intensive grazing is available from the Department of Applied Economics and Management. An order form is included in the department website: http://aem.cornell.edu/order/index.htm or contact Linda Putnam (e-mail: ldp2@cornell.edu, phone: 607-255-8429).

Comparison of Farms by Milking Frequency

Twenty-nine percent of the 250 DFBS farms utilized three times per day (3X) milking in 2007. Most of the remaining farms milked twice per day (2X). Two years of selected average business and cost of milk production factors from the two milking frequency groups are compared in Table 70.

In 2007, the 3X farms averaged 28 more cows per farm, sold 0.3 percent more milk per cow, and had an average of $781,921 increase in net farm income, but showed an increase in total cost of producing milk by 13.9 percent compared to the 3X farm averages for 2006. The 2X farms decreased milk output per cow 0.4 percent and increased averaged net farm income by $181,139, but increased total production costs $2.07 per hundredweight in 2007 compared to 2006.

The 3X farms averaged 21.2 percent more milk per cow and 33.7 percent additional milk per worker in 2007 compared with the 2X farms. Similar differences were found in 2006. In 2007, the average total cost of producing milk was 6 percent lower on 3X farms than on 2X dairies. On the average, farmers milking 3X sold more milk per cow and per worker, produced milk at lower costs per hundredweight and received higher returns for their labor, management and capital than the average dairy farmer milking 2X. However, milking frequency was not the only, and probably not the most important, factor that contributed to financial success on these dairy farms. Comparison of herd size, crop yields, labor and capital efficiency indicates there are other important management differences contributing to higher profits.

Comparison of Dairy Farm Business Data by Region

Average farm business summary data from five regions of the State are compared in Tables 71 and 72. The Western and Central Plain Region averaged the highest profitability, the largest average farm size and highest average rate of milk production. Dairy farmers in this region have increased milk production 25.3 percent from 1997-2007 and they produced milk for an average total cost of $17.16 per hundredweight in 2007. Total milk production has declined 9.8 percent from 1997-2007 in the Central Valleys Region (Figure 2). However, this is the region with the highest return per hundredweight to labor, management and capital with $5.98. Western and Central Plateau Region had the second highest return per hundredweight to labor, management and capital with $5.50.

Other Comparisons

Twenty-one dairy renter farms were smaller, on average, and averaged lower labor and management incomes than the average for 250 owned dairy farms (Table 73). A forthcoming publication contains detailed information on New York dairy renters (see http://aem.cornell.edu/order/index.htm). Data for the top 10 percent of farms by rate of return on all capital without appreciation is presented in Table 74. Additional data for the top 10 percent of farms is presented in many of the first 46 tables of this publication. Summary data for the 250 specialized dairy farms are presented in Table 75.

Table 57.

INCOME & EXPENSE COMPARISON FOR FARMS BUYING MAJORITY OF FORAGES VERSUS SIMILAR SIZE FARMS GROWING FORAGES, 2007

Item	11 Farms Buying Majority of Forages		136 Similar Size Farms Growing Forages	
Number of cows per farm	154		145	
Pounds of milk sold	3,627,312		3,013,254	
Income	Per Cow	Per Cwt.	Per Cow	Per Cwt.
Milk sold	$4,853	$20.66	$4,253	$20.46
Dairy cattle	390	1.66	199	0.95
Dairy calves	35	0.15	34	0.17
Other livestock	1	0.00	11	0.05
Crops	4	0.02	161	0.78
Miscellaneous	97	0.41	196	0.94
Total Accrual Receipts	$5,380	$22.90	$4,855	$23.35
Expenses				
Hired labor	$ 421	$ 1.79	$ 428	$ 2.06
Dairy grain & concentrate	1,138	4.85	1,023	4.92
Dairy roughage	627	2.67	31	0.15
Nondairy	2	0.01	2	0.01
Professional nutritional services	9	0.04	1	0.00
Machinery hire, rent/lease	32	0.14	107	0.51
Machinery repairs/vehicle expense.	172	0.73	241	1.16
Fuel, oil & grease	113	0.48	172	.83
Replacement livestock	15	0.07	10	0.05
Breeding	38	0.16	51	0.25
Veterinary & medicine	148	0.63	118	0.57
Milk marketing	193	0.82	190	0.91
Bedding	53	0.22	56	0.27
Milking supplies	61	0.26	86	0.41
Cattle lease/rent	0	0.00	1	0.01
Custom boarding	141	0.60	48	0.23
bST expense	48	0.20	31	0.15
Livestock professional fees	26	0.11	14	0.07
Other livestock expenses	22	0.09	29	0.14
Fertilizer & lime	5	0.02	110	0.53
Seeds & plants	4	0.02	65	0.31
Spray, other crop expenses	3	0.01	56	0.27
Crop professional fees	3	0.01	5	0.02
Land/bldg/fence repair	78	0.33	57	0.28
Taxes	39	0.17	67	0.32
Rent & lease	39	0.17	76	0.36
Insurance	32	0.14	52	0.25
Utilities	113	0.48	115	0.55
Interest paid	210	0.89	149	0.72
Other professional fees	19	0.08	19	0.09
Miscellaneous	36	0.15	26	0.13
Total Operating Expenses	$3,839	$16.35	$3,437	$16.53
Expansion livestock	150	0.64	20	0.09
Extraordinary expense	3	0.01	3	0.02
Machinery depreciation	122	0.52	185	0.89
Building depreciation	179	0.76	87	0.42
Total Accrual Expenses	$4,293	$18.28	$3,732	$17.95
Net Farm Income (without appreciation)	$1,087	$ 4.62	$1,123	$ 5.40

Table 58.

SELECTED BUSINESS FACTORS FOR FARMS BUYING MAJORITY OF FORAGES VERSUS SIMILAR SIZE FARMS GROWING FORAGES, 2007

Selected Factors	11 Farms Buying Majority of Forages	136 Similar Size Farms Growing Forages
Size of Business		
Average number of cows	154	145
Average number of heifers	128	119
Milk sold, lbs.	3,627,312	3,013,254
Worker equivalent	3.94	4.06
Total tillable acres	68	405
Tillable acres harvested	56	394
Rates of Production		
Milk sold per cow, lbs.	23,485	20,794
Hay DM per acre, tons	2.2	2.6
Corn silage per acre, tons	0.0	18.3
Labor Efficiency & Costs		
Cows per worker	39	36
Milk sold/worker, lbs.	921,222	742,486
Hired labor cost/cwt.	$1.79	$2.06
Hired labor cost/worker	$32,985	$29,418
Hired labor cost as % of milk sales	8.7%	10.1%
Cost Control		
Grain & concentrate purchased as % of milk sales	24%	24%
Grain & concentrate per cwt. milk	$4.85	$4.92
Dairy feed & crop expense per cwt. milk	$7.58	$6.21
Labor & machinery costs/cow	$1,272	$1,614
Total farm operating costs per cwt. sold	$16.35	$16.53
Interest costs per cwt. milk	$0.89	$0.72
Milk marketing costs per cwt. milk sold	$0.82	$0.91
Operating cost of producing cwt. of milk	$14.74	$13.73
Capital Efficiency(average for the year)		
Farm capital per cow	$7,396	$9,248
Machinery & equipment per cow	$928	$1,881
Asset turnover ratio	0.80	0.56
Income Generation		
Gross milk sales per cow	$4,853	$4,253
Gross milk sales per cwt.	$20.66	$20.46
Net milk sales per cwt.	$19.84	$19.54
Dairy cattle sales per cow	$390	$199
Dairy calf sales per cow	$36	$34
Profitability		
Net farm income without appreciation	$168,384	$162,680
Net farm income with appreciation	$247,958	$212,349
Labor & management income per operator/manager	$93,665	$71,028
Rate of return on equity capital without appreciation	18.2%	10.5%
Rate of return on all capital without appreciation	12.5%	9.4%
Cash flow		
Principal & interest payments per cow, 2007	$983	$610
Net cash flow	$155,226	$151,918
Financial Summary		
Farm net worth, end year	$714,629	$1,070,349
Farm net worth change from last year, %	44%	18%
Debt to asset ratio	0.43	0.25
Farm debt per cow	$3,135	$2,365

Table 59.

SELECTED BUSINESS FACTORS BY TYPE OF BARN AND HERD SIZE
235 New York Dairy Farms, 2007

Item Farms with:	Conventional <= 60 Cows	Conventional >60 Cows	Freestall <=150 Cows	Freestall 151-300 Cows	Freestall ≥300 Cows
Number of farms	32	35	41	36	91
Cropping Program Analysis					
Total Tillable acres	173	264	256	546	1,502
Tillable acres rented[64]	81	107	131	260	782
Hay crop acres[64]	134	177	165	259	663
Corn silage acres[64]	18	54	63	163	572
Hay crop, tons DM/acre	1.9	2.5	2.5	2.7	3.3
Corn silage, tons/acre	17	17.5	17.0	18.8	19.0
Oats, bushels/acre	25	60.5	0	48	71
Forage DM per cow, tons	8.3	8.8	8.3	8.3	7.9
Tillable acres/cow	4.0	3.1	2.7	2.6	2.0
Fertilizer & lime expense/tillable acre	$29.91	$27.65	$36.31	$52.78	$45.47
Total machinery costs	$37,126	$69,721	$85,153	$178,009	$524,509
Machinery cost/tillable acre	$208	$265	$301	$321	$349
Dairy Analysis					
Number of cows	45	86	102	215	765
Number of heifers	36	72	84	170	617
Milk sold, lbs.	803,437	1,540,743	1,907,152	4,669,673	18,323,557
Milk sold/cow, lbs.	18,055	17,999	18,676	21,759	23,957
Operating cost of producing milk/cwt.	$13.22	$14.03	$13.90	$13.98	$14.03
Total cost of producing milk/cwt.	$22.57	$21.09	$20.39	$18.35	$16.98
Price/cwt. milk sold	$20.32	$20.46	$20.85	$20.31	$20.30
Purchased dairy feed/cow	$938	$942	$1,076	$1,087	$1,244
Purchased dairy feed/cwt. milk	$5.19	$5.23	$5.76	$5.00	$5.19
Purchased grain & concentrate as % of milk receipts	24%	25%	25%	23%	24%
Purchased feed & crop expense/cwt milk	$6.12	$6.11	$6.81	$6.18	$6.08
Capital Efficiency					
Farm capital/worker	$303,979	$310,146	$341,029	$384,576	$364,434
Farm capital/cow	$12,842	$10,507	$9,818	$9,282	$8,086
Farm capital/tillable acre owned	$6,210	$5,749	$8,013	$6,970	$8,588
Real estate/cow	$6,988	$4,728	$4,296	$3,825	$3,118
Machinery investment/cow	$2,426	$2,310	$2,058	$1,707	$1,328
Asset turnover ratio	0.35	0.43	0.48	0.58	0.73
Labor Efficiency					
Worker equivalent	1.88	2.90	2.94	5.18	16.97
Operator/manager equivalent	1.09	1.34	1.45	1.65	1.96
Milk sold/worker, lbs.	427,929	530,986	649,796	901,336	1,079,497
Cows/worker	24	30	35	41	45
Labor cost/cow	$1,136	915	$829	$747	$776
Labor cost/tillable acre	$292	$297	$331	$294	$395
Profitability & Balance Sheet Analysis					
Net farm income (without appreciation)	$43,748	$76,448	$100,892	$233,622	$909,264
Labor & management income/operator	$11,942	$25,590	$37,718	$94,556	$363,992
Rate return on all capital with appreciation	4.2%	7.0%	9.1%	14.0%	20.7%
Farm debt/cow	$2,310	$2,473	$2,505	$2,393	$2,985
Percent equity	82%	77%	75%	75%	65%

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

Table 60.

FARM BUSINESS CHART FOR SMALL CONVENTIONAL STALL DAIRY FARMS
32 Conventional Stall Dairy Farms with 60 or Less Cows, New York, 2007

Size of Business			Rates of Production			Labor Efficiency	
Worker Equiv-alent	No. 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
2.86	58	1,099,232	24,446	2.9	25	39	810,088
2.40	53	1,036,401	22,911	3.6	22	33	707,891
2.16	51	996,659	21,564	2.4	20	29	588,257
2.03	48	941,296	20,915	2.3	18	26	488,972
1.95	47	874,710	20,045	2.1	18	25	438,230
1.88	45	833,652	17,757	1.9	16	23	397,870
1.70	43	816,327	16,563	1.8	15	20	365,041
1.55	40	727,982	15,284	1.6	14	20	337,736
1.44	36	574,365	13,818	1.3	14	19	300,938
1.20	31	358,434	10,386	0.8	12	17	217,459

Cost Control					
Grain Bought Per Cow	% Grain is of Milk Receipts	Machinery Costs Per Cow	Labor & Machinery Costs Per Cow	Feed & Crop Expenses Per Cow	Feed & Crop Expenses Per Cwt. Milk
$487	16%	$471	$1.355	$662	$4.41
669	20	621	1,669	863	5.12
706	21	680	1,762	906	5.46
777	23	721	1,830	962	5.64
829	24	772	1,881	996	5.81
895	25	832	2,103	1,171	6.08
963	25	937	2,245	1,280	6.51
1,028	27	1.019	2,364	1,335	7.09
1,119	28	1.125	2,425	1,418	7.79
1,239	31	1,371	2,646	1,548	9.10

Value and Cost of Production			Profitability			
Milk Receipts Per Cow	Operating Cost Producing Milk Per Cwt.	Total Cost Production Per Cwt.	Net Farm Income Without Appreciation Total	Net Farm Income Without Appreciation Per Cow	Labor & Mgmt. Income Per Operator	Change in Net Worth w/Appreciation
$4,908	$9.25	$16.77	$103,687	$2,080	$71,795	$104,731
4,584	10.36	19.62	77,384	1,791	39,495	71,980
4,528	12.16	20.88	66,142	1,398	33,110	54,915
4,199	12.44	21.86	55,982	1,195	27,372	49,040
3,957	12.83	22.67	49,561	1,103	21,721	41,663
3,596	13.51	23.35	40,986	1,024	11,107	30,723
3,396	14.23	24.80	36,123	874	3,731	27,089
3,166	14.85	25.92	28,950	695	-3,995	23,231
2,875	16.16	29.89	15,510	388	-21,220	17,838
2,181	21.36	34.70	-9,637	-162	-30,844	-18,866

Table 61.

FARM BUSINESS CHART FOR LARGE CONVENTIONAL STALL DAIRY FARMS
35 Conventional Stall Dairy Farms with More Than 60 Cows, New York, 2007

Size of Business			Rates of Production			Labor Efficiency	
Worker Equiv-alent	No. 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
4.27	136	2,417,111	26,067	4.6	24	48	831,609
3.76	118	2,153,052	22,077	3.6	22	43	741,411
3.28	104	1,991,129	21,085	3.2	21	40	675,874
3.21	92	1,737,093	19,592	2.9	19	35	659,682
3.11	86	1,572,605	18,910	2.7	17	33	627,227
2.99	78	1,463,017	18,038	2.5	17	29	576,019
2.75	72	1,331,867	17,037	2.2	17	27	512,065
2.46	69	1,251,344	16,032	2.1	16	24	443,686
2.30	66	1,102,026	14,590	1.8	15	22	354,283
1.67	63	930,008	12,554	1.3	11	20	295,072

Cost Control					
Grain Bought Per Cow	% Grain is of Milk Receipts	Machinery Costs Per Cow	Labor & Machinery Costs Per Cow	Feed & Crop Expenses Per Cow	Feed & Crop Expenses Per Cwt. Milk
$380	13%	$425	$1,230	$567	$3.84
580	17	569	1,335	780	4.53
753	19	608	1,443	955	4.91
822	21	723	1,530	1,046	5.43
911	24	808	1,684	1,100	5.87
983	26	859	1,840	1,189	6.48
1,102	28	937	1,954	1,252	7.01
1,145	32	992	2,072	1,364	7.68
1,272	35	1,049	2,258	1,516	8.71
1,605	42	1,278	2,555	1,765	9.77

Value and Cost of Production			Profitability			
Milk Receipts Per Cow	Operating Cost Producing Milk Per Cwt.	Total Cost Production Per Cwt.	Net Farm Income Without Appreciation Total	Net Farm Income Without Appreciation Per Cow	Labor & Mgmt. Income Per Operator	Change in Net Worth w/Appreciation
$5,152	$9.81	$16.75	$150,946	$1,927	$96,499	$210,929
4,540	11.49	18.01	129,912	1,443	65,644	133,891
4,215	12.26	19.10	118,299	1,353	55,584	119,683
4,048	12.85	20.21	114,228	1,259	50,698	101,908
3,896	13.78	21.15	99,121	1,055	44,709	91,344
3,749	14.89	22.07	80,009	962	25,060	82,915
3,476	15.59	22.79	60,271	803	14,508	66,619
3,308	16.81	24.10	51,427	499	2,785	39,546
3,086	17.81	26.26	24,184	332	-18,266	21,345
2,526	20.92	28.74	-6,350	-77	-39,115	4,583

Table 62.

FARM BUSINESS CHART FOR SMALL FREESTALL DAIRY FARMS
41 Freestall Barn Dairy Farms with 150 or Less Cows, New York, 2007

Size of Business			Rates of Production			Labor Efficiency	
Worker Equiv-alent	No. 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
4.33	145	3,038,782	24,012	5.0	26	54	1,049,507
4.00	136	2,651,052	22,366	3.9	21	45	833,822
3.63	127	2,331,685	21,003	3.6	20	41	774,651
3.26	113	2,253,098	19,918	2.9	19	37	687,389
3.00	106	2,097,298	19,204	2.5	18	35	659,654
2.81	99	1,908,138	18,480	2.3	17	34	615,421
2.50	94	1,654,700	17,724	2.2	16	32	581,302
2.31	86	1,420,979	16,048	2.0	15	31	537,002
2.18	71	1,184,373	14,658	1.6	14	29	483,454
1.66	57	806,565	12,031	1.1	12	24	387,904

Cost Control					
Grain Bought Per Cow	% Grain is of Milk Receipts	Machinery Costs Per Cow	Labor & Machinery Costs Per Cow	Feed & Crop Expenses Per Cow	Feed & Crop Expenses Per Cwt. Milk
$566	17%	$412	$1,101	$724	$4.63
705	19	552	1,307	956	5.48
796	22	585	1,364	1,078	6.01
848	24	637	1,441	1,116	6.15
923	25	686	1,527	1,187	6.77
999	26	758	1,582	1,314	6.98
1,085	27	830	1,708	1,387	7.11
1,158	29	935	1,856	1,533	7.29
1,264	30	1,143	2,084	1,625	8.03
1,449	39	1,397	2,414	1,744	11.20

Value and Cost of Production			Profitability			
Milk Receipts Per Cow	Operating Cost Producing Milk Per Cwt.	Total Cost Production Per Cwt.	Net Farm Income Without Appreciation Total	Net Farm Income Without Appreciation Per Cow	Labor & Mgmt. Income Per Operator	Change in Net Worth w/Appreciation
$4,904	$9.62	$16.89	$204,925	$1,633	$101,149	$240,026
4,606	11.45	18.02	160,620	1,466	78,127	152,756
4,427	12.27	18.70	148,490	1,387	58,021	141,631
4,228	12.86	19.04	130,702	1,214	52,201	127,558
4,034	13.32	19.48	112,330	1,144	46,071	112,525
3,832	13.84	20.74	94,681	1,049	38,670	97,598
3,622	14.70	21.83	82,277	921	28,098	81,001
3,323	16.46	23.25	62,049	665	10,720	73,081
3,058	18.00	25.06	35,857	377	-2,391	49,312
2,610	19.88	29.84	1,774	-60	-29,731	23,250

Table 63.

FARM BUSINESS CHART FOR MEDIUM FREESTALL DAIRY FARMS
36 Freestall Barn Dairy Farms with 151-300 Cows, New York, 2007

Size of Business			Rates of Production			Labor Efficiency	
Worker Equiv-alent	No. 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
7.83	294	6,792,548	26,424	4.8	28	65	1,236,400
6.89	284	6,372,431	24,496	3.9	23	57	1,068,408
6.52	252	6,016,780	24,111	3.6	22	54	1,029,794
5.91	247	5,602,690	23,628	3.3	19	48	1,016,717
5.47	233	5,215,650	23,159	3.2	18	43	972,076
4.95	210	4,627,626	22,198	2.8	18	39	919,212
4.67	189	4,093,227	20,680	2.3	17	38	885,395
4.41	173	3,762,683	19,839	2.1	17	37	800,010
3.87	165	3,351,085	19,235	1.8	15	35	751,921
2.90	155	2,388,376	14,614	1.5	12	30	606,594

Cost Control					
Grain Bought Per Cow	% Grain is of Milk Receipts	Machinery Costs Per Cow	Labor & Machinery Costs Per Cow	Feed & Crop Expenses Per Cow	Feed & Crop Expenses Per Cwt. Milk
$540	14%	$511	$1,067	$723	$3.91
743	18	586	1,281	1,042	5.00
823	20	685	1,366	1,132	5.75
924	22	745	1,457	1,271	5.89
1,069	24	818	1,567	1,352	6.02
1,127	26	884	1,676	1,459	6.37
1,199	26	911	1,744	1,537	6.82
1,278	27	977	1,808	1,598	7.11
1,353	29	1,137	2,018	1,660	7.56
1,384	31	1,347	2,150	1,806	8.28

Value and Cost of Production			Profitability			
Milk Receipts Per Cow	Operating Cost Producing Milk Per Cwt.	Total Cost Production Per Cwt.	Net Farm Income Without Appreciation Total	Net Farm Income Without Appreciation Per Cow	Labor & Mgmt. Income Per Operator	Change in Net Worth w/Appreciation
$5,199	$10.03	$14.97	$522,171	$2,072	$221,725	$468,328
4,985	11.52	16.51	424,140	1,874	196,716	388,206
4,923	12.70	17.26	344,509	1,578	176,569	358,154
4,861	13.67	17.85	288,759	1,246	157,837	329,288
4,690	14.06	18.30	254,690	1,142	137,360	260,976
4,501	15.29	19.15	215,859	1,031	84,888	222,178
4,291	15.81	20.29	189,827	859	60,076	195,828
4,068	16.05	21.31	136,788	634	40,883	138,575
3,938	16.69	22.05	74,094	433	8,882	94,801
2,876	19.07	23.32	46,657	278	-32,490	49,839

Table 64.

FARM BUSINESS CHART FOR LARGE FREESTALL DAIRY FARMS
91 Freestall Barn Dairy Farms with 300 or More Cows, New York, 2007

Size of Business			Rates of Production			Labor Efficiency	
Worker Equiv-Alent	No. 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
35.08	1,745	43,004,232	27,708	5.7	26	60	1,442,799
25.81	1,128	27,970,111	25,873	4.6	23	53	1,228,772
21.66	995	23,835,953	25,285	3.9	22	50	1,175,249
18.59	865	20,478,846	24,607	3.6	20	47	1,134,274
15.92	695	17,089,191	24,064	3.3	20	46	1,090,405
14.17	599	13,917,572	23,604	3.1	19	44	1,040,403
12.37	500	11,748,180	22,960	2.9	18	42	991,802
10.60	436	9,928,631	22,459	2.6	17	41	940,420
9.32	396	8,949,216	21,325	2.4	16	37	868,410
7.29	337	7,514,627	19,524	2.0	14	31	722,816

Cost Control					
Grain Bought Per Cow	% Grain is of Milk Receipts	Machinery Costs Per Cow	Labor & Machinery Costs Per Cow	Feed & Crop Expenses Per Cow	Feed & Crop Expenses Per Cwt. Milk
$790	18%	$479	$1,110	$1,053	$4.69
914	20	558	1,285	1,192	5.23
1,012	21	612	1,356	1,267	5.57
1,053	22	643	1,403	1,339	5.73
1,125	23	673	1,442	1,412	5.89
1,173	24	720	1,496	1,459	6.11
1,222	25	764	1,560	1,500	6.39
1,281	26	817	1,620	1,582	6.68
1,373	27	900	1,710	1,698	7.10
1,578	31	989	1,899	1,958	7.58

Value and Cost of Production			Profitability			
Milk Receipts Per Cow	Operating Cost Producing Milk Per Cwt.	Total Cost Production Per Cwt.	Net Farm Income Without Appreciation Total	Net Farm Income Without Appreciation Per Cow	Labor & Mgmt. Income Per Operator	Change in Net Worth w/Appreciation
$5,766	$10.81	$14.51	$2,337,300	$2,043	$1,103,132	$2,686,277
5,344	12.31	15.59	1,362,553	1,708	746,602	1,778,284
5,125	12.83	16.14	1,144,933	1,530	566,178	1,286,712
5,010	13.31	16.57	969,379	1,430	461,248	1,058,420
4,860	13.78	16.88	829,297	1,308	395,098	935,098
4,788	14.11	17.13	719,767	1,167	313,715	774,985
4,700	14.39	17.55	618,874	1,042	257,134	645,479
4,538	14.89	17.83	519,316	937	197,335	543,433
4,314	15.79	18.29	416,726	788	152,336	421,480
3,985	16.81	20.23	247,977	442	46,295	205,528

Table 65.

bST NON-USERS VS. USERS
Same 82 Farms, 2003 - 2007

	49 Farms Not Using bST in 2003 - 2007					33 Farms Using bST in 2003 - 2007				
Selected Factors	2003	2004	2005	2006	2007	2003	2004	2005	2006	2007
Size of Business										
Average number of cows	148	148	151	158	164	472	514	543	561	589
Average number of heifers	114	116	122	131	134	366	385	419	438	453
Milk sold, cwt.	27,733	28,668	29,244	30,248	31,472	111,846	119,170	132,042	137,918	144,914
Worker equivalent	3.91	3.99	4.05	4.06	4.14	11.43	12.32	12.74	13.07	13.73
Total tillable acres	386	393	404	396	405	974	1,030	1,084	1,110	1,185
Rates of Production										
Milk sold per cow, lbs.	18,785	19,405	19,398	19,090	19,181	23,708	23,204	24,327	24,568	24,586
Hay DM per acre, tons	2.8	2.9	2.5	2.7	2.7	3.5	3.5	3.3	3.4	3.0
Corn silage per acre, tons	17	18	18	18	18	17	18	19	19	19
Labor Efficiency										
Cows per worker	38	37	37	39	40	41	42	43	43	43
Milk sold per worker, lbs.	709,281	718,495	722,076	745,027	760,195	978,530	967,286	1,036,440	1,055,228	1,055,454
Cost Control										
Grain & concentrate purchased as percent of milk sales	30%	27%	26%	29%	24%	31%	27%	24%	28%	23%
Dairy feed and crop expense per cwt. milk	$5.08	$5.55	$5.33	$5.15	$6.43	$4.95	$5.36	$4.81	$4.80	$5.84
Labor and mach. costs per cow	$1,220	$1,340	$1,376	$1,321	$1,439	$1,278	$1,331	$1,399	$1,416	$1,490
Operating cost of producing milk per cwt.	$10.60	$11.88	$11.69	$11.27	$13.81	$11.53	$12.35	$11.93	$12.09	$13.72
Capital Efficiency (avg. for year)										
Farm capital per cow	$7,693	$8,082	$8,549	$8,717	$9,190	$6,765	$6,838	$7,244	$7,637	$8,204
Machinery and equip. per cow	$1,466	$1,580	$1,720	$1,747	$1,798	$1,182	$1,184	$1,258	$1,312	$1,410
Asset turnover ratio	0.42	0.50	0.49	0.40	0.53	0.57	0.69	0.66	0.56	0.71
Profitability										
Net farm income without apprec	$43,178	$107,603	$85,122	$48,466	$177,482	$61,079	$361,581	$377,031	$79,857	$792,906
Net farm income with apprec.	$68,739	$142,349	$152,213	$82,087	$241,841	$162,898	$511,456	$531,428	$224,904	$943,622
Labor & management income per operator/manager	$-3,287	$43,313	$22,016	$-7,663	$76,938	$-21,939	$141,461	$134,140	$-33,937	$340,270
Rate return on equity capital with appreciation	2.2%	10.7%	10.7%	2.5%	16.4%	4.1%	19.9%	17.5%	4.9%	26.4%
Rate return on all capital with appreciation	2.9%	8.9%	9.2%	3.5%	13.9%	4.1%	13.7%	13.1%	5.3%	19.7%
Financial Summary (end of year)										
Farm net worth	$812,376	$899,977	$989,659	$1,023,984	$1,207,685	$1,954,616	$2,327,667	$2,709,415	$2,823,554	$3,598,331
Debt to asset ratio	0.29	0.27	0.27	0.28	0.24	0.41	0.37	0.34	0.36	0.31
Farm debt per cow	$2,285	$2,207	$2,393	$2,459	$2,376	$2,860	$2,591	$2,564	$2,731	$2,781

Table 66.

COMPARISON OF FARM BUSINESS SUMMARY DATA
Same 54 New York Dairy Farms, 1998 - 2007

Selected Factors	1998	1999	2000	2001
Milk receipts per cwt. milk	$15.73	$15.22	$13.41	$15.92
Size of Business				
Average number of cows	289	307	325	351
Average number of heifers	224	230	245	266
Milk sold, cwt.	62,788	68,828	72,884	78,470
Worker equivalent	7.01	7.37	7.58	8.17
Total tillable acres	615	645	665	698
Rates of Production				
Milk sold per cow, lbs.	21,693	22,409	22,403	22,337
Hay DM per acre, tons	3.5	3.3	3.8	3.2
Corn silage per acre, tons	23	17	16	17
Labor Efficiency				
Cows per worker	41	42	43	43
Milk sold per worker, lbs.	895,694	933,892	961,528	960,463
Cost Control				
Grain & concentrate purchased as % of milk sales	25%	24%	27%	25%
Dairy feed & crop expense per cwt. milk	$4.96	$4.69	$4.54	$4.90
Operating cost of producing cwt. milk	$11.36	$11.07	$11.23	$12.31
Total cost of producing cwt. milk	$14.27	$14.01	$14.18	$15.38
Hired labor cost per cwt.	$2.26	$2.33	$2.39	$2.60
Interest paid per cwt.	$0.88	$0.77	$0.91	$0.80
Labor & machinery costs per cow	$1,115	$1,190	$1,206	$1,286
Replacement livestock expense	$13,446	$14,798	$19,061	$13,785
Expansion livestock expense	$19,795	$18,402	$31,469	$36,592
Capital Efficiency				
Farm capital per cow	$6,343	$6,531	$6,633	$6,653
Machinery & equipment per cow	$1,220	$1,256	$1,288	$1,268
Real estate per cow	$2,489	$2,505	$2,488	$2,508
Livestock investment per cow	$1,517	$1,541	$1,602	$1,689
Asset turnover ratio	0.63	0.62	0.56	0.65
Profitability				
Net farm income without appreciation	$200,089	$201,962	$68,769	$177,610
Net farm income with appreciation	$244,451	$245,480	$120,631	$281,345
Labor & management income per operator/manager	$93,506	$87,181	$1,007	$62,132
Rate return on:				
Equity capital with appreciation	18.0%	15.7%	4.6%	15.7%
All capital with appreciation	13.3%	11.9%	5.8%	11.9%
All capital without appreciation	10.9%	9.7%	3.4%	7.5%
Financial Summary, End Year				
Farm net worth	$1,134,504	$1,249,460	$1,271,138	$1,462,927
Change in net worth with appreciation	$171,007	$129,660	$16,515	$179,895
Debt to asset ratio	0.41	0.41	0.40	0.40
Farm debt per cow	$2,671	$2,720	$2,732	$2,747

Table 66. (continued)

COMPARISON OF FARM BUSINESS SUMMARY DATA
Same 54 New York Dairy Farms, 1998 - 2007

2002	2003	2004	2005	2006	2007
$12.96	$13.24	$16.57	$16.04	$13.89	$20.35
369	389	400	412	425	426
287	302	312	333	346	351
84,823	88,895	90,308	96,441	98,595	99,037
8.55	9.08	9.46	9.58	9.58	9.79
726	760	815	844	873	884
22,960	22,824	22,576	23,426	23,218	23,230
3.4	3.2	3.5	3.6	3.3	3.2
16	18	18	20	19	19
43	43	42	43	44	44
992,087	979,019	954,629	1,006,688	1,029,179	1,011,610
30%	30%	27%	26%	30%	25%
$4.77	$5.01	$5.26	$5.18	$5.05	$6.23
$11.15	$11.49	$12.45	$12.17	$12.17	$14.23
$14.20	$14.30	$15.36	$15.22	$15.19	$17.51
$2.66	$2.68	$2.80	$2.69	$2.72	$2.90
$0.61	$0.53	$0.55	$0.61	$0.79	$0.80
$1,292	$1,255	$1,322	$1,379	$1,381	$1,519
$11,031	$16,173	$14,146	$14,649	$9,705	$13,173
$14,918	$15,252	$18,632	$15,401	$23,678	$4,691
$6,738	$6,589	$6,874	$7,281	$7,515	$8,175
$1,279	$1,227	$1,263	$1,345	$1,378	$1,495
$2,527	$2,496	$2,572	$2,653	$2,765	$2,940
$1,779	$1,773	$1,851	$1,961	$2,053	$2,236
0.54	0.56	0.66	0.63	0.54	0.70
$32,484	$44,235	$255,811	$241,313	$43,061	$471,387
$83,116	$107,244	$374,740	$356,409	$125,186	$643,289
$-26,854	$-21,676	$111,819	$92,100	$-38,968	$221,206
1.3%	2.9%	19.2%	15.4%	2.7%	25.0%
2.8%	3.5%	13.1%	11.5%	4.1%	18.5%
0.8%	1.2%	8.7%	7.7%	1.5%	13.6%
$1,446,864	$1,486,533	$1,752,054	$1,991,647	$2,005,569	$2,516,182
$-27,066	$35,852	$278,514	$246,462	$13,631	$496,199
0.42	0.44	0.39	0.36	0.39	0.33
$2,817	$2,942	$2,766	$2,713	$2,908	$2,858

Table 67.

FARM RECEIPTS AND EXPENSES PER COW AND PER HUNDREDWEIGHT FOR THREE LEVELS OF MILK PRODUCTION
250 New York Dairy Farms, 2007

Item	63 Dairy Farms Milk/Cow <18,000#		76 Dairy Farms Milk/Cow 18,000-21,999#		111 Dairy Farms Milk/Cow ≥22,000#	
	Per Cow	Per Cwt.	Per Cow	Per Cwt.	Per Cow	Per Cwt.
ACCRUAL RECEIPTS						
Milk sales	$3,107	$21.21	$4,205	$20.40	$5,009	$20.26
Dairy cattle	183	1.25	269	1.31	272	1.10
Dairy calves	32	0.22	15	0.07	38	0.15
Other livestock	18	0.12	13	0.07	7	0.03
Crops	83	0.57	149	0.72	140	0.57
Government receipts	99	0.67	76	0.37	64	0.26
All other	85	0.59	57	0.27	82	0.33
TOTAL ACCRUAL RECEIPTS	$3,606	$24.62	$4,785	$23.22	$5,612	$22.70
ACCRUAL EXPENSES						
Labor: Hired	$ 294	$ 2.01	$ 521	$ 2.53	$ 690	$ 2.79
Feed: Dairy grain & concentrate	757	5.17	992	4.81	1,205	4.88
Dairy roughage	67	0.46	76	0.37	75	0.30
Nondairy	9	0.06	0	0.00	1	0.00
Professional nutritional services	1	0.01	1	0.00	1	0.00
Machinery: Mach. hire, rent & lease	66	0.45	93	0.45	95	0.38
Machinery repairs & vehicle expense	193	1.31	186	0.90	205	0.83
Fuel, oil & grease	130	0.89	153	0.74	157	0.63
Livestock: Replacement livestock	11	0.07	8	0.04	21	0.08
Breeding	37	0.25	54	0.26	59	0.24
Vet & medicine	80	0.54	151	0.73	157	0.63
Milk marketing	145	0.99	163	0.79	196	0.79
Bedding	32	0.22	57	0.28	82	0.33
Milking supplies	64	0.44	89	0.43	97	0.39
Cattle lease & rent	0	0.00	4	0.02	4	0.02
Custom boarding	22	0.15	77	0.37	66	0.27
bST expense	7	0.05	20	0.10	76	0.31
Livestock professional fees	9	0.06	11	0.05	14	0.06
Other livestock expense	25	0.17	22	0.11	19	0.08
Crops: Fertilizer & lime	86	0.59	101	0.49	91	0.37
Seeds & plants	39	0.27	68	0.33	66	0.27
Spray & other crop expense	36	0.24	47	0.23	52	0.21
Crop professional fees	7	0.05	4	0.02	6	0.03
Real Estate: Land, building & fence repair	29	0.20	63	0.30	82	0.33
Taxes	80	0.55	54	0.26	49	0.20
Rent & lease	37	0.26	69	0.34	67	0.27
Other: Insurance	46	0.31	42	0.20	44	0.18
Utilities (farm share)	96	0.66	101	0.49	102	0.41
Interest paid	165	1.13	171	0.83	199	0.80
Other professional fees	15	0.10	16	0.08	24	0.10
Miscellaneous	28	0.19	23	0.11	29	0.12
TOTAL OPERATING EXPENSES	$2,610	$17.82	$3,436	$16.67	$4,032	$16.31
Expansion livestock	2	0.01	27	0.13	33	0.13
Extraordinary expense	0	0.00	4	0.02	1	0.00
Machinery depreciation	171	1.17	193	0.94	191	0.77
Building depreciation	82	0.56	101	0.49	122	0.49
TOTAL ACCRUAL EXPENSES	$2,865	$19.56	$3,762	$18.25	$4,379	$17.72

Table 68.

FARM RECEIPTS AND EXPENSES PER COW AND PER HUNDREDWEIGHT FOR THREE HERD SIZE CATEGORIES
250 New York Dairy Farms, 2007

Item	61 Dairy Farms with <80 Cows		68 Dairy Farms with 80-180 Cows		121 Dairy Farms with ≥ 180 Cows	
	Per Cow	Per Cwt.	Per Cow	Per Cwt.	Per Cow	Per Cwt.
ACCRUAL RECEIPTS						
Milk sales	$3,628	$20.35	$3,890	$20.57	$4,803	$20.32
Dairy cattle	176	0.99	177	0.94	278	1.17
Dairy calves	47	0.27	32	0.17	32	0.13
Other livestock	27	0.15	6	0.03	9	0.04
Crops	66	0.37	113	0.60	143	0.61
Government receipts	106	0.59	121	0.64	62	0.26
All other	76	0.43	79	0.43	76	0.32
TOTAL ACCRUAL RECEIPTS	$4,126	$23.14	$4,419	$23.37	$5,403	$22.86
ACCRUAL EXPENSES						
Labor: Hired	$ 184	$ 1.03	$ 338	$ 1.79	$ 669	$ 2.83
Feed: Dairy grain & concentrate	874	4.90	950	5.03	1,150	4.86
Dairy roughage	102	0.57	42	0.22	77	0.32
Nondairy	0	0.00	3	0.02	1	0.00
Professional nutritional services	1	0.01	0	0.00	1	0.00
Machinery: Mach. hire, rent & lease	65	0.37	91	0.48	94	0.40
Mach. repairs & vehicle expense	246	1.38	246	1.30	193	0.82
Fuel, oil & grease	139	0.78	170	0.90	153	0.65
Livestock: Replacement livestock	25	0.14	19	0.10	17	0.07
Breeding	54	0.31	44	0.23	57	0.24
Vet & medicine	87	0.49	103	0.54	157	0.66
Milk marketing	190	1.06	189	1.00	184	0.78
Bedding	30	0.17	42	0.22	77	0.33
Milking supplies	99	0.55	76	0.40	94	0.40
Cattle lease & rent	0	0.00	1	0.01	4	0.02
Custom boarding	22	0.12	33	0.17	71	0.30
bST expense	10	0.06	20	0.11	64	0.27
Livestock professional fees	17	0.10	14	0.07	12	0.05
Other livestock expense	48	0.27	40	0.21	17	0.07
Crops: Fertilizer & lime	74	0.42	98	0.52	93	0.39
Seeds & plants	33	0.19	55	0.29	67	0.28
Spray & other crop expense	32	0.18	50	0.27	50	0.21
Crop professional fees	3	0.01	2	0.01	6	0.03
Real Estate: Land, building & fence repair	51	0.29	62	0.33	75	0.32
Taxes	105	0.59	75	0.40	48	0.20
Rent & lease	32	0.18	51	0.27	68	0.29
Other: Insurance	61	0.34	55	0.29	42	0.18
Utilities (farm share)	139	0.78	113	0.59	99	0.42
Interest paid	169	0.95	158	0.83	194	0.82
Other professional fees	15	0.08	14	0.07	23	0.10
Miscellaneous	34	0.19	27	0.14	27	0.11
TOTAL OPERATING EXPENSES	$2,941	$16.50	$3,182	$16.83	$3,884	$16.43
Expansion livestock	0	0.00	12	0.06	32	0.14
Extraordinary expense	3	0.01	3	0.01	1	0.01
Machinery depreciation	207	1.16	208	1.10	187	0.79
Building depreciation	82	0.46	90	0.47	118	0.50
TOTAL ACCRUAL EXPENSES	$3,233	$18.13	$3,495	$18.48	$4,223	$17.86

Table 69.

INTENSIVE GRAZING FARMS VS. NON-GRAZING FARMS
New York State Dairy Farms, 2007

Item	All Intensive Grazing Farms[65]	Non-Grazing Farms[66]	Profitable Grazing Farms[67]	Profitable Non-Grazing Farms[68]
Number of farms	36	131	18	47
Business Size & Production				
Number of cows	110	114	107	103
Number of heifers	87	92	87	86
Milk sold, lbs.	1,824,273	2,261,969	1,784,418	2,188,578
Milk sold/cow, lbs.	16,627	19,811	16,625	21,195
Milk plant test, % butterfat	3.4%	3.5%	4.0%	3.6%
Cull rate	24.0%	29.0%	25.0%	28.0%
Tillable acres, total	273	322	223	275
Hay crop, tons DM/acre	2.0	2.5	2.3	2.7
Corn silage, tons/acre	17.6	17.8	19.4	17.3
Forage DM/cow, tons	5.1	8.8	4.3	9.2
Labor & Capital Efficiency				
Worker equivalent	2.70	3.35	2.59	3.00
Milk sold/worker, lbs.	675,657	675,551	688,300	729,323
Cows/worker	41	34	41	34
Farm capital/worker	$331,528	$327,292	$320,473	$300,325
Farm capital/cow	$8,158	$9,603	$7,733	$8,725
Farm capital/cwt. milk	$49	$48	$47	$41
Machinery & equipment per cow	$1,474	$1,897	$1,355	$1,668
Milk Production Costs & Returns				
Selected costs/cwt.:				
Hired labor	$1.54	$1.80	$1.54	$1.51
Grain & concentrate	$4.82	$4.94	$4.67	$4.73
Purchased roughage	$0.64	$0.26	$0.57	$0.34
Replacements purchased	$0.09	$0.09	$0.07	$0.08
Vet & medicine	$0.51	$0.56	$0.42	$0.60
Milk marketing	$0.95	$0.97	$0.93	$0.97
Other dairy expenses	$1.15	$1.51	$0.99	$1.42
Operating cost of producing milk/cwt.	$13.56	$14.01	$12.04	$12.85
Total labor cost/cwt.	$4.24	$4.26	$4.03	$3.81
Owner/operator resources/cwt.	$4.07	$3.97	$3.89	$3.54
Total cost of producing milk/cwt.	$19.64	$19.62	$17.71	$17.86
Average farm price/cwt.	$21.21	$20.43	$21.28	$20.53
Related Cost Factors				
Hired labor/cow	$256	$357	$256	$321
Total labor/cow	$705	$844	$671	$808
Purchased dairy feed/cow	$907	$1,030	$872	$1,073
Purchased grain & concentrate as % of milk receipts	23%	25%	23%	23%
Vet & medicine/cow	$85	$111	$71	$127
Machinery costs/cow	$688	$793	$599	$799
Feed & crop exp./cwt.	$6.59	$6.24	$6.49	$6.07
Profitability Analysis				
Net farm income (with appreciation)	$154,327	$149,932	$172,820	$178,621
Net farm income (without apprec.)	$111,783	$114,705	$140,063	$142,082
Net farm income per cow (w/o apprec.)	$1,019	$1,005	$1,305	$1,376
Net farm income per cwt. (w/o apprec.)	$6.13	$5.07	$7.85	$6.49
Labor & management income/operator	$54,684	$46,592	$86,364	$80,635
Labor & mgmt. income/operator/cow	$497	$409	$807	$781
Rates of return on:				
Equity capital with appreciation	15.9%	11.7%	20.1%	19.9%
All capital with appreciation	13.3%	10.2%	16.9%	15.8%

[65]Farms grazing at least three months of year, changing paddock at least every three days, forage from pasture at least 30 percent, and no organic farms.
[66]Farms with similar herd size as the 36 rotational grazing farms.
[67]Top 50 percent of grazing farms by labor and management incomes per operator per cow.
[68]Farms with similar herd size as the "Top 50%" grazing farms and labor and management incomes per operator per cow greater than $500.

Table 70.

SELECTED BUSINESS FACTORS BY MILKING FREQUENCY
New York State Dairy Farms, 2006 & 2007

Item	2x/Day Milking		3x/Day Milking	
	2006	2007	2006	2007
Number of farms	157	167	76	73
Business Size & Production				
Number of cows	176	188	692	720
Number of heifers	144	153	555	576
Milk sold, lbs.	3,598,632	3,813,897	16,987,151	17,717,548
Milk sold/cow, lbs.	20,403	20,312	24,556	24,618
Milk plant test, % butterfat	3.71%	3.68%	3.64%	3.56%
Tillable acres, total	449	460	1,288	1,380
Hay crop, tons DM/acre	2.9	2.8	3.5	3.3
Corn silage, tons/acre	17.2	18.7	19.0	19.0
Forage DM/cow, tons	8.2	8.2	8.0	7.7
Labor & Capital Efficiency				
Worker equivalent	4.48	4.69	15.62	16.28
Milk sold/worker, lbs.	804,014	813,776	1,087,816	1,088,190
Cows/worker	39	40	44	44
Farm capital/worker	$328,284	$354,620	$336,205	$362,773
Farm capital/cow	$8,338	$8,857	$7,592	$8,206
Farm capital/cwt. milk	$40.87	$43.61	$30.92	$33.33
Milk Production Costs & Returns				
Selected costs/cwt.:				
Hired labor	$2.24	$2.35	$2.71	$2.87
Grain & concentrate	$3.96	$4.76	$4.02	$4.87
Purchased roughage	$0.20	$0.28	$0.31	$0.37
Replacements purchased	$0.06	$0.07	$0.08	$0.08
Veterinary & medicine	$0.60	$0.65	$0.67	$0.65
Milk marketing	$0.84	$0.84	$0.78	$0.78
Other dairy expenses	$1.39	$1.56	$1.58	$1.70
Operating cost of milk production/cwt.	$11.71	$13.69	$12.25	$14.16
Total labor costs/cwt.	$3.74	$3.80	$3.08	$3.23
Owner/operator resources/cwt.	$2.84	$2.93	$1.50	$1.61
Total cost of milk production/cwt.	$16.14	$18.21	$14.99	$17.08
Average farm price/cwt.	$13.93	$20.65	$13.83	$20.21
Return over total costs/cwt.	$-2.21	$2.44	$-1.16	$3.13
Related Cost Factors				
Hired labor/cow	$456	$478	$666	$707
Total labor/cow	$764	$772	$756	$794
Purchased dairy feed/cow	$848	$1,023	$1,064	$1,289
Purchased grain & concentrate as % of milk receipts	30%	24%	29%	24%
Veterinary & medicine/cow	$123	$133	$165	$161
Machinery costs/cow	$635	$733	$612	$698
Profitability Analysis				
Net farm income (without appreciation)	$30,291	$211,430	$59,705	$841,626
Labor & management income/operator	$-17,967	$101,233	$-54,530	$345,423
Rates of return on:				
Equity capital with appreciation	0.1%	19.4%	4.2%	27.6%
All capital with appreciation	2.1%	15.4%	5.0%	19.9%

Table 71.

COMPARISON OF DAIRY FARM BUSINESS DATA BY REGION
250 New York Dairy Farms, 2007

Item	West. & Cent. Plateau Region	Western & Central Plain Region	Northern New York	Central Valleys	North. Hudson & Southeastern NY
Number of farms	40	64	39	35	72
ACCRUAL EXPENSES					
Hired labor	$82,457	$471,796	$207,807	$148,298	$121,207
Feed	192,093	804,541	453,063	321,877	265,544
Machinery	75,554	280,866	160,715	138,013	108,870
Livestock	107,931	507,080	273,697	183,196	161,838
Crops	33,401	133,381	74,889	78,171	48,945
Real estate	33,730	136,709	62,006	55,904	36,785
Other	63,944	262,198	141,715	115,257	76,227
Total Operating Expenses	$589,110	$2,596,571	$1,373,893	$1,040,717	$819,415
Expansion livestock	6,936	10,931	19,901	15,247	4,443
Extraordinary expense	793	905	1,236	0	106
Machinery depreciation	41,787	133,505	68,847	53,693	30,501
Building depreciation	16,336	81,329	51,329	28,143	19,210
Total Accrual Expenses	$654,963	$2,823,241	$1,516,205	$1,137,800	$873,675
ACCRUAL RECEIPTS					
Milk sales	$768,738	$3,178,014	$1,741,309	$1,330,254	$971,254
Livestock	53,753	199,520	117,354	93,670	64,447
Crops	18,638	70,834	60,565	54,502	38,452
Government Receipts	13,423	41,204	23,174	23,348	18,131
All other	11,920	54,297	19,577	27,471	17,762
Total Accrual Receipts	$866,472	$3,543,869	$1,961,978	$1,526,514	$1,110,046
PROFITABILITY ANALYSIS					
Net farm income(w/o appreciation)	$211,509	$720,628	$445,773	$388,714	$236,370
Net farm income (w/ appreciation)	$268,500	$1,022,512	$575,523	$503,443	$317,322
Labor & management income	$151,276	$558,497	$338,111	$291,828	$157,741
Number of operators	1.46	1.79	1.75	1.76	1.42
Labor & mgmt. income/operator	$103,613	$312,010	$193,206	$165,812	$111,085
BUSINESS FACTORS					
Worker equivalent	4.44	14.36	8.61	6.97	5.87
Number of cows	168	673	372	289	210
Number of heifers	135	537	295	238	175
Acres of hay crops[69]	246	506	444	327	278
Acres of corn silage[69]	111	447	283	206	184
Total tillable acres	417	1,241	848	707	495
Pounds of milk sold	3,727,555	15,816,491	8,680,284	6,404,857	4,636,394
Pounds of milk sold/cow	22,204	23,518	23,313	22,140	22,055
Tons hay crop dry matter/acre	2.4	3.3	3.1	3.2	2.8
Tons corn silage/acre	19.8	18.3	20.9	19.3	18.1
Cows/worker	38	47	43	42	36
Pounds of milk sold/worker	839,382	1,101,363	1,008,456	918,808	789,509
% grain & conc. of milk receipts	24%	23%	23%	23%	27%
Feed & crop expense/cwt. milk	$6.05	$5.92	$6.06	$6.24	$6.78
Fertilizer & lime/crop acre[69]	$39.74	$46.61	$28.39	$39.76	$40.63
Machinery cost/tillable acre[69]	$316	$365	$302	$306	$314

[69]Excludes farms that do not harvest forages.

Figure 2.

Percent Change in Milk Production, Five Regions in New York, 1997-2007

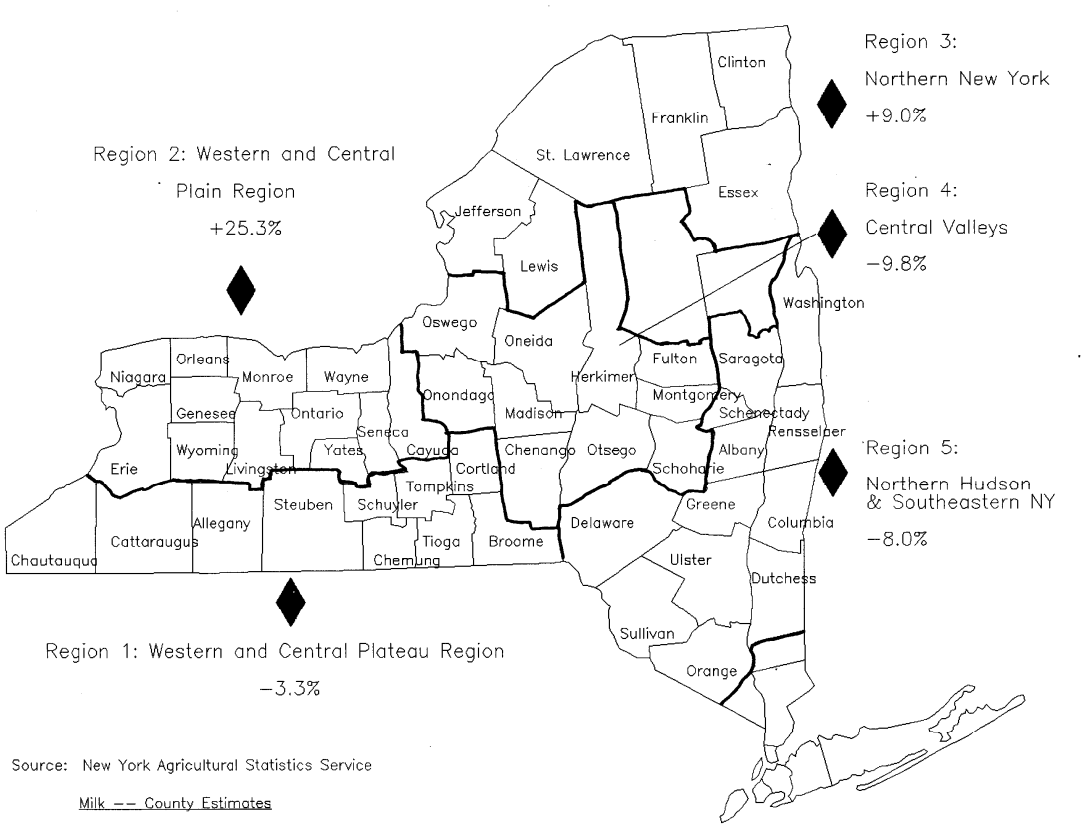


Table 72.

MILK PRODUCTION & AVERAGE COST OF PRODUCING MILK
Five Regions of New York

Item	Region[70] 1	2	3	4	5
Milk Production[71]			(million pounds)		
1997	2,064.9	3,231.8	2,196.5	2,616.9	1,398.4
2007	1,996.5	4,050.5	2,393.5	2,360.0	1,286.0
Percent change	-3.3%	+25.3%	+9.0%	-9.8%	-8.0%
2007 Cost of Producing Milk[72]			($ per hundredweight milk)		
Operating cost	$13.37	$14.17	$13.51	$13.42	$14.78
Total cost	18.03	17.16	17.04	17.33	18.63
Average price received	20.62	20.09	20.06	20.77	20.95
Return per cwt. to operator labor, management & capital	$5.50	$4.53	$5.09	$5.98	$4.94

[70]See Figure 2 for region descriptions.
[71]Source: New York Agricultural Statistics Service, Milk-County Estimates.
[72]From Dairy Farm Business Summary data.

Table 73.

FARM BUSINESS SUMMARY AND FARM FAMILY FINANCIAL SITUATION
21 New York Dairy-Renter Farms,[73] 2007

ACCRUAL EXPENSES	
Labor: Hired	$31,922
Feed: Dairy grain & concentrate	103,317
Dairy roughage	7,978
Nondairy	127
Professional nutritional services	721
Machinery: Machinery hire, rent & lease	6,146
Machinery repairs & farm vehicle expense	23,778
Fuel, oil, grease	17,063
Livestock: Replacement livestock	1,199
Breeding	5,286
Veterinary & medicine	12,276
Milk marketing	19,350
Bedding	3,962
Milking supplies	9,355
Cattle lease & rent	0
Custom boarding	2,536
bST expense	3,075
Livestock professional fees	1,439
Other livestock expense	4,674
Crops: Fertilizer & lime	8,779
Seeds & plants	4,953
Spray & other crop expense	4,158
Crop professional fees	553
Real estate: Land, building & fence repair	4,259
Taxes	2,359
Rent & lease	23,083
Other:	
Insurance	4,037
Utilities (farm share)	12,870
Interest paid	7,121
Miscellaneous	6,165
TOTAL OPERATING EXPENSES	$332,540
Expansion livestock	$12,394
Extraordinary expense	0
Machinery depreciation	12,277
Building depreciation	864
TOTAL ACCRUAL EXPENSES	$358,075

ACCRUAL RECEIPTS	
Milk sales	$413,717
Dairy cattle	14,235
Dairy calves	9,489
Other livestock	1,561
Crops	21,732
Government receipts	8,836
Custom machine work	2,391
Gas tax refund	248
Other	2,512
TOTAL ACCRUAL RECEIPTS	$474,721

PROFITABILITY ANALYSIS	
Net farm income (without appreciation)	$116,646
Net farm income (with appreciation)	$136,801
Labor & management income/farm	$92,384
Number of operators	1.50
Labor & management income/operator	$61,589
Rate of return on equity capital including appreciation	21.2%

BUSINESS FACTORS	
Number of cows	103
Number of heifers	81
Worker equivalent	3.16
Total tillable acres	303
Milk sold per cow, lbs.	19,370
Hay DM per acre, tons	2.0
Corn silage per acre, tons	14.8
Milk sold per worker, lbs.	633,525
Grain & concentrate as % milk sales	24%
Feed & crop expense/cwt. milk	$6.49
Labor & machinery costs/cow	$1,465
Average price/cwt. milk	$20.70

ASSETS	Jan. 1	Dec. 31
Farm cash, checking & savings	$4,715	$18,427
Accounts receivable	20,428	33,090
Prepaid expenses	0	1,571
Feed & supplies	50,671	86,902
Livestock[74]	228,139	251,053
Machinery & equipment[74]	121,228	139,423
Farm Credit stock	191	191
Other stock & certificates	30,728	34,516
Land & buildings[74]	18,089	21,486
Total Farm Assets	$474,187	$586,660
Nonfarm Assets[76]	55,239	61,219
Farm & Nonfarm Assets	$529,426	$647,879

LIABILITIES	Jan. 1	Dec. 31
Current	$35,528	$39,612
Intermediate[75]	79,847	80,817
Long term[74]	9,757	11,201
Total Farm Liabilities	$125,131	$131,629
Nonfarm Liabilities[76]	19,577	18,350
Farm & Nonfarm Liabilities	$144,708	$149,979
Farm Net Worth	$349,056	$455,031
Farm & Nonfarm Net Worth	$384,718	$497,901

[73]A renter owns no farm real estate or tillable land at the end of year.
[74]Includes discounted lease payments.
[75]Includes Farm Credit stock and discounted lease payments for cattle and machinery.
[76]Average of 7 farms reporting.

Table 74.

FARM BUSINESS SUMMARY AND FARM FAMILY FINANCIAL SITUATION
Average of 25 Top Ten Percent Farms by Rate of Return on All Capital
(without appreciation), 2007

ACCRUAL EXPENSES	
Labor: Hired	$402,390
Feed: Dairy grain & concentrate	760,552
Dairy roughage	38,585
Nondairy	38
Professional nutritional services	613
Machinery: Machinery hire, rent & lease	62,694
Machinery repairs & farm vehicle expense	108,435
Fuel, oil, grease	92,136
Livestock: Replacement livestock	206
Breeding	31,711
Veterinary & medicine	81,830
Milk marketing	128,549
Bedding	48,344
Milking supplies	56,832
Cattle lease & rent	3,724
Custom boarding	38,497
bST expense	40,515
Livestock professional fees	5,852
Other livestock expense	6,717
Crops: Fertilizer & lime	45,690
Seeds & plants	37,668
Spray & other crop expense	31,595
Crop professional fees	6,564
Real estate: Land, building & fence repair	51,484
Taxes	24,237
Rent & lease	36,380
Other:	
Insurance	22,531
Utilities (farm share)	59,467
Interest paid	86,994
Miscellaneous	26,192
TOTAL OPERATING EXPENSES	$2,337,021
Expansion livestock	$16,458
Extraordinary expense	239
Machinery depreciation	96,804
Building depreciation	69,674
TOTAL ACCRUAL EXPENSES	$2,520,196

ACCRUAL RECEIPTS	
Milk sales	$3,210,031
Dairy cattle	188,775
Dairy calves	27,060
Other livestock	110
Crops	112,601
Government receipts	33,599
Custom machine work	7,223
Gas tax refund	137
Other	30,470
TOTAL ACCRUAL RECEIPTS	$3,610,006

PROFITABILITY ANALYSIS	
Net farm income (without appreciation)	$1,089,809
Net farm income (with appreciation)	1,253,697
Labor & management income/operator	499,476
Rate of return on equity capital without appreciation	30%
Rate of return on all capital without appreciation	23%

BUSINESS FACTORS	
Number of cows	612
Number of heifers	494
Worker equivalent	13.50
Total tillable acres	1,187
Milk sold per cow, lbs.	25,239
Hay DM per acre, tons	2.9
Corn silage per acre, tons	18.5
Milk sold per worker, lbs.	1,144,463
Grain & concentrate as % milk sales	24%
Feed & crop expense/cwt. milk	$5.96
Labor & machinery costs/cow	$1,410
Average price/cwt. milk	$20.78

ASSETS	Jan. 1	Dec. 31
Farm cash, checking & savings	$ 44,755	$30,795
Accounts receivable	152,442	283,467
Prepaid expenses	3,819	7,785
Feed & supplies	472,877	743,498
Livestock[77]	1,234,120	1,405,809
Machinery & equipment[77]	654,720	806,558
Farm Credit stock	5,891	1,386
Other stock & certificates	117,025	132,952
Land & buildings[77]	158,0346	1,802,117
Total Farm Assets	$4,265,996	$5,214,366
Nonfarm Assets[79]	301,337	331,682
Farm & Nonfarm Assets	$4,567,333	$5,546,048

LIABILITIES	Jan. 1	Dec. 31
Current	$298,280	$373,509
Intermediate[78]	652,486	538,097
Long-term[77]	537,285	565,932
Total Farm Liabilities	$1,488,051	$1,477,537
Nonfarm Liabilities[79]	922	2,928
Farm & Nonfarm Liabilities	$1,488,973	$1,480,465
Farm Net Worth	$2,777,945	$3,736,828
Farm & Nonfarm Net Worth	$3,078,360	$4,065,582

[77]Includes discounted lease payments.
[78]Includes Farm Credit Stock and discounted lease payments for cattle and machinery.
[79]Average of 7 farms reporting.

Table 75.

FARM BUSINESS SUMMARY AND FARM FAMILY FINANCIAL SITUATION
Average of 250 New York Dairy Farms, 2007

ACCRUAL EXPENSES	
Labor: Hired	$222,060
Feed: Dairy grain & concentrate	401,476
Dairy roughage	26,633
Nondairy	468
Professional nutritional services	338
Machinery: Machinery hire, rent & lease	33,094
Machinery repairs & farm vehicle expense	71,540
Fuel, oil, grease	55,104
Livestock: Replacement livestock	6,125
Breeding	20,033
Veterinary & medicine	53,472
Milk marketing	66,167
Bedding	25,894
Milking supplies	33,236
Cattle lease & rent	1,371
Custom boarding	23,378
bST expense	20,612
Livestock professional fees	4,554
Other livestock expense	7,192
Crops: Fertilizer & lime	33,314
Seeds & plants	23,091
Spray & other crop expense	17,736
Crop professional fees	2,072
Real estate: Land, building & fence repair	26,187
Taxes	18,927
Rent & lease	23,374
Other:	
Insurance	15,728
Utilities (farm share)	36,341
Interest paid	67,977
Miscellaneous	17,505
TOTAL OPERATING EXPENSES	$1,354,999
Expansion livestock	$10,427
Extraordinary expense	582
Machinery depreciation	68,060
Building depreciation	40,914
TOTAL ACCRUAL EXPENSES	$1,474,982

ACCRUAL RECEIPTS	
Milk sales	$1,674,170
Dairy cattle	94,756
Dairy calves	11,592
Other livestock	3,312
Crops	49,268
Government receipts	24,801
Custom machine work	3,063
Gas tax refund	285
Other	24,092
TOTAL ACCRUAL RECEIPTS	$1,885,340

PROFITABILITY ANALYSIS	
Net farm income (without appreciation)	$410,358
Net farm income (with appreciation)	556,376
Labor & management income/operator	189,019
Rate of return on equity capital without appreciation	17.0%
Rate of return on all capital without appreciation	13.4%

BUSINESS FACTORS	
Number of cows	358
Number of heifers	289
Worker equivalent	8.40
Total tillable acres	758
Milk sold per cow, lbs.	22,983
Hay DM per acre, tons	3.0
Corn silage per acre, tons	18.9
Milk sold per worker, lbs.	980,234
Grain & concentrate as % milk sales	24%
Feed & crop expense/cwt. milk	$6.13
Labor & machinery costs/cow	$1,492
Average price/cwt. milk	$20.34

ASSETS	Jan. 1	Dec. 31
Farm cash, checking & savings	$17,911	$18,215
Accounts receivable	80,453	143,657
Prepaid expenses	1,821	4,625
Feed & supplies	247,017	346,900
Dairy cows[80]	473,141	537,563
Heifers	272,305	314,613
Bulls & other livestock	4,221	4,519
Machinery & equipment[80]	486,514	551,014
Farm Credit stock	3,607	982
Other stock & certificates	56,469	66,032
Land & buildings[80]	1,149,468	1,254,370
Total Farm Assets	$2,792,927	$3,242,490
Nonfarm Assets[82]	277,666	291,594
Farm & Nonfarm Assets	$3,070,593	$3,534,084

LIABILITIES	Jan. 1	Dec. 31
Accounts payable	$52,183	$33,937
Operating debt	56,994	60,463
Short-term	6,546	4,197
Advanced gov't receipts	0	19
Current Portion:		
Intermediate	77,908	87,466
Long Term	24,198	27,480
Intermediate[81]	446,973	425,708
Long-term[80]	380,995	402,564
Total Farm Liabilities	$1,045,797	$1,041,835
Nonfarm Liabilities[82]	2,048	2,433
Farm & Nonfarm Liabilities	$1,047,845	$1,044,268
Farm Net Worth	$1,747,129	$2,200,655
Farm & Nonfarm Net Worth	$2,022,747	$2,489,816

[80]Includes discounted lease payments.
[81]Includes Farm Credit stock and discounted lease payments for cattle and machinery.
[82]Average of 107 farms reporting.

APPENDIX

PRICES, COSTS AND TRENDS

IN THE NEW YORK DAIRY INDUSTRY

The prices dairy farmers pay for a given quantity of goods and services has a major influence on farm production costs. The astute manager will keep close watch on unit costs and utilize the most economical goods and services.

Table A1.

PRICES PAID BY NEW YORK FARMERS FOR SELECTED ITEMS, 1993-2007

Year	Mixed Dairy Feed 16% Protein[83] ($/ton)	Fertilizer, Urea 45-46%N[83] ($/ton)	Seed Corn, Hybrid[84] ($/80,000 kernels)	Diesel Fuel[83] ($/gal)	Tractor 50-59 PTO[84] ($)	Wage Rate All Hired Farm Workers[85] ($/hr)
1993	171	226	72.70	0.900	19,200	6.76
1994	181	233	73.40	0.853	19,800	6.96
1995	175	316	77.10	0.850	20,100	6.92
1996	226	328	77.70	1.020	20,600	7.19
1997	216	287	83.50	0.960	21,200	7.63
1998	199	221	86.90	0.810	21,800	7.63
1999	175	180	88.10	0.750	21,900	8.12
2000	174	201	87.50	1.270	21,800	8.74
2001	176	270	92.20	1.260	22,000	8.72
2002	178	232	92.00	1.028	21,900	9.26
2003	194	283	102.00	1.516	21,300	9.93
2004	207	299	105.00	1.400	21,500	9.96
2005	190	365	111.00	2.020	23,400	9.88
2006	239	403	118.00	2.355	23,700	10.35
2007	300	480	133.00	3.773	24,300	10.49

SOURCE: NYASS, New York Agricultural Statistics. USDA, NASS, Agricultural Prices.
[83]Northeast region average. [84]United States average. [85]New York and New England combined.

Inflation, farm profitability, supply and demand all have a direct impact on the inventory values on New York dairy farms. The table below shows year-end (December) prices paid for dairy cows (replacements), an index of these cow prices, an index of new machinery prices (U.S. average), the average per acre value of farmland and buildings reported in January and an index of the real estate prices.

Table A2.

VALUES AND INDICES OF NEW YORK DAIRY FARM INVENTORY ITEMS, 1991-2007

	Dairy Cows		Machinery[86]	Farm Real Estate[87]	
Year	Value/Head	1977=100	1977=100	Value/Acre	1977=100
1991	1,040	210	219	1,095	187
1992	1,090	220	226	1,139	194
1993	1,100	222	235	1,237	211
1994	1,100	222	249	1,260	215
1995	1,010	204	258	1,280	218
1996	1,030	208	268	1,260	215
1997	980	198	276	1,250	213
1998	1,050	212	286	1,280	218
1999	1,250	253	294	1,340	228
2000	1,250	253	301	1,430	244
2001	1,600	323	312	1,520	259
2002	1,400	283	320	1,610	274
2003	1,300	263	325	1,700	290
2004	1,580	319	351	1,780	303
2005	1,690	341	373	1,920	327
2006	1,550	313	392	2,050	349
2007	1,930	390	412	2,220	378

SOURCE: NYASS, New York Agricultural Statistics and New York Crop and Livestock Report. USDA, ASB, Agricultural Prices.
[86]United States average; 1995 - 2007 are estimated due to discontinuation of 1977=100 series.

[87]New York average for 2000-2007 excludes Native American Reservation land.

Table A3.

NUMBER OF DAIRY FARMS AND MILK COWS BY SIZE OF HERD
New York State, 2007 [88]

Size of Herd	Farms		Milk Cows	
(Number of Cows)	(Number)	(Percent of Total)	(Number)	(Percent of Total)
1 - 29	1,300	21.0%	12,500	2.0%
30-49	1,300	21.0%	50,000	8.0%
50-99	2,100	33.9%	138,000	22.0%
100-199	890	14.3%	113,000	18.0%
200-499	410	6.6%	125,000	20.0%
500-749	95	1.5%	56,000	9.0%
750-999	43	0.7%	34,500	5.5%
1000-1499	38	0.6%	44,000	7.0%
1500 - 1999	9	0.15%	14,000	2.2%
2000 or more	15	0.25%	40,000	6.3%
Total	6,200	100.0%	627,000	100.0%

[88]This information on number of farms and number of cows by size of herd is derived from several sources:

- Dairy Statistics as published by the New York Agricultural Statistics Services for 2007.
- CAFO (Concentrated Animal Feeding Operations) permit reports for 2007. Some small CAFO farms (farms with 200 to 700 milk cows) have not applied for or updated the permit. Estimates for these farms were made so as to reflect the total number of dairy farms in New York State.

[89]The author wishes to thank everyone who provided some data as well as providing valuable advice and perspectives: Lee Telega, Jacqueline Lendrum, and B. F. Stanton. However, any errors, omissions or misstatements are solely the responsibility of the author, Professor George Conneman, e-mail gjc4@cornell.edu

In 2007, there were 6,200 dairy farms in New York State, and 627,000 milk cows as reported by the NYASS. The table above was prepared based on the NYASS data plus the CAFO permit filing for additional herd size categories.

Ninety percent of the farms (less than 200 cows per farm) had 50 percent of the milk cows. The remaining ten percent of the farms had 50 percent of the cows.

About 3 percent of the farms (those with 500 or more cows) had 30 percent of the cows.

Farms with less than 50 cows represent 42 percent of all farms but kept only 10 percent of the cows.

Farms with 1,000 or more cows represent about 1 percent of the farms but kept over 15 percent of the cows.

GLOSSARY AND LOCATION OF COMMON TERMS

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 Accounting: (defined on page 9).

Accrual Expenses: (defined on page 11).

Accrual Receipts: (defined on page 11).

Annual Cash Flow Statement: (defined on page 18).

Appreciation: (defined on page 12).

Asset Turnover Ratio: (defined on page 42).

Available for Debt Service per Cow: Net cash available for debt service after deducting net personal withdrawals for family expenditures, divided by the average number of cows.

Average Top 10% Farms: Average of 25 farms with highest rate of return on all capital (without appreciation).

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.

Barn Types: Stanchion: cows are confined in a stall by a stanchion or neck chain. Freestall: cows move at will between open stalls and feeding areas. Combination: both stanchion and freestall barns used.

bST Usage: An estimate of percentage of herd that was injected with bovine somatotropin during the year.

Business Records: Account Book: any organized farm record book or ledger. Accounting Service: any hired recordkeeping service. On-Farm Computer: computerized business and financial records entered and kept on the farm. Other: accountant, recordkeeping association or no organized recordkeeping system.

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. (See analysis, page 42).

Capital Investment: Commonly used as substitute term for farm capital or total farm assets.

Cash Flow: The movement of money in and out of the business over a given period of time, e.g. one year. (See Annual Cash Flow Statement, page 18).

Cash Flow Coverage Ratio: (defined on page 20).

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 Paid: (defined on page 10).

Cash Receipts: (defined on page 11).

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

Change in Accounts Receivable: (defined under Accrual Receipts on page 11).

Change in Advanced Government Receipts: (defined under Accrual Receipts page 11).

Change in Inventory: (defined on page 10).

Corporation: Business is organized under state corporation law. Corporation is owned, operated, and managed by members of one or more farm families and owner/operators are corporate employees. Corporate accounts are modified to exclude operator wages' and other compensation from operating expenses for DFBS use.

Cost of Producing Milk, 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. (see page 28).

Cost of Term Debt: A weighted average of the cost of borrowed intermediate and long term capital used on 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, operating debt or advanced government receipts. This information is found on pages 8 & 9 of the data entry form.

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 (assets and liabilities): Farm inventories and operating capital that usually turnover annually, and the debt expected to be repaid within 12 months.

Current Portion: Principal due in the next year for intermediate and long term debt.

Current Ratio: Measures the extent to which current farm assets, if liquidated, would cover current farm liabilities. Calculated as current farm assets at end year divided by current farm liabilities at end year.

Dairy Cash-Crop (farm): Operating and managing this farm is the full-time occupation of one or more people, cropland is owned but crop sales exceed ten percent of accrual milk receipts.

Dairy Farm Renter: (dairy-renter) - Farm business owner/operator owns no tillable land and commonly rents all other farm real estate.

Dairy Grain and Concentrate: All grains, protein supplements, milk substitutes, minerals and vitamins purchased and fed to the dairy herd.

Dairy Records: DHIC: Dairy Herd Improvement Cooperative official milk production records. Owner Sampler: weights and samples are taken by farmer but tested by DHIC. Other: all other methods used to obtain periodic production data on individual cows. None: no milk production records on individual cows.

Dairy Roughage: All hay, silage or other fodder purchased and fed to the dairy herd.

Death Rate: The percentage of the average number of milking and dry cows that died during the year.

Debt Coverage Ratio: (defined on page 20)

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

Debt to Asset Ratios: (defined on page 16).

Depreciation Expense Ratio: The percentage of total accrual receipts that is charged to depreciation expense (machinery and building).

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: (defined on page 9).

Farm Business Chart: (see definition and application on page 44).

Farm Capital: Average total farm assets.

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 pages 20 & 47.

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 on page 47.

Financial Lease: A long-term non-cancelable contract giving the lessee 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.

Hay Crop: All hay land, including new seedings, harvested once or more per year as hay or hay crop silage.

Hay Dry Matter: see Dry Matter.

Heifers: Female dairy replacements of all ages.

Hired Labor (expenses): All wages, non-wage compensation, payroll taxes, benefits, and perquisites paid employees.

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 by accrual milk sales.

Hired Labor Expense per Hired Worker Equivalent: The total cost to the farm per hired worker equivalent. Divide accrual hired labor expense by number of hired plus family paid worker equivalents.

Income Statement: A complete and accurate account of accrual adjusted farm business receipts and expenses used to measure net income over a period of time such as one year or one month.

Intensive Grazing: The dairy herd is on pasture at least three months of the year, changing paddocks at least every three days and percent of forage from pasture is at least 30 percent.

Interest Expense Ratio: The percentage of total accrual receipts that is used for interest expense

Intermediate (assets and liabilities): Farm business property and associated debt that is turned over from one to ten years.

Labor and Management Income: (defined on page 13).

Labor and Management Income Per Operator: (defined on page 13).

Labor Efficiency: Production capacity and output per worker. (See analysis on pages 42 and 43).

Labor Force: Operator(s): Person or persons that run the farm and make the management decisions. An operator does not have to be a farm owner. Family Paid: all family members, excluding operators, that are paid for working on the farm. Family Unpaid: all family members, excluding the operators, that are not paid for farm work performed.

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

Leverage Ratio: (defined on pages 16 and 47).

Long-Term (assets and liabilities): Farm real estate and associated debt with typical life of ten or more years.

Milk Marketing (expenses): Milk hauling fees and charges, co-op dues, milk advertising and promotion expenses.

Milking Frequency: 2X/day: all cows were milked two times per day for the entire year. 3X/day: all cows were milked three times per day for the entire year. Other: any combination of 2X, 3X, and more frequent milking.

Milking Systems: Bucket and Carry: milk is transferred manually from milking unit to pail to tank. Dumping Station: milk is dumped from milking unit into transfer station and then pumped to tank. Pipeline: milking units are connected directly to milk transfer lines. Herringbone, parallel, parabone, and rotary parlors are identified specifically. Other Parlors would include milking systems such as flat barn parlors.

Net Farm Income: (defined on page 12).

Net Farm Income from Operations Ratio: (defined on page 14)

Net Milk Income over Purchased Concentrate Per Cow: Milk receipts less milk marketing expense less purchased grain and concentrate expense, all divided by average number of cows.

Net Milk Receipts: The mail box price received by farmers before any farmer authorized assignment or deductions.

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

Nondairy Feed: All grain, concentrates, and roughage purchased and fed to nondairy livestock.

Nonfarm Noncash Capital: (defined on page 11).

Nontillable Pasture: Permanent or semi-permanent pasture land that is not be included in a regular crop rotation.

Operating Costs of Producing Milk: (defined on page 31).

Operating Expense Ratio: The percentage of total accrual receipts that is used for operating expenses, excluding interest and depreciation.

Opportunity Cost: 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 Forage: All forage crops harvested but not included as hay crops or corn silage, e.g. oats, barley, and sudan grass harvested as roughage.

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

Owner/Operator Resources Per Hundredweight: The total value of equity, management, and labor contributed to the farm from all owner/operators. This measure is calculated by adding the interest on equity capital to the value of labor and management for all owner/operators and dividing by the hundredweight milk produced during the year.

Part-Time Dairy (farm): Dairy farming is the primary enterprise, cropland is owned but operating and managing this farm is not a full-time occupation for one or more people.

Partnership: Business is owned by two or more individuals who share profits according to their contribution of labor, management, and capital.

Percent of Heifer Inventory Custom Inventory: The percent of current heifer inventory owned by the farm that is being custom raised off the farm.

Percent of Replacements Purchased: The percent of animals in the herd that calved for replacement purposes (not expansion cattle) that were different genetic background than your herd and were purchased.

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.

Premium: In milk marketing this typically refers to the amount paid for milk in addition to the minimum regulated price. Premiums may be paid to the producer or cooperative supplier of milk by a buyer depending on a variety of criteria such as milk quality, composition, quantity supplied, or services provided. They may also represent market supply/demand conditions not adequately accounted for in the regulated price.

Prepaid Expenses: (defined on page 11).

Producer Price Differential: Under Federal Order markets with multiple component pricing, it is the residual value (per hundredweight) of the pool after deducting component payments (protein, butterfat, and other solids) to producers. This residual value will vary between market orders and from month-to-month based on the utilization of the various classes and class price. It is possible that the PPD can even be negative at times if, for example, the class III price exceeds the class I price.

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 costs including the opportunity costs of the owner/manager's labor, management, and equity capital.

Purchased Inputs Costs of Producing Milk: (defined on page 31).

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 14).

Return to all Capital: (defined on page 14).

Sell Rate: The percentage of the average number of milking and dry cows that were sold for culling reasons. Animals that were sold as replacement stock to other dairy farms is not included in this number.

Sole Proprietorship: Business is owned by one individual but there may be more than one operator.

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

Specialized 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.

Statement of Owner Equity (reconciliation): (defined on page 17).

Taxes (expenses): Real estate taxes (school, town, and county). Payroll taxes are included as a hired labor expense. Income and self-employment taxes are a personal expense for all noncorporate taxpayers.

Tillable Acres: All acres that are normally cropped including hay land that is pastured. Acres that are doubled cropped are counted once.

Tillable Pasture: Hay crop acreage currently used for grazing that could be tilled in a regular cropping sequence.

Total Costs of Producing Milk: (defined on page 31).

Value of Calf Sold: The average value received for bull and heifer calves sold as calves during the year.

Value of Cow Sold: The average value received for animals that were sold for culling reasons.

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 Equivalent: The number of full-time workers equivalent to all the full and part-time people working throughout the year. Operator and family labor is included. Worker equivalents are determined by converting all work to full-time months (based on a 230 hours per month) and dividing by 12.

Working Capital: A theoretical measure of the amount of funds available to purchase inputs and inventory items after the sale of current farm assets and payment of all current farm liabilities. Calculated as current farm assets at end year less current farm liabilities at end year.

OTHER A.E.M. RESEARCH BULLETINS

RB No	Title	Fee (if applicable)	Author(s)
2008-02	100 Years of Dairy Farming: Town of Dryden, Tompkins County		Stanton, B., Conneman, G., Crispell, C. and S. Smith
2008-01	The New York State Agricultural Immigration and Human Resource Management Issues Study		Maloney, T. and N. Bills
2007-01	Dairy Farm Management Business Summary, New York State, 2006	($20.00)	Knoblauch, W., Putnam, L. and J. Karszes
2006-07	Financial Performance and Other Characteristics of On-Farm Dairy Processing Enterprises in New York, Vermont and Wisconsin		Nicholson, C. and M. Stephenson
2006-06	Dairy Farm Management Business Summary, New York State, 2005	($20.00)	Knoblauch, W., Putnam, L. and J. Karszes
2006-05	Measuring the impacts of generic fluid milk in dairy marketing		Kaiser, H. and D. Dong
2006-04	2007 Farm Bill: Policy Options and Consequences for Northeast Specialty Crops Industries, Small Farms, and Sustainability Programs		Bills, N., Gloy, B., Uva, W., White, G. and M. Cheng
2006-03	Farm Savings Accounts for Specialty Crop Growers		Cheng, M. and B. Gloy
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