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**Six Year Trend Analysis 2023  
New York State Dairy Farms  
Selected Financial and Production Factors**

**Dairy Farm Business Summary  
New York State  
Same 118 Farms  
2018 - 2023**

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Six Year Trend Analysis 2023  
New York Dairy Farms  
Selected Financial and Production Factors  
Dairy Farm Business Summary  
New York State  
Same 118 Farms, 2018 – 2023

Jason Karszes<sup>1</sup>

Trend analysis is an important use of benchmarking within a dairy business. While current year performance is important, understanding longer-term trends within the business and the industry may provide additional insight into strengths and areas of opportunity. To provide benchmark trends of various financial and performance factors over time, data was utilized from 118 farms that have participated in the Dairy Farm Business Summary and Analysis Project (DFBS) in New York State for six years, from 2018 through 2023. This information is reported on an average basis, the top 25% of farms as determined by average return on assets w/o appreciation over the six years, and the remaining 75% of farms. For selected factors, the trends and changes between the top 25% of farms and the remaining 75% are highlighted. The following tables present these benchmarks:

Table 1	Selected Characteristics, Six Year Comparison, Average All 118 Farms
Table 2	Top 25% of Farms vs Remaining 75% of Farms, Percent Change and Differences
Table 3	Top 25% of Farms vs Remaining 75% of Farms, Selected Measures, Six Years
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Table 10	“Legal 21” Farm Financial Ratios, Same 118 Farms

To utilize these tables, place your number for the appropriate benchmark next to or below the corresponding number for the appropriate year. Once all six years are recorded, then you can compare your trends to the benchmark trends. If your trends are different than the industry, then you can ask the question: “Why is it different” to help identify potential areas of improvements or strengths to continue to build. If you are a DFBS cooperator, you can work with your extension educator to look at these trends and comparisons between all farms and your farm business.

Table 8 provides business charts for selected financial and production measures for the top 25% of farms and the remaining 75% for the 2023 business year. The five numbers in each column represent the average of each quintile of farms for that measure. With each column sorted independently, the numbers represent the range of performance for that measure and can be used to help identify areas of opportunities for improvement.

These benchmarks and comparisons are provided for use for comparison purposes only and represents the performance of those farms participating in the Dairy Farm Business Summary and Analysis Program in New York State. These numbers don’t represent the average for all dairy farms across New York and are from farms that are generally considered above average dairy farms in New York. No analysis or interpretation of these benchmarks and ratios are provided.

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<sup>1</sup> PRO-DAIRY Program, Department of Animal Science, Cornell University, Ithaca, NY



**Selected Characteristics, Six Year Comparison**  
**Same 118 Farms, 2018-2023**  
 New York State, Dairy Farm Business Summary & Analysis Program

**Table 1**

Size of Business	2018	2019	2020	2021	2022	2023	5 Year % Change <sup>1</sup>
average number of cows	1,089	1,153	1,198	1,227	1,258	1,296	19.0%
percent heifers to cows	84%	80%	78%	76%	75%	73%	
milk sold, pounds	28,197,269	30,385,631	31,596,108	33,195,356	34,137,374	35,624,465	26.3%
worker equivalent	22.1	22.7	23.0	22.9	23.3	24.1	
tillable acres per cow	1.85	1.80	1.81	1.82	1.80	1.80	-2.7%
corn grain acres per cow	0.21	0.12	0.14	0.19	0.18	0.19	
<b>Rates of Production</b>							
milk sold per cow, pounds	25,883	26,352	26,385	27,063	27,127	27,487	6.2%
cull rate	32%	34%	35%	35%	34%	33%	
net calf & cow sales, per cow	297	266	270	290	354	510	
<b>Labor Efficiency</b>							
cows per worker	49.3	50.9	52.2	53.6	53.9	53.9	9.3%
milk sold per worker, pounds	1,275,895	1,340,937	1,375,538	1,450,212	1,463,867	1,480,651	16.0%
<b>Cost Control and Milk Price</b>							
dairy feed & crop expense per cwt. milk	\$ 7.15	\$ 7.00	\$ 7.51	\$ 8.27	\$ 9.81	\$ 9.68	
labor and machinery costs per cow	\$ 1,677	\$ 1,677	\$ 1,720	\$ 1,752	\$ 1,825	\$ 2,091	
hired labor cost per cwt.	\$ 2.95	\$ 2.95	\$ 3.07	\$ 3.06	\$ 3.24	\$ 3.39	
labor cost per hired worker equivalent	\$ 43,192	\$ 45,179	\$ 48,005	\$ 50,555	\$ 53,730	\$ 56,591	31.0%
operating cost of producing milk per cwt.	\$ 14.95	\$ 15.33	\$ 13.81	\$ 16.06	\$ 19.40	\$ 19.07	
purch. input cost of producing milk per cwt.	\$ 16.60	\$ 16.92	\$ 15.40	\$ 17.59	\$ 21.07	\$ 20.85	
total cost of producing milk per cwt.	\$ 18.80	\$ 19.03	\$ 17.62	\$ 19.86	\$ 23.51	\$ 23.39	
net milk price per cwt.	\$ 16.10	\$ 18.28	\$ 17.26	\$ 18.45	\$ 25.31	\$ 20.85	
<b>Capital Efficiency(average for year)</b>							
farm capital per cow	\$ 11,704	\$ 11,430	\$ 11,859	\$ 12,463	\$ 13,509	\$ 14,471	23.6%
machinery and equipment per cow	\$ 1,771	\$ 1,717	\$ 1,786	\$ 1,885	\$ 2,088	\$ 2,325	
net reinvestment per cow	\$ (591)	\$ (584)	\$ (860)	\$ (798)	\$ (1,252)	\$ (1,171)	
<b>Profitability</b>							
net farm income without appreciation	\$ 187,562	\$ 762,755	\$ 1,001,849	\$ 734,347	\$ 2,025,630	\$ 677,906	
net farm income w/o apprec. per cow	\$ 172	\$ 661	\$ 837	\$ 599	\$ 1,610	\$ 523	
labor & management income per oper.	\$ (96,177)	\$ 133,273	\$ 213,405	\$ 84,059	\$ 589,066	\$ 4,667	
rate of return on equity capital w/o apprec.	-0.1%	6.4%	8.1%	4.8%	15.0%	3.3%	
rate of return on all capital w/o apprec.	1.5%	5.9%	6.8%	4.3%	11.7%	4.0%	
<b>Financial Summary</b>							
farm net worth, end of year	8,330,353	9,079,612	10,275,462	10,914,756	12,920,342	13,838,264	61.9%
debt to asset ratio	0.35	0.33	0.30	0.31	0.29	0.29	
farm debt per cow	\$ 3,991	\$ 3,784	\$ 3,683	\$ 3,944	\$ 4,017	\$ 4,360	9.3%
retained earnings	\$ (81,154)	\$ 462,534	\$ 722,745	\$ 331,246	\$ 1,545,238	\$ 229,830	
valuation equity change	\$ (252,377)	\$ 230,772	\$ 90,710	\$ 243,330	\$ 316,139	\$ 681,439	

<sup>1</sup>The percent change in value from the average value in 2018 to the average value in 2023

**Table 2**

**Top 25% of Farms vs. Remaining 75% of Farms**  
**Percent Change and Differences, Selected Measures**  
**Same 118 Farms, 2018 - 2023**  
**Dairy Farm Business Summary, New York State**

	2018	2023	Change	Percent Change	Percent Difference <sup>1</sup>	
					2018	2023
Average Herd Size, Milking & Dry						
Top 25%	1,547	1,909	362	23.4%	65.8%	75.6%
75%	933	1,087	154	16.5%		
Milk per Cow, Lbs.						
Top 25%	26,261	28,158	1,897	7.2%	2.3%	4.0%
75%	25,669	27,085	1,416	5.5%		
Milk Sold per Farm, Lbs.						
Top 25%	40,634,826	53,741,340	13,106,514	32.3%	69.6%	82.5%
75%	23,957,193	29,448,257	5,491,064	22.9%		
Components per Cow per Year, Lbs <sup>2</sup>						
Top 25%	1,830	2,082	251	13.7%	1.8%	3.8%
75%	1,799	2,004	206	11.4%		
Cows per Worker						
Top 25%	53.2	60.0	6.81	12.8%	12.4%	18.3%
75%	47.3	50.7	3.41	7.2%		
Milk Sold per Worker, Lbs.						
Top 25%	1,397,346	1,689,448	292,102	20.9%	15.0%	22.9%
75%	1,215,484	1,374,802	159,318	13.1%		
Hired Labor Cost per Cwt.						
Top 25%	\$2.74	\$3.06	\$0.32	11.6%	-10.8%	-14.7%
75%	\$3.07	\$3.59	\$0.51	16.7%		
Cost per Hired Worker						
Top 25%	\$42,211	\$56,540	\$14,329	33.9%	-3.4%	-0.1%
75%	\$43,714	\$56,618	\$12,905	29.5%		
Investment Per Cow						
Top 25%	\$10,539	\$13,702	\$3,162	30.0%	-14.7%	-8.2%
75%	\$12,362	\$14,931	\$2,569	20.8%		
Machinery Investment per Cow						
Top 25%	\$1,486	\$2,022	\$535.67	36.0%	-23.1%	-19.3%
75%	\$1,932	\$2,506	\$573.45	29.7%		
Debt Per Cow, End of Year						
Top 25%	\$3,354	\$3,237	-\$117.00	-3.5%	-23.0%	-35.6%
75%	\$4,354	\$5,030	\$676.00	15.5%		
Net Worth, Beginning of 2018 to End of 2023						
Top 25%	\$11,120,053	\$20,980,489	\$9,860,436	88.7%	45.0%	84.0%
75%	\$7,670,700	\$11,403,415	\$3,732,715	48.7%		

<sup>1</sup> The percent difference between the top 25% and the remaining 75% of farms for the year

<sup>2</sup> For farms reporting milk check detail for the year

**Table 3**

## Top 25% of Farms vs. Remaining 75% of Farms

Selected Measures, Six Year Comparison

Same 118 Farms, 2018 - 2023

Dairy Farm Business Summary, New York State

	2018	2019	2020	2021	2022	2023
<b>Net Investment Per Cow<sup>1</sup></b>						
Top 25%	\$693	\$659	\$794	\$811	\$1,315	\$1,041
75%	\$534	\$540	\$901	\$792	\$1,213	\$1,249
<b>Farm Capital per Cow</b>						
Top 25%	\$10,539	\$10,291	\$10,589	\$11,287	\$12,527	\$13,702
75%	\$12,362	\$12,090	\$12,623	\$13,174	\$14,102	\$14,931
<b>Tillable Acres per Cow</b>						
Top 25%	1.60	1.53	1.51	1.53	1.56	1.56
75%	1.92	1.89	1.92	1.93	1.89	1.88
<b>Corn Grain Acres per Cow</b>						
Top 25%	0.14	0.09	0.08	0.13	0.13	0.14
75%	0.26	0.13	0.18	0.22	0.21	0.22
<b>Crop Revenue, Per Cow</b>						
Top 25%	\$147	\$29	\$47	\$217	\$155	\$211
75%	\$98	\$61	\$108	\$276	\$189	\$199
<b>Cull Rate, Percent</b>						
Top 25%	29%	34%	34%	33%	34%	34%
75%	34%	35%	36%	36%	33%	33%
<b>Net Calf &amp; Cow Income, per Cow<sup>2</sup></b>						
Top 25%	\$322	\$256	\$249	\$286	\$349	\$520
75%	\$282	\$272	\$282	\$291	\$358	\$505
<b>Percent Heifers to Cows</b>						
Top 25%	83%	78%	73%	73%	71%	70%
75%	85%	82%	81%	79%	77%	75%
<b>Operating Cost to Produce Milk per Cwt.<sup>3</sup></b>						
Top 25%	\$14.19	\$14.81	\$15.07	\$15.62	\$18.38	\$17.83
75%	\$15.39	\$15.65	\$16.21	\$16.33	\$20.05	\$19.84
<b>Total Cost to Produce Milk per Cwt.</b>						
Top 25%	\$17.64	\$18.15	\$18.45	\$19.09	\$22.17	\$21.92
75%	\$19.48	\$19.55	\$20.28	\$20.33	\$24.36	\$24.31
<b>Net Farm Income Per Cow</b>						
Top 25%	\$411	\$864	\$1,073	\$756	\$2,007	\$885
75%	\$37	\$544	\$694	\$504	\$1,369	\$306
<b>Net Milk Price per Cwt.</b>						
Top 25%	\$16.05	\$18.35	\$17.42	\$18.46	\$25.52	\$20.91
75%	\$16.12	\$18.23	\$17.16	\$18.45	\$25.18	\$20.81
<b>Farm Operating Receipts per Cwt.</b>						
Top 25%	\$19.99	\$21.56	\$22.56	\$22.39	\$29.94	\$26.17
75%	\$19.66	\$21.60	\$23.08	\$22.93	\$29.97	\$26.36
<b>Working Capital as Percent of Expenses</b>						
Top 25%	26%	29%	37%	37%	45%	44%
75%	19%	22%	26%	26%	29%	23%

<sup>1</sup>Net investment per cow is the total capital invested in the farm minus any capital sales

<sup>2</sup>Net calf & cow income, per cow = cattle revenue plus calf revenue - purchased replacement - expansion cattle expense

<sup>3</sup>Due to the pandemic and the government response, the increase in government receipts from 2019 to 2020 was unusually large. Therefore, this change isn't included as an offset to the cost of production measures for 2020 in this report.

**Table 3 Continued**

	2018	2019	2020	2021	2022	2023
Hired Labor Cost per Cwt.						
Top 25%	\$2.74	\$2.69	\$2.75	\$2.76	\$2.92	\$3.06
75%	\$3.07	\$3.10	\$3.27	\$3.25	\$3.44	\$3.59
Purchased Feed per Cwt.						
Top 25%	\$5.67	\$5.68	\$5.86	\$6.66	\$7.83	\$7.77
75%	\$5.77	\$5.64	\$6.13	\$6.66	\$7.77	\$7.70
Livestock Expenses per Cwt. <sup>4</sup>						
Top 25%	\$3.10	\$3.15	\$3.34	\$3.33	\$3.75	\$3.91
75%	\$3.07	\$3.16	\$3.35	\$3.38	\$4.05	\$4.36
Machinery & Fuel Expenses per Cwt. <sup>5</sup>						
Top 25%	\$1.76	\$1.83	\$1.84	\$1.96	\$2.54	\$2.47
75%	\$2.01	\$2.15	\$2.11	\$2.27	\$2.99	\$2.78
Machinery Depreciation Expense per Cwt.						
Top 25%	\$0.82	\$0.80	\$0.78	\$0.80	\$0.87	\$1.01
75%	\$0.92	\$0.88	\$0.91	\$0.83	\$0.92	\$0.99
Crop Input Costs per Cwt. <sup>6</sup>						
Top 25%	\$0.89	\$0.79	\$0.87	\$0.97	\$1.34	\$1.23
75%	\$1.14	\$1.06	\$1.15	\$1.26	\$1.65	\$1.49
Additional Fixed Costs per Cwt. <sup>7</sup>						
Top 25%	\$1.50	\$1.43	\$1.43	\$1.51	\$1.68	\$1.64
75%	\$1.50	\$1.54	\$1.67	\$1.65	\$1.89	\$1.85
Interest Costs per Cwt.						
Top 25%	\$0.59	\$0.58	\$0.39	\$0.31	\$0.39	\$0.57
75%	\$0.78	\$0.83	\$0.63	\$0.54	\$0.67	\$1.04
Total Farm Operating Expenses per Cwt.						
Top 25%	\$16.69	\$16.65	\$17.03	\$18.13	\$21.05	\$21.28
75%	\$17.68	\$17.82	\$18.70	\$19.36	\$22.88	\$23.33

<sup>4</sup>Livestock Expenses = sum of replacement livestock, breeding, vet, milk marketing, bedding, milking supplies, cattle lease, custom boarding, bST, livestock professional fees, and other livestock expenses categories

<sup>5</sup>Machinery & Fuel Expenses = sum of machine hire, rent, & lease, machine repairs & parts, and fuel, oil, & grease expense categories

<sup>6</sup>Crop Input Costs = sum of fertilizer & lime, seeds & plants, spray & other crop expenses, and crop, professional fees expense categories

<sup>7</sup>Fixed Costs = sum of land, building & fence repair, taxes, rent & lease, insurance, utilities, other professional fees, and miscellaneous expenses categories



**Six Year Per Cwt. Comparison**  
**Same 30 Farms, Top 25% Sorted by Return on Assets w/o Appreciation**  
 New York State, Dairy Farm Business Summary & Analysis Program

**Table 4**

	Year					
	2018	2019	2020	2021	2022	2023
number of cows	1,547	1,665	1,769	1,818	1,865	1,909
milk sales in pounds	40,634,826	44,576,361	47,707,589	50,088,186	52,052,521	53,741,340
milk per cow	26,261	26,775	26,963	27,547	27,916	28,158
<b>RECEIPTS</b>						
milk sales-\$	\$17.31	\$19.55	\$18.77	\$19.84	\$27.16	\$22.69
dairy cattle sales	\$1.36	\$1.15	\$1.00	\$1.01	\$1.19	\$1.38
dairy calf sales	\$0.09	\$0.08	\$0.16	\$0.23	\$0.39	\$0.71
other livestock sales	\$0.03	\$0.03	\$0.02	\$0.01	\$0.01	\$0.02
crop sales	\$0.56	\$0.11	\$0.17	\$0.79	\$0.55	\$0.75
government receipts	\$0.10	\$0.18	\$1.94	\$0.09	\$0.18	\$0.07
custom machine work	\$0.08	\$0.09	\$0.09	\$0.09	\$0.13	\$0.13
gas tax refund	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
other	\$0.45	\$0.35	\$0.40	\$0.32	\$0.32	\$0.42
non-cash transfer (subtract)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Farm operating receipts	\$19.99	\$21.56	\$22.56	\$22.39	\$29.94	\$26.17
<b>EXPENSES</b>						
Hired labor	\$2.74	\$2.69	\$2.75	\$2.76	\$2.92	\$3.06
Feed						
dairy grain & concentrate	\$5.67	\$5.68	\$5.86	\$6.66	\$7.83	\$7.77
dairy roughage	\$0.44	\$0.49	\$0.54	\$0.63	\$0.61	\$0.63
nondairy feed	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
professional nutritional services	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Machinery						
machine hire, rent & lease	\$0.48	\$0.55	\$0.58	\$0.61	\$0.68	\$0.70
machine repairs & parts	\$0.76	\$0.81	\$0.88	\$0.89	\$1.06	\$1.10
fuel, oil & grease	\$0.53	\$0.48	\$0.37	\$0.46	\$0.79	\$0.67





Table 4 Continued

	Year					
	2018	2019	2020	2021	2022	2023
<b>Livestock</b>						
replacement livestock	\$0.04	\$0.11	\$0.16	\$0.17	\$0.22	\$0.21
breeding fees	\$0.16	\$0.14	\$0.16	\$0.16	\$0.18	\$0.18
veterinary & medicine	\$0.56	\$0.52	\$0.50	\$0.52	\$0.54	\$0.52
milk marketing	\$1.26	\$1.20	\$1.35	\$1.38	\$1.64	\$1.78
bedding	\$0.32	\$0.32	\$0.32	\$0.32	\$0.36	\$0.37
milking supplies	\$0.27	\$0.31	\$0.31	\$0.30	\$0.34	\$0.36
cattle leased	\$0.00	\$0.01	\$0.02	\$0.00	\$0.02	\$0.02
custom boarding	\$0.38	\$0.40	\$0.37	\$0.31	\$0.28	\$0.28
bST	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
livestock, professional fees	\$0.05	\$0.05	\$0.06	\$0.06	\$0.06	\$0.07
other livestock expense	\$0.06	\$0.09	\$0.09	\$0.11	\$0.11	\$0.13
<b>Crops</b>						
fertilizer & lime	\$0.38	\$0.32	\$0.35	\$0.41	\$0.72	\$0.58
seeds & plants	\$0.33	\$0.31	\$0.34	\$0.37	\$0.41	\$0.40
spray & other crop expense	\$0.17	\$0.15	\$0.17	\$0.18	\$0.20	\$0.23
crop, professional fees	\$0.01	\$0.01	\$0.01	\$0.02	\$0.01	\$0.01
<b>Real estate</b>						
land, build., fence repair	\$0.26	\$0.27	\$0.30	\$0.30	\$0.41	\$0.34
taxes	\$0.22	\$0.21	\$0.21	\$0.22	\$0.21	\$0.20
rent & lease	\$0.30	\$0.27	\$0.29	\$0.30	\$0.26	\$0.29
<b>Other cash expense</b>						
insurance	\$0.16	\$0.17	\$0.16	\$0.15	\$0.19	\$0.19
utilities	\$0.37	\$0.30	\$0.29	\$0.36	\$0.43	\$0.43
interest paid	\$0.59	\$0.58	\$0.39	\$0.31	\$0.39	\$0.57
other, professional fees	\$0.11	\$0.10	\$0.09	\$0.07	\$0.09	\$0.10
miscellaneous	\$0.09	\$0.10	\$0.08	\$0.09	\$0.09	\$0.09
 Farm operating expenses	 \$16.69	 \$16.65	 \$17.03	 \$18.13	 \$21.05	 \$21.28
Expansion Cattle	\$0.19	\$0.17	\$0.07	\$0.04	\$0.11	\$0.03
Extraordinary Expense	\$0.01	\$0.02	\$0.01	\$0.00	\$0.00	\$0.00
Machinery Depreciation	\$0.82	\$0.80	\$0.78	\$0.80	\$0.87	\$1.01
Building Depreciation	\$0.73	\$0.70	\$0.69	\$0.67	\$0.72	\$0.71
 Total Accrual Expenses	 \$18.43	 \$18.33	 \$18.58	 \$19.64	 \$22.75	 \$23.02
 Net Farm Income w/o Appreciation	 \$1.56	 \$3.23	 \$3.98	 \$2.74	 \$7.19	 \$3.14



**Selected Characteristics, Six Year Comparison**  
**Same 30 Farms, Top 25% Sorted by Return on Assets w/o Appreciation**  
 New York State, Dairy Farm Business Summary & Analysis Program

**Table 5**

	Year						
	2018	2019	2020	2021	2022	2023	5 Year % Change <sup>1</sup>
<b>Size of Business</b>							
average number of cows	1,547	1,665	1,769	1,818	1,865	1,909	23.4%
average number of heifers	1,278	1,293	1,290	1,327	1,326	1,339	4.8%
percent heifers to cows	83%	78%	73%	73%	71%	70%	
milk sold, pounds	40,634,826	44,576,361	47,707,589	50,088,186	52,052,521	53,741,340	32.3%
worker equivalent	29.08	29.69	30.16	30.30	31.06	31.81	9.4%
total tillable acres	2,474	2,553	2,668	2,776	2,903	2,983	20.6%
forage acres per cow	1.50	1.44	1.44	1.45	1.47	1.43	-4.7%
corn grain acres per cow	0.14	0.09	0.08	0.13	0.13	0.14	3.5%
tillable acres per cow	1.70	1.63	1.60	1.62	1.65	1.65	-2.9%
<b>Rates of Production</b>							
milk sold per cow, pounds	26,261	26,775	26,963	27,547	27,916	28,158	7.2%
pounds of components per cow per year <sup>2</sup>	1,830	1,877	1,904	1,986	2,023	2,082	13.7%
hay DM per acre, tons	3.40	3.30	3.10	3.80	3.20	3.40	0.0%
corn silage per acre, tons	19.00	18.20	17.50	18.90	18.30	19.90	4.7%
forage dm harvest per cow, tons	7.40	6.79	6.82	7.49	7.08	7.40	0.0%
cull rate	29%	34%	34%	33%	34%	34%	17.2%
<b>Revenue Generation</b>							
component value per cwt. <sup>1</sup>	\$ 15.71	\$ 18.35	\$ 19.41	\$ 18.66	\$ 24.35	\$ 19.47	
ppd per cwt. <sup>1</sup>	\$ 0.66	\$ 0.29	\$ (1.82)	\$ (0.01)	\$ 2.17	\$ 2.14	
all premiums per cwt. <sup>1</sup>	\$ 0.77	\$ 0.76	\$ 0.79	\$ 0.76	\$ 0.71	\$ 0.55	
patronage per cwt. <sup>1</sup>	\$ 0.15	\$ 0.13	\$ 0.21	\$ 0.21	\$ 0.06	\$ 0.14	
futures and risk management per cwt. <sup>1</sup>	\$ 0.02	\$ 0.02	\$ 0.21	\$ 0.22	\$ (0.14)	\$ 0.38	
gross milk price	\$ 17.31	\$ 19.55	\$ 18.77	\$ 19.84	\$ 27.16	\$ 22.69	
milk marketing expense per cwt.	\$ 1.26	\$ 1.20	\$ 1.35	\$ 1.38	\$ 1.64	\$ 1.78	
net milk price per cwt.	\$ 16.05	\$ 18.35	\$ 17.42	\$ 18.46	\$ 25.52	\$ 20.91	
net calf & cow sales, per cow	\$ 322	\$ 256	\$ 249	\$ 286	\$ 349	\$ 520	
<b>Labor Efficiency</b>							
cows per worker	53.2	56.1	58.7	60.0	60.0	60.0	12.8%
milk sold per worker, pounds	1,397,346	1,501,393	1,581,817	1,653,075	1,675,870	1,689,448	20.9%

<sup>1</sup>Percent change from the average of 2018 to the average of 2023

<sup>2</sup>For farms reporting milk check detail for the year



**Table 5 Continued**

	Year						5 Year % Change <sup>3</sup>
	2018	2019	2020	2021	2022	2023	
Cost Control							
grain & conc. purchased as % of milk sales	33%	29%	31%	34%	29%	34%	
dairy feed & crop expense per cwt. milk	\$ 7.00	\$ 6.96	\$ 7.27	\$ 8.26	\$ 9.77	\$ 9.63	
labor and machinery costs per cow	\$ 1,538	\$ 1,560	\$ 1,584	\$ 1,663	\$ 1,920	\$ 2,014	30.9%
hired labor cost per cwt.	\$ 2.74	\$ 2.69	\$ 2.75	\$ 2.76	\$ 2.92	\$ 3.06	
labor cost per hired worker equivalent	\$ 42,211	\$ 44,476	\$ 47,738	\$ 50,088	\$ 53,682	\$ 56,540	33.9%
operating cost of producing milk per cwt. <sup>4</sup>	\$ 14.19	\$ 14.81	\$ 15.07	\$ 15.62	\$ 18.38	\$ 17.83	
purch. input cost of prod. milk per cwt. <sup>4</sup>	\$ 15.74	\$ 16.32	\$ 16.55	\$ 17.10	\$ 19.97	\$ 19.54	
total cost of producing milk per cwt. <sup>4</sup>	\$ 17.64	\$ 18.15	\$ 18.45	\$ 19.09	\$ 22.17	\$ 21.92	
Capital Efficiency(average for year)							
farm capital per cow	\$ 10,539	\$ 10,291	\$ 10,589	\$ 11,287	\$ 12,527	\$ 13,702	30.0%
machinery and equipment per cow	\$ 1,486	\$ 1,423	\$ 1,463	\$ 1,577	\$ 1,759	\$ 2,022	36.0%
asset turnover ratio	0.47	0.58	0.59	0.57	0.71	0.59	
net reinvestment per cow	\$ (693)	\$ (659)	\$ (794)	\$ (811)	\$ (1,315)	\$ (1,041)	
Profitability							
net farm income without appreciation	\$ 635,369	\$ 1,438,958	\$ 1,898,819	\$ 1,374,297	\$ 3,742,195	\$ 1,689,702	
net farm income w/o apprec. per cow	\$ 411	\$ 864	\$ 1,073	\$ 756	\$ 2,007	\$ 885	
net farm income with appreciation	\$ 255,422	\$ 1,845,030	\$ 2,255,751	\$ 1,920,112	\$ 4,653,156	\$ 2,926,814	
net farm income with apprec. per cow	\$ 165	\$ 1,108	\$ 1,275	\$ 1,056	\$ 2,495	\$ 1,533	
labor & management income per oper.	\$ 34,097	\$ 363,291	\$ 529,841	\$ 269,612	\$ 1,192,788	\$ 286,965	
net non-farm withdrawals per cwt.	\$ 0.63	\$ 0.98	\$ 0.85	\$ 1.17	\$ 1.48	\$ 1.52	
rate of return on equity capital with apprec.	0.4%	13.7%	15.0%	11.1%	25.0%	13.2%	
rate of return on all capital with apprec.	1.7%	11.0%	11.8%	8.9%	19.6%	11.3%	
rate of return on equity capital w/o apprec.	3.8%	10.3%	12.3%	7.5%	19.8%	7.1%	
rate of return on all capital w/o apprec.	4.0%	8.6%	9.9%	6.3%	15.7%	6.6%	
Financial Summary							
farm net worth, end of year	\$ 11,074,687	\$ 12,416,345	\$ 14,507,335	\$ 15,715,226	\$ 19,325,643	\$ 20,980,489	88.7%
debt to asset ratio	0.33	0.30	0.26	0.26	0.24	0.23	
farm debt per cow	\$ 3,354	\$ 3,103	\$ 2,867	\$ 3,044	\$ 3,190	\$ 3,237	-3.5%
debt coverage ratio	1.74	2.31	2.83	2.03	4.66	2.36	
working capital, as % of expenses	26%	29%	37%	37%	45%	44%	
retained earnings	\$ 378,543	\$ 1,004,000	\$ 1,491,235	\$ 790,121	\$ 2,973,500	\$ 872,633	
valuation equity change	\$ (576,229)	\$ 223,588	\$ 138,448	\$ 326,165	\$ 519,578	\$ 906,781	

<sup>3</sup>Percent change from the average of 2018 to the average of 2023

<sup>4</sup>Due to the pandemic and the government response, the increase in government receipts from 2019 to 2020 was unusually large. Therefore, this change isn't included as an offset to the cost of production measures for 2020 in this report



**Six Year Per Cwt. Comparison**  
**Same 88 Farms, Remaining 75% Sorted by ROA w/o Appreciation**  
 New York State, Dairy Farm Business Summary & Analysis Program

Table 6

	Year					
	2018	2019	2020	2021	2022	2023
number of cows	933	979	1003	1025	1052	1087
milk sales in pounds	23,957,193	25,547,882	26,103,557	27,436,437	28,029,938	29,448,257
milk per cow	25,669	26,106	26,038	26,771	26,651	27,085
<b>RECEIPTS</b>						
milk sales-\$	\$17.25	\$19.36	\$18.45	\$19.78	\$26.91	\$22.79
dairy cattle sales	\$1.16	\$1.10	\$1.07	\$1.03	\$1.33	\$1.46
dairy calf sales	\$0.08	\$0.07	\$0.14	\$0.24	\$0.34	\$0.56
other livestock sales	\$0.38	\$0.23	\$0.42	\$1.03	\$0.09	\$0.06
crop sales	\$0.38	\$0.23	\$0.42	\$1.03	\$0.71	\$0.73
government receipts	\$0.17	\$0.26	\$2.35	\$0.17	\$0.12	\$0.13
custom machine work	\$0.06	\$0.05	\$0.06	\$0.08	\$0.07	\$0.09
gas tax refund	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
other	\$0.44	\$0.48	\$0.53	\$0.47	\$0.40	\$0.52
non-cash transfer(subtract)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Farm operating receipts	\$19.66	\$21.60	\$23.08	\$22.93	\$29.97	\$26.36
<b>EXPENSES</b>						
Hired labor	\$3.07	\$3.10	\$3.27	\$3.25	\$3.44	\$3.59
Feed						
dairy grain & concentrate	\$5.77	\$5.64	\$6.13	\$6.66	\$7.77	\$7.70
dairy roughage	\$0.32	\$0.32	\$0.38	\$0.36	\$0.41	\$0.53
nondairy feed	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
professional nutritional services	\$0.00	\$0.01	\$0.01	\$0.00	\$0.00	\$0.00
Machinery						
machine hire, rent & lease	\$0.50	\$0.59	\$0.59	\$0.59	\$0.69	\$0.67
machine repairs & parts	\$0.88	\$0.98	\$1.09	\$1.10	\$1.30	\$1.30
fuel, oil & grease	\$0.62	\$0.58	\$0.44	\$0.57	\$1.00	\$0.81



**Table 6 Continued**

	Year					
	2018	2019	2020	2021	2022	2023
<b>Livestock</b>						
replacement livestock	\$0.02	\$0.06	\$0.07	\$0.06	\$0.11	\$0.08
breeding fees	\$0.23	\$0.20	\$0.23	\$0.22	\$0.24	\$0.24
veterinary & medicine	\$0.59	\$0.61	\$0.59	\$0.58	\$0.61	\$0.62
milk marketing	\$1.12	\$1.12	\$1.29	\$1.33	\$1.73	\$1.98
bedding	\$0.32	\$0.35	\$0.35	\$0.35	\$0.41	\$0.42
milking supplies	\$0.35	\$0.36	\$0.37	\$0.36	\$0.40	\$0.45
cattle leased	\$0.01	\$0.02	\$0.01	\$0.01	\$0.02	\$0.01
custom boarding	\$0.27	\$0.28	\$0.29	\$0.30	\$0.33	\$0.36
bST	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
livestock, professional fees	\$0.06	\$0.06	\$0.08	\$0.08	\$0.07	\$0.07
other livestock expense	\$0.09	\$0.09	\$0.06	\$0.09	\$0.13	\$0.13
<b>Crops</b>						
fertilizer & lime	\$0.39	\$0.38	\$0.43	\$0.52	\$0.80	\$0.64
seeds & plants	\$0.48	\$0.44	\$0.46	\$0.45	\$0.48	\$0.52
spray & other crop expense	\$0.24	\$0.22	\$0.23	\$0.26	\$0.35	\$0.31
crop, professional fees	\$0.03	\$0.02	\$0.03	\$0.03	\$0.03	\$0.02
<b>Real estate</b>						
land, build., fence repair	\$0.22	\$0.28	\$0.33	\$0.29	\$0.38	\$0.37
taxes	\$0.25	\$0.25	\$0.26	\$0.26	\$0.27	\$0.26
rent & lease	\$0.30	\$0.30	\$0.34	\$0.35	\$0.32	\$0.32
<b>Other cash expense</b>						
insurance	\$0.17	\$0.17	\$0.18	\$0.19	\$0.23	\$0.22
utilities	\$0.36	\$0.33	\$0.34	\$0.36	\$0.47	\$0.44
interest paid	\$0.78	\$0.83	\$0.63	\$0.54	\$0.67	\$1.04
other, professional fees	\$0.10	\$0.11	\$0.10	\$0.10	\$0.12	\$0.11
miscellaneous	\$0.09	\$0.10	\$0.11	\$0.10	\$0.11	\$0.13
 Farm operating expenses	 \$17.68	 \$17.82	 \$18.70	 \$19.36	 \$22.88	 \$23.33
Expansion Cattle	\$0.13	\$0.07	\$0.06	\$0.12	\$0.22	\$0.08
Extraordinary Expense	\$0.01	\$0.00	\$0.00	\$0.01	\$0.00	\$0.00
Machinery Depreciation	\$0.92	\$0.88	\$0.91	\$0.83	\$0.92	\$0.99
Building Depreciation	\$0.77	\$0.75	\$0.75	\$0.73	\$0.80	\$0.82
 Total Accrual Expenses	 \$19.52	 \$19.52	 \$20.42	 \$21.05	 \$24.83	 \$25.23
 Net Farm Income w/o Appreciation	 \$0.15	 \$2.08	 \$2.67	 \$1.88	 \$5.14	 \$1.13



**Selected Characteristics, Six Year Comparison**  
**Same 88 Farms, Remaining 75% Sorted by ROA w/o Appreciation**  
 New York State, Dairy Farm Business Summary & Analysis Program

**Table 7**

	Year						
	2018	2019	2020	2021	2022	2023	5 Year & Change <sup>1</sup>
<b>Size of Business</b>							
average number of cows	933	979	1,003	1,025	1,052	1,087	16.5%
average number of heifers	795	798	816	805	809	816	2.6%
percent heifers to cows	85%	82%	81%	79%	77%	75%	
milk sold, pounds	23,957,193	25,547,882	26,103,557	27,436,437	28,029,938	29,448,257	22.9%
worker equivalent	19.71	20.26	20.51	20.37	20.68	21.42	8.7%
total tillable acres	1,789	1,847	1,927	1,975	1,983	2,049	14.5%
forage acres per cow	1.60	1.63	1.67	1.62	1.59	1.61	0.6%
corn grain acres per cow	0.26	0.13	0.18	0.22	0.21	0.22	-13.4%
tillable acres per cow	1.92	1.89	1.92	1.93	1.89	1.88	-2.1%
<b>Rates of Production</b>							
milk sold per cow, pounds	25,669	26,106	26,038	26,771	26,651	27,085	5.5%
pounds of components per cow per year <sup>2</sup>	1,799	1,833	1,836	1,919	1,926	2,004	11.4%
hay DM per acre, tons	3.10	3.20	3.00	3.60	3.40	3.50	12.9%
corn silage per acre, tons	18.80	18.60	18.60	19.40	18.80	19.10	1.6%
forage dm harvest per cow, tons	7.80	7.69	7.91	8.21	7.82	8.06	3.3%
cull rate, %	34%	35%	36%	36%	33%	33%	-2.9%
<b>Revenue Generation</b>							
component value per cwt. <sup>1</sup>	\$ 15.82	\$ 18.33	\$ 19.41	\$ 18.57	\$ 24.31	\$ 19.47	
ppd per cwt. <sup>1</sup>	\$ 0.66	\$ 0.33	\$ (1.92)	\$ (0.03)	\$ 2.15	\$ 2.16	
all premiums per cwt. <sup>1</sup>	\$ 0.47	\$ 0.47	\$ 0.49	\$ 0.49	\$ 0.45	\$ 0.43	
patronage per cwt. <sup>1</sup>	\$ 0.24	\$ 0.19	\$ 0.35	\$ 0.36	\$ 0.12	\$ 0.17	
futures and risk management per cwt. <sup>1</sup>	\$ 0.05	\$ 0.05	\$ 0.12	\$ 0.41	\$ (0.12)	\$ 0.55	
gross milk price	\$ 17.25	\$ 19.36	\$ 18.45	\$ 19.78	\$ 26.91	\$ 22.79	
milk marketing expense per cwt.	\$ 1.12	\$ 0.61	\$ 0.59	\$ 0.58	\$ 0.61	\$ 0.62	
net milk price per cwt.	\$ 16.12	\$ 18.23	\$ 17.16	\$ 18.45	\$ 25.18	\$ 20.81	
net calf & cow sales, per cow	\$ 282	\$ 272	\$ 282	\$ 291	\$ 358	\$ 505	
<b>Labor Efficiency</b>							
cows per worker	47.3	48.3	48.9	50.3	50.9	50.7	7.2%
milk sold per worker, pounds	1,215,484	1,261,001	1,272,723	1,346,904	1,355,413	1,374,802	13.1%

<sup>1</sup>Percent change from the average of 2018 to the average of 2023

<sup>2</sup>For farms reporting milk check detail for the year



**Table 7 Continued**

	Year						5 Year % Change <sup>3</sup>
	2,018	2,019	2,020	2,021	2,022	2,023	
Cost Control							
grain & conc. purchased as % of milk sales	33.00	29.00	33.00	34.00	29.00	34.00	
dairy feed & crop expense per cwt. milk	\$ 7.24	\$ 7.02	\$ 7.66	\$ 8.27	\$ 9.84	\$ 9.72	
labor and machinery costs per cow	\$ 1,756	\$ 1,812	\$ 1,853	\$ 1,922	\$ 2,194	\$ 2,243	27.7%
hired labor cost per cwt.	\$ 3.07	\$ 3.10	\$ 3.27	\$ 3.25	\$ 3.44	\$ 3.59	
labor cost per hired worker equivalent	\$ 43,714	\$ 45,549	\$ 48,143	\$ 50,805	\$ 53,757	\$ 56,618	29.5%
operating cost of producing milk per cwt. <sup>4</sup>	\$ 15.39	\$ 15.65	\$ 16.21	\$ 16.33	\$ 20.05	\$ 19.84	
purch. input cost of prod. milk per cwt. <sup>4</sup>	\$ 17.10	\$ 17.27	\$ 17.87	\$ 17.90	\$ 21.77	\$ 21.66	
total cost of producing milk per cwt. <sup>4</sup>	\$ 19.48	\$ 19.55	\$ 20.28	\$ 20.33	\$ 24.36	\$ 24.31	
Capital Efficiency(average for year)							
farm capital per cow	\$ 12,362	\$ 12,090	\$ 12,623	\$ 13,174	\$ 14,102	\$ 14,931	20.8%
machinery and equipment per cow	\$ 1,932	\$ 1,888	\$ 1,980	\$ 2,071	\$ 2,286	\$ 2,506	29.7%
asset turnover ratio	0.40	0.49	0.49	0.49	0.60	0.53	
net reinvestment per cow	\$ (534)	\$ (540)	\$ (901)	\$ (792)	\$ (1,213)	\$ (1,249)	
Profitability							
net farm income without appreciation	\$ 34,902	\$ 532,231	\$ 696,064	\$ 516,182	\$ 1,440,437	\$ 332,975	
net farm income w/o apprec. per cow	\$ 37	\$ 544	\$ 694	\$ 504	\$ 1,369	\$ 306	
net farm income with appreciation	\$ (29,823)	\$ 856,852	\$ 920,290	\$ 894,084	\$ 1,880,617	\$ 1,222,790	
net farm income with apprec. per cow	\$ (32)	\$ 875	\$ 918	\$ 872	\$ 1,788	\$ 1,125	
labor & management income per oper.	\$ (138,372)	\$ 59,447	\$ 111,179	\$ 25,322	\$ 385,022	\$ (89,226)	
net non-farm withdrawals per cwt.	\$ 1.15	\$ 1.00	\$ 0.90	\$ 1.33	\$ 1.71	\$ 1.11	
rate of return on equity capital with apprec.	-3.0%	8.6%	8.5%	7.5%	16.5%	9.0%	
rate of return on all capital with apprec.	-0.3%	7.4%	6.9%	6.1%	12.4%	8.0%	
rate of return on equity capital w/o apprec.	-2.1%	4.3%	5.8%	3.3%	12.1%	0.9%	
rate of return on all capital w/o apprec.	0.3%	4.6%	5.2%	3.3%	9.5%	2.5%	
Financial Summary							
farm net worth, end of year	\$ 7,394,784	\$ 7,942,090	\$ 8,832,779	\$ 9,278,232	\$ 10,736,716	\$ 11,403,415	48.7%
debt to asset ratio	0.36	0.34	0.32	0.33	0.31	0.33	
farm debt per cow	\$ 4,354	\$ 4,187	\$ 4,174	\$ 4,488	\$ 4,509	\$ 5,030	15.5%
debt coverage ratio	0.65	1.54	1.78	1.20	2.67	1.23	
working capital, as % of expenses	19%	22%	26%	26%	29%	23%	
retained earnings	\$ (237,869)	\$ 277,943	\$ 460,759	\$ 174,812	\$ 1,058,330	\$ 10,693	
valuation equity change	\$ (141,974)	\$ 233,221	\$ 74,435	\$ 215,091	\$ 246,784	\$ 604,617	

<sup>3</sup>Percent change from the average of 2018 to the average of 2023

<sup>4</sup>Due to the pandemic and the government response, the increase in government receipts from 2019 to 2020 was unusually large. Therefore, this change isn't included as an offset to the cost of production measures for 2020 in this report

Table 8

## Top 25% of Farms vs Remaining 75% of Farms, 2023

Selected Business Charts, Each Column Sorted Independently

Same 118 Farms

Dairy Farm Business Summary, New York State

### Top 25% of Farms

Number of Cows	Cull Rate	Pounds Milk Sold/Cow	Percent Butterfat	Percent Protein	Pounds Milk Sold/Worker	Hired Labor Cost per Worker Equiv.	Oper. Cost to Prod. Milk Per Cwt.	Total Cost of Milk Prod. Per Cwt.	Milk Receipts per Cwt.
814	27.3	26,099	4.39	3.30	1,301,542	50,283	15.04	20.13	21.67
1,297	30.0	27,371	4.29	3.24	1,530,142	52,497	16.69	21.40	22.35
1,596	32.7	28,133	4.17	3.21	1,698,717	54,447	17.58	21.76	22.75
2,016	34.7	29,142	4.10	3.18	1,910,473	58,551	18.77	22.30	23.12
3,820	40.2	29,909	4.01	3.12	2,345,780	65,006	20.09	23.65	23.78

Investment Per Cow	Machinery Invest. per Cow	Asset Turnover Ratio	Operating Expense Ratio	Percent Equity	Planned Debt Payments Per Cow	Debt Coverage Ratio	% Rate of Return on All Capital w/o Apprec.	Net Farm Income per Cow	Working Capital as % of Opr. Expense
8,998	509	0.88	0.72	97	0	23.56	10.4	1,570	105
12,134	1,587	0.66	0.76	91	115	3.03	8.2	1,170	63
13,797	1,959	0.58	0.79	80	397	1.74	6.8	985	37
15,103	2,416	0.54	0.82	66	683	0.88	5.7	713	24
19,733	4,098	0.44	0.85	43	1,048	NA	4.0	338	14

### Remaining 75% of Farms

Number of Cows	Cull Rate	Pounds Milk Sold/Cow	Percent Butterfat	Percent Protein	Pounds Milk Sold/Worker	Hired Labor Cost per Worker Equiv.	Oper. Cost to Prod. Milk Per Cwt.	Total Cost of Milk Prod. Per Cwt.	Milk Receipts per Cwt.
189	23.1	20,850	4.53	3.40	822,075	41,504	16.51	22.40	21.66
512	29.4	25,526	4.26	3.24	1,120,173	50,222	18.62	23.84	22.47
884	32.6	26,936	4.15	3.20	1,272,382	54,189	19.90	24.77	23.02
1,344	36.3	28,235	4.06	3.17	1,447,190	57,162	20.99	26.04	23.65
2,606	42.6	29,709	3.93	3.09	1,790,745	64,804	23.55	29.68	24.98

Investment Per Cow	Machinery Invest. per Cow	Asset Turnover Ratio	Operating Expense Ratio	Percent Equity	Planned Debt Payments Per Cow	Debt Coverage Ratio	% Rate of Return on All Capital w/o Apprec.	Net Farm Income per Cow	Working Capital as % of Opr. Expense
11,016	1,410	0.70	0.75	95	145	4.21	5.6	1,184	56
13,113	2,157	0.59	0.80	81	474	1.73	3.8	631	32
14,811	2,753	0.53	0.84	69	647	1.14	2.2	370	23
16,953	3,272	0.46	0.87	59	781	0.79	0.5	111	15
22,749	5,008	0.37	0.96	44	1,100	-0.95	-3.5	-369	4





Table 9

**"Legal 21" Farm Financial Ratios**  
**Same 30 Farms, Top 25% Sorted by ROA w/o Appreciation, New York State, DFBS**  
**2018-2023**

	DFBS page	2018	2019	2020	2021	2022	2023	6 Year Average	Your Farm
<b>Liquidity</b>									
Current Ratio	7	2.59	2.95	3.43	3.61	4.51	4.47	3.59	
Working Capital	7	\$1,911,119	\$2,379,414	\$3,246,652	\$3,639,034	\$5,377,968	\$5,404,621	\$3,659,801	
As % of Total Expense	7	26.0%	29.0%	37.0%	37.0%	45.0%	44.0%	36.3%	
As % of Gross Revenue <sup>1</sup>	calc	23.5%	24.8%	30.2%	32.5%	34.5%	38.4%	30.6%	
<b>Solvency</b>									
Debt/Asset Ratio	7	0.33	0.3	0.26	0.26	0.24	0.23	0.27	
Equity/Asset Ratio	7	0.67	0.70	0.74	0.74	0.76	0.77	0.73	
Debt/Equity Ratio(Leverage Ratio)	7	0.48	0.43	0.36	0.36	0.31	0.30	0.37	
<b>Profitability</b>									
Net Farm Income w/o Appreciation. (Per Cow)	1	\$411	\$864	\$1,073	\$756	\$2,007	\$885	\$999	
ROA w/o Appreciation	4	4.0%	8.6%	9.9%	6.3%	15.7%	6.6%	8.5%	
ROE w/o Appreciation	4	3.8%	10.3%	12.3%	7.5%	19.8%	7.1%	10.1%	
Operating Profit Margin Ratio <sup>2</sup>	calc	0.08	0.15	0.17	0.11	0.24	0.12	0.15	
EBITDA(Per Cow) <sup>3</sup>	calc	\$832	\$1,284	\$1,444	\$1,113	\$2,416	\$1,385	\$1,412	
<b>Repayment Capacity</b>									
Capital Debt Repayment Capacity(per cow) <sup>4</sup>	calc	\$805	\$1,159	\$1,347	\$926	\$2,147	\$1,100	\$1,247	
Capital Debt Repayment Margin(per cow) <sup>5</sup>	calc	\$341	\$657	\$870	\$470	\$1,687	\$635	\$777	
Replacement Margin(per cow) <sup>6</sup>	calc	\$591	\$946	\$1,136	\$705	\$1,905	\$817	\$1,017	
Term Debt Coverage Ratio	1	1.74	2.31	2.83	2.03	4.66	2.36	2.65	
Replacement Margin Coverage Ratio <sup>7</sup>	calc	1.2	1.6	2.0	1.4	3.1	1.5	1.8	

Table 9 Continued

	DFBS page	2018	2019	2020	2021	2022	2023	6 Year Average	Your Farm
<b>Financial Efficiency</b>									
Asset Turnover Ratio <sup>8</sup>	14	0.47	0.58	0.59	0.57	0.71	0.59	0.59	
Operating Expense Ratio	14	0.81	0.75	0.74	0.8	0.69	0.79	0.76	
Depreciation Expense Ratio	14	0.08	0.07	0.07	0.07	0.05	0.07	0.07	
Interest Expense Ratio	14	0.03	0.03	0.02	0.01	0.01	0.02	0.02	
Net Farm Income from Operations Ratio	4	0.08	0.15	0.18	0.12	0.24	0.12	0.15	

1 Calculated utilizing gross income instead of value of farm production.  $(\text{Current Assets} - \text{Current Liabilities}) / \text{Gross Receipts} \times 100$

2  $(\text{Net Farm Income} + \text{Interest Paid} - \text{Unpaid Family Labor} - \text{Owner Value}) / \text{Gross Revenue}$

3  $(\text{Net Farm Income} + \text{Depreciation} + \text{Interest} - \text{Value of Unpaid Owner Labor \& Management}) / \text{Average Cows}$

4  $(\text{Net Farm Income} + \text{Depreciation} + \text{Net Non-Farm Income} - \text{Non-Farm Cash Expenses} + \text{Interest Paid on Term Loans}) / \text{Average Cows}$

5  $(\text{Capital Debt Repayment Capacity} - \text{Scheduled Principle and Interest on Term Loans}) / \text{Average Cows}$

6  $(\text{Capital Debt Repayment Capacity} - \text{Unfunded(cash) Capital Replacement Allowance}) / \text{Annual machinery depreciation expense utilized to represent un-funded capital replacement requirement}$ .

7  $(\text{Capital Debt Repayment Capacity}) / (\text{Scheduled Principle \& Interest on Term Loans} + \text{Unfunded(cash) Capital Replacement Allowance})$

8 Utilizing Gross Farm Income to calculate instead of value of farm production

Source: Farm Financial Ratios and Guidelines, Farm Financial Standards Council, 2014



Table 10

**"Legal 21" Farm Financial Ratios  
Same 118 Farms, New York State, DFBS  
2018-2023**

	DFBS page	2018	2019	2020	2021	2022	2023	6 Year Average	Your Farm
<b>Liquidity</b>									
Current Ratio	7	2.35	2.72	3.13	3.09	3.8	3.19	3.05	
Working Capital	7	\$1,154,001	\$1,415,771	\$1,845,869	\$2,049,189	\$2,853,830	\$2,633,684	\$1,992,058	
As % of Total Expense	7	21.0%	24.0%	30.0%	30.0%	35.0%	30.0%	28.3%	
As % of Gross Revenue <sup>1</sup>	calc	20.7%	21.6%	25.5%	27.2%	27.9%	28.1%	25.2%	
<b>Solvency</b>									
Debt/Asset Ratio	7	0.35	0.33	0.3	0.31	0.29	0.29	0.31	
Equity/Asset Ratio	7	0.65	0.67	0.70	0.69	0.71	0.71	0.69	
Debt/Equity Ratio(Leverage Ratio)	7	0.53	0.49	0.44	0.45	0.40	0.41	0.45	
<b>Profitability</b>									
Net Farm Income w/o Appreciation (Per Cow)	1	\$172	\$661	\$837	\$599	\$1,610	\$523	\$734	
ROA w/o Appreciation	4	1.5%	5.9%	6.8%	4.3%	11.7%	4.0%	5.7%	
ROE w/o Appreciation	4	-0.1%	6.4%	8.1%	4.8%	15.0%	3.3%	6.2%	
Operating Profit Margin Ratio <sup>2</sup>	calc	0.03	0.12	0.13	0.09	0.19	0.08	0.11	
EBITDA(Per Cow) <sup>3</sup>	calc	\$601	\$1,094	\$1,221	\$953	\$2,031	\$1,061	\$1,160	
<b>Repayment Capacity</b>									
Capital Debt Repayment Capacity(per cow) <sup>4</sup>	calc	\$536	\$1,013	\$1,166	\$807	\$1,833	\$903	\$1,043	
Capital Debt Repayment Margin(per cow) <sup>5</sup>	calc	-\$7	\$446	\$617	\$255	\$1,276	\$329	\$486	
Replacement Margin(per cow) <sup>6</sup>	calc	\$307	\$789	\$939	\$585	\$1,589	\$630	\$806	
Term Debt Coverage Ratio	1	0.99	1.79	2.12	1.46	3.29	1.57	1.87	
Replacement Margin Coverage Ratio <sup>7</sup>	calc	0.7	1.3	1.5	1.0	2.3	1.1	1.3	

Table 10 Continued

		2018	2019	2020	2021	2022	2023	6 Year Average	Your Farm
<b>Financial Efficiency</b>									
Asset Turnover Ratio <sup>8</sup>	14	0.43	0.52	0.53	0.52	0.63	0.55	0.53	
Operating Expense Ratio	14	0.85	0.78	0.77	0.82	0.73	0.83	0.80	
Depreciation Expense Ratio	14	0.08	0.07	0.07	0.07	0.06	0.07	0.07	
Interest Expense Ratio	14	0.04	0.03	0.02	0.02	0.02	0.03	0.03	
Net Farm Income from Operations Ratio	4	0.03	0.12	0.14	0.10	0.20	0.07	0.11	

1 Calculated utilizing gross income instead of value of farm production.  $(\text{Current Assets} - \text{Current Liabilities}) / \text{Gross Receipts} \times 100$

2  $(\text{Net Farm Income} + \text{Interest Paid} - \text{Unpaid Family Labor} - \text{Owner Value}) / \text{Gross Revenue}$

3  $(\text{Net Farm Income} + \text{Depreciation} + \text{Interest} - \text{Value of Un-Paid Owner Labor \& Management}) / \text{Average Cows}$

4  $(\text{Net Farm Income} + \text{Depreciation} + \text{Net Non-Farm Income} - \text{Non-Farm Cash Expenses} + \text{Interest Paid on Term Loans}) / \text{Average Cows}$

5  $(\text{Capital Debt Repayment Capacity} - \text{Scheduled Principle and Interest on Term Loans}) / \text{Average Cows}$

6  $(\text{Capital Debt Repayment Capacity} - \text{Unfunded(cash) Capital Replacement Allowance})$ . Annual machinery depreciation expense utilized to represent un-funded capital replacement requirement.

7  $(\text{Capital Debt Repayment Capacity}) / (\text{Scheduled Principle \& Interest on Term Loans} + \text{Unfunded(cash) Capital Replacement Allowance})$

8 Utilizing Gross Farm Income to calculate instead of value of farm production

Source: Farm Financial Ratios and Guidelines, Farm Financial Standards Council, 2014

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