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**Six Year Trend Analysis 2022  
New York State Dairy Farms  
Selected Financial and Production Factors**

**Dairy Farm Business Summary  
New York State  
Same 122 Farms  
2017 - 2022**

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Six Year Trend Analysis  
New York Dairy Farms  
Selected Financial and Production Factors  
Dairy Farm Business Summary  
New York State  
Same 122 Farms, 2017 – 2022

Jason Karszes and Lauren Augello<sup>1</sup>

Trend analysis is an important use of benchmarking within a dairy business. While current year performance is important, understanding 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 122 farms that have participated in the Dairy Farm Business Summary and Analysis Project (DFBS) in New York State for six years, from 2017 through 2022. 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 122 Farms
Table 2	Top 25% of Farms vs Remaining 75% of Farms, Percent Change and Differences
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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.

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 is 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 122 Farms

Table 1

New York State, Dairy Farm Business Summary & Analysis Program

	2017	2018	2019	2020	2021	2022	% Change
<b>Size of Business</b>							
average number of cows	998	1,067	1,129	1,172	1,201	1,232	23.4%
percent heifers to cows	87%	84%	80%	79%	77%	75%	
milk sold, pounds	26,036,735	27,653,276	29,751,464	30,950,615	32,517,785	33,439,461	28.4%
worker equivalent	20.9	21.7	22.3	22.6	22.5	22.9	
tillable acres per cow	1.93	1.85	1.80	1.81	1.82	1.80	-6.7%
corn grain acres per cow	0.15	0.21	0.11	0.14	0.18	0.18	
<b>Rates of Production</b>							
milk sold per cow, pounds	26,099	25,911	26,362	26,408	27,085	27,144	4.0%
cull rate	34%	32%	34%	35%	35%	33%	
net calf & cow sales, per cow	378	300	268	272	289	356	
<b>Labor Efficiency</b>							
cows per worker	47.7	49.1	50.7	51.9	53.4	53.9	13.1%
milk sold per worker, pounds	1,243,397	1,272,585	1,335,944	1,370,102	1,444,593	1,463,434	17.7%
<b>Cost Control and Milk Price</b>							
dairy feed & crop expense per cwt. milk	\$ 7.09	\$ 7.14	\$ 6.99	\$ 7.49	\$ 8.25	\$ 9.82	
labor and machinery costs per cow	\$ 1,740	\$ 1,740	\$ 1,685	\$ 1,728	\$ 1,760	\$ 1,834	
hired labor cost per cwt.	\$ 2.95	\$ 2.96	\$ 2.97	\$ 3.08	\$ 3.08	\$ 3.25	
labor cost per hired worker equivalent	\$ 42,359	\$ 43,336	\$ 45,442	\$ 48,173	\$ 50,800	\$ 54,173	27.9%
operating cost of producing milk per cwt. <sup>1</sup>	\$ 14.80	\$ 14.97	\$ 15.34	\$ 15.77	\$ 16.07	\$ 19.44	
purch. input cost of producing milk per cwt. <sup>1</sup>	\$ 16.52	\$ 16.62	\$ 16.93	\$ 17.36	\$ 17.60	\$ 21.08	
total cost of producing milk per cwt. <sup>1</sup>	\$ 18.83	\$ 18.84	\$ 19.06	\$ 19.60	\$ 19.89	\$ 23.54	
net milk price per cwt.	\$ 17.42	\$ 16.08	\$ 18.28	\$ 17.25	\$ 18.45	\$ 25.32	
<b>Capital Efficiency(average for year)</b>							
farm capital per cow	\$ 12,139	\$ 11,743	\$ 11,471	\$ 11,895	\$ 12,495	\$ 13,539	11.5%
machinery and equipment per cow	\$ 1,885	\$ 1,787	\$ 1,733	\$ 1,803	\$ 1,897	\$ 2,101	
net reinvestment per cow	\$ 908	\$ 571	\$ 577	\$ 852	\$ 799	\$ 1,254	
<b>Profitability</b>							
net farm income without appreciation	\$ 509,894	\$ 177,898	\$ 744,399	\$ 982,786	\$ 715,388	\$ 1,986,467	
net farm income w/o apprec. per cow	\$ 511	\$ 167	\$ 660	\$ 839	\$ 596	\$ 1,612	
labor & management income per oper.	\$ 40,197	\$ (97,153)	\$ 127,931	\$ 205,216	\$ 78,714	\$ 572,189	
rate of return on equity capital w/o apprec.	3.9%	-0.3%	6.3%	8.0%	4.7%	14.9%	
rate of return on all capital w/o apprec.	3.9%	1.4%	5.8%	6.7%	4.2%	11.6%	
<b>Financial Summary</b>							
farm net worth, end of year	8,396,401	8,196,971	8,932,290	10,107,692	10,726,839	12,694,487	59.5%
debt to asset ratio	0.33	0.35	0.33	0.30	0.31	0.28	
farm debt per cow	\$ 3,999	\$ 3,995	\$ 3,780	\$ 3,678	\$ 3,941	\$ 4,007	0.2%
retained earnings	\$ 296,654	\$ (87,319)	\$ 451,326	\$ 710,939	\$ 318,373	\$ 1,517,034	
valuation equity change	\$ 105,484	\$ (234,881)	\$ 231,908	\$ 94,217	\$ 237,108	\$ 303,740	

<sup>1</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 in the calculation as an offset to the cost of milk production measures for 2020 in this report.



**Table 2**

**Top 25% of Farms vs. Remaining 75% of Farms**  
**Percent Change and Differences, Selected Measures**  
**Same 122 Farms, 2017 - 2022**  
**Dairy Farm Business Summary, New York State**

	2017	2022	Change	Percent Change	Percent Difference <sup>1</sup>	
					2017	2022
<b>Average Herd Size, Milking &amp; Dry</b>						
Top 25%	1,461	1,950	489	33.5%	72.7%	95.4%
75%	846	998	152	18.0%		
<b>Milk per Cow, Lbs.</b>						
Top 25%	26,419	27,906	1,487	5.6%	1.9%	4.7%
75%	25,919	26,658	738	2.8%		
<b>Milk Sold per Farm, Lbs.</b>						
Top 25%	38,608,152	54,429,475	15,821,323	41.0%	76.0%	104.7%
75%	21,937,359	26,594,892	4,657,533	21.2%		
<b>Cows per Worker</b>						
Top 25%	51.1	59.6	8.50	16.6%	11.5%	17.4%
75%	45.9	50.8	4.96	10.8%		
<b>Milk Sold per Worker, Lbs.</b>						
Top 25%	1,351,353	1,664,510	313,157	23.2%	13.7%	22.9%
75%	1,189,017	1,354,119	165,102	13.9%		
<b>Hired Labor Cost per Cwt.</b>						
Top 25%	\$2.84	\$3.00	\$0.16	5.5%	-5.5%	-12.2%
75%	\$3.01	\$3.42	\$0.41	13.5%		
<b>Cost per Hired Worker</b>						
Top 25%	\$42,486	\$54,647	\$12,160	28.6%	0.5%	1.4%
75%	\$42,292	\$53,900	\$11,608	27.4%		
<b>Investment Per Cow</b>						
Top 25%	\$11,765	\$13,442	\$1,677	14.3%	-4.7%	-1.2%
75%	\$12,349	\$13,600	\$1,251	10.1%		
<b>Machinery Invest. per Cow</b>						
Top 25%	\$1,635	\$1,831	\$196.00	12.0%	-19.3%	-19.4%
75%	\$2,026	\$2,273	\$247.35	12.2%		
<b>Debt Per Cow, End of Year</b>						
Top 25%	\$3,283	\$3,493	\$210.00	6.4%	-25.7%	-19.3%
75%	\$4,419	\$4,330	-\$89.00	-2.0%		
<b>Net Worth, Beginning of 2016 to End of 2021</b>						
Top 25%	\$12,016,465	\$21,496,181	\$9,479,716	78.9%	81.1%	118.8%
75%	\$6,635,873	\$9,824,370	\$3,188,497	48.0%		

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

**Table 3**
**Top 25% of Farms vs. Remaining 75% of Farms**

Selected Measures, Six Year Comparison

Same 122 Farms, 2017 - 2022

Dairy Farm Business Summary, New York State

	2017	2018	2019	2020	2021	2022
<b>Net Reinvestment Per Cow<sup>1</sup></b>						
Top 25%	-\$1,084	-\$706	-\$722	-\$959	-\$758	-\$1,395
75%	-\$811	-\$492	-\$490	-\$784	-\$825	-\$1,164
<b>Farm Capital per Cow</b>						
Top 25%	\$11,765	\$11,292	\$11,044	\$11,379	\$12,082	\$13,442
75%	\$12,349	\$12,008	\$11,730	\$12,220	\$12,759	\$13,600
<b>Tillable Acres per Cow</b>						
Top 25%	1.69	1.61	1.53	1.49	1.47	1.50
75%	2.01	1.94	1.92	1.96	2.00	1.95
<b>Corn Grain Acres per Cow</b>						
Top 25%	0.09	0.14	0.07	0.08	0.11	0.12
75%	0.19	0.25	0.14	0.18	0.23	0.21
<b>Crop Revenue, Per Cow</b>						
Top 25%	\$158	\$128	\$42	\$34	\$180	\$176
75%	\$107	\$108	\$52	\$122	\$302	\$168
<b>Cull Rate, Percent</b>						
Top 25%	34%	29%	33%	35%	33%	34%
75%	34%	34%	35%	36%	36%	33%
<b>Net Calf &amp; Cow Income, per Cow<sup>2</sup></b>						
Top 25%	\$373	\$322	\$265	\$262	\$289	\$363
75%	\$382	\$287	\$270	\$278	\$291	\$351
<b>Percent Heifers to Cows</b>						
Top 25%	85%	81%	76%	74%	74%	71%
75%	88%	87%	83%	82%	79%	78%
<b>Operating Cost to Produce Milk per Cwt.<sup>3</sup></b>						
Top 25%	\$13.93	\$14.06	\$14.47	\$14.96	\$15.53	\$18.14
75%	\$15.30	\$15.52	\$15.88	\$16.28	\$16.42	\$20.31
<b>Total Cost to Produce Milk per Cwt.<sup>3</sup></b>						
Top 25%	\$17.79	\$17.68	\$17.97	\$18.57	\$19.15	\$22.07
75%	\$19.43	\$19.55	\$19.75	\$20.27	\$20.38	\$24.52
<b>Net Farm Income Per Cow</b>						
Top 25%	\$772	\$463	\$952	\$1,076	\$784	\$2,034
75%	\$364	-\$8	\$482	\$688	\$476	\$1,343
<b>Net Milk Price per Cwt.</b>						
Top 25%	\$17.47	\$16.16	\$18.36	\$17.47	\$18.49	\$25.38
75%	\$17.39	\$16.04	\$18.23	\$17.11	\$18.42	\$25.28
<b>Farm Operating Receipts per Cwt.</b>						
Top 25%	\$21.53	\$19.97	\$21.61	\$22.55	\$22.31	\$29.91
75%	\$21.19	\$19.65	\$21.56	\$23.09	\$22.99	\$29.97
<b>Working Capital as Percent of Expenses</b>						
Top 25%	28%	30%	35%	41%	41%	47%
75%	19%	16%	18%	23%	23%	27%

<sup>1</sup>Net Reinvestment per cow is the total capital reinvested 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**

	2017	2018	2019	2020	2021	2022
Hired Labor Cost per Cwt.						
Top 25%	\$2.84	\$2.78	\$2.75	\$2.85	\$2.84	\$3.00
75%	\$3.01	\$3.07	\$3.11	\$3.23	\$3.23	\$3.42
Purchased Feed per Cwt.						
Top 25%	\$5.61	\$5.69	\$5.58	\$5.85	\$6.62	\$7.87
75%	\$5.69	\$5.79	\$5.72	\$6.15	\$6.70	\$7.79
Livestock Expenses, Total per Cwt. <sup>4</sup>						
Top 25%	\$3.10	\$3.02	\$3.03	\$3.25	\$3.29	\$3.69
75%	\$3.36	\$3.14	\$3.22	\$3.41	\$3.42	\$4.09
Machinery & Fuel Expenses per Cwt. <sup>5</sup>						
Top 25%	\$1.77	\$1.69	\$1.77	\$1.76	\$1.90	\$2.46
75%	\$2.10	\$2.05	\$2.19	\$2.16	\$2.31	\$3.06
Machinery Depreciation Expense per Cwt.						
Top 25%	\$0.92	\$0.81	\$0.79	\$0.79	\$0.79	\$0.85
75%	\$1.01	\$0.93	\$0.89	\$0.91	\$0.84	\$0.94
Crop Input Costs per Cwt. <sup>6</sup>						
Top 25%	\$0.97	\$0.88	\$0.81	\$0.88	\$0.91	\$1.23
75%	\$1.18	\$1.15	\$1.06	\$1.16	\$1.30	\$1.74
Additional Fixed Costs per Cwt. <sup>7</sup>						
Top 25%	\$1.47	\$1.48	\$1.44	\$1.44	\$1.45	\$1.62
75%	\$1.55	\$1.53	\$1.55	\$1.68	\$1.70	\$1.94
Interest Costs per Cwt.						
Top 25%	\$0.45	\$0.54	\$0.54	\$0.39	\$0.31	\$0.40
75%	\$0.69	\$0.82	\$0.86	\$0.64	\$0.54	\$0.66
Total Farm Operating Expenses per Cwt.						
Top 25%	\$16.61	\$16.50	\$16.39	\$16.95	\$17.94	\$20.89
75%	\$17.87	\$17.85	\$18.01	\$18.76	\$19.53	\$23.05

<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					
	2017	2018	2019	2020	2021	2022
number of cows	1,461	1,607	1,734	1,845	1,904	1,950
milk sales in pounds	38,608,152	42,413,560	46,671,436	49,647,912	52,617,584	54,429,475
milk per cow	26,419	26,391	26,911	26,912	27,634	27,906
<b>RECEIPTS</b>						
milk sales	\$18.52	\$17.36	\$19.50	\$18.75	\$19.85	\$27.02
dairy cattle sales	\$1.58	\$1.30	\$1.17	\$1.02	\$1.00	\$1.22
dairy calf sales	\$0.19	\$0.10	\$0.09	\$0.16	\$0.24	\$0.39
other livestock sales	\$0.03	\$0.05	\$0.02	\$0.01	\$0.01	\$0.01
crop sales	\$0.60	\$0.48	\$0.16	\$0.12	\$0.65	\$0.63
government receipts	\$0.12	\$0.12	\$0.21	\$1.96	\$0.09	\$0.16
custom machine work	\$0.07	\$0.08	\$0.09	\$0.09	\$0.09	\$0.12
gas tax refund	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
other	\$0.43	\$0.47	\$0.37	\$0.43	\$0.39	\$0.35
non-cash transfer (subtract)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Farm operating receipts	\$21.53	\$19.97	\$21.61	\$22.55	\$22.31	\$29.91
<b>EXPENSES</b>						
Hired labor	\$2.84	\$2.78	\$2.75	\$2.85	\$2.84	\$3.00
Feed						
dairy grain & concentrate	\$5.61	\$5.69	\$5.58	\$5.85	\$6.62	\$7.87
dairy roughage	\$0.39	\$0.41	\$0.47	\$0.52	\$0.62	\$0.62
nondairy feed	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
professional nutritional services	\$0.01	\$0.01	\$0.01	\$0.01	\$0.00	\$0.00
Machinery						
machine hire, rent & lease	\$0.45	\$0.43	\$0.49	\$0.51	\$0.55	\$0.62
machine repairs & parts	\$0.88	\$0.76	\$0.82	\$0.88	\$0.90	\$1.05
fuel, oil & grease	\$0.44	\$0.51	\$0.46	\$0.37	\$0.45	\$0.78





Table 4 Continued

	2017	2018	2019	2020	2021	2022
<b>Livestock</b>						
replacement livestock	\$0.02	\$0.03	\$0.08	\$0.14	\$0.13	\$0.17
breeding fees	\$0.18	\$0.16	\$0.14	\$0.17	\$0.17	\$0.18
veterinary & medicine	\$0.63	\$0.58	\$0.54	\$0.52	\$0.54	\$0.55
milk marketing	\$1.05	\$1.20	\$1.15	\$1.28	\$1.36	\$1.64
bedding	\$0.33	\$0.30	\$0.30	\$0.31	\$0.32	\$0.35
milking supplies	\$0.28	\$0.28	\$0.31	\$0.32	\$0.30	\$0.33
cattle leased	\$0.01	\$0.00	\$0.01	\$0.02	\$0.00	\$0.01
custom boarding	\$0.40	\$0.36	\$0.36	\$0.35	\$0.30	\$0.26
bST	\$0.05	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
livestock, professional fees	\$0.06	\$0.05	\$0.06	\$0.07	\$0.07	\$0.08
other livestock expense	\$0.10	\$0.05	\$0.07	\$0.07	\$0.10	\$0.11
<b>Crops</b>						
fertilizer & lime	\$0.33	\$0.34	\$0.32	\$0.32	\$0.38	\$0.61
seeds & plants	\$0.42	\$0.34	\$0.31	\$0.36	\$0.35	\$0.40
spray & other crop expense	\$0.21	\$0.19	\$0.17	\$0.18	\$0.17	\$0.20
crop, professional fees	\$0.02	\$0.01	\$0.01	\$0.01	\$0.02	\$0.02
<b>Real estate</b>						
land, build., fence repair	\$0.26	\$0.28	\$0.32	\$0.33	\$0.31	\$0.40
taxes	\$0.24	\$0.22	\$0.21	\$0.21	\$0.23	\$0.22
rent & lease	\$0.27	\$0.28	\$0.25	\$0.27	\$0.24	\$0.21
<b>Other cash expense</b>						
insurance	\$0.16	\$0.15	\$0.16	\$0.16	\$0.15	\$0.18
utilities	\$0.33	\$0.35	\$0.30	\$0.28	\$0.34	\$0.43
interest paid	\$0.45	\$0.54	\$0.54	\$0.39	\$0.31	\$0.40
other, professional fees	\$0.11	\$0.11	\$0.10	\$0.10	\$0.08	\$0.09
miscellaneous	\$0.11	\$0.09	\$0.10	\$0.09	\$0.10	\$0.08
<b>Farm operating expenses</b>	<b>\$16.61</b>	<b>\$16.50</b>	<b>\$16.39</b>	<b>\$16.95</b>	<b>\$17.94</b>	<b>\$20.89</b>
Expansion Cattle	\$0.34	\$0.16	\$0.20	\$0.07	\$0.05	\$0.14
Extraordinary Expense	\$0.02	\$0.01	\$0.00	\$0.00	\$0.00	\$0.00
Machinery Depreciation	\$0.92	\$0.81	\$0.79	\$0.79	\$0.79	\$0.85
Building Depreciation	\$0.72	\$0.73	\$0.70	\$0.73	\$0.70	\$0.75
<b>Total Accrual Expenses</b>	<b>\$18.61</b>	<b>\$18.21</b>	<b>\$18.07</b>	<b>\$18.55</b>	<b>\$19.48</b>	<b>\$22.62</b>
<b>Net Farm Income w/o Appreciation</b>	<b>\$2.92</b>	<b>\$1.75</b>	<b>\$3.54</b>	<b>\$4.00</b>	<b>\$2.84</b>	<b>\$7.29</b>



**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						5 Year % Change
	2017	2018	2019	2020	2021	2022	
<b>Size of Business</b>							
average number of cows	1,461	1,607	1,734	1,845	1,904	1,950	33.5%
average number of heifers	1,242	1,298	1,326	1,358	1,401	1,389	11.8%
percent heifers to cows	85%	81%	76%	74%	74%	71%	
milk sold, pounds	38,608,152	42,413,560	46,671,436	49,647,912	52,617,584	54,429,475	41.0%
worker equivalent	28.57	30.24	30.99	31.92	32.16	32.70	14.5%
total tillable acres	2,464	2,587	2,654	2,743	2,793	2,915	18.3%
<b>Rates of Production</b>							
milk sold per cow, pounds	26,419	26,391	26,911	26,912	27,634	27,906	5.6%
hay DM per acre, tons	3.50	3.30	3.50	3.20	3.90	3.40	-2.9%
corn silage per acre, tons	19.00	19.00	18.40	17.70	19.10	18.60	-2.1%
grain acres per cow	0.09	0.14	0.07	0.08	0.11	0.12	34.5%
cull rate	34%	29%	33%	35%	33%	34%	0.0%
net calf & cow sales, per cow	\$ 373	\$ 322	\$ 265	\$ 262	\$ 289	\$ 363	
<b>Labor Efficiency</b>							
cows per worker	51.1	53.1	56.0	57.8	59.2	59.6	16.6%
milk sold per worker, pounds	1,351,353	1,402,565	1,506,016	1,555,386	1,636,119	1,664,510	23.2%
<b>Cost Control and Milk Price</b>							
grain & conc. purchased as % of milk sales	30%	33%	29%	31%	33%	29%	
dairy feed & crop expense per cwt. milk	\$ 6.97	\$ 6.98	\$ 6.85	\$ 7.25	\$ 8.15	\$ 9.72	
labor and machinery costs per cow	\$ 1,614	\$ 1,536	\$ 1,566	\$ 1,595	\$ 1,671	\$ 1,916	18.7%
hired labor cost per cwt.	\$ 2.84	\$ 2.78	\$ 2.75	\$ 2.85	\$ 2.84	\$ 3.00	
labor cost per hired worker equivalent	\$ 42,486	\$ 42,873	\$ 45,415	\$ 48,510	\$ 50,751	\$ 54,647	28.6%
operating cost of producing milk per cwt. <sup>1</sup>	\$ 13.93	\$ 14.06	\$ 14.47	\$ 14.96	\$ 15.53	\$ 18.14	
purch. input cost of prod. milk per cwt. <sup>1</sup>	\$ 15.59	\$ 15.61	\$ 15.96	\$ 16.49	\$ 17.01	\$ 19.73	
total cost of producing milk per cwt. <sup>1</sup>	\$ 17.79	\$ 17.68	\$ 17.97	\$ 18.57	\$ 19.15	\$ 22.07	
net milk price per cwt.	\$ 17.47	\$ 16.16	\$ 18.36	\$ 17.47	\$ 18.49	\$ 25.38	

<sup>1</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 5 Continued

	2017	2018	2019	2020	2021	2022	5 Year % Change
<b>Capital Efficiency(average for year)</b>							
farm capital per cow	\$ 11,765	\$ 11,292	\$ 11,044	\$ 11,379	\$ 12,082	\$ 13,442	14.3%
machinery and equipment per cow	\$ 1,635	\$ 1,526	\$ 1,484	\$ 1,548	\$ 1,639	\$ 1,831	12.0%
asset turnover ratio	0.50	0.45	0.55	0.55	0.54	0.66	
net reinvestment per cow	\$ 1,084	\$ 706	\$ 722	\$ 959	\$ 758	\$ 1,395	
<b>Profitability</b>							
net farm income without appreciation	\$ 1,128,476	\$ 744,284	\$ 1,650,646	\$ 1,985,614	\$ 1,492,447	\$ 3,967,122	
net farm income w/o apprec. per cow	\$ 772	\$ 463	\$ 952	\$ 1,076	\$ 784	\$ 2,034	
net farm income with appreciation	\$ 1,485,930	\$ 489,133	\$ 2,132,677	\$ 2,322,115	\$ 2,201,711	\$ 4,951,927	
net farm income with apprec. per cow	\$ 1,017	\$ 304	\$ 1,230	\$ 1,259	\$ 1,156	\$ 2,539	
labor & management income per oper.	\$ 205,796	\$ 39,330	\$ 393,881	\$ 498,417	\$ 262,676	\$ 1,196,682	
net non-farm withdrawals per cwt.	\$ 0.83	\$ 1.27	\$ 1.09	\$ 0.95	\$ 1.47	\$ 1.95	
rate of return on equity capital with apprec.	10.1%	2.0%	13.7%	13.3%	11.3%	23.7%	
rate of return on all capital with apprec.	8.4%	2.7%	11.2%	10.8%	9.1%	18.6%	
rate of return on equity capital w/o apprec.	7.3%	4.0%	10.2%	11.1%	7.1%	18.7%	
rate of return on all capital w/o apprec.	6.3%	4.1%	8.7%	9.2%	6.1%	14.9%	
<b>Financial Summary</b>							
farm net worth, end of year	\$ 12,897,107	\$ 12,987,605	\$ 14,533,217	\$ 16,558,611	\$ 17,834,842	\$ 21,496,181	78.9%
debt to asset ratio	0.28	0.29	0.27	0.25	0.25	0.24	
farm debt per cow	\$ 3,283	\$ 3,235	\$ 2,974	\$ 2,935	\$ 3,147	\$ 3,493	6.4%
debt coverage ratio	2.79	1.53	2.80	3.17	1.99	4.96	
working capital, as % of expenses	28%	30%	35%	41%	41%	47%	
retained earnings	\$ 807,171	\$ 207,036	\$ 1,140,165	\$ 1,512,517	\$ 721,361	\$ 2,903,043	
valuation equity change	\$ 60,469	\$ (424,663)	\$ 284,888	\$ 3,683	\$ 478,429	\$ 595,940	



**Six Year Per Cwt. Comparison**  
**Same 92 Farms, Remaining 75% Sorted by ROA w/o Appreciation**  
 New York State, Dairy Farm Business Summary & Analysis Program

Table 6

	Year					
	2017	2018	2019	2020	2021	2022
number of cows	846	891	931	953	971	998
milk sales in pounds	21,937,359	22,840,140	24,234,082	24,853,671	25,963,503	26,594,892
milk per cow	25,919	25,628	26,029	26,089	26,734	26,658
<b>RECEIPTS</b>						
milk sales	\$18.46	\$17.20	\$19.38	\$18.45	\$19.77	\$27.02
dairy cattle sales	\$1.48	\$1.19	\$1.07	\$1.05	\$1.03	\$1.31
dairy calf sales	\$0.20	\$0.07	\$0.07	\$0.14	\$0.23	\$0.33
other livestock sales	\$0.07	\$0.12	\$0.05	\$0.07	\$0.14	\$0.09
crop sales	\$0.41	\$0.42	\$0.20	\$0.47	\$1.13	\$0.63
government receipts	\$0.17	\$0.16	\$0.24	\$2.36	\$0.17	\$0.14
custom machine work	\$0.06	\$0.06	\$0.06	\$0.06	\$0.08	\$0.07
gas tax refund	\$0.01	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
other	\$0.34	\$0.43	\$0.48	\$0.50	\$0.43	\$0.38
non-cash transfer(subtract)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Farm operating receipts	\$21.19	\$19.65	\$21.56	\$23.09	\$22.99	\$29.97
<b>EXPENSES</b>						
Hired labor	\$3.01	\$3.07	\$3.11	\$3.23	\$3.23	\$3.42
Feed						
dairy grain & concentrate	\$5.69	\$5.79	\$5.72	\$6.15	\$6.70	\$7.79
dairy roughage	\$0.30	\$0.30	\$0.29	\$0.34	\$0.32	\$0.36
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	\$0.56	\$0.52	\$0.61	\$0.62	\$0.61	\$0.73
machine repairs & parts	\$0.99	\$0.90	\$0.99	\$1.10	\$1.11	\$1.31
fuel, oil & grease	\$0.55	\$0.63	\$0.59	\$0.44	\$0.59	\$1.02



Table 6 Continued

	2017	2018	2019	2020	2021	2022
<b>Livestock</b>						
replacement livestock	\$0.05	\$0.02	\$0.06	\$0.07	\$0.07	\$0.12
breeding fees	\$0.23	\$0.23	\$0.20	\$0.22	\$0.22	\$0.24
veterinary & medicine	\$0.63	\$0.58	\$0.60	\$0.58	\$0.57	\$0.61
milk marketing	\$1.07	\$1.16	\$1.15	\$1.34	\$1.35	\$1.74
bedding	\$0.36	\$0.34	\$0.37	\$0.37	\$0.36	\$0.42
milking supplies	\$0.39	\$0.35	\$0.36	\$0.37	\$0.36	\$0.40
cattle leased	\$0.01	\$0.01	\$0.02	\$0.01	\$0.01	\$0.02
custom boarding	\$0.40	\$0.29	\$0.29	\$0.30	\$0.31	\$0.34
bST	\$0.04	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
livestock, professional fees	\$0.07	\$0.06	\$0.06	\$0.07	\$0.07	\$0.06
other livestock expense	\$0.10	\$0.10	\$0.10	\$0.08	\$0.10	\$0.14
<b>Crops</b>						
fertilizer & lime	\$0.43	\$0.42	\$0.38	\$0.45	\$0.54	\$0.87
seeds & plants	\$0.47	\$0.48	\$0.44	\$0.45	\$0.47	\$0.49
spray & other crop expense	\$0.24	\$0.23	\$0.21	\$0.23	\$0.27	\$0.35
crop, professional fees	\$0.04	\$0.03	\$0.03	\$0.03	\$0.03	\$0.03
<b>Real estate</b>						
land, build., fence repair	\$0.28	\$0.21	\$0.25	\$0.32	\$0.28	\$0.38
taxes	\$0.25	\$0.26	\$0.26	\$0.27	\$0.26	\$0.27
rent & lease	\$0.30	\$0.32	\$0.32	\$0.36	\$0.39	\$0.36
<b>Other cash expense</b>						
insurance	\$0.18	\$0.18	\$0.18	\$0.19	\$0.19	\$0.23
utilities	\$0.35	\$0.37	\$0.33	\$0.35	\$0.37	\$0.47
interest paid	\$0.69	\$0.82	\$0.86	\$0.64	\$0.54	\$0.66
other, professional fees	\$0.09	\$0.10	\$0.11	\$0.09	\$0.09	\$0.12
miscellaneous	\$0.10	\$0.09	\$0.11	\$0.10	\$0.10	\$0.11
<b>Farm operating expenses</b>	<b>\$17.87</b>	<b>\$17.85</b>	<b>\$18.01</b>	<b>\$18.76</b>	<b>\$19.53</b>	<b>\$23.05</b>
Expansion Cattle	\$0.15	\$0.13	\$0.05	\$0.05	\$0.11	\$0.20
Extraordinary Expense	\$0.02	\$0.01	\$0.01	\$0.00	\$0.01	\$0.00
Machinery Depreciation	\$1.01	\$0.93	\$0.89	\$0.91	\$0.84	\$0.94
Building Depreciation	\$0.73	\$0.76	\$0.75	\$0.73	\$0.72	\$0.73
<b>Total Accrual Expenses</b>	<b>\$19.78</b>	<b>\$19.68</b>	<b>\$19.71</b>	<b>\$20.46</b>	<b>\$21.21</b>	<b>\$24.92</b>
<b>Net Farm Income w/o Appreciation</b>	<b>\$1.41</b>	<b>-\$0.03</b>	<b>\$1.85</b>	<b>\$2.64</b>	<b>\$1.78</b>	<b>\$5.04</b>



**Selected Characteristics, Six Year Comparison**  
**Same 92 Farms, Remaining 75% Sorted by ROA w/o Appreciation**  
 New York State, Dairy Farm Business Summary & Analysis Program

**Table 7**

	Year						5 Year % Change
	2017	2018	2019	2020	2021	2022	
<b>Size of Business</b>							
average number of cows	846	891	931	953	971	998	18.0%
average number of heifers	745	772	772	778	769	776	4.2%
percent heifers to cows	88%	87%	83%	82%	79%	78%	
milk sold, pounds	21,937,359	22,840,140	24,234,082	24,853,671	25,963,503	26,594,892	21.2%
worker equivalent	18.45	18.96	19.43	19.55	19.37	19.64	6.4%
total tillable acres	1,704	1,732	1,788	1,872	1,938	1,948	14.3%
<b>Rates of Production</b>							
milk sold per cow, pounds	25,919	25,628	26,029	26,089	26,734	26,658	2.8%
hay DM per acre, tons	3.30	3.20	3.10	3.00	3.60	3.30	0.0%
corn silage per acre, tons	18.00	18.90	18.60	18.60	19.40	18.70	3.9%
grain acres per cow	0.19	0.25	0.14	0.18	0.23	0.21	13.6%
cull rate, %	34%	34%	35%	36%	36%	33%	-2.9%
net calf & cow sales, per cow	\$ 382	\$ 287	\$ 270	\$ 278	\$ 291	\$ 351	
<b>Labor Efficiency</b>							
cows per worker	45.9	47.0	47.9	48.7	50.1	50.8	10.8%
milk sold per worker, pounds	1,189,017	1,204,649	1,247,251	1,271,288	1,340,398	1,354,119	13.9%
<b>Cost Control and Milk Price</b>							
grain & conc. purchased as % of milk sales	31.00	34.00	30.00	33.00	34.00	29.00	
dairy feed & crop expense per cwt. milk	\$ 7.17	\$ 7.24	\$ 7.08	\$ 7.65	\$ 8.32	\$ 9.89	
labor and machinery costs per cow	\$ 1,810	\$ 1,772	\$ 1,827	\$ 1,865	\$ 1,938	\$ 2,217	22.5%
hired labor cost per cwt.	\$ 3.01	\$ 3.07	\$ 3.11	\$ 3.23	\$ 3.23	\$ 3.42	
labor cost per hired worker equivalent	\$ 42,292	\$ 43,596	\$ 45,456	\$ 47,984	\$ 50,829	\$ 53,900	27.4%
operating cost of producing milk per cwt. <sup>1</sup>	\$ 15.30	\$ 15.52	\$ 15.88	\$ 16.28	\$ 16.42	\$ 20.31	
purch. input cost of prod. milk per cwt. <sup>1</sup>	\$ 17.06	\$ 17.23	\$ 17.53	\$ 17.92	\$ 17.99	\$ 21.98	
total cost of producing milk per cwt. <sup>1</sup>	\$ 19.43	\$ 19.55	\$ 19.75	\$ 20.27	\$ 20.38	\$ 24.52	
net milk price per cwt.	\$ 17.39	\$ 16.04	\$ 18.23	\$ 17.11	\$ 18.42	\$ 25.28	

<sup>1</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 7 Continued

	2017	2018	2019	2020	2021	2022	5 Year % Change
<b>Capital Efficiency(average for year)</b>							
farm capital per cow	\$ 12,349	\$ 12,008	\$ 11,730	\$ 12,220	\$ 12,759	\$ 13,600	10.1%
machinery and equipment per cow	\$ 2,026	\$ 1,941	\$ 1,884	\$ 1,963	\$ 2,062	\$ 2,273	12.2%
asset turnover ratio	0.47	0.41	0.51	0.51	0.51	0.62	
net reinvestment per cow	\$ 811	\$ 492	\$ 490	\$ 784	\$ 825	\$ 1,164	
<b>Profitability</b>							
net farm income without appreciation	\$ 308,183	\$ (6,792)	\$ 448,884	\$ 655,778	\$ 461,999	\$ 1,340,601	
net farm income w/o apprec. per cow	\$ 364	\$ (8)	\$ 482	\$ 688	\$ 476	\$ 1,343	
net farm income with appreciation	\$ 556,652	\$ (108,580)	\$ 744,771	\$ 883,702	\$ 780,915	\$ 1,741,464	
net farm income with apprec. per cow	\$ 658	\$ (122)	\$ 800	\$ 927	\$ 804	\$ 1,745	
labor & management income per oper.	\$ (13,530)	\$ (140,308)	\$ 42,081	\$ 111,143	\$ 20,391	\$ 362,037	
net non-farm withdrawals per cwt.	\$ 0.81	\$ 0.78	\$ 0.92	\$ 0.83	\$ 1.15	\$ 1.39	
rate of return on equity capital with apprec.	5.5%	-4.4%	8.0%	9.0%	7.0%	16.6%	
rate of return on all capital with apprec.	5.0%	-1.1%	6.9%	7.2%	5.7%	12.5%	
rate of return on equity capital w/o apprec.	1.9%	-2.9%	3.7%	6.0%	3.1%	12.3%	
rate of return on all capital w/o apprec.	2.7%	-0.1%	4.2%	5.2%	3.2%	9.6%	
<b>Financial Summary</b>							
farm net worth, end of year	\$ 6,928,780	\$ 6,634,807	\$ 7,105,900	\$ 8,004,131	\$ 8,409,012	\$ 9,824,370	48.0%
debt to asset ratio	0.35	0.38	0.36	0.33	0.34	0.31	
farm debt per cow	\$ 4,419	\$ 4,445	\$ 4,283	\$ 4,146	\$ 4,448	\$ 4,330	-2.0%
debt coverage ratio	1.31	0.73	1.37	1.69	1.21	2.61	
working capital, as % of expenses	19%	16%	18%	23%	23%	27%	
retained earnings	\$ 130,180	\$ (183,304)	\$ 226,705	\$ 449,555	\$ 186,963	\$ 1,065,074	
valuation equity change	\$ 120,163	\$ (172,995)	\$ 214,632	\$ 123,739	\$ 158,416	\$ 208,457	



Table 8

**"Legal 21" Farm Financial Ratios**  
**Same 30 Farms, Top 25% Sorted by ROA w/o Appreciation, New York State, DFBS**  
**2017-2022**

	DFBS page	2017	2018	2019	2020	2021	2022	6 Year Average	Your Farm
<b>Liquidity</b>									
Current Ratio	7	2.53	3.07	3.74	3.98	3.95	4.37	3.61	<input type="text"/>
Working Capital	7	\$2,002,994	\$2,341,071	\$2,923,487	\$3,767,900	\$4,183,544	\$5,837,644	\$3,509,440	<input type="text"/>
As % of Total Expense	7	28.0%	30.0%	35.0%	41.0%	41.0%	47.0%	37.0%	<input type="text"/>
As % of Gross Revenue <sup>1</sup>	calc	24.1%	27.6%	29.0%	33.7%	35.6%	35.9%	31.0%	<input type="text"/>
<b>Solvency</b>									
Debt/Asset Ratio	7	0.28	0.29	0.27	0.25	0.25	0.24	0.26	<input type="text"/>
Equity/Asset Ratio	7	0.72	0.71	0.73	0.75	0.75	0.76	0.74	<input type="text"/>
Debt/Equity Ratio(Leverage Ratio)	7	0.39	0.41	0.37	0.33	0.34	0.32	0.36	<input type="text"/>
<b>Profitability</b>									
Net Farm Income w/o Appreciation. (Per Cow)	1	\$772	\$463	\$952	\$1,076	\$784	\$2,034	\$1,014	<input type="text"/>
ROA w/o Appreciation	4	6.3%	4.1%	8.7%	9.2%	6.1%	14.9%	8.2%	<input type="text"/>
ROE w/o Appreciation	4	7.3%	4.0%	10.2%	11.1%	7.1%	18.7%	9.7%	<input type="text"/>
Operating Profit Margin Ratio <sup>2</sup>	calc	0.13	0.09	0.16	0.17	0.12	0.24	0.15	<input type="text"/>
EBITDA(Per Cow) <sup>3</sup>	calc	\$1,173	\$871	\$1,358	\$1,454	\$1,143	\$2,446	\$1,407	<input type="text"/>
<b>Repayment Capacity</b>									
Capital Debt Repayment Capacity(per cow) <sup>4</sup>	calc	\$1,105	\$679	\$1,205	\$1,335	\$876	\$2,047	\$1,208	<input type="text"/>
Capital Debt Repayment Margin(per cow) <sup>5</sup>	calc	\$709	\$235	\$775	\$914	\$436	\$1,635	\$784	<input type="text"/>
Replacement Margin(per cow) <sup>6</sup>	calc	\$862	\$465	\$992	\$1,121	\$659	\$1,811	\$985	<input type="text"/>
Term Debt Coverage Ratio	1	2.79	1.53	2.80	3.17	1.99	4.96	2.87	<input type="text"/>
Replacement Margin Coverage Ratio <sup>7</sup>	calc	1.7	1.0	1.9	2.1	1.3	3.2	1.9	<input type="text"/>



Table 8 Continued

	DFBS page	2017	2018	2019	2020	2021	2022	6 Year Average	Your Farm
<b>Financial Efficiency</b>									
Asset Turnover Ratio <sup>8</sup>	14	0.5	0.45	0.55	0.55	0.54	0.66	0.54	
Operating Expense Ratio	14	0.77	0.81	0.74	0.74	0.79	0.69	0.76	
Depreciation Expense Ratio	14	0.08	0.08	0.07	0.07	0.07	0.05	0.07	
Interest Expense Ratio	14	0.02	0.03	0.03	0.02	0.01	0.01	0.02	
Net Farm Income from Operations Ratio	4	0.14	0.09	0.16	0.18	0.13	0.24	0.16	

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

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

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 9

**"Legal 21" Farm Financial Ratios  
Same 122 Farms, New York State, DFBS  
2017-2022**

	DFBS page	2017	2018	2019	2020	2021	2022	6 Year Average	Your Farm
<b>Liquidity</b>									
Current Ratio	7	2.32	2.3	2.69	3.14	3.07	3.76	2.88	
Working Capital	7	\$1,100,803	\$1,108,727	\$1,371,231	\$1,809,425	\$1,995,790	\$2,770,990	\$1,692,828	
As % of Total Expense	7	22.0%	21.0%	24.0%	30.0%	30.0%	35.0%	27.0%	
As % of Gross Revenue <sup>1</sup>	calc	19.8%	20.3%	21.4%	25.6%	27.0%	27.7%	23.6%	
<b>Solvency</b>									
Debt/Asset Ratio	7	0.33	0.35	0.33	0.3	0.31	0.28	0.32	
Equity/Asset Ratio	7	0.67	0.65	0.67	0.70	0.69	0.72	0.68	
Debt/Equity Ratio(Leverage Ratio)	7	0.49	0.53	0.49	0.43	0.45	0.40	0.47	
<b>Profitability</b>									
Net Farm Income w/o Appreciation (Per Cow)	1	\$511	\$167	\$660	\$839	\$596	\$1,612	\$731	
ROA w/o Appreciation	4	3.9%	1.4%	5.8%	6.7%	4.2%	11.6%	5.6%	
ROE w/o Appreciation	4	3.9%	-0.3%	6.3%	8.0%	4.7%	14.9%	6.3%	
Operating Profit Margin Ratio <sup>2</sup>	calc	0.09	0.03	0.12	0.13	0.09	0.19	0.11	
EBITDA(Per Cow) <sup>3</sup>	calc	\$923	\$589	\$1,090	\$1,219	\$948	\$2,020	\$1,131	
<b>Repayment Capacity</b>									
Capital Debt Repayment Capacity(per cow) <sup>4</sup>	calc	\$900	\$528	\$1,013	\$1,170	\$803	\$1,828	\$1,040	
Capital Debt Repayment Margin(per cow) <sup>5</sup>	calc	\$375	-\$13	\$443	\$621	\$250	\$1,273	\$492	
Replacement Margin(per cow) <sup>6</sup>	calc	\$645	\$298	\$788	\$942	\$580	\$1,583	\$806	
Term Debt Coverage Ratio	1	1.72	0.98	1.78	2.13	1.45	3.29	1.89	
Replacement Margin Coverage Ratio <sup>7</sup>	calc	1.2	0.7	1.3	1.5	1.0	2.3	1.3	

Table 9 Continued

		2017	2018	2019	2020	2021	2022	6 Year Average	Your Farm
<b>Financial Efficiency</b>									
Asset Turnover Ratio <sup>8</sup>	14	0.48	0.43	0.52	0.53	0.52	0.63	0.52	
Operating Expense Ratio	14	0.8	0.85	0.78	0.77	0.82	0.73	0.791667	
Depreciation Expense Ratio	14	0.08	0.08	0.07	0.07	0.07	0.05	0.07	
Interest Expense Ratio	14	0.03	0.04	0.03	0.02	0.02	0.02	0.027	
Net Farm Income from Operations Ratio	4	0.09	0.03	0.12	0.14	0.10	0.20	0.11	

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

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

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

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