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Six Year Trend Analysis 2018 New York State Dairy Farms Selected Financial and Production Factors

Dairy Farm Business Summary New York State Same 128 Farms 2013-2018

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Six Year Trend Analysis
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Selected Financial and Production Factors
Dairy Farm Business Summary
New York State
Same 128 Farms, 2013 – 2018

Jason Karszes and Jessica Skellie¹

Trend analysis is an important use of benchmarking within a dairy businesses. While current year performance is important, understanding trends within the business and the industry may provide additional insight into strengths and areas of opportunities within the business. To provide benchmark trends of various financial and performance factors over time, data was utilized from 128 farms that have participated in the Dairy Farm Business Summary and Analysis Project in New York State for six years, from 2013 thru 2018. This information is reported on an average basis, the top 20% of farms as determined by average return on assets w/o appreciation over the six years, and the remaining 80% of farms. For selected factors, the trends and changes between the top 20% of farms and the remaining 80% are highlighted. The following tables present these benchmarks:

Selected Characteristics, Six Year Comparison, Average All 128 Farms
Top 20% of Farms vs Remaining 80% of Farms, Percent Change and Differences
Top 20% of Farms vs Remaining 80% of Farms, Selected Measures, Six Year
Six Year per Cwt. Comparison, Same 26 Farms, Top 20%
Selected Characteristics, Six Year Comparison, Same 26 Farms, Top 20%
Six Year per Cwt. Comparison, Same 102 Farms, Remaining 80%
Selected Characteristics, Six Year Comparison, Same 102 Farms, Remaining 80%
"Legal 21" Farm Financial Ratios, Same 26 Farms, Top 20%
"Legal 21" Farm Financial Ratios, Same 128 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, than can compare your trend to the benchmark trend. If your trend is different than the industry, than can ask the question why, and if it is better or worse than the industry trend. If you are a DFBS cooperator, you can work with your extension educator to look at these trends and comparisons for all farms and your farm business.

These benchmarks and comparison 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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¹ PRO-DAIRY Program, Department of Animal Science, Cornell University, Ithaca, NY



PRO DAIRY

Selected Characteristics, Six Year Comparison Same 128 Farms

New York State, Dairy Farm Business Summary & Analysis Program

	New York State, Da	airy Farm Business S	ummary & Analysis	s Program			%
Size of Business	2013	2014	2015	2016	2017	2018	Change
average number of cows	720	763	803	844	891	947	31.5%
percent heifers to cows	87%	85%	85%	87%	87%	85%	
milk sold, pounds	18,502,093	19,521,827	20,559,603	22,193,735	23,166,516	24,459,516	32.2%
worker equivalent	15.9	17.0	17.8	18.1	18.8	19.4	
tillable acres per cow	2.11	2.06	2.06	2.03	1.97	1.92	-9.0%
corn grain acres per cow	0.21	0.19	0.19	0.16	0.16	0.24	
Rates of Production							
milk sold per cow, pounds	25,697	25,577	25,618	26,298	25,987	25,828	0.5%
cull rate	35%	34%	34%	34%	34%	32%	
net calf & cow sales, per cow	391	502	566	409	376	303	
Labor Efficiency							
cows per worker	45.2	44.8	45.2	46.5	47.4	48.9	8.2%
milk sold per worker, pounds	1,161,462	1,145,647	1,156,333	1,223,469	1,231,606	1,262,753	8.7%
Cost Control and Milk Price							
dairy feed & crop expense per cwt. milk	\$ 8.78	\$ 9.01	\$ 8.23	\$ 7.25	\$ 7.14	\$ 7.17	
labor and machinery costs per cow	\$ 1,743	\$ 1,743	\$ 1,831	\$ 1,754	\$ 1,689	\$ 1,745	
hired labor cost per cwt.	\$ 2.74	\$ 2.89	\$ 2.96	\$ 2.84	\$ 2.94	\$ 2.96	
labor cost per hired worker equivalent	\$ 37,843	\$ 38,723	\$ 39,920	\$ 40,525	\$ 42,225	\$ 43,468	14.9%
operating cost of producing milk per cwt.	\$ 16.31	\$ 17.01	\$ 15.55	\$ 14.48	\$ 14.79	\$ 15.01	
purch. input cost of producing milk per cwt.	\$ 17.87	\$ 18.68	\$ 17.24	\$ 16.20	\$ 16.56	\$ 16.71	
total cost of producing milk per cwt.	\$ 20.09	\$ 21.04	\$ 19.70	\$ 18.55	\$ 18.90	\$ 18.98	
net milk price per cwt.	\$ 20.85	\$ 24.52	\$ 17.37	\$ 16.14	\$ 17.38	\$ 16.08	
Capital Efficiency(average for year)							
farm capital per cow	\$ 10,805	\$ 11,489	\$ 12,117	\$ 12,150	\$ 12,141	\$ 11,773	9.0%
machinery and equipment per cow	\$ 1,764	\$ 1,893	\$ 2,000	\$ 1,965	\$ 1,896	\$ 1,817	
net reinvestment per cow	\$ (939)	\$ (1,315)	\$ (1,233)	\$ (911)	\$ (878)	\$ (572)	
Profitability						· ·	
net farm income without appreciation	\$ 703,757	\$ 1,312,737	\$ 222,143	\$ 197,326	\$ 441,030	\$ 134,694	
net farm income w/o apprec. per cow	\$ 977	\$ 1,720	\$ 277	\$ 234	\$ 495	\$ 142	
labor & management income per oper.	\$ 204,767	\$ 468,800	\$ (57,275)	\$ (71,110)	\$ 30,902	\$ (102,582)	
rate of return on equity capital w/o apprec.	10.5%	18.7%	0.9%	0.4%	3.6%	-0.7%	
rate of return on all capital w/o apprec.	8.3%	14.2%	1.6%	1.4%	3.8%	1.1%	
Financial Summary							
farm net worth, end of year	5,635,525	6,819,913	6,973,523	7,108,604	7,546,008	7,287,797	47.2%
debt to asset ratio	0.30	0.28	0.30	0.32	0.32	0.35	
farm debt per cow	\$ 3,377	\$ 3,407	\$ 3,726	\$ 3,887	\$ 3,956	\$ 3,996	18.4%
retained earnings	\$ 457,680	\$ 1,074,723	\$ (35,969)	\$ (38,313)	\$ 259,895	\$ (105,497)	\$1,612,519
valuation equity	\$ 33,749	\$ 99,771	\$ 68,640	\$ 44,674	\$ 121,697	\$ (215,410)	\$153,120
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Top 20% of Farms vs. Remaining 80% of Farms Percent Change and Differences, Selected Measures Same 128 Farms, 2013-2018 Dairy Farm Business Summary, New York State

		2013	2018	Change	Percent Change	Percent Di 2013	fference 2018
Average Herd Size, Milking	a & Drv	2010	2010	Onlange	Orlange	2013	2010
7. (Vorago 1101a 0120, William)	Top 20%	1,108	1,686	578	52.2%	82.5%	122.1%
	80%	607	759	152	25.0%		
Milk per Cow, Lbs.							
•	Top 20%	26,579	25,846	-733	-2.8%	5.2%	0.1%
	80%	25,267	25,817	551	2.2%		
Milk Sold per Farm, Lbs.							
	Top 20%	30,909,952	43,583,475	12,673,523	41.0%	101.5%	122.5%
	80%	15,339,305	19,584,782	4,245,477	27.7%		
Cows per Worker							
	Top 20%	46.7	52.1	5.36	11.5%	7.4%	10.1%
	80%	43.5	47.3	3.78	8.7%		
Milk Sold per Worker, Lbs.							
	Top 20%	1,303,118	1,346,000	42,882	3.3%	18.5%	10.3%
	80%	1,099,592	1,220,236	120,644	11.0%		
Hired Labor Cost per Cwt.	T 000/	\$0.00	A O	00.40	40.50/	7.00/	0.00/
	Top 20%	\$2.60	\$3.03	\$0.43	16.5%	-7.6%	3.6%
0 1 11 114 1	80%	\$2.81	\$2.92	\$0.11	4.0%		
Cost per Hired Worker	T 000/	#07.000	044457	#0.057	40.50/	0.00/	0.50/
	Top 20%	\$37,900	\$44,157	\$6,257	16.5%	0.2%	2.5%
In the second Day One	80%	\$37,818	\$43,070	\$5,252	13.9%		
Investment Per Cow	T 200/	#40 440	#44.000		0.00/	0.00/	0.00/
	Top 20%	\$10,116	\$11,003	\$887	8.8%	-9.2%	-9.9%
Machinen Invest nor Cou	80%	\$11,141	\$12,209	\$1,068	9.6%		
Machinery Invest. per Cow	Top 20%	\$1,505	\$1,493	-\$11.67	-0.8%	-20.4%	-25.4%
	80%	\$1,890	\$2,001	\$110.69	-0.6% 5.9%	-20.4%	-23.4%
Debt Per Cow, End of Yea		φ1,090	φ2,001	φ110.09	5.970		
Dept Fel Cow, Life of Fea	Top 20%	\$2,678	\$2,846	\$168.00	6.3%	-28.1%	-39.0%
	80%	\$3,723	\$4,665	\$942.00	25.3%	-20.170	-09.070
Net Worth, Beginning of 20			Ψ+,000	Ψ5-72.00	20.070		
rtot tvorai, boginning of 20	Top 20%	\$8,044,390	\$13,756,729	\$5 712 339	71.0%	85.7%	144.0%
	80%	\$4,331,179		\$1,307,675	30.2%	00.1 70	. 11.073
		<u> </u>	+ 0,000,001	Ţ.,001,010	00.270	I	



Top 20% of Farms vs. Remaining 80% of Farms Selected Measures, Six Year Comparison Same 128 Farms, 2013-2018 Table 3

Dairy Farm Business Summary, New York State

	2013	2014	2015	2016	2017	2018
t Per Cow						
Top 20%	\$1,060	\$1,459	\$1,058	\$1,166	\$1,070	\$731
80%	\$904	\$1,241	\$1,327	\$773	\$771	\$482
er Cow						
Top 20%	\$10,116	\$10,781	\$11,215	\$11,259	\$11,367	\$11,003
80%	\$11,141	\$11,852	\$12,591	\$12,631	\$12,568	\$12,209
per Cow						
Top 20%	1.94	1.82	1.80	1.82	1.76	1.70
80%	2.18	2.11	2.13	2.11	2.05	1.99
res per Cow	1					
Top 20%	0.14	0.15	0.17	0.14	0.12	0.23
80%	0.24	0.21	0.20	0.17	0.19	0.24
•	•	\$149	•		·	\$162
	\$162	\$148	\$126	\$129	\$136	\$80
cent						
Top 20%						30%
		35%	35%	34%	34%	34%
	. ,					
						\$319
	\$388	\$500	\$564	\$404	\$385	\$294
						81%
			87%	88%	89%	87%
	•					
•						\$14.31
	•	\$17.64	\$15.96	\$14.81	\$15.20	\$15.41
	•					
•						\$17.98
		\$21.90	\$20.34	\$19.09	\$19.50	\$19.54
•				· · · · · · · · · · · · · · · · · · ·		\$374
	\$785	\$1,494	\$130	\$104	\$351	\$11
				•		
						\$16.14
		\$24.46	\$17.31	\$16.06	\$17.31	\$16.04
		***	004.47	# 40.00	004.50	# 00.01
•						\$20.21
80%	\$24.74	\$28.57	\$21.90	\$19.91	\$21.32	\$19.47
al as Percer	nt of Expenses		0.40/	000/	000/	000/
	nt of Expenses 30% 21%	40% 27%	31% 20%	28% 17%	29% 16%	30% 14%
	80% Der Cow Top 20% 80% Per Cow Top 20% 80% Per Cow Top 20% 80% Per Cow Top 20% 80% Produce Milk Top 20% 80%	Top 20% \$1,060 80% \$904 Der Cow Top 20% \$10,116 80% \$11,141 Der Cow Top 20% 1.94 80% 2.18 Deres per Cow Top 20% 0.14 80% 0.24 80% 0.24 80% \$162 Deres per Cow Top 20% \$192 80% \$162 Deres to to the total series per Cow(1) Top 20% \$34% 80% 36% We Income, per Cow(1) Top 20% \$417 80% \$388 Tes to Cows Top 20% \$192 80% \$162 Deres to Cows Top 20% \$417 80% \$388 Deres to Cows Top 20% \$15.42 80% \$16.78 Deres to Produce Milk per Cwt. Top 20% \$15.42 80% \$16.78 Deres to Produce Milk per Cwt. Top 20% \$18.77 80% \$20.77 Deres to Every Series per Cwt. Top 20% \$1,437 80% \$785 Der Cwt. Top 20% \$21.14 80% \$20.70 Deres to Every Series per Cwt. Top 20% \$24.86	Top 20% \$1,060 \$1,459 80% \$904 \$1,241 Der Cow Top 20% \$10,116 \$10,781 80% \$11,141 \$11,852 Der Cow Top 20% 1.94 1.82 80% 2.18 2.11 Dres per Cow Top 20% 0.14 0.15 80% 0.24 0.21 Dres per Cow Top 20% \$192 \$149 80% \$162 \$148 Dres cent Top 20% \$447 \$507 80% 36% 35% Wellncome, per Cow(1) Top 20% \$417 \$507 80% \$388 \$500 Dres to Cows Top 20% \$15.42 \$15.83 80% \$6% 86% Dres to Produce Milk per Cwt. Top 20% \$18.77 \$19.42 80% \$20.77 \$21.90 Dres Cow Top 20% \$1,437 \$2,161 80% \$785 \$1,494 Dres Cow Top 20% \$1,437 \$2,161 80% \$785 \$1,494 Dres Cow Top 20% \$21.14 \$24.62 80% \$20.70 \$24.46 Dres Cow Top 20% \$21.14 \$24.62 80% \$20.70 \$24.46 Dres Cow Top 20% \$24.86 \$28.87	Top 20% \$1,060 \$1,459 \$1,058 80% \$904 \$1,241 \$1,327 Per Cow Top 20% \$10,116 \$10,781 \$11,215 80% \$111,141 \$11,852 \$12,591 Per Cow Top 20% 1.94 1.82 1.80 80% 2.18 2.11 2.13 Per Ser Cow Top 20% 0.14 0.15 0.17 80% 0.24 0.21 0.20 Per Cow Top 20% \$192 \$149 \$86 80% \$162 \$148 \$126 Per Cot Top 20% 34% 32% 32% 80% 36% 35% 35% We Income, per Cow(1) Top 20% \$417 \$507 \$568 80% \$388 \$500 \$564 Per Ser to Cows Top 20% \$194 \$47 \$507 \$568 80% \$388 \$500 \$564 Per to Cows Top 20% \$15.42 \$15.83 \$14.79 80% \$16.78 \$17.64 \$15.96 Produce Milk per Cwt. Top 20% \$18.77 \$19.42 \$18.52 80% \$20.77 \$21.90 \$20.34 Per Cow Top 20% \$1437 \$2,161 \$557 80% \$785 \$1,494 \$130 Per Cwt. Top 20% \$24.46 \$17.31 Per Receipts per Cwt. Top 20% \$24.46 \$17.31 Per Receipts per Cwt. Top 20% \$24.46 \$28.87 \$21.47	Top 20% \$1,060 \$1,459 \$1,058 \$1,166 80% \$904 \$1,241 \$1,327 \$773 ber Cow Top 20% \$10,116 \$10,781 \$11,215 \$11,259 80% \$11,141 \$11,852 \$12,591 \$12,631 per Cow Top 20% \$10,116 \$10,781 \$11,215 \$11,259 80% \$11,141 \$11,852 \$12,591 \$12,631 per Cow Top 20% \$1.94 \$1.82 \$1.80 \$1.82 80% \$2.18 \$2.11 \$2.13 \$2.11 bers per Cow Top 20% \$0.14 \$0.15 \$0.17 \$0.14 80% \$0.24 \$0.21 \$0.20 \$0.17 \$2, Per Cow Top 20% \$192 \$149 \$86 \$51 80% \$162 \$148 \$126 \$129 bern to the company of the comp	The Per Cow Top 20% \$1,060 \$1,459 \$1,058 \$1,166 \$1,070 80% \$904 \$1,241 \$1,327 \$773 \$771 8771 8771 8771 8771 8771 8771 8771

⁽¹⁾ Net Calf & Cow Income, per Cow = cattle revenue plus calf revenue - purchased replacement - expansion cattle expense.



		2013	2014	2015	2016	2017	2018
Hired Labor Co	ost per Cwt.						
	Top 20%	\$2.60	\$2.77	\$2.83	\$2.79	\$2.99	\$3.03
	80%	\$2.81	\$2.95	\$3.03	\$2.86	\$2.92	\$2.92
Purchased Fee	ed per Cwt.						
	Top 20%	\$7.00	\$7.06	\$6.46	\$5.58	\$5.53	\$5.67
	80%	\$7.02	\$7.39	\$6.63	\$5.82	\$5.79	\$5.83
Livestock Expe	enses, Total (2)) per Cwt.					
	Top 20%	\$3.03	\$3.16	\$3.24	\$3.08	\$3.15	\$3.14
	80%	\$3.42	\$3.53	\$3.51	\$3.23	\$3.31	\$3.06
Machinery & F	uel Expenses (រ	3) per Cwt.					
	Top 20%	\$2.12	\$2.25	\$1.92	\$1.69	\$1.83	\$1.81
	80%	\$2.47	\$2.60	\$2.20	\$1.91	\$2.07	\$1.99
Machinery Dep	reciation Exper	nse per Cwt.					
	Top 20%	\$0.78	\$0.85	\$0.87	\$0.85	\$0.89	\$0.84
	80%	\$1.00	\$1.11	\$1.04	\$1.05	\$1.06	\$0.95
Crop Input Cos	sts (4) per Cwt.						
	Top 20%	\$1.21	\$1.19	\$1.13	\$1.02	\$1.00	\$1.00
	80%	\$1.50	\$1.46	\$1.46	\$1.24	\$1.18	\$1.09
Additional Fixe	d Costs (5) per	Cwt.					
	Top 20%	\$1.55	\$1.75	\$1.58	\$1.36	\$1.39	\$1.39
	80%	\$1.76	\$1.98	\$1.85	\$1.60	\$1.64	\$1.64
Interest Costs	•						
	Top 20%	\$0.32	\$0.27	\$0.28	\$0.32	\$0.40	\$0.51
	80%	\$0.53	\$0.50	\$0.53	\$0.61	\$0.72	\$0.82
	erating Expense						
	Top 20%	\$18.28	\$18.86	\$17.80	\$16.23	\$16.69	\$16.99
	80%	\$19.86	\$20.77	\$19.49	\$17.62	\$17.93	\$17.64

- (2) 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
- (3) Machinery & Fuel Expenses = sum of machine hire, rent, & lease, machine repairs & parts, and fuel, oil, & grease expense categories
- (4) Crop Input Costs = sum of fertilizer & lime, seeds & plants, spray & other crop expenses, and crop, professional fees expense categories
- (5) 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 26 Farms, Top 20% Sorted by Return on Assets w/o Appreciation New York State, Dairy Farm Business Summary & Analysis Program

			Ye	ar		
	2013	2014	2015	2016	2017	2018
number of cows	1,108	1,271	1,360	1,458	1,558	1,686
milk sales in pounds	30,909,952	33,377,935	35,707,557	39,032,683	41,028,994	43,583,475
milk per cow	26,579	26,254	26,247	26,767	26,342	25,846
RECEIPTS						
milk sales-\$	\$21.94	\$25.50	\$18.40	\$17.19	\$18.56	\$17.35
dairy cattle sales	\$1.42	\$2.02	\$1.84	\$1.67	\$1.50	\$1.39
dairy calf sales	\$0.16	\$0.25	\$0.38	\$0.20	\$0.20	\$0.07
other livestock sales	\$0.02	\$0.05	\$0.00	\$0.06	\$0.05	\$0.06
crop sales	\$0.69	\$0.57	\$0.33	\$0.19	\$0.60	\$0.63
government receipts	\$0.17	\$0.01	\$0.11	\$0.09	\$0.06	\$0.09
custom machine work	\$0.10	\$0.09	\$0.07	\$0.07	\$0.07	\$0.08
gas tax refund	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
other	\$0.36	\$0.37	\$0.35	\$0.36	\$0.49	\$0.55
non-cash transfer(subtract)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Farm operating receipts	\$24.86	\$28.87	\$21.47	\$19.82	\$21.53	\$20.21
EXPENSES						
Hired labor	\$2.60	\$2.77	\$2.83	\$2.79	\$2.99	\$3.03
Feed						
dairy grain & concentrate	\$7.00	\$7.06	\$6.46	\$5.58	\$5.53	\$5.67
dairy roughage	\$0.45	\$0.40	\$0.37	\$0.40	\$0.40	\$0.44
nondairy feed	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
professional nutritional services	\$0.01	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Machinery						
machine hire, rent & lease	\$0.35	\$0.45	\$0.43	\$0.41	\$0.42	\$0.42
machine repairs & parts	\$0.96	\$1.00	\$0.94	\$0.86	\$0.92	\$0.84
fuel, oil & grease	\$0.80	\$0.81	\$0.55	\$0.41	\$0.48	\$0.55



Table 4 Continued

						Iabic
Livestock	2013	2014	2015	2016	2017	2018
replacement livestock	\$0.03	\$0.01	\$0.00	\$0.01	\$0.01	\$0.04
breeding fees	\$0.19	\$0.20	\$0.20	\$0.19	\$0.21	\$0.20
veterinary & medicine	\$0.70	\$0.67	\$0.69	\$0.66	\$0.65	\$0.62
milk marketing	\$0.80	\$0.89	\$0.93	\$0.92	\$1.06	\$1.21
bedding	\$0.42	\$0.42	\$0.41	\$0.39	\$0.39	\$0.35
milking supplies	\$0.31	\$0.31	\$0.36	\$0.36	\$0.30	\$0.31
cattle leased	\$0.03	\$0.03	\$0.03	\$0.03	\$0.03	\$0.02
custom boarding	\$0.21	\$0.29	\$0.31	\$0.31	\$0.29	\$0.26
bST	\$0.19	\$0.20	\$0.19	\$0.12	\$0.04	\$0.00
livestock, professional fees	\$0.06	\$0.05	\$0.05	\$0.06	\$0.05	\$0.05
other livestock expense	\$0.09	\$0.10	\$0.08	\$0.05	\$0.11	\$0.08
Crops						
fertilizer & lime	\$0.52	\$0.46	\$0.48	\$0.38	\$0.37	\$0.40
seeds & plants	\$0.46	\$0.50	\$0.43	\$0.42	\$0.46	\$0.41
spray & other crop expense	\$0.20	\$0.22	\$0.21	\$0.18	\$0.16	\$0.18
crop, professional fees	\$0.02	\$0.01	\$0.01	\$0.04	\$0.01	\$0.01
Real estate						
land, build., fence repair	\$0.37	\$0.42	\$0.36	\$0.28	\$0.30	\$0.27
taxes	\$0.21	\$0.25	\$0.23	\$0.25	\$0.25	\$0.25
rent & lease	\$0.25	\$0.23	\$0.25	\$0.22	\$0.22	\$0.22
Other cash expense						
insurance	\$0.14	\$0.16	\$0.19	\$0.15	\$0.15	\$0.14
utilities	\$0.38	\$0.44	\$0.35	\$0.30	\$0.30	\$0.34
interest paid	\$0.32	\$0.27	\$0.28	\$0.32	\$0.40	\$0.51
other, professional fees	\$0.09	\$0.09	\$0.10	\$0.07	\$0.08	\$0.09
miscellaneous	\$0.11	\$0.15	\$0.10	\$0.08	\$0.08	\$0.08
Farm operating expenses	\$18.28	\$18.86	\$17.80	\$16.23	\$16.69	\$16.99
Expansion Cattle	\$0.06	\$0.33	\$0.06	\$0.29	\$0.33	\$0.18
Extraordinary Expense	\$0.00	\$0.02	\$0.00	\$0.00	\$0.01	\$0.00
Machinery Depreciation	\$0.78	\$0.85	\$0.87	\$0.85	\$0.89	\$0.84
Building Depreciation	\$0.59	\$0.58	\$0.62	\$0.68	\$0.74	\$0.75
Total Accrual Expenses	\$19.71	\$20.64	\$19.35	\$18.05	\$18.67	\$18.76
Net Farm Income w/o Appreciation	\$5.15	\$8.23	\$2.12	\$1.77	\$2.87	\$1.45



purch. input cost of prod. milk per cwt.

total cost of producing milk per cwt.

net milk price per cwt.

Selected Characteristics, Six Year Comparison Same 26 Farms, Top 20%, Sorted by Return on Assets w/o Appreciation

New York State, Dairy Farm Business Summary & Analysis Program

Year 2013 2014 2017 2015 2016 2018 Percent Size of Business Change average number of cows 1,108 1,271 1,360 1,458 1,558 1,686 52.2% 1,067 1,231 average number of heifers 1,005 1,132 1,319 1,368 36.1% percent heifers to cows 91% 84% 83% 84% 85% 81% milk sold, pounds 30,909,952 33,377,935 35,707,557 39,032,683 41,028,994 43,583,475 41.0% worker equivalent 23.72 26.35 27.77 29.28 31.22 32.38 36.5% total tillable acres 2,148 2,309 2,448 2,743 2,660 2,867 33.4% Rates of Production milk sold per cow, pounds 26,579 26,254 26,247 26,767 26,342 25,846 -2.8% hay DM per acre, tons 3.80 3.50 3.30 3.20 3.20 3.30 -13.2% 18.90 4.3% corn silage per acre, tons 18.40 19.20 19.00 16.80 19.20 grain acres per cow 0.14 0.15 0.17 0.14 0.12 0.23 63.6% cull rate 34% 32% 32% 34% 34% 30% -11.8% net calf & cow sales, per cow \$ 417 \$ 507 \$ 568 \$ 421 \$ 358 \$ 319 Labor Efficiency 46.7 48.2 49.0 49.8 49.9 52.1 11.5% cows per worker 1,303,118 1,266,715 1,285,832 1,333,083 3.3% milk sold per worker, pounds 1,314,189 1,346,000 Cost Control and Milk Price 32% 28% 35% 32% 30% 33% grain & conc. purchased as % of milk sales dairy feed & crop expense per cwt. milk \$ 8.65 \$ 8.65 \$ 7.95 6.99 \$ 6.93 7.10 labor and machinery costs per cow \$ 1,605 \$ 1,686 \$ 1.630 \$ 1.573 \$ 1.645 \$ 1.598 -0.4% hired labor cost per cwt. \$ 2.60 \$ 2.77 \$ 2.83 2.79 \$ 2.99 3.03 \$ \$ labor cost per hired worker equivalent 37,900 \$ 38,900 \$ 40,296 \$ 40,809 42,753 \$ 44,157 16.5% \$ operating cost of producing milk per cwt. \$ \$ 14.05 \$ 14.31 15.42 15.83 14.79 13.89

\$

\$

\$

16.28

18.52

17.47

\$

17.28

19.42

24.62

\$

\$

\$

15.42

17.56

16.27

15.70

17.83

17.51

\$

15.90

17.98

16.14

\$

\$

\$

16.79

18.77

21.14

\$

Table 5



								Table	5 Continued
Capital Efficiency(average for year)	2013	2014	2015		2016	2017		2018	
farm capital per cow	\$ 10,116	\$ 10,781	\$ 11,215	\$	11,259	\$ 11,367	\$	11,003	8.8%
machinery and equipment per cow	\$ 1,505	\$ 1,628	\$ 1,750	\$	1,693	\$ 1,598	\$	1,493	-0.8%
asset turnover ratio	0.67	0.72	0.53		0.49	0.52		0.45	
net reinvestment per cow	\$ (1,060)	\$ (1,459)	\$ (1,058)	\$	(1,166)	\$ (1,070)	\$	(731)	
Profitability									
net farm income without appreciation	\$ 1,592,729	\$ 2,746,236	\$ 757,212	\$	692,083	\$ 1,176,009	\$	631,229	\$7,595,498
net farm income w/o apprec. per cow	\$ 1,437	\$ 2,161	\$ 557	\$	475	\$ 755	\$	374	
net farm income with appreciation	\$ 1,824,341	\$ 3,003,000	\$ 1,223,555	\$	998,606	\$ 1,511,070	\$	262,617	
net farm income with apprec. per cow	\$ 1,647	\$ 2,363	\$ 900	\$	685	\$ 970	\$	156	
labor & management income per oper.	\$ 499,722	\$ 955,649	\$ 68,339	\$	27,374	\$ 218,943	\$	(24,459)	\$1,745,569
net non-farm withdrawals per cwt.	\$ 1.40	\$ 1.30	\$ 1.57	\$	1.01	\$ 0.68	\$	0.65	
rate of return on equity capital with apprec.	19.0%	27.0%	8.6%		6.3%	9.8%		0.3%	
rate of return on all capital with apprec.	14.8%	21.1%	7.3%		5.6%	8.3%		1.4%	
rate of return on equity capital w/o apprec.	16.3%	24.6%	4.6%		3.9%	7.3%		3.0%	
rate of return on all capital w/o apprec.	12.9%	19.3%	4.2%		3.7%	6.4%		3.4%	
Financial Summary									
farm net worth, end of year	\$ 9,256,560	\$ 11,565,084	\$ 12,015,419	\$ 1	2,723,679	\$ 13,717,160	\$ 1	13,756,729	71.0%
debt to asset ratio	0.26	0.23	0.23		0.25	0.26		0.27	
farm debt per cow	\$ 2,678	\$ 2,666	\$ 2,534	\$	2,826	\$ 2,902	\$	2,846	6.3%
debt coverage ratio	3.43	5.37	1.64		1.74	3.01		1.88	
working capital, as % of expenses	30%	40%	31%		28%	29%		30%	
retained earnings	\$ 1,158,496	\$ 2,313,761	\$ 197,835	\$	299,004	\$ 895,957	\$	345,786	\$5,210,839
valuation equity	\$ (28,721)	\$ (37,834)	\$ 184,169	\$	24,247	\$ 62,093	\$	(544,865)	(\$340,911)



Six Year Per Cwt. Comparison Same 102 Farms, Remaining 80% Sorted by ROA w/o Appreciation New York State, Dairy Farm Business Summary & Analysis Program

			Y	ear		
	2013	2014	2015	2016	2017	2018
number of cows	607	634	660	687	722	759
milk sales in pounds	15,339,305	15,989,878	16,698,360	17,901,455	18,613,335	19,584,782
milk per cow	25,267	25,230	25,288	26,044	25,792	25,817
RECEIPTS						
milk sales-\$	\$21.53	\$25.35	\$18.27	\$17.03	\$18.41	\$17.21
dairy cattle sales	\$1.59	\$1.81	\$1.91	\$1.47	\$1.52	\$1.10
dairy calf sales	\$0.16	\$0.32	\$0.46	\$0.19	\$0.21	\$0.09
other livestock sales	\$0.64	\$0.59	\$0.50	\$0.49	\$0.06	\$0.10
crop sales	\$0.64	\$0.59	\$0.50	\$0.49	\$0.53	\$0.31
government receipts	\$0.25	\$0.04	\$0.21	\$0.24	\$0.20	\$0.19
custom machine work	\$0.09	\$0.07	\$0.08	\$0.06	\$0.07	\$0.07
gas tax refund	\$0.01	\$0.00	\$0.01	\$0.00	\$0.00	\$0.00
other	\$0.41	\$0.34	\$0.33	\$0.36	\$0.31	\$0.40
non-cash transfer(subtract)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Farm operating receipts	\$24.74	\$28.57	\$21.90	\$19.91	\$21.32	\$19.47
EXPENSES						
Hired labor Feed	\$2.81	\$2.95	\$3.03	\$2.86	\$2.92	\$2.92
dairy grain & concentrate	\$7.02	\$7.39	\$6.63	\$5.82	\$5.79	\$5.83
dairy roughage	\$0.33	\$0.35	\$0.28	\$0.33	\$0.30	\$0.29
nondairy feed	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
professional nutritional services	\$0.00	\$0.01	\$0.01	\$0.01	\$0.01	\$0.00
Machinery						
machine hire, rent & lease	\$0.52	\$0.54	\$0.56	\$0.51	\$0.57	\$0.52
machine repairs & parts						\$0.85
fuel, oil & grease	\$0.91	\$0.93	\$0.61	\$0.46	\$0.53	\$0.61
Hired labor Feed dairy grain & concentrate dairy roughage nondairy feed professional nutritional services Machinery machine hire, rent & lease	\$7.02 \$0.33 \$0.00 \$0.00	\$7.39 \$0.35 \$0.00 \$0.01	\$6.63 \$0.28 \$0.00 \$0.01	\$5.82 \$0.33 \$0.00 \$0.01	\$5.79 \$0.30 \$0.00 \$0.01	\$5. \$0. \$0. \$0.

Table 6



Table 6 Continued

						iubic
Livestock	2013	2014	2015	2016	2017	2018
replacement livestock	\$0.08	\$0.07	\$0.05	\$0.04	\$0.06	\$0.02
breeding fees	\$0.22	\$0.25	\$0.23	\$0.23	\$0.23	\$0.21
veterinary & medicine	\$0.66	\$0.69	\$0.67	\$0.63	\$0.65	\$0.59
milk marketing	\$0.84	\$0.89	\$0.96	\$0.97	\$1.10	\$1.17
bedding	\$0.39	\$0.37	\$0.37	\$0.34	\$0.32	\$0.31
milking supplies	\$0.39	\$0.39	\$0.41	\$0.33	\$0.35	\$0.33
cattle leased	\$0.01	\$0.02	\$0.01	\$0.00	\$0.00	\$0.00
custom boarding	\$0.46	\$0.48	\$0.46	\$0.40	\$0.40	\$0.28
bST	\$0.19	\$0.21	\$0.19	\$0.14	\$0.05	\$0.00
livestock, professional fees	\$0.08	\$0.07	\$0.07	\$0.06	\$0.08	\$0.06
other livestock expense	\$0.09	\$0.11	\$0.10	\$0.09	\$0.09	\$0.09
Crops						
fertilizer & lime	\$0.68	\$0.60	\$0.63	\$0.46	\$0.40	\$0.39
seeds & plants	\$0.52	\$0.55	\$0.54	\$0.49	\$0.47	\$0.44
spray & other crop expense	\$0.25	\$0.28	\$0.25	\$0.26	\$0.26	\$0.22
crop, professional fees	\$0.05	\$0.03	\$0.04	\$0.03	\$0.05	\$0.03
Real estate						
land, build., fence repair	\$0.33	\$0.45	\$0.36	\$0.27	\$0.27	\$0.23
taxes	\$0.25	\$0.26	\$0.26	\$0.26	\$0.26	\$0.25
rent & lease	\$0.33	\$0.32	\$0.32	\$0.31	\$0.33	\$0.37
Other cash expense						
insurance	\$0.19	\$0.21	\$0.25	\$0.19	\$0.19	\$0.20
utilities	\$0.42	\$0.49	\$0.41	\$0.35	\$0.37	\$0.39
interest paid	\$0.53	\$0.50	\$0.53	\$0.61	\$0.72	\$0.82
other, professional fees	\$0.12	\$0.13	\$0.13	\$0.12	\$0.11	\$0.11
miscellaneous	\$0.12	\$0.13	\$0.12	\$0.10	\$0.11	\$0.10
Farm operating expenses	\$19.86	\$20.77	\$19.49	\$17.62	\$17.93	\$17.64
Expansion Cattle	\$0.13	\$0.08	\$0.10	\$0.07	\$0.18	\$0.03
Extraordinary Expense	\$0.00	\$0.00	\$0.01	\$0.00	\$0.02	\$0.02
Machinery Depreciation	\$1.00	\$1.11	\$1.04	\$1.05	\$1.06	\$0.95
Building Depreciation	\$0.65	\$0.67	\$0.75	\$0.77	\$0.76	\$0.79
Total Accrual Expenses	\$21.64	\$22.64	\$21.38	\$19.51	\$19.95	\$19.43
Net Farm Income w/o Appreciation	\$3.10	\$5.93	\$0.51	\$0.40	\$1.37	\$0.04



Selected Characteristics, Six Year Comparison Same 102 Farms, Remaining 80% Sorted by ROA w/o Appreciation

New York State, Dairy Farm Business Summary & Analysis Program

average number of cows 607 634 660 687 722 759 average number of heifers 525 545 573 604 639 661 percent heifers to cows 86% 86% 86% 87% 88% 89% 87% milk sold, pounds 15,339,305 15,989,878 16,698,360 17,901,455 18,613,335 19,584,782 worker equivalent 13.95 14.67 15.23 15.30 15.65 16.05 total tillable acres 1,322 1,340 1,409 1,447 1,480 1,509 attes of Production milk sold per cow, pounds 25,267 25,230 25,288 26,044 25,792 25,817 hay DM per acre, tons 3.40 3.40 3.30 3.20 3.50 3.20 corn silage per acre, tons 17.80 18.80 17.40 17.50 18.10 18.80 grain acres per cow 0.24 0.21 0.20 0.17 0.19 0.24 cull rate, % 36% 35% 35% 34% 34% 34% 34% and sold grain acres per cow sold sold grain acres per cow 1.09,592 1,098,971 1,096,412 1,170,030 1,189,350 1,220,236 bat Control and Milk Price grain & cone, purchased as % of milk sales and sold grain admit sold per worker, pounds 33.00 29.00 36.00 34.00 31.00 34.00 dairy feed & crop expense per cwt. milk \$8.85 \$9.20 \$8.37 \$7.39 \$7.26 \$7.21 labor and machinery costs per cwt. \$2.81 \$2.95 \$3.03 \$2.86 \$2.92 \$2.92 labor cost per hired worker equivalent \$37,818 \$38,633 \$39,729 \$40,372 \$41,926 \$43,070 operating cost of producing milk per cwt. \$1.842 \$19.42 \$1.76 \$16.63 \$17.05 \$1.915						•	Year					
average number of cows 607 634 660 687 722 759 average number of heifers 525 545 573 604 639 661 percent heifers to cows 86% 86% 86% 87% 88% 89% 87% milk sold, pounds 15,339,305 15,989,878 16,698,360 17,901,455 18,613,335 19,584,782 worker equivalent 13.95 14.67 15.23 15.30 15.65 16.05 total tillable acres 1,322 1,340 1,409 1,447 1,480 1,509 attes of Production milk sold per cow, pounds 25,267 25,230 25,288 26,044 25,792 25,817 hay DM per acre, tons 3.40 3.40 3.30 3.20 3.50 3.20 corn silage per acre, tons 17.80 18.80 17.40 17.50 18.10 18.80 grain acres per cow 0.24 0.21 0.20 0.17 0.19 0.24 cull rate, % 36% 35% 35% 35% 34% 34% 34% 34% net calf & cow sales, per cow \$1,099,592 \$1,089,971 1,096,412 1,170,030 1,189,350 1,220,360 ber Efficiency cows per worker, pounds 1,099,592 1,089,971 1,096,412 1,170,030 1,189,350 1,220,360 attributed acres as % of milk sales as % of milk sales and machinery costs per cow \$2,81 \$2,95 \$3.03 \$2,86 \$2,92 \$2,92 labor cost per hired worker equivalent \$37,818 \$38,633 \$39,729 \$40,372 \$41,926 \$43,070 operating cost of producing milk per cwt. \$2,87 \$1,90 \$1,95 \$1,954 total cost of producing milk per cwt. \$2,077 \$21,90 \$20,34 \$19,09 \$19,50 \$19,54 total cost of producing milk per cwt. \$2,077 \$21,90 \$20,34 \$19,09 \$19,50 \$19,54		20	13	2014		2015		2016		2017		2018
average number of heifers 525 545 573 604 639 661 percent heifers to cows 86% 86% 87% 88% 89% 87% 87% 88% 89% 87% 87% 88% 89% 87% 87% 816,698,360 17,901,455 18,613,335 19,584,782 807ker equivalent 13,95 14,67 15,23 15,30 15,65 16,05 total tillable acres 1,322 1,340 1,409 1,447 1,480 1,509 sites of Production 825,267 25,230 25,288 26,044 25,792 25,817 hay DM per acre, tons 3.40 3.40 3.30 3.20 3.50 3.20 corn silage per acre, tons 17.80 18.80 17.40 17.50 18.10 18.80 grain acres per cow 0.24 0.21 0.20 0.17 0.19 0.24 cull rate, % 36% 35% 35% 35% 34% 34% 34% and set calf & cow sales, per cow \$3.88 \$500 \$564 \$404 \$385 \$294 \$294 \$295 \$300 \$300 \$300 \$300 \$300 \$300 \$300 \$30	Size of Business											
percent heifers to cows 86% milk sold, pounds 86% lf,989,878 87% milk sold, pounds 15,339,305 15,989,878 lf,698,360 17,901,455 lt,613,335 19,584,782 lt,698,360 17,901,455 lt,613,335 19,584,782 lt,698,360 17,901,455 lt,613,335 19,584,782 lt,698,360 17,901,455 lt,613,335 19,584,782 lt,698,360 17,901,455 lt,601,335 18,613,335 lt,613,335 19,584,782 lt,602 lt,6	average number of cows	6	07	634		660		687		722		759
milk sold, pounds 15,339,305 15,989,878 16,698,360 17,901,455 18,613,335 19,584,782 worker equivalent 13.95 14.67 15.23 15.30 15.65 16.05 total tillable acres 1,322 1,340 1,409 1,447 1,480 1,509 stes of Production milk sold per cow, pounds 25,267 25,230 25,288 26,044 25,792 25,817 hay DM per acre, tons 3.40 3.40 3.30 3.20 3.50 3.20 corn silage per acre, tons 17.80 18.80 17.40 17.50 18.10 18.80 grain acres per cow 0.24 0.21 0.20 0.17 0.19 0.24 cull rate, % 36% 35% 35% 34% 34% 34% net calf & cow sales, per cow 3.88 500 564 404 385 294 bor Efficiency cows per worker, pounds 1,099,592 1,089,971 1,096,412 1,170,030 1,189,350	average number of heifers	5	25	545		573		604		639		661
worker equivalent total tillable acres 13.95 total tillable acres 14.67 total tillable acres 15.23 total tillable acres 15.30 total tillable acres 15.65 total tillable acres 16.05 total tillable acres sites of Production 1,322 total tillable acres 1,322 total tillable acres 1,440 total tillable acres 1,447 total total total tillable acres 1,480 total tillable acres 1,480 total tillable acres 1,480 total tillable acres 25,281 total tillable acres 25,288 total tillable acres 26,044 total tillable acres 25,792 total tillable acres 25,817 total tillable acres 25,280 total acres 25,288 total acres 26,044 total acres 25,792 total acres 25,817 total acres 25,281 total acres 25,280 total acres 25,281 total acres 25,283 total acres 25,281 total acres 25,280 total acres 26,044 total acres 25,792 total acres 25,817 total acres 25,281 total acres 25,280 total acres 26,04 total acres 25,817 total acres 26,04 total acres 26,04 total acres	percent heifers to cows	86	5%	86%		87%		88%		89%		87%
total tillable acres 1,322 1,340 1,409 1,447 1,480 1,509 stees of Production wilk sold per cow, pounds 25,267 25,230 25,288 26,044 25,792 25,817 hay DM per acre, tons 3,40 3,40 3,30 3,20 3,50 3,20 corn silage per acre, tons 17.80 18.80 17.40 17.50 18.10 18.80 grain acres per cow 0,24 0,21 0,20 0,17 0,19 0,24 cull rate, % 36% 35% 35% 35% 34% 34% 34% 34% net calf & cow sales, per cow \$3.88 \$5.00 \$5.64 \$4.04 \$3.85 \$2.94 bor Efficiency cows per worker 43.5 43.2 43.3 44.9 46.1 47.3 milk sold per worker, pounds 1,099,592 1,089,971 1,096,412 1,170,030 1,189,350 1,220,236 set Control and Milk Price grain & conc. purchased as % of milk sales 33.00 29.00 36.00 34.00 31.00 34.00 dairy feed & crop expense per cwt. milk \$8.85 \$9.20 \$8.37 \$7.39 \$7.26 \$7.21 labor and machinery costs per cow \$1,810 \$1,905 \$1,819 \$1,752 \$1,800 \$1,753 hired labor cost per cwt. \$2.81 \$2.95 \$3.03 \$2.86 \$2.92 \$2.92 labor cost per lired worker equivalent \$37,818 \$38,633 \$39,729 \$40,372 \$41,926 \$43,070 port. input cost of producing milk per cwt. \$18.42 \$19.42 \$17.76 \$16.63 \$17.05 \$17.17 total cost of producing milk per cwt. \$18.42 \$19.42 \$17.76 \$16.63 \$17.05 \$17.17 total cost of producing milk per cwt.	milk sold, pounds	15,339,3	05	15,989,878	•	16,698,360	1	7,901,455	18	3,613,335	19	9,584,782
### Attack of Production milk sold per cow, pounds 25,267 25,230 25,288 26,044 25,792 25,817 hay DM per acre, tons 3.40 3.40 3.30 3.20 3.50 3.20 corn silage per acre, tons 17.80 18.80 17.40 17.50 18.10 18.80 grain acres per cow 0.24 0.21 0.20 0.17 0.19 0.24 cull rate, % 36% 35% 35% 34% 34% 34% net calf & cow sales, per cow \$ 388 \$ 500 \$ 564 \$ 404 \$ 385 \$ 294 ### bor Efficiency cows per worker 43.5 43.2 43.3 44.9 46.1 47.3 milk sold per worker, pounds 1,099,592 1,089,971 1,096,412 1,170,030 1,189,350 1,220,236 ### bot Control and Milk Price grain & conc. purchased as % of milk sales 33.00 29.00 36.00 34.00 31.00 34.00 ### dairy feed & crop expense per cwt. milk \$ 8.85 \$ 9.20 \$ 8.37 \$ 7.39 \$ 7.26 \$ 7.21 ### labor and machinery costs per cow \$ 1,810 \$ 1,905 \$ 1,819 \$ 1,752 \$ 1,800 \$ 1,753 ### hired labor cost per cwt. \$ 2.81 \$ 2.95 \$ 3.03 \$ 2.86 \$ 2.92 \$ 2.92 ### labor cost per hired worker equivalent \$ 37,818 \$ 38,633 \$ 39,729 \$ 40,372 \$ 41,926 \$ 43,070 ### operating cost of producing milk per cwt. \$ 18.42 \$ 19.42 \$ 17.76 \$ 16.63 \$ 17.05 \$ 17.17 ### total cost of producing milk per cwt. \$ 18.42 \$ 19.42 \$ 17.76 \$ 16.63 \$ 17.05 \$ 17.17 ### total cost of producing milk per cwt. \$ 18.42 \$ 19.42 \$ 17.76 \$ 16.63 \$ 17.05 \$ 17.17	worker equivalent	13.	95	14.67		15.23		15.30		15.65		16.05
milk sold per cow, pounds 25,267 25,230 25,288 26,044 25,792 25,817 hay DM per acre, tons 3.40 3.40 3.40 3.30 3.20 3.50 3.20 corn silage per acre, tons 17.80 18.80 17.40 17.50 18.10 18.80 grain acres per cow 0.24 0.21 0.20 0.17 0.19 0.24 cull rate, % 36% 35% 35% 34% 34% 34% net calf & cow sales, per cow 388 500 564 404 385 294 bor Efficiency 20x 25,281 43.2 43.3 44.9 46.1 47.3 milk sold per worker, pounds 1,099,592 1,089,971 1,096,412 1,170,030 1,189,350 1,220,236 ext Control and Milk Price 20x 25,20 36.00 34.00 31.00 34.00 dairy feed & crop expense per cwt. milk 8.85 9.20 8.37 7.39 7.26 7.21 labor and	total tillable acres	1,3	22	1,340		1,409		1,447		1,480		1,509
hay DM per acre, tons 3.40 3.40 3.30 3.20 3.50 3.20 corn silage per acre, tons 17.80 18.80 17.40 17.50 18.10 18.80 grain acres per cow 0.24 0.21 0.20 0.17 0.19 0.24 cull rate, % 36% 35% 35% 35% 34% 34% 34% 34% net calf & cow sales, per cow \$ 388 \$ 500 \$ 564 \$ 404 \$ 385 \$ 294 bor Efficiency cows per worker 43.5 43.2 43.3 44.9 46.1 47.3 milk sold per worker, pounds 1,099,592 1,089,971 1,096,412 1,170,030 1,189,350 1,220,236 bot Control and Milk Price grain & conc. purchased as % of milk sales at Control and Milk Price grain & core, pounds 33.00 29.00 36.00 34.00 31.00 34.00 dairy feed & crop expense per cwt. milk \$ 8.85 \$ 9.20 \$ 8.37 \$ 7.39 \$ 7.26 \$ 7.21 labor and machinery costs per cow \$ 1,810 \$ 1,905 \$ 1,819 \$ 1,752 \$ 1,800 \$ 1,753 hired labor cost per cwt. \$ 2.81 \$ 2.95 \$ 3.03 \$ 2.86 \$ 2.92 \$ 2.92 labor cost per hired worker equivalent \$ 37,818 \$ 38,633 \$ 39,729 \$ 40,372 \$ 41,926 \$ 43,070 operating cost of producing milk per cwt. \$ 16.78 \$ 17.64 \$ 15.96 \$ 14.81 \$ 15.20 \$ 15.41 purch. input cost of prod. milk per cwt. \$ 18.42 \$ 19.42 \$ 17.76 \$ 16.63 \$ 17.05 \$ 17.17 total cost of producing milk per cwt. \$ 20.77 \$ 21.90 \$ 20.34 \$ 19.09 \$ 19.50	Rates of Production											
corn silage per acre, tons 17.80 18.80 17.40 17.50 18.10 18.80 grain acres per cow 0.24 0.21 0.20 0.17 0.19 0.24 cull rate, % 36% 35% 35% 35% 34% 34% 34% anet calf & cow sales, per cow \$388 \$500 \$564 \$404 \$385 \$294 bor Efficiency cows per worker, pounds 1,099,592 1,089,971 1,096,412 1,170,030 1,189,350 1,220,236 bot Control and Milk Price grain & conc. purchased as % of milk sales dairy feed & crop expense per cwt. milk \$8.85 \$9.20 \$8.37 \$7.39 \$7.26 \$7.21 labor and machinery costs per cow \$1,810 \$1,905 \$1,819 \$1,752 \$1,800 \$1,753 hired labor cost per cwt. \$2.81 \$2.95 \$3.03 \$2.86 \$2.92 \$2.92 labor cost per hired worker equivalent \$37,818 \$38,633 \$39,729 \$40,372 \$41,926 \$43,070 operating cost of producing milk per cwt. \$18.42 \$19.42 \$17.76 \$16.63 \$17.05 \$17.17 total cost of producing milk per cwt. \$20.77 \$21.90 \$20.34 \$19.09 \$19.50 \$19.54	milk sold per cow, pounds	25,2	67	25,230		25,288		26,044		25,792		25,817
grain acres per cow 0.24 0.21 0.20 0.17 0.19 0.24 cull rate, % 36% 35% 35% 35% 34% 34% 34% anet calf & cow sales, per cow \$ 388 \$ 500 \$ 564 \$ 404 \$ 385 \$ 294 bor Efficiency cows per worker 43.5 43.2 43.3 44.9 46.1 47.3 milk sold per worker, pounds 1,099,592 1,089,971 1,096,412 1,170,030 1,189,350 1,220,236 bot Control and Milk Price grain & conc. purchased as % of milk sales dairy feed & crop expense per cwt. milk \$ 8.85 \$ 9.20 \$ 8.37 \$ 7.39 \$ 7.26 \$ 7.21 labor and machinery costs per cow \$ 1,810 \$ 1,905 \$ 1,819 \$ 1,752 \$ 1,800 \$ 1,753 hired labor cost per cwt. \$ 2.81 \$ 2.95 \$ 3.03 \$ 2.86 \$ 2.92 \$ 2.92 labor cost per hired worker equivalent \$ 37,818 \$ 38,633 \$ 39,729 \$ 40,372 \$ 41,926 \$ 43,070 operating cost of producing milk per cwt. \$ 18.42 \$ 19.42 \$ 17.76 \$ 16.63 \$ 17.05 \$ 17.17 total cost of producing milk per cwt. \$ 20.77 \$ 21.90 \$ 20.34 \$ 19.09 \$ 19.50 \$ 19.54	hay DM per acre, tons	3.	40	3.40		3.30		3.20		3.50		3.20
Cull rate, % 36% 35% 35% 35% 34% 34% 34% and tealf & cow sales, per cow \$ 388 \$ 500 \$ 564 \$ 404 \$ 385 \$ 294 bor Efficiency	corn silage per acre, tons	17.	80	18.80		17.40		17.50		18.10		18.80
net calf & cow sales, per cow \$ 388 \$ 500 \$ 564 \$ 404 \$ 385 \$ 294 bor Efficiency	grain acres per cow	0.	24	0.21		0.20		0.17		0.19		0.24
bor Efficiency cows per worker 43.5 43.2 43.3 44.9 46.1 47.3 milk sold per worker, pounds 1,099,592 1,089,971 1,096,412 1,170,030 1,189,350 1,220,236 bot Control and Milk Price grain & conc. purchased as % of milk sales ales dairy feed & crop expense per cwt. milk 8.85 \$9.20 \$8.37 \$7.39 \$7.26 \$7.21 labor and machinery costs per cow \$1,810 \$1,905 \$1,819 \$1,752 \$1,800 \$1,753 hired labor cost per cwt. \$2.81 \$2.95 \$3.03 \$2.86 \$2.92 \$2.92 labor cost per hired worker equivalent \$37,818 \$38,633 \$39,729 \$40,372 \$41,926 \$43,070 operating cost of producing milk per cwt. \$16.78 \$17.64 \$15.96 \$14.81 \$15.20 \$15.41 purch. input cost of producing milk per cwt. \$18.42 \$19.42 \$17.76 \$16.63 \$17.05 \$17.17 total cost of producing milk per cwt. \$20.77 \$21.90 \$20.34 \$19.09 \$19.50 \$19.54	cull rate, %	36	5%	35%		35%		34%		34%		34%
cows per worker 43.5 43.2 43.3 44.9 46.1 47.3 milk sold per worker, pounds 1,099,592 1,089,971 1,096,412 1,170,030 1,189,350 1,220,236 bet Control and Milk Price grain & conc. purchased as % of milk sales 33.00 29.00 36.00 34.00 31.00 34.00 dairy feed & crop expense per cwt. milk \$ 8.85 \$ 9.20 \$ 8.37 \$ 7.39 \$ 7.26 \$ 7.21 labor and machinery costs per cow \$ 1,810 \$ 1,905 \$ 1,819 \$ 1,752 \$ 1,800 \$ 1,753 hired labor cost per cwt. \$ 2.81 \$ 2.95 \$ 3.03 \$ 2.86 \$ 2.92 \$ 2.92 labor cost per hired worker equivalent \$ 37,818 \$ 38,633 \$ 39,729 \$ 40,372 \$ 41,926 \$ 43,070 operating cost of producing milk per cwt. \$ 16.78 \$ 17.64 \$ 15.96 \$ 14.81 \$ 15.20 \$ 15.41 purch. input cost of producing milk per cwt. \$ 18.42 \$ 19.42 \$ 17.76 \$ 16.63 \$ 17.05 \$ 17.17 total cost of producing milk per cwt. \$ 20.77 \$ 21.90 \$ 20.34 \$ 19.09 \$ 19.50 \$ 19.54	net calf & cow sales, per cow	\$ 38	8 \$	500	\$	564	\$	404	\$	385	\$	294
milk sold per worker, pounds 1,099,592 1,089,971 1,096,412 1,170,030 1,189,350 1,220,236 best Control and Milk Price grain & conc. purchased as % of milk sales 33.00 29.00 36.00 34.00 31.00 34.00 dairy feed & crop expense per cwt. milk \$ 8.85 \$ 9.20 \$ 8.37 \$ 7.39 \$ 7.26 \$ 7.21 labor and machinery costs per cow \$ 1,810 \$ 1,905 \$ 1,819 \$ 1,752 \$ 1,800 \$ 1,753 hired labor cost per cwt. \$ 2.81 \$ 2.95 \$ 3.03 \$ 2.86 \$ 2.92 \$ 2.92 labor cost per hired worker equivalent \$ 37,818 \$ 38,633 \$ 39,729 \$ 40,372 \$ 41,926 \$ 43,070 operating cost of producing milk per cwt. \$ 16.78 \$ 17.64 \$ 15.96 \$ 14.81 \$ 15.20 \$ 15.41 purch. input cost of producing milk per cwt. \$ 18.42 \$ 19.42 \$ 17.76 \$ 16.63 \$ 17.05 \$ 17.17 total cost of producing milk per cwt. \$ 20.77 \$ 21.90 \$ 20.34 \$ 19.09 \$ 19.50 \$ 19.54	Labor Efficiency											
set Control and Milk Price grain & conc. purchased as % of milk sales dairy feed & crop expense per cwt. milk labor and machinery costs per cow like 1,810 labor cost per cwt. labor cost per cwt. labor cost per hired worker equivalent labor cost per hired worker equivalent labor cost of producing milk per cwt. labor cost of producing m	cows per worker	43	3.5	43.2		43.3		44.9		46.1		47.3
grain & conc. purchased as % of milk sales 33.00 29.00 36.00 34.00 31.00 34.00 dairy feed & crop expense per cwt. milk 8.85 \$ 9.20 \$ 8.37 \$ 7.39 \$ 7.26 \$ 7.21 labor and machinery costs per cow \$ 1,810 \$ 1,905 \$ 1,819 \$ 1,752 \$ 1,800 \$ 1,753 hired labor cost per cwt. \$ 2.81 \$ 2.95 \$ 3.03 \$ 2.86 \$ 2.92 \$ 2.92 labor cost per hired worker equivalent \$ 37,818 \$ 38,633 \$ 39,729 \$ 40,372 \$ 41,926 \$ 43,070 operating cost of producing milk per cwt. \$ 16.78 \$ 17.64 \$ 15.96 \$ 14.81 \$ 15.20 \$ 15.41 purch. input cost of producing milk per cwt. \$ 18.42 \$ 19.42 \$ 17.76 \$ 16.63 \$ 17.05 \$ 17.17 total cost of producing milk per cwt. \$ 20.77 \$ 21.90 \$ 20.34 \$ 19.09 \$ 19.50 \$ 19.54	milk sold per worker, pounds	1,099,5	92	1,089,971		1,096,412		1,170,030		1,189,350	•	1,220,236
dairy feed & crop expense per cwt. milk \$ 8.85 \$ 9.20 \$ 8.37 \$ 7.39 \$ 7.26 \$ 7.21 labor and machinery costs per cow \$ 1,810 \$ 1,905 \$ 1,819 \$ 1,752 \$ 1,800 \$ 1,753 hired labor cost per cwt. \$ 2.81 \$ 2.95 \$ 3.03 \$ 2.86 \$ 2.92 \$ 2.92 labor cost per hired worker equivalent \$ 37,818 \$ 38,633 \$ 39,729 \$ 40,372 \$ 41,926 \$ 43,070 operating cost of producing milk per cwt. \$ 16.78 \$ 17.64 \$ 15.96 \$ 14.81 \$ 15.20 \$ 15.41 purch. input cost of prod. milk per cwt. \$ 18.42 \$ 19.42 \$ 17.76 \$ 16.63 \$ 17.05 \$ 17.17 total cost of producing milk per cwt. \$ 20.77 \$ 21.90 \$ 20.34 \$ 19.09 \$ 19.50 \$ 19.54	Cost Control and Milk Price											
labor and machinery costs per cow \$ 1,810 \$ 1,905 \$ 1,819 \$ 1,752 \$ 1,800 \$ 1,753 hired labor cost per cwt. \$ 2.81 \$ 2.95 \$ 3.03 \$ 2.86 \$ 2.92 \$ 2.92 labor cost per hired worker equivalent operating cost of producing milk per cwt. \$ 37,818 \$ 38,633 \$ 39,729 \$ 40,372 \$ 41,926 \$ 43,070 operating cost of producing milk per cwt. \$ 16.78 \$ 17.64 \$ 15.96 \$ 14.81 \$ 15.20 \$ 15.41 purch. input cost of prod. milk per cwt. \$ 18.42 \$ 19.42 \$ 17.76 \$ 16.63 \$ 17.05 \$ 17.17 total cost of producing milk per cwt. \$ 20.77 \$ 21.90 \$ 20.34 \$ 19.09 \$ 19.50 \$ 19.54	grain & conc. purchased as % of milk sales							34.00		31.00		34.00
hired labor cost per cwt. \$ 2.81 \$ 2.95 \$ 3.03 \$ 2.86 \$ 2.92 \$ 2.92 labor cost per hired worker equivalent operating cost of producing milk per cwt. \$ 37,818 \$ 38,633 \$ 39,729 \$ 40,372 \$ 41,926 \$ 43,070 operating cost of producing milk per cwt. \$ 16.78 \$ 17.64 \$ 15.96 \$ 14.81 \$ 15.20 \$ 15.41 purch. input cost of producing milk per cwt. \$ 18.42 \$ 19.42 \$ 17.76 \$ 16.63 \$ 17.05 \$ 17.17 total cost of producing milk per cwt. \$ 20.77 \$ 21.90 \$ 20.34 \$ 19.09 \$ 19.50 \$ 19.54	dairy feed & crop expense per cwt. milk	\$ 8.8	5 \$	9.20	\$			7.39		7.26		
labor cost per hired worker equivalent \$ 37,818 \$ 38,633 \$ 39,729 \$ 40,372 \$ 41,926 \$ 43,070 operating cost of producing milk per cwt. \$ 16.78 \$ 17.64 \$ 15.96 \$ 14.81 \$ 15.20 \$ 15.41 purch. input cost of producing milk per cwt. \$ 18.42 \$ 19.42 \$ 17.76 \$ 16.63 \$ 17.05 \$ 17.17 total cost of producing milk per cwt. \$ 20.77 \$ 21.90 \$ 20.34 \$ 19.09 \$ 19.50 \$ 19.54	labor and machinery costs per cow	\$ 1,81	0 \$	1,905	\$	1,819	\$	1,752	\$	1,800		1,753
operating cost of producing milk per cwt. \$ 16.78 \$ 17.64 \$ 15.96 \$ 14.81 \$ 15.20 \$ 15.41 purch. input cost of prod. milk per cwt. \$ 18.42 \$ 19.42 \$ 17.76 \$ 16.63 \$ 17.05 \$ 17.17 total cost of producing milk per cwt. \$ 20.77 \$ 21.90 \$ 20.34 \$ 19.09 \$ 19.50 \$ 19.54	hired labor cost per cwt.	\$ 2.8	1 \$	2.95	\$	3.03		2.86				
purch. input cost of prod. milk per cwt. \$ 18.42 \$ 19.42 \$ 17.76 \$ 16.63 \$ 17.05 \$ 17.17 total cost of producing milk per cwt. \$ 20.77 \$ 21.90 \$ 20.34 \$ 19.09 \$ 19.50 \$ 19.54	labor cost per hired worker equivalent	\$ 37,81	8 \$	38,633	\$	39,729	\$	40,372	\$	41,926	\$	43,070
total cost of producing milk per cwt. \$ 20.77 \$ 21.90 \$ 20.34 \$ 19.09 \$ 19.50 \$ 19.54	operating cost of producing milk per cwt.	\$ 16.7	'8 \$	17.64	\$	15.96	\$	14.81	\$	15.20	\$	15.41
	purch. input cost of prod. milk per cwt.	\$ 18.4	2 \$	19.42	\$	17.76	\$	16.63	\$	17.05	\$	17.17
net milk price per cwt. \$ 20.70 \$ 24.46 \$ 17.31 \$ 16.06 \$ 17.31 \$ 16.04	total cost of producing milk per cwt.	\$ 20.7	7 \$	21.90	\$	20.34	\$	19.09	\$	19.50	\$	19.54
	net milk price per cwt.	\$ 20.7	0 \$	24.46	\$	17.31	\$	16.06	\$	17.31	\$	16.04

Table 7



						Table 7	7 Continued
Capital Efficiency(average for year)	2013	2014	2015	2016	2017	2018	
farm capital per cow	\$ 11,141	\$ 11,852	\$ 12,591	\$ 12,631	\$ 12,568	\$ 12,209	9.6%
machinery and equipment per cow	\$ 1,890	\$ 2,028	\$ 2,132	\$ 2,112	\$ 2,061	\$ 2,001	5.9%
asset turnover ratio	0.58	0.65	0.47	0.43	0.46	0.40	
net reinvestment per cow	\$ (904)	\$ (1,241)	\$ (1,327)	\$ (773)	\$ (771)	\$ (482)	
Profitability							
net farm income without appreciation	\$ 476,202	\$ 947,336	\$ 85,753	\$ 71,211	\$ 253,682	\$ 8,127	
net farm income w/o apprec. per cow	\$ 785	\$ 1,494	\$ 130	\$ 104	\$ 351	\$ 11	
net farm income with appreciation	\$ 629,205	1,227,326	\$	\$ 231,456	\$ 492,941	\$ (60,870)	
net farm income with apprec. per cow	\$ 1,037	\$ 1,936	\$ 454	\$ 337	\$ 683	\$ (80)	
labor & management income per oper.	\$ 119,189	\$ 329,565	\$ (93,649)	\$ (98,398)	\$ (18,324)	\$ (122,079)	
net non-farm withdrawals per cwt.	\$ 1.29	\$ 1.18	\$ 1.08	\$ 1.10	\$ 0.84	\$ 1.17	
rate of return on equity capital with apprec.	11.0%	21.1%	2.7%	1.3%	5.6%	-4.1%	
rate of return on all capital with apprec.	8.5%	15.6%	2.9%	2.1%	5.1%	-0.8%	
rate of return on equity capital w/0 apprec.	7.6%	15.7%	-1.1%	-1.5%	1.5%	-2.9%	
rate of return on all capital w/o apprec.	6.3%	11.8%	0.3%	0.3%	2.5%	-0.1%	
Financial Summary							
farm net worth, end of year	\$ 4,712,516	\$ 5,610,359	\$ 5,688,333	\$ 5,677,310	\$ 5,972,970	\$ 5,638,854	30.2%
debt to asset ratio	0.33	0.30	0.33	0.35	0.36	0.39	
farm debt per cow	\$ 3,723	\$ 3,781	\$ 4,373	\$ 4,472	\$ 4,551	\$ 4,665	25.3%
debt coverage ratio	1.87	3.24	0.79	0.80	1.33	0.60	
working capital, as % of expenses	21%	27%	20%	17%	16%	14%	
retained earnings	\$ 279,040	\$ 758,890	\$ (95,566)	\$ (124,295)	\$ 97,762	\$ (220,530)	\$695,300
valuation equity	\$ 49,673	\$ 134,847	\$ 39,191	\$ 49,881	\$ 136,890	\$ (131,431)	\$279,050



"Legal 21" Farm Financial Ratios Same 26 Farms, Top 20% Sorted by ROA w/o Appreciation, New York State, DFBS 2013-2018

	DFBS page	2013	2014	2015	2016	2017	2018	6 Year Average	Your Farm
Liquidity	, 0								
Current Ratio	7	3.32	4.04	3.54	3.26	3.46	3.58	3.52	
Working Capital	7	\$1,856,912	\$2,735,038	\$2,130,781	\$1,982,882	\$2,242,122	\$2,418,669	\$2,189,547	
As % of Total Expense	7	30.0%	40.0%	31.0%	28.0%	29.0%	30.0%	31.6%	
As % of Gross Revenue ¹	calc	24.2%	28.4%	27.8%	25.6%	25.4%	27.5%	26.3%	
Solvency									
Debt/Asset Ratio	7	0.26	0.23	0.23	0.25	0.26	0.27	0.25	
Equity/Asset Ratio	7	0.74	0.77	0.77	0.75	0.74	0.73	0.75	
Debt/Equity Ratio(Leverage Ratio)	7	0.35	0.29	0.29	0.34	0.34	0.36	0.32	
Profitability									
Net Farm Income w/o Apprec. (Per Cow)	1	\$1,370	\$2,160	\$557	\$475	\$755	\$374	\$1,063	
ROA w/o Apprec.	4	12.9%	19.3%	4.2%	3.7%	6.4%	3.4%	9.3%	
ROE w/o Apprec.	4	16.3%	24.6%	4.6%	3.9%	7.3%	3.0%	11.3%	
Operating Profit Margin Ratio ²	calc	0.20	0.27	0.08	0.08	0.13	0.07	0.152	
EBITDA(Per Cow) ³	calc	\$1,665	\$2,454	\$867	\$826	\$1,154	\$788	\$1,393	
Repayment Capacity									
Capital Debt Repayment Capacity(per cow) ⁴	calc	\$1,445	\$2,266	\$610	\$700	\$1,111	\$748	\$1,227	
Capital Debt Repayment Margin(per cow) ⁵	calc	\$1,024	\$1,845	\$238	\$298	\$742	\$351	\$829	
Replacement Margin(per cow) ⁶	calc	\$1,238	\$2,044	\$382	\$472	\$877	\$532	\$1,003	
Term Debt Coverage Ratio	1	3.43	5.37	1.64	1.74	3.01	1.88	3.04	
Replacement Margin Coverage Ratio ⁷	calc	2.3	3.5	1.0	1.1	1.8	1.2	1.96	

Financial Efficiency								Table 8	Continued
Asset Turnover Ratio ⁸	14	0.67	0.72	0.53	0.49	0.52	0.45	0.59	
Operating Expense Ratio	14	0.72	0.66	0.82	0.82	0.77	0.82	0.76	
Depreciation Expense Ratio	14	0.06	0.05	0.07	0.08	0.08	0.08	0.07	
Interest Expense Ratio	14	0.01	0.01	0.01	0.02	0.02	0.03	0.01	
Net Farm Income from Operations Ratio	4	0.21	0.29	0.10	0.09	0.13	0.07	0.16	

- 1 Calculated utilizing gross income instead of value of farm production. (Current Assets Current Liabilities)/Gross Receipts*100
- 2 (Net Farm Income + Interest Paid Unpaid Family Labor Owner Value)/Gross Revenue
- 3 (Net Farm Income + Depreciation + Interest Value of Unpaid Owner Labor & Management)/Average Cows
- 4 (Net Farm Income + Depreciation + Net Non-Farm Income Non-Farm Cash Expenses + Interest Paid on Term Loans)/Average Cows
- 5 (Capital Debt Repayment Capacity Scheduled Principle and Interested on Term Loans/Average Cows
- 6 (Capital Debt Repayment Capacity Unfunded(cash) Capital Replacement Allowance. Annual machinery depreciation expense utilized to represent un-funded capital replacement requirement.
- 7 (Capital Debt Repayment Capacity/(Scheduled Principle & Interest on Term Loans + 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



"Legal 21" Farm Financial Ratios Same 128 Farms, New York State, DFBS 2013-2018

	DFBS page	2013	2014	2015	2016	2017	2018	6 Year Average	Your Farm
Liquidity	•								
Current Ratio	7	2.62	3.1	2.53	2.21	2.23	2.16	2.48	
Working Capital	7	\$944,694	\$1,345,472	\$1,011,844	\$871,108	\$932,772	\$913,729	\$1,003,270	
As % of Total Expense	7	24.0%	31.0%	24.0%	21.0%	21.0%	19.0%	0.23	
As % of Gross Revenue ¹	calc	20.6%	24.0%	22.6%	19.7%	18.8%	18.9%	0.21	
Solvency									
Debt/Asset Ratio	7	0.3	0.28	0.3	0.32	0.32	0.35	0.31	
Equity/Asset Ratio	7	0.70	0.72	0.70	0.68	0.68	0.65	0.69	
Debt/Equity Ratio(Leverage Ratio)	7	0.44	0.38	0.43	0.47	0.48	0.53	0.46	
Profitability									
Net Farm Income w/o Apprec. (Per Cow)	1	\$977	\$1,720	\$277	\$234	\$495	\$142	\$641	
ROA w/o Apprec.	4	8.3%	14.2%	1.6%	1.4%	3.8%	1.1%	0.05	
ROE w/o Apprec.	4	10.5%	18.7%	0.9%	0.4%	3.6%	-0.7%	0.06	
Operating Profit Margin Ratio ²	calc	0.14	0.22	0.03	0.03	0.08	0.03	0.09	
EBITDA(Per Cow) ³	calc	\$1,303	\$2,061	\$626	\$625	\$915	\$569	\$1,016	
Repayment Capacity									
Capital Debt Repayment Capacity(per cow) ⁴	calc	\$1,154	\$1,941	\$501	\$540	\$904	\$509	\$925	
Capital Debt Repayment Margin(per cow) ⁵	calc	\$652	\$1,436	\$3	\$32	\$388	-\$32	\$413	
Replacement Margin(per cow) ⁶	calc	\$916	\$1,680	\$249	\$283	\$645	\$274	\$675	
Term Debt Coverage Ratio	1	2.30	3.84	1.01	1.06	1.75	0.94	1.82	
Replacement Margin Coverage Ratio ⁷	calc	1.6	2.5	0.7	0.7	1.2	0.7	1.21	

Financial Efficiency								Table 9	Continued
Asset Turnover Ratio ⁸	14	0.61	0.67	0.49	0.45	0.48	0.42	0.52	
Operating Expense Ratio	14	0.77	0.69	0.85	0.84	0.8	0.85	0.80	
Depreciation Expense Ratio	14	0.06	0.06	0.08	0.09	0.08	0.09	0.08	
Interest Expense Ratio	14	0.02	0.01	0.02	0.03	0.03	0.04	0.03	
Net Farm Income from Operations Ratio	4	0.15	0.23	0.05	0.04	0.09	0.03	0.10	

- 1 Calculated utilizing gross income instead of value of farm production. (Current Assets Current Liabilities)/Gross Receipts*100
- 2 (Net Farm Income + Interest Paid Unpaid Family Labor Owner Value)/Gross Revenue
- 3 (Net Farm Income + Depreciation + Interest Value of Un-Paid Owner Labor & Management)/Average Cows
- 4 (Net Farm Income + Depreciation + Net Non-Farm Income Non-Farm Cash Expenses + Interest Paid on Term Loans)/Average Cows
- 5 (Capital Debt Repayment Capacity Scheduled Principle and Interest on Term Loans/Average Cows
- 6 (Capital Debt Repayment Capacity Unfunded(cash) Capital Replacement Allowance. Annual machinery depreciation expense utilized to represent un-funded capital replacement requirement.
- 7 (Capital Debt Repayment Capacity/(Scheduled Principle & Interest on Term Loans + 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

OTHER A.E.M. EXTENSION BULLETINS

EB No	Title	Fee (if applicable)	Author(s)
2020-10	Six Year Trend Analysis 2018, New York State Dairy Farms, Selected Financial and Production Factors	Ka	rszes, J., and Skellie, J.
2020-09	NY FarmNet 2019 Program Evaluation	Pa	rseghian, A., and Downes, K.
2020-08	Dairy Replacement Programs: Costs and Analysis Summer 2019	Ka	rszes, J. and Hill, L.
2020-07	Dairy Farm Business Summary New York State 2018		rszes, J, Hill, L, Christman, A, and oblauch, W.
2020-06	Sensitivity Analysis of Profits for V. Vinifera Grapes in the Finger Lakes Region of New York - 2019	Da	vis, T., and Gomez, M.
2020-05	Progress of the Dairy Farm Report Selected Financial and Production Factors Dairy Farm Business Summary New York State, 2019 153 Farms	Ka	rszes, J., Hill, L., and Knoblauch, W.
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