# Cornell Cooperative Extension Prepared by Department of Applied Economics and Management Cornell University



### 2014 Dairy Farm Business Summary

Education Farm Sample Farm 02/03/2016 NOT APPROVED

Progress of the Farm Business						
SELECTED FACTORS	2012	2013	2014			
Size of Business						
Average number of cows	309	303	312			
Average number of heifers	286	271	270			
Milk sold, pounds	7,993,589	8,356,617	8,649,737			
Worker equivalent	7.06	6.96	7.29			
Total tillable acres	658	658	658			
Rates of Production						
Milk sold per cow, pounds	25,869	27,580	27,724			
Hay DM per acre, tons	3.25	3.15	3.38			
Corn silage per acre, tons	20	22.1	25.71			
Labor Efficiency						
Cows per worker	44	44	43			
Milk sold per worker, pounds	1,132,236	1,200,663	1,186,521			
Cost Control and Milk Price						
Grain & concentrate purchased as a % milk sales	43%	35%	31%			
Dairy feed & crop expense per cwt. Milk	\$10.86	\$9.26	\$9.22			
Labor and machinery costs per cow	\$1,955	\$1,830	\$2,107			
Purchased input cost of producing milk per cwt.	\$20.64	\$17.77	\$19.04			
Total cost of producing milk per cwt.	\$23.29	\$20.51	\$21.98			
Operating cost of producing milk per cwt.	\$18.33	\$15.44	\$16.35			
Net milk price	\$18.71	\$20.26	\$24.88			
Capital Efficiency (average for year)						
Farm Capital per cow	\$11,241	\$12,577	\$13,364			
Machinery and equipment per cow	\$2,032	\$2,338	\$2,631			
Asset turnover ratio	0.61	0.59	0.6			
Profitability						
Net farm income without appreciation	\$-92,412	\$290,252	\$561,908			
Net farm income per cow without appreciation	\$-299	\$958	\$1,801			
Net farm income with appreciation	\$145,668	\$436,447	\$571,424			
Net farm income per cow with appreciation	\$471	\$1,440	\$1,831			
Labor & management income per operator/manager	\$-101,136	\$83,893	\$212,041			
Rate return on equity capital with appreciation	1.74%	14.11%	17.22%			
Rate return on all capital with appreciation	2.87%	10.31%	12.24%			
Financial Summary						
Farm net worth, end year	\$2,127,406	\$2,450,387	\$2,729,905			
Debt to asset ratio	0.43	0.37	0.38			
Farm debt per cow	\$5,116	\$4,691	\$5,454			
Debt coverage ratio	-0.25	1.71	2.37			

02/03/2016 NOT APPROVED

Sample Farm					NO	T APPROVEI
	2	014 Nonfarm	Balance Sheet			
NONFARM ASSETS Jan	uary 1	Dec. 31	NONFARM LIABILITIES	Janua	ary 1	Dec. 3
Personal cash, checking & savings	\$0	\$0	#1 0		\$0	\$0
Cash value of life insurance	\$0	\$0	#2 0		\$0	\$0
Nonfarm real estate	\$0	\$0	TOTAL NONEADMILLAD	H ITHE	60	ф
Auto (personal share) Stocks & bonds	\$0 \$0	\$0 \$0	TOTAL NONFARM LIAB	SILITIES	\$0	\$
Household furnishings	\$0 \$0	\$0 \$0				
All other	\$0	\$0				
TOTAL NONFARM ASSETS	\$0	\$0	NONFARM NET WORTH	I	\$0	\$(
2014 FAR	M & NC	NFARM MAF	RKET VALUE BALANC	E SHEET		
	18,602	\$4,420,776				
	68,215	\$1,690,871				
FARM & NONFARM NET WORTH \$2,4:	50,387	\$2,729,905				
Ва	lance Sl	neet Analysis (e	excluding deferred taxes)			
D' 'ID'			ness, End Year			
Financial Ratios		Market Value		Farm & Nonfarm		
Percent equity		62%	5%	62%		
Debt to asset ratios:						
Total		0.33		0.38		
Long-term		0.5				
Intermediate/current		0.3				
Leverage ratio		0.63				
Current ratio		1.9				
Working capital		\$411,520				
As % of total expenses		21%	6 21%			
Debt Analysis						
Accounts payable as percent of total debt		0%	6			
Long-term debt as a percent of total debt		46%	6			
Current & intermediate debt as % of total debt		54%	ó			
Cost of term debt (weighted average)		4.6%	ó			
			Per Tillable			
<u>Debt Levels</u>		Per Cov	<u>Acre Owned</u>			
Total farm debt		\$5,45	4 \$4,144			
Long term debt		\$2,52	1 \$1,916			
Intermediate & long term		\$4,07	7 \$3,098			
Intermediate & current		\$2,93	3 \$2,229			
			Machinery &			Feed &
Farm Inventory (Market Value)		Real Estat	<u>Equipment</u>	<u>Livestock</u>		Supplies
Beginning of year		\$1,450,000		\$685,800		\$427,900
Purchases		\$237,759	* \$335,177			
+ Noncash transfer to farm		\$0	0 \$0			
- Lost capital		\$70,000	0			
- Net sales		\$0	0 \$0			
- Depreciation		\$96,512	2 \$135,940			
= Net investment		\$71,24	7 \$199,237	\$2,400**		
Appreciation		\$3,75	3 \$5,763	\$0		
End of Year		\$1,525,000	915,000	\$688,200		\$483,606

<sup>\*</sup> 0 land + 237,759 building.

<sup>\*\*</sup> See page 12, "Dairy Inventory Analysis", for dairy cow and heifer inventory detail.

Repayment	Analysis

Debt Payments	Planned for 2014*	Made in 2014	Planned for 2015
Long term	\$80,568	\$82,921	\$90,048
Intermediate term	\$187,611	\$160,714	\$207,195
Short term	\$0	\$0	\$0
Operating (net reduction)	\$0	\$0	\$0
Accounts payable (net reduction)	\$0	\$5,382	\$0
Total	\$268,179	\$249,017	\$297,243
(Percent made of planned = 93%)			
Per cow	\$860	\$798	
Per cwt 2014 milk	\$3.1	\$2.88	
Percent of total 2014 receipts	12%	10%	
Percent of 2014 milk receipts	13%	11%	

<sup>\*</sup>If on business summary in 2013.

Cash Flow Coverage Ratio		Debt Coverage Ratio	
Cash farm receipts	\$2,321,001	Net farm income (without appreciation)	\$561,908
- Cash farm expenses	\$1,724,621	+ Depreciation	\$232,452
+ Interest paid (cash)	\$64,333	+ Interest paid (accrual)	\$64,333
- Net personal withdrawals from farm**	\$221,833	- Net personal withdrawals from farm**	\$221,833
(A) = Amount available for debt service	\$438,880	(A) = Repayment capacity	\$636,860
(B) = Debt payments planned for 2014	\$268,179	(B) = Debt payments planned for 2014	\$268,179
(A/B) Cash Flow Coverage Ratio for 2014	1.64	(A/B) Debt Coverage Ratio for 2014	2.37

<sup>\*\*</sup> Personal with drawals & family expenditures less nonfarm income and nonfarm money borrowed.

### Milk Income and Marketing Report

			D. D		D. C.	
	Pounds	Percent	Price Per Pound	Total	Per Cwt. Milk	Per Cow
BASE FARM PRICE						
Butterfat	343,186	3.97%	\$2.38	\$816,248	\$9.44	\$2,616
Protein	260,623	3.01%	\$3.8	\$989,580	\$11.44	\$3,172
Solids	497,792	5.75%	\$0.47	\$233,705	\$2.7	\$749
Solids	477,772	3.7370	ψ0.47	Ψ233,703	Ψ2.7	Ψ149
Total Component Contribution					\$23.58	\$6,537
PPD	8,649,737			\$77,564	\$0.90	\$249
Base Farm Price					\$24.48	\$6,786
<u>Premiums</u>						
Quality				\$52,838	\$0.61	\$169
Volume				\$18,646	\$0.22	\$60
Market Premiums				\$2,642	\$0.03	\$8
Total Premiums					\$0.86	\$237
BASE FARM PRICE + PREMIUM					\$25.34	\$7,023
<u>Deductions</u>						
Promotion				\$12,653	\$0.15	\$41
Hauling & Stop Charges.				\$44,682	\$0.52	\$143
Market Fees & Coop Dues				\$4,132	\$0.05	\$13
Total Deductions				. , -	\$0.72	\$197
BASE FARM PRICE + PREMIUMS	- DEDUCTIONS				\$24.62	\$6,826
Madadina Dinama						
Marketing Programs Compact				\$0	\$0.00	\$0
Futures Contracts, Forward Cont	tracting Etc			\$0 \$0	\$0.00	\$0 \$0
Total Marketing Income	racting, Etc.			φυ	\$0.00	\$0 \$0
Total Warketing Income					Ψ0.00	ΨΟ
Patronage Dividends				\$17,299	\$0.20	\$55
NET PRICE RECEIVED ON FARM,	ALL SOURCES				\$24.82	\$6,881
PPD - Hauling					\$0.38	\$106
PPD - Hauling + Market Premiums					\$0.41	\$114
Net Marketing Value (PPD + Total Pr	emiums - Total Ded	uctions)			\$1.04	\$289

Capital & Labor Efficiency Analysis

CAPITAL EFFICIENCY			Per Tillable	Per Tillable
(Average Market Value)	Per Worker	Per Cow	Acre	Acre Owned
Farm capital	\$571,974	\$13,364	\$6,337	\$10,220
Real estate		\$4,768		\$3,646
Machinery & equipment	\$112,584	\$2,631	\$1,247	
RATIOS				
Asset Turnover	Operating Expense	Interest Expense	Depreciation E	xpense
0.6	0.66	0.03	0.09	
				Value of
LABOR FORCE	3.6 .1		Years of	Labor &
Omorrotor mumbor 1	Months	Age	Education	Management
Operator number 1	15.0	59	0	\$60,000
Operator number 2	15.0	37	0	\$57,000
Operator number 3 Operator number 4	0.0	0	0	\$0
Operator number 5	0.0 0.0	0	0	\$0 \$0
Operator number 6	0.0	0	0	\$0
operator number 6	0.0	U	U	\$0
Family paid	0.0			
Family unpaid	3.2			
Hired	54.3			
Tined	54.5			
Total	87.5	/12 = 7.29	Worker Equiv	ralent
			Operator/Manager	
LABOR EFFICIENCY	Total	Per Worker		
Cows, average number	312	43		
Milk sold, pounds	8,649,737	1,186,521		
Tillable acres	658	90		
LABOR COST		Total	Per Cow	Per Cwt.
Value of operator(s) labor (\$ 2,600 / month)*		\$78,000	\$250	\$0.90
Family unpaid (\$2,600 / month)*		\$8,320	\$27	\$0.10
Hired		\$161,794	\$519	\$1.87
Gross pay	\$140,886			
Health insurance & retirement contribution	\$0			
FICA/worker compensation	\$16,661			
Other benefits	\$4,247			
Total Labor		\$248,114	\$795	\$2.87
Machinery Cost (see page 11)		\$409,169	\$1,311	\$4.73
Total Labor & Machinery Cost		\$657,283	\$2,107	\$7.60
Hired labor expense per hired worker equivalent	\$35,756			
miled labor expense per filled worker equivalent	400,700			

<sup>\*</sup>When comparing to previous years' data, please note 1998 constants used in calculations were \$1600/month for both the value of operator(s) labor and unpaid family labor. In 1999, these values were \$1800/month, 2000 = \$1900/month, 2001 = \$2000/month, and in 2002 = \$2100/month. For 2003 through 2005 these values were \$2200/month and in 2006 = \$2300/month.

### Receipts and Expenses per Cow and per Cwt. 2012 - 2014

	2012		20	13	2014		
Item	Per Cow	Per Cwt.	Per Cow	Per Cwt.	Per Cow	Per Cwt.	
Average number of cows	309		303		312	_	
Cwt. of milk sold		79,935.89		83,566.17		86,497.37	
ACCRUAL OPERATING RECEIPTS							
Milk	\$5,040	\$19.48	\$5,859	\$21.24	\$7,079	\$25.53	
Dairy cattle	\$406	\$1.57	\$380	\$1.38	\$488	\$1.76	
Dairy calves	\$39	\$0.15	\$52	\$0.19	\$127	\$0.46	
Other livestock	\$0	\$0	\$0	\$0	\$0	\$0	
Crops	\$269	\$1.04	\$388	\$1.41	\$194	\$0.70	
Miscellaneous receipts	\$307	\$1.19	\$231	\$0.84	\$133	\$0.48	
Total Operating Receipts	\$6,060	\$23.43	\$6,910	\$25.05	\$8,021	\$28.93	
ACCRUAL OPERATING EXPENSES							
Hired labor	\$524	\$2.02	\$452	\$1.64	\$519	\$1.87	
Dairy grain & concentrate	\$2,165	\$8.37	\$2,027	\$7.35	\$2,186	\$7.88	
Dairy roughage	\$0	\$0.00	\$61	\$0.22	\$0	\$0.00	
Nondairy feed	\$0	\$0.00	\$0	\$0.00	\$0	\$0.00	
Professional nutritional services	\$0	\$0.00	\$0	\$0.00	\$0	\$0.00	
Machine hire, rent & lease	\$243	\$0.94	\$184	\$0.67	\$239	\$0.86	
Machine repair & vehicle expense	\$289	\$1.12	\$236	\$0.86	\$293	\$1.06	
Fuel, oil & grease	\$208	\$0.80	\$202	\$0.73	\$212	\$0.77	
Replacement livestock	\$0	\$0.00	\$0	\$0.00	\$0	\$0.00	
Breeding	\$117	\$0.45	\$104	\$0.38	\$116	\$0.42	
Veterinary & medicine	\$127	\$0.49	\$142	\$0.52	\$126	\$0.46	
Milk marketing	\$200	\$0.77	\$272	\$0.99	\$180	\$0.65	
Bedding	\$264	\$1.02	\$185	\$0.67	\$262	\$0.95	
Milking supplies	\$151	\$0.59	\$171	\$0.62	\$150	\$0.54	
Cattle lease	\$0	\$0.00	\$0	\$0.00	\$0	\$0.00	
Custom boarding	\$124	\$0.48	\$177	\$0.64	\$123	\$0.44	
BST expense	\$0	\$0.00	\$0	\$0.00	\$0	\$0.00	
Professional fees (livestock)	\$0	\$0.00	\$7	\$0.03	\$0	\$0.00	
Other livestock expense	\$12	\$0.05	\$12	\$0.04	\$12	\$0.04	
Fertilizer & lime	\$282	\$1.09	\$339	\$1.23	\$246	\$0.89	
Seeds & plants	\$340	\$1.32	\$107	\$0.39	\$101	\$0.36	
Spray & other crop expense	\$0	\$0.00	\$0	\$0.00	\$0	\$0.00	
Professional fees (crops)	\$23	\$0.09	\$19	\$0.07	\$23	\$0.08	
Land, building & fence repair	\$112	\$0.43	\$52	\$0.19	\$111	\$0.40	
Taxes	\$48	\$0.19	\$45	\$0.16	\$48	\$0.17	
Real estate rent & lease	\$82	\$0.32	\$59	\$0.22	\$81	\$0.29	
Insurance	\$45	\$0.17	\$59	\$0.21	\$45	\$0.16	
Utilities	\$143	\$0.55	\$109	\$0.40	\$141	\$0.51	
Interest paid	\$208	\$0.80	\$234	\$0.85	\$206	\$0.74	
Professional fees (other)	\$22	\$0.09	\$32	\$0.12	\$22	\$0.08	
Miscellaneous	\$35	\$0.13	\$20	\$0.07	\$35	\$0.12	
Total Operating Expenses	\$5,763	\$22.28	\$5,308	\$19.25	\$5,475	\$19.75	
Expansion livestock	\$0	\$0.00	\$0	\$0.00	\$0	\$0.00	
Extraordinary expense	\$0	\$0.00	\$0	\$0.00	\$0	\$0.00	
Machinery depreciation	\$311	\$1.20	\$354	\$1.28	\$436	\$1.57	
Real estate depreciation	\$285	\$1.10	\$290	\$1.05	\$309	\$1.12	
Total Expenses	\$6,359	\$24.58	\$5,952	\$21.58	\$6,220	\$22.43	
Net Farm Income							
Without Appreciation	\$-299	\$-1.16	\$958	\$3.47	\$1,801	\$6.50	



#### 2014 Income Statement Sample Farm Education Farm



ACCRUAL EXPENSES	\$	ACCRUAL RECEIPTS	\$
<u>Labor</u> : Hired	161,794	Milk sales	2,208,522
		Dairy cattle	152,245
Feed: Dairy grain & concentrate	681,918	Dairy calves	39,774
Dairy roughage	0	Other livestock	0
Nondairy	0		-
Professional nutritional services	0	Crops	60,550
N. 11. N. 11	74.660	Government receipts	25,337
Machinery: Machinery hire, rent & lease	74,669	Custom machine work	10,658
Machinery repairs & farm vehicle expense	91,327	Gas tax refund	0
Fuel, oil, grease	66,196	Other	5,357
<u>Livestock</u> : Replacement livestock	0		
Breeding	36,091	- noncash capital transfer	0
Veterinary & medicine	39,374		
Milk marketing	56,085	TOTAL ACCRUAL RECEIPTS	2,502,443
Bedding	81,817		_,= ,= , , , , ,
Milking supplies	46,877	DD OF ITTA DILLIPSY AND A VIGIG	
Cattle lease & rent	0	PROFITABILITY ANALYSIS	
Custom boarding	38,266	Net farm income without appreciation	561,908
bST expense	0	Net farm income without apprec. per cow	1,801
Livestock professional fees	0	Net farm income with appreciation	571,424
Other livestock expense	3,777	Net farm income with appreciation per cow	1,831
r	- 4		
Crops: Fertilizer & lime	76,697	Labor and management income per operator	212,041
Seeds & plants	31,435	Rate of return on equity capital w/o apprec.	16.9 %
Spray & other crop expense	0	Rate of return on equity capital with apprec.	17.2 %
Crop professional fees	7,177	Rate of return on all capital w/o apprec.	12.0 %
		Rate of return on all capital with apprec.	12.2 %
Real estate: Land, building & fence repair	34,506	Rate of Teturn on an capital with apprec.	12.2 /0
Taxes	14,879		
Rent & lease	25,229		
Othom			
Other: Insurance	13,964		
Utilities (farm share)	13,904 44,071		
Interest paid	64,333		
Other professional fees	6,828		
Miscellaneous	10,773		
Wilscendicods	10,773	-	
TOTAL OPERATING EXPENSES	1,708,083		
Expansion livestock	0		
Extraordinary expense	0		
Machinery depreciation	135,940		
Building depreciation	96,512		
Danishing depreciation	70,312	1	
TOTAL ACCRUAL EXPENSES	1,940,535		





# 2014 MARKET VALUE BALANCE SHEET EXCLUDING DEFERRED TAXES

NY farm viability

Sample Farm Education Farm

02-03-2016

Farm Assets						02-0	03-2010
Farm cash, checking & savings   2.5.83   2.816   Accounts receivable   217,662   352,154     Prepaid expenses   0	Farm Assets	Jan. 1	Dec. 31	Farm Liabilities & Net Worth	Jan. 1	Dec. 31	
Farm cash, checking & savings   2.5.83   2.816   Accounts receivable   217,662   352,154     Prepaid expenses   0	Current	\$	\$	Current	\$	\$	
Accounts receivable   217,662   352,154   Operating debt:   #1: Operating Loans BOC   40,000   193,000   Feed & supplies   427,900   483,606   #2: Operating Loans BOC   0   0   0   0   0   0   0   0   0							
Prepaid expenses					3,302	Ü	
Feed & supplies					40 000	193 000	
Total Current							
Short Tern:							
#1: 0 0 0 0 #2: 0 0 0 0 Advanced government receipt 0 0 0 Current portion: Intermediate 172,595 183,740 Long term 40,582 50,310 Total Current 258,559 427,050    Intermediate   Total Current 258,559 427,050	Total Current	051,145	030,370		U	O	
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$					0	0	
Advanced government receipt   Current portion:   Intermediate   172,595   183,740   Long term   40,582   50,310   Total Current   258,559   427,050							
Current portion:   Intermediate   172,595   183,740   Long term   40,582   50,310   Total Current   258,559   427,050							
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$					U	U	
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$					172 505	192 740	
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$							
Intermediate							
Dairy Cows:   Owned				Total Current	258,559	427,050	
owned leased         406,900         403,000 believes         #1: Revovling Line         131,626         39,424           Heifers         278,900         285,200         #2: Com Bank 1         4,576         25           Bulls & other livestock         0         0         0         447,762         25           Mach. & equip. owned         710,000         915,000         #3: FC Capital         236,167         371,992           Mach. & equip. leased         10,855         5,617         #6: Dealer 1         7,281         74           Farm Credit stock         1,000         1,000         #7: Dealer 3         0         16,471           Other stock & certificates         409,802         447,383         #8: Dealer 2         4,648         0           Total Intermediate         1,817,457         2,057,200         #9: Dealer 4         0         26,949           Financial lease (cattle & mach.)         10,855         5,617         Farm credit stock         1,000         1,000           Total Long Term         1,450,000         1,525,000         #1: House Mort         631,876         598,044           #2: Land 1         105,599         101,257         #3: O         0         0           Total Long Term         773,992	<u>Intermediate</u>			Intermediate			
Leased	Dairy Cows:			Structured debt, 1-10 years:			
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	owned	406,900	403,000	#1: Revovling Line	131,626	39,424	
Bulls & other livestock Mach. & equip. owned         0         0         #4: Truck Loan         16,661         10,696           Mach. & equip. owned         710,000         915,000         #5: Comb Bank 2         22,850         9,975           Mach. & equip. leased         10,855         5,617         #6: Dealer 1         7,281         74           Farm Credit stock         1,000         1,000         #7: Dealer 3         0         16,471           Other stock & certificates         409,802         447,383         #8: Dealer 2         4,648         0           Total Intermediate         1,817,457         2,057,200         #9: Dealer 4         0         26,949           Financial lease (cattle & mach.)         10,855         5,617         Farm credit stock         1,000         1,000           Total Intermediate         1,450,000         1,525,000         #1: House Mort         631,876         598,044           Financial Long Term         1,450,000         1,525,000         #3: O         0         0           #4: Com Mort         0         49,822         #5: Land 3         36,517         32,475           Financial lease (structures)         0         0         0           #4: Com Mort         773,992         781,598	leased	0	0	#2: Com Bank 1	4,576	25	
Mach. & equip. owned Mach. & equip. leased         710,000   915,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,817,457   2,057,200         #5: Comb Bank 2   22,850   9,975   74   74   74   74   74   74   74	Heifers	278,900	285,200	#3: FC Capital	236,167	371,992	
Mach. & equip. leased Farm Credit stock         10,855         5,617         #6: Dealer 1         7,281         74           Cother stock & certificates         409,802         447,383         #8: Dealer 2         4,648         0           Total Intermediate         1,817,457         2,057,200         #8: Dealer 2         4,648         0           Farm Credit stock control intermediate         1,817,457         2,057,200         #9: Dealer 4         0         26,949           Financial lease (cattle & mach.)         10,855         5,617         Farm credit stock Total Intermediate         1,000         1,000           Long Term         Long Term         Structured debt, >= 10 years:         Structured debt, >= 10 years:           Will House Mort control in the properties of th	Bulls & other livestock	0	0	#4: Truck Loan	16,661	10,696	
Mach. & equip. leased Farm Credit stock         10,855         5,617         #6: Dealer 1         7,281         74           Cother stock & certificates         409,802         447,383         #8: Dealer 2         4,648         0           Total Intermediate         1,817,457         2,057,200         #8: Dealer 2         4,648         0           Farm Credit stock cartile & mach.         10,855         5,617         Farm credit stock and cartile ase (cattle & mach.)         10,855         5,617           Farm credit stock buildings:         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000         1,000 <td>Mach. &amp; equip. owned</td> <td>710,000</td> <td>915,000</td> <td>#5: Comb Bank 2</td> <td>22,850</td> <td>9,975</td> <td></td>	Mach. & equip. owned	710,000	915,000	#5: Comb Bank 2	22,850	9,975	
Farm Credit stock		10,855	5,617	#6: Dealer 1	7,281	74	
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$				I			
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$					4.648		
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$					,	26,949	
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$		-,,	_,,,_,,	I	10.855		
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$							
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$							
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$							
owned       1,450,000       1,525,000       #1: House Mort       631,876       598,044         leased       0       0       #2: Land 1       105,599       101,257         Total Long Term       1,450,000       1,525,000       #3: 0       0       0         #4: Com Mort       0       49,822         #5: Land 3       36,517       32,475         Financial lease (structures)       0       0         Total Long Term       773,992       781,598     Total Farm Liabilities  1,468,215 1,690,871							
leased       0       0       #2: Land 1       105,599       101,257         Total Long Term       1,450,000       1,525,000       #3: 0       0       0         #4: Com Mort       0       49,822         #5: Land 3       36,517       32,475         Financial lease (structures)       0       0         Total Long Term       773,992       781,598    Total Farm Assets  3,918,602  4,420,776  Total Farm Liabilities  1,468,215  1,690,871		4 4 7 0 0 0 0		•			
Total Long Term  1,450,000 1,525,000 #3: 0 #4: Com Mort 0 49,822 #5: Land 3 36,517 32,475 Financial lease (structures) Total Long Term 773,992 781,598  Total Farm Assets 3,918,602 4,420,776 Total Farm Liabilities 1,468,215 1,690,871							
#4: Com Mort 0 49,822 #5: Land 3 36,517 32,475 Financial lease (structures) 0 0 Total Long Term 773,992 781,598  Total Farm Assets 3,918,602 4,420,776 Total Farm Liabilities 1,468,215 1,690,871				I		,	
#5: Land 3 36,517 32,475 Financial lease (structures) 0 0 Total Long Term 773,992 781,598  Total Farm Assets 3,918,602 4,420,776 Total Farm Liabilities 1,468,215 1,690,871	Total Long Term	1,450,000	1,525,000				
Financial lease (structures) <u>0</u> <u>0</u> Total Long Term 773,992 781,598  Total Farm Assets 3,918,602 4,420,776 Total Farm Liabilities 1,468,215 1,690,871							
Total Long Term 773,992 781,598  Total Farm Assets 3,918,602 4,420,776 Total Farm Liabilities 1,468,215 1,690,871						32,475	
Total Farm Assets 3,918,602 4,420,776 Total Farm Liabilities 1,468,215 1,690,871				1			
				Total Long Term	773,992	781,598	
FARM NFT WORTH 2 450 387 2 729 905	Total Farm Assets	3,918,602	4,420,776	Total Farm Liabilities	1,468,215	1,690,871	
1 ARM 1121 WORTH 2,750,507 2,729,905				FARM NET WORTH	2,450,387	2,729,905	



Debt to asset ratio

Farm debt per cow

Cornell Cooperative Extension Prepared by Department of Applied Economics and Management Cornell University



Sample Farm

34%

42%

#### YOUR FARM COMPARED TO A GROUP AVERAGE Group Average: Similar Size Farm

Year 2014 Data Difference Selected Factors Your Farm Group Average, 25 farms Statistical\* Percent Size of Business Average number of cows 326 275 =-2% Average number of heifers = Milk sold, lbs. Worker equivalent Total tillable acres 8,193,965 8.46 5% = -16% =687 -4% Rates of Production Milk sold per cow, lbs. 9% Hay DM per acre, tons -10% =Corn silage per acre, tons <u>Labor Efficiency & Costs</u> Cows per worker Milk sold per worker, lbs. 10% = 1,186,521 =18% -57% -5% Hired labor cost per cwt. Hired labor cost per worker Hired labor cost as % of milk sales -64% Cost Control Grain & concentrate purchased as % of milk sales 7% Grain & concentrate per cwt. milk \$7.39 6% Dairy feed & crop expense per cwt. milk 0% 2,107 Labor & machinery costs per cow 2,107 -0% Total farm operating costs per cwt. sold Interest costs per cwt. milk 19.75 20.8-5% 37% 0.74 0.47 Milk marketing costs per cwt. milk sold Operating cost of producing cwt. of milk 28% 0.65 Capital Efficiency (average for the year) Farm capital per cow Machinery & equipment per cow \$12,401 2,438 \$13,364 7% = 7% 2,631 = Asset turnover ratio 0.60 =Income Generation
Gross milk sales per cow
Gross milk sales per cwt. \$7,079 25.53 24.88 \$6,406 25.49 10% 0% = Net milk sales per cwt.
Dairy cattle sales per cow
Dairy calf sales per cow 24.66 1% = 15% 27% 417 Profitability
Net farm income without appreciation \$494,140 615,746 192,399 13.11 \$561,908 571,424 12% Net farm income with appreciation -8% = Labor & management income per operator/manager Rate of return on equity capital without appreciation Rate of return on all capital without appreciation 212,041 9% = 22%16.86 =12% 12.01 10.59 <u>Financial Summary</u> Farm net worth, end year \$2,729,905 0.38 \$3,209,246 0.25 -18% =

+ is between +1 & +2 standard deviation + is greater than +2 standard deviation - is less than -2 standard deviation = is between -1 and +1 standard deviation NA is not applicable (when "your farm" value is 0)

The purpose of determining if your business is different than the comparison group average is to identify strengths and areas for improvement. The standard deviation tells you how far your farm is above or below the average. If your farm is between 1 standard deviation above or 1 standard deviation below (+ 1 or -1), then you are in the group that accounts for two-thirds of the farms in the group average. In other words, most of the farms in the group average are relatively close to your farm. However, there are only 13% of the farms between 1 and 2 standard deviations, either above or below the average. Only 3% of the farms are greater than 2 standard deviations.

All factors must be considered and evaluated before arriving at a conclusion as to which area of the business should be improved.

Note: Business analyses generated through the use of this comparison report are dependent upon the accuracy of the individual farm data submitted and the interpretation of the report. The comparison report is provided to assist the manager in making decisions regarding future management actions to improve the business. Cornell University and Cornell Cooperative Extension do not assume responsibility for decisions made by farmers based in whole or in part on this report.

## YOUR FARM COMPARED TO A GROUP AVERAGE Group Average = Similar Size Farm

	Your	farm, 2014 Data	Group Average, 2014 Data	Difference for	or per Cow. Data	Group Average, 2014 Data	a Difference for	r per Cwt. Data
Item	Per Cow	Per Cwt.	Per Cow	Statistical*	Percent	Per Cwt.	Statistical*	Percent
Average Number of Cows	312		326	=	-5%			
Cwt. of Milk Sold		86,497.37				81,939.65	=	5%
Accrual Operating Receipts								
Milk	\$7079	\$25.53	\$6,406		10%	\$25.49	=	0%
Dairy cattle	488	1.76	417	=	15%	1.66	=	6%
Dairy calves	127	0.46	93	=	27%	0.37	=	19%
Other livestock	0	0.00	15	N/A	N/A	0.06	N/A	N/A
Crops	194	0.70	210	=	-8%	0.84	=	-19%
Miscellaneous receipts	133	0.48	. 86	=	35%	0.34	=	29%
Total Operating Receipts	\$8021	\$28.93	\$7,227	+	10%	\$28.76	=	1%
Accrual Operating Expenses								
Hired labor	\$519	\$1.87	\$737	=	-42%	\$2.93	_	-57%
Dairy grain & concentrate	2186	7.88	\$737 1857	+	15%	\$2.93 7.39	=	6%
Dairy roughage	0	0.00	97	N/A	N/A	0.39	N/A	N/A
Nondairy feed	0	0.00	0	N/A	N/A	0.00	N/A	N/A
Professional nutritional services	0	0.00	1	N/A	N/A	0.00	N/A	N/A
Machine hire, rent & lease	239	0.86	176	=	26%	0.70	=	18%
Machine repairs & vehicle expense	239 293 212	1.06	320	=	-9%	1.27	=	-20%
Fuel, oil & grease	212	0.77	240	=	-13%	0.95	=	-24%
Replacement livestock	0	0.00	40	N/A	N/A	0.16	N/A	N/A
Breeding	116	0.42	69 171	+	41%	0.27	+	35%
Veterinary & medicine Milk marketing	126 180	0.46 0.65	208	= =	-35% -16%	0.68 0.83	= =	-48% -28%
Bedding	262	0.03	128	_ +	51%	0.83	_ +	46%
Milking supplies	150	0.54	103	+	32%	0.41	=	24%
Cattle lease	0	0.00	0	N/A	N/A	0.00	N/A	N/A
Custom boarding	123	0.44	82	=	34%	0.33	=	26%
bST expense Livestock professional fees	0	0.00	20 20	N/A	N/A	0.08	N/A	N/A
Livestock professional fees	0	0.00	20	N/A	N/A	0.08	N/A	N/A
Other livestock expense	12	0.04	47	=	-293%	0.19	=	-369%
Fertilizer & lime	246	0.89	137	=	44%	0.54 0.52	=	39%
Seeds & plants	101	0.36	132	=	-31%	0.52	=	-46%
Spray & other crop expense Crop professional fees	$\begin{array}{c} 0 \\ 23 \end{array}$	0.00 0.08	75 9	N/A	N/A 61%	0.30 0.04	N/A	N/A
Land, building & fence repair	111	0.08	70	= =	29%	0.04	= =	56% 22%
Taxes	48	0.40	79 75	=	-56%	0.31	=	-75%
Real estate rent/lease	81	0.17	60	=	26%	0.30	=	18%
Insurance	45	0.16	62	=	-38%	0.25	=	-55%
Utilities	141	0.51	114	+	19%	0.45	=	11%
Interest paid	206	0.74	118	=	43%	0.47	=	37%
Other professional fees	22 35	0.08	29 23	=	-30%	0.11	=	-42%
Miscellaneous	35	0.12	23	=	35%	0.09	=	25%
Total operating expenses	\$5475	\$19.75	\$5229	=	4%	\$20.79	=	-5%
Expansion livestock	0	0.00	14	N/A	N/A	0.06	N/A	N/A
Extraordinary expense	126	0.00	3	N/A	N/A	0.01	N/A	N/A
Machinery depreciation	436 309	1.57 1.12	312 157	=	29% 49%	1.24 0.63	=	21% 44%
Real Estate depreciation Total Expenses	\$6220	\$22.43	\$5715	+ =	49% 8%	\$22.73	+ =	-1%
Net Farm Income without apprec.	\$1801	\$6.50	\$3713 \$1,512	=	16%	\$6.03	=	-1% 7%
Their aim income without applee.	\$1001	φυ.50	\$1,312	_	1070	\$0.03	_	7 70

<sup>+</sup> is between +1 & +2 standard deviation + + is greater than +2 standard deviation

<sup>-</sup> is between -1 & -2 standard deviation - - is less than -2 standard deviation

<sup>=</sup> is between -1 and +1 standard deviation NA is not applicable (when "your farm" value is 0)



#### 2013 Income Statement Sample Farm Education Farm



ACCRUAL EXPENSES	\$	ACCRUAL RECEIPTS	\$
<u>Labor</u> : Hired	136,839	Milk sales	1,775,314
		Dairy cattle	115,000
<u>Feed</u> : Dairy grain & concentrate	614,136	Dairy calves	15,677
Dairy roughage	18,556	Other livestock	0
Nondairy	0		
Professional nutritional services	0	Crops	117,614
Machinemy Machinemy hime ment & lease	55 706	Government receipts	44,643
Machinery: Machinery hire, rent & lease Machinery repairs & farm vehicle expense	55,796 71,605	Custom machine work	21,213
Fuel, oil, grease	61,154	Gas tax refund	0
ruci, on, grease	01,154	Other	4,239
<u>Livestock</u> : Replacement livestock	0	- noncash capital transfer	0
Breeding	31,433	- Honeasii capitai transici	<u> </u>
Veterinary & medicine	43,095		
Milk marketing	82,538	TOTAL ACCRUAL RECEIPTS	2,093,700
Bedding	55,920		
Milking supplies	51,904	PROFITABILITY ANALYSIS	
Cattle lease & rent	0	Net farm income without appreciation	290,252
Custom boarding	53,611	Net farm income without apprec. per cow	958
bST expense	0	11 1	
Livestock professional fees	2,100	Net farm income with appreciation	436,447
Other livestock expense	3,543	Net farm income with appreciation per cow	1,440
Crops: Fertilizer & lime	102,753	Labor and management income per operator	83,893
Seeds & plants	32,496	Rate of return on equity capital w/o apprec.	7.7 %
Spray & other crop expense	0	Rate of return on equity capital with apprec.	14.1 %
Crop professional fees	5,813	Rate of return on all capital w/o apprec.	6.5 %
1 1	,	1 11	
Real estate: Land, building & fence repair	15,745	Rate of return on all capital with apprec.	10.3 %
Taxes	13,539		
Rent & lease	18,025		
Other:	17.770		
Insurance	17,778		
Utilities (farm share)	33,053 70,860		
Interest paid Other professional fees	9,841		
Miscellaneous	6,176		
Wilscenaneous			
TOTAL OPERATING EXPENSES	1,608,309		
Expansion livestock	0		
Expansion rivestock Extraordinary expense	0		
Machinery depreciation	107,222		
Building depreciation	87,917		
		1	
TOTAL ACCRUAL EXPENSES	1,803,448		





# 2013 MARKET VALUE BALANCE SHEET EXCLUDING DEFERRED TAXES

NY farm viability

Sample Farm Education Farm

02-03-2016

					02-0	03-2016
Farm Assets	Jan. 1	Dec. 31	Farm Liabilities & Net Worth	Jan. 1	Dec. 31	
Current Farm cash, checking & savings Accounts receivable	\$ 12,802 232,525	\$ 5,583 217,662	Current Accounts payable Operating debt:	\$ 5,378	\$ 5,382	
Prepaid expenses	0	0	#1: Operating Loans BOC	20,000	40,000	
Feed & supplies	340,000	<u>427,900</u>	#2: Operating Loans BOC	11,969	0	
Total Current	585,327	651,145	#3: 0	0	0	
			Short Term:			
			#1: 0	0	0	
			#2: 0	0	0	
			Advanced government receipt Current portion:	0	0	
			Intermediate	160,785	164,839	
			Long term	<u>38,895</u>	<u>40,964</u>	
			Total Current	237,027	251,185	
Intermediate Dairy Cows:	400 400	40.4.000	Intermediate Structured debt, 1-10 years:			
owned	400,400	406,900	#1: Revovling Line	219,271	131,626	
leased	0	278 000	#2: Com Bank 1	7,763 217,323	3,392	
Heifers Bulls & other livestock	263,300 0	278,900 0	#3: FC Capital #4: Truck Loan	22,245	254,026	
Mach. & equip. owned	680,000	710,000	#5: Com Bank 2	34,202	16,661 22,850	
Mach. & equip. leased	15,740	10,855	#5. Com Bank 2 #6: Dealer 1	9,999	3,020	
Farm Credit stock	1,000	1,000	#7: 0	0,,,,,	0	
Other stock & certificates	<u>357,546</u>	409,802	#8: Dealer 2	6,740	-10	
Total Intermediate	1,717,986	1,817,457	#9: 0	0	0	
			Financial lease (cattle & mach.)	15,740	10,855	
			Farm credit stock	<u>1,000</u>	1,000	
			Total Intermediate	534,283	443,420	
Long Term Land & buildings:			Long Term Structured debt, >= 10 years:			
owned	1,400,000	1,450,000	#1: House Mort	666,124	631,863	
leased	<u>0</u>	0	#2: Land 1	109,359	105,230	
Total Long Term	1,400,000	1,450,000	#3: 0	0	0	
			#4: 0	0	0	
			#5: Land 3	41,083	36,517	
			Financial lease (structures) Total Long Term	<u>0</u> 816,566	<u>0</u> 773,610	
Total Farm Assets	3,703,313	3,918,602	Total Farm Liabilities	1,587,876	1,468,215	
			FARM NET WORTH	2,115,437	2,450,387	



Debt to asset ratio

Farm debt per cow

Cornell Cooperative Extension Prepared by Department of Applied Economics and Management Cornell University



Sample Farm

27% 31%

### YOUR FARM COMPARED TO A GROUP AVERAGE Group Average: Similar Size Farm

Year 2013 Data Difference Selected Factors Your Farm Group Average, 27 farms Statistical\* Percent Size of Business Average number of cows -10% 303 =271 Average number of heifers = -8% Milk sold, lbs. Worker equivalent Total tillable acres 8,356,617 6.96 8,301,377 8.96 1% = -29% = 658 -14% Rates of Production Milk sold per cow, lbs. 27,580 3.15 22.10 10% Hay DM per acre, tons 3.49 18.38 -11% = 17% Corn silage per acre, tons = <u>Labor Efficiency & Costs</u> Cows per worker Milk sold per worker, lbs. 15% 23% =1,200,663 926,684 -80% Hired labor cost per cwt. \$1.64 \$36,542 Hired labor cost per worker Hired labor cost as % of milk sales \$32,645 -12%-70% Cost Control Grain & concentrate purchased as % of milk sales 5% \$7.35 9.26 3% 2% -8% Grain & concentrate per cwt. milk Dairy feed & crop expense per cwt. milk 9.07 1,830 19.25 0.85 Labor & machinery costs per cow 1,968 Total farm operating costs per cwt. sold Interest costs per cwt. milk 20.08-4% 0.4843% Milk marketing costs per cwt. milk sold Operating cost of producing cwt. of milk 0.99 18% Capital Efficiency (average for the year) Farm capital per cow Machinery & equipment per cow 10% = = 5% 4% Asset turnover ratio = Income Generation
Gross milk sales per cow
Gross milk sales per cwt. \$5,859 21.24 20.26 -2% -3% 21.59 20.78 =Net milk sales per cwt.
Dairy cattle sales per cow
Dairy calf sales per cow = 12% Profitability
Net farm income without appreciation \$228,716 21% 25% \$290,252 436,447  $\overline{326,682}$ Net farm income with appreciation = Labor & management income per operator/manager Rate of return on equity capital without appreciation Rate of return on all capital without appreciation 83,893 48,681 42% = 36% 28% 4.96 4.63 =6.48 = <u>Financial Summary</u> Farm net worth, end year \$2,836,713 0.27 -16% \$2,450,387 =

+ is between +1 & +2 standard deviation + is greater than +2 standard deviation - is less than -2 standard deviation = is between -1 and +1 standard deviation NA is not applicable (when "your farm" value is 0)

0.37

The purpose of determining if your business is different than the comparison group average is to identify strengths and areas for improvement. The standard deviation tells you how far your farm is above or below the average. If your farm is between 1 standard deviation above or 1 standard deviation below (+ 1 or -1), then you are in the group that accounts for two-thirds of the farms in the group average. In other words, most of the farms in the group average are relatively close to your farm. However, there are only 13% of the farms between 1 and 2 standard deviations, either above or below the average. Only 3% of the farms are greater than 2 standard deviations.

All factors must be considered and evaluated before arriving at a conclusion as to which area of the business should be improved.

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## YOUR FARM COMPARED TO A GROUP AVERAGE Group Average = Similar Size Farm

			•					
	Your f	farm, 2013 Data	Group Average, 2013 Data	Difference for p	per Cow. Data	Group Average, 2013 Data	Difference for	per Cwt. Data
Item	Per Cow	Per Cwt.	Per Cow	Statistical*	<u>Percent</u>	Per Cwt.	Statistical*	Percent
Average Number of Cows	303	<u>101 0 W.L.</u>	333	=	-10%	101011	Buttisticui	refeette
Cwt. of Milk Sold		83,566.17				83,013.77	=	1%
						· ·		
Accrual Operating Receipts Milk	\$5859	\$21.24	\$5,380	_	8%	\$21.59	_	-2%
Dairy cattle	\$3839 380	\$21.24 1.38	333	= =	12%	1.34	= =	-2% 3%
Dairy cattle Dairy calves	52	0.19	36	=	31%	0.14	=	24%
Other livestock	0	0.00	21	N/A	N/A	0.08	N/A	N/A
Crops	388	1.41	157	=	60%	0.63	=	55%
Miscellaneous receipts	231	0.84	186	=	19%	0.75	=	11%
Total Operating Receipts	\$6910	\$25.05	\$6,113	+	12%	\$24.53	=	2%
Accrual Operating Expenses								
Hired labor	\$452	\$1.64	\$733	=	62%	\$2.04		-80%
Dairy grain & concentrate	\$452 2027	7.35	\$733 1783	=	-62% 12%	\$2.94 7.15	=	3%
Dairy roughage	61	0.22	119	=	-96%	0.48	=	-118%
Nondairy feed	0	0.00	1	N/A	N/A	0.00	N/A	N/A
Professional nutritional services	0	0.00	0	N/A	N/A	0.00	N/A	N/A
Machine hire, rent & lease	184	0.67	162	=	12%	0.65	=	3%
Machine repairs & vehicle expense Fuel, oil & grease	236	0.86	251	=	-6%	1.01	=	-17%
Fuel, oil & grease	202	0.73	236	=	-17%	0.95	=	-30%
Replacement livestock	0 104	0.00	39 61	N/A	N/A 41%	0.16	N/A	N/A 35%
Breeding Veterinary & medicine	104 142	0.58	167	+ =	41% -17%	0.25	+ =	-29%
Milk marketing	142 272	0.32	203	=	25%	0.87	=	-29% 18%
Bedding	185	0.67	118	=	36%	0.47	=	30%
Milking supplies	171	0.62	110	+	36%	0.44	=	29%
Cattle lease	0	0.00	0	N/A	N/A	0.00	N/A	N/A
Custom boarding	177	0.64	62	=	65%	0.25	=	61%
bST expense	0	0.00	18	N/A	N/A	0.07	N/A	N/A
Livestock professional fees	12	0.03   0.04	19 27	=	-172% -126%	0.08	=	-154%
Other livestock expense Fertilizer & lime	12 339	1.23	150	= +	-126% 56%	0.11 0.60	= +	-173% 51%
Seeds & plants	107	0.39	136	=	-27%	0.55	=	-40%
Spray & other crop expense	0	0.00	62	N/A	N/A	0.25	N/A	N/A
Spray & other crop expense Crop professional fees	19	0.07	10	=	48%	0.04	=	44%
Land, building & fence repair	52	0.19	49	=	6%	0.20	=	-4%
Taxes	45	0.16	74	=	-65%	0.30	=	-87%
Real estate rent/lease	59	0.22	78	=	-32%	0.31	=	-42%
Insurance	59 109	0.21 0.40	48	=	19%	0.19	=	9%
Utilities Interest paid	234	0.40	116 120	= +	-6% 49%	0.46	=	-16% 43%
Other professional fees	32	0.12	27	=	16%	0.48	=	10%
Miscellaneous	$\frac{32}{20}$	0.07	24	=	-19%	0.10	=	-36%
Total operating expenses	\$5308	\$19.25	\$5003	=	6%	\$20.09	=	-4%
Expansion livestock	0	0.00	5	N/A	N/A	0.02	N/A	N/A
Extraordinary expense	0	0.00	i i	N/A	N/A	0.00	N/A	N/A
Machinery depreciation	354	1.28	275	=	22%	1.10	=	14%
Real Estate depreciation	290	1.05	143	+	51%	0.57	+	45%
Total Expenses	\$5952 \$958	\$21.58	\$5427 \$686	=	9% 28%	\$21.78 \$2.75	=	-1% 21%
Net Farm Income without apprec.	<b>\$</b> 938	\$3.47	\$686	=	∠ <b>ð</b> %	\$2.75	=	21%

<sup>+</sup> is between +1 & +2 standard deviation + + is greater than +2 standard deviation

<sup>-</sup> is between -1 & -2 standard deviation - - is less than -2 standard deviation

<sup>=</sup> is between -1 and +1 standard deviation NA is not applicable (when "your farm" value is 0)