

Farm Business Management

Northern Minnesota

2016 ANNUAL REPORT



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MINNESOTA STATE



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A Management Education Program through AgCentric, Northern Center of Excellence for Agriculture

A MEMBER OF THE MINNESOTA STATE SYSTEM

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2016 Annual Report – Executive Summary

The 2016 farm year can best be described as the second consecutive great production year with very modest farm earnings. Crop yields and livestock production were at all-time records. On the down side, prices of crops and livestock products dropped again during 2016. A decrease in accrual adjusted farm income was influenced by beginning inventory values that were significantly higher than the actual prices received for livestock sales in 2016. For dairy farms, the average price received for their milk was down by over a dollar per cwt. compared to what was received in 2015. Along with reduced milk prices, the dairy producers also experienced a 40 percent decrease in the value of their cull cows and other feeder or finishing animals. The beef cattle industry experienced the same dramatic decline in market values for 2016. Corn and soybean prices saw significant price fluctuation during the 2016 calendar, which did allow for some sales at profitable levels for short periods of time.

Average net farm income for the 615 farms in the Northern Minnesota database was \$59,480 for 2016. This was up from the \$37,182 reported in 2015. Median net farm income was up slightly increasing to \$25,654 in 2016, compared to \$23,730 in 2015.

The continued declines in the prices of virtually all major commodities caused Northern

Financial Factors	2012	2013	2014	2015	2016
Average Net Farm Income	\$195,588	\$75,243	\$114,095	\$37,182	\$59,480
Median Net Farm Income	\$102,641	\$27,886	\$46,104	\$23,730	\$25,654

Minnesota farm profits to remain low for the majority of farms and caused a negative net return for over 30% of farms. Excessive rain, hail, and wind damage impacted farms in some smaller, regionalized areas, causing additional problems in 2016.

Some key financial measures did show modest improvement compared to 2015. Working capital rose to \$145,543 at the end of 2016 compared to \$138,627 at the end of 2015; an increase of 5%. Some of that working capital improvement occurred as a result of some farms completing a debt restructure to improve their working capital position. Working Capital shows the dollar amount that current assets can or cannot cover current liabilities. Working capital remains respectable for most operations, but the concern becomes how long farms

Financial Factors	2012	2013	2014	2015	2016
Working Capital	\$235,430	\$130,026	\$171,051	\$138,627	\$145,543
Working Capital as % of Gross	33.9%	27.9%	25.4%	24.7%	25.1%
Term Debt Coverage Ratio	3.24	1.31	1.75	0.88	1.22
Operating Expense Ratio	63.0%	76.2%	73.1%	81.4%	77.1%

can handle the lower commodity prices with the current cost of farm inputs.

Term Debt Coverage is a key financial measure that Ag

lenders consider in loan decisions. The 2016 Northern Minnesota average was 1.22 compared to .88 in 2015. With the average in 2016 at 1.22, that means approximately one half of the farms in this report had less than a 1.00 term debt coverage. Those farms needed to use all their working capital to help make all their scheduled payments on intermediate, long-term and personal loans. Working capital was used to offset the shortage of income in those operations in 2016.

With modest profitability in 2016, the operating expense ratio came in at 77.1 %; which is in the high end of acceptable range based on the financial scorecard on the back cover of this report. 80% is the start of the red zone area for the operating expense ratio. This ratio indicates that for every dollar of farm revenue produced, it took 77.1 cents in 2016 to cover the annual operating expenses; excluding interest paid, loan payments or depreciation, and family living. When operating expenses take that large of a slice of the gross revenue, cash flow issues are created for most farms. The Northern Minnesota farms ended the 2015 year at 81.4%, compared to 73.1% in 2014.

Trend information for the 2012-2016 Financial Summary can be found on page 4 of this report. A quick look at 2016 can be found on page 5, Year at a Glance. The impact of spending on the farm economy of Northern Minnesota by the average farmer in this report can be found on page 8.

2016 Annual Report – Executive Summary

Our two major livestock enterprises in Northern Minnesota are Dairy and Beef Cow-Calf operations. On a statewide basis, the Dairy Cow enterprise generated a very modest Net Return/cow of only \$108.61 in 2016, which is the lowest net return since 2009. This is a decrease of \$180 per cow from 2015 and \$1140 per cow in 2014. This reduction in profit is tied directly to the continued drop in average price received for milk, which reduced to \$16.33 per cwt

Statewide FBM Data	Dairy (Excluding Organic & Organic Transition)				
	2012	2013	2014	2015	2016
Gross Margin	\$4,263	\$4,400	\$5,618	\$4,187	\$3,767
Feed Cost / Cow	\$2,321	\$2,393	\$2,430	\$2,108	\$1,899
Dir & Ovhd Expense/Cow	\$3,972	\$4,113	\$4,369	\$3,897	\$3,659
Net Return / Cow	\$290	\$287	\$1,249	\$289	\$109
Average Milk Price	\$19.47	\$20.20	\$24.36	\$17.75	\$16.33
Cost of Prod w Lab&Mgmt/Cwt Milk	\$19.06	\$19.80	\$20.00	\$17.42	\$16.65

compared to \$17.75 per cwt in 2015 and \$24.36 per cwt in 2014. This reduction of \$8.03 per cwt from 2014 to 2016 is a 33% reduction in gross revenue, which directly impacts net returns.

Beef Cow/Calf enterprises showed a negative Net Return per cow of -\$84.06 in 2016 as a result of a \$.50 per pound decline in calf price compared to just one year ago. 2015 showed a Net Return of \$117 per cow, while

Statewide FBM Data	Beef Cow-Calf				
	2012	2013	2014	2015	2016
Gross Margin	\$800	\$778	\$1,295	\$864	\$633
Feed Cost / Cow	\$446	\$479	\$508	\$439	\$413
Dir & Ovhd Expense/Cow	\$712	\$741	\$844	\$747	\$718
Net Return / Cow	\$88	\$37	\$452	\$117	(\$84)
Ave Price per CWT calf sold	\$146.91	\$152.83	\$212.33	\$206.46	\$156.00

2014 had a \$452 Net Return. Feed costs were lower for both the Beef Cow/Calf and Dairy enterprises in 2016, but the reduced prices more than offset decreased feed costs and modest increases in production levels.

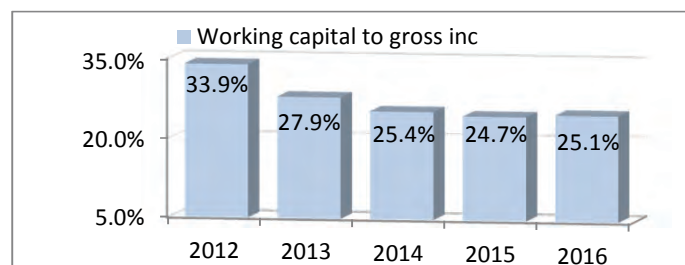
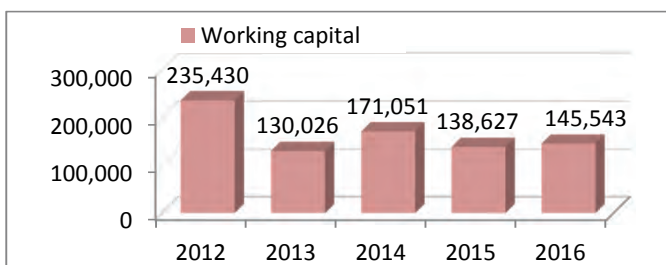
2016 was another great year for crop yields in Minnesota. Some isolated areas experienced weather challenges that lowered yields in those areas, but most farms produced one of the best crops ever. The average yield per acre for the northern half of Minnesota was 179 bushels for corn, 46 bushels for soybeans, and 65 bushels for wheat. Even though farms experienced near record yields in 2016, net returns were only modest in wheat, and negative in corn. Soybeans was the crop that showed a nice net return of \$118 per acre. Total direct and overhead expense for the crops listed below showed a modest reduction, due in part to a slight decline in some direct crop inputs.

The chart below displays the 5-year history of selected factors for these crops.

Rented Land		Yield per Acre	Value per Unit	Gross Revenue /Acre	Dir & Ovhd Expense /Acre	Net Return /Acre	Dir & Ovhd Expense /Unit
Corn	2012	128.5	\$6.38	\$832.19	\$544.50	\$287.69	\$4.24
	2013	105.4	\$4.01	\$494.27	\$564.51	(\$70.24)	\$5.36
	2014	118.2	\$3.49	\$521.63	\$611.16	(\$89.53)	\$5.17
	2015	164.2	\$3.32	\$558.23	\$585.59	(\$27.36)	\$3.57
	2016	178.4	\$3.01	\$547.14	\$563.62	(\$16.48)	\$3.16
Soybeans	2012	37.0	\$13.86	\$520.96	\$309.50	\$211.46	\$8.37
	2013	30.6	\$12.59	\$402.48	\$310.57	\$91.91	\$10.15
	2014	32.8	\$9.78	\$342.20	\$329.59	\$12.61	\$10.04
	2015	40.1	\$8.37	\$347.59	\$320.92	\$26.67	\$8.01
	2016	46.4	\$9.24	\$434.78	\$316.46	\$118.32	\$6.83
Spring Wheat	2012	59.3	\$8.30	\$496.23	\$342.80	\$153.43	\$5.87
	2013	65.7	\$6.32	\$422.88	\$355.27	\$67.61	\$5.41
	2014	62.4	\$5.56	\$361.53	\$351.33	\$10.20	\$5.63
	2015	66.3	\$5.02	\$346.93	\$330.46	\$16.47	\$4.99
	2016	64.2	\$4.90	\$321.18	\$318.65	\$2.54	\$4.97

Financial Trend Summary
Northern Minnesota Farm Business Management Data

	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>
Income Statement					
Gross Cash Farm Income	609,139	595,950	658,798	551,703	557,016
Total Cash Farm Expense	473,448	467,633	522,485	469,847	473,748
Net Cash Farm Income	135,691	128,317	136,314	81,857	83,268
Inventory change	94,606	-16,741	18,383	-5,368	20,084
Depreciation	-34,864	-36,037	-40,880	-40,070	-44,472
Net Farm Income From Operations	195,433	75,539	113,816	36,419	58,880
Gain or loss on capital sales	155	-296	279	763	601
Average Net Farm Income	195,588	75,243	114,095	37,182	59,480
Median Net Farm Income	102,641	27,886	46,104	23,730	25,654
Profitability (Cost)					
Rate of Return on Assets	13.9%	4.4%	6.4%	1.4%	2.7%
Rate of Return on Equity	22.2%	4.5%	8.3%	-0.9%	1.6%
Operating Profit Margin	29.1%	12.7%	17.8%	4.7%	9.2%
Asset Turnover Rate	47.7%	34.6%	36.2%	29.8%	29.6%
Liquidity & Repayment (end of year)					
Current Assets	433,205	320,139	379,735	362,417	395,719
Current Liabilities	197,776	190,113	208,684	223,790	250,175
Current Ratio	2.19	1.68	1.82	1.62	1.58
Working capital	235,430	130,026	171,051	138,627	145,543
Working capital to gross inc	33.9%	27.9%	25.4%	24.7%	25.1%
Term Debt Coverage Ratio	3.24	1.31	1.75	0.88	1.22
Replacement coverage ratio	2.79	1.15	1.50	0.76	1.01
Term debt to EBITDA	-	-	2.45	4.33	3.63
Solvency (Market)					
Number of Farms	405	412	566	588	615
Total Assets	1,846,773	1,685,236	2,032,113	2,003,026	1,842,910
Total Liabilities	830,038	785,428	883,164	895,016	803,433
Net Worth	1,016,735	899,809	1,148,949	1,108,011	1,039,477
Net Worth Change	174,381	64,982	111,833	30,645	43,243
Farm Debt to Asset Ratio	47%	44%	44%	47%	46%
Total Debt to Asset Ratio	45%	47%	43%	45%	44%
Change in total net worth %	-	-	11%	3%	4%
Nonfarm Information					
Net Nonfarm Income	24,030	26,161	25,050	28,964	27,427
Farms Reporting Liv Expenses	53	51	88	76	101
Total Family Living Expense	46,842	43,192	51,248	48,783	47,828
Total Living, Invest, & Cap Purch	77,238	60,826	69,840	74,687	59,233
Crop Acres					
Total Crop Acres	836	749	697	688	713
Total Crop Acres Owned	299	278	253	248	239
Total Crop Acres Cash Rented	521	462	432	428	466
Total Crop Acres Share Rent	17	9	12	12	8
Machinery value per crop acre	-	-	607	542	622



<u>Year at a Glance</u>					
<i>Data for the Average Farm</i>	Northern Minnesota	State FBM Data	Local Area	Your Farm Data	Your Farm Goal
	615	2103			
	<u>Farms</u>	<u>Farms</u>			
<u>Income Statement</u>					
Gross Cash Farm Income	\$557,016	\$739,342	_____	_____	_____
Total Cash Operating Expense	\$473,748	\$634,157	_____	_____	_____
Net Cash Farm Income	\$83,268	\$105,185	_____	_____	_____
Net Operating Profit	\$103,351	\$109,005	_____	_____	_____
Net Farm Income	\$59,480	\$57,237	_____	_____	_____
Median Farm Income	\$25,654	\$34,321	_____	_____	_____
<u>Balance Sheet (Market)</u>					
Total Assets - 12/31	\$2,254,715	\$2,915,331	_____	_____	_____
Total Liabilities - 12/31	\$993,562	\$1,238,075	_____	_____	_____
Net Worth - 12/31	\$1,261,153	\$1,677,256	_____	_____	_____
Change in Net Worth	\$71,364	\$59,468	_____	_____	_____
<u>Financial Standards Measures</u>					
Working Capital - 12/31	\$145,543	\$208,056	_____	_____	_____
Debt to Asset Ratio - 12/31	46%	45%	_____	_____	_____
Rate of Return on Farm Assets - Cost	2.7%	2.0%	_____	_____	_____
Rate of Return on Farm Equity - Cost	1.6%	0.4%	_____	_____	_____
Term Debt Coverage Ratio	1.22	1.04	_____	_____	_____
Asset Turnover Rate	29.6%	31.9%	_____	_____	_____
Operating Expense Ratio	77.1%	80.8%	_____	_____	_____
Interest Expense Ratio	5.1%	4.7%	_____	_____	_____
<u>Operator Information</u>					
Average Age of the Farmer	46.8	48.3	_____	_____	_____
Average Years Farming	21.9	24.3	_____	_____	_____
<u>Personal Spending & Income</u>					
Total Cash Family Living Expense	\$47,217	\$58,164	_____	_____	_____
Total Non Farm Income	\$27,427	\$33,082	_____	_____	_____

Net Farm Income dollars are used to pay for Family Living, Social Security and Income Tax, Retirement Accounts, Medical and Health expenses, and loan principle payments. A positive balance indicates revenue for other uses, while a negative balance indicates a need for revenue from other sources.

The following list shows expenses for the year:

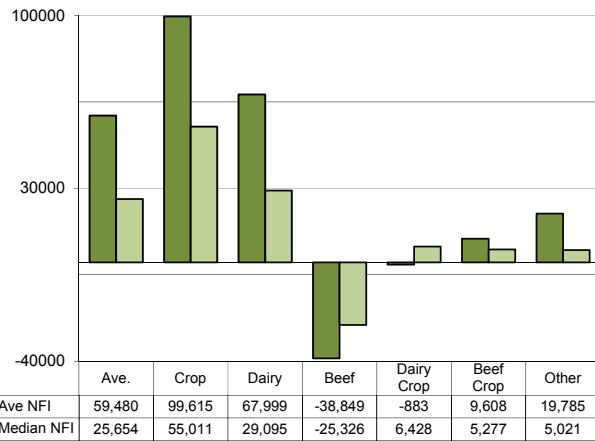
		<u>Northern Minnesota</u>	<u>State Data</u>
Net Farm Income	(+)	\$59,480	\$57,237
Depreciation	(+)	\$44,472	\$53,496
Family Living (Excl Health/Med)	(-)	\$39,907	\$49,107
Social Security and Income Tax	(-)	\$5,785	\$10,793
Health and Medical Expense	(-)	\$7,763	\$10,436
Retirement Accounts	(-)	\$766	\$2,920
Principal Payments	(-)	\$57,540	\$63,286
Balance	(=)	-\$7,809	-\$25,809

Financial Summary
Northern Minnesota Farm Business Management Database
(Farms Sorted By Farm Type)

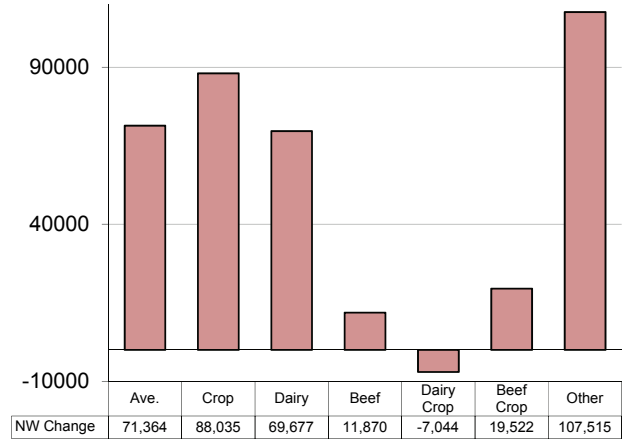
	<u>Avg. Of All Farms</u>	<u>Crop</u>	<u>Dairy</u>	<u>Beef</u>	<u>Crop and Dairy</u>	<u>Crop and Beef</u>	<u>Other</u>
Number of farms	615	234	183	35	30	42	87
Income Statement							
Gross cash farm income	557,016	536,994	660,172	534,294	559,221	429,849	449,258
Total cash farm expense	473,748	438,514	567,166	550,360	506,111	385,081	354,779
Net cash farm income	83,268	98,480	93,005	-16,066	53,110	44,769	94,479
Inventory change	20,084	47,449	22,651	-1,325	-1,141	-3,313	-33,613
Depreciation	-44,472	-46,863	-47,721	-21,564	-52,852	-31,834	-43,683
Net farm income from operations	58,880	99,066	67,935	-38,954	-883	9,622	17,183
Gain or loss on capital sales	601	549	64	106	-	-14	2,601
Average net farm income	59,480	99,615	67,999	-38,849	-883	9,608	19,785
Median net farm income	25,654	55,011	29,095	-25,326	6,428	5,277	5,021
Profitability (cost)							
Rate of return on assets	2.7 %	5.0 %	2.7 %	-2.3 %	-0.9 %	0.2 %	0.2 %
Rate of return on equity	1.6 %	5.7 %	1.5 %	-11.9 %	-4.6 %	-4.9 %	-3.2 %
Operating profit margin	9.2 %	14.7 %	9.2 %	-14.7 %	-3.5 %	0.8 %	0.9 %
Asset turnover rate	29.6 %	34.3 %	29.6 %	15.9 %	26.3 %	25.7 %	23.3 %
Profitability (market)							
Rate of return on assets	3.6 %	4.1 %	3.7 %	-0.1 %	-0.3 %	1.5 %	5.5 %
Rate of return on equity	3.9 %	4.8 %	3.8 %	-5.5 %	-3.0 %	-1.1 %	7.8 %
Operating profit margin	14.9 %	15.0 %	14.8 %	-1.0 %	-1.2 %	7.1 %	30.7 %
Asset turnover rate	24.0 %	27.0 %	25.0 %	14.2 %	21.5 %	21.3 %	17.9 %
Liquidity & Repayment (end of year)							
Current assets	395,719	513,818	261,239	508,670	375,387	375,405	325,364
Current liabilities	250,176	292,582	142,953	499,302	200,756	326,813	230,083
Current ratio	1.58	1.76	1.83	1.02	1.87	1.15	1.41
Working capital	145,543	221,236	118,286	9,368	174,631	48,592	95,281
Working capital to gross inc	25.1 %	37.5 %	17.3 %	1.8 %	30.6 %	11.3 %	22.7 %
Term debt coverage ratio	1.22	1.83	1.19	0.19	0.61	0.59	0.68
Replacement coverage ratio	1.01	1.37	1.05	0.17	0.53	0.52	0.57
Term debt to EBITDA	3.63	2.42	3.87	38.10	6.05	5.62	5.77
Solvency (end of year at cost)							
Number of farms	615	234	183	35	30	42	87
Total assets	1,842,910	1,990,509	1,843,373	1,663,939	1,947,983	1,471,650	1,661,035
Total liabilities	803,433	790,974	776,568	1,032,927	824,203	793,659	783,387
Net worth	1,039,477	1,199,534	1,066,805	631,012	1,123,780	677,991	877,648
Net worth change	43,243	84,878	42,516	-20,657	-17,586	-2,937	1,341
Farm debt to asset ratio	46 %	42 %	45 %	66 %	45 %	56 %	50 %
Total debt to asset ratio	44 %	40 %	42 %	62 %	42 %	54 %	47 %
Change in earned net worth %	4 %	8 %	4 %	-3 %	-2 %	0 %	0 %
Solvency (end of year at market)							
Number of farms	615	234	183	35	30	42	87
Total assets	2,254,715	2,482,148	2,170,110	1,860,838	2,351,727	1,777,896	2,185,761
Total liabilities	993,562	1,021,296	928,756	1,165,967	1,045,610	956,489	969,836
Net worth	1,261,153	1,460,852	1,241,355	694,871	1,306,117	821,408	1,215,925
Total net worth change	71,364	88,035	69,677	11,870	-7,044	19,522	107,515
Farm debt to asset ratio	46 %	44 %	45 %	66 %	47 %	56 %	46 %
Total debt to asset ratio	44 %	41 %	43 %	63 %	44 %	54 %	44 %
Change in total net worth %	6 %	6 %	6 %	2 %	-1 %	2 %	10 %
Nonfarm Information							
Net nonfarm income	27,427	34,632	14,980	52,637	14,311	35,788	24,585
Farms reporting living expenses	101	36	38	3	2	5	16
Total family living expense	47,828	50,713	46,654	-	-	44,634	45,817
Total living, invest, cap. purch	59,233	69,451	53,176	-	-	45,185	59,332
Crop Acres							
Total crop acres	713	1,217	324	348	638	652	378
Total crop acres owned	239	369	148	160	209	155	164
Total crop acres cash rented	466	837	173	181	428	486	198
Total crop acres share rented	8	10	3	7	2	11	16
Machinery value per crop acre	622	466	1,057	824	858	555	1,043

Selected Factors by Type of Farm

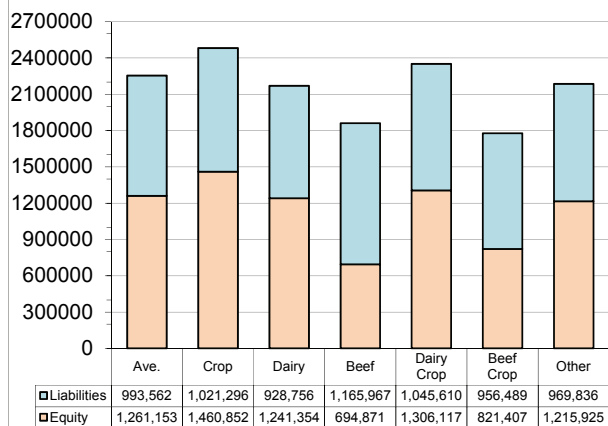
Net Farm Income



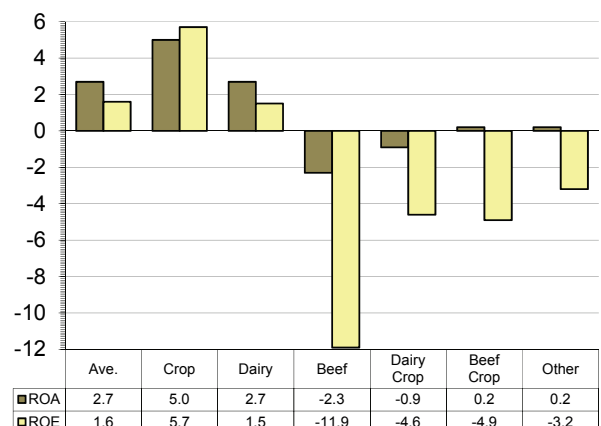
Change in Net Worth



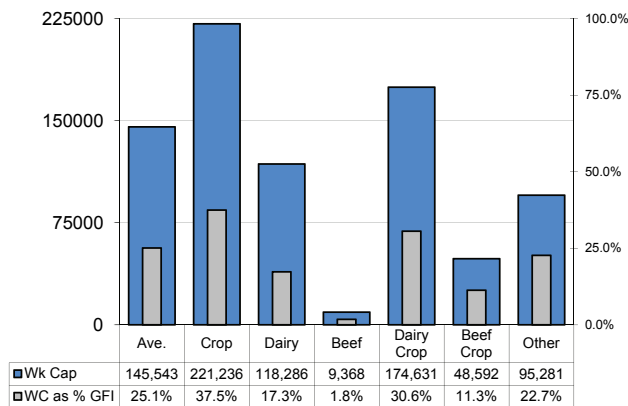
Total Assets shown as Equity & Liabilities



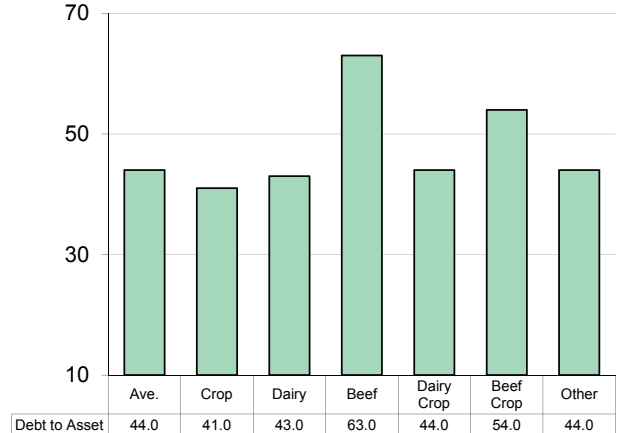
Rate of Return on Assets & Equity (%)



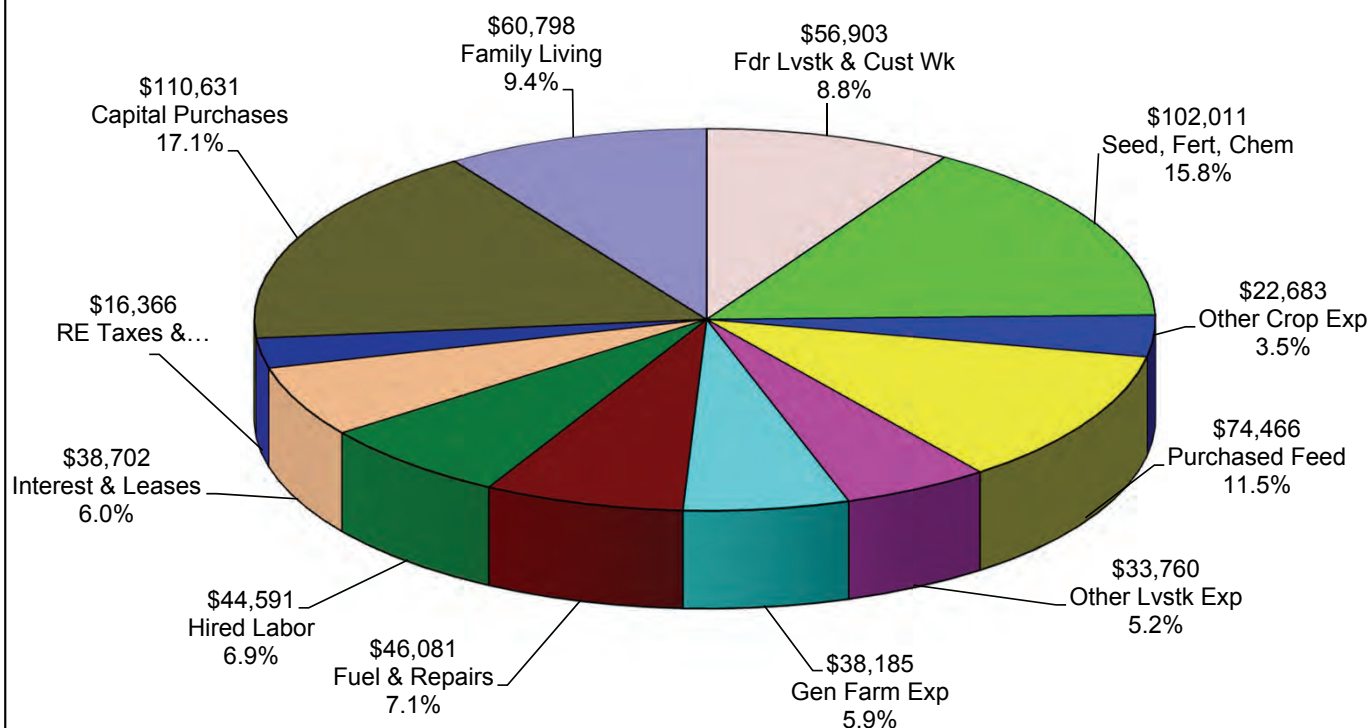
Working Capital



Debt to Asset Ratio (%)



Each farmer, on average, spent \$645,177 in the Greater Community in 2016



Average Money Spent by Each Farmer in the Greater Community: \$645,177

Average Money Spent by Each Farmer in a 30 Yr Career: \$19,355,310
Money Spent in Community by 615 Farmers: \$396,783,855

2016 Report Overview

Farm Business Management Education has been a part of agricultural education programs in Minnesota since 1953. FBM Programs are now an integral part of the Minnesota State System, delivered through eight two-year colleges. In 2016, the Northern Minnesota Annual Report is an expansion of the 14-year partnership between Northland Community & Technical College and Central Lakes College Farm Business Management Programs; to include Alexandria Technical & Community College, Ridgewater College, and St. Cloud Technical & Community Colleges.

This report was prepared under the direction of Ron Dvergsten, DelRay Lecy and Josh Tjosaas through AgCentric, Northern Center of Excellence for Agriculture. A special thank you goes to Keith Olander, AgCentric Director & Central Lakes College Dean, for his leadership.

The tables in this report were created using FINPACK and RankEm Central, copyrighted software of the Center for Farm Financial Management, University of Minnesota.

The financial portion of the report, found in the first 26 pages, uses a standard format for each table. Data from the analysis system is printed in a four column format, which includes: Average, Low, Middle, & High. The High, Middle, & Low ranges are calculated based on a 20% slice of the farms in the total group.

The enterprise tables begin on page 30. Each of these tables consist of: a size indicator, a total & per unit income, direct & overhead expenses, and other information. Costs which are considered operating, whether easily assigned or are allocated, are listed as Direct Expenses. Costs which are general in nature, whether fixed or variable, are listed as Overhead Expenses.

The criteria for determining the 20% categories in each area are listed below:

<u>Analysis Section</u>	<u>Criteria to determine the "20%" categories</u>
Financial	Net Farm Income
Crops	Return to Overhead
Statewide Livestock	Return to Overhead

Financial Summary
Northern Minnesota Farm Business Management Database
(Farms Sorted By Number of Years Farming)

	<u>Avg. Of All Farms</u>	<u>10 or Less</u>	<u>11 - 20</u>	<u>21 - 30</u>	<u>31 - 40</u>	<u>Over 40</u>
Number of farms	615	152	130	104	139	90
Income Statement						
Gross cash farm income	557,016	266,900	652,458	606,675	751,193	551,846
Total cash farm expense	473,748	233,189	578,919	512,136	622,758	453,616
Net cash farm income	83,268	33,711	73,539	94,539	128,435	98,231
Inventory change	20,084	13,869	45,591	-1,920	19,010	20,819
Depreciation	-44,472	-17,736	-46,146	-52,891	-61,142	-51,731
Net farm income from operations	58,880	29,845	72,984	39,728	86,303	67,318
Gain or loss on capital sales	601	-52	587	-332	1,753	1,023
Average net farm income	59,480	29,794	73,571	39,397	88,055	68,341
Median net farm income	25,654	21,563	22,452	11,326	42,781	51,434
Profitability (cost)						
Rate of return on assets	2.7 %	2.6 %	3.8 %	1.2 %	3.1 %	2.4 %
Rate of return on equity	1.6 %	1.3 %	3.7 %	-1.0 %	2.4 %	1.4 %
Operating profit margin	9.2 %	7.5 %	11.4 %	4.8 %	10.8 %	8.8 %
Asset turnover rate	29.6 %	35.1 %	33.2 %	25.5 %	28.9 %	27.7 %
Profitability (market)						
Rate of return on assets	3.6 %	3.3 %	3.6 %	1.4 %	4.7 %	4.2 %
Rate of return on equity	3.9 %	3.5 %	4.1 %	-0.1 %	5.7 %	4.9 %
Operating profit margin	14.9 %	10.5 %	12.8 %	6.7 %	20.2 %	20.8 %
Asset turnover rate	24.0 %	31.3 %	28.4 %	20.8 %	23.2 %	20.2 %
Liquidity & Repayment (end of year)						
Current assets	395,719	163,966	454,079	412,166	525,640	483,165
Current liabilities	250,176	115,113	346,997	257,201	291,317	266,770
Current ratio	1.58	1.42	1.31	1.60	1.80	1.81
Working capital	145,543	48,853	107,082	154,965	234,322	216,395
Working capital to gross inc	25.1 %	17.1 %	15.4 %	25.2 %	30.5 %	37.0 %
Term debt coverage ratio	1.22	1.19	1.35	0.88	1.34	1.30
Replacement coverage ratio	1.01	1.08	1.19	0.71	1.07	1.00
Term debt to EBITDA	3.63	4.47	3.78	4.53	3.05	3.02
Solvency (end of year at cost)						
Number of farms	615	152	130	104	139	90
Total assets	1,842,910	814,661	1,906,103	2,185,092	2,478,720	2,110,847
Total liabilities	803,433	478,572	1,023,010	886,480	926,655	748,644
Net worth	1,039,477	336,089	883,093	1,298,611	1,552,065	1,362,203
Net worth change	43,243	26,316	62,291	17,833	60,017	47,773
Farm debt to asset ratio	46 %	62 %	56 %	43 %	40 %	39 %
Total debt to asset ratio	44 %	59 %	54 %	41 %	37 %	35 %
Change in earned net worth %	4 %	8 %	8 %	1 %	4 %	4 %
Solvency (end of year at market)						
Number of farms	615	152	130	104	139	90
Total assets	2,254,715	910,703	2,209,179	2,659,569	3,068,091	2,866,330
Total liabilities	993,562	527,036	1,195,104	1,110,649	1,200,323	1,035,726
Net worth	1,261,153	383,667	1,014,075	1,548,920	1,867,768	1,830,604
Total net worth change	71,364	34,148	68,911	30,173	120,279	109,816
Farm debt to asset ratio	46 %	61 %	56 %	44 %	42 %	39 %
Total debt to asset ratio	44 %	58 %	54 %	42 %	39 %	36 %
Change in total net worth %	6 %	10 %	7 %	2 %	7 %	6 %
Nonfarm Information						
Net nonfarm income	27,427	31,098	27,215	30,135	20,440	29,195
Farms reporting living expenses	101	18	29	20	23	11
Total family living expense	47,828	41,243	49,835	52,391	41,607	58,023
Total living, invest, cap. purch	59,233	52,809	64,737	55,110	51,445	79,014
Crop Acres						
Total crop acres	713	399	723	772	917	846
Total crop acres owned	239	65	176	268	363	402
Total crop acres cash rented	466	333	532	490	552	431
Total crop acres share rented	8	2	15	15	1	13
Machinery value per crop acre	622	412	555	692	707	653

Financial Summary
Northern Minnesota Farm Business Management Database
(Farms Sorted By Gross Farm Income)

	<u>Avg. Of All Farms</u>	<u>Less than 100,000</u>	<u>100,001 - 250,000</u>	<u>250,001 - 500,000</u>	<u>500,001 - 1,000,000</u>	<u>1,000,001 - 2,000,000</u>	<u>Over 2,000,000</u>
Number of farms	615	109	131	166	125	65	19
Income Statement							
Gross cash farm income	557,016	51,885	172,131	356,896	702,972	1,431,208	3,906,067
Total cash farm expense	473,748	55,999	144,992	299,883	586,228	1,191,975	3,458,931
Net cash farm income	83,268	-4,115	27,139	57,013	116,743	239,233	447,136
Inventory change	20,084	6,361	-1,925	10,515	50,784	6,888	177,322
Depreciation	-44,472	-6,821	-14,163	-29,566	-65,336	-119,730	-204,935
Net farm income from operations	58,880	-4,574	11,051	37,961	102,191	126,392	419,523
Gain or loss on capital sales	601	811	1,880	-2	795	-598	-1,332
Average net farm income	59,480	-3,763	12,931	37,959	102,987	125,794	418,191
Median net farm income	25,654	-4,794	16,221	43,311	100,030	104,552	207,602
Profitability (cost)							
Rate of return on assets	2.7 %	-2.8 %	-0.2 %	2.0 %	3.9 %	2.7 %	4.3 %
Rate of return on equity	1.6 %	-11.2 %	-4.6 %	0.2 %	3.8 %	1.6 %	4.8 %
Operating profit margin	9.2 %	-19.4 %	-0.9 %	7.3 %	12.6 %	8.7 %	12.8 %
Asset turnover rate	29.6 %	14.7 %	23.0 %	28.1 %	31.2 %	30.9 %	33.5 %
Profitability (market)							
Rate of return on assets	3.6 %	-2.2 %	0.8 %	2.3 %	5.3 %	4.0 %	4.7 %
Rate of return on equity	3.9 %	-7.7 %	-1.4 %	1.3 %	7.0 %	4.6 %	6.3 %
Operating profit margin	14.9 %	-18.7 %	4.6 %	10.3 %	21.6 %	15.6 %	15.1 %
Asset turnover rate	24.0 %	11.7 %	16.9 %	22.0 %	24.4 %	25.5 %	31.0 %
Liquidity & Repayment (end of year)							
Current assets	395,719	44,640	122,615	242,455	568,665	1,046,275	2,268,446
Current liabilities	250,176	37,991	70,663	162,052	337,927	633,251	1,587,231
Current ratio	1.58	1.18	1.74	1.50	1.68	1.65	1.43
Working capital	145,543	6,649	51,951	80,402	230,738	413,025	681,215
Working capital to gross inc	25.1 %	11.3 %	29.7 %	21.7 %	30.3 %	28.5 %	16.8 %
Term debt coverage ratio	1.22	0.99	0.88	1.07	1.38	1.12	1.65
Replacement coverage ratio	1.01	0.86	0.74	0.88	1.12	0.93	1.37
Term debt to EBITDA	3.63	16.64	6.39	4.30	3.00	3.15	2.85
Solvency (end of year at cost)							
Number of farms	615	109	131	166	125	65	19
Total assets	1,842,910	472,329	788,651	1,336,479	2,411,585	4,218,032	9,532,457
Total liabilities	803,433	240,172	363,363	595,144	1,030,277	1,769,949	4,089,818
Net worth	1,039,477	232,157	425,288	741,336	1,381,307	2,448,083	5,442,639
Net worth change	43,243	12,030	12,412	24,310	70,700	79,582	295,348
Farm debt to asset ratio	46 %	57 %	52 %	49 %	45 %	43 %	44 %
Total debt to asset ratio	44 %	51 %	46 %	45 %	43 %	42 %	43 %
Change in earned net worth %	4 %	5 %	3 %	3 %	5 %	3 %	6 %
Solvency (end of year at market)							
Number of farms	615	109	131	166	125	65	19
Total assets	2,254,715	574,438	1,040,251	1,669,391	3,061,312	5,112,675	10,297,689
Total liabilities	993,562	266,535	439,072	716,475	1,312,703	2,261,989	4,969,361
Net worth	1,261,153	307,903	601,179	952,916	1,748,609	2,850,686	5,328,328
Total net worth change	71,364	14,172	22,283	34,052	131,153	161,169	363,292
Farm debt to asset ratio	46 %	51 %	46 %	47 %	45 %	45 %	49 %
Total debt to asset ratio	44 %	46 %	42 %	43 %	43 %	44 %	48 %
Change in total net worth %	6 %	5 %	4 %	4 %	8 %	6 %	7 %
Nonfarm Information							
Net nonfarm income	27,427	45,328	32,340	26,561	19,304	11,105	7,705
Farms reporting living expenses	101	12	18	47	17	6	1
Total family living expense	47,828	38,397	39,442	47,265	62,218	44,837	-
Total living, invest, cap. purch	59,233	43,519	49,771	53,062	98,947	46,114	-
Crop Acres							
Total crop acres	713	111	263	531	1,087	1,874	2,425
Total crop acres owned	239	61	121	196	357	584	502
Total crop acres cash rented	466	49	140	330	727	1,264	1,840
Total crop acres share rented	8	1	3	5	4	27	83
Machinery value per crop acre	622	692	610	578	590	644	729

Financial Summary
Northern Minnesota Farm Business Management Database
(Farms Sorted By Total Acres)

	<u>Avg. Of All Farms</u>	<u>Less than 100</u>	<u>101 - 250</u>	<u>251 - 500</u>	<u>501 - 1,000</u>	<u>1,001 - 1,500</u>	<u>1,501 - 2,000</u>	<u>2,001 - 5,000</u>
Number of farms	615	113	131	118	117	57	22	55
Income Statement								
Gross cash farm income	557,016	297,945	201,158	362,966	522,961	992,751	867,326	1,701,522
Total cash farm expense	473,748	254,384	169,757	309,509	461,188	821,791	748,730	1,436,078
Net cash farm income	83,268	43,561	31,402	53,457	61,773	170,959	118,596	265,444
Inventory change	20,084	-2,281	5,536	-2,937	8,033	25,613	64,551	151,046
Depreciation	-44,472	-22,871	-17,782	-31,624	-43,327	-77,269	-87,767	-126,575
Net farm income from operations	58,880	18,409	19,156	18,897	26,479	119,304	95,379	289,914
Gain or loss on capital sales	601	7	2,402	255	-41	1,631	-	-706
Average net farm income	59,480	18,415	21,558	19,152	26,438	120,935	95,379	289,208
Median net farm income	25,654	9,192	14,701	12,361	34,556	103,214	103,617	211,753
Profitability (cost)								
Rate of return on assets	2.7 %	1.4 %	0.9 %	0.2 %	1.0 %	3.9 %	2.1 %	5.5 %
Rate of return on equity	1.6 %	-2.4 %	-2.3 %	-3.2 %	-2.1 %	3.7 %	1.1 %	6.8 %
Operating profit margin	9.2 %	5.4 %	3.9 %	0.9 %	3.6 %	12.3 %	7.5 %	15.6 %
Asset turnover rate	29.6 %	26.6 %	23.1 %	25.2 %	26.9 %	32.1 %	28.2 %	35.4 %
Profitability (market)								
Rate of return on assets	3.6 %	2.2 %	0.9 %	1.0 %	6.1 %	3.4 %	1.6 %	4.9 %
Rate of return on equity	3.9 %	0.7 %	-1.2 %	-1.0 %	8.4 %	3.4 %	0.7 %	6.7 %
Operating profit margin	14.9 %	10.6 %	5.3 %	5.0 %	28.8 %	12.6 %	6.7 %	17.0 %
Asset turnover rate	24.0 %	21.2 %	17.8 %	20.4 %	21.0 %	27.2 %	23.7 %	29.0 %
Liquidity & Repayment (end of year)								
Current assets	395,719	144,713	107,147	211,797	357,037	601,994	815,581	1,561,568
Current liabilities	250,176	128,451	66,286	119,897	238,870	395,815	478,817	947,607
Current ratio	1.58	1.13	1.62	1.77	1.49	1.52	1.70	1.65
Working capital	145,543	16,262	40,860	91,901	118,167	206,179	336,764	613,961
Working capital to gross inc	25.1 %	5.4 %	19.6 %	24.9 %	22.4 %	20.3 %	35.8 %	33.0 %
Term debt coverage ratio	1.22	0.91	0.92	0.93	0.79	1.32	1.18	2.07
Replacement coverage ratio	1.01	0.83	0.82	0.78	0.67	1.17	0.88	1.52
Term debt to EBITDA	3.63	5.49	5.49	5.82	4.90	3.14	3.20	1.80
Solvency (end of year at cost)								
Number of farms	615	113	131	118	117	57	22	55
Total assets	1,842,910	945,545	853,225	1,310,158	1,830,067	3,007,266	3,551,466	4,919,569
Total liabilities	803,433	535,864	384,879	569,129	842,744	1,240,738	1,301,003	1,960,381
Net worth	1,039,477	409,680	468,346	741,029	987,324	1,766,529	2,250,463	2,959,187
Net worth change	43,243	19,215	15,607	12,009	13,197	104,051	71,850	200,658
Farm debt to asset ratio	46 %	60 %	50 %	48 %	49 %	44 %	41 %	40 %
Total debt to asset ratio	44 %	57 %	45 %	43 %	46 %	41 %	37 %	40 %
Change in earned net worth %	4 %	5 %	3 %	2 %	1 %	6 %	3 %	7 %
Solvency (end of year at market)								
Number of farms	615	113	131	118	117	57	22	55
Total assets	2,254,715	1,175,044	1,080,043	1,589,392	2,363,369	3,522,625	4,155,198	5,978,284
Total liabilities	993,562	612,253	457,762	686,680	1,035,249	1,506,801	1,691,932	2,615,183
Net worth	1,261,153	562,791	622,280	902,713	1,328,121	2,015,824	2,463,265	3,363,101
Total net worth change	71,364	31,723	20,407	24,013	122,601	108,308	58,915	221,916
Farm debt to asset ratio	46 %	55 %	46 %	47 %	46 %	45 %	45 %	45 %
Total debt to asset ratio	44 %	52 %	42 %	43 %	44 %	43 %	41 %	44 %
Change in total net worth %	6 %	6 %	3 %	3 %	10 %	6 %	2 %	7 %
Nonfarm Information								
Net nonfarm income	27,427	27,024	30,943	30,529	28,519	25,522	21,402	15,904
Farms reporting living expenses	101	10	33	24	20	5	3	6
Total family living expense	47,828	40,735	45,613	48,096	47,444	44,275	-	70,158
Total living, invest, cap. purch	59,233	43,414	50,679	66,901	56,303	58,450	-	115,187
Crop Acres								
Total crop acres	713	24	172	380	711	1,237	1,690	2,924
Total crop acres owned	239	17	92	169	268	400	623	787
Total crop acres cash rented	466	6	77	209	437	833	1,066	2,073
Total crop acres share rented	8	1	3	2	6	4	-	64
Machinery value per crop acre	622	1,517	1,062	770	654	637	595	515

Farm Income Statement
Northern Minnesota Farm Business Management Data
(Farms Sorted By Net Farm Income)

	<u>Avg. Of</u>			
	<u>All Farms</u>	<u>Low 20%</u>	<u>40 - 60%</u>	<u>High 20%</u>
Number of farms	615	123	123	123
Sale of Crops				
Barley	3,485	1,338	490	10,587
Beans, Edible	6,019	6,105	3,185	17,394
Corn	64,325	48,266	51,601	133,413
Corn Silage	833	2,693	266	1,041
Hay, Alfalfa	1,605	1,913	1,682	1,419
Hay, Other	1,441	3,382	2,034	466
Fruit and Vegetable Crops	3,085	2,527	3,483	5,683
Organic Crops	822	1,780	1,511	121
Soybeans	97,696	50,743	45,594	279,534
Soybeans, Food	3,390	154	1,024	14,565
Sunflowers	1,201	57	-	4,270
Oats	760	311	190	2,052
Wheat, Spring	30,454	10,675	12,973	103,360
Wheat, Winter	225	-	209	186
Grass Seed	3,944	1,088	475	18,117
Other Crop Enterprises	5,245	4,001	6,462	11,702
Miscellaneous crop income	414	373	435	121
Total Crop Sales	224,944	135,406	131,614	604,031
Sale of Livestock				
Beef Cow-Calf, Beef Calves	5,721	10,059	6,449	5,834
Beef, Backgrounding	10,928	33,426	2,516	3,189
Beef, Finishing	23,553	81,890	8,673	11,173
Other Beef Enterprises	2,215	9,924	511	-
Dairy, Milk	186,512	197,684	118,951	377,559
Dairy Calves	3,156	2,307	1,797	7,717
Dairy Heifers (for sale)	921	1,790	661	1,238
Dairy Feeders & Backgrounding	3,604	13,508	1,268	1,020
Dairy Finishing	15,033	42,829	12,430	3,470
Hogs, Weaning to Finish	3,270	125	-	-
Other Livestock Enterprises	1,664	1,958	2,207	2,021
Cull breeding livestock	12,667	18,301	8,986	18,047
Misc. livestock income	830	1,065	766	1,016
Total Livestock & Product Sales	270,074	414,866	165,215	432,284
Other farm income				
Crop government payments	9,567	4,104	4,918	27,973
CRP payments	645	142	834	993
Livestock govt payments	172	79	384	78
Other government payments	6,212	6,474	2,888	14,498
Custom work income	12,709	13,141	3,538	25,227
Patronage dividends, cash	5,826	5,631	2,971	12,286
Insurance income	4,068	4,678	2,916	7,434
Contract livestock income	6,151	5,636	723	1,171
Other farm income	16,648	15,364	9,077	33,541
Total Other Farm Income	61,998	55,249	28,249	123,201
Gross Cash Farm Income	557,016	605,521	325,078	1,159,516

Farm Income Statement
Northern Minnesota Farm Business Management Data
(Farms Sorted By Net Farm Income)

	<u>Average</u>	<u>Low 20%</u>	<u>40 - 60%</u>	<u>High 20%</u>
Number of farms	615	123	123	123
Direct Crop Expense				
Seed	39,607	27,649	25,293	96,241
Fertilizer	44,707	36,170	28,648	102,422
Crop chemicals	17,697	11,620	10,077	46,406
Crop insurance	9,107	7,110	5,604	21,821
Drying Expense	1,584	1,449	1,030	3,364
Other direct crop expenses	12,041	12,628	9,163	21,646
Total Direct Crop Expense	124,743	96,626	79,815	291,900
Direct Livestock Expense				
Feeder livestock purchase	24,369	83,147	10,111	4,458
Purchased feed	74,466	101,941	47,103	127,333
Breeding fees	2,507	2,088	1,863	4,889
Veterinary	6,956	10,249	4,596	10,213
Supplies and related Livestock expenses	12,131	18,920	8,161	19,611
Contract production exp.	3,353	2,243	194	7,399
Livestock hauling and trucking	2,761	4,530	2,255	2,703
Livestock marketing	2,581	3,696	1,630	4,356
Bedding	3,471	5,383	1,706	5,458
Total Direct Livestock Expense	132,595	232,197	77,619	186,420
Other Farm Expense				
Interest	29,233	44,293	18,182	44,468
Purchase of resale items	1,192	514	669	2,517
Fuel & oil	18,027	20,506	11,040	34,796
Repairs	37,737	43,809	23,156	73,727
Custom hire	8,354	9,788	5,895	15,284
Hired labor	32,534	42,176	15,842	76,282
Land rent	44,591	34,497	23,395	112,324
Machinery & bldg leases	9,469	8,792	5,631	16,523
Real estate taxes	5,654	5,821	4,095	10,565
Farm insurance	9,283	11,025	6,212	16,414
Utilities	10,712	12,306	8,215	17,165
Dues & professional fees	3,121	3,424	2,920	5,075
Miscellaneous	6,503	12,409	3,054	9,590
Total Other Farm Expense	216,410	249,360	128,306	434,730
Total cash expense	473,748	578,183	285,740	913,050
Net cash farm income	83,268	27,338	39,338	246,466
Inventory Changes				
Prepays and supplies	70	-10,346	-2,124	15,474
Accounts receivable	3,769	238	4035	9,676
Hedging acct. & Oth Cur Assets	647	281	106	500
Crops and feed	23,663	458	11,968	79,547
Market livestock	-10,083	-39,063	-2,063	-2,380
Breeding livestock	2,390	-5,982	3,250	14,347
Accounts payable	-3,193	-6,258	-2,879	-4,361
Accrued Interest & other assets	2,820	1,045	1,919	8,912
Total inventory change	20,083	-59,627	14,212	121,715
Net operating profit	103,351	-32,289	53,550	368,181
Depreciation				
Machinery and equipment	-32,566	-39,491	-19,136	-68,854
Titled vehicles	-2,912	-3,623	-1,635	-5,775
Buildings and improvements	-8,994	-11,404	-5,267	-15,726
Total depreciation	-44,471	-54,518	-26,038	-90,355
Net farm income from operations	58,880	-86,807	27,512	277,826
Gain or loss on capital sales	600	166	39	2,023
Net farm income	59,480	-86,641	27,551	279,849

Balance Sheet at Cost Values
Northern Minnesota Farm Business Management Database
(Farms Sorted By Net Farm Income)

	<u>Avg. Of All Farms</u>	<u>Low 20%</u>	<u>40 - 60%</u>	<u>High 20%</u>
Number of farms	615	123	123	123
Assets				
Current Farm Assets				
Cash and checking balance	24,173	17,619	13,116	62,696
Prepaid expenses & supplies	36,272	20,245	12,296	116,412
Growing crops	2,152	770	1,559	7,710
Accounts receivable	25,607	21,667	14,960	56,474
Hedging accounts	726	612	532	1,705
Crops held for sale or feed	251,930	207,060	149,766	625,644
Crops under government loan	-	-	-	-
Market livestock held for sale	50,299	149,465	30,670	22,330
Other current assets	4,561	2,207	1,373	8,451
Total current farm assets	395,719	419,645	224,272	901,423
Intermediate Farm Assets				
Breeding livestock	151,337	247,580	106,778	212,377
Machinery and equipment	388,698	413,369	237,551	806,321
Titled vehicles	29,401	34,376	22,443	53,035
Other intermediate assets	28,290	34,084	13,162	56,907
Total intermediate farm assets	597,726	729,410	379,933	1,128,639
Long Term Farm Assets				
Farm land	410,428	440,567	278,696	789,132
Buildings and improvements	222,521	269,799	145,145	413,051
Other long-term assets	38,394	27,033	20,212	92,843
Total long-term farm assets	671,342	737,399	444,053	1,295,026
Total Farm Assets	1,664,788	1,886,454	1,048,258	3,325,088
Total Nonfarm Assets	178,122	196,942	154,746	245,618
Total Assets	1,842,910	2,083,396	1,203,004	3,570,706
Liabilities				
Current Farm Liabilities				
Accrued interest	6,924	7,576	6,007	12,470
Accounts payable	25,299	44,787	16,767	39,447
Current notes	160,413	264,963	85,889	286,296
Government crop loans	-	-	-	-
Principal due on term debt	57,540	73,420	36,025	102,203
Total current farm liabilities	250,176	390,746	144,688	440,416
Total intermediate farm liabs	163,693	245,715	119,591	229,179
Total long term farm liabilities	357,183	505,286	253,546	511,917
Total farm liabilities	771,052	1,141,746	517,825	1,181,512
Total nonfarm liabilities	32,381	42,061	23,646	41,827
Total liabilities	803,433	1,183,808	541,471	1,223,339
Net worth (farm and nonfarm)	1,039,477	899,588	661,533	2,347,368
Net worth change	43,243	-84,793	17,173	225,933
Percent net worth change	4 %	-9 %	3 %	11 %
Ratio Analysis				
Current farm liabilities / assets	63 %	93 %	65 %	49 %
Intermediate farm liab. / assets	27 %	34 %	31 %	20 %
Long term farm liab. / assets	53 %	69 %	57 %	40 %
Total debt to asset ratio	44 %	57 %	45 %	34 %

Balance Sheet at Market Values
Northern Minnesota Farm Business Management Database
(Farms Sorted By Net Farm Income)

	<u>Avg. Of</u> <u>All Farms</u>	<u>Low 20%</u>	<u>40 - 60%</u>	<u>High 20%</u>
Number of farms	615	123	123	123
Assets				
Current Farm Assets				
Cash and checking balance	24,173	17,619	13,116	62,696
Prepaid expenses & supplies	36,272	20,245	12,296	116,412
Growing crops	2,152	770	1,559	7,710
Accounts receivable	25,607	21,667	14,960	56,474
Hedging accounts	726	612	532	1,705
Crops held for sale or feed	251,930	207,060	149,766	625,644
Crops under government loan	-	-	-	-
Market livestock held for sale	50,299	149,465	30,670	22,330
Other current assets	4,561	2,207	1,373	8,451
Total current farm assets	395,719	419,645	224,272	901,423
Intermediate Farm Assets				
Breeding livestock	153,200	253,154	108,527	213,337
Machinery and equipment	450,080	484,102	275,785	937,807
Titled vehicles	33,453	40,160	24,973	60,529
Other intermediate assets	30,440	34,323	13,470	66,758
Total intermediate farm assets	667,172	811,740	422,755	1,278,431
Long Term Farm Assets				
Farm land	704,613	795,901	531,267	1,273,787
Buildings and improvements	243,961	302,055	162,309	438,258
Other long-term assets	51,488	27,399	73,257	99,597
Total long-term farm assets	1,000,062	1,125,355	766,833	1,811,642
Total Farm Assets	2,062,954	2,356,740	1,413,861	3,991,495
Total Nonfarm Assets	191,761	211,165	164,432	262,798
Total Assets	2,254,715	2,567,905	1,578,293	4,254,294
Liabilities				
Current Farm Liabilities				
Accrued interest	6,924	7,576	6,007	12,470
Accounts payable	25,299	44,787	16,767	39,447
Current notes	160,413	264,963	85,889	286,296
Government crop loans	-	-	-	-
Principal due on term debt	57,540	73,420	36,025	102,203
Total current farm liabilities	250,176	390,746	144,688	440,416
Total intermediate farm liabs	163,693	245,715	119,591	229,179
Total long term farm liabilities	357,183	505,286	253,546	511,917
Total farm liabilities	771,052	1,141,746	517,825	1,181,512
Total nonfarm liabilities	32,381	42,061	23,646	41,827
Total liabs excluding deferreds	803,433	1,183,808	541,471	1,223,339
Total deferred liabilities	190,129	198,890	137,876	387,571
Total liabilities	993,562	1,382,698	679,347	1,610,909
Retained earnings	1,039,477	899,588	661,533	2,347,368
Market valuation equity	221,675	285,619	237,412	296,017
Net worth (farm and nonfarm)	1,261,153	1,185,207	898,945	2,643,384
Net worth excluding deferreds	1,451,282	1,384,098	1,036,822	3,030,955
Net worth change	71,364	39,335	30,492	220,541
Percent net worth change	6 %	3 %	4 %	9 %
Ratio Analysis				
Current farm liabilities / assets	63 %	93 %	65 %	49 %
Intermediate farm liab. / assets	25 %	30 %	28 %	18 %
Long term farm liab. / assets	36 %	45 %	33 %	28 %
Total debt to asset ratio	44 %	54 %	43 %	38 %
Debt to assets excl deferreds	36 %	46 %	34 %	29 %

Financial Guideline Measures

The Farm Financial Standards Task Force recommended the use of these financial measures to evaluate a farm's financial position and financial performance. These measures are grouped by: Liquidity, Solvency, Profitability, Repayment Capacity, and Efficiency.

Liquidity

Liquidity is the ability of the farm business to meet financial obligations in a timely manner, without disrupting normal business operations.

Current Ratio: The current ratio shows the value of current assets relative to current liabilities. It measures the extent current farm assets, if liquidated, would cover liabilities that are due during the next 12 months. The higher the ratio, the safer the short term position.

Working Capital: Working capital shows the dollar amount that current assets can or cannot cover current liabilities. It approximates the amount of capital available to purchase crop and livestock inputs and equipment necessary to produce farm products. The amount of working capital considered adequate must be related to the size of the farm business.

Working Capital to Gross Revenues: Measures operating capital available against the size of the business.

Solvency

Solvency is important in evaluating the risk position of the farm and family and in considering future borrowing capacity. Solvency measures the ability of the business to pay off all debts if liquidated.

Farm Debt To Asset Ratio: The farm debt to asset ratio measures the financial position or solvency of the farm or ranch by comparing the total liabilities to the total assets. It measures the portion of the farm assets that have debt against them. A higher ratio is considered an indicator of greater financial risk.

Farm Equity To Asset Ratio: The farm equity to asset ratio measures the farm equity relative to the value of the farm assets. It measures the proportion of the farm assets financed by the owner's equity whereas the debt to asset ratio measured the proportion of farm assets financed by debt.

Farm Debt To Equity Ratio: The farm debt to equity ratio measures the amount of farm debt relative to the amount of farm equity. It measures the amount of debt the farm has for every dollar of equity.

Profitability

Profitability is the measure of the value of goods produced by the business in relation to the cost of resources used in the production. Profitability calculated on a cost basis does not consider changes in market valuation of capital assets such as machinery and breeding livestock.

Rate of Return on Assets: Rate of return on assets is, in effect, the interest rate your farm earned in the past year on all money invested in the business. If assets are valued at market value, the rate of return on investment can be looked at as the "opportunity cost" of investing money in the farm instead of alternative investments. If assets are valued at cost (cost less depreciation), the rate of return represents the actual return on the average dollar invested in the business.

Rate of Return on Equity: Rate of return on equity is, in effect, the interest rate your investment in the business earned in the past year. If assets are valued at market value, this return can be compared with returns available if the assets were liquidated and invested in alternative investments. If assets are valued at cost, this represents the actual return to the amount of equity capital you have invested in the farm business.

If your return on assets is higher than your average interest rate, your return on equity will be still higher, reflecting the fact that there are residual returns to equity capital after paying all interest expense. This is positive use of financial leverage. If your return on assets is lower than your average interest rate, your return on equity will be still lower, reflecting the fact that borrowed capital did not earn enough to pay its interest cost. This is negative financial leverage. Profitability becomes a key concern when substantial debt capital is used in the business.

Financial Guideline Measures

Net Farm Income: Net farm income represents the returns to labor, management, and equity capital invested in the business. Without income from other sources, or appreciation of capital asset values, net farm income must cover family living expenses and taxes, or net worth will decrease.

Operating Profit Margin: The operating profit margin is a measure of the profit margin from the employment of assets. It measures how effectively you are employing assets relative to the value of output produced. Low prices, high operating expenses, or production problems are all possible causes of a low operating profit margin.

EBITDA: This factor stands for: Earnings Before Interest, Taxes, Depreciation and Amortization. This represents a measure of earnings available for debt repayment.

Repayment Capacity

Repayment capacity shows the borrower's ability to repay term debts (longer than one year) on time. This includes non-farm income, and is therefore not a measure of business performance alone.

Capital Debt Repayment Capacity: Measures the amount generated from farm and non-farm sources, to cover debt repayment and capital replacement.

Capital Debt Repayment Margin: The amount of money remaining after all operating expenses, taxes, family living costs, and scheduled debt payments have been made. It is the money left, after paying all expenses, which is available for purchasing/financing new machinery, equipment, land or livestock.

Replacement Margin: The replacement margin is the amount of income remaining after paying principal and interest on term loans and unfunded (cash) capital purchases.

Term Debt Coverage Ratio: The term debt coverage ratio measures the ability of the business to cover all term debt payments. A number less than 100 percent indicates that the business, plus non-farm income, is not generating sufficient cash to meet all of the debt payments, after family living expenses and taxes have been paid. A number greater than 100 indicates the business is generating sufficient cash to pay all term debt obligations with some surplus margin remaining.

Replacement Margin Coverage Ratio: This represents the ability to term debt and unfunded capital purchases. A ratio under 1.0 indicated that you did not generate enough income to cover term debt payments and unfunded capital purchases.

Efficiency

These measures reflect the relationships between expense and income items to revenue and the efficiency of the farm business with regard to the use of cash and capital assets.

Asset Turnover: Asset turnover is a measure of how efficiently assets are used in the business. A farm with good operating profit margin and asset turnover will show a strong rate of return on farm assets. If operating profit margin is low, the asset turnover rate must be strong, or vice versa, to maintain the rate of return on assets.

Operating Expense Ratio: This ratio indicates the percent of the gross farm income, which is used to pay the operating expenses. Operating expenses do not include interest or depreciation expense.

Depreciation Expense Ratio: This ratio indicates the percent of the gross farm income, which is used to cover the depreciation expense.

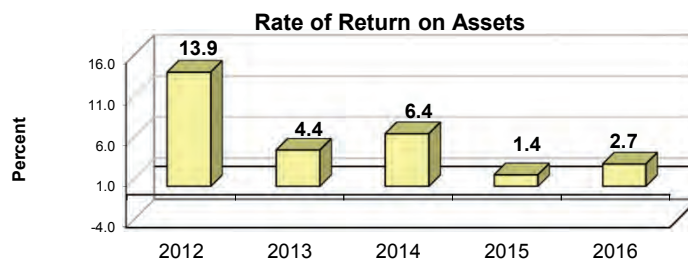
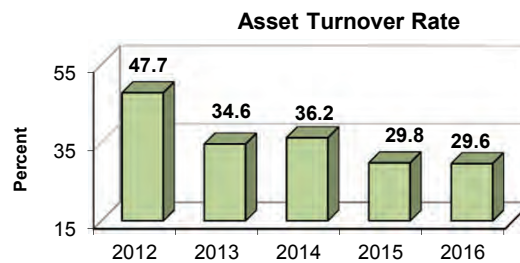
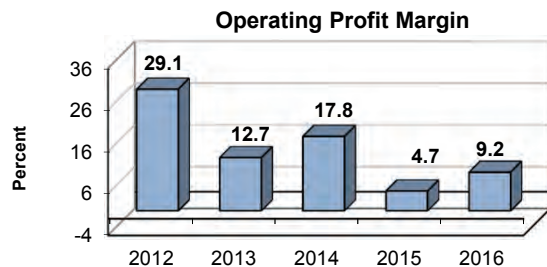
Interest Expense Ratio: This ratio indicates the percent of the gross farm income, which is used to pay farm interest expenses.

Net Farm Income Ratio: The ratio indicates the percent of the gross farm income, which remains after all expenses.

Financial Standards Measures
Northern Minnesota Farm Business Management Data
(Farms Sorted By Net Farm Income)

	<u>Avg. Of All Farms</u>	<u>Low 20%</u>	<u>40 - 60%</u>	<u>High 20%</u>
Number of farms	615	123	123	123
Liquidity				
Current ratio	1.58	1.07	1.55	2.05
Working capital	145,543	28,900	79,584	461,007
Working capital to gross inc.	25.10%	5.10%	23.10%	36.30%
Solvency (market)				
Farm debt to asset ratio	46%	57%	46%	39%
Farm equity to asset ratio	54%	43%	54%	61%
Farm debt to equity ratio	0.87	1.31	0.86	0.65
Profitability (cost)				
Rate of return on farm assets	2.7%	-4.6%	1.4%	7.7%
Rate of return on farm equity	1.6%	-16.7%	-1.0%	9.7%
Operating profit margin	9.2%	-22.9%	4.9%	21.5%
Net farm income	59,480	-86,641	27,551	279,849
EBIDTA	133,219	12,969	72,788	413,398
Repayment Capacity				
Capital debt repayment capacity	98,314	-12,596	52,072	326,753
Capital debt repayment margin	17,891	-121,500	491	194,158
Replacement margin	883	-135,396	-10,505	151,853
Term debt coverage ratio	1.22	-0.12	1.01	2.46
Replacement coverage ratio	1.01	-0.10	0.83	1.87
Efficiency				
Asset turnover rate (cost)	29.6%	19.9%	28.1%	35.6%
Operating expense ratio	77.1%	97.7%	78.9%	67.4%
Depreciation expense ratio	7.7%	9.7%	7.5%	7.1%
Interest expense ratio	5.1%	8.0%	5.6%	3.6%
Net farm income ratio	10.2%	-15.4%	8.0%	22.0%

Operating Profit Margin X Asset Turnover Rate = Rate of Return on Farm Assets



How does your Farm Stack Up?

Northern Minnesota Farm Business Management Data

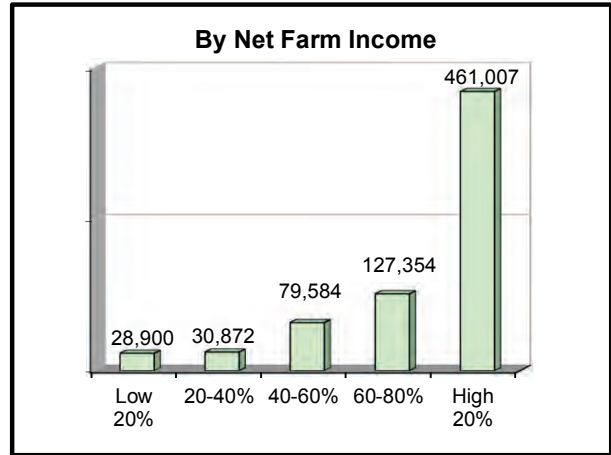
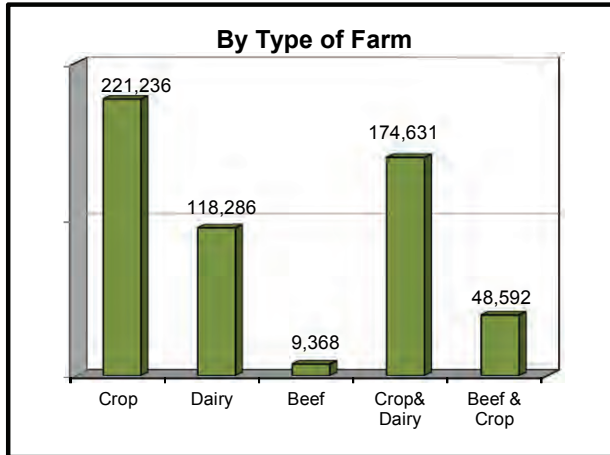
Below is a summary of the low, average, and high farms using the 21 Financial Standards Measures. The numbers listed below are intended to provide a general overview of the farm situation for the current year and over a five year period. The current year data provides a snapshot of the conditions that represent the present while the five year data provides a longer term look at these factors to enable their use in potential decision making activities.

For additional information, please see the back cover of this report. A "Financial Scorecard" is provided in color for your use.

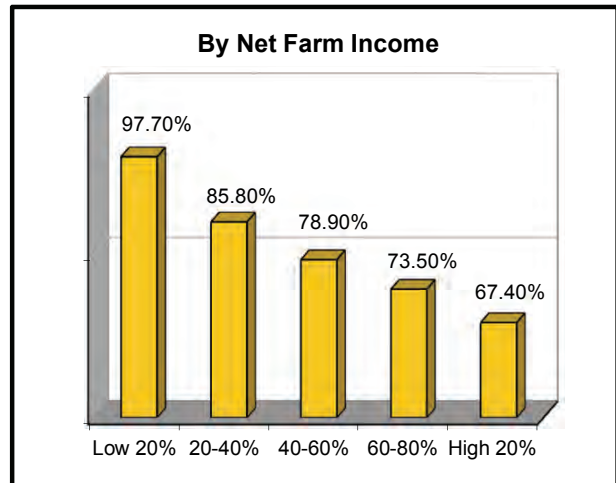
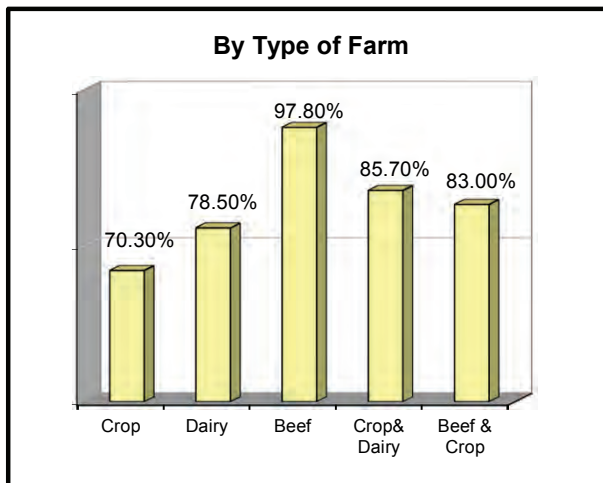
Evaluation Chart	Low Farms		Average		High Farms		Your Farm	
	2016	5 Yr Ave	2016	5 Yr Ave	2016	5 Yr Ave	2016	5 Yr Ave
<u>Liquidity</u>								
Current Ratio	1.07	1.03	1.58	1.78	2.05	2.36		
Working Capital	\$ 28,900	14,177	145,543	164,135	461,007	525,747		
Working Capital to Gross Inc.	% 5.1%	2.4%	25.1%	27.4%	36.3%	36.9%		
<u>Solvency (Market)</u>								
Farm Debt to Asset Ratio	% 57%	57%	46%	46%	39%	39%		
Farm Equity to Asset Ratio	% 43%	43%	54%	54%	61%	61%		
Farm Debt to Equity Ratio	% 1.31	1.33	0.87	0.84	0.65	0.66		
<u>Profitability (Cost)</u>								
Rate of Return on Farm Assets	% -4.6%	-5.3%	2.7%	5.8%	7.7%	11.3%		
Rate of Return on Farm Equity	% -16.7%	-20.2%	1.6%	7.1%	9.7%	15.6%		
Operating Profit Margin	% -22.9%	-21.9%	9.2%	14.7%	21.5%	26.1%		
Net Farm Income	\$ -86,641	-71,122	59,480	96,318	279,849	380,546		
EBIDTA	\$ 12,969	1,283	133,219	162,769	413,398	507,497		
<u>Repayment Capacity (Accrual)</u>								
Capital Debt Repayment Cap.	\$ -12,596	-19,319	98,314	123,523	326,753	412,461		
Capital Debt Repayment Margin	\$ -121,500	-98,099	17,891	47,995	194,158	270,905		
Replacement Margin	\$ -135,396	-108,745	883	35,157	151,853	243,160		
Term Debt Coverage Ratio	-0.12	-0.19	1.22	1.68	2.46	2.93		
Replacement Coverage Ratio	-0.1	-0.16	1.01	1.44	1.87	2.45		
<u>Efficiency</u>								
Asset Turnover Rate (Cost)	% 19.9%	24.0%	29.6%	35.6%	35.6%	41.6%		
Operating Expense Ratio	% 97.7%	99.1%	77.1%	74.2%	67.4%	66.5%		
Depreciation Expense Ratio	% 9.7%	8.7%	7.7%	6.4%	7.1%	5.8%		
Interest Expense Ratio	% 8.0%	8.1%	5.1%	4.5%	3.6%	3.0%		
Net Farm Income Ratio	% -15.4%	-16.0%	10.2%	15.0%	22.0%	24.8%		

Selected Financial Guideline Measures
Northern Minnesota Farm Business Management Data

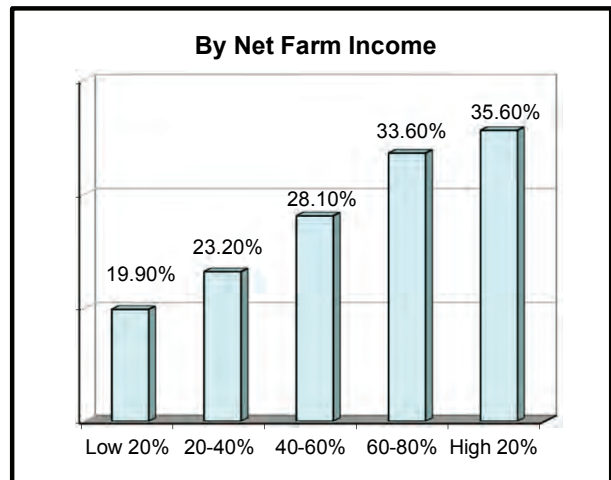
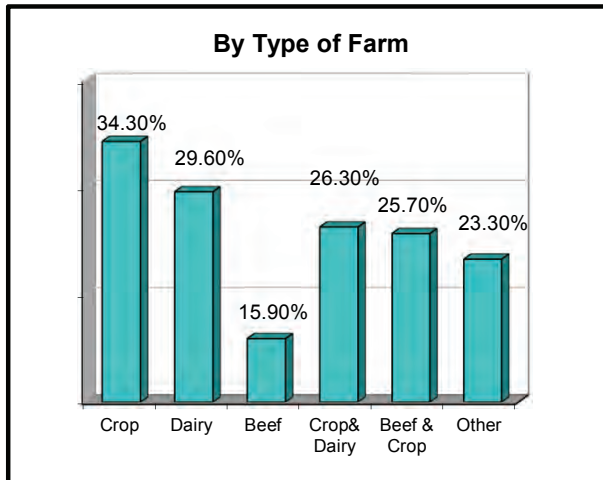
Working Capital



Operating Expense Ratio



Asset Turnover Rate



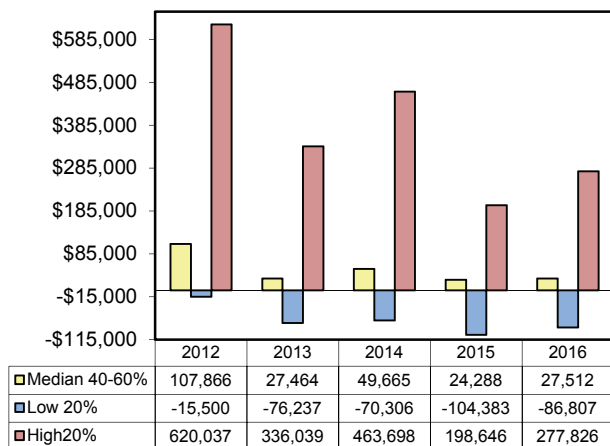
Profitability Measures
Northern Minnesota Farm Business Management Database
(Farms Sorted By Net Farm Income)

	<u>Avg. Of All Farms</u>	<u>Low 20%</u>	<u>40 - 60%</u>	<u>High 20%</u>
Number of farms	615	123	123	123
Profitability (assets valued at cost)				
Net farm income from operations	58,880	-86,807	27,512	277,826
Rate of return on assets	2.7 %	-4.6 %	1.4 %	7.7 %
Rate of return on equity	1.6 %	-16.7 %	-1.0 %	9.7 %
Operating profit margin	9.2 %	-22.9 %	4.9 %	21.5 %
Asset turnover rate	29.6 %	19.9 %	28.1 %	35.6 %
Farm interest expense	29,867	45,258	19,238	45,218
Value of operator lbr and mgmt.	44,624	45,100	32,738	78,442
Return on farm assets	44,123	-86,649	14,012	244,602
Average farm assets	1,623,815	1,899,051	1,021,507	3,189,644
Return on farm equity	14,256	-131,906	-5,226	199,384
Average farm equity	877,559	788,006	525,814	2,045,156
Value of farm production	480,609	378,786	287,110	1,135,177
	<u>Avg. Of All Farms</u>	<u>Low 20%</u>	<u>40 - 60%</u>	<u>High 20%</u>
Number of farms	615	123	123	123
Profitability (assets valued at market)				
Net farm income from operations	86,283	36,396	39,809	273,205
Rate of return on assets	3.6 %	1.6 %	1.9 %	6.2 %
Rate of return on equity	3.9 %	-0.9 %	0.9 %	8.4 %
Operating profit margin	14.9 %	9.7 %	9.2 %	21.1 %
Asset turnover rate	24.0 %	16.4 %	20.8 %	29.6 %
Farm interest expense	29,867	45,258	19,238	45,218
Value of operator lbr and mgmt.	44,624	45,100	32,738	78,442
Return on farm assets	71,527	36,554	26,308	239,980
Average farm assets	2,003,747	2,308,807	1,379,109	3,840,556
Return on farm equity	41,659	-8,704	7,070	194,763
Average farm equity	1,074,192	1,000,735	749,266	2,328,866
Value of farm production	480,609	378,786	287,110	1,135,177

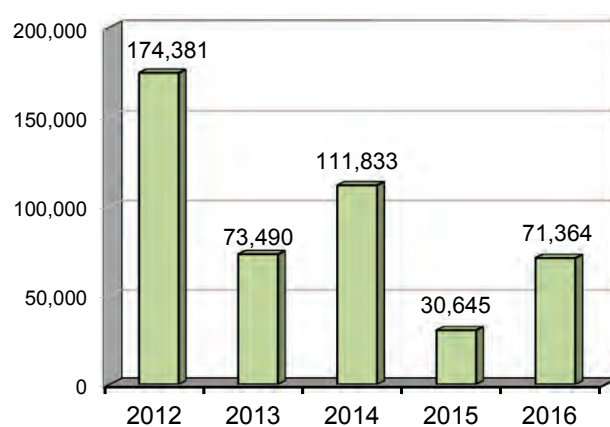
Liquidity & Repayment Capacity Measures
Northern Minnesota Farm Business Management Data
(Farms Sorted By Net Farm Income)

	<u>Avg. Of All Farms</u>	<u>Low 20%</u>	<u>40 - 60%</u>	<u>High 20%</u>
Number of farms	615	123	123	123
Liquidity				
Current ratio	1.58	1.07	1.55	2.05
Working capital	145,543	28,900	79,584	461,007
Working capital to gross inc.	25.10%	5.10%	23.10%	36.30%
Current assets	395,719	419,645	224,272	901,423
Current liabilities	250,176	390,746	144,688	440,416
Gross revenues (accrual)	580,635	564,388	344,993	1,269,485
Repayment capacity				
Net farm income from operations	58,880	-86,807	27,512	277,826
Depreciation	44,472	54,518	26,037	90,355
Personal income	27,427	32,987	27,302	18,322
Family living/owner withdrawals	-47,670	-40,881	-39,348	-75,500
Payments on personal debt	-2,863	-2,477	-2,160	-4,201
Income taxes paid	-5,222	-3,040	-2,411	-14,420
Interest on term debt	23,290	33,104	15,140	34,371
Capital debt repayment capacity	98,314	-12,596	52,072	326,753
Scheduled term debt payments	-80,423	-108,903	-51,581	-132,595
Capital debt repayment margin	17,891	-121,500	491	194,158
Cash replacement allowance	-17,009	-13,897	-10,995	-42,305
Replacement margin	883	-135,396	-10,505	151,853
Term debt coverage ratio	1.22	-0.12	1.01	2.46
Replacement coverage ratio	1.01	-0.10	0.83	1.87

Net Farm Income from Operations



Change in Net Worth





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Household and Personal Expenses
Northern Minnesota Farm Business Management Database
(Farms Sorted By Net Farm Income)

	<u>Avg. Of All Farms</u>	<u>Low 20%</u>	<u>40 - 60%</u>	<u>High 20%</u>
Number of farms	101	20	22	16
Average family size	3.3	3.5	3.2	3.1
Family Living Expenses				
Food and meals expense	7,648	6,524	7,171	9,983
Medical care	3,434	2,372	2,861	5,730
Health insurance	3,973	3,044	4,334	7,716
Cash donations	1,110	582	976	2,142
Household supplies	2,634	3,520	2,400	2,972
Clothing	1,368	954	1,016	2,288
Personal care	3,175	3,639	2,523	4,182
Child / Dependent care	1,099	2,321	698	214
Alimony and child support	22	110	-	-
Gifts	1,330	633	853	2,153
Education	1,024	819	1,591	1,044
Recreation	2,667	2,083	1,006	4,788
Utilities (household share)	2,749	3,433	2,564	2,474
Personal vehicle operating exp	3,018	2,415	2,309	2,253
Household real estate taxes	365	595	350	243
Dwelling rent	254	-	-	1,603
Household repairs	1,615	1,811	1,226	1,322
Personal interest	1,357	1,694	1,120	840
Disability / Long term care ins	356	240	342	770
Life insurance payments	2,333	3,374	2,799	2,800
Personal property insurance	314	409	230	140
Miscellaneous	5,372	7,376	5,449	4,056
Total cash family living expense	47,217	47,950	41,817	59,713
Family living from the farm	611	1,325	770	851
Total family living	47,828	49,275	42,587	60,564
Other Nonfarm Expenditures				
Income taxes	5,750	1,165	2,386	23,490
Furnishing & appliance purchases	52	225	34	0
Nonfarm vehicle purchases	1,988	1,051	1,397	5,347
Nonfarm real estate purchases	3,117	11,980	-	3,190
Other nonfarm capital purchases	342	-2,000	-3,096	2,168
Nonfarm savings & investments	766	-1,132	4,293	132
Total other nonfarm expenditures	12,016	11,289	5,014	34,327
Total cash family living investment & nonfarm capital purch	59,233	59,238	46,831	94,040

Nonfarm Summary
Northern Minnesota Farm Business Management Database
(Farms Sorted By Net Farm Income)

	<u>Avg. Of All Farms</u>	<u>Low 20%</u>	<u>40 - 60%</u>	<u>High 20%</u>
Number of farms	615	123	123	123
Nonfarm Income				
Personal wages & salary	19,325	21,385	18,605	13,258
Net nonfarm business income	2,197	2,515	3,107	1,076
Personal rental income	238	251	91	178
Personal interest income	164	141	148	420
Personal cash dividends	88	300	23	67
Tax refunds	1,526	2,296	1,346	396
Other nonfarm income	3,891	6,099	3,983	2,927
Total nonfarm income	27,427	32,987	27,302	18,322
Gifts and inheritances	3,247	9,013	310	5,128
Nonfarm Assets (market)				
Checking & savings	7,074	4,264	7,937	9,908
Stocks & bonds	7,797	9,012	6,584	10,928
Other current assets	2,703	1,541	1,650	7,683
Furniture & appliances	8,676	8,034	9,340	8,684
Nonfarm vehicles	14,530	12,757	13,758	20,450
Cash value of life ins.	5,242	3,839	4,920	8,429
Retirement accounts	45,290	45,965	40,002	63,836
Other intermediate assets	13,176	40,245	5,059	7,070
Nonfarm real estate	73,258	73,293	67,383	91,715
Personal bus. investment	5,271	1,171	2,637	20,531
Other long term assets	8,742	11,045	5,163	13,564
Total nonfarm assets	191,761	211,165	164,432	262,798
Nonfarm Liabilities				
Accrued interest	65	63	68	152
Accounts payable	948	1,725	1,117	228
Current notes	1,978	3,976	1,656	678
Princ due on term debt	2,837	2,758	2,230	4,022
Total current liabilities	6,937	8,814	5,343	9,806
Intermediate liabilities	4,679	8,963	4,333	3,790
Long term liabilities	20,765	24,284	13,970	28,231
Total nonfarm liabilities	32,381	42,061	23,646	41,827
Nonfarm net worth	159,380	169,104	140,786	220,971
Nonfarm debt to asset ratio	17 %	20 %	14 %	16 %

Operator and Labor Information
Northern Minnesota Farm Business Management Database
(Farms Sorted By Net Farm Income)

	<u>Avg. Of All Farms</u>	<u>Low 20%</u>	<u>40 - 60%</u>	<u>High 20%</u>
Number of farms	615	123	123	123
Operator Information				
Average number of operators	1.2	1.2	1.1	1.3
Average age of operators	46.8	48.8	45.8	48.2
Average number of years farming	21.9	23.3	19.5	25.1
Results Per Operator				
Working capital	123,712	23,619	73,545	346,813
Total assets (market)	1,916,506	2,098,687	1,458,528	3,200,478
Total liabilities	844,527	1,130,046	627,797	1,211,877
Net worth (market)	1,071,979	968,641	830,731	1,988,601
Net worth excl deferred liabs	1,233,589	1,131,189	958,145	2,280,168
Gross farm income	493,539	461,261	318,814	955,025
Total farm expense	443,492	532,206	293,389	746,019
Net farm income from operations	50,048	-70,945	25,425	209,007
Net nonfarm income	23,313	26,960	25,230	13,784
Family living & tax withdrawals	44,974	35,899	38,630	67,619
Total acres owned	268.4	217.1	196.7	503.1
Total crop acres	606.1	432.0	421.9	1,258.7
Crop acres owned	203.3	170.9	172.8	387.5
Crop acres cash rented	395.7	260.4	244.1	851.6
Crop acres share rented	7.1	0.6	4.9	19.6
Total pasture acres	32.8	38.5	28.4	36.5
Labor Analysis				
Number of farms	615	123	123	123
Total unpaid labor hours	2,628	2,756	2,556	3,236
Total hired labor hours	2,120	3,022	1,157	4,482
Total labor hours per farm	4,748	5,778	3,713	7,718
Unpaid hours per operator	2,234	2,252	2,362	2,434
Value of farm production / hour	101.22	65.56	77.32	147.09
Net farm income / unpaid hour	22.41	-31.50	10.77	85.86
Average hourly hired labor wage	16.31	15.29	13.59	17.64
Partnerships & LLCs				
Number of farms	76	19	13	20
Number of operators	2.0	2.2	1.6	2.0
Owner withdrawals per farm	80,522	-	-	112,307
Withdrawals per operator	42,380	-	-	65,020
Corporations				
Number of farms	16	2	1	7
Number of operators	2.1	-	-	2.6

Crop Production and Marketing Summary
Northern Minnesota Farm Business Management Data
(Farms Sorted By Net Farm Income)

	<u>Avg. Of All Farms</u>	<u>Low 20%</u>	<u>40 - 60%</u>	<u>High 20%</u>
Number of farms	615	123	123	123
Acreage Summary				
Total acres owned	316	266	213	669
Total crop acres	713	529	457	1,673
Crop acres owned	239	209	187	515
Crop acres cash rented	466	319	264	1,132
Crop acres share rented	8	1	5	26
Total pasture acres	39	47	31	49
Percent crop acres owned	34%	40%	41%	31%
Mach invest/crop acre cost	541	724	531	486
Mach invest/crop acre market	622	839	605	563

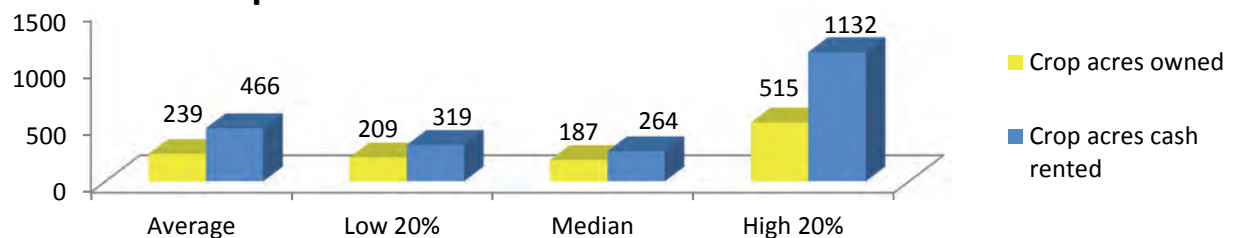
Average Price Received (Cash Sales Only)

Soybeans per bushel	8.88	8.68	9.04	8.89
Corn per bushel	3.26	3.18	3.17	3.35
Wheat, Spring per bushel	4.78	5.07	4.41	4.8
Hay, Alfalfa per ton	73.87	69.7	88.3	69.97
Oats per bushel	2.19	1.92	1.76	2.47
Barley per bushel	4.7	-	-	4.72
Hay, Mixed per ton	61.94	-	71.72	-
Hay, Grass per ton	77.05	-	112.08	-
Corn Silage per ton	29.15	-	-	-
Rye per bushel	4.26	4.72	-	-
Sunflowers per cwt	19.09	-	-	-
Grass Seed, Perennial Rye per lb	0.666	-	-	0.668
Soybeans, Food per bushel	12.03	-	-	-
Beans, Navy per cwt	26.33	-	-	-

Average Yield Per Acre

Soybeans (bushel)	46.43	47.39	42.38	46.53
Corn (bushel)	178.98	164.84	173.17	188.96
Corn Silage (ton)	19.7	19.68	18.24	20.43
Hay, Alfalfa (ton)	4.61	4.5	4.31	5.51
Wheat, Spring (bushel)	64.74	63.94	56.73	66.6
Hay, Grass (ton)	2.04	1.95	2.25	2.14
Hay, Mixed (ton)	2.59	2.18	2.74	3.68
Oats (bushel)	63.28	72.7	46.58	-
Barley (bushel)	78.31	57.92	49.35	84.56
Rye (bushel)	34.78	-	33.98	33.16
Soybeans, Food (bushel)	36.19	-	-	40.86
Sunflowers (cwt)	15.79	-	-	-
Beans, Navy (cwt)	22.34	-	-	23.29

Crop Acres - Owned & Cash Rented



Individual Enterprise Analysis Tables

The individual crop and livestock tables are designed to identify the costs and returns for specific enterprises on the farm. Data from all farmers with each enterprise is merged. The minimum number of farms, in order to print a given column on the following reports, is five (5). This enables the necessary level of confidentiality for publication of this information.

Crop report costs such as fertilizer, chemicals, seed, crop drying expenses, hired labor, and custom hire are costs that are assigned to each individual crop. These costs are shown in the crop enterprise analysis as *Direct Costs*.

Other costs, called *Overhead Costs*, are divided out by formula. Overhead costs are assigned by an allocation factor to each enterprise. The allocation factor is based on historical data of labor and capital intensity.

There are a couple of subtle differences between the Owned Land and Cash Rented Land tables. Naturally, on cash rented land, the actual cost of renting the land is reported in the direct cost section. On the owned land, there are two different lines of information in the overhead cost section that would be included for calculating cost of ownership: real-estate taxes and interest on long-term debt.

The livestock reports have a format similar to the crop reports. Production information is listed at the top of each table. This will include animal or product sales, purchases, sales, transfers, and inventory change.

The *Direct Costs* include costs that are assigned to the enterprise, including items such as: feed, veterinary, breeding, marketing, hired labor, fuel & repairs, and livestock supplies. The *Overhead Costs* include formula-assigned costs, including items such as: depreciation, interest, utilities, and insurances.

At the bottom of each livestock report, there is a list of selected factors for each enterprise. These factors are a combination of production indicators and efficiency indicators.

Towards the bottom of both the crop and livestock enterprise tables, are four (4) factors that show varying levels of Cost of Production. Those factors include a cost of production based on: direct costs, overhead & direct costs, total cost less government payments and/or other revenue, and total cost including labor & management.

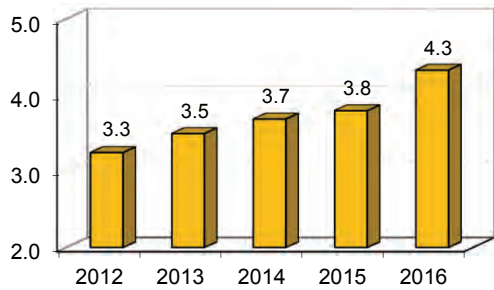
Machinery Cost per Acre is a factor used to combine all costs related to machinery usage. The Machinery Cost per Acre includes: Fuel & Oil, Repairs, Custom hire, Machinery leases, Interest on machinery debt, and Machinery depreciation. A machinery cost summary for five prominent Northern Minnesota crops is listed below. Data is taken from the owned land enterprise tables.

Crop	2012	2013	2014	2015	2016
Alfalfa Hay	\$150.94	\$145.46	\$190.49	\$164.47	\$169.50
Corn	154.11	152.35	\$162.84	\$159.23	\$151.43
Corn Silage	\$185.94	\$178.58	\$229.01	\$209.02	\$204.12
Soybeans	\$88.40	\$85.28	\$87.39	\$81.89	\$88.15
Spring Wheat	\$94.18	\$87.97	\$86.33	\$84.02	\$84.95

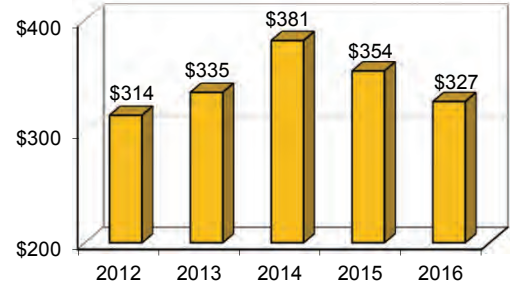
Five Year History of Crop Yields and Cost of Production

Northern Minnesota Farm Business Management Data

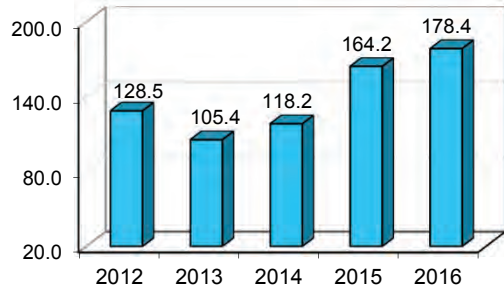
Alfalfa Hay Yields
(cash rented land)



Alfalfa Hay - Direct & Overhead Expense
(cash rented land)



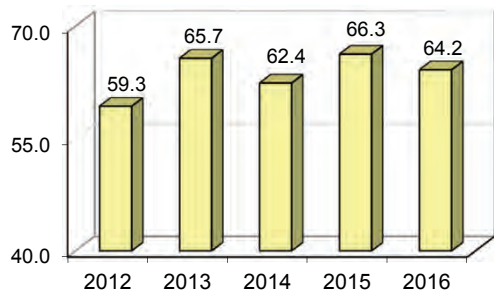
Corn Yields
(cash rented land)



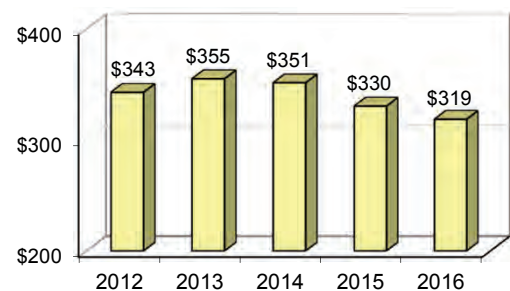
Corn - Direct & Overhead Expense
(cash rented land)



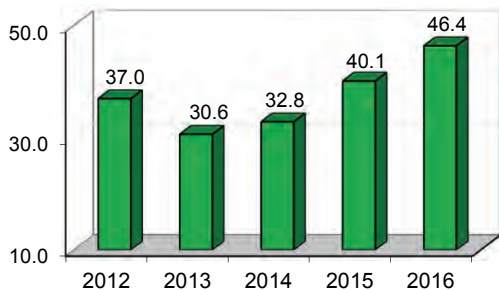
Spring Wheat Yields
(cash rented land)



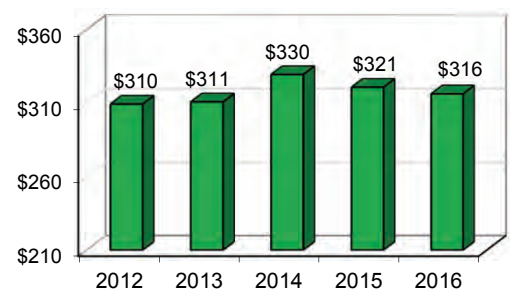
Spring Wheat - Direct & Overhead Expense
(cash rented land)



Soybeans Yields
(cash rented land)



Soybeans - Direct & Overhead Expense
(cash rented land)



Crop Enterprise Analysis
Northern Minnesota Farm Business Management Database
(Farms Sorted By Return to Overhead)

Corn on Owned Land

	<u>Avg. Of</u> <u>All Farms</u>	<u>40 - 60%</u>	<u>High 20%</u>
Number of farms	226	45	46
Acres	112.88	89.30	156.73
Yield per acre (bu.)	179.52	177.61	194.64
Operators share of yield %	100.00	100.00	100.00
Value per bu.	2.95	2.88	3.13
Other product return per acre	3.53	7.22	1.13
Total product return per acre	533.41	518.54	610.95
Hedging gains/losses per acre	0.98	-	1.72
Crop insurance per acre	1.55	1.38	1.87
Other crop income per acre	2.76	2.15	3.25
Gross return per acre	538.71	522.07	617.79
Direct Expenses			
Seed	93.01	95.74	83.14
Fertilizer	102.25	93.92	100.50
Crop chemicals	26.02	29.09	24.74
Crop insurance	18.76	17.82	17.82
Drying expense	8.18	8.36	7.83
Storage	1.15	1.46	0.10
Packaging and supplies	0.99	0.02	0.94
Fuel & oil	23.24	23.77	18.58
Repairs	48.31	57.17	34.12
Custom hire	12.43	17.69	6.53
Hired labor	1.95	0.01	2.51
Machinery leases	2.46	1.87	0.91
Utilities	0.64	0.40	0.48
Hauling and trucking	3.44	3.27	5.68
Marketing	1.70	0.97	0.94
Operating interest	8.53	7.10	10.60
Miscellaneous	1.84	2.62	1.49
Total direct expenses per acre	354.89	361.29	316.91
Return over direct exp per acre	183.82	160.78	300.88
Overhead Expenses			
Hired labor	13.52	16.46	11.60
Machinery leases	1.31	0.69	2.93
Building leases	1.72	1.41	4.39
RE & pers. property taxes	19.09	15.88	20.18
Farm insurance	10.26	10.82	9.22
Utilities	6.05	8.78	3.87
Dues & professional fees	3.79	4.28	3.70
Interest	57.17	40.46	71.69
Mach & bldg depreciation	63.45	65.76	58.29
Miscellaneous	5.80	7.27	6.43
Total overhead expenses per acre	182.17	171.80	192.30
Total dir & ovhd expenses per acre	537.05	533.09	509.21
Net return per acre	1.65	-11.02	108.58
Government payments	13.07	7.77	13.67
Net return with govt pmts	14.72	-3.25	122.25
Labor & management charge	49.08	55.11	36.52
Net return over lbr & mgt	-34.36	-58.36	85.73
Cost of Production			
Total direct expense per bu.	1.98	2.03	1.63
Total dir & ovhd exp per bu.	2.99	3.00	2.62
Less govt & other income	2.87	2.90	2.50
With labor & management	3.14	3.21	2.69
Net value per unit	2.96	2.88	3.14
Machinery cost per acre	151.43	164.76	117.46
Est. labor hours per acre	3.81	4.75	2.48

Crop Enterprise Analysis
Northern Minnesota Farm Business Management Database
(Farms Sorted By Return to Overhead)

Corn on Cash Rent

	<u>Avg. Of</u> <u>All Farms</u>	<u>40 - 60%</u>	<u>High 20%</u>
Number of farms	270	54	54
Acres	221.37	359.12	178.87
Yield per acre (bu.)	178.44	186.45	190.12
Operators share of yield %	100.00	100.00	100.00
Value per bu.	3.01	3.06	3.08
Other product return per acre	1.89	0.75	1.29
Total product return per acre	539.39	570.81	586.43
Hedging gains/losses per acre	0.21	-	0.10
Crop insurance per acre	3.57	0.21	12.24
Other crop income per acre	3.97	3.88	4.74
Gross return per acre	547.14	574.89	603.51
Direct Expenses			
Seed	89.96	86.92	84.39
Fertilizer	110.54	112.98	88.63
Crop chemicals	26.53	24.22	23.03
Crop insurance	19.20	17.87	20.72
Drying expense	8.41	7.47	8.55
Storage	0.61	0.53	0.35
Packaging and supplies	1.11	0.48	0.49
Fuel & oil	20.95	20.80	18.86
Repairs	39.91	40.01	31.88
Custom hire	12.40	9.41	6.69
Hired labor	2.36	2.70	3.31
Land rent	115.64	147.11	86.61
Machinery leases	3.99	1.97	0.78
Utilities	0.41	0.19	1.05
Hauling and trucking	3.34	3.74	2.70
Marketing	1.22	0.80	0.42
Operating interest	9.53	10.78	8.73
Miscellaneous	2.10	2.62	0.81
Total direct expenses per acre	468.20	490.60	388.01
Return over direct exp per acre	78.94	84.29	215.50
Overhead Expenses			
Hired labor	13.44	15.37	11.25
Machinery leases	4.87	9.26	2.06
Building leases	3.87	8.27	4.92
Farm insurance	7.82	7.98	7.40
Utilities	4.28	4.14	3.24
Dues & professional fees	3.16	3.64	2.17
Interest	7.18	5.29	5.41
Mach & bldg depreciation	45.89	36.44	45.44
Miscellaneous	4.92	4.08	7.31
Total overhead expenses per acre	95.42	94.45	89.21
Total dir & ovhd expenses per acre	563.62	585.05	477.22
Net return per acre	-16.48	-10.16	126.29
Government payments	11.38	15.60	10.03
Net return with govt pmts	-5.10	5.44	136.32
Labor & management charge	39.27	31.34	38.77
Net return over lbr & mgt	-44.37	-25.90	97.55
Cost of Production			
Total direct expense per bu.	2.62	2.63	2.04
Total dir & ovhd exp per bu.	3.16	3.14	2.51
Less govt & other income	3.04	3.03	2.36
With labor & management	3.26	3.20	2.56
Net value per unit	3.01	3.06	3.08
Machinery cost per acre	129.66	118.43	104.06
Est. labor hours per acre	2.98	2.72	2.99

Crop Enterprise Analysis
Northern Minnesota Farm Business Management Database
(Farms Sorted By Return to Overhead)

Soybeans on Owned Land

	<u>Avg. Of</u> <u>All Farms</u>	<u>40 - 60%</u>	<u>High 20%</u>
Number of farms	175	35	35
Acres	192.05	184.84	151.19
Yield per acre (bu.)	46.67	46.94	56.60
Operators share of yield %	100.00	100.00	100.00
Value per bu.	9.27	9.23	9.50
Total product return per acre	432.50	433.22	537.63
Crop insurance per acre	1.18	-	0.84
Other crop income per acre	3.16	6.69	3.21
Gross return per acre	436.84	439.91	541.68
Direct Expenses			
Seed	59.63	58.06	58.87
Fertilizer	25.42	22.64	19.10
Crop chemicals	22.84	22.41	28.52
Crop insurance	12.99	13.00	13.62
Storage	0.17	0.16	0.88
Fuel & oil	13.22	13.54	12.46
Repairs	25.01	26.03	29.87
Custom hire	6.55	8.34	4.65
Hired labor	0.88	0.13	1.33
Machinery leases	1.77	1.81	0.27
Utilities	0.36	0.02	1.05
Hauling and trucking	1.05	0.69	2.04
Marketing	0.96	1.40	1.04
Operating interest	4.98	3.53	3.30
Miscellaneous	1.72	1.20	1.75
Total direct expenses per acre	177.53	172.97	178.75
Return over direct exp per acre	259.31	266.94	362.93
Overhead Expenses			
Hired labor	7.82	8.02	8.67
Machinery leases	1.01	1.34	1.65
Building leases	0.57	0.23	1.10
RE & pers. property taxes	13.32	13.30	22.11
Farm insurance	6.49	7.07	6.17
Utilities	4.03	3.10	3.46
Dues & professional fees	1.84	1.83	1.87
Interest	30.03	31.38	39.83
Mach & bldg depreciation	40.29	50.81	46.79
Miscellaneous	2.50	3.13	2.49
Total overhead expenses per acre	107.89	120.20	134.16
Total dir & ovhd expenses per acre	285.42	293.17	312.90
Net return per acre	151.42	146.73	228.78
Government payments	18.19	16.98	21.78
Net return with govt pmts	169.60	163.72	250.56
Labor & management charge	30.59	33.75	31.18
Net return over lbr & mgt	139.01	129.97	219.38
Cost of Production			
Total direct expense per bu.	3.80	3.68	3.16
Total dir & ovhd exp per bu.	6.12	6.25	5.53
Less govt & other income	5.63	5.74	5.07
With labor & management	6.29	6.46	5.62
Net value per unit	9.27	9.23	9.50
Machinery cost per acre	88.15	100.88	94.45
Est. labor hours per acre	1.83	1.78	2.11

Crop Enterprise Analysis
Northern Minnesota Farm Business Management Database
(Farms Sorted By Return to Overhead)

Soybeans on Cash Rent

	<u>Avg. Of All Farms</u>	<u>40 - 60%</u>	<u>High 20%</u>
Number of farms	250	50	50
Acres	351.73	311.45	332.72
Yield per acre (bu.)	46.36	46.90	53.41
Operators share of yield %	100.00	100.00	100.00
Value per bu.	9.24	9.28	9.33
Other product return per acre	0.01	0.06	-
Total product return per acre	428.17	435.17	498.20
Crop insurance per acre	3.06	0.90	0.08
Other crop income per acre	3.56	2.95	2.77
Gross return per acre	434.78	439.02	501.05
Direct Expenses			
Seed	59.22	56.56	59.51
Fertilizer	26.48	33.10	26.35
Crop chemicals	24.09	24.61	22.42
Crop insurance	13.59	11.12	14.19
Fuel & oil	12.75	10.97	13.39
Repairs	22.12	22.12	19.57
Custom hire	6.64	4.28	2.26
Hired labor	1.23	2.42	0.04
Land rent	84.49	78.84	75.20
Machinery leases	2.98	5.80	2.18
Utilities	0.25	0.51	0.05
Hauling and trucking	1.15	2.44	0.86
Marketing	0.93	1.26	1.93
Operating interest	4.98	5.42	3.82
Miscellaneous	1.86	1.77	2.41
Total direct expenses per acre	262.77	261.21	244.19
Return over direct exp per acre	172.01	177.81	256.86
Overhead Expenses			
Hired labor	7.05	7.08	8.08
Machinery leases	1.93	0.19	2.16
Building leases	1.09	1.00	0.84
Farm insurance	5.11	5.37	6.18
Utilities	3.33	3.19	3.77
Dues & professional fees	1.91	2.22	1.68
Interest	3.84	2.54	3.70
Mach & bldg depreciation	26.97	24.32	27.53
Miscellaneous	2.44	1.66	3.90
Total overhead expenses per acre	53.69	47.56	57.83
Total dir & ovhd expenses per acre	316.46	308.77	302.01
Net return per acre	118.32	130.25	199.03
Government payments	13.85	13.04	12.63
Net return with govt pmts	132.17	143.28	211.66
Labor & management charge	26.21	26.69	24.83
Net return over lbr & mgt	105.96	116.59	186.83
Cost of Production			
Total direct expense per bu.	5.67	5.57	4.57
Total dir & ovhd exp per bu.	6.83	6.58	5.65
Less govt & other income	6.38	6.22	5.36
With labor & management	6.95	6.79	5.83
Net value per unit	9.24	9.28	9.33
Machinery cost per acre	74.77	68.01	68.00
Est. labor hours per acre	1.63	1.77	1.77

Crop Enterprise Analysis
Northern Minnesota Farm Business Management Database
(Farms Sorted By Return to Overhead)

Wheat, Spring on Owned Land

	<u>Avg. Of</u> <u>All Farms</u>	<u>40 - 60%</u>	<u>High 20%</u>
Number of farms	78	15	16
Acres	247.03	337.47	251.89
Yield per acre (bu.)	66.00	64.03	78.85
Operators share of yield %	100.00	100.00	100.00
Value per bu.	4.95	4.95	5.12
Other product return per acre	0.12	0.24	-
Total product return per acre	326.78	316.94	403.36
Crop insurance per acre	0.14	-	-
Other crop income per acre	3.90	3.66	7.02
Gross return per acre	330.82	320.60	410.38
Direct Expenses			
Seed	18.47	16.17	19.14
Fertilizer	79.17	79.43	73.70
Crop chemicals	29.22	25.76	32.34
Crop insurance	11.45	11.15	10.34
Drying expense	0.88	1.89	0.16
Fuel & oil	13.03	12.20	13.75
Repairs	22.50	24.28	23.86
Custom hire	9.48	13.59	4.96
Machinery leases	1.62	3.69	2.33
Marketing	0.71	0.35	0.38
Operating interest	4.37	6.92	5.22
Miscellaneous	2.04	2.13	1.54
Total direct expenses per acre	192.95	197.56	187.70
Return over direct exp per acre	137.88	123.04	222.68
Overhead Expenses			
Hired labor	11.51	9.34	13.30
Machinery leases	0.50	0.05	0.70
Building leases	0.74	1.98	0.73
RE & pers. property taxes	12.05	9.75	17.24
Farm insurance	6.19	7.02	6.11
Utilities	4.19	3.81	3.81
Dues & professional fees	1.90	1.19	2.12
Interest	19.10	12.58	31.02
Mach & bldg depreciation	39.52	51.20	31.21
Miscellaneous	2.62	1.42	5.54
Total overhead expenses per acre	98.31	98.34	111.78
Total dir & ovhd expenses per acre	291.26	295.90	299.48
Net return per acre	39.56	24.70	110.90
Government payments	21.33	22.29	23.52
Net return with govt pmts	60.89	46.99	134.42
Labor & management charge	28.70	29.47	20.84
Net return over lbr & mgt	32.20	17.51	113.59
Cost of Production			
Total direct expense per bu.	2.92	3.09	2.38
Total dir & ovhd exp per bu.	4.41	4.62	3.80
Less govt & other income	4.03	4.21	3.41
With labor & management	4.46	4.67	3.67
Net value per unit	4.95	4.95	5.12
Machinery cost per acre	84.95	104.18	75.31
Est. labor hours per acre	1.67	1.50	1.72

Crop Enterprise Analysis
Northern Minnesota Farm Business Management Database
(Farms Sorted By Return to Overhead)

Wheat, Spring on Cash Rent

	<u>Avg. Of</u> <u>All Farms</u>	<u>40 - 60%</u>	<u>High 20%</u>
Number of farms	116	23	24
Acres	328.76	413.83	230.63
Yield per acre (bu.)	64.16	62.64	74.59
Operators share of yield %	100.00	100.00	100.00
Value per bu.	4.90	4.90	5.12
Other product return per acre	0.18	-	0.42
Total product return per acre	314.39	307.22	382.29
Crop insurance per acre	0.37	-	0.29
Other crop income per acre	6.43	4.00	5.08
Gross return per acre	321.18	311.22	387.65
Direct Expenses			
Seed	18.68	16.19	18.19
Fertilizer	81.37	80.68	66.32
Crop chemicals	26.14	25.21	24.80
Crop insurance	10.71	10.91	10.92
Drying expense	0.69	0.36	0.61
Storage	0.26	-	0.99
Fuel & oil	12.47	11.90	13.67
Repairs	21.34	22.58	23.39
Custom hire	6.01	4.23	1.12
Land rent	76.92	74.82	73.65
Machinery leases	2.77	5.04	7.42
Marketing	0.79	0.15	0.64
Operating interest	4.02	5.87	3.85
Miscellaneous	2.49	2.86	2.97
Total direct expenses per acre	264.66	260.82	248.53
Return over direct exp per acre	56.53	50.40	139.12
Overhead Expenses			
Hired labor	9.84	7.14	14.92
Machinery leases	1.39	3.15	0.47
Building leases	1.24	2.69	0.09
Farm insurance	5.28	5.21	5.58
Utilities	3.83	3.92	3.69
Dues & professional fees	1.91	2.10	1.93
Interest	2.97	2.90	3.77
Mach & bldg depreciation	25.27	22.64	25.54
Miscellaneous	2.27	3.28	2.90
Total overhead expenses per acre	53.99	53.02	58.88
Total dir & ovhd expenses per acre	318.65	313.84	307.42
Net return per acre	2.54	-2.62	80.24
Government payments	16.08	14.61	18.95
Net return with govt pmts	18.62	11.99	99.19
Labor & management charge	24.80	24.27	19.38
Net return over lbr & mgt	-6.18	-12.28	79.80
Cost of Production			
Total direct expense per bu.	4.12	4.16	3.33
Total dir & ovhd exp per bu.	4.97	5.01	4.12
Less govt & other income	4.61	4.71	3.79
With labor & management	4.99	5.10	4.05
Net value per unit	4.90	4.90	5.12
Machinery cost per acre	69.94	70.99	71.97
Est. labor hours per acre	1.56	1.39	1.39

Crop Enterprise Analysis
Northern Minnesota Farm Business Management Database
(Farms Sorted By Return to Overhead)

Corn Silage on Owned Land

	<u>Avg. Of All Farms</u>	<u>40 - 60%</u>	<u>High 20%</u>
Number of farms	143	28	29
Acres	60.68	46.66	44.68
Yield per acre (ton)	19.40	19.20	25.03
Operators share of yield %	100.00	100.00	100.00
Value per ton	33.91	34.08	34.58
Total product return per acre	657.70	654.35	865.58
Crop insurance per acre	0.15	0.03	-
Other crop income per acre	0.35	1.62	0.68
Gross return per acre	658.19	656.01	866.25
Direct Expenses			
Seed	88.92	88.39	82.63
Fertilizer	65.84	67.90	39.04
Crop chemicals	32.58	30.68	29.81
Crop insurance	14.52	15.77	15.10
Storage	0.39	1.31	0.77
Packaging and supplies	10.54	10.54	3.68
Fuel & oil	30.16	24.26	29.82
Repairs	57.91	45.44	45.77
Custom hire	52.30	45.20	40.41
Hired labor	2.85	2.22	5.08
Machinery leases	4.04	1.36	2.09
Utilities	0.37	0.19	0.95
Operating interest	3.07	5.04	4.38
Miscellaneous	2.69	1.43	0.56
Total direct expenses per acre	366.18	339.74	300.08
Return over direct exp per acre	292.01	316.27	566.17
Overhead Expenses			
Hired labor	22.19	9.72	17.97
Machinery leases	1.59	1.44	2.18
Building leases	0.37	0.82	0.02
RE & pers. property taxes	13.03	13.17	15.20
Farm insurance	10.18	11.27	13.22
Utilities	6.50	8.10	9.76
Dues & professional fees	3.58	5.12	6.23
Interest	51.74	65.40	71.11
Mach & bldg depreciation	56.56	59.14	53.53
Miscellaneous	7.27	9.00	10.76
Total overhead expenses per acre	173.01	183.18	199.98
Total dir & ovhd expenses per acre	539.19	522.92	500.06
Net return per acre	119.00	133.09	366.20
Government payments	3.61	6.60	4.65
Net return with govt pmts	122.61	139.69	370.85
Labor & management charge	50.57	57.09	55.08
Net return over lbr & mgt	72.04	82.59	315.77
Cost of Production			
Total direct expense per ton	18.88	17.69	11.99
Total dir & ovhd exp per ton	27.80	27.23	19.97
Less govt & other income	27.59	26.80	19.76
With labor & management	30.20	29.77	21.96
Net value per unit	33.91	34.08	34.58
Machinery cost per acre	204.12	173.90	172.64
Est. labor hours per acre	4.91	4.86	4.71

Crop Enterprise Analysis
Northern Minnesota Farm Business Management Database
(Farms Sorted By Return to Overhead)

Corn Silage on Cash Rent

	<u>Avg. Of</u> <u>All Farms</u>	<u>40 - 60%</u>	<u>High 20%</u>
Number of farms	109	22	22
Acres	71.63	56.48	43.13
Yield per acre (ton)	20.06	19.59	24.07
Operators share of yield %	100.00	100.00	100.00
Value per ton	33.26	33.93	33.34
Total product return per acre	667.12	664.56	802.41
Crop insurance per acre	0.18	0.29	-
Other crop income per acre	0.35	-	0.24
Gross return per acre	667.65	664.84	802.65
Direct Expenses			
Seed	90.00	91.53	78.54
Fertilizer	74.12	75.09	48.29
Crop chemicals	30.21	31.07	24.24
Crop insurance	15.02	12.53	14.18
Storage	1.12	1.57	-
Packaging and supplies	12.49	11.16	5.06
Fuel & oil	29.85	27.59	29.93
Repairs	56.87	58.43	50.63
Custom hire	51.64	45.40	21.51
Hired labor	1.01	0.37	1.32
Land rent	94.63	66.51	60.69
Machinery leases	2.39	3.18	0.51
Operating interest	4.19	5.31	4.32
Miscellaneous	3.89	2.83	1.20
Total direct expenses per acre	467.42	432.56	340.43
Return over direct exp per acre	200.23	232.28	462.22
Overhead Expenses			
Hired labor	29.20	23.48	13.88
Machinery leases	8.29	8.15	1.20
Building leases	0.77	1.90	0.62
Farm insurance	7.99	10.16	7.04
Utilities	5.46	5.91	5.48
Dues & professional fees	3.57	3.21	1.71
Interest	11.29	13.80	8.02
Mach & bldg depreciation	49.36	51.14	55.45
Miscellaneous	6.06	3.36	4.10
Total overhead expenses per acre	122.00	121.12	97.50
Total dir & ovhd expenses per acre	589.42	553.68	437.94
Net return per acre	78.23	111.16	364.72
Government payments	2.91	1.84	2.55
Net return with govt pmts	81.15	113.00	367.26
Labor & management charge	43.59	50.08	40.04
Net return over lbr & mgt	37.56	62.92	327.22
Cost of Production			
Total direct expense per ton	23.30	22.09	14.14
Total dir & ovhd exp per ton	29.39	28.27	18.20
Less govt & other income	29.22	28.16	18.08
With labor & management	31.39	30.72	19.74
Net value per unit	33.26	33.93	33.34
Machinery cost per acre	203.97	200.63	157.76
Est. labor hours per acre	4.84	4.76	4.53

Crop Enterprise Analysis
Northern Minnesota Farm Business Management Database
(Farms Sorted By Return to Overhead)

Hay, Alfalfa on Owned Land

	<u>Avg. Of All Farms</u>	<u>40 - 60%</u>	<u>High 20%</u>
Number of farms	110	22	22
Acres	65.43	51.62	78.20
Yield per acre (ton)	4.95	4.67	6.92
Operators share of yield %	100.00	100.00	100.00
Value per ton	110.40	114.33	120.48
Total product return per acre	545.97	534.06	833.44
Crop insurance per acre	0.91	4.83	-
Other crop income per acre	0.71	0.68	-
Gross return per acre	547.59	539.57	833.44
Direct Expenses			
Seed	2.27	-	9.49
Fertilizer	33.62	37.47	21.76
Crop chemicals	2.81	5.64	1.92
Non-chemical crop protect	0.09	0.60	-
Crop insurance	2.77	2.59	3.28
Packaging and supplies	4.74	6.90	4.58
Fuel & oil	26.17	28.27	28.17
Repairs	52.87	51.67	58.06
Custom hire	25.11	17.27	14.29
Machinery leases	2.02	2.76	0.81
Utilities	0.18	0.67	-
Operating interest	4.12	7.05	1.87
Miscellaneous	4.17	0.98	2.05
Total direct expenses per acre	160.95	161.86	146.29
Return over direct exp per acre	386.64	377.70	687.16
Overhead Expenses			
Hired labor	19.44	13.04	27.78
Machinery leases	1.64	1.82	0.67
RE & pers. property taxes	15.64	13.48	15.31
Farm insurance	11.10	13.42	9.58
Utilities	6.66	10.24	5.51
Dues & professional fees	4.76	3.95	3.10
Interest	49.06	64.02	49.99
Mach & bldg depreciation	62.83	66.17	71.55
Miscellaneous	5.95	3.65	8.95
Total overhead expenses per acre	177.08	189.78	192.45
Total dir & ovhd expenses per acre	338.03	351.65	338.73
Net return per acre	209.56	187.92	494.71
Government payments	4.82	2.91	1.29
Net return with govt pmts	214.38	190.83	496.00
Labor & management charge	51.61	68.20	48.95
Net return over lbr & mgt	162.77	122.63	447.05
Cost of Production			
Total direct expense per ton	32.55	34.65	21.15
Total dir & ovhd exp per ton	68.35	75.28	48.97
Less govt & other income	67.05	73.48	48.78
With labor & management	77.49	88.08	55.86
Net value per unit	110.40	114.33	120.48
Machinery cost per acre	169.50	174.19	169.57
Est. labor hours per acre	5.29	6.98	5.12

Crop Enterprise Analysis
Northern Minnesota Farm Business Management Database
(Farms Sorted By Return to Overhead)

Hay, Alfalfa on Cash Rent

	<u>Avg. Of</u> <u>All Farms</u>	<u>40 - 60%</u>	<u>High 20%</u>
Number of farms	108	21	22
Acres	65.43	65.98	58.14
Yield per acre (ton)	4.33	4.53	5.95
Operators share of yield %	100.00	100.00	100.00
Value per ton	103.92	101.70	121.21
Other product return per acre	0.28	1.08	-
Total product return per acre	450.52	461.35	721.33
Crop insurance per acre	0.09	-	-
Other crop income per acre	1.84	0.26	-
Gross return per acre	452.45	461.61	721.33
Direct Expenses			
Seed	0.56	-	2.12
Fertilizer	44.05	35.20	26.19
Crop chemicals	3.34	1.77	6.29
Crop insurance	1.82	1.00	1.92
Packaging and supplies	5.39	5.44	8.32
Fuel & oil	24.21	25.19	22.75
Repairs	45.61	47.24	52.46
Custom hire	24.71	27.80	13.97
Land rent	77.53	70.80	67.31
Machinery leases	1.76	4.54	0.02
Marketing	0.28	0.56	-
Operating interest	6.11	7.08	2.13
Miscellaneous	2.50	0.74	4.67
Total direct expenses per acre	237.86	227.37	208.14
Return over direct exp per acre	214.59	234.25	513.19
Overhead Expenses			
Hired labor	16.98	9.46	18.48
Machinery leases	4.01	0.33	1.97
Building leases	0.94	0.34	0.52
Farm insurance	7.94	7.70	7.38
Utilities	5.42	5.65	4.69
Dues & professional fees	4.10	2.29	2.60
Interest	7.19	9.62	9.30
Mach & bldg depreciation	37.54	34.26	47.53
Miscellaneous	4.74	7.02	4.54
Total overhead expenses per acre	88.86	76.67	97.01
Total dir & ovhd expenses per acre	326.72	304.04	305.15
Net return per acre	125.73	157.57	416.18
Government payments	5.98	13.89	2.07
Net return with govt pmts	131.71	171.47	418.26
Labor & management charge	38.13	39.51	37.26
Net return over lbr & mgt	93.57	131.96	380.99
Cost of Production			
Total direct expense per ton	54.90	50.24	34.98
Total dir & ovhd exp per ton	75.41	67.18	51.28
Less govt & other income	73.52	63.82	50.93
With labor & management	82.32	72.55	57.19
Net value per unit	103.92	101.70	121.21
Machinery cost per acre	140.18	144.60	139.97
Est. labor hours per acre	4.03	3.58	4.42

Crop Enterprise Analysis
Northern Minnesota Farm Business Management Database
(Farms Sorted By Return to Overhead)

Hay, Mixed on Cash Rent

	<u>Avg. Of All Farms</u>	<u>40 - 60%</u>	<u>High 20%</u>
Number of farms	46	9	10
Acres	83.57	49.52	49.12
Yield per acre (ton)	2.69	3.04	4.44
Operators share of yield %	100.00	100.00	100.00
Value per ton	65.87	61.85	75.78
Total product return per acre	177.28	188.31	336.41
Other crop income per acre	1.13	-	-
Gross return per acre	178.41	188.31	336.41
Direct Expenses			
Fertilizer	15.41	13.58	6.19
Crop chemicals	0.65	0.25	-
Crop insurance	0.98	0.32	0.66
Storage	0.24	-	1.39
Packaging and supplies	5.90	2.38	0.23
Fuel & oil	14.12	15.67	19.99
Repairs	31.15	40.79	33.12
Custom hire	4.45	1.34	12.66
Hired labor	1.77	-	-
Land rent	44.28	36.46	48.40
Machinery leases	3.01	15.46	-
Operating interest	2.98	1.45	1.63
Miscellaneous	0.98	0.07	1.20
Total direct expenses per acre	125.91	127.78	125.45
Return over direct exp per acre	52.50	60.53	210.96
Overhead Expenses			
Hired labor	7.12	15.08	24.66
Machinery leases	1.72	0.89	2.50
Farm insurance	4.18	5.80	3.11
Utilities	2.67	2.66	3.53
Dues & professional fees	1.69	1.17	1.42
Interest	5.28	4.85	8.35
Mach & bldg depreciation	19.65	13.84	32.31
Miscellaneous	2.38	8.40	3.85
Total overhead expenses per acre	44.70	52.68	79.73
Total dir & ovhd expenses per acre	170.61	180.46	205.18
Net return per acre	7.80	7.85	131.23
Government payments	3.21	1.71	0.66
Net return with govt pmts	11.01	9.56	131.90
Labor & management charge	29.32	27.07	22.84
Net return over lbr & mgt	-18.31	-17.51	109.06
Cost of Production			
Total direct expense per ton	46.78	41.97	28.26
Total dir & ovhd exp per ton	63.39	59.27	46.22
Less govt & other income	61.78	58.71	46.07
With labor & management	72.67	67.61	51.21
Net value per unit	65.87	61.85	75.78
Machinery cost per acre	77.61	91.99	104.97
Est. labor hours per acre	2.74	1.93	2.68

Crop Enterprise Analysis
Northern Minnesota Farm Business Management Database
(Farms Sorted By Return to Overhead)

Hay, Grass on Cash Rent

	<u>Avg. Of All Farms</u>	<u>40 - 60%</u>	<u>High 20%</u>
Number of farms	81	16	17
Acres	69.51	46.90	37.26
Yield per acre (ton)	2.10	1.89	3.15
Operators share of yield %	100.00	100.00	100.00
Value per ton	61.70	56.31	56.79
Total product return per acre	129.44	106.36	179.11
Gross return per acre	129.44	106.36	179.11
Direct Expenses			
Seed	0.47	0.75	3.33
Fertilizer	10.35	8.61	6.76
Crop insurance	0.16	0.95	-
Packaging and supplies	2.21	1.68	5.15
Fuel & oil	11.82	9.42	11.00
Repairs	19.99	22.40	18.13
Custom hire	2.68	1.92	3.05
Land rent	37.70	35.30	26.13
Machinery leases	0.81	1.50	-
Operating interest	5.36	1.14	2.17
Miscellaneous	0.92	0.60	0.68
Total direct expenses per acre	92.47	84.26	76.39
Return over direct exp per acre	36.96	22.10	102.71
Overhead Expenses			
Hired labor	8.04	8.09	3.93
Machinery leases	2.57	0.97	1.60
Farm insurance	2.49	1.98	2.59
Utilities	1.79	2.00	2.64
Dues & professional fees	1.05	1.07	1.02
Interest	4.82	3.16	4.20
Mach & bldg depreciation	20.27	16.32	23.59
Miscellaneous	3.03	3.23	5.49
Total overhead expenses per acre	44.04	36.82	45.05
Total dir & ovhd expenses per acre	136.51	121.08	121.44
Net return per acre	-7.08	-14.72	57.66
Government payments	0.97	6.46	0.68
Net return with govt pmts	-6.11	-8.26	58.35
Labor & management charge	16.63	19.91	19.91
Net return over lbr & mgt	-22.74	-28.17	38.44
Cost of Production			
Total direct expense per ton	44.08	44.61	24.22
Total dir & ovhd exp per ton	65.07	64.10	38.51
Less govt & other income	64.61	60.68	38.29
With labor & management	72.54	71.22	44.60
Net value per unit	61.70	56.31	56.79
Machinery cost per acre	61.72	54.10	60.22
Est. labor hours per acre	1.98	1.56	2.09

Crop Enterprise Analysis
Northern Minnesota Farm Business Management Data
(Farms Sorted By Return to Overhead)
Owned and Rented Acres Combined *

	<u>Establish</u> <u>Alfalfa Hay</u>	<u>Pasture</u>	<u>Intensive</u> <u>Pasture</u>	<u>Oatlage</u>
Number of farms	56	82	7	20
Acres	47.83	217.72	99.57	28.83
Yield per acre	2.05	2.31	3.65	4.30
Operators share of yield %	100.00	100.00	100.00	100.00
Value	95.00	11.84	19.43	41.82
Total product return per acre	194.57	27.42	71.01	179.80
Other crop income per acre	0.27	0.42	4.73	-
Gross return per acre	194.84	27.84	75.75	179.80
Direct Expenses				
Seed	86.38	-	4.61	20.05
Fertilizer	33.09	0.25	11.23	12.93
Crop chemicals	9.97	0.34	-	-
Crop insurance	1.95	-	-	1.07
Packaging and supplies	6.86	-	-	12.11
Fuel & oil	21.76	2.60	5.95	15.38
Repairs	42.81	4.40	18.80	33.48
Custom hire	19.26	-	2.52	19.82
Machinery Leases	0.99	0.32	-	4.06
Land Rent	54.28	8.48	12.59	27.13
Operating interest	2.57	0.89	1.38	0.54
Miscellaneous	1.85	0.67	0.76	3.94
Total direct expenses per acre	281.77	17.95	57.84	150.53
Return over direct exp per acre	-86.93	9.90	17.90	29.27
Overhead Expenses				
Hired labor	14.22	1.14	7.19	4.90
Mach and bldg leases	3.29	-	0.49	2.32
RE & pers. property taxes	4.30	2.77	3.44	4.37
Farm insurance	7.33	0.76	1.53	4.71
Utilities	4.26	0.60	1.46	4.62
Dues & professional fees	3.28	0.31	0.54	2.19
Interest	21.02	6.72	5.90	15.98
Mach & bldg depreciation	46.00	3.20	11.92	27.76
Miscellaneous	6.01	0.84	2.56	1.71
Total overhead expenses per acre	109.73	16.34	35.02	68.55
Total dir & ovhd expenses per acre	391.50	34.28	92.87	219.08
Net return per acre	-196.67	-6.44	-17.12	-39.27
Government payments	4.28	0.25	5.20	3.37
Net return with govt pmts	-192.38	-6.19	-11.92	-35.90
Labor & management charge	41.86	4.64	27.29	24.70
Net return over lbr & mgt	-234.25	-10.82	-39.21	-60.60
Cost of Production				
Total direct expense per unit	137.58	7.75	15.83	35.01
Total dir & ovhd exp per unit	191.16	14.81	25.41	50.96
Less govt & other income	188.94	14.52	22.69	50.17
With labor & management	209.38	16.52	30.16	55.92
Net value per unit	95.00	11.84	19.43	41.82
Machinery cost per acre	132.38	11.37	39.40	103.03
Est. labor hours per acre	3.93	0.41	1.82	2.62

* Combined data for rented and owned land. Actual land cost is the sum of: Land Rent, Interest, & RE taxes.

Crop Enterprise Analysis
Northern Minnesota Farm Business Management Data
(Farms Sorted By Return to Overhead)
Irrigated Crops *

	<u>Corn</u>	<u>Corn Silage</u>	<u>Hay, Alfalfa</u>	<u>Soybeans</u>
Number of farms	63	17	11	29
Acres	191.24	106.87	100.27	173.36
Yield per acre	199.56	22.99	5.67	56.38
Operators share of yield %	100.00	100.00	100.00	100.00
Value	2.98	33.92	112.21	9.39
Total product return per acre	594.69	779.74	636.57	529.36
Crop insurance per acre	-	-	-	-
Other crop income per acre	10.32	-	4.42	2.32
Gross return per acre	605.01	779.74	641.00	531.68
Direct Expenses				
Seed	98.50	95.84	-	51.25
Fertilizer	133.27	72.02	53.97	22.98
Crop chemicals	30.46	40.06	6.31	30.32
Crop insurance	17.99	7.87	2.85	13.19
Marketing	1.13	-	-	0.83
Storage	0.84	3.39	7.52	1.01
Irrigation energy	21.81	24.67	19.75	25.23
Packaging and supplies/Drying Corn	8.10	0.51	18.74	-
Fuel & oil	22.29	36.17	34.49	11.51
Repairs	45.57	63.62	69.26	24.57
Custom hire and Trucking	15.08	83.54	25.38	15.64
Hired labor	1.90	0.33	7.80	2.54
Land Rent	68.10	14.87	34.86	73.42
Operating interest	8.88	5.61	8.94	5.61
Miscellaneous	3.41	2.33	3.45	3.42
Total direct expenses per acre	482.94	450.83	293.33	282.35
Return over direct exp per acre	122.07	328.91	347.67	249.33
Overhead Expenses				
Hired labor	19.16	49.28	34.74	11.81
Mach and bldg leases	3.75	2.14	8.61	2.41
RE & pers. property taxes	8.60	7.15	9.93	5.85
Farm insurance	13.33	11.20	13.87	7.74
Utilities	5.04	5.48	4.41	2.86
Dues & professional fees	5.53	4.31	5.98	2.13
Interest	29.27	25.84	60.23	15.25
Mach & bldg depreciation	59.89	74.63	81.65	32.50
Miscellaneous	8.43	4.03	3.65	4.17
Total overhead expenses per acre	153.00	184.07	223.08	84.81
Total dir & ovhd expenses per acre	635.94	634.89	516.41	367.06
Net return per acre	-30.93	144.85	124.59	164.62
Government payments	12.88	1.81	4.18	15.66
Net return with govt pmts	-18.05	146.65	128.76	180.28
Labor & management charge	51.90	53.89	45.10	27.09
Net return over lbr & mgt	-69.95	92.77	83.66	153.19
Cost of Production				
Total direct expense per bu.	2.42	19.61	51.70	5.01
Total dir & ovhd exp per bu.	3.19	27.62	91.03	6.51
Less govt & other income	3.07	27.54	89.51	6.19
With labor & management	3.33	29.89	97.46	6.67
Net value per unit	2.99	33.92	112.21	9.39
Machinery cost per acre	146.11	260.63	223.52	84.58
Est. labor hours per acre	3.67	5.92	3.96	2.22

* Combined data for rented and owned land. Actual land cost is the sum of: Land Rent, Interest, & RE taxes.

Crop Enterprise Analysis
Northern Minnesota Farm Business Management Data
(Farms Sorted By Return to Overhead)
Owned and Rented Acres Combined *

	<u>Barley</u>	<u>Oats</u>	<u>Rye</u>	<u>Canola</u>
Number of farms	23	55	24	5
Acres	218.13	43.48	102.51	328.6
Yield per acre	76.69	63.18	34.78	17.90
Operators share of yield %	100.00	100.00	100.00	100.00
Value	4.50	2.26	4.56	16.76
Other product return per acre	0.62	6.96	20.30	-
Total product return per acre	345.86	150.01	178.97	300.10
Crop insurance per acre	12.20	0.14	-	3.74
Other crop income per acre	6.14	37.62	21.73	2.35
Gross return per acre	364.20	187.77	200.70	306.18
Direct Expenses				
Seed	16.22	14.98	15.02	59.79
Fertilizer	54.99	22.25	33.87	83.41
Crop chemicals	21.50	8.45	3.29	25.44
Crop insurance	10.86	5.77	1.71	16.89
Drying expense	0.59	-	1.14	-
Fuel & oil	13.19	13.66	13.28	15.31
Repairs	24.68	24.98	25.54	19.90
Custom hire	12.78	5.45	6.05	9.20
Hired labor	0.47	1.23	-	-
Land Rent	42.64	18.87	45.79	33.15
Machine Leases	5.17	0.40	6.71	-
Operating interest	7.18	3.55	7.44	3.85
Miscellaneous	3.64	1.55	2.95	0.34
Total direct expenses per acre	213.92	121.15	163.25	267.28
Return over direct exp per acre	150.28	66.61	37.46	38.90
Overhead Expenses				
Hired labor	7.05	8.67	7.57	17.32
Machinery leases	1.45	0.72	1.43	3.16
Building leases	-	-	0.09	-
RE & pers. property taxes	2.80	5.12	2.26	6.00
Farm insurance	5.98	4.49	6.37	5.87
Utilities	4.61	3.31	3.29	6.29
Dues & professional fees	1.87	1.50	2.15	2.24
Interest	11.03	18.30	3.49	11.72
Mach & bldg depreciation	30.58	24.28	29.19	26.25
Miscellaneous	1.36	2.80	2.87	2.46
Total overhead expenses per acre	66.72	69.19	58.70	81.32
Total dir & ovhd expenses per acre	280.64	190.34	221.95	348.60
Net return per acre	83.56	-2.58	-21.25	-42.42
Government payments	16.92	4.62	3.56	18.18
Net return with govt pmts	100.48	2.04	-17.69	-24.23
Labor & management charge	23.78	25.18	24.15	34.54
Net return over lbr & mgt	76.70	-23.13	-41.84	58.77
Cost of Production				
Total direct expense per bu.	2.79	1.92	4.69	14.93
Total dir & ovhd exp per bu.	3.66	3.01	6.38	19.47
Less govt & other income	3.19	2.23	5.07	18.12
With labor & management	3.50	2.63	5.77	20.05
Net value per unit	4.50	2.26	4.56	16.76
Machinery cost per acre	89.67	71.13	75.40	74.62
Est. labor hours per acre	1.33	2.49	2.51	1.92

* Combined data for rented and owned land. Actual land cost is the sum of: Land Rent, Interest, & RE taxes.

Crop Enterprise Analysis
Northern Minnesota Farm Business Management Data
(Farms Sorted By Return to Overhead)
Owned and Rented Acres Combined *

	Soybeans, Seed	Soybeans, Food	Beans, Navy	Sunflowers
Number of farms	10	10	8	15
Acres	275.06	465.41	318.39	183.49
Yield per acre	53.27	36.19	22.34	14.90
Operators share of yield %	100.00	100.00	100.00	100.00
Value	10.47	12.81	27.99	18.64
Total product return per acre	557.73	463.46	625.29	277.79
Crop insurance per acre	10.91	15.64	-	31.63
Other crop income per acre	23.92	4.65	5.87	6.71
Gross return per acre	592.56	483.75	631.16	316.13
Direct Expenses				
Seed	58.48	30.86	55.39	36.47
Fertilizer	22.83	12.87	54.12	49.42
Crop chemicals	37.31	41.36	67.01	30.28
Crop insurance	10.34	15.12	24.26	15.19
Drying expense	2.06	-	-	0.33
Fuel & oil	10.11	10.93	19.60	13.31
Repairs	18.55	18.84	39.18	26.42
Custom hire	4.43	6.62	17.73	15.33
Hired labor	0.71	2.66	1.03	0.09
Land Rent	83.06	102.85	39.79	50.09
Operating interest	2.25	4.80	9.88	7.64
Miscellaneous	13.01	5.26	12.60	4.03
Total direct expenses per acre	263.13	252.17	340.60	248.59
Return over direct exp per acre	329.43	231.58	290.56	67.53
Overhead Expenses				
Hired labor	13.36	5.16	30.26	6.50
Machinery leases	2.23	5.96	2.41	1.27
Building leases	0.75	4.78	4.25	-
RE & pers. property taxes	5.58	2.34	9.30	3.17
Farm insurance	5.54	6.05	6.85	5.27
Utilities	4.15	4.27	3.25	3.02
Dues & professional fees	2.07	1.04	2.86	1.44
Interest	11.00	15.51	27.01	11.59
Mach & bldg depreciation	41.16	19.03	41.21	28.79
Miscellaneous	0.95	1.28	8.17	2.50
Total overhead expenses per acre	86.79	65.41	135.57	63.56
Total dir & ovhd expenses per acre	349.91	317.58	476.16	312.16
Net return per acre	242.64	166.17	154.99	3.97
Government payments	16.39	17.12	-	13.84
Net return with govt pmts	259.03	183.29	154.99	17.81
Labor & management charge	36.88	18.32	18.37	28.17
Net return over lbr & mgt	222.15	164.97	136.62	-10.36
Cost of Production				
Total direct expense per unit	4.94	6.97	15.25	16.68
Total dir & ovhd exp per unit	6.57	8.78	21.32	20.94
Less govt & other income	5.61	7.74	21.05	17.44
With labor & management	6.30	8.25	21.88	19.33
Net value per unit	10.68	12.81	27.99	18.64
Machinery cost per acre	84.45	64.98	130.07	90.78
Est. labor hours per acre	2.25	1.25	2.02	1.46

* Combined data for rented and owned land. Actual land cost is the sum of: Land Rent, Interest, & RE taxes.

Crop Enterprise Analysis
Northern Minnesota Farm Business Management Data
(Farms Sorted By Return to Overhead)
Owned and Rented Acres Combined *

	<u>Perennial Rye Grass</u>	<u>Organic Corn</u>	<u>Organic Alfalfa Hay</u>	<u>Irrigated Strawberries</u>
Number of farms	9	6	6	6
Acres	527.67	32	98.72	2.57
Yield per acre	950.05	110.63	3.32	4815.95
Operators share of yield %	100.00	100.00	100.00	100.00
Value	0.63	7.93	138.77	2.39
Total product return per acre	594.43	877.75	460.11	11510.16
Crop insurance per acre	4.34	-	-	-
Other crop income per acre	6.21	9.60	17.79	-
Gross return per acre	604.98	887.35	477.90	11510.16
Direct Expenses				
Seed	17.24	77.77	-	7.79
Fertilizer	100.56	52.06	38.57	458.70
Crop chemicals	55.88	-	-	350.06
Crop insurance	13.86	19.34	3.97	97.40
Drying expense	1.79	-	-	-
Irrigation Energy	-	-	-	56.81
Packaging and Supplies	-	3.43	17.59	471.95
Fuel & oil	16.82	21.48	29.50	239.58
Repairs	22.41	51.48	76.52	754.09
Custom hire and Trucking	15.70	4.60	33.15	889.62
Hired labor		1.63	0.98	1820.39
Land Rent	36.90	24.99	35.78	-
Operating interest	3.87	7.22	10.76	4.53
Miscellaneous	0.97	7.06	8.80	2100.31
Total direct expenses per acre	285.99	271.08	255.63	7251.24
Return over direct exp per acre	318.99	616.27	222.27	4258.92
Overhead Expenses				
Hired labor	14.46	15.27	40.04	1173.39
Mach and bldg leases	5.09	1.01	-	67.16
RE & pers. property taxes	3.57	7.49	3.86	175.29
Farm insurance	6.61	13.49	10.08	128.20
Utilities	4.26	6.24	6.40	113.38
Dues & professional fees	1.88	6.82	9.05	197.52
Interest	5.19	8.82	10.08	1784.85
Mach & bldg depreciation	35.64	39.48	50.40	1347.80
Miscellaneous	1.68	9.59	7.95	779.53
Total overhead expenses per acre	78.39	108.21	137.89	5767.13
Total dir & ovhd expenses per acre	364.38	379.28	393.52	13018.37
Net return per acre	240.60	508.06	84.38	-1508.21
Government payments	21.05	15.85	15.68	-
Net return with govt pmts	261.65	523.91	100.06	-1508.21
Labor & management charge	39.08	66.91	55.68	1033.46
Net return over lbr & mgt	222.57	457.01	44.39	-2541.67
Cost of Production				
Total direct expense per unit	0.30	2.45	77.10	1.51
Total dir & ovhd exp per unit	0.38	3.43	118.69	2.70
Less govt & other income	0.35	3.20	108.59	2.70
With labor & management	0.39	3.80	125.38	2.92
Net value per unit	0.63	7.93	138.77	2.39
Machinery cost per acre	94.74	121.79	198.13	2414.38
Est. labor hours per acre	1.95	4.43	4.11	494.17

* Combined data for rented and owned land. Actual land cost is the sum of: Land Rent, Interest, & RE taxes.



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Livestock Enterprise Analysis
Farm Business Management Statewide Data
(Farms Sorted By Return to Overhead)
***** Dairy - Average Per Cow *****
Excluding Organic & Organic Transition

	Avg. Of All Farms		40 - 60%		High 20%	
	388		77		78	
Number of farms						
	Quantity	Value	Quantity	Value	Quantity	Value
Milk sold (hd)	24,399.2	3,985.44	24,147.2	3,918.99	25,999.7	4,327.67
Dairy Calves sold (hd)	0.3	68.76	0.4	77.49	0.3	66.99
Transferred out (hd)	0.7	41.43	0.7	29.68	0.7	71.03
Cull sales (hd)	0.3	245.20	0.3	264.25	0.3	243.34
Other income		43.28		56.56		37.37
Purchased (hd)	0.0	-37.41	0.0	-55.18	0.0	-19.36
Transferred in (hd)	0.4	-78.42	0.4	-27.65	0.3	-155.93
Inventory change (hd)	0.0	51.67	0.0	23.20	0.0	69.24
Dairy repl net cost		-556.78		-658.45		-352.51
Gross margin		3,767.12		3,632.61		4,294.34
Direct Expenses						
Protein Vit Minerals (lb.)	5,756.5	654.05	2,983.3	668.53	12,172.8	782.26
Complete Ration (lb.)	1,572.1	330.67	2,789.7	342.96	679.6	157.15
Corn (bu.)	66.6	225.63	65.2	214.47	69.6	226.58
Corn Silage (lb.)	18,228.4	303.74	18,731.8	308.80	18,925.8	295.74
Hay, Alfalfa (lb.)	2,820.4	149.76	3,123.7	173.42	2,163.9	115.50
Haylage, Alfalfa (lb.)	4,727.7	140.50	3,212.3	96.36	5,933.4	189.34
Other feed stuffs (lb)	2,402.3	94.38	2,776.2	89.56	2,177.6	110.71
Breeding fees		48.78		46.25		52.07
Veterinary		113.32		119.81		104.16
Supplies		318.91		275.88		317.57
Fuel & oil		61.13		59.47		70.35
Repairs		142.65		139.23		145.87
Custom hire		57.75		37.61		53.71
Hired labor		246.18		217.08		108.35
Hauling and trucking		39.79		54.74		37.20
Bedding		70.47		84.59		68.82
Total direct expenses		2,997.71		2,928.75		2,835.38
Return over direct expense		769.40		703.86		1,458.96
Overhead Expenses						
Hired labor		183.65		181.92		340.46
Building leases		53.81		44.92		72.73
Utilities		66.83		68.67		91.11
Interest		86.09		80.83		82.42
Mach & bldg depreciation		167.76		165.90		184.41
Miscellaneous		102.65		104.65		110.52
Total overhead expenses		660.79		646.90		881.65
Total dir & ovhd expenses		3,658.50		3,575.65		3,717.03
Net return		108.61		56.96		577.31
Labor & management charge		190.21		199.68		205.81
Net return over lbr & mgt		-81.60		-142.72		371.50
Cost of Production Per Cwt. Of Milk						
Total direct expense per unit		12.19		12.00		10.84
Total dir& ovhd expense per unit		14.87		14.65		14.20
With other revenue adjustments		15.87		15.98		14.42
With labor and management		16.65		16.80		15.20
Est. labor hours per unit		41.18		43.66		40.60
Other Information						
Number of cows		199.9		174.1		259.8
Milk produced per cow		24,598		24,408		26,168
Total milk sold		4,878,597		4,204,302		6,755,081
Lb. of milk sold per FTE		1,659,068		1,548,529		1,792,889
Culling percentage		28.7		32.0		26.6
Turnover rate		35.8		38.5		32.1
Cow death loss percent		6.6		5.9		5.2
Percent of barn capacity		111.6		111.2		114.6
Feed cost per day		5.20		5.19		5.14
Feed cost per cwt. of milk		7.72		7.76		7.17
Feed cost per cow		1,898.73		1,894.09		1,877.29
Avg. milk price per cwt.		16.33		16.23		16.65
Milk price / feed margin		8.62		8.47		9.47

Livestock Enterprise Analysis
Farm Business Management Statewide Data
(Farms Sorted By Return to Overhead)
***** Dairy - Average Per Cwt. Of Milk *****
Excluding Organic & Organic Transition

	<u>Avg. Of All Farms</u>		<u>40 - 60%</u>		<u>High 20%</u>	
Number of farms	388		77		78	
	Quantity	Value	Quantity	Value	Quantity	Value
Milk sold (hd)	99.19	16.20	98.93	16.06	99.36	16.54
Dairy Calves sold (hd)	0.00	0.28	0.00	0.32	0.00	0.26
Transferred out (hd)	0.00	0.17	0.00	0.12	0.00	0.27
Cull sales (hd)	0.00	1.00	0.00	1.08	0.00	0.93
Other income		0.18		0.23		0.14
Purchased (hd)	0.00	-0.15	0.00	-0.23	0.00	-0.07
Transferred in (hd)	0.00	-0.32	0.00	-0.11	0.00	-0.60
Inventory change (hd)	0.00	0.21	0.00	0.10	0.00	0.26
Dairy repl net cost		-2.26		-2.70		-1.35
Gross margin		15.31		14.88		16.41
Direct Expenses						
Protein Vit Minerals (lb.)	23.40	2.66	12.22	2.74	46.52	2.99
Complete Ration (lb.)	6.39	1.34	11.43	1.41	2.60	0.60
Corn (bu.)	0.27	0.92	0.27	0.88	0.27	0.87
Corn Silage (lb.)	74.11	1.23	76.75	1.27	72.32	1.13
Hay, Alfalfa (lb.)	11.47	0.61	12.80	0.71	8.27	0.44
Haylage, Alfalfa (lb.)	19.22	0.57	13.16	0.39	22.67	0.72
Other feed stuffs (lb)	9.77	0.38	11.37	0.37	8.32	0.42
Veterinary		0.46		0.49		0.40
Supplies		1.49		1.32		1.41
Fuel & oil		0.25		0.24		0.27
Repairs		0.58		0.57		0.56
Custom hire		0.23		0.15		0.21
Hired labor		1.00		0.89		0.41
Hauling and trucking		0.16		0.22		0.14
Bedding		0.29		0.35		0.26
Total direct expenses		12.19		12.00		10.84
Return over direct expense		3.13		2.88		5.58
Overhead Expenses						
Hired labor		0.75		0.75		1.30
Building leases		0.22		0.18		0.28
Utilities		0.27		0.28		0.35
Interest		0.35		0.33		0.31
Mach & bldg depreciation		0.68		0.68		0.70
Miscellaneous		0.42		0.43		0.42
Total overhead expenses		2.69		2.65		3.37
Total dir & ovhd expenses		14.87		14.65		14.20
Net return		0.44		0.23		2.21
Labor & management charge		0.77		0.82		0.79
Net return over lbr & mgt		-0.33		-0.58		1.42
Cost of Production Per Cwt. Of Milk						
Total direct expense per unit		12.19		12.00		10.84
Total dir & ovhd expense per unit		14.87		14.65		14.20
With other revenue adjustments		15.87		15.98		14.42
With labor and management		16.65		16.80		15.20
Est. labor hours per unit		0.17		0.18		0.16
Other Information						
Number of cows		199.9		174.1		259.8
Milk produced per cow		24,598		24,408		26,168
Total milk sold		4,878,597		4,204,302		6,755,081
Lb. of milk sold per FTE		1,659,068		1,548,529		1,792,889
Culling percentage		28.7		32.0		26.6
Turnover rate		35.8		38.5		32.1
Cow death loss percent		6.6		5.9		5.2
Percent of barn capacity		111.6		111.2		114.6
Feed cost per day		5.20		5.19		5.14
Feed cost per cwt. of milk		7.72		7.76		7.17
Feed cost per cow		1,898.73		1,894.09		1,877.29
Avg. milk price per cwt.		16.33		16.23		16.65
Milk price / feed margin		8.62		8.47		9.47

Livestock Enterprise Analysis
Farm Business Management Statewide Data
(Farms Sorted By Return to Overhead)

Organic Dairy - Average Per Cow

	<u>Avg. Of All Farms</u>		<u>33 - 66%</u>		<u>High 34%</u>	
Number of farms	17		6		6	
	Quantity	Value	Quantity	Value	Quantity	Value
Milk sold (hd)	14,562.6	5,140.48	12,181.8	4,404.90	17,096.3	6,004.76
Dairy Calves sold (hd)	0.3	71.41	0.6	192.63	0.2	26.54
Transferred out (hd)	0.6	52.05	0.3	-	0.8	86.49
Cull sales (hd)	0.2	146.75	0.2	194.91	0.2	132.38
Other income		117.96		73.33		135.07
Purchased (hd)	0.0	-6.96	0.0	-30.47	-	-
Transferred in (hd)	0.3	-83.67	0.3	-51.80	0.3	-95.38
Inventory change (hd)	0.0	81.96	0.0	53.44	0.0	119.99
Dairy repl net cost		-494.76		-771.83		-324.18
Gross margin		5,025.96		4,065.11		6,085.67
Direct Expenses						
Protein Vit Minerals (lb.)	1,278.4	378.71	959.6	243.09	1,601.6	479.15
Complete Ration (lb.)	854.7	110.00	134.3	38.85	924.4	48.35
Corn (bu.)	20.0	160.04	-	-	37.9	303.45
Hay, Grass (lb.)	1,001.6	34.00	1,916.9	94.07	1,068.4	23.69
Haylage, Alfalfa (lb.)	4,554.7	147.77	3,600.1	117.00	6,667.5	218.24
Corn, Organic (bu.)	28.8	213.60	28.0	253.13	31.9	202.04
Corn Silage, Organic (lb.)	7,349.6	202.46	4,958.4	206.86	9,370.9	229.13
Hay, Alfalfa, Organic (lb.)	4,210.5	285.59	3,412.7	236.08	3,092.4	184.68
Pasture, Organic (aum)	2.7	73.97	4.9	156.72	1.7	51.71
Hay, Grass, Organic (lb.)	639.1	36.95	1,739.6	108.73	449.0	22.45
Hay, Mixed, Organic (lb.)	1,415.7	54.36	3,002.8	124.71	180.1	7.20
Other feed stuffs (lb)	2,110.0	196.57	2,806.9	159.70	2,703.1	223.45
Supplies		433.76		386.32		485.56
Repairs		170.33		111.69		218.54
Custom hire		42.88		17.84		67.70
Hired labor		112.94		81.99		135.14
Utilities		47.42		40.72		72.25
Total direct expenses		2,701.34		2,377.49		2,972.74
Return over direct expense		2,324.62		1,687.62		3,112.94
Overhead Expenses						
Hired labor		217.08		115.66		305.49
Building leases		44.21		-		75.56
Utilities		50.33		69.65		29.85
Interest		61.22		51.66		49.37
Mach & bldg depreciation		167.54		159.81		202.15
Miscellaneous		103.79		102.05		105.26
Total overhead expenses		644.17		498.83		767.68
Total dir & ovhd expenses		3,345.51		2,876.31		3,740.42
Net return		1,680.45		1,188.79		2,345.25
Labor & management charge		302.52		405.99		244.55
Net return over lbr & mgt		1,377.93		782.80		2,100.70
Cost of Production Per Cwt. Of Milk						
Total direct expense per unit		18.12		19.08		17.06
Total dir & ovhd expense per unit		22.44		23.09		21.47
With other revenue adjustments		23.85		26.32		21.59
With labor and management		25.87		29.58		23.00
Est. labor hours per unit		38.20		42.00		38.25
Other Information						
Number of cows		92.9		60.2		138.8
Milk produced per cow		14,910		12,459		17,423
Total milk sold		1,352,949		732,937		2,373,542
Lb. of milk sold per FTE		1,067,495		812,028		1,251,593
Culling percentage		20.6		24.4		19.0
Turnover rate		25.3		29.6		23.8
Cow death loss percent		3.4		3.9		3.2
Percent of barn capacity		94.1		84.5		98.1
Feed cost per day		5.19		4.76		5.46
Feed cost per cwt. of milk		12.70		13.96		11.44
Feed cost per cow		1,894.01		1,738.92		1,993.55
Avg. milk price per cwt.		35.30		36.16		35.12
Milk price / feed margin		22.60		22.20		23.68

Livestock Enterprise Analysis
Farm Business Management Statewide Data
(Farms Sorted By Enterprise Size)
***** Dairy - Average Per Cow *****
Excluding Organic & Organic Transition

	<u>Up to 50</u>		<u>50 100</u>		<u>100 200</u>		<u>200 500</u>		<u>Over 500</u>	
Number of farms	41		135		110		72		30	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
Milk sold (hd)	16,590.1	2,651.79	20,482.3	3,296.61	23,006.3	3,719.33	24,647.9	4,016.54	26,866.9	4,439.80
Dairy Calves sold (hd)	0.2	49.48	0.2	54.72	0.3	61.24	0.3	68.01	0.4	79.92
Transferred out (hd)	0.6	66.91	0.7	71.07	0.6	38.18	0.7	42.62	0.7	30.02
Cull sales (hd)	0.2	167.94	0.3	225.46	0.3	242.82	0.3	248.46	0.3	255.49
Other income		38.65		34.97		28.52		60.67		40.48
Purchased (hd)	0.1	-139.52	0.1	-77.83	0.0	-59.15	0.0	-20.72	0.0	-18.31
Transferred in (hd)	0.3	-61.08	0.3	-97.39	0.3	-57.12	0.4	-87.83	0.4	-76.81
Inventory change (hd)	0.1	81.56	0.1	72.40	0.0	51.70	0.0	28.21	0.0	62.00
Dairy repl net cost		-496.11		-480.51		-525.50		-539.81		-620.18
Gross margin		2,363.26		3,104.11		3,508.38		3,820.39		4,193.33
Direct Expenses										
Protein Vit Minerals (lb.)	1,878.0	329.50	19,918.5	628.82	2,899.2	596.16	2,883.4	640.14	4,852.9	726.72
Complete Ration (lb.)	1,777.2	207.40	1,381.3	186.19	2,167.1	337.96	2,072.4	381.50	871.0	343.79
Corn (bu.)	56.2	182.98	63.0	204.17	65.0	211.86	74.8	245.51	62.6	227.17
Corn Silage (lb.)	14,412.3	238.16	16,937.2	276.11	16,592.2	268.37	18,144.3	294.58	19,925.6	345.50
Hay, Alfalfa (lb.)	5,480.0	299.66	4,122.5	239.89	3,591.5	206.17	2,582.9	142.70	1,949.9	81.89
Haylage, Alfalfa (lb.)	1,176.8	29.53	3,147.8	100.03	3,062.0	95.37	5,081.8	146.08	6,164.8	182.79
Other feed stuffs (lb)	2,044.4	97.86	2,093.0	79.07	2,324.7	97.46	2,334.1	107.33	2,637.4	87.17
Veterinary		70.01		101.54		104.42		121.40		118.45
BST		3.61		11.37		17.10		51.33		79.90
Supplies		271.87		302.11		293.06		304.52		355.67
Fuel & oil		50.02		45.51		50.91		59.89		74.34
Repairs		105.62		121.67		136.48		139.72		158.41
Custom hire		20.14		40.25		47.47		58.08		71.92
Hired labor		13.44		40.81		121.32		300.02		360.86
Hauling and trucking		72.51		65.42		45.96		34.78		29.22
Bedding		28.64		46.42		73.69		81.07		70.96
Total direct expenses		2,020.96		2,489.41		2,703.74		3,108.64		3,314.74
Return over direct expense		342.30		614.70		804.64		711.75		878.59
Overhead Expenses										
Hired labor		20.23		87.97		121.48		203.71		246.75
Building leases		21.04		18.93		43.36		66.21		64.03
Utilities		103.29		91.79		72.85		62.64		55.67
Interest		89.07		78.58		120.90		95.52		60.85
Mach & bldg depreciation		100.42		150.94		198.55		174.09		154.89
Miscellaneous		120.14		110.90		113.92		106.42		89.03
Total overhead expenses		454.20		539.10		671.07		708.61		671.21
Total dir & ovhd expenses		2,475.16		3,028.50		3,374.81		3,817.24		3,985.96
Net return		-111.90		75.61		133.57		3.14		207.37
Labor & management charge		332.59		289.04		228.58		170.12		140.83
Net return over lbr & mgt		-444.48		-213.43		-95.01		-166.97		66.55
Cost of Production Per Cwt. Of Milk										
Total direct expense per unit		12.05		12.09		11.70		12.47		12.24
Total dir& ovhd expense per unit		14.75		14.71		14.61		15.31		14.72
With other revenue adjustments		16.62		15.72		15.58		16.26		15.74
With labor and management		18.61		17.13		16.57		16.94		16.26
Est. labor hours per unit		41.85		37.57		35.12		41.84		45.37
Other Information										
Number of cows		38.6		74.0		142.4		318.5		913.4
Milk produced per cow		16.778		20.585		23.106		24.933		27.085
Total milk sold		639,946		1,516,503		3,276,838		7,850,806		24,540,657
Lb. of milk sold per FTE		1,109,934		1,526,493		1,834,191		1,649,519		1,658,210
Culling percentage		22.8		27.7		28.3		28.8		29.6
Turnover rate		32.4		35.6		35.2		35.8		36.4
Cow death loss percent		7.9		6.8		6.3		6.5		6.7
Percent of barn capacity		86.4		108.3		108.7		115.4		113.3
Feed cost per day		3.79		4.70		4.97		5.36		5.47
Feed cost per cwt. of milk		8.26		8.33		7.85		7.85		7.37
Feed cost per cow		1,385.09		1,714.30		1,813.34		1,957.84		1,995.02
Avg. milk price per cwt.		15.98		16.09		16.17		16.30		16.53
Milk price / feed margin		7.73		7.77		8.32		8.44		9.16

Livestock Enterprise Analysis
Farm Business Management Statewide Data
(Farms Sorted By Return to Overhead)
Dairy and Repl Heifers - Average Per Cow
Excluding Organic & Organic Transition

	<u>Avg. Of All Farms</u>		<u>40 - 60%</u>		<u>High 20%</u>	
Number of farms ¹	316		63		64	
	Quantity	Value	Quantity	Value	Quantity	Value
Milk sold (hd)	24,457.8	3,991.27	24,252.5	3,988.91	26,019.0	4,301.71
Dairy Calves sold (hd)	-	103.78	-	116.28	-	137.96
Transferred out (hd)	-	19.66	-	17.01	-	21.76
Cull sales (hd)	-	257.40	-	254.67	-	284.09
Other income	-	48.51	-	44.59	-	52.36
Purchased (hd)	-	-53.19	-	-37.37	-	-26.10
Transferred in (hd)	-	-8.74	-	-11.92	-	-6.84
Inventory change (hd)	-	93.53	-	89.54	-	96.37
Gross margin		4,456.40		4,466.20		4,868.35
Direct Expenses						
Protein Vit Minerals (lb.)	6,148.3	705.74	2,745.0	588.20	15,108.2	859.71
Complete Ration (lb.)	1,948.3	405.10	3,044.3	539.91	837.7	204.49
Corn (bu.)	71.7	243.12	67.1	221.54	75.0	240.13
Corn Silage (lb.)	22,577.7	379.90	22,388.7	380.50	23,555.8	380.22
Hay, Alfalfa (lb.)	3,687.1	193.58	4,019.9	219.72	2,981.5	161.25
Haylage, Alfalfa (lb.)	5,082.0	148.60	3,904.1	114.17	5,379.1	165.09
Other feed stuffs (lb)	3,932.2	168.29	4,323.1	139.11	3,712.6	200.53
Breeding fees		61.86		68.27		64.07
Veterinary		134.74		124.66		140.52
Supplies		358.02		367.83		300.14
Contract production exp.		136.53		178.83		66.21
Fuel & oil		66.16		61.36		75.02
Repairs		165.95		155.67		185.20
Custom hire		65.88		53.33		73.24
Hired labor		297.49		350.39		159.09
Bedding		83.75		95.34		88.21
Total direct expenses		3,614.72		3,658.82		3,363.12
Return over direct expense		841.68		807.38		1,505.23
Overhead Expenses						
Hired labor		188.71		107.17		354.58
Building leases		60.56		56.35		76.42
Utilities		76.29		80.53		106.08
Interest		98.50		91.11		105.23
Mach & bldg depreciation		196.17		186.57		230.73
Miscellaneous		113.92		115.73		128.56
Total overhead expenses		734.15		637.46		1,001.60
Total dir & ovhd expenses		4,348.87		4,296.28		4,364.72
Net return		107.53		169.92		503.63
Labor & management charge		215.86		226.73		245.21
Net return over lbr & mgt		-108.33		-56.81		258.42
Cost of Production Per Cwt. Of Milk						
Total direct expense per unit		14.66		15.00		12.81
Total dir & ovhd expense per unit		17.63		17.62		16.62
With other revenue adjustments		15.87		15.74		14.59
With labor and management		16.74		16.67		15.52
Est. labor hours per unit		48.06		51.25		49.87
Other Information						
Number of cows		203.4		163.0		250.7
Milk produced per cow		24,665		24,385		26,258
Total milk sold		4,975,388		3,952,172		6,521,911
Lb. of milk sold per FTE		1,424,957		1,324,894		1,460,988
Culling percentage		29.2		29.5		28.9
Turnover rate		36.4		36.1		34.5
Cow death loss percent		6.7		6.1		5.2
Percent of barn capacity		111.7		107.7		115.1
Feed cost per day		6.15		6.04		6.06
Feed cost per cwt. of milk		9.10		9.03		8.42
Feed cost per cow		2,244.34		2,203.14		2,211.42
Avg. milk price per cwt.		16.32		16.45		16.53
Milk price / feed margin		7.22		7.41		8.11

Livestock Enterprise Analysis
Farm Business Management Statewide Data
(Farms Sorted By Return to Overhead)

Dairy Replacement Heifers - Average Per Head

	<u>Avg. Of All Farms</u>		<u>40 - 60%</u>		<u>High 20%</u>	
Number of farms	375		75		75	
	Quantity	Value	Quantity	Value	Quantity	Value
Replacements sold (hd)	0.1	44.20	0.0	23.10	0.1	97.37
Transferred out (hd)	0.4	569.72	0.4	574.02	0.5	722.68
Cull sales (hd)	0.0	9.01	0.0	3.18	0.0	14.65
Other income		3.23		2.51		9.42
Purchased (hd)	0.0	-28.01	0.0	-8.09	0.1	-86.93
Transferred in (hd)	0.6	-139.79	0.6	-144.88	0.7	-154.49
Inventory change (hd)	0.1	54.43	0.0	36.16	0.2	137.99
Gross margin		512.80		486.01		740.69
Direct Expenses						
Protein Vit Minerals (lb.)	377.8	72.06	345.2	86.62	338.0	67.99
Milk Replacer (lb.)	9.0	11.34	15.8	18.86	5.0	6.45
Milk (lb.)	150.4	19.87	149.8	18.49	93.4	14.52
Complete Ration (lb.)	412.9	65.42	214.5	47.74	282.3	47.70
Corn (bu.)	5.2	16.90	5.8	19.16	4.6	14.77
Corn Silage (lb.)	4,359.6	72.04	4,551.2	73.83	5,014.3	80.34
Hay, Alfalfa (lb.)	951.6	52.08	976.4	55.99	919.9	46.17
Hay, Grass (lb.)	599.6	20.19	602.5	20.36	753.7	27.08
Haylage, Alfalfa (lb.)	1,117.9	31.99	982.7	30.02	1,045.4	29.05
Other feed stuffs (lb)	1,539.9	41.29	1,426.3	37.54	1,242.2	25.15
Breeding fees		14.76		14.82		14.16
Veterinary		18.75		21.95		16.11
Supplies		24.11		22.03		23.36
Contract production exp.		87.65		49.32		31.10
Fuel & oil		10.08		10.23		11.17
Repairs		24.10		25.77		29.65
Hired labor		31.99		42.70		30.14
Bedding		13.97		13.59		9.29
Total direct expenses		628.59		609.01		524.20
Return over direct expense		-115.79		-123.00		216.49
Overhead Expenses						
Hired labor		35.96		28.16		29.74
Building leases		8.49		7.43		16.64
Utilities		12.01		12.75		15.35
Interest		15.17		13.47		18.43
Mach & bldg depreciation		29.31		32.83		31.90
Miscellaneous		17.51		18.83		19.56
Total overhead expenses		118.44		113.46		131.62
Total dir & ovhd expenses		747.04		722.47		655.82
Net return		-234.24		-236.46		84.87
Labor & management charge		34.13		35.72		42.53
Net return over lbr & mgt		-268.37		-272.18		42.34
Cost of Production Per Head Per Day						
Total direct expense per unit		2.00		1.97		1.67
Total dir & ovhd expense per unit		2.33		2.28		2.03
With other revenue adjustments		2.32		2.28		2.01
With labor and management		2.42		2.38		2.13
Est. labor hours per unit		6.93		6.99		7.75
Other Information						
No. purchased or trans in		106		111		113
Number sold or trans out		85		92		86
Average number of head		169		198		147
Percentage death loss		7.6		8.1		3.5
Feed cost per average head		403.18		408.59		359.22
Feed cost/head sold/trans		804.69		885.59		610.61
Total cost/head sold/trans		1,760.92		1,884.12		1,321.97
Feed cost per head per day		1.10		1.12		0.98
Avg. purch price / head		1,172.46		1,103.72		1,136.37
Avg. sales price / head		548.10		561.59		728.31

Livestock Enterprise Analysis
Farm Business Management Statewide Data
(Farms Sorted By Return to Overhead)

Dairy Feeder - Average Per Cwt. Produced

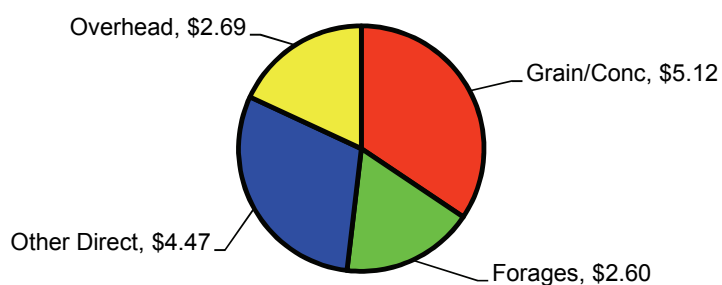
	Avg. Of All Farms		40 - 60%		High 20%	
Number of farms	25		5		5	
	Quantity	Value	Quantity	Value	Quantity	Value
Dairy Feeder sold (lb)	113.95	146.71	136.67	185.80	101.74	138.20
Transferred out (lb)	2.65	3.64	14.07	17.37	0.31	0.31
Other income		0.39		-		-
Purchased (lb)	-23.42	-47.67	-34.93	-72.13	-26.39	-50.18
Transferred in (lb)	-6.25	-12.18	-13.55	-25.43	-1.13	-2.54
Inventory change (lb)	12.68	-9.74	-2.26	-24.36	25.47	8.10
Gross margin		81.16		81.24		93.88
Direct Expenses						
Protein Vit Minerals (lb.)	72.34	12.17	195.11	13.35	29.49	9.08
Milk Replacer (lb.)	11.98	13.38	2.24	2.69	15.81	17.07
Milk (lb.)	16.83	2.64	57.57	9.21	2.89	0.47
Creep / Starter (lb.)	30.10	7.07	-	-	64.46	15.15
Complete Ration (lb.)	113.96	15.13	158.33	24.82	-	-
Corn (bu.)	2.68	8.94	2.75	9.10	2.57	8.68
Hay, Alfalfa (lb.)	41.72	2.37	124.74	6.92	6.72	0.34
Other feed stuffs (lb)	75.89	2.20	8.17	0.62	39.86	1.56
Veterinary		4.32		6.06		4.42
Supplies		4.99		4.16		5.70
Fuel & oil		1.96		0.79		0.83
Repairs		2.33		3.07		2.53
Hauling and trucking		0.30		0.86		0.17
Bedding		2.06		2.67		0.23
Operating interest		2.07		5.31		1.58
Total direct expenses		81.94		89.63		67.80
Return over direct expense		-0.78		-8.39		26.08
Overhead Expenses						
Building leases		0.81		0.51		-
RE & pers. property taxes		0.68		0.51		0.74
Farm insurance		1.75		0.79		2.36
Utilities		2.33		1.09		3.13
Interest		2.86		2.04		2.03
Mach & bldg depreciation		5.66		4.58		7.62
Miscellaneous		3.04		0.74		4.76
Total overhead expenses		17.13		10.26		20.64
Total dir & ovhd expenses		99.07		99.89		88.44
Net return		-17.91		-18.65		5.44
Labor & management charge		7.42		9.83		6.87
Net return over lbr & mgt		-25.33		-28.47		-1.43
Cost of Production Per Cwt. Produced						
Total direct expense per unit		129.61		140.34		110.18
Total dir & ovhd expense per unit		144.30		147.15		130.40
With other revenue adjustments		144.30		147.15		130.40
With labor and management		150.66		153.66		137.14
Est. labor hours per unit		1.12		1.39		1.11
Other Information						
No. purchased or trans in		87		82		186
Number sold or trans out		69		83		135
Percentage death loss		5.6		1.3		7.0
Avg. daily gain (lb.)		1.86		1.86		2.04
Lb. of conc / lb. of gain		3.72		5.13		2.42
Lb. of feed / lb. of gain		4.84		7.06		2.91
Feed cost per cwt. of gain		63.90		66.71		52.35
Feed cost per head		218.61		196.02		184.00
Average purchase weight		101		184		97
Avg wgt / Dairy Feeder sold		478		437		493
Avg purch price / head		204.69		379.02		183.72
Avg sales price / cwt.		128.75		135.95		135.84

Livestock Enterprise Analysis
Farm Business Management Statewide Data
(Farms Sorted By Return to Overhead)

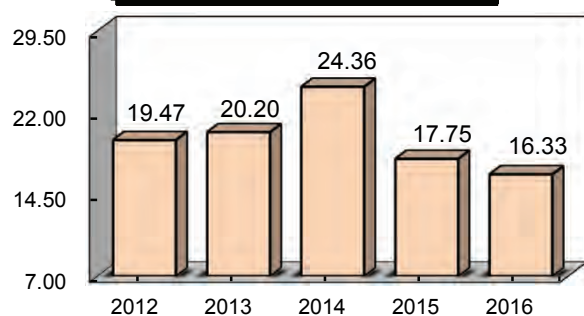
Dairy Finishing - Average Per Cwt. Produced

	Avg. Of All Farms		40 - 60%		High 20%	
Number of farms	113		22		23	
	Quantity	Value	Quantity	Value	Quantity	Value
Dairy Finish sold (lb)	128.86	143.94	120.80	133.62	112.09	127.77
Transferred out (lb)	0.46	0.48	-	-	-	-
Cull sales (lb)	0.03	0.03	-	-	-	-
Other income		1.45		1.35		1.45
Purchased (lb)	-29.06	-40.38	-32.81	-43.39	-13.10	-22.79
Transferred in (lb)	-3.48	-4.09	-2.72	-4.08	-6.65	-6.47
Inventory change (lb)	2.10	-29.09	13.37	-18.63	6.71	-10.43
Gross margin		72.57		68.86		89.52
Direct Expenses						
Protein Vit Minerals (lb.)	58.01	12.20	57.39	12.71	51.73	11.03
Milk (lb.)	4.61	0.76	1.23	0.18	10.04	1.52
Complete Ration (lb.)	39.04	4.11	23.54	3.24	39.36	4.54
Corn (bu.)	9.83	31.98	10.34	33.70	6.41	20.62
Corn Silage (lb.)	152.86	2.43	100.77	1.67	81.79	1.25
DDGS, dry (lb.)	33.91	1.95	52.66	2.33	50.31	2.61
Other feed stuffs (lb)	95.28	4.05	51.97	3.23	96.49	3.50
Veterinary		2.36		2.76		1.84
Supplies		3.16		3.30		2.04
Contract production exp.		1.16		-		-
Fuel & oil		1.02		0.74		1.20
Repairs		2.34		1.52		2.47
Hauling and trucking		0.95		1.44		0.41
Bedding		1.13		2.08		0.85
Operating interest		1.72		0.61		1.66
Total direct expenses		71.32		69.53		55.55
Return over direct expense		1.24		-0.67		33.97
Overhead Expenses						
Hired labor		1.46		1.57		2.34
Building leases		0.70		0.82		1.39
Farm insurance		1.25		0.67		1.05
Utilities		0.93		0.65		1.09
Interest		1.87		0.94		2.42
Mach & bldg depreciation		3.29		2.63		3.35
Miscellaneous		1.04		0.86		0.93
Total overhead expenses		10.54		8.15		12.57
Total dir & ovhd expenses		81.86		77.67		68.12
Net return		-9.30		-8.82		21.41
Labor & management charge		3.96		2.73		5.12
Net return over lbr & mgt		-13.26		-11.54		16.29
Cost of Production Per Cwt. Produced						
Total direct expense per unit		111.04		111.17		83.69
Total dir & ovhd expense per unit		119.19		117.91		94.90
With other revenue adjustments		119.04		117.91		94.90
With labor and management		122.10		120.17		99.47
Est. labor hours per unit		0.42		0.31		0.47
Other Information						
No. purchased or trans in		184		178		180
Number sold or trans out		160		145		153
Percentage death loss		2.4		2.7		2.1
Avg. daily gain (lb.)		2.57		2.72		2.71
Lb. of conc / lb. of gain		7.22		7.23		5.53
Lb. of feed / lb. of gain		8.26		7.96		6.33
Feed cost per cwt. of gain		57.48		57.08		45.06
Feed cost per head		587.66		630.85		462.38
Average purchase weight		365		375		284
Avg wgt / Dairy Finish sold		1,423		1,438		1,408
Avg purch price / head		507.73		495.87		494.35
Avg sales price / cwt.		111.70		110.61		114.00

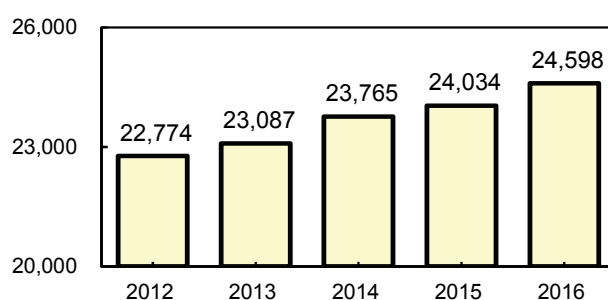
Summary of Selected Dairy Enterprise Factors



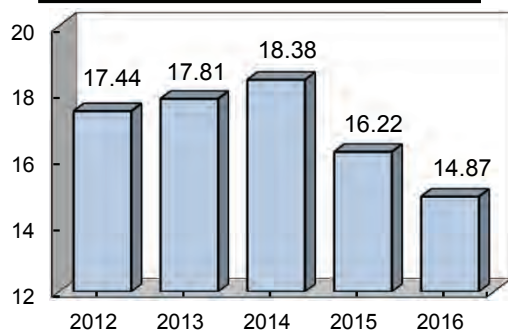
Ave Milk Price Recv'd



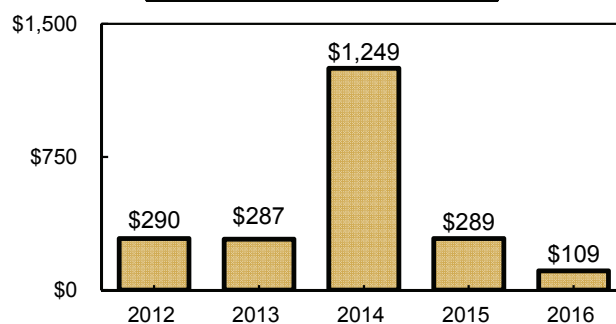
Milk Production per Cow



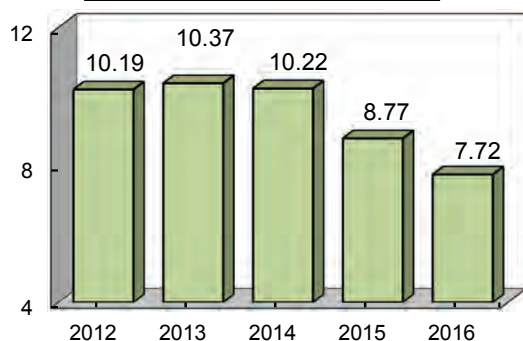
Dir & Ovhd Exp per CWT



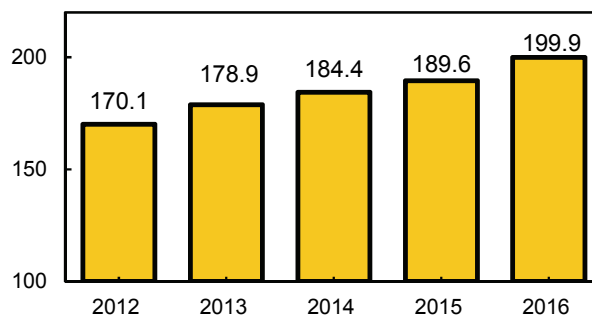
Net Return per Cow



Feed Cost per CWT



Ave. Number of Cows





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Livestock Enterprise Analysis
Farm Business Management Statewide Data
(Farms Sorted By Return to Overhead)
***** Beef Cow-Calf - Average Per Cow *****
Excluding Backgrounding

	<u>Avg. Of All Farms</u>		<u>40 - 60%</u>		<u>High 20%</u>	
Number of farms	116		23		24	
	Quantity	Value	Quantity	Value	Quantity	Value
Beef Calves sold (lb)	184.5	288.52	149.1	205.38	230.5	428.30
Transferred out (lb)	243.9	339.75	312.0	426.93	194.6	283.06
Cull sales (lb)	69.1	130.59	74.3	138.49	46.8	110.98
Other income		5.54		4.60		6.42
Purchased (lb)	-15.4	-71.31	-4.2	-57.86	-19.2	-53.54
Transferred in (lb)	-29.8	-66.64	-42.0	-91.04	-21.7	-42.89
Inventory change (lb)	26.5	6.84	-18.9	-26.32	54.8	131.34
Gross margin		633.29		600.17		863.68
Direct Expenses						
Beet Pulp (dry) (lb.)	358.5	4.04	-	-	1,165.4	11.52
Protein Vit Minerals (lb.)	347.7	49.94	677.5	50.06	224.6	39.50
Corn Silage (lb.)	4,905.0	78.54	3,211.5	45.37	4,542.7	78.40
Hay, Alfalfa (lb.)	1,165.3	53.35	1,754.7	80.55	327.8	21.04
Hay, Grass (lb.)	3,922.3	118.75	4,125.3	123.68	5,017.2	149.29
Haylage, Alfalfa (lb.)	529.7	12.94	169.6	4.17	-	-
Pasture (aum)	3.8	53.81	3.0	61.13	3.5	46.46
Other feed stuffs (lb)	1,278.3	41.36	1,750.5	36.59	703.5	31.17
Veterinary		29.37		35.69		23.98
Supplies		36.92		33.12		49.35
Fuel & oil		22.98		25.97		23.05
Repairs		50.30		47.10		70.20
Custom hire		8.30		1.41		5.63
Utilities		5.33		1.69		8.33
Operating interest		12.44		14.16		6.86
Total direct expenses		578.38		560.69		564.78
Return over direct expense		54.91		39.48		298.90
Overhead Expenses						
RE & pers. property taxes		7.87		8.67		9.78
Farm insurance		13.73		14.11		9.90
Utilities		13.27		12.91		6.74
Interest		28.71		19.71		48.19
Mach & bldg depreciation		48.29		45.10		34.70
Miscellaneous		27.33		20.00		20.26
Total overhead expenses		139.20		120.50		129.57
Total dir & ovhd expenses		717.58		681.19		694.35
Net return		-84.29		-81.02		169.33
Labor & management charge		93.05		71.01		84.42
Net return over lbr & mgt		-177.33		-152.02		84.90
Cost of Production Per Cwt. Produced						
Total direct expense per unit		120.26		118.12		115.93
Total dir & ovhd expense per unit		149.20		143.50		142.52
With other revenue adjustments		150.27		146.04		118.20
With labor and management		169.62		161.00		135.53
Est. labor hours per unit		8.56		7.10		8.08
Other Information						
Number of cows		69.4		75.7		82.4
Pregnancy percentage		95.8		94.8		97.0
Pregnancy loss percentage		1.9		2.7		0.2
Culling percentage		12.6		12.0		10.7
Calving percentage		94.0		92.2		96.9
Weaning percentage		89.1		86.6		91.1
Calves sold per cow		0.78		0.82		0.76
Calf death loss percent		5.1		5.7		4.4
Cow death loss percent		2.0		1.8		0.5
Cows per FTE		327.1		394.5		346.7
Average weaning weight		543		559		548
Lb. weaned/exposed female		483		484		500
Feed cost per cow		412.74		401.56		377.38
Avg wgt/ Beef Calves sold		582		618		543
Avg price / cwt.		156.42		137.72		185.84

Livestock Enterprise Analysis
Farm Business Management Statewide Data
(Farms Sorted By Return to Overhead)
***** Beef Cow-Calf - Average Per Cow *****
With Backgrounding

	<u>Avg. Of All Farms</u>		<u>High 34%</u>	
Number of farms	10		4	
	Quantity	Value	Quantity	Value
Beef Calves sold (lb)	453.6	658.62	439.3	614.54
Transferred out (lb)	31.0	33.91	84.9	93.01
Cull sales (lb)	41.3	81.85	21.8	70.34
Other income		3.44		7.06
Purchased (lb)	-	-139.79	-	-26.24
Transferred in (lb)	-4.2	-6.26	-	-
Inventory change (lb)	149.2	173.29	123.0	74.55
Gross margin		811.06		849.71
Direct Expenses				
Beet Pulp (dry) (lb.)	763.1	9.23	1,528.2	19.68
Protein Vit Minerals (lb.)	133.8	46.16	91.5	21.65
Complete Ration (lb.)	154.5	5.09	423.7	13.95
Corn Silage (lb.)	1,338.8	21.24	2,401.1	36.02
Hay, Alfalfa (lb.)	933.5	27.58	1,785.3	44.63
Hay, Grass (lb.)	9,617.9	252.63	7,500.0	199.19
Pasture (aum)	5.1	72.98	4.6	65.97
Other feed stuffs (lb)	166.9	16.40	130.5	13.88
Veterinary		42.82		27.29
Supplies		39.91		8.52
Fuel & oil		30.57		25.15
Repairs		43.35		45.82
Livestock leases		33.32		0.99
Hauling and trucking		10.51		6.38
Marketing		11.23		10.47
Operating interest		12.75		5.89
Total direct expenses		675.78		545.47
Return over direct expense		135.29		304.24
Overhead Expenses				
RE & pers. property taxes		9.87		4.31
Farm insurance		19.26		21.39
Utilities		9.09		9.92
Interest		28.44		7.12
Mach & bldg depreciation		17.35		24.52
Miscellaneous		17.46		18.54
Total overhead expenses		101.46		85.80
Total dir & ovhd expenses		777.24		631.26
Net return		33.83		218.45
Labor & management charge		119.02		117.76
Net return over lbr & mgt		-85.19		100.68
Cost of Production Per Cwt. Produced				
Total direct expense per unit		100.19		80.74
Total dir & ovhd expense per unit		115.23		93.44
With other revenue adjustments		104.14		87.34
With labor and management		121.78		104.77
Est. labor hours per unit		7.61		9.07
Other Information				
Number of cows		97.1		88.5
Pregnancy percentage		98.5		98.6
Pregnancy loss percentage		2.3		2.2
Culling percentage		7.5		6.5
Calving percentage		96.3		96.4
Weaning percentage		91.1		90.1
Calves sold per cow		0.67		0.69
Calf death loss percent		6.2		9.4
Cow death loss percent		0.6		0.3
Cows per FTE		367.8		308.5
Average weaning weight		591		579
Lb. weaned/exposed female		539		521
Feed cost per cow		451.31		414.97
Avg wgt/ Beef Calves sold		711		713
Avg price / cwt.		145.21		139.88

Livestock Enterprise Analysis
Farm Business Management Statewide Data
(Farms Sorted By Enterprise Size)
***** Beef Cow-Calf - Average Per Cow *****
Excluding Backgrounding

	<u>Up to 50</u>		<u>50 100</u>		<u>100 200</u>		<u>200 500</u>	
Number of farms	58		35		19		4	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
Beef Calves sold (lb)	186.4	260.78	286.4	444.40	121.8	183.00	-	229.89
Transferred out (lb)	237.6	333.96	193.9	261.25	331.7	461.03	158.1	237.79
Cull sales (lb)	64.8	88.42	90.6	129.70	64.9	164.22	38.2	107.11
Other income		3.93		9.95		3.08		3.71
Purchased (lb)	-18.7	-144.38	-28.7	-72.96	-8.0	-41.29	-	-47.26
Transferred in (lb)	-30.2	-80.11	-36.7	-52.05	-24.6	-87.26	-26.4	-34.32
Inventory change (lb)	30.9	72.26	-12.6	-64.66	-6.4	-75.06	180.0	266.99
Gross margin		534.85		655.63		607.72		763.91
Direct Expenses								
Protein Vit Minerals (lb.)	309.4	61.89	224.6	39.30	549.3	57.40	197.1	41.09
Complete Ration (lb.)	11.8	2.15	135.7	19.22	66.9	4.96	-	-
Barley (bu.)	0.1	0.20	-	-	-	-	9.4	18.81
Corn (bu.)	6.6	20.78	2.7	8.59	2.5	8.11	0.4	1.24
Corn Silage (lb.)	3,107.9	50.50	3,865.4	62.19	7,019.9	108.81	4,490.9	78.59
Hay, Alfalfa (lb.)	1,831.9	83.51	1,207.6	54.42	1,280.0	59.60	-	-
Hay, Grass (lb.)	5,386.1	166.43	5,001.3	142.80	1,907.3	60.46	4,430.7	142.31
Haylage, Alfalfa (lb.)	149.9	3.03	69.4	1.39	1,395.7	34.74	-	-
Pasture (aum)	4.6	44.17	2.3	38.06	3.5	63.83	6.5	76.38
Straw (lb.)	16.2	0.37	-	-	90.3	4.00	874.6	21.86
Other feed stuffs (lb)	650.3	15.82	2,168.4	19.58	1,310.6	23.41	859.7	17.88
Veterinary		26.64		30.06		34.27		20.07
Supplies		49.81		58.53		49.64		36.45
Fuel & oil		20.34		25.05		20.92		26.44
Repairs		40.06		54.10		35.86		87.63
Operating interest		11.96		8.24		13.09		20.48
Total direct expenses		597.66		561.53		579.10		589.25
Return over direct expense		-62.81		94.10		28.61		174.65
Overhead Expenses								
Farm insurance		13.27		17.61		12.70		8.34
Utilities		21.15		12.07		13.31		6.11
Interest		36.36		29.53		11.50		56.94
Mach & bldg depreciation		57.19		57.96		40.11		35.46
Miscellaneous		40.33		35.90		38.48		19.94
Total overhead expenses		168.30		153.07		116.10		126.80
Total dir & ovhd expenses		765.96		714.60		695.20		716.05
Net return		-231.11		-58.97		-87.49		47.86
Labor & management charge		106.54		112.77		72.71		80.85
Net return over lbr & mgt		-337.65		-171.74		-160.20		-32.99
Cost of Production Per Cwt. Produced								
Total direct expense per unit		126.36		113.66		120.04		128.30
Total dir & ovhd expense per unit		161.94		144.65		144.11		155.91
With other revenue adjustments		173.34		141.24		147.56		148.58
With labor and management		195.87		164.07		162.63		166.18
Est. labor hours per unit		11.89		7.87		7.95		7.38
Other Information								
Number of cows		25.5		74.1		145.6		303.0
Pregnancy percentage		93.9		96.8		96.0		95.7
Pregnancy loss percentage		2.0		1.0		3.0		1.2
Culling percentage		9.7		12.7		14.9		10.4
Calving percentage		92.1		95.9		93.1		94.5
Weaning percentage		87.6		90.6		88.9		87.9
Calves sold per cow		0.79		0.88		0.82		0.45
Calf death loss percent		5.9		4.6		5.0		5.5
Cow death loss percent		3.6		1.9		1.6		1.1
Cows per FTE		235.5		355.9		352.2		379.5
Average weaning weight		526		542		543		562
Lb. weaned/exposed female		460		491		483		494
Feed cost per cow		448.85		385.54		425.32		398.17
Avg wgt/ Beef Calves sold		548		584		613		577
Avg price / cwt.		139.87		155.15		150.27		-

Livestock Enterprise Analysis
Farm Business Management Statewide Data
(Farms Sorted By Return to Overhead)

Beef Finishing - Average Per Cwt. Produced

	Avg. Of All Farms		40 - 60%		High 20%	
Number of farms	75		15		15	
	Quantity	Value	Quantity	Value	Quantity	Value
Finish Beef sold (lb)	197.90	235.54	206.30	250.72	175.61	206.95
Transferred out (lb)	2.82	3.22	1.90	2.28	4.11	4.81
Other income		3.16		2.45		4.54
Purchased (lb)	-100.07	-153.89	-105.92	-188.63	-82.12	-119.18
Transferred in (lb)	-8.69	-12.33	-4.87	-7.71	-15.59	-21.47
Inventory change (lb)	6.93	-8.63	1.71	-4.64	17.56	13.87
Gross margin		67.08		54.47		89.51
Direct Expenses						
Protein Vit Minerals (lb.)	56.44	8.49	46.48	9.57	29.94	7.02
Complete Ration (lb.)	12.85	0.91	-	-	46.06	2.98
Corn (bu.)	8.19	26.27	8.97	29.47	5.71	17.96
Corn Silage (lb.)	369.18	5.69	422.86	6.45	371.20	5.19
Corn, Ear (lb.)	6.23	0.27	-	-	45.92	1.97
Hay, Grass (lb.)	66.32	2.45	62.81	2.38	43.91	2.36
Haylage, Alfalfa (lb.)	19.31	0.61	-	-	73.96	1.73
DDGS, dry (lb.)	84.72	4.89	123.40	5.25	29.05	1.96
DDGS, wet (lb.)	12.01	0.41	-	-	77.53	2.54
Other feed stuffs (lb)	174.35	4.32	80.81	1.09	87.35	3.41
Veterinary		2.21		1.62		2.90
Supplies		2.94		2.73		3.13
Fuel & oil		1.58		0.91		1.15
Repairs		2.39		0.84		1.94
Hired labor		1.42		1.15		-
Hauling and trucking		1.11		2.04		1.14
Operating interest		2.88		2.82		1.86
Total direct expenses		68.83		66.30		59.26
Return over direct expense		-1.75		-11.83		30.25
Overhead Expenses						
Farm insurance		1.26		1.32		0.91
Mach & bldg depreciation		4.25		3.33		3.46
Miscellaneous		3.80		2.41		3.94
Total overhead expenses		9.31		7.06		8.32
Total dir & ovhd expenses		78.13		73.36		67.58
Net return		-11.06		-18.89		21.93
Labor & management charge		5.27		4.20		6.66
Net return over lbr & mgt		-16.33		-23.10		15.27
Cost of Production Per Cwt. Produced						
Total direct expense per unit		120.81		127.97		103.09
Total dir & ovhd expense per unit		125.44		131.36		107.71
With other revenue adjustments		124.46		130.59		105.62
With labor and management		127.09		132.61		109.33
Est. labor hours per unit		0.38		0.36		0.44
Other Information						
No. purchased or trans in		257		265		177
Number sold or trans out		237		254		149
Percentage death loss		1.1		2.6		0.7
Avg. daily gain (lb.)		2.62		2.50		2.72
Lb. of conc / lb. of gain		6.79		6.75		5.85
Lb. of feed / lb. of gain		9.30		9.13		8.31
Feed cost per cwt. of gain		54.30		54.21		47.14
Feed cost per head		373.62		346.16		352.63
Average purchase weight		718		758		653
Avg wgt / Finish Beef sold		1,391		1,440		1,350
Avg purch price / cwt.		153.78		178.09		145.13
Avg sales price / cwt.		119.02		121.53		117.84

Livestock Enterprise Analysis
Farm Business Management Statewide Data
(Farms Sorted By Return to Overhead)

Hogs, Weaning to Finish - Average Per Head

	<u>Avg. Of All Farms</u>		<u>40 - 60%</u>		<u>High 20%</u>	
Number of farms	38		7		8	
	Quantity	Value	Quantity	Value	Quantity	Value
Wean-Fin Pig sold (lb)	272.9	136.07	280.4	136.24	286.1	151.87
Transferred out (lb)	0.0	0.16	-	-	0.4	0.93
Cull sales (lb)	1.3	0.30	2.1	0.46	1.5	0.40
Other income		3.17		4.66		4.32
Purchased (lb)	-14.3	-42.38	-15.0	-46.99	-12.2	-34.17
Transferred in (lb)	-0.8	-2.27	-	-	-4.1	-11.79
Inventory change (lb)	4.2	1.45	-0.3	1.21	-9.0	-2.26
Gross margin		96.63		95.57		110.84
Direct Expenses						
Protein Vit Minerals (lb.)	172.9	24.54	268.2	29.36	79.9	17.74
Complete Ration (lb.)	130.1	13.01	-	-	316.4	33.26
Corn (bu.)	7.1	23.29	7.1	23.28	5.4	17.22
DDGS, dry (lb.)	59.3	3.70	110.2	6.86	51.7	3.48
Other feed stuffs (lb)	6.7	2.16	0.3	4.19	-	-
Veterinary		3.83		3.40		2.57
Supplies		3.37		3.30		1.96
Contract production exp.		6.28		8.42		-
Repairs		1.49		0.85		2.17
Custom hire		2.05		2.35		0.57
Hired labor		1.05		0.57		0.13
Livestock leases		0.94		0.42		0.52
Hauling and trucking		1.24		1.32		1.12
Total direct expenses		86.93		84.32		80.74
Return over direct expense		9.70		11.25		30.10
Overhead Expenses						
Hired labor		1.72		1.81		2.99
Building leases		3.65		1.55		10.30
Farm insurance		0.78		0.66		1.07
Utilities		0.73		0.98		1.96
Interest		0.86		0.72		1.96
Mach & bldg depreciation		2.27		2.21		2.01
Miscellaneous		0.96		0.83		1.19
Total overhead expenses		10.98		8.75		21.48
Total dir & ovhd expenses		97.92		93.07		102.21
Net return		-1.28		2.50		8.63
Labor & management charge		2.74		2.11		2.46
Net return over lbr & mgt		-4.03		0.39		6.17
Cost of Production/Cwt. Carcass Sold						
Total direct expense per unit		64.27		62.37		60.46
Total dir & ovhd expense per unit		69.71		66.59		70.58
With other revenue adjustments		68.17		64.35		68.68
With labor and management		69.53		65.36		69.84
Est. labor hours per unit		0.26		0.21		0.39
Other Information						
No. purchased or trans in		15,520		26,973		6,864
Number sold or trans out		13,925		24,630		6,624
Percentage death loss		4.8		4.2		5.8
Percent substandard hogs		2		1		1
Avg. daily gain (lb.)		1.41		1.57		1.27
Lb. of feed / lb. of gain		2.93		3.02		2.85
Feed cost per cwt. of gain		25.32		23.83		27.24
Feed cost per head		66.70		63.69		71.71
Average purchase weight		13		14		14
Avg wgt / Wean-Fin Pig sold		270		277		251
Avg purch price / head		39.71		42.39		38.31
Avg sales price / cwt.		49.87		48.59		53.09
Average carcass weight		203		208		188
Average price / cwt. carcass		66.97		65.19		71.34

Livestock Enterprise Analysis
Farm Business Management Statewide Data
(Farms Sorted By Return to Overhead)

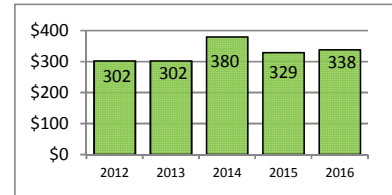
Hogs, Finish Feeder Pigs - Average Per Cwt. Carcass Sold

	Avg. Of All Farms		40 - 60%		High 20%	
Number of farms	29		6		6	
	Quantity	Value	Quantity	Value	Quantity	Value
Finish Hogs sold (lb)	135.57	67.31	136.12	65.77	133.82	71.05
Cull sales (lb)	0.72	0.19	0.38	0.09	-	-
Other income		1.36		0.03		3.58
Purchased (lb)	-17.88	-23.22	-4.76	-6.41	-22.22	-26.81
Transferred in (lb)	-3.86	-5.02	-16.56	-24.32	-	-
Inventory change (lb)	-3.13	-2.36	1.17	0.53	-0.85	-1.27
Gross margin		38.25		35.70		46.56
Direct Expenses						
Corn Distillers Grn (dry) (lb.)	2.62	0.19	-	-	7.58	0.59
Protein Vit Minerals (lb.)	53.71	8.33	18.06	3.10	18.16	4.13
Complete Ration (lb.)	109.38	9.26	115.13	12.90	227.90	17.74
Corn (bu.)	2.81	9.61	3.29	10.99	1.27	4.17
Other feed stuffs (lb)	1.16	0.10	2.03	0.14	-	-
Veterinary		0.78		1.21		0.57
Supplies		0.54		0.52		0.50
Contract production exp.		2.49		0.10		-
Fuel & oil		0.24		0.61		0.36
Repairs		0.67		0.84		1.23
Custom hire		0.31		0.10		0.01
Hauling and trucking		0.63		-		0.19
Marketing		0.23		0.25		-
Operating interest		0.65		0.37		1.21
Total direct expenses		34.05		31.14		30.71
Return over direct expense		4.20		4.56		15.85
Overhead Expenses						
Hired labor		0.83		1.49		1.26
Building leases		2.33		2.25		6.48
Farm insurance		0.36		0.43		0.35
Utilities		0.42		1.03		0.45
Dues & professional fees		0.41		0.07		1.09
Interest		0.32		0.58		0.51
Mach & bldg depreciation		0.92		1.01		0.67
Miscellaneous		0.64		0.36		1.63
Total overhead expenses		6.23		7.23		12.45
Total dir & ovhd expenses		40.28		38.37		43.16
Net return		-2.03		-2.67		3.40
Labor & management charge		1.32		1.41		1.14
Net return over lbr & mgt		-3.35		-4.08		2.26
Cost of Production/Cwt. Carcass Sold						
Total direct expense per unit		64.36		61.22		58.69
Total dir & ovhd expense per unit		70.59		68.44		71.14
With other revenue adjustments		69.34		68.44		67.65
With labor and management		70.66		69.85		68.79
Est. labor hours per unit		0.12		0.16		0.15
Other Information						
No. purchased or trans in		10,962		6,760		12,503
Number sold or trans out		10,358		6,259		11,528
Percentage death loss		4.8		5.2		7.7
Percent substandard hogs		2		3		0
Avg. daily gain (lb.)		1.57		1.53		1.79
Lb. of feed / lb. of gain		2.90		2.74		2.93
Feed cost per cwt. of gain		24.60		23.30		24.01
Feed cost per head		59.61		50.72		56.94
Average purchase weight		41		38		44
Avg wgt / Finish Hogs sold		278		262		287
Avg purch price / head		53.78		50.59		53.08
Avg sales price / cwt.		49.65		48.32		53.09
Average carcass weight		209		198		216
Average price / cwt. carcass		66.66		64.76		70.87

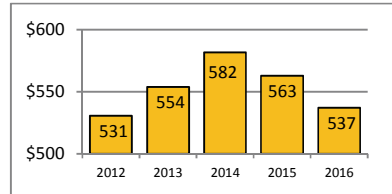
Selected Crop & Livestock Enterprise Trend Summary
Northern Minnesota Farm Business Management Data

	2012	2013	2014	2015	2016
Alfalfa Hay					
Yield per Acre	3.3	3.3	4.0	3.9	5.0
Value per Ton	\$131.79	\$153.38	\$176.49	\$153.84	\$110.40
Fuel, Oil, Repairs per Acre	\$95.25	\$91.09	\$114.57	\$83.10	\$79.40
Total Dir & Ovhd Exp per Acre	\$302.02	\$302.28	\$379.84	\$329.25	\$338.03
Net Return per Acre	\$150.49	\$218.54	\$337.71	\$292.23	\$209.56
Total Direct Expenses per Ton	\$50.72	\$51.79	\$48.66	\$42.09	\$32.55
Total Dir & Ovhd Exp per Ton	\$91.87	\$91.64	\$94.13	\$84.09	\$68.35

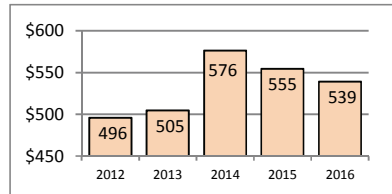
Total Dir&Ovhd Expense



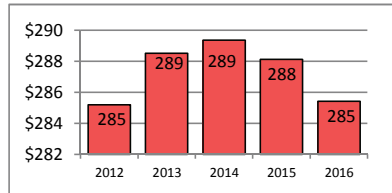
Corn					
Yield per Acre	128.9	108.5	118.8	164.2	179.5
Value per Bushel	\$6.49	\$4.02	\$3.42	\$3.30	\$2.95
Fuel, Oil, Repairs per Acre	\$88.45	\$88.78	\$87.92	\$80.80	\$71.55
Total Dir & Ovhd Exp per Acre	\$530.74	\$553.77	\$581.67	\$562.75	\$537.05
Net Return per Acre	\$320.53	-\$44.10	-\$75.40	-\$0.05	\$1.65
Total Direct Expenses per Bu.	\$2.97	\$3.71	\$3.43	\$2.40	\$1.98
Total Dir & Ovhd Exp per Bushel	\$3.91	\$5.11	\$4.90	\$3.43	\$2.99



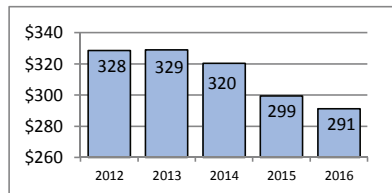
Corn Silage					
Yield per Acre	15.1	11.7	14.3	19.5	19.4
Value per Ton	\$50.65	\$40.01	\$35.05	\$34.46	\$33.91
Fuel, Oil, Repairs per Acre	\$103.50	\$100.48	\$122.88	\$93.91	\$88.07
Total Dir & Ovhd Exp per Acre	\$495.91	\$504.52	\$576.47	\$554.58	\$539.19
Net Return per Acre	\$285.57	\$155.90	\$9.68	\$120.30	\$119.00
Total Direct Expenses per Ton	\$22.91	\$31.22	\$27.70	\$19.47	\$18.88
Total Dir & Ovhd Exp per Ton	\$32.86	\$43.05	\$40.28	\$28.43	\$27.80



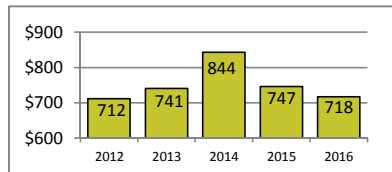
Soybeans					
Yield per Acre	37.8	33.4	33.0	38.1	46.7
Value per Bushel	\$13.87	\$12.52	\$9.73	\$8.33	\$9.27
Fuel, Oil, Repairs per Acre	\$49.01	\$45.26	\$46.04	\$38.24	\$38.23
Total Dir & Ovhd Exp per Acre	\$285.21	\$288.53	\$289.37	\$288.14	\$285.42
Net Return per Acre	\$243.72	\$139.81	\$52.87	\$43.58	\$151.42
Total Direct Expenses per Bu.	\$5.15	\$5.76	\$5.81	\$4.94	\$3.80
Total Dir & Ovhd Exp per Bushel	\$7.55	\$8.65	\$8.76	\$7.57	\$6.12



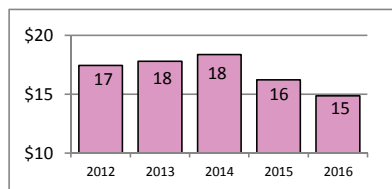
Spring Wheat					
Yield per Acre	60.8	66.5	60.2	66.0	66.0
Value per Bushel	\$8.30	\$6.24	\$5.62	\$4.96	\$4.95
Fuel, Oil, Repairs per Acre	\$50.14	\$44.21	\$43.17	\$38.15	\$35.53
Total Dir & Ovhd Exp per Acre	\$328.49	\$329.01	\$320.40	\$299.33	\$291.26
Net Return per Acre	\$182.39	\$95.54	\$32.83	\$40.40	\$39.56
Total Direct Expenses per Bu.	\$4.01	\$3.56	\$3.77	\$3.19	\$2.92
Total Dir & Ovhd Exp per Bushel	\$5.40	\$4.95	\$5.32	\$4.54	\$4.41



Beef Cow Calf					
Price Rec'd/Cwt Calf Sold	\$146.91	\$152.83	\$212.33	\$206.46	\$156.42
Total Feed Cost/Cow	\$445.53	\$479.03	\$508.48	\$438.89	\$412.74
Return over Feed/Cow	\$354.44	\$298.68	\$786.66	\$425.07	\$220.55
Net Return/Cow	\$88.27	\$36.61	\$451.63	\$117.23	-\$84.29
Total Direct & Ovhd Expenses	\$711.70	\$741.10	\$843.51	\$746.72	\$717.58



Dairy Cows					
Production/Cow	22,774	23,087	23,765	24,034	24,598
Price Rec'd/Cwt Milk	\$19.47	\$20.20	\$24.36	\$17.75	\$16.33
Total Feed Cost/Cwt Milk	\$10.19	\$10.37	\$10.22	\$8.77	\$7.72
Return over Feed/Cwt Milk	\$8.53	\$8.69	\$13.42	\$8.65	\$8.61
Net Return/Cwt Milk	\$1.27	\$1.24	\$5.26	\$1.20	\$0.44
Total Direct & Ovhd Expenses	\$17.44	\$17.81	\$18.38	\$16.22	\$14.87



Minnesota Farm Business Management Education

Vision:

To provide educational opportunities for students to be successful in a competitive agricultural environment.

Mission:

To deliver management education for decision-making that achieves an individual's business goals.

Guiding Principles:

1. *Improved Quality of Life in Rural Communities*
 2. *Achievement of Student Goals*
 3. *Awareness of the Global Importance of Agriculture*
 4. *Integrity in Student Interaction*
 5. *Timely and Student-Focused Programming*
-

Participating College Websites:

Alexandria Technical and Community College: alextech.edu

Central Lakes College Website: clcmn.edu

Minnesota West Community & Technical College: mnwest.edu

Northland Community & Technical College Website: northlandcollege.edu

Ridgewater College: ridgewater.edu

Riverland Community & Technical College: riverland.edu

South Central College: southcentral.edu

St. Cloud Technical and Community College: sctcc.edu



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MyFarm Financial Scorecard

Year:

Name:

Liquidity

This Year

5-Year Ave

Strong

Vulnerable

Current ratio

1.7

1.1

Working capital

Working cap to gross revenue

25%

10%

Solvency (market)

Note: These solvency ratios include deferred liabilities

Farm debt/asset ratio

30%

60%

Farm equity/asset ratio

70%

40%

Farm debt/equity ratio

0.43

1.50

Profitability (Cost)

Rate of return on farm assets

8%

4%

Rate of return on farm equity

10%

3%

Operating profit margin

25%

15%

Net farm income

EBITDA

Repayment Capacity (Accrual)

Capital debt repay capacity

Capital debt repay margin

Replacement margin

Term-debt coverage ratio

1.50

1.20

Replacement margin ratio

1.40

1.10

Financial Efficiency

Asset-turnover rate (market)

45%

30%

Operating-expense ratio

60%

80%

Depreciation-expense ratio

5%

15%

Interest-expense ratio

5%

10%

Net farm income ratio

20%

10%