



MINNESOTA STATE

# Farm Business Management Program Database

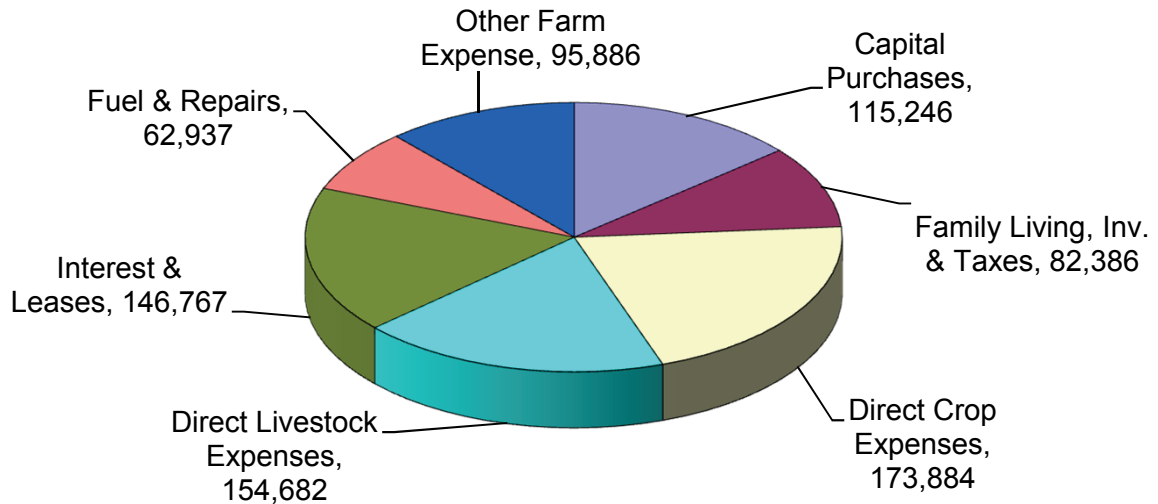
(2103 Farms)

## State Executive Summary - 2016

Financial Summaries & Financial Standards for 2012-2016  
Current year data by Region, Farm Type, & Years Farming

April, 2017

### Average Money Spent by each Farm totals \$831,788



In Cooperation with the Center for Farm Financial Management, University of Minnesota  
Compiled by Josh Tjosas and DelRay Lecy

Contact: Keith Olander @ [kolander@clcmn.edu](mailto:kolander@clcmn.edu) or Brad Schloesser @ [Brad.Schloesser@southcentral.edu](mailto:Brad.Schloesser@southcentral.edu)  
Farm Business Management Website at: [agcentric.org](http://agcentric.org) or [centerofagriculture.org](http://centerofagriculture.org)

## Brief Overview of 2016 in Production Agriculture

### Farm Business Management Program Database

Despite a second consecutive year of record crop yields, incomes for Minnesota farmers improved only slightly in 2016 from near record lows in 2015. A third consecutive year of declining prices kept income levels below break-even for many producers. Crop farm incomes improved slightly, but the median crop producer did not earn enough to meet family living needs. Livestock producers fared even worse with a second consecutive year of low milk, pork and beef prices. Over 30% of all farms suffered negative net returns in 2016.

These are among key findings in the annual farm income analysis conducted jointly by Minnesota State and the University of Minnesota Extension. The analysis used data from 2,103 participants in Minnesota State's farm business management education programs. Participating producers represent approximately 10 percent of commercial farmers in Minnesota.

Across all of these Minnesota farms, the median net farm income was \$34,321, up from \$25,392 in 2015. Net farm income represents the amount of income contributed by the farm to cover family living expenses, taxes, re-investments, and retirement. Since the 2007- 2012 period, when farm earnings were generally strong, net farm incomes have fallen dramatically and many farms have consumed a large share of their working capital to meet financial obligations. The average of these farms now retains just under half the working capital they held at the end of 2012.

The median crop farm earned just under \$43,705 compared to \$22,830 last year. Including off-farm earnings, the average crop farm family made a modest improvement in their net worth.

Dairy farms profits declined again in 2016. The median dairy farm earned \$31,867, down from just over \$45,000 in 2015.

Beef farms had a second consecutive negative median farm income of -\$11,655 in 2016 compared to -\$9,002 in 2015, while hog farms had a slight increase in median farm income to \$7,276 in 2016

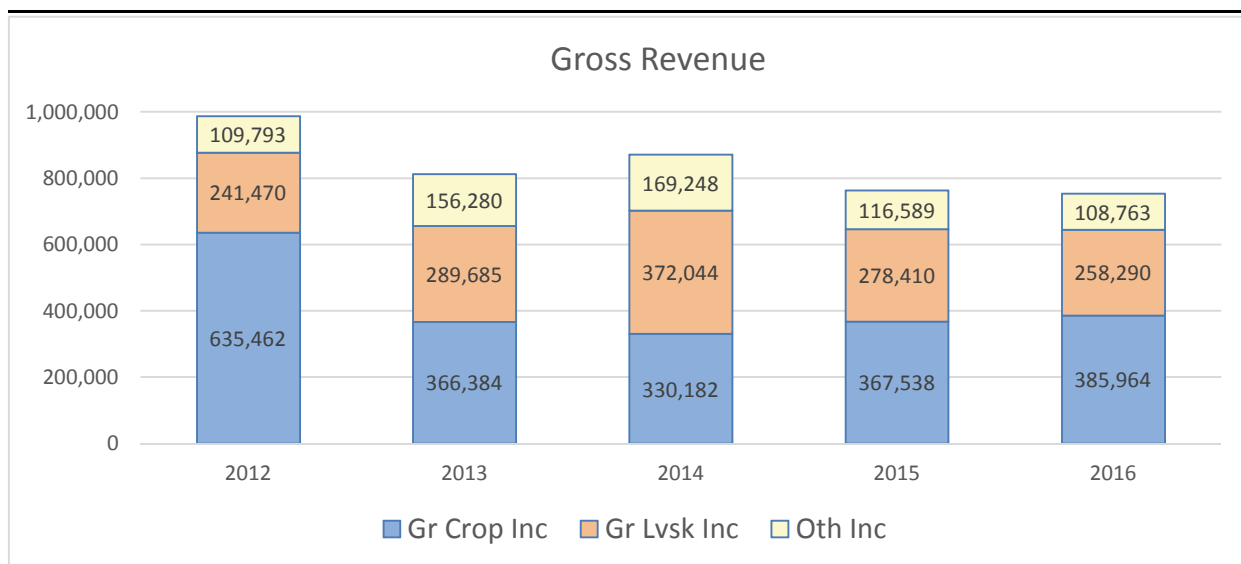
#### What is Net Farm Income used for?

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. The list below shows the data for the current year. A positive balance indicates that there is revenue available for other uses, while a negative balance indicates there is a need for revenue from other sources.

		<u>State Data</u>
Net Farm Income		\$57,237
Depreciation	(plus)	\$53,496
Family Living (Excl Health/Med)	(minus)	\$49,107
Social Security and Income Tax	(minus)	\$10,793
Health and Medical Expense	(minus)	\$10,436
Retirement Accounts	(minus)	\$2,920
Principal Payments	(minus)	\$63,286
Balance		-\$25,809

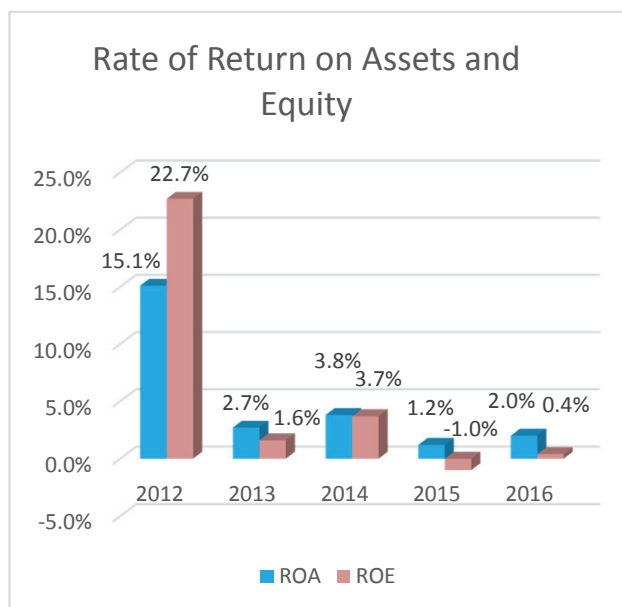
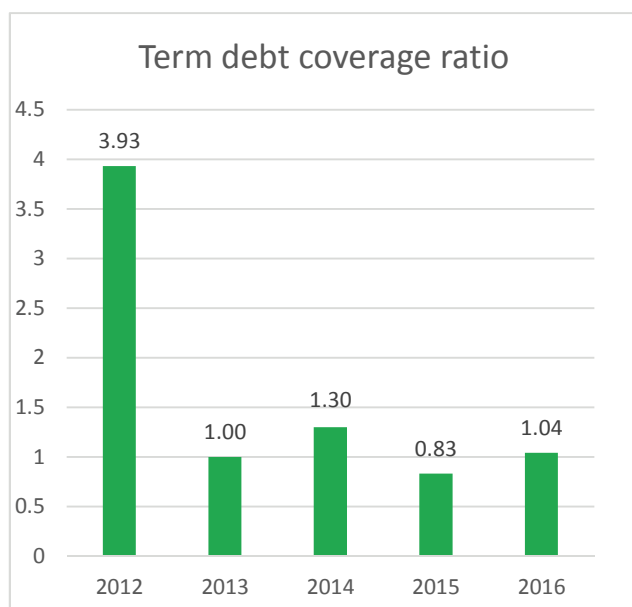
**Summary Farm Income Statement**  
**(Farms Sorted by Years)**  
**Minnesota State - Farm Business Management**

	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>
Number of farms	2200	2077	2047	2031	2103
<b>Farm Revenue</b>					
Crop sales	512,894	464,635	367,914	330,589	369,807
Crop inventory change	122,568	-98,251	-37,733	36,949	16,157
Gross crop income	635,462	366,384	330,182	367,538	385,964
Livestock sales	237,617	279,049	351,689	290,405	267,230
Livestock inventory change	3,853	10,636	20,355	-11,994	-8,940
Gross livestock income	241,470	289,685	372,044	278,410	258,290
Government payments	21,250	19,607	8,268	32,682	22,205
Other cash income	84,197	110,033	139,656	112,729	80,100
Change in accounts receivable	4,861	22,982	14,063	-37,432	1,584
Gain or loss on hedging accounts	-3,130	942	-1,248	4,047	982
Change in other assets	3,216	3,805	5,553	3,077	2,698
Gain or loss on breeding lvst	-601	-1,089	2,956	1,486	1,194
<b>Gross revenue</b>	<b>986,724</b>	<b>812,349</b>	<b>871,474</b>	<b>762,537</b>	<b>753,016</b>
<b>Farm Expenses</b>					
Cash operating expenses	629,931	653,148	685,344	625,111	599,291
Change in prepaid exp & supplies	-14,451	-15	3,991	6,787	8,996
Change in growing crops	-156	125	-222	-10	-233
Change in accts pay & other inv.	22	3,465	-1,440	1,995	685
Depreciation	48,587	52,182	56,012	53,309	53,496
Total operating expense	663,933	708,904	743,685	687,192	662,234
Interest paid	31,691	31,624	32,688	32,394	34,867
Change in accrued interest	493	572	693	1,027	407
Total interest expense	32,184	32,196	33,381	33,422	35,273
<b>Total expense</b>	<b>696,117</b>	<b>741,100</b>	<b>777,067</b>	<b>720,613</b>	<b>697,507</b>
Net farm income from operations	290,607	71,249	94,408	41,924	55,509
Gain or loss on capital sales	1916	849	1333	953	1728
<b>Net farm income</b>	<b>292,523</b>	<b>72,098</b>	<b>95,740</b>	<b>42,877</b>	<b>57,237</b>



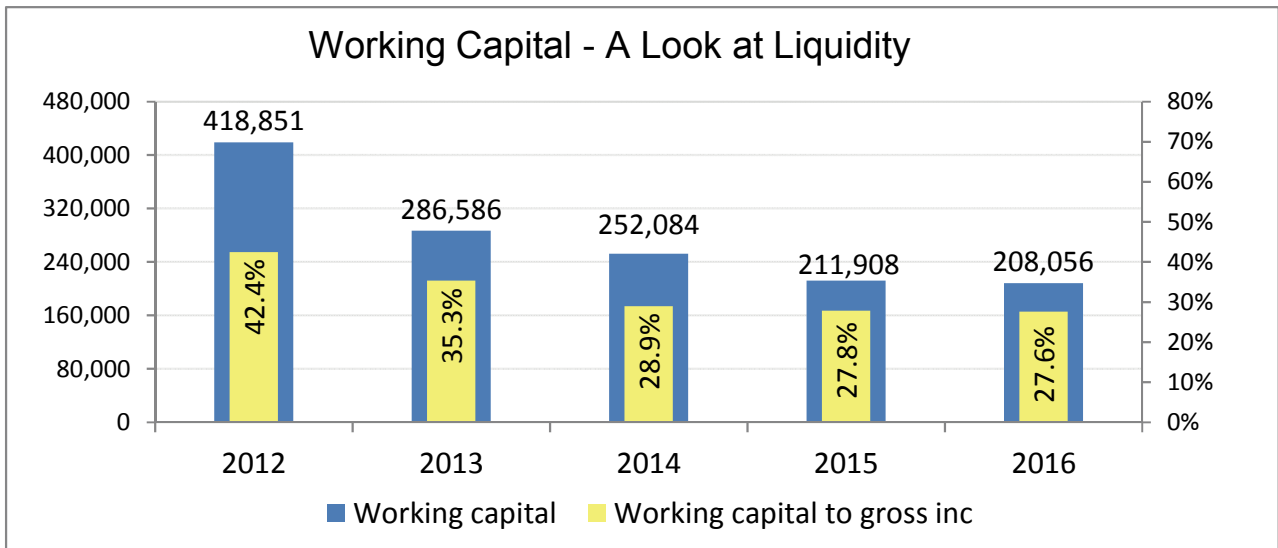
**Financial Summary**  
**(Farms Sorted by Years)**  
**Minnesota State - Farm Business Management**

	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>
Number of farms	2200	2077	2047	2031	2103
<b>Income Statement</b>					
Gross cash farm income	855,958	873,325	867,528	766,404	739,342
Total cash farm expense	661,622	684,772	718,033	657,505	634,157
Net cash farm income	194,335	188,553	149,495	108,899	105,184
Average net farm income	292,523	72,098	95,740	42,877	57,237
Median net farm income	181,183	40,330	40,950	25,392	34,321
<b>Profitability (cost)</b>					
Rate of return on assets	15.1%	2.7%	3.8%	1.2%	2.0%
Rate of return on equity	22.7%	1.6%	3.7%	-1.0%	0.4%
Operating profit margin	30.6%	7.5%	10.5%	3.6%	6.2%
Asset turnover rate	49.3%	35.3%	35.9%	32.3%	31.9%
<b>Liquidity &amp; Repayment (end of year)</b>					
Current ratio	2.53	2.00	1.77	1.64	1.63
Working capital	418,851	286,586	252,084	211,908	208,056
Working capital to gross inc	42.4%	35.3%	28.9%	27.8%	27.6%
Term debt coverage ratio	3.93	1.00	1.30	0.83	1.04
<b>Solvency (end of year at market)</b>					
Total assets	2,720,524	2,779,004	2,899,931	2,816,577	2,222,146
Total liabilities	1,106,382	1,162,280	1,213,523	1,204,953	957,420
Net worth	1,614,143	1,616,724	1,686,407	1,611,624	1,264,726
Farm debt to asset ratio	42%	40%	43%	45%	46%
<b>Nonfarm Information</b>					
Net nonfarm income	29,547	29,439	31,013	33,868	33,082
Farms reporting living expenses	511	518	505	470	453
Total family living expense	61,797	64,874	63,938	60,798	58,526
Total living, invest, & capital	102,160	109,868	103,691	97,314	80,890



**Financial Standards Measures**  
**(Farms Sorted by Years)**  
**Minnesota State - Farm Business Management**

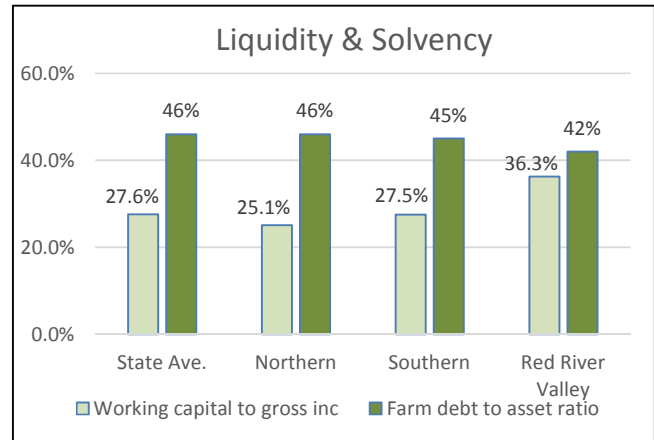
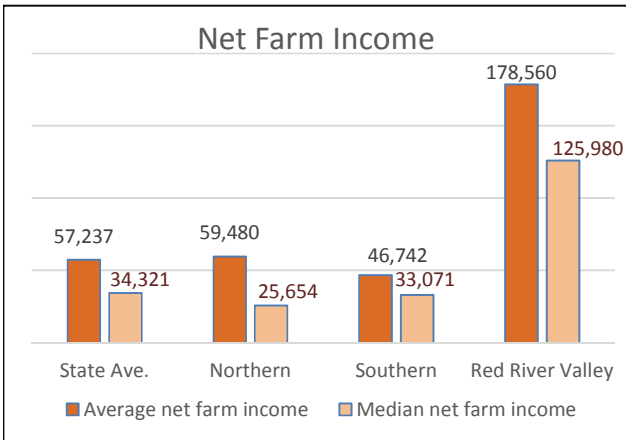
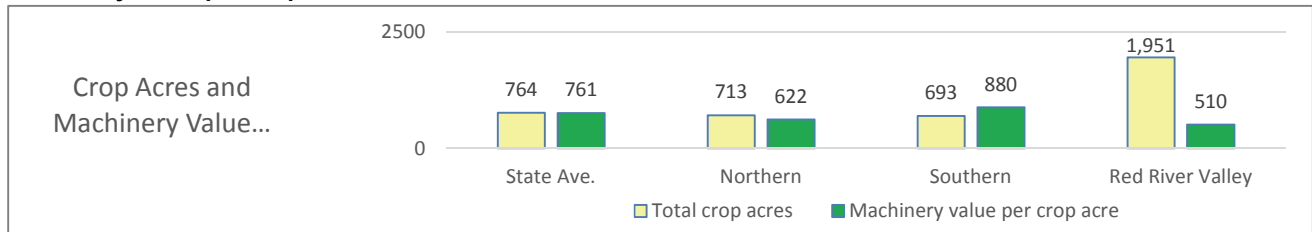
	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>
Number of farms	2200	2077	2047	2031	2103
<b>Liquidity</b>					
Current ratio	2.53	2.00	1.77	1.64	1.63
Working capital	418,851	286,586	252,084	211,908	208,056
Working capital to gross inc	42.4%	35.3%	28.9%	27.8%	27.6%
<b>Solvency (market)</b>					
Farm debt to asset ratio	42%	40%	43%	45%	45%
Farm equity to asset ratio	58%	60%	57%	55%	55%
Farm debt to equity ratio	0.73	0.67	0.77	0.82	0.82
<b>Profitability (cost)</b>					
Rate of return on farm assets	15.1%	2.7%	3.8%	1.2%	2.0%
Rate of return on farm equity	22.7%	1.6%	3.7%	-1.0%	0.4%
Operating profit margin	30.6%	7.5%	10.5%	3.6%	6.2%
Net farm income	292,523	72,098	95,740	42,877	57,237
EBIDTA	371,377	155,626	183,801	128,655	144,279
<b>Repayment Capacity</b>					
Capital debt repayment capacity	312,116	89,028	121,650	76,187	95,471
Capital debt repayment margin	232,716	-105	28,372	-15,363	3,710
Replacement margin	214,558	-19,351	5,755	-39,205	-23,718
Term debt coverage ratio	3.93	1.00	1.30	0.83	1.04
Replacement coverage ratio	3.20	0.82	1.05	0.66	0.80
<b>Efficiency</b>					
Asset turnover rate (cost)	49.3%	35.3%	35.9%	32.3%	31.9%
Operating expense ratio	62.4%	80.8%	78.9%	83.1%	80.8%
Depreciation expense ratio	4.9%	6.4%	6.4%	7.0%	7.1%
Interest expense ratio	3.3%	4.0%	3.8%	4.4%	4.7%
Net farm income ratio	29.6%	8.9%	11.0%	5.6%	7.6%



## Financial Summary (Farms Sorted by Region)

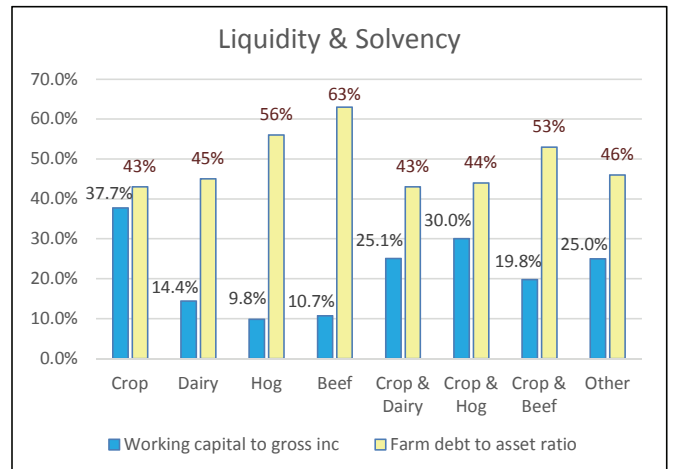
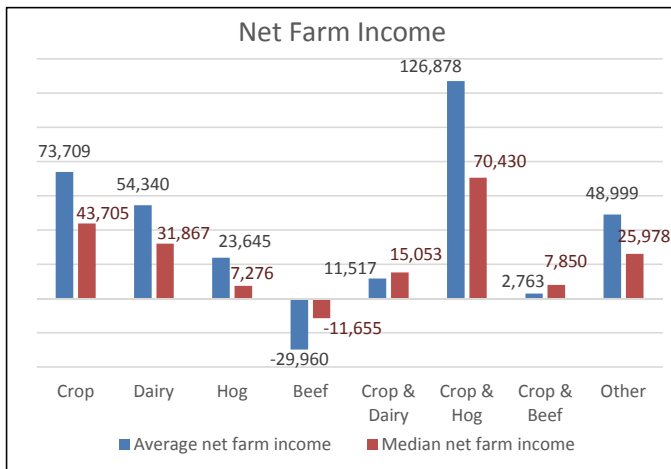
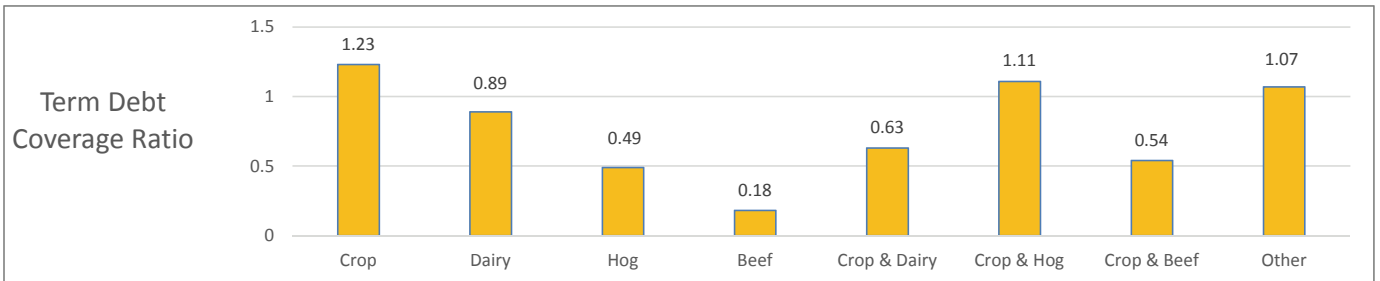
### Minnesota State - Farm Business Management

	<u>State Ave.</u>	<u>Northern</u>	<u>Southern</u>	<u>Red River Valley</u>
Number of farms	2103	615	1380	108
<b>Income Statement</b>				
Gross cash farm income	739,342	557,016	791,868	1,106,411
Total cash farm expense	634,157	473,748	683,984	910,928
Net cash farm income	105,184	83,268	107,885	195,483
Average net farm income	57,237	59,480	46,742	178,560
Median net farm income	34,321	25,654	33,071	125,980
<b>Profitability (cost)</b>				
Rate of return on assets	2.0%	2.7%	1.4%	4.5%
Rate of return on equity	0.4%	1.6%	-0.7%	4.9%
Operating profit margin	6.2%	9.2%	4.4%	12.0%
Asset turnover rate	31.9%	29.60%	32.1%	37.20%
<b>Liquidity &amp; Repayment (end of year)</b>				
Current ratio	1.63	1.58	1.62	1.85
Working capital	208,056	145,543	218,537	430,104
Working capital to gross inc	27.6%	25.1%	27.5%	36.3%
Term debt coverage ratio	1.04	1.22	0.90	1.73
<b>Solvency (end of year at market)</b>				
Total assets	2,222,146	2,254,715	3,063,428	4,784,830
Total liabilities	957,420	993,562	1,292,302	1,937,540
Net worth	1,264,726	1,261,153	1,771,126	2,847,290
Farm debt to asset ratio	46%	46%	45%	42%
<b>Nonfarm Information</b>				
Net nonfarm income	33,082	27,427	36,099	26,742
Farms reporting living expenses	453	101	338	14
Total family living expense	58,526	47,828	60,731	82,468
Total living, invest, & capital	80,890	59,233	86,584	99,659
<b>Total crop acres</b>	764	713	693	1,951
<b>Machinery value per crop acre</b>	761	622	880	510



**Financial Summary**  
**(Farms Sorted by Farm Type)**  
**Minnesota State - Farm Business Management**

	<u>Crop</u>	<u>Dairy</u>	<u>Hog</u>	<u>Beef</u>	<u>Crop &amp; Dairy</u>	<u>Crop &amp; Hog</u>	<u>Crop &amp; Beef</u>	<u>Other</u>
Number of farms	1075	349	45	60	88	35	94	352
<b>Income Statement</b>								
Gross cash farm income	671,863	954,698	1,857,338	738,987	753,476	1,562,368	531,565	563,769
Total cash farm expense	561,994	858,789	1,758,556	683,180	659,322	1,366,877	471,027	447,757
Net cash farm income	109,869	95,909	98,783	55,806	94,154	195,491	60,538	116,012
Average net farm income	73,709	54,340	23,645	-29,960	11,517	126,878	2,763	48,999
Median net farm income	43,705	31,867	7,276	-11,655	15,053	70,430	7,850	25,978
<b>Profitability (cost)</b>								
Rate of return on assets	2.6%	1.5%	0.4%	-1.1%	-0.5%	3.0%	-0.4%	2.2%
Rate of return on equity	1.7%	-0.7%	-4.4%	-10.3%	-3.6%	2.2%	-5.7%	0.5%
Operating profit margin	8.0%	4.0%	1.3%	-6.5%	-1.7%	8.6%	-1.4%	7.8%
Asset turnover rate	32.7%	36.1%	32.9%	16.9%	29.2%	35.4%	26.3%	27.8%
<b>Liquidity</b>								
Current ratio	1.71	1.71	1.27	1.14	1.75	1.80	1.31	1.55
Working capital	263,477	141,185	183,385	73,623	186,546	482,417	102,315	136,866
Working capital to gross inc	37.7%	14.4%	9.8%	10.7%	25.1%	30.0%	19.8%	25.0%
Term debt coverage ratio	1.23	0.89	0.49	0.18	0.63	1.11	0.54	1.07
<b>Solvency (end of year at market)</b>								
Number of farms	1,075	349	45	60	88	35	94	352
Total assets	3,245,936	2,552,436	3,432,336	2,280,695	2,826,605	4,683,413	2,091,493	2,385,273
Total liabilities	1,318,667	1,105,641	1,819,278	1,347,165	1,179,756	1,987,715	1,047,479	1,030,581
Net worth	1,927,269	1,446,795	1,613,059	933,530	1,646,849	2,695,698	1,044,015	1,354,693
Farm debt to asset ratio	43%	45%	56%	63%	43%	44%	53%	46%
<b>Total crop acres</b>	1,065	356	492	346	637	1,071	609	401
<b>Machinery value per crop acre</b>	656	1,270	912	936	984	885	671	1,029



**Financial Summary**  
**(Sorted by Number of Years Farming)**  
**Minnesota State - Farm Business Management**

	10 or Less	11 - 20	21 - 30	31 - 40	Over 40
Number of farms	467	327	356	511	442
<b>Income Statement</b>					
Gross cash farm income	352,207	650,838	824,628	924,937	930,589
Total cash farm expense	311,252	558,088	710,702	784,921	795,653
Net cash farm income	40,955	92,749	113,927	140,015	134,936
Average net farm income	42,803	67,622	54,212	74,706	47,044
Median net farm income	26,009	41,364	25,243	44,903	35,180
<b>Profitability (cost)</b>					
Rate of return on assets	3.6%	3.5%	1.7%	2.0%	0.9%
Rate of return on equity	3.6%	3.0%	-0.6%	0.6%	-1.0%
Operating profit margin	9.8%	9.6%	5.3%	6.8%	2.9%
Asset turnover rate	36.1%	36.4%	31.4%	29.8%	31.2%
<b>Liquidity &amp; Repayment (end of year)</b>					
Current ratio	1.54	1.52	1.48	1.66	1.84
Working capital	81,727	153,138	197,465	274,234	314,181
Working capital to gross inc	21.7%	22.6%	23.8%	29.3%	33.7%
Term debt coverage ratio	1.45	1.36	0.93	1.00	0.83
<b>Solvency (end of year at market)</b>					
Number of farms	467	327	356	511	442
Total assets	1,146,543	2,181,201	3,251,569	3,965,678	3,842,156
Total liabilities	647,068	1,085,406	1,451,516	1,594,834	1,391,093
Net worth	499,476	1,095,795	1,800,053	2,370,844	2,451,063
Farm debt to asset ratio	59%	52%	47%	43%	39%
<b>Total crop acres</b>	<b>378</b>	<b>673</b>	<b>887</b>	<b>955</b>	<b>918</b>
<b>Machinery value per crop acre</b>	<b>480</b>	<b>636</b>	<b>749</b>	<b>836</b>	<b>869</b>

