

SOUTHWESTERN MINNESOTA
FARM BUSINESS MANAGEMENT ASSOCIATION

2016

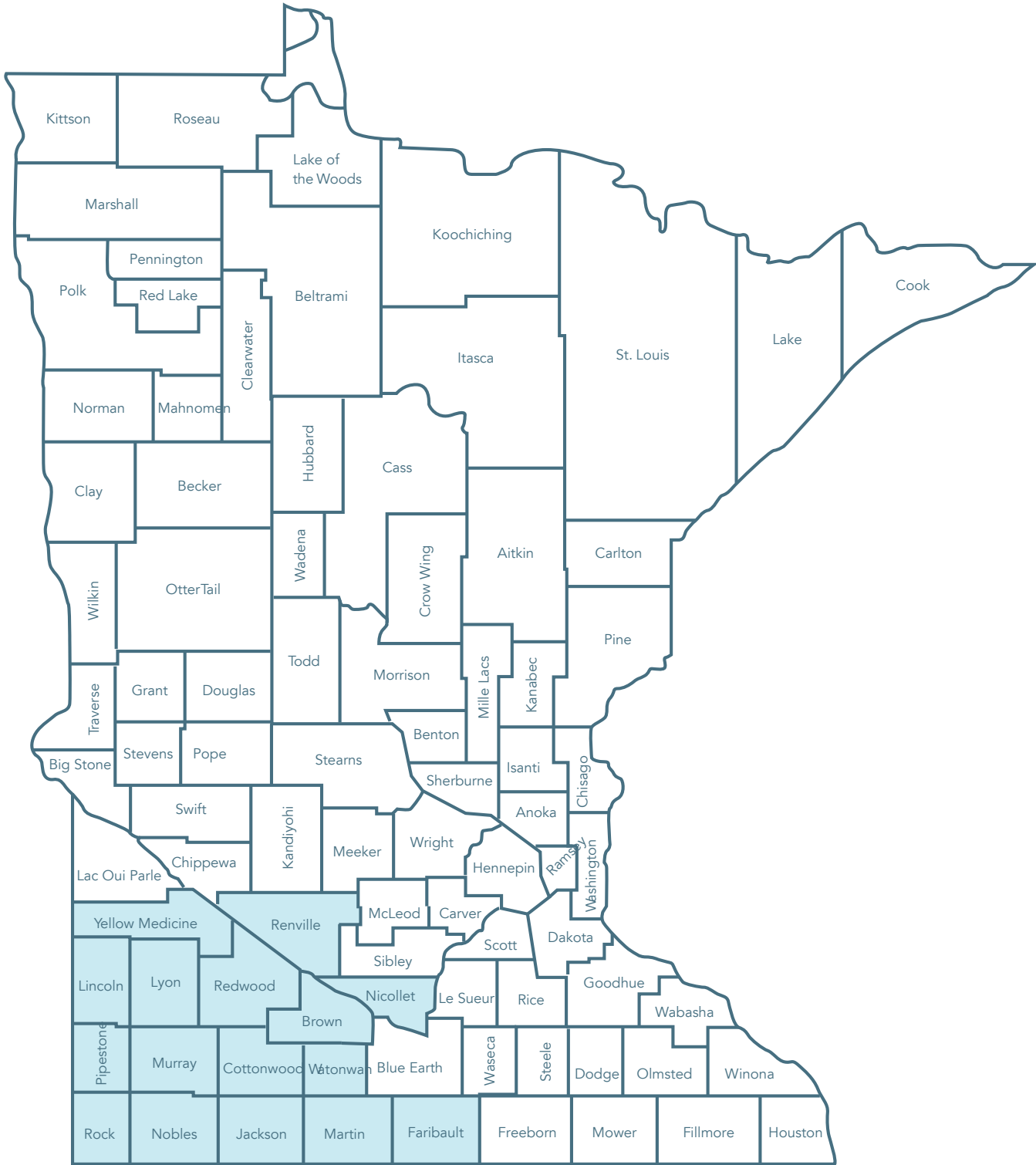
ANNUAL REPORT



Staff Paper #P17-3
Department of Applied Economics
University of Minnesota
Saint Paul, MN 55108
April 2017

In Cooperation with:
Center for Farm Financial Management · Department of Applied Economics · University of Minnesota Extension
College of Food, Agricultural and Natural Resource Sciences · University of Minnesota

SOUTHWEST MINNESOTA FARM BUSINESS MANAGEMENT ASSOCIATION

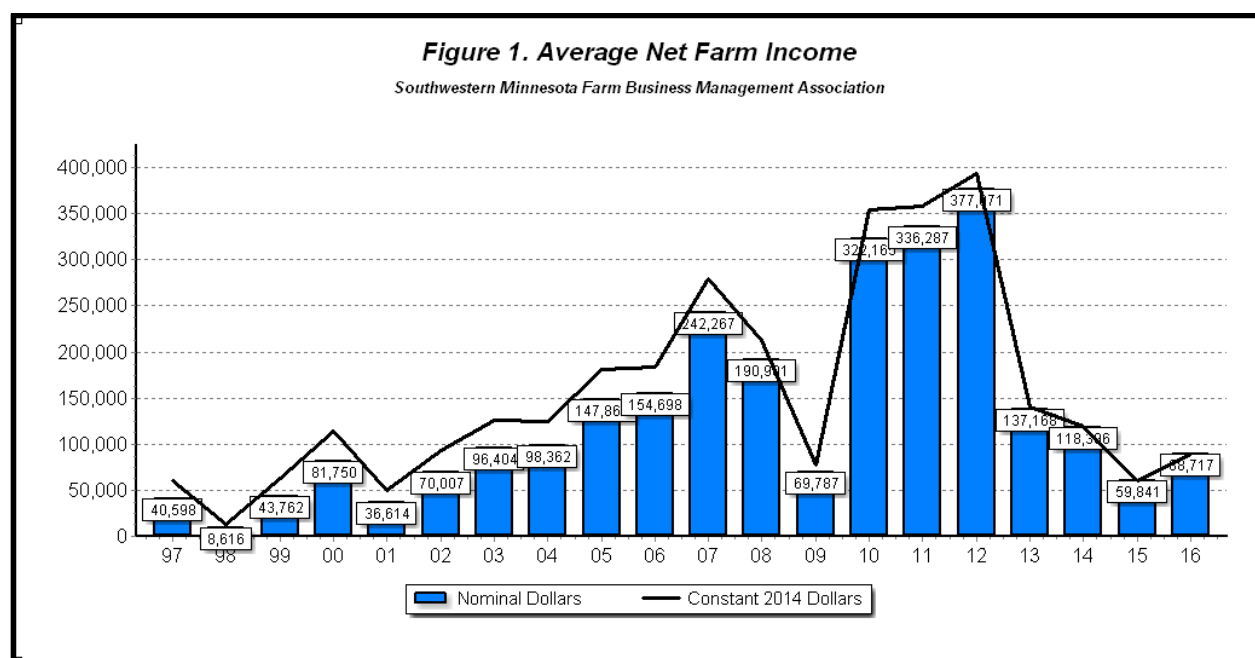


Executive Summary

2016 Annual Report of the Southwestern Minnesota Farm Business Management Association

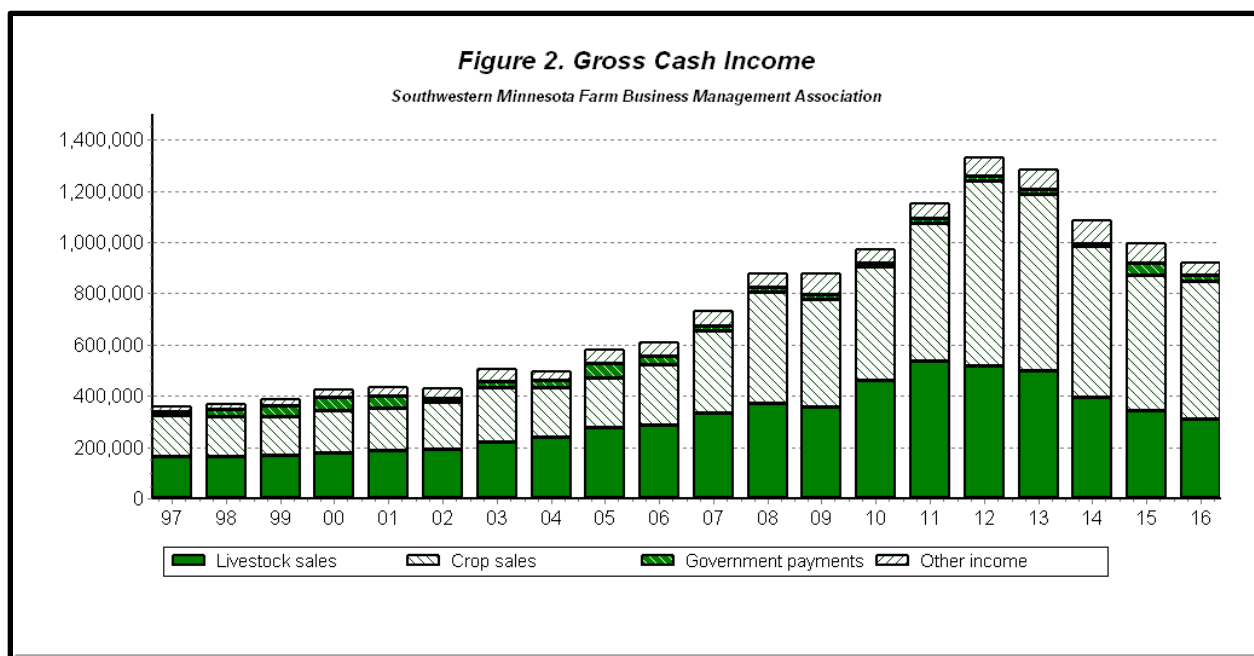
by Dale W. Nordquist, Donald L. Nitchie, Garen J. Paulson,
Tonya L. Knorr and Curtis Mahnken

A second consecutive year of record crop yields resulted in a slight increase in profitability for the 103 farms included in the 2016 annual report of the Southwestern Minnesota Farm Business Management Association. This was despite decreases in prices for every major commodity produced by member farms. The average farm earned \$88,717 in 2016, up from just under \$60,000 in 2015. Earnings were still historically low compared to recent years. The average farm earned a rate of return on assets of only 3%. Crop farm incomes improved due to outstanding yields, though prices received for corn and soybeans decreased. Earnings for all types of livestock operations decreased as prices declined for pork, beef and milk.



Highlights of association financial results for 2016:

- Median net farm income, or the income earned by the middle farm, was \$84,823, very close to the average. Unlike most years, when the average has been skewed higher by high profits of larger operations, this indicates that earnings were more evenly distributed in 2016.
- As is the case every year, incomes varied widely around the average. The average net farm income for the most profitable 20% of the farms was \$274,706 while the least profitable 20% experienced a loss of \$77,146. While still a serious level of concern, the average loss experienced on the low end was much less than the previous year. High yields likely shielded some of the most vulnerable farms from larger losses.



- Average gross cash income was down 8% from 2015 while cash expenses decreased by 6%. Crop sales were up 2% while livestock sales dropped by 10%.
- Crops accounted for 59% of gross sales while livestock sales were 33% (Figure 2). Government payments decreased by over 50% to \$22,653 per farm, 2.5% of gross cash income. Payments reported are those actually accrued to 2015 production. Payments were significantly lower than previous years as most producers received reduced ARC payments for corn and no payments for other crops.
- The average farm earned a rate of return on assets (ROA) of 3% with assets valued at adjusted cost or book value. Rates of return increased for the first time in 5 years but were still low by historical standards. The average rate of return on equity capital (ROE) was 2% (Figure 3).
- The average farm reported net worth growth of \$62,309, of which almost \$45,000 resulted from farm and non-farm earnings. The remaining \$17,000 resulted from increases in the estimated market value of capital assets.
- Member balance sheets remain strong. The debt-to-asset ratio of the average sole proprietor farm was constant at 32% with assets valued at estimated market value (Figure 4).
- The average farm's working capital eroded by \$60,000 after declining by over \$100,000 in 2015. Working capital for this group has declined by over 50% since the end of 2012. Yet working capital remained relatively strong at 42% of gross revenue.
- Debt repayment capacity rebounded to an average of 1.4:1, meaning that the average farm generated \$1.40 in income from farm and nonfarm sources for each \$1.00 of scheduled debt payments.

Figure 3: Rates of Return on Assets (ROA) and Equity (ROE)

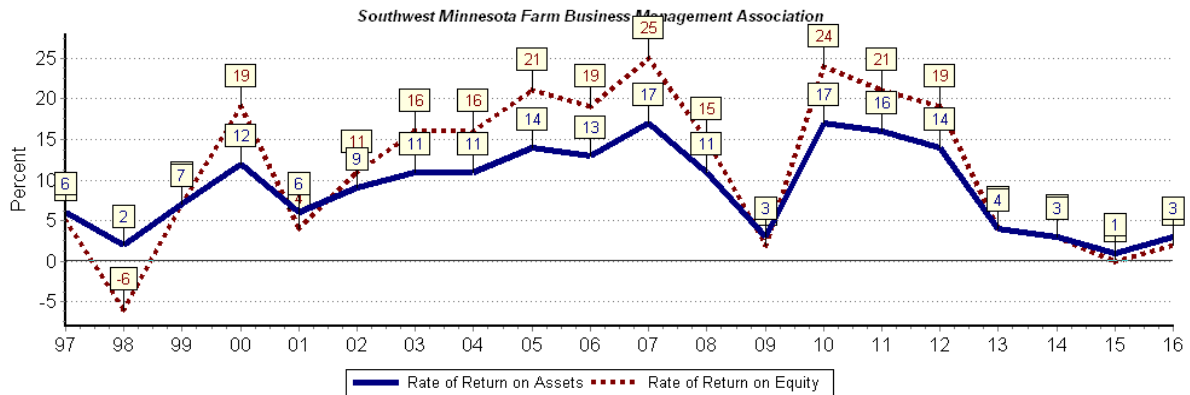


Figure 4: Ending Equity and Ending Debt to Asset Ratio

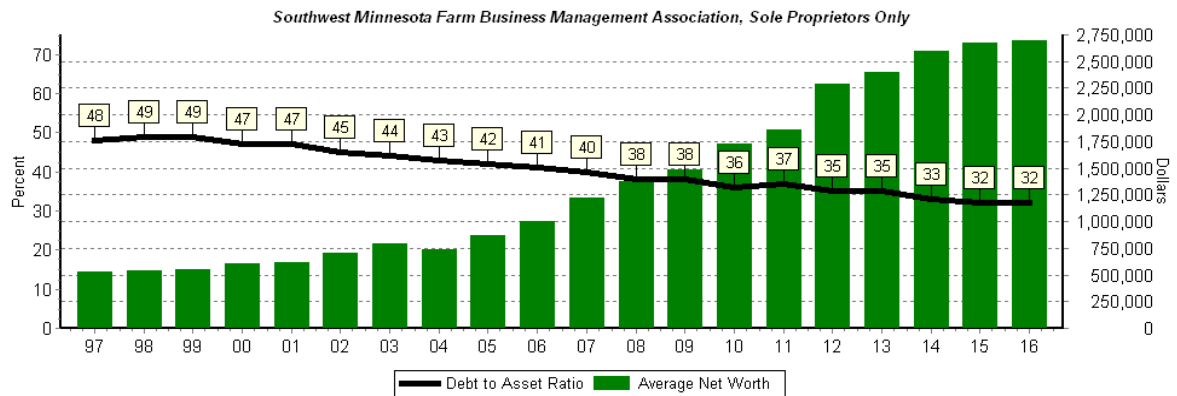


Figure 5: Average Corn and Soybean Yields

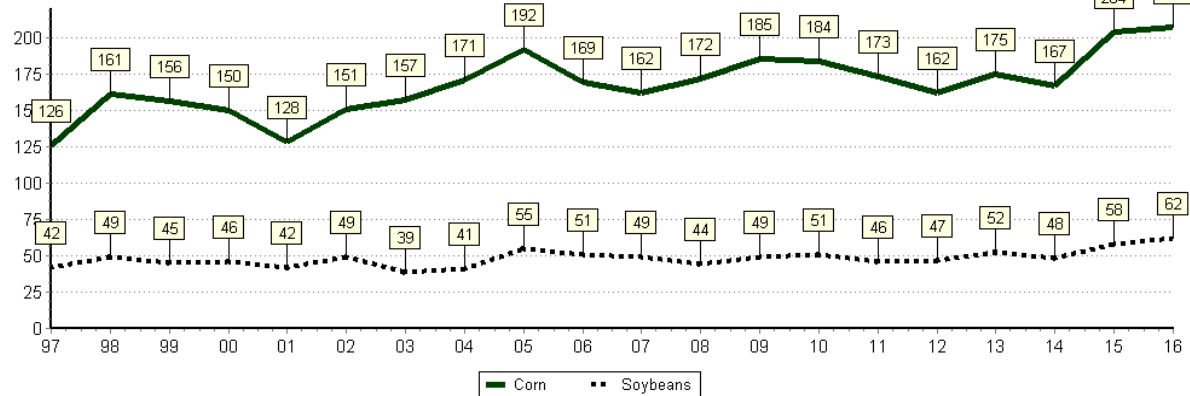


Figure 6: Crop Farms

Southwest Minnesota Farm Business Management Association

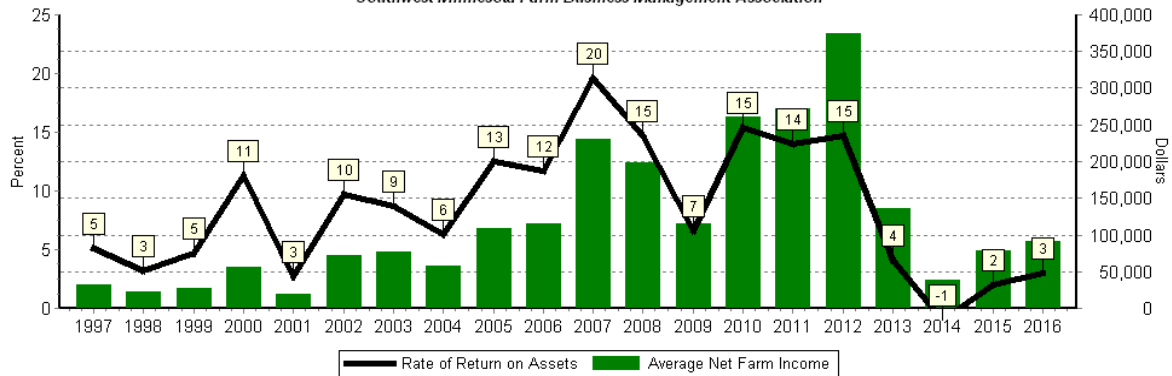


Figure 7: Hog/Crop & Hog Farms

Southwest Minnesota Farm Business Management Association

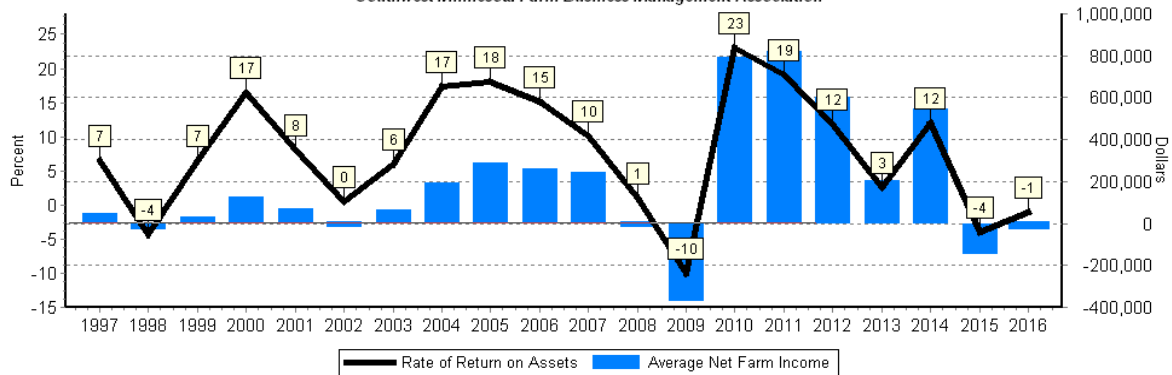
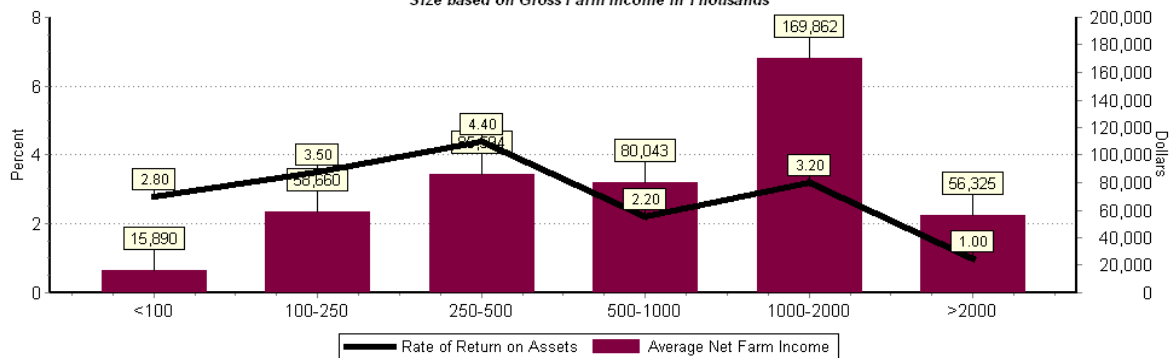


Figure 8: Net Farm Income and Return on Assets by Size of Farm

Southwest Minnesota Farm Business Management Association
Size based on Gross Farm Income in Thousands



Crops

- Association members harvested a record crop for the second consecutive year. Corn yields averaged 207 bushels per acre, up from 204 in 2015. By comparison, the average corn yield for the ten prior years was 174 bushels per acre. Soybean yields averaged 62 bushels per acre compared to 58 in 2015, 24% higher than the association average for the previous 10 years.
- Crop prices declined for the third consecutive year. The average price received for corn was \$3.38 per bushel compared to \$3.63 in 2015. Soybeans prices dropped from \$10.12 per bushel to \$8.92. By year-end, soybean prices had rallied back to over \$9.30 but corn prices had further declined.
- The cost to raise an acre of corn (with land rent) decreased by 2%. Several major expenses decreased including seed, fertilizer, chemicals, fuel and depreciation. Cash rental rates on corn and soybean acres declined by less than 1%.
- The cost to produce a bushel of corn on cash rented land was virtually unchanged at \$3.44. As was the case in 2015, outstanding yields were the big contributor to low cost per unit. With normal yields of 175 bushels per acre, cost per bushel would have been \$4.06 per bushel. Soybean costs per bushel decreased from \$8.69 in 2015 to \$8.62, again due to lower costs and the much higher yields per acre. These costs include a charge for unpaid labor and management, but do not include a charge for equity capital.

Type of Farm

- Crop farm earnings increased from \$79,000 in 2015 to \$91,000 in 2016. This was true even though net cash income declined. The difference was a much smaller decrease in inventory values. The value of inventories decreased in both years, but the decline was much less in 2016. The average crop farm earned a 3% rate of return on assets (Figure 6). After all costs of production including the charge for unpaid operator labor and management, member farms lost \$72 per acre on cash rented corn production but made \$46 on rented soybean land.
- For the second consecutive year, pork producers suffered negative earnings, but the loss was much less than the previous year. Specialized hog farms and hog/crop farms (those farms with over 70% of gross income from sale of hogs or a combination of hogs and crops) lost \$16,373 in 2016 after losing \$147,464 in the previous year. Prices for market hogs were slightly lower, dropping from \$52.92 per hundred pounds of live weight in 2015 to \$51.75. The average pork producer lost \$1 for every \$100 of assets invested (Figure 7).
- There were not enough specialized beef or dairy farms to summarize these farms by type.

Size of Farm

- Much like the previous year, 2016 was unusual in that net income did not increase with farm size (Figure 8). Farms with gross farm incomes between \$1 million and \$2 million had the highest net farm income while farms that grossed over \$2 million netted significantly less. This was probably largely due to losses incurred by large pork producers.
- Rates of return were relatively consistent across size groups with the exception of the largest farms. Farms that grossed between \$250,000 and \$500,000 earned the highest rate

of return on assets at 4.4%. The largest farm operations, those that grossed over \$2 million earned rates of return on assets of just 1%.

Debt Level

- Of the 103 farms in the report, 41 had debt-to-asset ratios above 40%, up from 31 the previous year. Fourteen of those farms had debt-to-assets of greater than 60%, up from 10 farms the previous year.
- Those farms with debt-to-assets between 40 and 60% had far lower average earnings than other farms in the association, including those with more debt. This may be an aberration caused by a small number of farms that experienced large losses but it bears watching in future years.

Operator Age

- There were 8 farms whose principle operator was 30 years of age or under among the 103 farms included in the report. These farms actually had the highest average earnings.
- Earnings did not vary greatly with age of operator. Unlike most years, younger operators had the highest average earnings. Based on average returns, operators age 41 – 50 earned less.

Projected Profitability

The Projected Profitability report displays actual results for association members in 2016 along with projected financial results for 2017. Projected results are based on the authors' assumptions on changes in revenue, operating expenses, interest rates, and asset values. Assumptions are displayed at the bottom of the page.

- **2016 All Farms Actual** – Average financial results for all farms in 2016. Balance sheet measures reflect the average position of association farms at the end of the year.
- **2016 Improved Margin Management** – Potential impacts of small changes in farm performance. If association farms had, on average, improved sales by 5% and cut costs by 5%, the net farm income of the average farm would have more than doubled.
- **2016 SW Association Crop Farms Actual** – Average financial results for the 71 crop farms in the association for 2016.
- **2017 SW Association Crop Farms Projected** – Average net income for member crop farms is expected to decrease slightly in 2017. Revenue is projected to decrease primarily due to the return to trend yields. Expenses are expected to decrease primarily due to decreases in input prices for fertilizer along with slight decreases in other expenses.
- **2016 Statewide Livestock Farms Actual** – Average financial results for the 723 farmers in the statewide database who received a major portion of their income from livestock and milk sales for 2016. This includes farms enrolled in Minnesota State Farm Business Management programs.

- **2017 Statewide Livestock Farms Projected** – Statewide livestock farm profits are projected to increase slightly in 2017. Revenue is expected to be higher for dairy and pork producers. Revenue for beef producers is expected to decrease slightly but the cost of feeder livestock is projected to decrease, increasing feeding margins slightly. Feed expenses are projected to increase slightly primarily due to increases in the cost of feedgrains.

The assumptions used to project these results are subjective. We offer these projections as a most likely scenario to help members consider management decisions in a period of tightening margins.

Full Report

The complete report provides additional information on whole farm financial performance as well as detailed information on crop and livestock enterprise profitability. The report also includes whole-farm financial condition and performance by business size, type of farm, debt-to-asset ratio, and age of operator.

2016 Annual Report of the Southwestern Minnesota¹ Farm Business Management Association

by

by Dale W. Nordquist, Donald L. Nitchie, Garen J. Paulson,
Tonya L. Knorr and Curtis L. Mahnken²

This report summarizes the individual farm records of the members of the Southwestern Minnesota Farm Business Management Association for 2016.

Whole-farm information and enterprise costs and returns are reported. The year-end analysis of the individual farms was performed by the Association fieldstaff using the FINPACK software from the Center for Farm Financial Management. The individual analyses were summarized at the Department of Applied Economics using RankEm Central. In addition to the average of all farms, the averages for the high and low income groups are also presented. The tables are divided into four major groups: whole-farm information, crop enterprises, livestock enterprises, and summary information. The summary information includes whole farm historical trends and information by farm size, type of farm, debt to asset ratio, and operator age.

Of the 124 farms in the Southwestern Association, the data for 103 farms are included in this report. The rest were omitted because the records were incomplete at the time that this report was prepared. In addition to this report, members receive an annual farm business analysis; on-farm instructional visits; end-of-year income tax planning and preparation; periodic meetings, tours, and seminars; a monthly newsletter; and other managerial and educational assistance. Each farmer pays an annual fee which covers the majority of the cost, with the balance defrayed by University of Minnesota Extension and research programs of the University of Minnesota.

The livestock enterprise summaries include data from both Southwest Minnesota Farm Management Association farms and Minnesota State Farm Business Management program farms. This provides a greater number of instances for each enterprise with the goal of providing more accurate benchmark information. Minnesota State FBM programs are distributed across the state and include over 2,000 participating farms. We thank the Minnesota State FBM program and participating producers for making this data available to be included in this report.

¹This report was partially funded by a Farm Business Management and Benchmarking Grant from the USDA National Institute of Food and Agriculture.

²Nordquist and Mahnken are Extension Economists--Center for Farm Financial Management (CFFM), University of Minnesota, Twin Cities; Nitchie is Extension Educator--Farm Management and Fieldmen for the Association; Paulson and Knorr are financial analysts for the Association. Special thanks to Rann Loppnow, Software Development, CFFM; Brittni Lamoreux, Administrative Associate, CFFM; and Gretchen Thillen, Southwest Research and Outreach Center.

Southwestern Minnesota Farm Business Management Association

Distribution of Membership -- 2016

County	Number of Farm Units	Number of Records Submitted
Cottonwood	14	12
Faribault	2	2
Jackson	17	15
Lyon	8	1
Martin	1	1
Murray	12	16
Nobles	22	17
Pipestone	13	12
Redwood	11	8
Rock	5	5
Wabasha	2	3
Watonwan	8	5
Others ²	<u>9</u>	<u>6</u>
TOTAL	124	103

Officers and Directors

Mike Metz, President
Brent Pohlman, Vice President
Ian Sandager, Secretary-Treasurer

The directors of the Southwestern Minnesota Farm Business Management Association for 2016/2017 are: Wesley Beck, Mark Christensen, Jason Diemer, Ben Fast, Ryan Gravenhof and Jason Keller.

Table of Contents

Whole-Farm Reports	5-7
Financial Summary	8
Financial Standards Measures	9
Farm Income Statement	10-11
Profitability Measures.....	12
Liquidity and Repayment Capacity Measures.....	13
Balance Sheets	14-15
Statement of Cash Flows	16
Crop Production and Marketing	17
Household and Personal Expenses	18
Operator and Labor Information	19
Nonfarm Summary	20
Projected Profitability	21
Crop Reports	23
Corn	24-27
Soybeans	28-31
Corn Silage	32
Hay, Alfalfa	33
CRP.....	34
Livestock Reports	35
Hogs, Farrow to Finish	36-37
Hogs, Finish Feeder Pigs	38-39
Hogs, Weaning to Finish	40-41
Hogs, Finish Feeder Pigs (Contract Grower)	42
Hogs, Weaning to Finish (Contract Grower)	43
Beef Cow-Calf	44-45
Beef Finishing.....	46-47
Dairy	48-49
Dairy Replacement Heifers	50-51
Dairy Finishing	52-53
Sheep, Market.....	54-55
Summary Reports.....	57
Financial Summary of the Whole-Farm Analysis by Years.....	58-59
Financial Summary by Gross Farm Income.....	60
Financial Summary by Farm Type	61
Financial Summary by Debt to Asset Ratio	62
Financial Summary by Age of Operator	63
Appendices	64-75
Appendix I – Whole Farm Analysis Procedures and Measures	64-70
Appendix II – Crop Enterprise Analysis Procedures and Measures	71-72
Appendix III – Livestock Enterprise Analysis Procedures and Measures	73-74
Appendix IV – Prices Used in the Analysis Report	75

Whole-Farm Reports

The whole-farm reports summarize the financial performance of member farms in 2016. Each table includes the average of the 103 farms included in the report and the average 20 percent of the farms with the lowest and highest profits (base on Net Farm Income). Appendix I provides detail on how the whole-farm measures are calculated. Below is a short summary of the whole farm reports.

Financial Summary

The Financial Summary report provides a summary of the key financial measures and ratios included on the other detailed whole farm reports. All profitability and repayment capacity measures are based on accrual adjusted net farm income.

Financial Standards Measures

The Farm Financial Standards Council recommends that farms use these twenty-one measures as standard measures of farm financial performance. Many are repeated from the Profitability, Liquidity, and Balance Sheet tables. For a complete description, see the Financial Guidelines for Agricultural Producers at <http://www.ffsc.org/index.php/order-the-guidelines/>

Farm Income Statement

The Income Statement calculates the accrual Net Farm Income generated by the average farm for year 2016. Net Farm Income is reported based on accrual adjustments to the cash income and expenses reported for the year. Net Farm Income is the income earned before any compensation for owner labor and management. If owner compensation was included in farm expenses, it has been excluded here to make all farms uniform. Net Farm Income represents the return to the operator's labor, management, and equity capital (net worth). It is the amount the farm contributed to owner family living, income taxes, and net worth growth. However, it does not include any asset appreciation, debt forgiveness or asset repossessions.

Profitability Measures

The profitability measures are calculated based on both the cost value of assets and the market value. When calculated based on the market value of assets, the profitability measures can be compared to interest rates and returns available on alternative investments. When based on cost values, the returns more closely estimate the actual returns from the actual investment. (Cost values do not reflect the tax basis of farm assets. Instead, a method of calculating depreciation is used that estimates economic depreciation over the useful life of the assets.)

The *Rate of Return on Assets* (ROA) can be thought of as the interest rate earned by all investment in farm assets. *Rate of Return on Equity* (ROE) is the rate earned on the operator's equity or net worth in the farm business. If ROE is higher than ROA, borrowed funds more than paid for their cost in interest expense. *Operating Profit Margin* measures efficiency in farm operations. The higher the margin, the more of the farm income remained in pockets of the farm operator. *Asset Turnover Rate* measures efficiency in use of capital. Again, the higher the better. Farms with high investment in fixed assets will generally have a lower turnover rate than those who lease a major share of their capital.

Liquidity and Repayment Capacity Measures

Liquidity reflects the ability of the farm to meet its financial obligations on time. *Current Ratio* is current farm assets divided by current farm liabilities. *Working Capital* is current farm assets minus current farm liabilities. Businesses with more working capital are generally in a better position to overcome short-term financial downturns or production problems. *Working Capital to Gross Income* measures liquidity relative to business size.

Repayment capacity measures the ability of the business to meet debt payments and replace capital assets. *Term Debt Coverage Ratio* measures the ability of the business to meet its scheduled debt payments. A term debt coverage ratio greater than 1.0 indicates that the business produced more than enough earnings to meet its scheduled debt payments. *Replacement Coverage Ratio* adds the need for capital replacement. A replacement coverage ratio greater than 1.0 indicates that the business produced more than enough earnings to meet its payments and replace its depreciable assets.

Balance Sheets

Balance sheet reports are included for both the cost and market value of assets. Current assets are identical in both tables, with crop and livestock inventories generally valued at market value. This conforms to the methodology recommended by the Farm Financial Standards Council. On the cost-based table, intermediate and long term assets are shown at depreciated value using estimated economic, rather than tax, depreciation. On the market table, they are valued at estimated market value.

Liabilities are the same on the cost and market tables except for the inclusion of *Deferred Liabilities* on the market statements. Deferred liabilities are the estimated taxes that would be paid if assets were liquidated at their market values.

Net Worth Change on the cost value table is the amount of earned net worth growth or loss for the year. Net worth change on the market value table includes both earned growth and changes in the market valuation of capital assets.

Statement of Cash Flows

The Statement of Cash Flows displays the sources and uses of cash for the year. *Cash From Operating Activities* includes sources and uses of cash related to normal farm operations. *Cash From Investing Activities* reflect cash used to buy and sell capital assets. *Cash From Financing Activities* includes sources and uses of borrowed funds as well as cash from nonfarm activities.

Crop Production and Marketing

This table reports farm size in acres farmed, average crop yields for major commodities, and average crop sales prices for the calendar year. Yields and prices are reported for the average of all farms for more commodities than those included in the High and Low columns because a minimum of five farms are required to report the yield or price for any group.

Household and Personal Expenses

This table reports family living and other non-farm expenditures. Only sole proprietors who keep detailed family living records are included.

Operator and Labor Information

All previous tables report results per farm, regardless of the number of families or operators involved in the operation. This report repeats several measures from previous tables on a *Per Operator* basis. It also summarizes estimated labor hours used and labor performance.

Nonfarm Summary

This table summarizes nonfarm earnings for the average farm and details nonfarm assets and liabilities.

Projected Profitability

Based on the past year's results and the author's estimates of changes in next year's production, prices and costs, this page projects the financial performance of these farms in the coming year.

Financial Summary
Southwestern Minnesota Farm Business Management Association
(Farms Sorted By Net Farm Income)

	<u>Avg. Of All Farms</u>	<u>Low 20%</u>	<u>High 20%</u>
Number of farms	103	20	21
Income Statement			
Gross cash farm income	918,546	1,148,179	1,710,740
Total cash farm expense	748,909	977,533	1,397,124
Net cash farm income	169,638	170,646	313,616
Inventory change	-8,515	-150,497	71,021
Depreciation	-71,987	-86,555	-110,121
Net farm income from operations	89,136	-66,406	274,516
Gain or loss on capital sales	-418	-10,741	190
Average net farm income	88,717	-77,146	274,706
Median net farm income	84,823	-14,985	193,202
Profitability (cost)			
Rate of return on assets	2.5 %	-3.2 %	5.7 %
Rate of return on equity	1.8 %	-8.8 %	7.1 %
Operating profit margin	8.2 %	-12.3 %	16.8 %
Asset turnover rate	30.9 %	25.8 %	34.0 %
Liquidity & Repayment (end of year)			
Current assets	825,230	770,383	1,409,145
Current liabilities	430,196	558,998	874,001
Current ratio	1.92	1.38	1.61
Working capital	395,033	211,384	535,143
Working capital to gross inc	42.1 %	20.6 %	28.9 %
Term debt coverage ratio	1.41	-0.16	2.04
Replacement coverage ratio	0.93	-0.11	1.61
Term debt to EBITDA	2.22	7.90	1.98
Solvency (end of year at market)			
Number of farms	103	20	21
Total assets	4,028,119	4,128,948	6,548,868
Total liabilities	1,435,257	1,685,931	2,583,732
Net worth	2,592,862	2,443,018	3,965,136
Total net worth change	62,309	-77,349	200,808
Farm debt to asset ratio	38 %	43 %	42 %
Total debt to asset ratio	36 %	41 %	39 %
Change in total net worth %	2 %	-3 %	5 %
Nonfarm Information			
Net nonfarm income	39,590	44,454	33,714
Farms reporting living expenses	44	8	6
Total family living expense	73,384	58,349	101,604
Total living, invest, cap. purch	125,223	90,620	167,696
Crop Acres			
Total crop acres	939	858	1,639
Total crop acres owned	236	240	354
Total crop acres cash rented	651	577	1,235
Total crop acres share rented	53	41	50
Machinery value per crop acre	514	712	416

Financial Standards Measures
Southwestern Minnesota Farm Business Management Association
(Farms Sorted By Net Farm Income)

	<u>Avg. Of All Farms</u>	<u>Low 20%</u>	<u>High 20%</u>
Number of farms	103	20	21
Liquidity			
Current ratio	1.92	1.38	1.61
Working capital	395,033	211,384	535,143
Working capital to gross inc	42.1 %	20.6 %	28.9 %
Solvency (market)			
Farm debt to asset ratio	38 %	43 %	42 %
Farm equity to asset ratio	62 %	57 %	58 %
Farm debt to equity ratio	0.62	0.77	0.73
Profitability (cost)			
Rate of return on farm assets	2.5 %	-3.2 %	5.7 %
Rate of return on farm equity	1.8 %	-8.8 %	7.1 %
Operating profit margin	8.2 %	-12.3 %	16.8 %
Net farm income	88,717	-77,146	274,706
EBITDA	193,017	67,995	448,687
Repayment Capacity			
Capital debt repayment capacity	116,322	-16,569	330,581
Capital debt repayment margin	33,969	-117,872	168,542
Replacement margin	-8,573	-164,729	125,294
Term debt coverage ratio	1.41	-0.16	2.04
Replacement coverage ratio	0.93	-0.11	1.61
Efficiency			
Asset turnover rate (cost)	30.9 %	25.8 %	34.0 %
Operating expense ratio	79.4 %	93.4 %	75.8 %
Depreciation expense ratio	7.7 %	8.4 %	5.9 %
Interest expense ratio	3.4 %	4.7 %	3.5 %
Net farm income ratio	9.5 %	-7.5 %	14.8 %

Farm Income Statement
Southwestern Minnesota Farm Business Management Association
(Farms Sorted By Net Farm Income)

	<u>Avg. Of All Farms</u>	<u>Low 20%</u>	<u>High 20%</u>
Number of farms	103	20	21
Cash Farm Income			
Corn	250,277	227,822	407,991
Corn Silage	14,994	176	67,881
Hay, Alfalfa	3,590	610	13,424
Hay, Mixed	39,096	200,377	43
Oats	350	626	-
Soybeans	225,408	176,827	405,662
Soybeans Seed	1,205	6,205	-
Stover	229	-	-
Sugar Beets	1,752	9,024	-
Sweet Corn, Processing	219	-	-
Wheat, Spring	368	-	447
Rye, Organic	192	-	-
Wheat, Spring, Organic	235	-	-
Corn snaplage	454	2,338	-
Miscellaneous crop income	977	2,214	597
Beef Bulls	340	-	-
Beef Cow-Calf, Beef Calves	513	1,260	1,315
Beef Backgrounding	665	-	-
Beef Finishing	19,970	22,478	37,921
Dairy, Milk	65,375	11,727	283,126
Dairy, Dairy Calves	2,759	851	11,968
Dairy Replacement Heifers	4,140	589	4,012
Dairy Finishing	17,881	64,185	-
Hogs, Farrow To Finish, Raised Hog	2,638	-	-
Hogs, Finish Feeder Pigs	8,182	14,296	-
Sheep, Market Lamb Prod, Mkt Lambs	2,124	612	-
Hogs, Farrow to Weaning, Weaning P	907	-	4,450
Hogs, Weaning to Finish	162,463	322,928	305,686
Cull breeding livestock	3,955	1,320	10,893
Misc. livestock income	2,627	3	11,242
Crop government payments	11,515	8,698	14,002
CRP payments	849	131	1,257
Other government payments	10,289	5,512	24,985
Custom work income	21,251	17,632	50,078
Patronage dividends, cash	6,652	7,654	9,801
Crop insurance income	3,635	3,942	2,960
Property insurance income	3,312	399	15,797
Sale of resale items	2,340	12,009	-
Contract livestock income	12,373	11,128	11,557
Other farm income	12,445	14,607	13,645
Gross Cash Farm Income	918,546	1,148,179	1,710,740

Farm Income Statement (continued)
Southwestern Minnesota Farm Business Management Association
(Farms Sorted By Net Farm Income)

	<u>Avg. Of All Farms</u>	<u>Low 20%</u>	<u>High 20%</u>
Number of farms	103	20	21
Cash Farm Expense			
Seed	74,485	59,325	123,939
Fertilizer	57,785	55,032	82,249
Crop chemicals	30,067	34,301	39,095
Crop insurance	13,925	15,264	22,653
Drying expense	2,785	1,741	3,831
Storage	480	84	965
Irrigation energy	153	790	-
Crop custom hire	5,501	5,435	9,512
Crop miscellaneous	3,393	12,255	2,234
Crop consultants	2,334	671	6,568
Feeder livestock purchase	73,886	113,106	141,356
Purchased feed	106,939	167,600	275,318
Breeding fees	1,341	184	4,572
Veterinary	6,841	13,184	16,163
Supplies	5,374	2,846	18,548
Contract production exp.	14,125	29,922	38,080
Livestock leases	105	166	-
Bedding	464	-	1,779
Livestock consultants	42	189	-
Interest	30,723	43,883	62,274
Fuel & oil	19,381	27,728	28,679
Repairs	43,323	64,219	61,860
Custom hire	11,359	19,324	8,563
Hired labor	26,405	44,064	52,147
Land rent	139,962	112,056	291,048
Machinery leases	10,532	3,979	33,647
Building leases	3,452	519	3,970
Real estate taxes	7,862	7,871	12,082
Farm insurance	12,398	17,426	16,397
Utilities	9,412	10,355	13,914
Hauling and trucking	3,199	6,733	6,290
Marketing	4,357	7,796	8,490
Dues & professional fees	3,676	4,220	3,947
Purchase of resale items	18,489	86,618	4,084
Miscellaneous	4,352	8,648	2,871
Total cash expense	748,909	977,533	1,397,124
Net cash farm income	169,638	170,646	313,616
Inventory Changes			
Prepays and supplies	-13,474	-29,518	-17,631
Accounts receivable	-6,523	-39,530	4,572
Hedging accounts	3,575	2,030	13,847
Other current assets	14	499	1,807
Crops and feed	18,976	-13,571	72,945
Market livestock	2,159	-66,379	41,258
Breeding livestock	-269	-868	919
Other assets	1,132	-1,680	7,455
Accounts payable	-12,934	2,482	-52,375
Accrued interest	-1,171	-3,962	-1,776
Total inventory change	-8,515	-150,497	71,021
Net operating profit	161,123	20,149	384,637
Depreciation			
Machinery and equipment	-52,732	-62,708	-81,087
Titled vehicles	-3,528	-5,583	-3,910
Buildings and improvements	-15,728	-18,264	-25,124
Total depreciation	-71,987	-86,555	-110,121
Net farm income from operations	89,136	-66,406	274,516
Gain or loss on capital sales	-418	-10,741	190
Net farm income	88,717	-77,146	274,706

Profitability Measures
Southwestern Minnesota Farm Business Management Association
(Farms Sorted By Net Farm Income)

	<u>Avg. Of All Farms</u>	<u>Low 20%</u>	<u>High 20%</u>
Number of farms	103	20	21
Profitability (assets valued at cost)			
Net farm income from operations	89,136	-66,406	274,516
Rate of return on assets	2.5 %	-3.2 %	5.7 %
Rate of return on equity	1.8 %	-8.8 %	7.1 %
Operating profit margin	8.2 %	-12.3 %	16.8 %
Asset turnover rate	30.9 %	25.8 %	34.0 %
Farm interest expense	31,894	47,845	64,050
Value of operator lbr and mgmt.	60,724	62,815	98,236
Return on farm assets	60,306	-81,375	240,330
Average farm assets	2,391,921	2,561,408	4,211,602
Return on farm equity	28,412	-129,221	176,280
Average farm equity	1,547,228	1,471,033	2,484,610
Value of farm production	738,186	660,787	1,432,785
	<u>Avg. Of All Farms</u>	<u>Low 20%</u>	<u>High 20%</u>
Number of farms	103	20	21
Profitability (assets valued at market)			
Net farm income from operations	100,147	-3,175	285,137
Rate of return on assets	2.0 %	-0.5 %	4.4 %
Rate of return on equity	1.8 %	-3.1 %	5.6 %
Operating profit margin	9.7 %	-2.7 %	17.5 %
Asset turnover rate	21.2 %	17.5 %	25.0 %
Farm interest expense	31,894	47,845	64,050
Value of operator lbr and mgmt.	60,724	62,815	98,236
Return on farm assets	71,317	-18,144	250,951
Average farm assets	3,484,729	3,767,999	5,724,789
Return on farm equity	39,424	-65,990	186,900
Average farm equity	2,162,262	2,141,579	3,353,682
Value of farm production	738,186	660,787	1,432,785

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

	<u>Avg. Of All Farms</u>	<u>Low 20%</u>	<u>High 20%</u>
Number of farms	103	20	21
Liquidity			
Current ratio	1.92	1.38	1.61
Working capital	395,033	211,384	535,143
Working capital to gross inc	42.1 %	20.6 %	28.9 %
Current assets	825,230	770,383	1,409,145
Current liabilities	430,196	558,998	874,001
Gross revenues (accrual)	937,500	1,028,111	1,853,543
Repayment capacity			
Net farm income from operations	89,136	-66,406	274,516
Depreciation	71,987	86,555	110,121
Personal income	39,590	44,454	33,714
Family living/owner withdrawals	-79,802	-88,809	-100,401
Cash discrepancy	-208	-44	-512
Payments on personal debt	-2,875	-4,283	-1,176
Income taxes paid	-23,457	-16,981	-30,417
Interest on term debt	21,744	28,902	44,224
Capital debt repayment capacity	116,322	-16,569	330,581
Scheduled term debt payments	-82,353	-101,303	-162,040
Capital debt repayment margin	33,969	-117,872	168,542
Cash replacement allowance	-42,542	-46,857	-43,248
Replacement margin	-8,573	-164,729	125,294
Term debt coverage ratio	1.41	-0.16	2.04
Replacement coverage ratio	0.93	-0.11	1.61

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

	<u>Avg. Of All Farms</u>		<u>Low 20%</u>		<u>High 20%</u>	
Number of farms	103		20		21	
	<u>Beginning</u>	<u>Ending</u>	<u>Beginning</u>	<u>Ending</u>	<u>Beginning</u>	<u>Ending</u>
Assets						
Current Farm Assets						
Cash and checking balance	53,793	65,376	52,420	54,497	40,411	96,676
Prepaid expenses & supplies	128,173	114,699	128,552	99,034	206,529	188,899
Growing crops	0	110	0	569	0	0
Accounts receivable	38,896	32,373	68,996	29,466	66,238	70,810
Hedging accounts	5,764	6,966	3,766	4,500	15,157	18,935
Crops held for sale or feed	494,301	513,277	458,294	444,724	813,101	886,046
Crops under government loan	0	0	0	0	0	0
Market livestock held for sale	90,827	92,986	203,427	137,048	112,257	153,514
Other current assets	-461	-557	616	546	-7,543	-5,736
Total current farm assets	811,293	825,230	916,072	770,383	1,246,150	1,409,145
Intermediate Farm Assets						
Breeding livestock	40,660	40,632	19,069	18,819	125,775	127,353
Machinery and equipment	705,113	697,264	815,661	792,619	991,061	986,936
Titled vehicles	33,393	30,935	59,113	54,610	39,347	38,085
Other intermediate assets	77,021	78,886	46,488	48,837	218,896	220,913
Total intermediate farm assets	856,188	847,716	940,332	914,884	1,375,079	1,373,287
Long Term Farm Assets						
Farm land	1,288,847	1,333,393	1,454,224	1,466,224	2,096,147	2,184,851
Buildings and improvements	432,284	467,897	479,099	505,636	695,487	831,753
Other long-term assets	50,721	55,891	44,439	44,704	108,499	129,181
Total long-term farm assets	1,771,852	1,857,180	1,977,763	2,016,565	2,900,133	3,145,786
Total Farm Assets	3,439,332	3,530,126	3,834,166	3,701,832	5,521,362	5,928,217
Total Nonfarm Assets	462,876	497,993	416,714	427,117	567,442	620,651
Total Assets	3,902,208	4,028,119	4,250,880	4,128,948	6,088,803	6,548,868
Liabilities						
Current Farm Liabilities						
Accrued interest	8,904	10,075	13,932	17,894	13,372	15,148
Accounts payable	26,540	39,474	15,069	12,588	78,977	131,352
Current notes	287,220	319,247	456,942	467,450	499,523	605,146
Government crop loans	0	0	0	0	0	0
Principal due on term debt	60,609	61,401	72,401	61,067	117,816	122,355
Total current farm liabilities	383,273	430,196	558,344	558,998	709,688	874,001
Total intermediate farm liabs	88,026	75,605	123,667	93,231	176,266	149,717
Total long term farm liabilities	340,752	371,533	413,653	432,857	712,873	831,439
Total farm liabilities	812,051	877,334	1,095,664	1,085,086	1,598,826	1,855,158
Total nonfarm liabilities	65,458	60,425	76,513	68,884	58,056	49,851
Total liabs excluding deferreds	877,509	937,759	1,172,177	1,153,970	1,656,882	1,905,009
Total deferred liabilities	494,146	497,497	558,337	531,961	667,593	678,722
Total liabilities	1,371,655	1,435,257	1,730,514	1,685,931	2,324,476	2,583,732
Retained earnings	1,849,014	1,893,848	1,821,573	1,677,747	2,809,085	2,984,762
Market valuation equity	681,539	699,014	698,794	765,271	955,243	980,375
Net worth (farm and nonfarm)	2,530,553	2,592,862	2,520,366	2,443,018	3,764,328	3,965,136
Net worth excluding deferreds	3,024,699	3,090,359	3,078,703	2,974,979	4,431,921	4,643,859
Net worth change		62,309		-77,349		200,808
Percent net worth change		2 %		-3 %		5 %
Ratio Analysis						
Current farm liabilities / assets	47 %	52 %	61 %	73 %	57 %	62 %
Intermediate farm liab. / assets	10 %	9 %	13 %	10 %	13 %	11 %
Long term farm liab. / assets	19 %	20 %	21 %	21 %	25 %	26 %
Total debt to asset ratio	35 %	36 %	41 %	41 %	38 %	39 %
Debt to assets excl deferreds	22 %	23 %	28 %	28 %	27 %	29 %

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

	<u>Avg. Of All Farms</u>		<u>Low 20%</u>		<u>High 20%</u>	
Number of farms	103		20		21	
	<u>Beginning</u>	<u>Ending</u>	<u>Beginning</u>	<u>Ending</u>	<u>Beginning</u>	<u>Ending</u>
Assets						
Current Farm Assets						
Cash and checking balance	53,793	65,376	52,420	54,497	40,411	96,676
Prepaid expenses & supplies	128,173	114,699	128,552	99,034	206,529	188,899
Growing crops	0	110	0	569	0	0
Accounts receivable	38,896	32,373	68,996	29,466	66,238	70,810
Hedging accounts	5,764	6,966	3,766	4,500	15,157	18,935
Crops held for sale or feed	494,301	513,277	458,294	444,724	813,101	886,046
Crops under government loan	0	0	0	0	0	0
Market livestock held for sale	90,827	92,986	203,427	137,048	112,257	153,514
Other current assets	-461	-557	616	546	-7,543	-5,736
Total current farm assets	811,293	825,230	916,072	770,383	1,246,150	1,409,145
Intermediate Farm Assets						
Breeding livestock	33,284	34,261	11,824	10,925	118,022	120,141
Machinery and equipment	474,887	469,823	604,865	564,369	689,427	698,332
Titled vehicles	20,837	18,555	35,685	29,488	22,114	20,376
Other intermediate assets	68,095	69,680	21,757	21,824	218,896	220,913
Total intermediate farm assets	597,102	592,319	674,131	626,606	1,048,459	1,059,762
Long Term Farm Assets						
Farmland	595,262	634,877	672,875	686,676	1,152,792	1,226,839
Buildings and improvements	301,971	327,136	347,704	358,400	468,910	590,340
Other long-term assets	47,216	51,437	35,370	34,599	100,795	120,014
Total long-term farm assets	944,450	1,013,449	1,055,948	1,079,676	1,722,497	1,937,194
Total Farm Assets	2,352,845	2,430,998	2,646,152	2,476,664	4,017,105	4,406,100
Total Nonfarm Assets	373,678	400,610	347,598	355,052	448,862	483,671
Total Assets	2,726,523	2,831,608	2,993,750	2,831,717	4,465,967	4,889,771
Liabilities						
Current Farm Liabilities						
Accrued interest	8,904	10,075	13,932	17,894	13,372	15,148
Accounts payable	26,540	39,474	15,069	12,588	78,977	131,352
Current notes	287,220	319,247	456,942	467,450	499,523	605,146
Government crop loans	0	0	0	0	0	0
Principal due on term debt	60,609	61,401	72,401	61,067	117,816	122,355
Total current farm liabilities	383,273	430,196	558,344	558,998	709,688	874,001
Total intermediate farm liabs	88,026	75,605	123,667	93,231	176,266	149,717
Total long term farm liabilities	340,752	371,533	413,653	432,857	712,873	831,439
Total farm liabilities	812,051	877,334	1,095,664	1,085,086	1,598,826	1,855,158
Total nonfarm liabilities	65,458	60,425	76,513	68,884	58,056	49,851
Total liabilities	877,509	937,759	1,172,177	1,153,970	1,656,882	1,905,009
Net worth (farm and nonfarm)	1,849,014	1,893,848	1,821,573	1,677,747	2,809,085	2,984,762
Net worth change		44,834		-143,826		175,676
Percent net worth change		2 %		-8 %		6 %
Ratio Analysis						
Current farm liabilities / assets	47 %	52 %	61 %	73 %	57 %	62 %
Intermediate farm liab. / assets	15 %	13 %	18 %	15 %	17 %	14 %
Long term farm liab. / assets	36 %	37 %	39 %	40 %	41 %	43 %
Total debt to asset ratio	32 %	33 %	39 %	41 %	37 %	39 %

Statement Of Cash Flows
Southwestern Minnesota Farm Business Management Association
(Farms Sorted By Net Farm Income)

	<u>Avg. Of All Farms</u>	<u>Low 20%</u>	<u>High 20%</u>
Number of farms	103	20	21
Beginning cash (farm & nonfarm)	71,700	82,881	67,722
Cash Provided By Operating Activities			
Gross cash farm income	918,546	1,148,179	1,710,740
Total cash farm expense	-748,909	-977,533	-1,397,124
Net cash from hedging transactions	2,373	1,297	10,068
Cash provided by operating	172,010	171,943	323,684
Cash Provided By Investing Activities			
Sale of breeding livestock	739	2,045	266
Sale of machinery & equipment	6,013	9,924	8,597
Sale of titled vehicles	1,229	5,181	-
Sale of farm land	18	-	-
Sale of farm buildings	1,724	-	-
Sale of other farm assets	2,837	16	11,925
Sale of nonfarm assets	5,223	9,415	11,635
Purchase of breeding livestock	-1,974	-2,014	-1,436
Purchase of machinery & equip.	-55,234	-45,027	-98,429
Purchase of titled vehicles	-1,922	-2,415	-2,172
Purchase of farm land	-39,654	-13,803	-74,047
Purchase of farm buildings	-42,045	-28,961	-146,555
Purchase of other farm assets	-7,512	-993	-25,706
Purchase of nonfarm assets	-27,191	-26,786	-43,067
Cash provided by investing	-157,748	-93,419	-358,990
Cash Provided By Financing Activities			
Money borrowed	546,644	583,114	1,325,308
Principal payments	-498,526	-601,088	-1,129,071
Personal income	39,590	44,454	33,714
Family living/owner withdrawals	-79,763	-88,809	-100,401
Income and social security tax	-24,308	-18,204	-32,660
Capital contributions	3,385	-	5,021
Capital distributions	-5,825	-	-23,810
Dividends paid	-39	-	-
Cash gifts and inheritances	15,313	1,419	7,351
Gifts given	-925	-	-
Other cash flows	-	-	-
Cash provided by financing	-4,452	-79,114	85,453
Net change in cash balance	9,810	-590	50,148
Ending cash (farm & nonfarm)	81,302	82,247	117,358
Discrepancy	208	44	512

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

	<u>Avg. Of All Farms</u>	<u>Low 20%</u>	<u>High 20%</u>
Number of farms	103	20	21
Acreage Summary			
Total acres owned	210	218	309
Total crop acres	939	858	1,639
Crop acres owned	236	240	354
Crop acres cash rented	651	577	1,235
Crop acres share rented	53	41	50
Total pasture acres	7	13	0
Percent crop acres owned	25 %	28 %	22 %
 Mach invest/crop acre cost	 514	 712	 416
Mach invest/crop acre market	769	997	602
 Average Price Received (Cash Sales Only)			
Soybeans per bushel	8.92	9.18	8.93
Corn per bushel	3.38	3.46	3.25
Hay, Alfalfa per ton	118.43	-	-
Hay, Grass per ton	51.10	-	-
Oats per bushel	2.74	-	-
Corn Silage per ton	34.71	-	-
 Average Yield Per Acre			
Corn (bushel)	207.29	206.48	206.83
Soybeans (bushel)	61.89	60.30	62.09
Hay, Alfalfa (ton)	4.81	3.98	-
Corn Silage (ton)	23.15	25.70	22.56
Hay, Grass (ton)	2.31	-	-
Oats (bushel)	109.86	-	-

Household and Personal Expenses
Southwestern Minnesota Farm Business Management Association
(Farms Sorted By Net Farm Income)

	<u>Avg. Of All Farms</u>	<u>Low 20%</u>	<u>High 20%</u>
Number of farms	44	8	6
Average family size	3.0	2.4	4.5
Family Living Expenses			
Food and meals expense	8,474	7,478	11,062
Medical care	5,797	3,403	6,884
Health insurance	6,893	9,980	6,234
Cash donations	6,081	5,207	8,168
Household supplies	7,466	3,555	17,354
Clothing	2,985	1,425	8,878
Personal care	3,145	1,031	1,727
Child / Dependent care	396	-	54
Alimony and child support	-	-	-
Gifts	4,276	1,814	7,384
Education	3,220	4,170	5,302
Recreation	4,695	5,314	4,097
Utilities (household share)	3,111	3,386	4,483
Personal vehicle operating exp	3,752	2,622	5,071
Household real estate taxes	580	326	630
Dwelling rent	0	-	-
Household repairs	3,036	1,428	1,468
Personal interest	669	-	611
Disability / Long term care ins	530	575	-
Life insurance payments	2,868	3,175	3,963
Personal property insurance	640	1,150	306
Miscellaneous	4,560	2,208	7,927
Total cash family living expense	73,174	58,249	101,604
Family living from the farm	211	100	-
Total family living	73,384	58,349	101,604
Other Nonfarm Expenditures			
Income taxes	33,326	34,541	47,116
Furnishing & appliance purchases	201	211	-
Nonfarm vehicle purchases	3,408	3,431	3,350
Nonfarm real estate purchases	2,358	1,996	900
Other nonfarm capital purchases	4,694	-19,127	-
Nonfarm savings & investments	8,062	11,319	14,726
Total other nonfarm expenditures	52,049	32,372	66,092
Total cash family living investment & nonfarm capital purch	125,223	90,620	167,696

Operator and Labor Information
Southwestern Minnesota Farm Business Management Association
(Farms Sorted By Net Farm Income)

	<u>Avg. Of All Farms</u>	<u>Low 20%</u>	<u>High 20%</u>
Number of farms	103	20	21
Operator Information			
Average number of operators	1.2	1.0	1.3
Average age of operators	52.0	51.5	50.9
Average number of years farming	27.9	27.4	27.7
Results Per Operator			
Working capital	328,132	211,384	401,357
Total assets (market)	3,345,937	4,128,948	4,911,651
Total liabilities	1,192,189	1,685,931	1,937,799
Net worth (market)	2,153,748	2,443,018	2,973,852
Net worth excl deferred liabs	2,566,992	2,974,979	3,482,894
Gross farm income	778,730	1,028,111	1,390,157
Total farm expense	704,690	1,094,517	1,184,270
Net farm income from operations	74,040	-66,406	205,887
Net nonfarm income	32,885	44,454	25,286
Family living & tax withdrawals	85,945	105,834	98,498
Total acres owned	174.4	217.9	231.5
Total crop acres	780.2	857.5	1,229.3
Crop acres owned	195.7	239.9	265.8
Crop acres cash rented	540.8	576.8	926.2
Crop acres share rented	43.7	40.7	37.3
Total pasture acres	6.1	12.9	0.3
Labor Analysis			
Number of farms	103	20	21
Total unpaid labor hours	2,175	2,044	2,922
Total hired labor hours	1,497	3,085	2,791
Total labor hours per farm	3,672	5,130	5,712
Unpaid hours per operator	1,806	2,044	2,191
Value of farm production / hour	201.05	128.82	250.82
Net farm income / unpaid hour	40.99	-32.48	93.96
Average hourly hired labor wage	21.43	19.70	21.03
Partnerships & LLCs			
Number of farms	14	-	5
Number of operators	2.3	-	2.2
Owner withdrawals per farm	76,344	-	-
Withdrawals per operator	34,702	-	-
Corporations			
Number of farms	6	2	-
Number of operators	1.0	-	-

Nonfarm Summary
Southwestern Minnesota Farm Business Management Association
(Farms Sorted By Net Farm Income)

	<u>Avg. Of All Farms</u>	<u>Low 20%</u>	<u>High 20%</u>
Number of farms	103	20	21
Nonfarm Income			
Personal wages & salary	18,913	21,480	11,746
Net nonfarm business income	4,876	5,700	7,684
Personal rental income	3,122	2,896	2,872
Personal interest income	697	890	428
Personal cash dividends	1,170	-	215
Tax refunds	1,501	2,030	1,474
Other nonfarm income	9,310	11,458	9,295
Total nonfarm income	39,590	44,454	33,714
Gifts and inheritances	15,313	1,419	7,351
Nonfarm Assets (market)			
Checking & savings	15,926	27,751	20,682
Stocks & bonds	55,146	14,106	108,341
Other current assets	8,591	16,831	20,589
Furniture & appliances	11,521	9,010	6,730
Nonfarm vehicles	22,181	25,130	19,979
Cash value of life ins.	17,280	31,766	7,051
Retirement accounts	123,503	119,190	113,520
Other intermediate assets	23,896	12,010	3,952
Nonfarm real estate	125,753	146,587	128,951
Personal bus. investment	34,151	-	148,423
Other long term assets	60,045	24,736	42,433
Total nonfarm assets	497,993	427,117	620,651
Nonfarm Liabilities			
Accrued interest	196	158	133
Accounts payable	2,559	8,860	1,690
Current notes	403	-	-
Princ due on term debt	2,728	3,578	1,079
Total current liabilities	26,973	26,030	37,453
Intermediate liabilities	7,145	1,900	1,548
Long term liabilities	26,307	40,954	10,851
Total nonfarm liabilities	60,425	68,884	49,851
Nonfarm net worth	437,568	358,233	570,800
Nonfarm debt to asset ratio	12 %	16 %	8 %

Projected Profitability

Southwest Minnesota Farm Business Management Association

	2016 All Farms Actual	2016 Improved Margin Mgmt.	2016 SW Assn Crop Farms Actual	2017 SW Assn Crop Farms Projected	2016 Statewide Lvst Farms Actual	2017 Statewide Lvst Farms Projected
Liquidity						
Current ratio	1.9	2.0	2.1	2.1	1.5	1.6
Working capital to gross	42%	44%	56%	55%	17%	18%
Solvency¹						
Debt to asset	25%	25%	23%	23%	38%	38%
Debt to equity	0.33	0.33	0.30	0.30	0.61	0.61
Profitability						
Rate of return on assets ²	2%	4%	2%	2%	1%	1%
Operating profit margin	8%	19%	7%	9%	2%	6%
Net farm income ³	\$81,552	\$170,000	\$85,202	\$75,000	\$19,757	\$32,000
Repayment capacity						
Term debt coverage	1.4	2.5	1.6	1.5	0.7	0.9
Replacement coverage	0.9	1.6	1.0	0.9	0.6	0.7
Efficiency						
Asset turnover rate	22%	22%	24%	21%	26%	26%
Operating expense ratio	80%	72	76%	76%	89%	87%
Net worth growth						
Net worth change	2%	5%	2%	2%	2%	2%

	2016 All Farms Actual	2016 Improved Margin Mgmt.	2016 SW Assn Crop Farms Actual	2017 SW Assn Crop Farms Projected	2016 Statewide Lvst Farms Actual	2017 Statewide Lvst Farms Projected
Projected Changes						
Gross income	-	+5%	-	-2%	-	4%
Operating expenses	-	-5%	-	-2%	-	2%
Interest rates	-	-	-	1%	-	1%
Current assets	-	+5%	-	-2%	-	2%
Noncurrent assets	-	-	-	0%	-	0%

¹ Assets at estimated market value excluding deferred liabilities.

² Assets at estimated market value, returns excluding change in market valuation.

³ Differs from previous tables because Owner Wages and Benefits are treated as expenses. In previous tables, owner wages and benefits are moved to Value of Operator Labor and Management to improve comparative analysis.

Crop Reports

The Crop Enterprise Analysis tables show the average physical production, gross return, direct costs, overhead costs, and net returns per acre. There are potentially three tables for each crop depending on the farmer's tenure on the land: owned land, cash rented land, and share rented land. Farms are classified into low 20% or high 20% on the basis of net return per acre. The classification is done separately for each table.

Gross Return per Acre includes the value of the crop produced plus any other income directly associated with production of the crop, including hedging gains or losses, crop insurance proceeds and any disaster payments that might have been received. It does not include government payments that are decoupled from production such as ARC and PLC payments (see Net Return with Government Payments).

The *Value per Unit* is assigned by the producer. For cash crops, the value is based on the actual sales price for production sold or contracted before year-end and the inventory value for crops still in inventory at year-end. The local harvest-time price is used for forages and other feed crops.

Net Return per Acre is the amount contributed toward operator labor, management, and equity capital. Any wages and benefits paid to the operator are removed from labor costs (and added to *Labor and Management Charge*) so that all farms are on equal footing. Land costs include land rent on the rented land pages but only actual interest paid and real estate taxes on owned land. For this reason, net returns from owned and rented land should not be compared.

Net Return with Government Payments is the net return per acre after decoupled government payments such as ARC and PLC payments have been added. These payments are generally allocated evenly per acre across all crops except vegetables and pasture.

Net Return Over Labor and Management is the return, including government payments, remaining after deducting an opportunity cost for unpaid operator labor and management. This is the per acre return to equity capital.

Cost of Production shows the average cost per unit produced in each cost category. *Total Direct and Overhead Expense per Unit* is the breakeven price needed to cover cash costs and depreciation. *Less Government and Other Income* is the breakeven price if government payments and any miscellaneous income are used to offset some expenses. *With Labor and Management* is the breakeven price to provide a labor and management return for the operator(s).

Machinery Cost per Acre includes fuel and oil, repairs, custom hire, machinery lease payments, machinery depreciation, and interest on intermediate debt.

Crop Enterprise Analysis
Southwestern Minnesota Farm Business Management Association
(Farms Sorted By Net Return)

Corn on Owned Land

	<u>Avg. Of All Farms</u>	<u>Low 20%</u>	<u>High 20%</u>
Number of farms	67	13	14
Acres	169.82	143.22	124.37
Yield per acre (bu.)	208.14	191.97	217.53
Operators share of yield %	100.00	100.00	100.00
Value per bu.	3.06	3.06	3.08
Other product return per acre	0.35	-	-
Total product return per acre	637.74	586.49	668.96
Hedging gains/losses per acre	3.48	0.81	3.05
Crop insurance per acre	4.93	24.48	0.32
Other crop income per acre	8.02	2.91	7.95
Gross return per acre	654.18	614.68	680.29
Direct Expenses			
Seed	125.28	126.22	130.37
Fertilizer	121.55	144.02	114.62
Crop chemicals	33.93	35.44	30.17
Crop insurance	15.84	18.61	12.18
Drying expense	7.25	8.80	10.65
Storage	1.35	0.39	5.39
Fuel & oil	16.24	19.14	11.96
Repairs	41.34	40.11	29.47
Custom hire	10.48	10.78	6.64
Machinery leases	3.06	5.97	-
Hauling and trucking	0.84	2.90	-
Marketing	1.53	2.01	0.95
Operating interest	9.48	10.29	2.73
Miscellaneous	2.07	5.46	1.69
Total direct expenses per acre	390.23	430.16	356.81
Return over direct exp per acre	263.95	184.53	323.48
Overhead Expenses			
Hired labor	10.43	16.66	1.86
Machinery leases	3.11	9.40	0.95
Building leases	1.56	0.07	-
RE & pers. property taxes	27.48	36.60	22.47
Farm insurance	11.24	14.66	7.91
Utilities	6.28	8.56	4.15
Dues & professional fees	3.96	3.18	3.54
Interest	64.17	113.16	19.35
Mach & bldg depreciation	69.97	81.69	65.01
Miscellaneous	3.04	5.14	2.11
Total overhead expenses per acre	201.25	289.13	127.35
Total dir & ovhd expenses per acre	591.48	719.29	484.16
Net return per acre	62.70	-104.60	196.13
Government payments	19.03	23.05	19.57
Net return with govt pmts	81.73	-81.56	215.70
Labor & management charge	58.62	64.94	62.19
Net return over lbr & mgt	23.11	-146.50	153.51
Cost of Production			
Total direct expense per bu.	1.87	2.24	1.64
Total dir & ovhd exp per bu.	2.84	3.75	2.23
Less govt & other income	2.67	3.48	2.08
With labor & management	2.95	3.82	2.37
Net value per unit	3.08	3.06	3.09
Machinery cost per acre	137.87	158.35	109.47
Est. labor hours per acre	2.69	2.96	2.17

Crop Enterprise Analysis
Southwestern Minnesota Farm Business Management Association
(Farms Sorted By Net Return)

Corn on Cash Rent

	<u>Avg. Of All Farms</u>	<u>Low 20%</u>	<u>High 20%</u>
Number of farms	87	17	18
Acres	377.44	319.04	258.39
Yield per acre (bu.)	206.92	190.66	207.91
Operators share of yield %	100.00	100.00	100.00
Value per bu.	3.09	3.03	3.20
Total product return per acre	638.63	577.25	665.24
Hedging gains/losses per acre	1.54	3.91	4.65
Crop insurance per acre	6.08	2.98	30.42
Other crop income per acre	10.08	10.33	15.83
Gross return per acre	656.33	594.48	716.15
Direct Expenses			
Seed	119.82	125.83	126.04
Fertilizer	113.19	142.55	99.81
Crop chemicals	33.07	39.70	32.43
Crop insurance	16.28	22.25	20.02
Drying expense	6.52	5.49	8.01
Storage	0.67	2.20	0.70
Fuel & oil	17.28	17.77	13.13
Repairs	34.88	47.22	28.97
Custom hire	8.26	12.46	14.79
Land rent	218.68	228.12	184.92
Machinery leases	7.30	1.13	5.21
Hauling and trucking	0.82	0.03	0.44
Marketing	2.47	1.55	0.07
Operating interest	11.67	10.44	7.13
Miscellaneous	4.38	1.55	2.87
Total direct expenses per acre	595.29	658.29	544.54
Return over direct exp per acre	61.04	-63.81	171.61
Overhead Expenses			
Hired labor	9.73	12.87	2.23
Machinery leases	2.12	4.48	1.38
Building leases	2.36	-	2.67
Farm insurance	9.90	15.68	8.20
Utilities	4.63	7.69	6.17
Dues & professional fees	3.26	4.01	3.29
Interest	2.68	2.89	3.95
Mach & bldg depreciation	58.97	78.26	56.40
Miscellaneous	3.93	2.50	4.93
Total overhead expenses per acre	97.57	128.38	89.22
Total dir & ovhd expenses per acre	692.86	786.67	633.76
Net return per acre	-36.53	-192.19	82.39
Government payments	15.18	27.15	15.32
Net return with govt pmts	-21.34	-165.04	97.70
Labor & management charge	51.08	56.90	67.37
Net return over lbr & mgt	-72.42	-221.94	30.33
Cost of Production			
Total direct expense per bu.	2.88	3.45	2.62
Total dir & ovhd exp per bu.	3.35	4.13	3.05
Less govt & other income	3.19	3.89	2.73
With labor & management	3.44	4.19	3.05
Net value per unit	3.09	3.05	3.22
Machinery cost per acre	123.25	154.55	116.73
Est. labor hours per acre	2.22	2.54	2.16

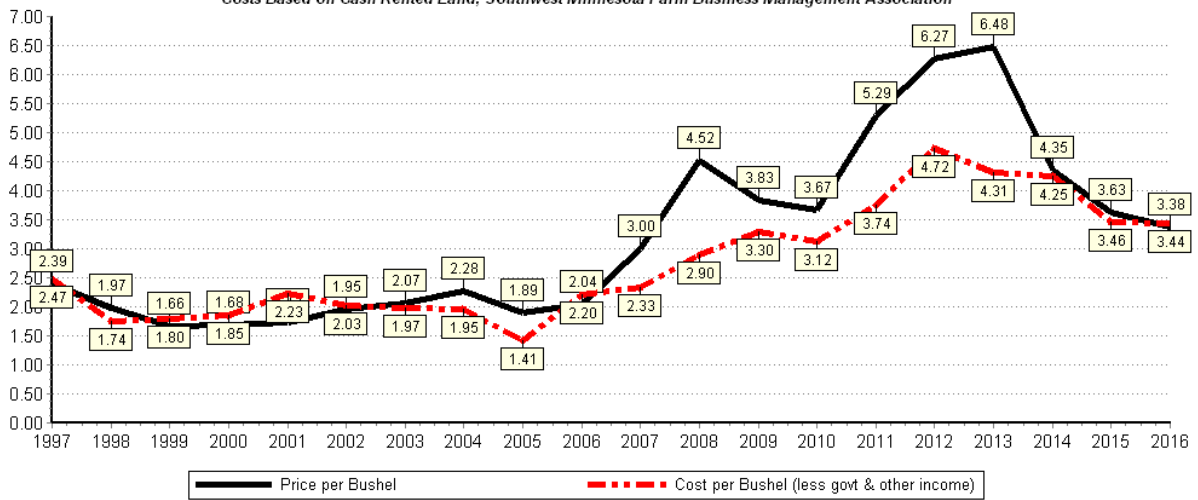
Crop Enterprise Analysis
Southwestern Minnesota Farm Business Management Association
(Farms Sorted By Net Return)

Corn on Share Rent

	<u>Avg. Of All Farms</u>
Number of farms	17
Acres	106.69
Yield per acre (bu.)	208.52
Operators share of yield %	56.10
Value per bu.	3.06
Total product return per acre	358.11
Hedging gains/losses per acre	0.02
Crop insurance per acre	0.12
Other crop income per acre	0.73
Gross return per acre	358.98
Direct Expenses	
Seed	78.55
Fertilizer	84.61
Crop chemicals	23.91
Crop insurance	10.01
Drying expense	5.92
Fuel & oil	15.89
Repairs	42.20
Custom hire	12.40
Machinery leases	2.78
Marketing	1.96
Operating interest	6.48
Miscellaneous	2.92
Total direct expenses per acre	287.64
Return over direct exp per acre	71.34
Overhead Expenses	
Hired labor	4.32
Machinery leases	0.57
Building leases	1.80
Farm insurance	7.83
Utilities	5.10
Dues & professional fees	4.04
Interest	3.40
Mach & bldg depreciation	55.72
Miscellaneous	2.72
Total overhead expenses per acre	85.51
Total dir & ovhd expenses per acre	373.14
Net return per acre	-14.17
Government payments	8.02
Net return with govt pmts	-6.15
Labor & management charge	48.30
Net return over lbr & mgt	-54.45
Cost of Production	
Total direct expense per bu.	2.46
Total dir & ovhd exp per bu.	3.19
Less govt & other income	3.11
With labor & management	3.53
Net value per unit	3.06
Machinery cost per acre	126.96
Est. labor hours per acre	2.58

Figure 9: Corn Price and Cost of Production

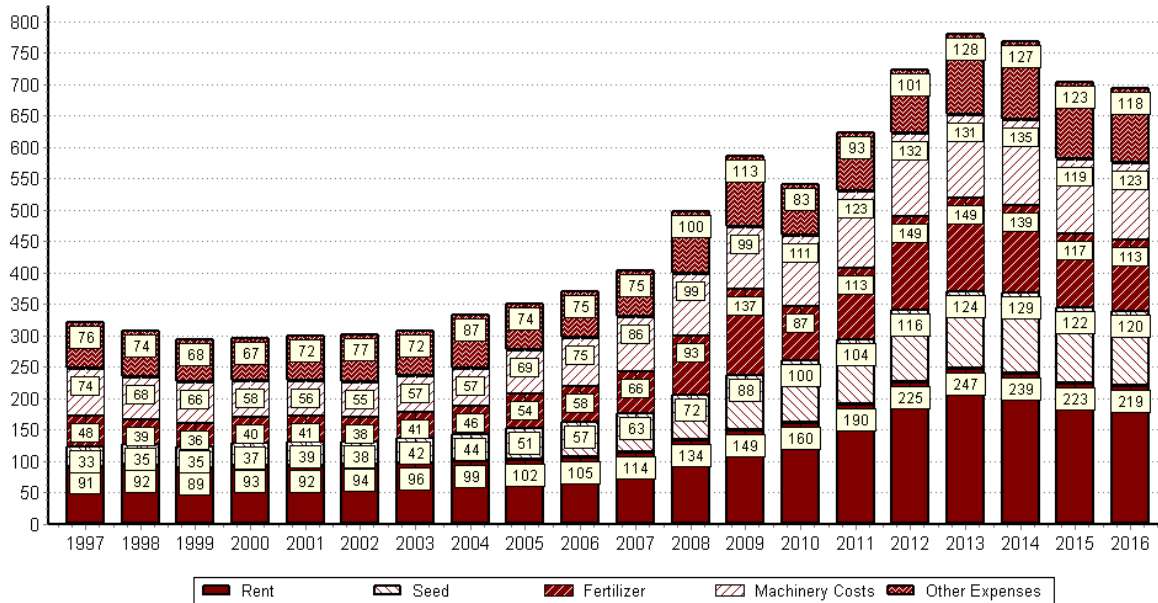
Costs Based on Cash Rented Land, Southwest Minnesota Farm Business Management Association



Price does not include LDP payments and other government support

Figure 10: Corn Cost Per Acre

Cash Rented, Southwest Minnesota Farm Business Management Association



Machinery costs include fuel, repairs, custom hire, lease expense, interest, and depreciation.

Crop Enterprise Analysis
Southwestern Minnesota Farm Business Management Association
(Farms Sorted By Net Return)

Soybeans on Owned Land

	<u>Avg. Of All Farms</u>	<u>Low 20%</u>	<u>High 20%</u>
Number of farms	63	12	13
Acres	149.63	134.09	131.31
Yield per acre (bu.)	63.01	57.93	68.20
Operators share of yield %	100.00	100.00	100.00
Value per bu.	9.37	9.28	9.43
Total product return per acre	590.33	537.90	642.93
Hedging gains/losses per acre	3.97	-	0.77
Crop insurance per acre	0.28	0.35	0.28
Other crop income per acre	13.33	1.02	8.40
Gross return per acre	607.91	539.27	652.38
Direct Expenses			
Seed	57.35	52.55	60.11
Fertilizer	33.67	33.66	26.80
Crop chemicals	44.48	47.42	47.42
Crop insurance	15.55	18.04	11.14
Fuel & oil	12.88	15.32	11.63
Repairs	31.93	28.60	30.29
Custom hire	6.34	6.18	10.09
Machinery leases	2.70	9.02	-
Marketing	1.30	1.33	1.54
Operating interest	7.35	10.28	2.51
Miscellaneous	2.83	3.49	2.64
Total direct expenses per acre	216.37	225.86	204.17
Return over direct exp per acre	391.54	313.41	448.20
Overhead Expenses			
Hired labor	7.62	10.30	2.16
Machinery leases	1.74	2.77	0.11
Building leases	1.51	7.43	0.06
RE & pers. property taxes	26.55	31.26	28.33
Farm insurance	9.03	8.66	9.42
Utilities	5.03	3.92	4.95
Dues & professional fees	2.96	1.13	3.95
Interest	56.45	108.57	6.95
Mach & bldg depreciation	58.13	66.01	62.73
Miscellaneous	2.53	4.59	1.77
Total overhead expenses per acre	171.56	244.62	120.45
Total dir & ovhd expenses per acre	387.93	470.49	324.62
Net return per acre	219.98	68.79	327.76
Government payments	16.76	13.33	19.55
Net return with govt pmts	236.74	82.12	347.31
Labor & management charge	46.89	35.67	54.80
Net return over lbr & mgt	189.84	46.44	292.51
Cost of Production			
Total direct expense per bu.	3.43	3.90	2.99
Total dir & ovhd exp per bu.	6.16	8.12	4.76
Less govt & other income	5.61	7.87	4.33
With labor & management	6.36	8.48	5.14
Net value per unit	9.43	9.28	9.44
Machinery cost per acre	107.54	115.11	108.17
Est. labor hours per acre	2.11	1.52	2.21

Crop Enterprise Analysis
Southwestern Minnesota Farm Business Management Association
(Farms Sorted By Net Return)

Soybeans on Cash Rent

	<u>Avg. Of</u> <u>All Farms</u>	<u>Low 20%</u>	<u>High 20%</u>
Number of farms	87	17	18
Acres	341.85	302.61	253.64
Yield per acre (bu.)	61.56	55.69	66.29
Operators share of yield %	100.00	100.00	100.00
Value per bu.	9.37	9.36	9.42
Total product return per acre	576.68	521.39	624.50
Hedging gains/losses per acre	3.19	12.13	2.48
Crop insurance per acre	1.93	0.08	0.59
Other crop income per acre	5.60	8.88	6.30
Gross return per acre	587.40	542.49	633.87
Direct Expenses			
Seed	55.00	55.55	57.98
Fertilizer	34.98	35.92	38.07
Crop chemicals	41.40	43.80	46.32
Crop insurance	14.50	19.57	9.60
Fuel & oil	13.41	13.79	10.60
Repairs	26.93	34.29	21.74
Custom hire	7.62	9.37	5.39
Land rent	220.90	244.12	194.73
Machinery leases	8.05	2.90	4.45
Marketing	2.46	4.54	-
Operating interest	9.20	13.47	2.73
Miscellaneous	4.94	0.54	2.62
Total direct expenses per acre	439.39	477.88	394.22
Return over direct exp per acre	148.02	64.61	239.65
Overhead Expenses			
Hired labor	8.12	9.29	4.80
Machinery leases	2.03	3.77	2.33
Building leases	1.81	7.15	0.94
Farm insurance	7.30	11.99	5.76
Utilities	3.52	3.99	3.61
Dues & professional fees	2.81	2.46	2.34
Interest	2.09	2.99	1.95
Mach & bldg depreciation	45.25	56.79	40.12
Miscellaneous	3.04	3.08	2.12
Total overhead expenses per acre	75.97	101.50	63.98
Total dir & ovhd expenses per acre	515.36	579.38	458.20
Net return per acre	72.05	-36.90	175.67
Government payments	15.33	17.39	19.72
Net return with govt pmts	87.38	-19.51	195.39
Labor & management charge	41.14	32.29	48.26
Net return over lbr & mgt	46.23	-51.80	147.13
Cost of Production			
Total direct expense per bu.	7.14	8.58	5.95
Total dir & ovhd exp per bu.	8.37	10.40	6.91
Less govt & other income	7.95	9.71	6.47
With labor & management	8.62	10.29	7.20
Net value per unit	9.42	9.58	9.46
Machinery cost per acre	98.90	113.47	82.65
Est. labor hours per acre	1.77	1.77	1.92

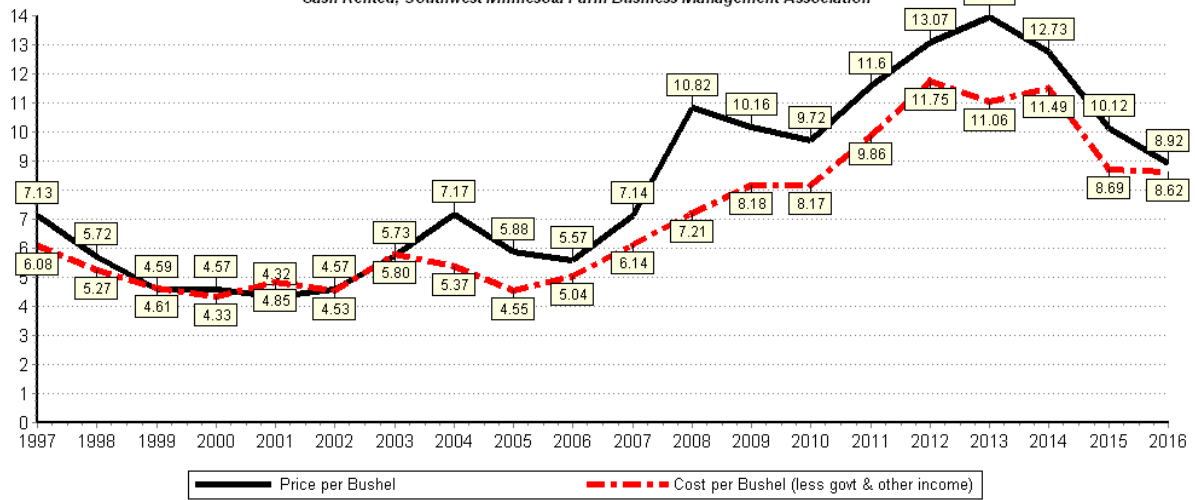
Crop Enterprise Analysis
Southwestern Minnesota Farm Business Management Association
(Farms Sorted By Net Return)

Soybeans on Share Rent

	<u>Avg. Of All Farms</u>
Number of farms	19
Acres	139.61
Yield per acre (bu.)	61.62
Operators share of yield %	53.60
Value per bu.	9.45
Total product return per acre	312.30
Crop insurance per acre	3.33
Other crop income per acre	5.50
Gross return per acre	321.12
Direct Expenses	
Seed	34.65
Fertilizer	21.16
Crop chemicals	28.45
Crop insurance	8.96
Fuel & oil	11.90
Repairs	33.76
Custom hire	12.42
Machinery leases	7.05
Marketing	1.02
Operating interest	4.90
Miscellaneous	2.85
Total direct expenses per acre	167.13
Return over direct exp per acre	153.99
Overhead Expenses	
Hired labor	2.81
Building leases	1.12
Farm insurance	5.72
Utilities	3.54
Dues & professional fees	2.80
Interest	2.88
Mach & bldg depreciation	47.04
Miscellaneous	1.98
Total overhead expenses per acre	67.89
Total dir & ovhd expenses per acre	235.02
Net return per acre	86.11
Government payments	7.78
Net return with govt pmts	93.89
Labor & management charge	39.23
Net return over lbr & mgt	54.65
Cost of Production	
Total direct expense per bu.	5.06
Total dir & ovhd exp per bu.	7.12
Less govt & other income	6.61
With labor & management	7.80
Net value per unit	9.45
Machinery cost per acre	111.11
Est. labor hours per acre	1.88

Figure 11: Soybean Price and Cost of Production

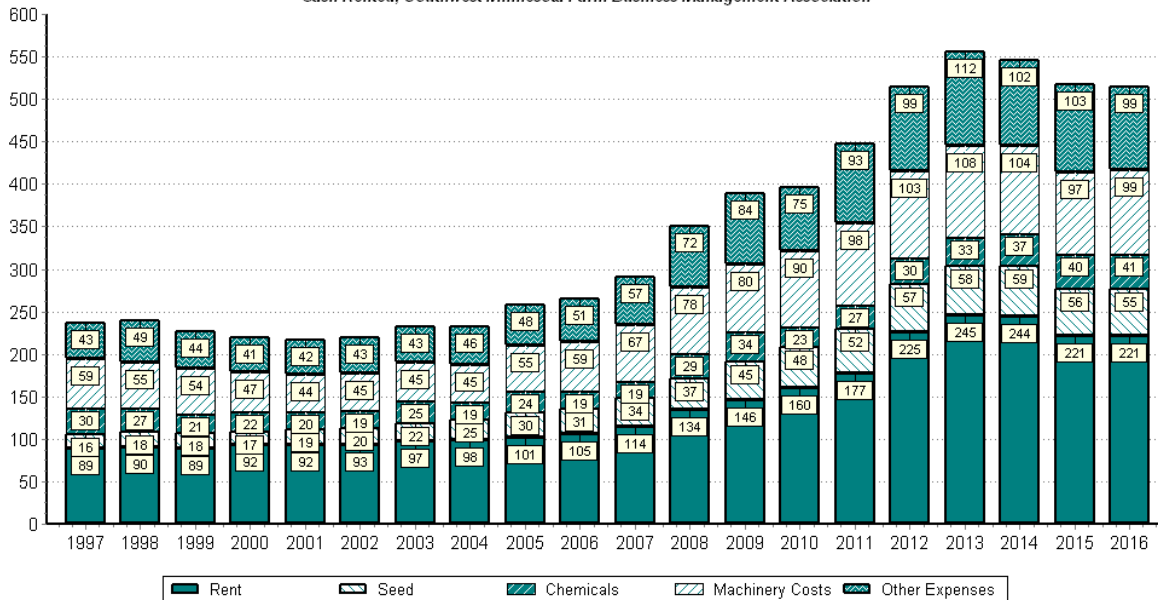
Cash Rented, Southwest Minnesota Farm Business Management Association



Does not include LDP payments and other government support

Figure 12: Soybean Cost Per Acre

Cash Rented, Southwest Minnesota Farm Business Management Association



Machinery costs include fuel, repairs, custom hire, lease payments, interest and depreciation.

Crop Enterprise Analysis
Southwestern Minnesota Farm Business Management Association
(Farms Sorted By Crop Tenure Type)

Corn Silage

	<u>Owned Land</u>	<u>Cash Rent</u>
Number of farms	9	7
Acres	91.42	95.21
Yield per acre (ton)	23.58	22.30
Operators share of yield %	100.00	100.00
Value per ton	29.88	31.81
Total product return per acre	704.38	709.48
Crop insurance per acre	3.08	14.54
Other crop income per acre	1.34	-
Gross return per acre	708.80	724.02
Direct Expenses		
Seed	130.81	129.60
Fertilizer	71.63	94.94
Crop chemicals	31.26	29.36
Crop insurance	11.81	10.40
Fuel & oil	20.30	8.66
Repairs	38.00	15.69
Custom hire	43.15	15.40
Land rent	-	212.93
Machinery leases	5.13	27.29
Marketing	-	2.17
Operating interest	4.05	6.83
Miscellaneous	1.73	0.17
Total direct expenses per acre	357.87	553.43
Return over direct exp per acre	350.93	170.59
Overhead Expenses		
Hired labor	9.58	4.60
Machinery leases	2.93	0.59
Building leases	0.08	1.80
RE & pers. property taxes	31.89	-
Farm insurance	5.87	4.10
Utilities	4.32	4.85
Dues & professional fees	3.07	1.95
Interest	31.56	1.96
Mach & bldg depreciation	82.67	48.27
Miscellaneous	0.96	3.94
Total overhead expenses per acre	172.92	72.06
Total dir & ovhd expenses per acre	530.79	625.49
Net return per acre	178.01	98.53
Government payments	19.06	12.59
Net return with govt pmts	197.07	111.13
Labor & management charge	46.39	51.14
Net return over lbr & mgt	150.68	59.99
Cost of Production		
Total direct expense per ton	15.18	24.81
Total dir & ovhd exp per ton	22.52	28.04
Less govt & other income	21.52	26.83
With labor & management	23.49	29.12
Net value per unit	29.88	31.81
Machinery cost per acre	193.59	108.44
Est. labor hours per acre	2.07	1.71

Crop Enterprise Analysis
Southwestern Minnesota Farm Business Management Association
(Farms Sorted By Crop Tenure Type)

Hay, Alfalfa

	<u>Owned Land</u>	<u>Cash Rent</u>
Number of farms	6	9
Acres	77.81	131.48
Yield per acre (ton)	6.00	4.52
Operators share of yield %	100.00	100.00
Value per ton	97.96	89.87
Total product return per acre	588.01	406.52
Crop insurance per acre	-	3.37
Other crop income per acre	1.02	-
Gross return per acre	589.03	409.89
Direct Expenses		
Fertilizer	46.24	51.15
Crop chemicals	1.16	5.30
Crop insurance	2.68	21.39
Fuel & oil	17.04	17.12
Repairs	22.31	23.06
Custom hire	35.38	5.49
Land rent	-	161.01
Machinery leases	5.70	1.27
Operating interest	2.39	7.25
Miscellaneous	2.42	1.17
Total direct expenses per acre	135.33	294.21
Return over direct exp per acre	453.70	115.68
Overhead Expenses		
Hired labor	7.39	9.99
Machinery leases	2.40	10.12
Building leases	7.05	0.04
RE & pers. property taxes	37.85	-
Farm insurance	6.92	5.06
Utilities	3.52	3.15
Dues & professional fees	2.98	1.00
Interest	22.54	3.56
Mach & bldg depreciation	98.23	35.84
Miscellaneous	2.38	1.71
Total overhead expenses per acre	191.28	70.47
Total dir & ovhd expenses per acre	326.61	364.68
Net return per acre	262.42	45.21
Government payments	18.85	8.50
Net return with govt pmts	281.27	53.71
Labor & management charge	48.34	25.72
Net return over lbr & mgt	232.93	28.00
Cost of Production		
Total direct expense per ton	22.54	65.04
Total dir & ovhd exp per ton	54.41	80.62
Less govt & other income	51.10	78.00
With labor & management	59.15	83.68
Net value per unit	97.96	89.87
Machinery cost per acre	173.38	93.57
Est. labor hours per acre	2.55	2.53

Crop Enterprise Analysis
Southwestern Minnesota Farm Business Management Association
(Farms Sorted By Crop Tenure Type)

CRP

	<u>Owned Land</u>	<u>Cash Rent</u>
Number of farms	18	5
Acres	28.40	18.37
Yield per acre (\$)	110.86	132.54
Operators share of yield %	100.00	100.00
Value per \$	1.00	1.00
Total product return per acre	110.86	132.54
Gross return per acre	110.86	132.54
Direct Expenses		
Crop chemicals	0.50	-
Fuel & oil	1.79	1.87
Repairs	3.51	2.07
Land rent	-	157.97
Operating interest	0.50	0.92
Total direct expenses per acre	6.31	162.82
Return over direct exp per acre	104.55	-30.28
Overhead Expenses		
Hired labor	1.60	1.24
Machinery leases	0.39	1.44
RE & pers. property taxes	14.89	-
Farm insurance	1.57	1.11
Utilities	1.15	0.84
Interest	25.92	0.14
Mach & bldg depreciation	10.52	6.06
Miscellaneous	0.84	0.49
Total overhead expenses per acre	56.89	11.31
Total dir & ovhd expenses per acre	63.19	174.13
Net return per acre	47.67	-41.60
Government payments	-	-
Net return with govt pmts	47.67	-41.60
Labor & management charge	6.49	3.85
Net return over lbr & mgt	41.18	-45.45
Cost of Production		
Total direct expense per \$	0.06	1.23
Total dir & ovhd exp per \$	0.57	1.31
Less govt & other income	0.57	1.31
With labor & management	0.63	1.34
Net value per unit	1.00	1.00
Machinery cost per acre	15.63	10.68
Est. labor hours per acre	0.34	0.18

Livestock Reports

The Livestock Enterprise Analysis tables show the average physical production, gross margin over purchase costs, direct costs, overhead costs, and net returns per unit.

The livestock enterprise summaries include data from both Southwest Minnesota Farm Management Association farms and Minnesota State Farm Business Management program farms. This provides a greater numbers farms reporting for each enterprise, providing more accurate benchmark information. Minnesota State FBM programs are distributed across the state and include over 2,000 participating farms. We want to thank the Minnesota State FBM program and participating producers for making this data available to be included in this report.

The “Dairy” table, if included, contains the information for only the milking herd (which includes dry cows). “Dairy Replacement Heifers” are those heifers kept for replacement into the milking herd. The “Dairy and Replacement Heifers” table is for the whole herd and includes those farms in the “Dairy” and “Dairy Replacement Heifers” tables; it does not include “Dairy Steers.”

Gross Margin is the accrual gross value added by the enterprise. It includes income from sale of offspring and livestock products, cull income, non-cash transfers to other enterprises, and the value of production used in the home or for feed. It also includes the value of inventory change from beginning to the end of the year. The cost of livestock purchased and the value of animals transferred in are deducted.

Net Return is the amount contributed by the enterprise toward operator labor, management, and equity capital. Any wages and benefits paid to the operator are removed from labor costs (and added to *Labor and Management Charge*) so that all farms are on equal footing.

Net Return Over Labor and Management is the return remaining after deducting an opportunity cost for unpaid labor and management. This is the return to equity capital.

Cost of Production shows the average cost per unit sold in each cost category. *Total direct and overhead expense per unit* is the breakeven price needed to cover cash costs and depreciation. For grow/finish enterprises, this includes the purchase cost or transfer in value of the animal. *With other revenue adjustments* is the breakeven price adjusted for cull sales, other offspring sales, the cost of replacement stock, and any other miscellaneous income. This assumes that some costs can be covered by these other income sources. *With labor and management* is the final breakeven price to provide a labor and management return for the operator(s).

Other Information contains both economic and technical efficiency measures for each enterprise.

Rounding of individual items for the report may have caused minor discrepancies with the calculated totals. If fewer than 5 farms have a certain livestock enterprise, that information is not reported. If there are fewer than 25 farms, the high and low groups are not reported.

Livestock Enterprise Analysis
Southwestern Minnesota Farm Business Management Association
(Farms Sorted By Net Return)

Hogs, Farrow To Finish -- Average Per Litter

	<u>Avg. Of All Farms</u>	
Number of farms	11	
	Quantity	Value
Raised Hogs sold (lb)	2,079.7	997.94
Transferred out (lb)	14.9	6.72
Cull sales (lb)	77.0	30.51
Other income		1.62
Purchased (lb)	-7.2	-23.24
Inventory change (lb)	-23.8	-61.26
Gross margin		952.30
Direct Expenses		
Protein Vit Minerals (lb.)	2,989.5	387.50
Corn (bu.)	88.3	288.55
Other feed stuffs (lb)	67.1	8.37
Breeding fees		19.43
Veterinary		56.12
Supplies		20.09
Fuel & oil		9.87
Repairs		14.46
Custom hire		14.21
Hired labor		45.92
Livestock leases		24.36
Utilities		6.52
Marketing		9.30
Operating interest		15.37
Total direct expenses		920.08
Return over direct expense		32.22
Overhead Expenses		
Hired labor		22.59
Building leases		68.11
Farm insurance		16.92
Utilities		16.59
Mach & bldg depreciation		26.19
Miscellaneous		16.40
Total overhead expenses		166.79
Total dir & ovhd expenses		1,086.87
Net return		-134.57
Labor & management charge		30.44
Net return over lbr & mgt		-165.02
Cost of Production/Cwt. Carcass Sold		
Total direct expense per unit		61.81
Total dir & ovhd expense per unit		73.01
With other revenue adjustments		72.88
With labor and management		74.93
Est. labor hours per unit		3.74
Other Information		
Average number of sows		416.0
Litters farrowed		896
Litters per sow		2.15
Litters per crate		8.02
Pigs born per litter		10.67
Pigs weaned per litter		10.17
Pigs weaned per sow		21.13
Pigs sold per litter		7.89
Percent substandard hogs		3
Lb. of feed / lb. of gain		3.74
Feed cost / cwt. of gain		31.94
Feed cost per litter		684.43
Avg wgt/Raised Hogs sold		263
Avg price / cwt.		47.98
Average carcass weight		192
Average price / cwt. carcass		66.16

Livestock Enterprise Analysis
Southwestern Minnesota Farm Business Management Association
(Farms Sorted By Net Return)

Hogs, Farrow To Finish -- Average Per Cwt. Carcass Sold

	<u>Avg. Of All Farms</u>	
Number of farms	11	
	Quantity	Value
Raised Hogs sold (lb)	139.71	67.04
Transferred out (lb)	1.00	0.45
Cull sales (lb)	5.17	2.05
Other income		0.11
Purchased (lb)	-0.48	-1.56
Inventory change (lb)	-1.60	-4.12
Gross margin		63.97
Direct Expenses		
Protein Vit Minerals (lb.)	200.82	26.03
Corn (bu.)	5.93	19.38
Other feed stuffs (lb)	4.51	0.56
Breeding fees		1.31
Veterinary		3.77
Supplies		1.35
Fuel & oil		0.66
Repairs		0.97
Custom hire		0.95
Hired labor		3.08
Livestock leases		1.64
Utilities		0.44
Marketing		0.62
Operating interest		1.03
Total direct expenses		61.81
Return over direct expense		2.16
Overhead Expenses		
Hired labor		1.52
Building leases		4.58
Farm insurance		1.14
Utilities		1.11
Mach & bldg depreciation		1.76
Miscellaneous		1.10
Total overhead expenses		11.20
Total dir & ovhd expenses		73.01
Net return		-9.04
Labor & management charge		2.05
Net return over lbr & mgt		-11.09
Cost of Production/Cwt. Carcass Sold		
Total direct expense per unit		61.81
Total dir & ovhd expense per unit		73.01
With other revenue adjustments		72.88
With labor and management		74.93
Est. labor hours per unit		0.25
Other Information		
Average number of sows		416.0
Litters farrowed		896
Litters per sow		2.15
Litters per crate		8.02
Pigs born per litter		10.67
Pigs weaned per litter		10.17
Pigs weaned per sow		21.13
Pigs sold per litter		7.89
Percent substandard hogs		3
Lb. of feed / lb. of gain		3.74
Feed cost / cwt. of gain		31.94
Feed cost per litter		684.43
Avg wgt/Raised Hogs sold		263
Avg price / cwt.		47.98
Average carcass weight		192
Average price / cwt. carcass		66.16

Livestock Enterprise Analysis
Southwestern Minnesota Farm Business Management Association
(Farms Sorted By Net Return)

Hogs, Finish Feeder Pigs -- Average Per Head

	Avg. Of All Farms		Low 20%		High 20%	
Number of farms	29		5		6	
	Quantity	Value	Quantity	Value	Quantity	Value
Finish Hogs sold (lb)	293.9	145.94	338.6	154.02	285.2	152.21
Cull sales (lb)	1.6	0.41	-	-	-	-
Other income		2.95		2.10		8.76
Purchased (lb)	-38.8	-50.35	-31.4	-36.98	-48.5	-57.81
Transferred in (lb)	-8.4	-10.89	-29.4	-34.68	-	-
Inventory change (lb)	-6.8	-5.12	-34.7	-14.67	-3.6	-2.02
Gross margin		82.94		69.79		101.14
Direct Expenses						
Corn Distillers Grn (dry) (lb.)	5.7	0.42	15.5	0.97	18.4	1.43
Protein Vit Minerals (lb.)	116.4	18.05	60.8	11.28	109.1	12.72
Complete Ration (lb.)	237.1	20.08	123.7	14.58	392.8	31.15
Corn (bu.)	6.1	20.84	10.0	35.45	3.4	10.95
Other feed stuffs (lb)	2.5	0.22	-	-	6.9	0.48
Veterinary		1.69		4.16		1.38
Supplies		1.85		3.02		1.36
Contract production exp.		5.41		0.64		-
Fuel & oil		0.53		0.38		0.85
Repairs		1.46		0.90		2.82
Hauling and trucking		1.37		4.84		0.49
Marketing		0.50		1.71		-
Operating interest		1.41		2.73		2.66
Total direct expenses		73.83		80.66		66.29
Return over direct expense		9.11		-10.86		34.85
Overhead Expenses						
Hired labor		1.80		1.53		3.01
Building leases		5.05		5.63		13.17
Farm insurance		0.78		1.53		0.91
Utilities		0.91		0.84		1.22
Dues & professional fees		0.89		0.16		2.67
Interest		0.69		0.15		1.09
Mach & bldg depreciation		2.00		1.15		1.87
Miscellaneous		1.39		0.68		2.82
Total overhead expenses		13.51		11.68		26.77
Total dir & ovhd expenses		87.34		92.33		93.06
Net return		-4.40		-22.54		8.08
Labor & management charge		2.87		2.53		2.57
Net return over lbr & mgt		-7.27		-25.07		5.51
Cost of Production/Cwt. Carcass Sold						
Total direct expense per unit		64.36		66.84		59.05
Total dir & ovhd expense per unit		70.59		71.51		71.61
With other revenue adjustments		69.34		70.67		67.64
With labor and management		70.66		71.68		68.84
Est. labor hours per unit		0.25		0.22		0.36
Other Information						
No. purchased or trans in		10,962		7,202		10,573
Number sold or trans out		10,358		7,362		10,167
Percentage death loss		4.8		8.2		4.0
Percent substandard hogs		2		2		0
Avg. daily gain (lb.)		1.57		1.83		1.87
Lb. of feed / lb. of gain		2.90		3.12		3.07
Feed cost per cwt. of gain		24.60		25.62		24.28
Feed cost per head		59.61		62.27		56.73
Average purchase weight		41		51		47
Avg wgt / Finish Hogs sold		278		289		286
Avg purch price / head		53.78		59.91		55.68
Avg sales price / cwt.		49.65		45.49		53.36
Average carcass weight		209		217		214
Average price / cwt. carcass		66.66		60.35		71.25

Livestock Enterprise Analysis
Southwestern Minnesota Farm Business Management Association
(Farms Sorted By Net Return)

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

	<u>Avg. Of All Farms</u>		<u>Low 20%</u>		<u>High 20%</u>	
Number of farms	29		5		6	
	Quantity	Value	Quantity	Value	Quantity	Value
Finish Hogs sold (lb)	135.57	67.31	135.52	61.65	133.85	71.43
Cull sales (lb)	0.72	0.19	-	-	-	-
Other income		1.36		0.84		4.11
Purchased (lb)	-17.88	-23.22	-12.57	-14.80	-22.75	-27.13
Transferred in (lb)	-3.86	-5.02	-11.78	-13.88	-	-
Inventory change (lb)	-3.13	-2.36	-13.87	-5.87	-1.68	-0.95
Gross margin		38.25		27.94		47.47
Direct Expenses						
Corn Distillers Grn (dry) (lb.)	2.62	0.19	6.21	0.39	8.65	0.67
Protein Vit Minerals (lb.)	53.71	8.33	24.35	4.51	51.19	5.97
Complete Ration (lb.)	109.38	9.26	49.50	5.84	184.34	14.62
Corn (bu.)	2.81	9.61	3.99	14.19	1.59	5.14
Other feed stuffs (lb)	1.16	0.10	-	-	3.25	0.23
Veterinary		0.78		1.66		0.65
Supplies		0.85		1.21		0.64
Contract production exp.		2.49		0.25		-
Fuel & oil		0.24		0.15		0.40
Repairs		0.67		0.36		1.33
Hauling and trucking		0.63		1.94		0.23
Marketing		0.23		0.69		-
Operating interest		0.65		1.09		1.25
Total direct expenses		34.05		32.28		31.11
Return over direct expense		4.20		-4.35		16.35
Overhead Expenses						
Hired labor		0.83		0.61		1.41
Building leases		2.33		2.25		6.18
Farm insurance		0.36		0.61		0.43
Utilities		0.42		0.34		0.57
Dues & professional fees		0.41		0.06		1.25
Interest		0.32		0.06		0.51
Mach & bldg depreciation		0.92		0.46		0.88
Miscellaneous		0.64		0.27		1.32
Total overhead expenses		6.23		4.67		12.56
Total dir & ovhd expenses		40.28		36.96		43.67
Net return		-2.03		-9.02		3.79
Labor & management charge		1.32		1.01		1.20
Net return over lbr & mgt		-3.35		-10.03		2.59
Cost of Production/Cwt. Carcass Sold						
Total direct expense per unit		64.36		66.84		59.05
Total dir & ovhd expense per unit		70.59		71.51		71.61
With other revenue adjustments		69.34		70.67		67.64
With labor and management		70.66		71.68		68.84
Est. labor hours per unit		0.12		0.09		0.17
Other Information						
No. purchased or trans in		10,962		7,202		10,573
Number sold or trans out		10,358		7,362		10,167
Percentage death loss		4.8		8.2		4.0
Percent substandard hogs		2		2		0
Avg. daily gain (lb.)		1.57		1.83		1.87
Lb. of feed / lb. of gain		2.90		3.12		3.07
Feed cost per cwt. of gain		24.60		25.62		24.28
Feed cost per head		59.61		62.27		56.73
Average purchase weight		41		51		47
Avg wgt / Finish Hogs sold		278		289		286
Avg purch price / head		53.78		59.91		55.68
Avg sales price / cwt.		49.65		45.49		53.36
Average carcass weight		209		217		214
Average price / cwt. carcass		66.66		60.35		71.25

Livestock Enterprise Analysis
Southwestern Minnesota Farm Business Management Association
(Farms Sorted By Net Return)

Hogs, Weaning to Finish -- Average Per Head

	<u>Avg. Of All Farms</u>		<u>Low 20%</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	277.6	141.37	251.2	127.68
Transferred out (lb)	0.0	0.16	-	-	0.3	0.66
Cull sales (lb)	1.3	0.30	-	-	2.2	0.49
Other income		3.17		0.25		5.20
Purchased (lb)	-14.3	-42.38	-15.7	-42.92	-13.7	-44.76
Transferred in (lb)	-0.8	-2.27	-0.1	-0.18	-	-
Inventory change (lb)	4.2	1.45	-1.8	-7.74	17.6	11.12
Gross margin		96.63		90.79		100.39
Direct Expenses						
Protein Vit Minerals (lb.)	172.9	24.54	178.4	28.26	85.2	18.47
Complete Ration (lb.)	130.1	13.01	186.6	19.98	182.3	19.04
Corn (bu.)	7.1	23.29	8.2	26.68	4.8	16.01
Protein Supplement (lb.)	4.1	0.62	10.8	1.65	-	-
DDGS, dry (lb.)	59.3	3.70	1.6	0.10	85.3	5.26
Other feed stuffs (lb)	2.6	1.54	0.8	0.03	0.5	0.34
Veterinary		3.83		4.49		3.54
Supplies		3.85		1.58		1.16
Contract production exp.		6.28		9.10		6.85
Repairs		1.49		2.82		0.60
Custom hire		2.05		0.11		1.95
Hauling and trucking		1.24		2.52		2.62
Marketing		0.72		1.91		0.50
Operating interest		0.79		1.65		0.52
Total direct expenses		86.93		100.88		76.86
Return over direct expense		9.70		-10.09		23.53
Overhead Expenses						
Hired labor		1.72		3.78		1.01
Building leases		3.65		0.20		1.09
Farm insurance		0.78		1.55		0.38
Utilities		0.73		1.08		0.25
Interest		0.86		1.37		1.72
Mach & bldg depreciation		2.27		2.46		1.11
Miscellaneous		0.96		1.33		0.95
Total overhead expenses		10.98		11.77		6.51
Total dir & ovhd expenses		97.92		112.65		83.36
Net return		-1.28		-21.86		17.02
Labor & management charge		2.74		3.09		2.69
Net return over lbr & mgt		-4.03		-24.95		14.33
Cost of Production/Cwt. Carcass Sold						
Total direct expense per unit		64.27		73.31		59.30
Total dir & ovhd expense per unit		69.71		79.00		62.81
With other revenue adjustments		68.17		79.00		60.10
With labor and management		69.53		80.50		61.55
Est. labor hours per unit		0.26		0.45		0.20
Other Information						
No. purchased or trans in		15,520		10,537		8,513
Number sold or trans out		13,925		9,810		7,477
Percentage death loss		4.8		5.0		3.4
Percent substandard hogs		2		1		2
Avg. daily gain (lb.)		1.41		1.36		1.71
Lb. of feed / lb. of gain		2.93		3.18		2.42
Feed cost per cwt. of gain		25.32		29.40		22.92
Feed cost per head		66.70		76.70		59.13
Average purchase weight		13		15		13
Avg wgt / Wean-Fin Pig sold		270		278		276
Avg purch price / head		39.71		40.22		42.40
Avg sales price / cwt.		49.87		50.92		50.82
Average carcass weight		203		209		208
Average price / cwt. carcass		66.97		68.16		68.36

Livestock Enterprise Analysis
Southwestern Minnesota Farm Business Management Association
(Farms Sorted By Net Return)

Hogs, Weaning to Finish -- Average Per Cwt. Carcass Sold

	Avg. Of All Farms		Low 20%		High 20%	
Number of farms	38		7		8	
	Quantity	Value	Quantity	Value	Quantity	Value
Wean-Fin Pig sold (lb)	135.13	67.39	134.38	68.42	135.64	68.93
Transferred out (lb)	0.02	0.08	-	-	0.14	0.36
Cull sales (lb)	0.64	0.15	-	-	1.21	0.26
Other income		1.57		0.12		2.81
Purchased (lb)	-7.06	-20.99	-7.59	-20.77	-7.42	-24.17
Transferred in (lb)	-0.41	-1.12	-0.04	-0.09	-	-
Inventory change (lb)	2.06	0.72	-0.87	-3.75	9.51	6.00
Gross margin		47.86		43.94		54.20
Direct Expenses						
Protein Vit Minerals (lb.)	85.62	12.15	86.33	13.68	46.00	9.97
Complete Ration (lb.)	64.43	6.44	90.32	9.67	98.40	10.28
Corn (bu.)	3.51	11.53	3.99	12.91	2.62	8.64
Protein Supplement (lb.)	2.03	0.31	5.24	0.80	-	-
DDGS, dry (lb.)	29.36	1.83	0.75	0.05	46.04	2.84
Other feed stuffs (lb)	1.30	0.77	0.38	0.01	0.25	0.19
Veterinary		1.90		2.17		1.91
Supplies		1.91		0.77		0.63
Contract production exp.		3.11		4.40		3.70
Repairs		0.74		1.36		0.32
Custom hire		1.02		0.05		1.05
Hauling and trucking		0.61		1.22		1.41
Marketing		0.36		0.93		0.27
Operating interest		0.39		0.80		0.28
Total direct expenses		43.05		48.82		41.49
Return over direct expense		4.80		-4.88		12.70
Overhead Expenses						
Hired labor		0.85		1.83		0.55
Building leases		1.81		0.10		0.59
Farm insurance		0.39		0.75		0.21
Interest		0.43		0.66		0.93
Mach & bldg depreciation		1.13		1.19		0.60
Miscellaneous		0.84		1.17		0.65
Total overhead expenses		5.44		5.70		3.51
Total dir & ovhd expenses		48.49		54.52		45.01
Net return		-0.64		-10.58		9.19
Labor & management charge		1.36		1.49		1.45
Net return over lbr & mgt		-2.00		-12.07		7.74
Cost of Production/Cwt. Carcass Sold						
Total direct expense per unit		64.27		73.31		59.30
Total dir & ovhd expense per unit		69.71		79.00		62.81
With other revenue adjustments		68.17		79.00		60.10
With labor and management		69.53		80.50		61.55
Est. labor hours per unit		0.13		0.22		0.11
Other Information						
No. purchased or trans in		15,520		10,537		8,513
Number sold or trans out		13,925		9,810		7,477
Percentage death loss		4.8		5.0		3.4
Percent substandard hogs		2		1		2
Avg. daily gain (lb.)		1.41		1.36		1.71
Lb. of feed / lb. of gain		2.93		3.18		2.42
Feed cost per cwt. of gain		25.32		29.40		22.92
Feed cost per head		66.70		76.70		59.13
Average purchase weight		13		15		13
Avg wgt / Wean-Fin Pig sold		270		278		276
Avg purch price / head		39.71		40.22		42.40
Avg sales price / cwt.		49.87		50.92		50.82
Average carcass weight		203		209		208
Average price / cwt. carcass		66.97		68.16		68.36

Livestock Enterprise Analysis
Southwestern Minnesota Farm Business Management Association
(Farms Sorted By Net Return)

Hogs, Finish Feeder Pigs (Contract Grower) -- Average Per Pig Space

	<u>Avg. Of All Farms</u>		<u>Low 20%</u>		<u>High 20%</u>	
Number of farms	34		6		7	
	Quantity	Value	Quantity	Value	Quantity	Value
Other income		38.41		34.69		46.54
Gross margin		38.41		34.69		46.54
Direct Expenses						
Supplies		1.54		1.17		0.42
Fuel & oil		1.27		2.21		1.65
Repairs		3.91		8.63		3.01
Custom hire		1.49		7.28		0.33
Hired labor		1.26		1.01		1.03
Machinery leases		0.77		-		-
Utilities		1.92		2.53		0.74
Operating interest		0.38		0.00		0.01
Total direct expenses		12.54		22.84		7.20
Return over direct expense		25.87		11.86		39.34
Overhead Expenses						
Hired labor		0.49		0.14		2.29
Building leases		0.39		2.09		-
RE & pers. property taxes		0.85		2.61		0.67
Farm insurance		1.93		2.30		1.63
Utilities		1.32		3.45		2.45
Dues & professional fees		0.20		0.04		0.23
Interest		3.53		4.38		3.01
Mach & bldg depreciation		7.23		9.59		6.61
Miscellaneous		1.16		1.50		0.70
Total overhead expenses		17.10		26.10		17.60
Total dir & ovhd expenses		29.64		48.94		24.80
Net return		8.77		-14.24		21.74
Labor & management charge		6.90		8.68		5.54
Net return over lbr & mgt		1.87		-22.92		16.20
Cost of Production Per Pig Space						
Total direct expense per unit		12.54		22.84		7.20
Total dir & ovhd expense per unit		29.64		48.94		24.80
Est. labor hours per unit		0.43		0.67		0.33
Other Information						
Number of pigs		5,675		5,348		4,307
Pigs per pig space (per year)		2.30		2.66		2.04
Pigs per 100 sq. ft. (per yr)		29.84		36.42		25.22
Net return per 100 sq. ft.		113.67		-195.33		268.19
Net return per labor hour		20.36		-21.13		66.20
Square feet per pig space		7.72		7.29		8.11

Livestock Enterprise Analysis
Southwestern Minnesota Farm Business Management Association
(Farms Sorted By Net Return)

Hogs, Weaning to Finish (Contract Grower) -- Average Per Pig Space

	<u>Avg. Of All Farms</u>		<u>Low 20%</u>		<u>High 20%</u>	
Number of farms	59		11		12	
	Quantity	Value	Quantity	Value	Quantity	Value
Other income		39.90		32.39		44.06
Gross margin		39.90		32.39		44.06
Direct Expenses						
Supplies		1.02		2.29		0.20
Fuel & oil		1.26		0.87		1.14
Repairs		4.18		2.69		2.21
Custom hire		0.42		0.58		0.34
Hired labor		0.84		1.70		0.57
Machinery leases		0.24		1.51		-
Utilities		1.71		1.57		2.37
Operating interest		0.23		0.54		0.16
Total direct expenses		9.91		11.74		7.00
Return over direct expense		30.00		20.65		37.06
Overhead Expenses						
Hired labor		0.64		0.34		0.56
Building leases		1.13		2.62		0.20
RE & pers. property taxes		0.70		0.93		0.45
Farm insurance		1.96		1.97		1.64
Utilities		1.47		1.19		1.60
Dues & professional fees		0.24		0.84		0.01
Interest		4.70		6.32		2.99
Mach & bldg depreciation		8.16		11.05		5.59
Miscellaneous		0.93		1.37		0.87
Total overhead expenses		19.93		26.63		13.91
Total dir & ovhd expenses		29.84		38.38		20.90
Net return		10.07		-5.99		23.16
Labor & management charge		5.51		4.55		6.98
Net return over lbr & mgt		4.56		-10.54		16.18
Cost of Production Per Pig Space						
Total direct expense per unit		9.91		11.74		7.00
Total dir & ovhd expense per unit		29.84		38.38		20.90
Est. labor hours per unit		0.34		0.38		0.28
Other Information						
Number of pigs		7,069		5,548		5,765
Pigs per pig space (per year)		2.31		2.30		2.26
Pigs per 100 sq. ft. (per yr)		30.11		30.39		27.51
Net return per 100 sq. ft.		131.03		-79.23		281.80
Net return per labor hour		29.62		-15.83		82.08
Square feet per pig space		7.68		7.56		8.22

Livestock Enterprise Analysis
Southwestern Minnesota Farm Business Management Association
(Farms Sorted By Net Return)

Beef Cow-Calf -- Average Per Cow

	<u>Avg. Of All Farms</u>		<u>Low 20%</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	131.0	197.61	153.7	292.17
Transferred out (lb)	243.9	339.75	277.0	370.28	198.8	286.97
Cull sales (lb)	69.1	130.59	78.9	119.38	47.0	109.27
Other income		5.54		3.57		4.96
Purchased (lb)	-15.4	-71.31	-26.7	-109.89	-19.7	-77.23
Transferred in (lb)	-29.8	-66.64	-55.1	-91.92	-15.2	-36.09
Inventory change (lb)	26.5	6.84	14.1	-220.91	116.7	242.31
Gross margin		633.29		268.11		822.38
Direct Expenses						
Beet Pulp (dry) (lb.)	358.5	4.04	-	-	1,271.1	14.48
Protein Vit Minerals (lb.)	347.7	49.94	177.9	46.24	226.0	39.05
Complete Ration (lb.)	68.9	8.29	83.3	17.21	2.9	0.20
Corn (bu.)	3.0	9.55	4.2	13.55	1.9	6.10
Corn Silage (lb.)	4,905.0	78.54	4,461.1	75.54	4,574.4	79.27
Hay, Alfalfa (lb.)	1,165.3	53.35	2,341.6	101.57	284.1	18.05
Hay, Grass (lb.)	3,922.3	118.75	3,801.8	120.69	4,361.6	134.60
Haylage, Alfalfa (lb.)	529.7	12.94	61.8	2.27	-	-
Pasture (aum)	3.8	53.81	3.7	63.14	4.4	57.90
Straw (lb.)	165.7	4.73	-	-	510.4	12.76
Other feed stuffs (lb)	1,040.6	18.78	271.1	9.73	384.7	20.29
Veterinary		29.37		25.83		22.29
Supplies		50.55		43.39		43.73
Fuel & oil		22.98		24.87		19.76
Repairs		50.30		64.89		60.19
Operating interest		12.44		7.44		14.42
Total direct expenses		578.38		616.34		543.09
Return over direct expense		54.91		-348.23		279.29
Overhead Expenses						
RE & pers. property taxes		7.87		9.98		2.36
Farm insurance		13.73		17.09		7.40
Utilities		13.27		25.54		6.25
Interest		28.71		37.89		38.28
Mach & bldg depreciation		48.29		103.85		26.17
Miscellaneous		27.33		27.44		16.92
Total overhead expenses		139.20		221.79		97.37
Total dir & ovhd expenses		717.58		838.13		640.46
Net return		-84.29		-570.01		181.91
Labor & management charge		93.05		124.21		75.27
Net return over lbr & mgt		-177.33		-694.23		106.64
Cost of Production Per Cwt. Produced						
Total direct expense per unit		120.26		146.36		112.55
Total dir & ovhd expense per unit		149.20		199.03		132.73
With other revenue adjustments		150.27		258.08		113.65
With labor and management		169.62		287.58		129.25
Est. labor hours per unit		8.56		9.61		7.82
Other Information						
Number of cows		69.4		43.8		86.5
Pregnancy percentage		95.8		92.3		96.3
Pregnancy loss percentage		1.9		3.6		0.7
Culling percentage		12.6		12.8		10.9
Calving percentage		94.0		88.9		95.7
Weaning percentage		89.1		85.4		89.2
Calves sold per cow		0.78		0.82		0.62
Calf death loss percent		5.1		5.4		5.0
Cow death loss percent		2.0		3.1		0.8
Cows per FTE		327.1		291.2		358.0
Average weaning weight		543		525		550
Lb. weaned/exposed female		483		449		491
Feed cost per cow		412.74		449.93		382.70
Avg wgt/ Beef Calves sold		582		595		561
Avg price / cwt.		156.42		150.86		190.05

Livestock Enterprise Analysis
Southwestern Minnesota Farm Business Management Association
(Farms Sorted By Net Return)

Beef Cow-Calf -- Average Per Cwt. Produced

	<u>Avg. Of All Farms</u>		<u>Low 20%</u>		<u>High 20%</u>	
Number of farms	116		23		24	
	Quantity	Value	Quantity	Value	Quantity	Value
Beef Calves sold (lb)	38.35	59.99	31.10	46.93	31.86	60.55
Transferred out (lb)	50.71	70.64	65.79	87.93	41.19	59.47
Cull sales (lb)	14.38	27.15	18.73	28.35	9.73	22.65
Other income		1.15		0.85		1.03
Purchased (lb)	-3.21	-14.83	-6.35	-26.10	-4.08	-16.00
Transferred in (lb)	-6.20	-13.86	-13.09	-21.83	-3.15	-7.48
Inventory change (lb)	5.51	1.42	3.35	-52.46	24.18	50.21
Gross margin		131.68		63.67		170.42
Direct Expenses						
Beet Pulp (dry) (lb.)	74.55	0.84	-	-	263.41	3.00
Protein Vit Minerals (lb.)	72.29	10.38	42.25	10.98	46.84	8.09
Complete Ration (lb.)	14.32	1.72	19.78	4.09	0.60	0.04
Corn (bu.)	0.62	1.99	1.01	3.22	0.39	1.26
Corn Silage (lb.)	1,019.88	16.33	1,059.37	17.94	947.97	16.43
Hay, Alfalfa (lb.)	242.29	11.09	556.06	24.12	58.87	3.74
Hay, Grass (lb.)	815.55	24.69	902.80	28.66	903.88	27.89
Haylage, Alfalfa (lb.)	110.14	2.69	14.67	0.54	-	-
Pasture (aum)	0.78	11.19	0.87	14.99	0.92	12.00
Straw (lb.)	34.46	0.98	-	-	105.76	2.64
Other feed stuffs (lb)	216.37	3.90	64.38	2.31	79.72	4.20
Veterinary		6.11		6.13		4.62
Supplies		10.51		10.30		9.06
Fuel & oil		4.78		5.91		4.10
Repairs		10.46		15.41		12.47
Operating interest		2.59		1.77		2.99
Total direct expenses		120.26		146.36		112.55
Return over direct expense		11.42		-82.69		57.88
Overhead Expenses						
RE & pers. property taxes		1.64		2.37		0.49
Farm insurance		2.85		4.06		1.53
Utilities		2.76		6.06		1.29
Interest		5.97		9.00		7.93
Mach & bldg depreciation		10.04		24.66		5.42
Miscellaneous		5.68		6.52		3.51
Total overhead expenses		28.94		52.67		20.18
Total dir & ovhd expenses		149.20		199.03		132.73
Net return		-17.53		-135.36		37.70
Labor & management charge		19.35		29.50		15.60
Net return over lbr & mgt		-36.87		-164.86		22.10
Cost of Production Per Cwt. Produced						
Total direct expense per unit		120.26		146.36		112.55
Total dir & ovhd expense per unit		149.20		199.03		132.73
With other revenue adjustments		150.27		258.08		113.65
With labor and management		169.62		287.58		129.25
Est. labor hours per unit		1.78		2.28		1.62
Other Information						
Number of cows		69.4		43.8		86.5
Pregnancy percentage		95.8		92.3		96.3
Pregnancy loss percentage		1.9		3.6		0.7
Culling percentage		12.6		12.8		10.9
Calving percentage		94.0		88.9		95.7
Weaning percentage		89.1		85.4		89.2
Calves sold per cow		0.78		0.82		0.62
Calf death loss percent		5.1		5.4		5.0
Cow death loss percent		2.0		3.1		0.8
Cows per FTE		327.1		291.2		358.0
Average weaning weight		543		525		550
Lb. weaned/exposed female		483		449		491
Feed cost per cow		412.74		449.93		382.70
Avg wgt/ Beef Calves sold		582		595		561
Avg price / cwt.		156.42		150.86		190.05

Livestock Enterprise Analysis
Southwestern Minnesota Farm Business Management Association
(Farms Sorted By Net Return)

Beef Finishing -- Average Per Head

	<u>Avg. Of All Farms</u>		<u>Low 20%</u>		<u>High 20%</u>	
Number of farms	75		15		15	
	Quantity	Value	Quantity	Value	Quantity	Value
Finish Beef sold (lb)	1,361.7	1,620.63	1,234.9	1,371.22	1,273.5	1,451.50
Transferred out (lb)	19.4	22.18	88.4	96.57	22.6	26.50
Other income		21.75		16.65		28.63
Purchased (lb)	-688.5	-1,058.83	-399.0	-556.97	-642.1	-878.76
Transferred in (lb)	-59.8	-84.83	-120.7	-163.25	-114.3	-158.08
Inventory change (lb)	47.7	-59.38	-53.8	-378.30	238.5	178.19
Gross margin		461.53		385.92		647.99
Direct Expenses						
Corn Gluten (lb.)	231.7	5.79	-	-	834.8	20.87
Protein Vit Minerals (lb.)	388.4	58.40	1,210.5	86.17	247.0	57.23
Complete Ration (lb.)	88.4	6.27	296.7	20.03	253.7	16.43
Barley (bu.)	0.6	1.12	8.3	16.64	-	-
Corn (bu.)	56.4	180.78	79.6	259.23	49.6	162.36
Corn Silage (lb.)	2,540.2	39.14	3,264.5	55.69	2,439.1	35.60
Hay, Alfalfa (lb.)	171.5	8.37	434.6	21.54	126.6	5.38
Hay, Grass (lb.)	456.3	16.83	1,012.3	38.76	169.6	11.49
Haylage, Alfalfa (lb.)	132.8	4.17	-	-	784.4	24.63
DDGS, dry (lb.)	582.9	33.64	8.7	0.84	266.8	17.49
DDGS, wet (lb.)	82.7	2.83	111.6	4.00	427.1	14.01
Other feed stuffs (lb)	838.7	16.30	712.3	15.30	471.4	22.38
Veterinary		15.18		17.62		19.39
Supplies		33.36		35.64		19.38
Fuel & oil		10.86		15.71		6.94
Repairs		16.43		25.99		11.58
Marketing		4.27		26.37		3.68
Operating interest		19.85		53.69		12.36
Total direct expenses		473.56		693.23		461.19
Return over direct expense		-12.03		-307.31		186.80
Overhead Expenses						
Utilities		6.18		15.04		6.53
Interest		5.66		11.58		3.26
Mach & bldg depreciation		29.21		39.69		16.78
Miscellaneous		22.99		35.39		20.88
Total overhead expenses		64.05		101.69		47.45
Total dir & ovhd expenses		537.61		794.92		508.64
Net return		-76.08		-409.00		139.35
Labor & management charge		36.25		58.75		35.90
Net return over lbr & mgt		-112.33		-467.76		103.45
Cost of Production Per Cwt. Produced						
Total direct expense per unit		120.81		134.15		101.22
Total dir & ovhd expense per unit		125.44		141.84		104.88
With other revenue adjustments		124.46		141.84		103.28
With labor and management		127.09		146.28		106.05
Est. labor hours per unit		2.64		4.34		2.24
Other Information						
No. purchased or trans in		257		67		244
Number sold or trans out		237		80		191
Percentage death loss		1.1		1.2		1.1
Avg. daily gain (lb.)		2.62		2.01		2.85
Lb. of conc / lb. of gain		6.79		8.47		6.70
Lb. of feed / lb. of gain		9.30		12.46		8.67
Feed cost per cwt. of gain		54.30		67.63		49.39
Feed cost per head		373.62		518.19		387.86
Average purchase weight		718		652		660
Avg wgt / Finish Beef sold		1,391		1,361		1,381
Avg purch price / cwt.		153.78		139.60		136.85
Avg sales price / cwt.		119.02		111.04		113.98

Livestock Enterprise Analysis
Southwestern Minnesota Farm Business Management Association
(Farms Sorted By Net Return)

Beef Finishing -- Average Per Cwt. Produced

	<u>Avg. Of All Farms</u>		<u>Low 20%</u>		<u>High 20%</u>	
Number of farms	75		15		15	
	Quantity	Value	Quantity	Value	Quantity	Value
Finish Beef sold (lb)	197.90	235.54	161.17	178.97	162.16	184.83
Transferred out (lb)	2.82	3.22	11.53	12.60	2.88	3.37
Other income		3.16		2.17		3.65
Purchased (lb)	-100.07	-153.89	-52.07	-72.69	-81.77	-111.90
Transferred in (lb)	-8.69	-12.33	-15.75	-21.31	-14.56	-20.13
Inventory change (lb)	6.93	-8.63	-7.02	-49.37	30.37	22.69
Gross margin		67.08		50.37		82.51
Direct Expenses						
Corn Gluten (lb.)	33.68	0.84	-	-	106.30	2.66
Protein Vit Minerals (lb.)	56.44	8.49	157.99	11.25	31.45	7.29
Complete Ration (lb.)	12.85	0.91	38.72	2.61	32.31	2.09
Barley (bu.)	0.08	0.16	1.08	2.17	-	-
Corn (bu.)	8.19	26.27	10.39	33.83	6.32	20.67
Corn Silage (lb.)	369.18	5.69	426.07	7.27	310.59	4.53
Hay, Alfalfa (lb.)	24.93	1.22	56.72	2.81	16.12	0.68
Hay, Grass (lb.)	66.32	2.45	132.12	5.06	21.59	1.46
Haylage, Alfalfa (lb.)	19.31	0.61	-	-	99.89	3.14
DDGS, dry (lb.)	84.72	4.89	1.14	0.11	33.97	2.23
Other feed stuffs (lb)	133.90	2.78	107.54	2.52	114.42	4.63
Veterinary		2.21		2.30		2.47
Supplies		4.85		4.65		2.47
Fuel & oil		1.58		2.05		0.88
Repairs		2.39		3.39		1.48
Marketing		0.62		3.44		0.47
Operating interest		2.88		7.01		1.57
Total direct expenses		68.83		90.48		58.73
Return over direct expense		-1.75		-40.11		23.79
Overhead Expenses						
Utilities		0.90		1.96		0.83
Interest		0.82		1.51		0.41
Mach & bldg depreciation		4.25		5.18		2.14
Miscellaneous		3.34		4.62		2.66
Total overhead expenses		9.31		13.27		6.04
Total dir & ovhd expenses		78.13		103.75		64.77
Net return		-11.06		-53.38		17.74
Labor & management charge		5.27		7.67		4.57
Net return over lbr & mgt		-16.33		-61.05		13.17
Cost of Production Per Cwt. Produced						
Total direct expense per unit		120.81		134.15		101.22
Total dir & ovhd expense per unit		125.44		141.84		104.88
With other revenue adjustments		124.46		141.84		103.28
With labor and management		127.09		146.28		106.05
Est. labor hours per unit		0.38		0.57		0.29
Other Information						
No. purchased or trans in		257		67		244
Number sold or trans out		237		80		191
Percentage death loss		1.1		1.2		1.1
Avg. daily gain (lb.)		2.62		2.01		2.85
Lb. of conc / lb. of gain		6.79		8.47		6.70
Lb. of feed / lb. of gain		9.30		12.46		8.67
Feed cost per cwt. of gain		54.30		67.63		49.39
Feed cost per head		373.62		518.19		387.86
Average purchase weight		718		652		660
Avg wgt / Finish Beef sold		1,391		1,361		1,381
Avg purch price / cwt.		153.78		139.60		136.85
Avg sales price / cwt.		119.02		111.04		113.98

Livestock Enterprise Analysis
Southwestern Minnesota Farm Business Management Association
(Farms Sorted By Net Return)

Dairy -- Average Per Cow

	Avg. Of All Farms		Low 20%		High 20%	
Number of farms	407		81		82	
	Quantity	Value	Quantity	Value	Quantity	Value
Milk sold (hd)	24,188.7	4,006.88	23,653.8	3,789.56	23,131.2	4,183.53
Dairy Calves sold (hd)	0.3	68.64	0.3	76.55	0.3	53.83
Transferred out (hd)	0.7	41.53	0.6	30.40	0.7	57.43
Cull sales (hd)	0.3	243.13	0.3	256.88	0.3	236.15
Other income		44.76		63.23		36.45
Purchased (hd)	0.0	-36.70	0.0	-50.86	0.0	-25.67
Transferred in (hd)	0.4	-78.31	0.4	-29.56	0.3	-123.93
Inventory change (hd)	0.0	52.14	0.0	17.93	0.0	74.28
Dairy repl net cost		-555.76		-720.72		-355.14
Gross margin		3,790.19		3,434.99		4,144.63
Direct Expenses						
Protein Vit Minerals (lb.)	5,660.8	649.42	2,489.6	555.39	3,373.2	730.35
Complete Ration (lb.)	1,553.4	325.36	1,726.3	523.04	1,089.0	176.66
Corn (bu.)	65.8	224.65	71.8	265.05	56.1	191.00
Corn Silage (lb.)	17,861.5	297.49	18,810.6	326.83	15,657.2	254.94
Hay, Alfalfa (lb.)	2,775.4	147.46	2,834.2	177.17	1,879.7	112.34
Haylage, Alfalfa (lb.)	4,736.2	141.13	4,468.7	133.78	3,742.1	124.01
Other feed stuffs (lb)	2,680.4	114.16	1,741.6	72.75	4,077.3	193.89
Veterinary		111.99		132.31		100.33
Supplies		373.80		388.77		290.68
Fuel & oil		60.84		65.65		50.05
Repairs		143.36		159.32		134.33
Custom hire		57.30		81.00		60.30
Hired labor		242.84		268.35		192.51
Utilities		32.67		51.59		30.89
Bedding		69.91		92.88		57.22
Total direct expenses		2,992.36		3,293.88		2,699.50
Return over direct expense		797.83		141.11		1,445.13
Overhead Expenses						
Hired labor		184.68		204.81		87.83
Building leases		54.00		70.12		64.40
Farm insurance		45.32		49.80		38.19
Utilities		66.50		55.26		63.79
Interest		85.50		109.97		56.18
Mach & bldg depreciation		167.54		173.47		155.37
Miscellaneous		57.30		62.19		59.16
Total overhead expenses		660.83		725.61		524.91
Total dir & ovhd expenses		3,653.19		4,019.49		3,224.41
Net return		136.99		-584.50		920.22
Labor & management charge		192.75		188.35		235.11
Net return over lbr & mgt		-55.76		-772.85		685.11
Cost of Production Per Cwt. Of Milk						
Total direct expense per unit		12.27		13.72		11.59
Total dir & ovhd expense per unit		14.98		16.74		13.84
With other revenue adjustments		15.99		18.43		14.12
With labor and management		16.78		19.22		15.13
Est. labor hours per unit		41.10		45.90		34.69
Other Information						
Number of cows		195.0		179.2		169.0
Milk produced per cow		24,390		24,009		23,295
Total milk sold		4,717,761		4,239,574		3,910,223
Lb. of milk sold per FTE		1,647,810		1,442,781		1,866,964
Culling percentage		28.5		29.3		26.4
Turnover rate		35.5		36.9		32.0
Cow death loss percent		6.5		7.1		5.0
Percent of barn capacity		111.1		108.8		108.5
Feed cost per day		5.20		5.63		4.89
Feed cost per cwt. of milk		7.79		8.56		7.65
Feed cost per cow		1,899.65		2,054.01		1,783.18
Avg. milk price per cwt.		16.57		16.02		18.09
Milk price / feed margin		8.78		7.47		10.43

Livestock Enterprise Analysis
Southwestern Minnesota Farm Business Management Association
(Farms Sorted By Net Return)

Dairy -- Average Per Cwt. Of Milk

	Avg. Of All Farms		Low 20%		High 20%	
Number of farms	407		81		82	
	Quantity	Value	Quantity	Value	Quantity	Value
Milk sold (hd)	99.17	16.43	98.52	15.78	99.30	17.96
Dairy Calves sold (hd)	0.00	0.28	0.00	0.32	0.00	0.23
Transferred out (hd)	0.00	0.17	0.00	0.13	0.00	0.25
Cull sales (hd)	0.00	1.00	0.00	1.07	0.00	1.01
Other income		0.18		0.26		0.16
Purchased (hd)	0.00	-0.15	0.00	-0.21	0.00	-0.11
Transferred in (hd)	0.00	-0.32	0.00	-0.12	0.00	-0.53
Inventory change (hd)	0.00	0.21	0.00	0.07	0.00	0.32
Dairy repl net cost		-2.28		-3.00		-1.52
Gross margin		15.54		14.31		17.79
Direct Expenses						
Protein Vit Minerals (lb.)	23.21	2.66	10.37	2.31	14.48	3.14
Complete Ration (lb.)	6.37	1.33	7.19	2.18	4.67	0.76
Corn (bu.)	0.27	0.92	0.30	1.10	0.24	0.82
Corn Silage (lb.)	73.23	1.22	78.35	1.36	67.21	1.09
Hay, Alfalfa (lb.)	11.38	0.60	11.81	0.74	8.07	0.48
Haylage, Alfalfa (lb.)	19.42	0.58	18.61	0.56	16.06	0.53
Other feed stuffs (lb)	10.99	0.47	7.25	0.30	17.50	0.83
Veterinary		0.46		0.55		0.43
Supplies		1.67		1.83		1.38
Fuel & oil		0.25		0.27		0.21
Repairs		0.59		0.66		0.58
Custom hire		0.23		0.34		0.26
Hired labor		1.00		1.12		0.83
Bedding		0.29		0.39		0.25
Total direct expenses		12.27		13.72		11.59
Return over direct expense		3.27		0.59		6.20
Overhead Expenses						
Hired labor		0.76		0.85		0.38
Building leases		0.22		0.29		0.28
Utilities		0.27		0.23		0.27
Interest		0.35		0.46		0.24
Mach & bldg depreciation		0.69		0.72		0.67
Miscellaneous		0.42		0.47		0.42
Total overhead expenses		2.71		3.02		2.25
Total dir & ovhd expenses		14.98		16.74		13.84
Net return		0.56		-2.43		3.95
Labor & management charge		0.79		0.78		1.01
Net return over lbr & mgt		-0.23		-3.22		2.94
Cost of Production Per Cwt. Of Milk						
Total direct expense per unit		12.27		13.72		11.59
Total dir & ovhd expense per unit		14.98		16.74		13.84
With other revenue adjustments		15.99		18.43		14.12
With labor and management		16.78		19.22		15.13
Est. labor hours per unit		0.17		0.19		0.15
Other Information						
Number of cows		195.0		179.2		169.0
Milk produced per cow		24,390		24,009		23,295
Total milk sold		4,717,761		4,239,574		3,910,223
Lb. of milk sold per FTE		1,647,810		1,442,781		1,866,964
Culling percentage		28.5		29.3		26.4
Turnover rate		35.5		36.9		32.0
Cow death loss percent		6.5		7.1		5.0
Percent of barn capacity		111.1		108.8		108.5
Feed cost per day		5.20		5.63		4.89
Feed cost per cwt. of milk		7.79		8.56		7.65
Feed cost per cow		1,899.65		2,054.01		1,783.18
Avg. milk price per cwt.		16.57		16.02		18.09
Milk price / feed margin		8.78		7.47		10.43

Livestock Enterprise Analysis
Southwestern Minnesota Farm Business Management Association
(Farms Sorted By Net Return)

Dairy Replacement Heifers -- Average Per Head

	<u>Avg. Of All Farms</u>		<u>Low 20%</u>		<u>High 20%</u>	
Number of farms	375		75		75	
	Quantity	Value	Quantity	Value	Quantity	Value
Replacements sold (hd)	0.1	44.20	0.1	41.69	0.1	84.93
Transferred out (hd)	0.4	569.72	0.4	409.92	0.5	776.69
Cull sales (hd)	0.0	9.01	0.0	2.86	0.0	2.34
Other income		3.23		1.16		8.92
Purchased (hd)	0.0	-28.01	0.0	-17.89	0.1	-85.01
Transferred in (hd)	0.6	-139.79	0.6	-137.04	0.7	-149.16
Inventory change (hd)	0.1	54.43	0.1	12.99	0.2	137.89
Gross margin		512.80		313.70		776.61
Direct Expenses						
Protein Vit Minerals (lb.)	377.8	72.06	475.0	73.21	333.7	64.69
Milk (lb.)	150.4	19.87	211.4	37.01	77.5	11.97
Creep / Starter (lb.)	59.5	7.18	82.5	16.06	21.7	5.28
Complete Ration (lb.)	412.9	65.42	780.6	128.78	198.3	39.13
Corn (bu.)	5.2	16.90	6.6	20.95	3.8	12.41
Corn Silage (lb.)	4,359.6	72.04	5,474.5	94.49	4,550.6	73.59
Hay, Alfalfa (lb.)	951.6	52.08	982.8	54.73	912.5	47.83
Hay, Grass (lb.)	599.6	20.19	717.2	22.43	654.5	23.42
Haylage, Alfalfa (lb.)	1,117.9	31.99	824.6	25.70	951.9	26.17
Other feed stuffs (lb)	1,489.4	45.45	1,546.3	53.23	1,166.0	28.22
Breeding fees		14.76		15.30		14.45
Veterinary		18.75		25.77		13.01
Supplies		24.11		31.34		23.36
Contract production exp.		87.65		70.82		121.89
Fuel & oil		10.08		10.82		9.04
Repairs		24.10		27.48		24.59
Hired labor		31.99		31.39		32.94
Bedding		13.97		26.41		8.52
Total direct expenses		628.59		765.90		580.48
Return over direct expense		-115.79		-452.20		196.12
Overhead Expenses						
Hired labor		35.96		80.21		18.30
Building leases		8.49		5.40		11.78
Utilities		12.01		10.31		12.93
Interest		15.17		20.38		15.56
Mach & bldg depreciation		29.31		30.47		27.31
Miscellaneous		17.51		20.53		16.89
Total overhead expenses		118.44		167.29		102.77
Total dir & ovhd expenses		747.04		933.19		683.26
Net return		-234.24		-619.49		93.35
Labor & management charge		34.13		35.16		39.59
Net return over lbr & mgt		-268.37		-654.64		53.76
Cost of Production Per Head Per Day						
Total direct expense per unit		2.00		2.48		1.84
Total dir & ovhd expense per unit		2.33		2.93		2.12
With other revenue adjustments		2.32		2.93		2.10
With labor and management		2.42		3.03		2.21
Est. labor hours per unit		6.93		8.31		6.77
Other Information						
No. purchased or trans in		106		86		119
Number sold or trans out		85		74		90
Average number of head		169		153		155
Percentage death loss		7.6		9.0		4.4
Feed cost per average head		403.18		526.58		332.70
Feed cost/head sold/trans		804.69		1,084.85		570.06
Total cost/head sold/trans		1,760.92		2,279.10		1,384.23
Feed cost per head per day		1.10		1.44		0.91
Avg. purch price / head		1,172.46		1,770.34		1,051.78
Avg. sales price / head		548.10		512.29		887.12

Livestock Enterprise Analysis
Southwestern Minnesota Farm Business Management Association
(Farms Sorted By Net Return)

Dairy and Repl Heifers -- Average Per Cow

	Avg. Of All Farms		Low 20%		High 20%	
	332		66		67	
Number of farms						
	Quantity	Value	Quantity	Value	Quantity	Value
Milk sold (hd)	24,250.3	4,013.73	23,733.5	3,793.51	23,536.2	4,259.00
Dairy Calves sold (hd)	-	104.41	-	93.75	-	120.48
Transferred out (hd)	-	19.95	-	19.63	-	11.88
Cull sales (hd)	-	254.81	-	265.13	-	239.14
Other income	-	49.58	-	63.88	-	35.90
Purchased (hd)	-	-51.97	-	-50.70	-	-88.08
Transferred in (hd)	-	-8.68	-	-1.17	-	-2.68
Inventory change (hd)	-	95.36	-	-3.66	-	221.66
Gross margin		4,481.29		4,181.74		4,804.35
Direct Expenses						
Protein Vit Minerals (lb.)	6,049.0	702.43	2,533.4	555.81	4,444.8	805.13
Complete Ration (lb.)	1,917.3	397.07	1,960.9	627.03	766.4	154.18
Corn (bu.)	70.9	242.68	77.8	293.68	61.1	213.39
Corn Silage (lb.)	22,125.1	372.07	23,075.8	399.15	22,033.5	358.53
Hay, Alfalfa (lb.)	3,629.6	190.69	3,991.3	239.33	2,094.2	129.02
Haylage, Alfalfa (lb.)	5,116.7	150.07	5,971.8	175.66	4,635.2	149.26
Other feed stuffs (lb)	4,296.6	193.85	3,785.9	166.70	5,556.2	282.93
Breeding fees		61.28		63.55		57.54
Veterinary		133.13		153.19		108.11
Supplies		358.07		412.71		299.28
Contract production exp.		133.98		133.43		63.28
Fuel & oil		65.98		72.85		62.01
Repairs		166.68		178.46		168.85
Custom hire		65.33		89.35		74.19
Hired labor		294.07		294.33		310.60
Bedding		83.24		104.44		63.45
Total direct expenses		3,610.63		3,959.66		3,299.75
Return over direct expense		870.67		222.08		1,504.60
Overhead Expenses						
Hired labor		188.29		209.54		88.04
Building leases		61.03		97.94		70.19
Utilities		75.85		62.49		82.72
Interest		97.89		123.54		74.61
Mach & bldg depreciation		196.01		209.29		193.24
Miscellaneous		113.88		122.74		102.75
Total overhead expenses		732.95		825.54		611.54
Total dir & ovhd expenses		4,343.58		4,785.20		3,911.29
Net return		137.72		-603.46		893.06
Labor & management charge		218.62		195.73		291.07
Net return over lbr & mgt		-80.91		-799.19		601.99
Cost of Production Per Cwt. Of Milk						
Total direct expense per unit		14.76		16.44		13.95
Total dir & ovhd expense per unit		17.76		19.87		16.53
With other revenue adjustments		15.97		18.46		14.31
With labor and management		16.86		19.27		15.54
Est. labor hours per unit		47.89		50.28		44.58
Other Information						
Number of cows		198.2		170.2		196.2
Milk produced per cow		24,461		24,088		23,661
Total milk sold		4,805,895		4,039,768		4,617,202
Lb. of milk sold per FTE		1,417,709		1,321,785		1,478,340
Culling percentage		29.0		28.9		24.8
Turnover rate		36.1		36.9		31.0
Cow death loss percent		6.7		7.6		5.8
Percent of barn capacity		111.4		109.0		108.3
Feed cost per day		6.16		6.73		5.73
Feed cost per cwt. of milk		9.19		10.20		8.84
Feed cost per cow		2,248.86		2,457.35		2,092.43
Avg. milk price per cwt.		16.55		15.98		18.10
Milk price / feed margin		7.36		5.78		9.25

Livestock Enterprise Analysis
Southwestern Minnesota Farm Business Management Association
(Farms Sorted By Net Return)

Dairy Finishing -- Average Per Head

	<u>Avg. Of All Farms</u>		<u>Low 20%</u>		<u>High 20%</u>	
Number of farms	113		22		23	
	Quantity	Value	Quantity	Value	Quantity	Value
Dairy Finish sold (lb)	1,317.5	1,471.60	1,472.7	1,528.10	1,175.3	1,355.34
Transferred out (lb)	4.7	4.94	2.1	2.88	-	-
Cull sales (lb)	0.3	0.29	1.7	1.88	-	-
Other income		14.79		5.61		16.28
Purchased (lb)	-297.1	-412.82	-360.4	-491.85	-143.7	-250.27
Transferred in (lb)	-35.5	-41.80	-8.3	-21.99	-82.1	-74.09
Inventory change (lb)	21.5	-297.38	-83.1	-523.58	108.9	-78.90
Gross margin		741.95		501.05		968.37
Direct Expenses						
Protein Vit Minerals (lb.)	593.1	124.76	945.4	172.75	532.8	110.62
Milk (lb.)	47.1	7.73	-	-	141.7	20.74
Complete Ration (lb.)	399.1	42.05	42.2	35.24	444.3	54.57
Corn (bu.)	100.5	326.94	121.4	409.22	72.2	235.35
Corn Silage (lb.)	1,562.8	24.80	1,985.6	26.64	689.9	10.41
DDGS, dry (lb.)	346.7	19.95	-	-	542.5	28.13
DDGS, wet (lb.)	212.1	6.03	659.9	18.95	-	-
Other feed stuffs (lb)	762.0	35.40	1,021.5	41.13	1,016.0	38.96
Veterinary		24.18		21.88		19.69
Supplies		36.87		39.20		23.13
Fuel & oil		10.44		17.82		12.07
Repairs		23.91		39.36		23.92
Custom hire		7.33		18.07		4.80
Hauling and trucking		9.69		14.24		4.74
Bedding		11.59		14.50		11.06
Operating interest		17.56		23.95		17.37
Total direct expenses		729.23		892.97		615.58
Return over direct expense		12.73		-391.92		352.79
Overhead Expenses						
Hired labor		14.95		7.96		22.48
Farm insurance		12.82		22.74		10.21
Utilities		9.53		14.10		8.94
Interest		19.14		14.75		23.58
Mach & bldg depreciation		33.59		46.73		32.88
Miscellaneous		17.74		20.08		16.72
Total overhead expenses		107.76		126.36		114.80
Total dir & ovhd expenses		836.99		1,019.33		730.37
Net return		-95.03		-518.28		237.99
Labor & management charge		40.51		50.66		49.98
Net return over lbr & mgt		-135.54		-568.93		188.01
Cost of Production Per Cwt. Produced						
Total direct expense per unit		111.04		130.35		85.30
Total dir & ovhd expense per unit		119.19		138.92		95.07
With other revenue adjustments		119.04		138.95		95.07
With labor and management		122.10		142.39		99.33
Est. labor hours per unit		4.33		6.92		4.79
Other Information						
No. purchased or trans in		184		155		182
Number sold or trans out		160		143		149
Percentage death loss		2.4		2.5		2.1
Avg. daily gain (lb.)		2.57		2.24		2.79
Lb. of conc / lb. of gain		7.22		8.31		5.76
Lb. of feed / lb. of gain		8.26		9.69		6.48
Feed cost per cwt. of gain		57.48		68.33		46.64
Feed cost per head		587.66		703.94		498.80
Average purchase weight		365		359		300
Avg wgt / Dairy Finish sold		1,423		1,422		1,408
Avg purch price / head		507.73		490.37		522.08
Avg sales price / cwt.		111.70		103.76		115.32

Livestock Enterprise Analysis
Southwestern Minnesota Farm Business Management Association
(Farms Sorted By Net Return)

Dairy Finishing -- Average Per Cwt. Produced

	<u>Avg. Of All Farms</u>		<u>Low 20%</u>		<u>High 20%</u>	
Number of farms	113		22		23	
	Quantity	Value	Quantity	Value	Quantity	Value
Dairy Finish sold (lb)	128.86	143.94	142.95	148.32	109.89	126.73
Transferred out (lb)	0.46	0.48	0.20	0.28	-	-
Cull sales (lb)	0.03	0.03	0.17	0.18	-	-
Other income		1.45		0.54		1.52
Purchased (lb)	-29.06	-40.38	-34.98	-47.74	-13.43	-23.40
Transferred in (lb)	-3.48	-4.09	-0.81	-2.13	-7.67	-6.93
Inventory change (lb)	2.10	-29.09	-8.06	-50.82	10.19	-7.38
Gross margin		72.57		48.63		90.55
Direct Expenses						
Protein Vit Minerals (lb.)	58.01	12.20	91.77	16.77	49.82	10.34
Milk (lb.)	4.61	0.76	-	-	13.25	1.94
Complete Ration (lb.)	39.04	4.11	4.09	3.42	41.54	5.10
Corn (bu.)	9.83	31.98	11.78	39.72	6.75	22.01
Corn Silage (lb.)	152.86	2.43	192.73	2.59	64.51	0.97
DDGS, dry (lb.)	33.91	1.95	-	-	50.72	2.63
DDGS, wet (lb.)	20.74	0.59	64.06	1.84	-	-
Other feed stuffs (lb)	74.53	3.46	99.15	3.99	95.00	3.64
Veterinary		2.36		2.12		1.84
Supplies		3.61		3.80		2.16
Fuel & oil		1.02		1.73		1.13
Repairs		2.34		3.82		2.24
Custom hire		0.72		1.75		0.45
Hauling and trucking		0.95		1.38		0.44
Bedding		1.13		1.41		1.03
Operating interest		1.72		2.32		1.62
Total direct expenses		71.32		86.67		57.56
Return over direct expense		1.24		-38.04		32.99
Overhead Expenses						
Hired labor		1.46		0.77		2.10
Farm insurance		1.25		2.21		0.95
Utilities		0.93		1.37		0.84
Interest		1.87		1.43		2.20
Mach & bldg depreciation		3.29		4.54		3.07
Miscellaneous		1.74		1.95		1.56
Total overhead expenses		10.54		12.26		10.73
Total dir & ovhd expenses		81.86		98.94		68.29
Net return		-9.30		-50.31		22.25
Labor & management charge		3.96		4.92		4.67
Net return over lbr & mgt		-13.26		-55.22		17.58
Cost of Production Per Cwt. Produced						
Total direct expense per unit		111.04		130.35		85.30
Total dir & ovhd expense per unit		119.19		138.92		95.07
With other revenue adjustments		119.04		138.95		95.07
With labor and management		122.10		142.39		99.33
Est. labor hours per unit		0.42		0.67		0.45
Other Information						
No. purchased or trans in		184		155		182
Number sold or trans out		160		143		149
Percentage death loss		2.4		2.5		2.1
Avg. daily gain (lb.)		2.57		2.24		2.79
Lb. of conc / lb. of gain		7.22		8.31		5.76
Lb. of feed / lb. of gain		8.26		9.69		6.48
Feed cost per cwt. of gain		57.48		68.33		46.64
Feed cost per head		587.66		703.94		498.80
Average purchase weight		365		359		300
Avg wgt / Dairy Finish sold		1,423		1,422		1,408
Avg purch price / head		507.73		490.37		522.08
Avg sales price / cwt.		111.70		103.76		115.32

Livestock Enterprise Analysis
Southwestern Minnesota Farm Business Management Association
(Farms Sorted By Net Return)

Sheep, Market Lamb Prod -- Average Per Ewe

	<u>Avg. Of All Farms</u>	
Number of farms	6	
	Quantity	Value
Lambs sold (lb)	7.3	5.44
Mkt Lambs sold (lb)	142.7	227.89
Cull sales (lb)	15.5	9.87
Other income		1.17
Purchased (lb)	-1.2	-6.05
Inventory change (lb)	2.3	7.20
Gross margin		245.52
Direct Expenses		
Protein Vit Minerals (lb.)	188.1	36.62
Complete Ration (lb.)	519.4	6.31
Corn (bu.)	10.7	32.47
Corn Silage (lb.)	283.2	4.96
Hay, Alfalfa (lb.)	561.6	27.98
Hay, Grass (lb.)	247.6	9.72
Oats (bu.)	0.6	1.44
Straw (lb.)	73.2	3.97
Other feed stuffs (lb)	617.2	20.25
Supplies		25.42
Repairs		12.97
Custom hire		5.90
Hired labor		8.84
Marketing		1.55
Bedding		2.30
Total direct expenses		200.71
Return over direct expense		44.81
Overhead Expenses		
Farm insurance		4.19
Utilities		2.48
Interest		3.10
Mach & bldg depreciation		11.74
Miscellaneous		19.09
Total overhead expenses		40.61
Total dir & ovhd expenses		241.32
Net return		4.20
Labor & management charge		32.76
Net return over lbr & mgt		-28.55
Cost of Production Per Cwt. Produced		
Total direct expense per unit		125.15
Total dir & ovhd expense per unit		150.47
With other revenue adjustments		142.58
With labor and management		163.00
Est. labor hours per unit		3.20
Other Information		
Number of ewes		355.5
Pregnancy percentage		96.1
Pregnancy loss percentage		4.3
Female turnover rate		12.47
Lambs born / ewe exposed		1.58
Lambs born / ewe lambing		1.72
Lambs weaned/ewe exposed		1.36
Lambs sold per ewe		1.11
Lamb dth loss (died/born)		18.0
Ewe death loss percentage		9.4
Ewes per FTE		875.2
Average weaning weight		53
Lb. weaned/exposed female		72
Feed cost per ewe		143.72
Avg wgt/Mkt Lambs sold		129
Avg price / cwt.		159.69

Livestock Enterprise Analysis
Southwestern Minnesota Farm Business Management Association
(Farms Sorted By Net Return)

Sheep, Market Lamb Prod -- Average Per Cwt. Produced

	<u>Avg. Of All Farms</u>	
Number of farms	6	
	Quantity	Value
Lambs sold (lb)	4.53	3.39
Mkt Lambs sold (lb)	88.98	142.09
Cull sales (lb)	9.66	6.16
Other income		0.73
Purchased (lb)	-0.74	-3.77
Inventory change (lb)	1.45	4.49
Gross margin		153.08
Direct Expenses		
Protein Vit Minerals (lb.)	117.28	22.83
Complete Ration (lb.)	323.84	3.93
Corn (bu.)	6.70	20.25
Corn Silage (lb.)	176.56	3.09
Hay, Alfalfa (lb.)	350.16	17.45
Hay, Grass (lb.)	154.38	6.06
Oats (bu.)	0.38	0.90
Pasture (aum)	0.27	2.66
Straw (lb.)	45.66	2.47
Other feed stuffs (lb)	384.55	9.97
Supplies		17.28
Repairs		8.09
Custom hire		3.68
Hired labor		5.51
Marketing		0.97
Total direct expenses		125.15
Return over direct expense		27.94
Overhead Expenses		
RE & pers. property taxes		0.86
Farm insurance		2.61
Utilities		1.55
Mach & bldg depreciation		7.32
Miscellaneous		12.98
Total overhead expenses		25.32
Total dir & ovhd expenses		150.47
Net return		2.62
Labor & management charge		20.42
Net return over lbr & mgt		-17.80
Cost of Production Per Cwt. Produced		
Total direct expense per unit		125.15
Total dir & ovhd expense per unit		150.47
With other revenue adjustments		142.58
With labor and management		163.00
Est. labor hours per unit		1.99
Other Information		
Number of ewes		355.5
Pregnancy percentage		96.1
Pregnancy loss percentage		4.3
Female turnover rate		12.47
Lambs born / ewe exposed		1.58
Lambs born / ewe lambing		1.72
Lambs weaned/ewe exposed		1.36
Lambs sold per ewe		1.11
Lamb dth loss (died/born)		18.0
Ewe death loss percentage		9.4
Ewes per FTE		875.2
Average weaning weight		53
Lb. weaned/exposed female		72
Feed cost per ewe		143.72
Avg wgt/Mkt Lambs sold		129
Avg price / cwt.		159.69

Summary Tables

Financial Summary by Years

A better picture of the current financial performance can be seen by comparing this year to previous years in the *Summary by Years* table. All items are taken from the annual report for that year. Monetary values are left in nominal terms unadjusted for inflation. The one exception is the *Net Farm Income (Constant \$)* using the Consumer Price Index (CPI-U) from the U.S. Department of Commerce. This shows the changes in “buying power” for the farmers, compared to the current year. The CPI used is reported below.

<u>Year</u>	<u>CPI-U</u> <u>1982-84=100</u>	<u>Year</u>	<u>CPI-U</u> <u>1982-84=100</u>
1997	160.5	2007	207.3
1998	163.0	2008	215.3
1999	166.6	2009	214.5
2000	172.2	2010	218.1
2001	177.1	2011	224.9
2002	179.9	2012	229.6
2003	184.0	2013	233.0
2004	188.9	2014	236.7
2005	195.3	2015	237.0
2006	201.6	2016	239.5

Financial Summary by Farm Size (Gross Farm Income)

This table summarizes whole-farm financial performance by size of farm. Farms are categorized based on gross farm income.

Financial Summary by Farm Type

This table summarizes whole-farm financial performance by type of farm. Farm type is assigned based on greater than 70 percent of sales from that commodity or combination of commodities.

Financial Summary by Debt To Asset Ratio

This table summarizes whole-farm financial performance by debt level. Farms are categorized based on total farm and nonfarm Debt To Asset Ratio.

Financial Summary by Age of Operator

This table summarizes whole-farm financial performance based on age of the primary operator.

SUMMARY OF THE WHOLE FARM ANALYSIS BY YEARS
Southwestern Minnesota Farm Business Management Association
(Overall averages for all farms reporting)

Row	Items	1997	1998	1999	2000	2001	2002	2003	2004	2005
		----	----	----	----	----	----	----	----	----
1	Number of Farms	208	210	216	212	207	188	175	125	107
	Farm Income Statement									
2	Gross Cash Farm Income	359,710	369,573	388,731	422,897	433,698	428,084	504,022	496,771	579,201
3	Total Cash Farm Expense	303,241	305,344	324,802	348,711	358,506	352,995	400,605	404,743	477,476
4	Inventory Change	19,769	-21,057	15,633	25,296	-17,297	19,571	18,977	31,076	74,307
5	Depr. & Cap. Adj.	-35,640	-34,557	-35,800	-17,731	-21,280	-24,654	-25,990	-24,741	-28,170
6	Net Farm Income from Operations	40,598	8,616	43,762	81,750	36,614	70,007	96,404	98,362	147,862
7	Gain of Loss on Capital Sales	0	0	0	0	0	0	0	0	0
8	Net Farm Income	40,598	8,616	43,762	81,750	36,614	70,007	96,404	98,362	147,862
9	Net Farm Income (Constant \$)	60,581	12,660	62,911	113,700	49,515	93,200	125,482	124,710	181,326
	Profitability*									
10	Rate of Return on Assets (%)	6	2	7	12	6	9	11	11	14
11	Rate of Return on Equity (%)	5	-6	7	19	4	11	16	16	21
12	Operating Profit Margin (%)	14	4	16	27	14	20	24	23	28
13	Asset Turnover Rate (%)	44	39	43	45	39	44	44	46	51
14	Value of Farm Production	262,396	250,717	274,411	313,232	282,583	345,743	379,505	378,450	478,073
15	Farm Interest Paid	22,282	25,358	27,488	27,002	27,203	26,739	25,262	21,824	22,210
	Liquidity, Repayment and Efficiency									
16	Current Ratio	1.6	1.5	1.6	1.7	1.5	1.6	1.7	1.9	2.1
17	Working Capital	91,023	76,325	95,737	112,896	83,500	117,135	143,632	155,804	218,745
18	Working Capital to Gross Revenue (%)	25	21	24	25	20	25	28	30	34
19	Term Debt Coverage Ratio	2.2	1.6	1.9	2.3	1.0	1.6	2.2	2.1	3.0
20	Operating Expense Ratio (%)	73.3	80.5	73.1	71.4	79.5	73.6	71.5	72.1	69.2
21	Interest Expense Ratio (%)	6.2	7.5	6.7	6.2	6.6	5.8	4.8	4.2	3.5
	Solvency (Year-end, Sole Proprietors Only)*									
22	No. of Sole Proprietors	180	183	185	181	178	161	149	109	91
23	Total Assets	1,016,308	1,066,565	1,061,579	1,150,838	1,158,071	1,277,823	1,407,919	1,286,775	1,487,232
24	Total Liabilities	490,140	522,994	517,040	545,689	539,918	578,253	619,279	554,962	618,105
25	Net Worth	526,168	543,571	544,539	605,149	618,197	699,570	788,640	731,813	869,127
26	Debt to Asset Ratio (%)	48	49	49	47	47	45	44	43	42
	Acreage Information									
27	Total Acres Owned	233	250	241	250	252	265	263	236	241
28	Total Crop Acres Farmed	648	697	709	730	759	784	794	766	792
29	Crop Acres Owned	200	219	204	214	214	226	239	193	199
30	Crop Acres Cash Rented	381	402	430	445	468	490	489	494	532
31	Crop Acres Share Rented	67	76	75	70	77	68	67	79	61
	Crop Yields									
32	Corn per acre (bu.)	126	161	156	150	128	151	157	171	192
33	Soybeans per acre (bu.)	42	49	45	46	42	49	39	41	55
	Crop Prices Received (cash sales)									
34	Corn per Bushel	2.39	1.97	1.66	1.68	1.72	1.95	2.07	2.28	1.89
35	Soybeans per Bushel	7.13	5.72	4.59	4.57	4.32	4.57	5.73	7.17	5.88
	Household Information									
36	No. Farms Reporting HseHld Info	123	122	125	120	124	108	102	73	67
37	Average Family Size	3.7	3.6	3.6	3.5	3.5	3.6	3.4	3.4	3.4
38	Family living expense	34,284	34,097	35,186	38,932	39,793	41,882	43,383	48,371	50,608
39	Total Family Use of Cash	58,051	48,197	50,326	62,349	63,980	51,826	68,470	68,029	74,513
40	Net Nonfarm Income	13,596	15,580	18,430	21,436	20,082	20,846	22,480	23,733	24,774

* Beginning in 1993, profitability is analyzed using assets valued at adjusted cost basis while solvency is at estimated fair market value. Prior to 1993, profitability and solvency were analyzed using land valued with a conservative market value and all other assets valued at cost basis.

SUMMARY OF THE WHOLE FARM ANALYSIS BY YEARS (continued)
Southwestern Minnesota Farm Business Management Association
(Overall averages for all farms reporting)

2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	Row
----	----	----	----	----	----	----	----	----	----	----	----
110	107	99	95	97	107	110	117	109	103	103	1
609,886	731,897	876,375	878,404	970,471	1,150,686	1,332,519	1,285,081	1,086,085	997,581	918,546	2
494,409	592,841	720,364	743,487	781,053	898,752	1,057,018	1,029,631	856,705	798,226	748,909	3
66,397	135,843	70,051	-21,159	178,977	136,582	157,209	-53,364	-49,479	-68,430	-8,515	4
-27,176	-32,631	-39,437	-43,972	-48,085	-55,244	-66,085	-69,322	-70,801	-73,028	-71,987	5
154,698	242,267	186,625	69,787	320,310	333,272	366,624	132,764	109,100	57,897	89,135	6
0	0	4,276	0	1,855	3,015	10,447	4,404	9,296	1,944	-418	7
154,698	242,267	190,901	69,787	322,165	336,287	377,071	137,168	118,396	59,841	88,717	8
183,781	279,898	212,359	77,921	353,776	358,118	393,330	140,995	119,797	60,472	88,717	9
13	17	11	3	17	16	14	4	3	1	3	10
19	25	15	2	24	21	19	4	3	0	2	11
28	35	26	9	36	35	30	11	10	4	8	12
48	50	43	37	47	46	46	34	34	31	31	13
512,081	648,768	658,576	608,181	819,691	871,265	1,052,663	819,449	790,270	729,443	738,186	14
27,677	30,714	30,232	29,727	34,124	28,447	27,141	27,405	26,239	27,225	30,723	15
2.2	2.5	2.6	2.3	2.9	3.3	3.1	2.7	2.6	2.2	1.9	16
268,567	393,911	446,350	404,104	568,438	659,446	771,719	646,719	562,147	455,840	395,033	17
40	46	49	45	50	52	52	52	54	49	42	18
3.1	4.1	2.9	1.1	5.2	5.6	4.6	1.8	1.4	0.9	1.4	19
68.7	64.1	71.6	83.6	64.8	66.9	69.1	81.4	80.0	83.0	79.0	20
4.3	3.7	3.3	3.3	3.0	2.3	1.8	2.2	2.6	3.0	3.0	21
93	91	85	80	80	87	85	89	84	81	81	22
1,694,428	2,034,365	2,208,883	2,376,886	2,719,826	2,922,324	3,515,081	3,667,344	3,670,892	3,953,187	3,994,222	23
698,239	810,184	837,830	892,734	987,753	1,068,183	1,057,882	1,271,925	1,241,969	1,283,940	1,297,771	24
996,189	1,224,181	1,371,053	1,484,151	1,732,074	1,854,181	2,288,721	2,395,419	2,428,924	2,669,246	2,696,451	25
41	40	38	38	36	37	35	35	34	32	32	26
243	241	249	250	240	232	216	211	208	210	210	27
797	825	822	831	831	791	886	845	902	940	939	28
197	208	222	224	221	202	205	203	208	226	236	29
526	546	536	555	550	532	617	592	626	661	651	30
74	71	64	52	61	57	63	50	67	53	53	31
169	162	172	185	184	173	162	175	167	204	207	32
51	49	44	49	51	46	47	52	48	58	62	33
2.04	3.00	4.51	3.83	3.67	5.29	6.27	6.48	4.35	3.63	3.38	34
5.57	7.14	10.83	10.15	9.72	11.58	13.07	13.97	12.73	10.12	8.92	35
66	60	62	52	46	43	42	32	41	32	44	36
3.3	3.1	3.0	3.3	3.0	3.0	2.9	3.0	2.8	3.1	3.0	37
51,569	56,229	59,939	62,182	63,848	73,704	73,904	72,592	73,073	64,621	73,384	38
82,670	98,388	100,933	123,590	108,468	119,913	135,406	159,539	140,853	158,913	125,223	39
31,059	25,164	28,456	29,369	29,543	35,042	30,841	35,723	42,073	36,083	39,590	40

Financial Summary
Southwestern Minnesota Farm Business Management Association
(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	103	5	10	24	42	16	6
Income Statement							
Gross cash farm income	918,546	71,604	186,337	371,138	689,149	1,279,465	5,677,643
Total cash farm expense	748,909	54,587	160,457	251,017	511,430	1,016,835	5,247,717
Net cash farm income	169,638	17,016	25,880	120,122	177,720	262,630	429,926
Inventory change	-8,515	7,329	57,836	-1,235	-26,373	24,383	-124,139
Depreciation	-71,987	-9,058	-25,056	-33,786	-71,817	-125,115	-214,970
Net farm income from operations	89,136	15,287	58,660	85,100	79,530	161,898	90,817
Gain or loss on capital sales	-418	603	-	494	514	7,964	-34,492
Average net farm income	88,717	15,890	58,660	85,594	80,043	169,862	56,325
Median net farm income	84,823	11,570	55,599	86,787	99,852	135,615	243,074
Profitability (cost)							
Rate of return on assets	2.5 %	2.8 %	3.5 %	4.4 %	2.2 %	3.2 %	1.0 %
Rate of return on equity	1.8 %	1.8 %	3.3 %	4.7 %	1.6 %	3.0 %	-2.2 %
Operating profit margin	8.2 %	8.2 %	13.7 %	14.6 %	7.7 %	11.3 %	2.4 %
Asset turnover rate	30.9 %	34.3 %	25.3 %	30.2 %	28.0 %	28.6 %	40.5 %
Liquidity & Repayment (end of year)							
Current assets	825,230	44,867	332,676	482,038	728,822	1,158,958	3,454,131
Current liabilities	430,196	31,347	98,565	156,670	313,900	694,666	2,518,213
Current ratio	1.92	1.43	3.38	3.08	2.32	1.67	1.37
Working capital	395,033	13,520	234,111	325,368	414,922	464,291	935,918
Working capital to gross inc	42.1 %	17.1 %	93.1 %	83.2 %	61.5 %	35.4 %	16.1 %
Term debt coverage ratio	1.41	2.52	4.79	1.73	1.19	1.75	0.91
Replacement coverage ratio	0.93	2.23	2.12	1.06	0.75	1.18	0.71
Term debt to EBITDA	2.22	1.75	1.06	1.63	2.31	1.93	3.58
Solvency (end of year at market)							
Number of farms	103	5	10	24	42	16	6
Total assets	4,028,119	520,188	2,800,655	2,608,929	4,013,756	5,664,024	10,412,043
Total liabilities	1,435,257	231,408	616,888	751,330	1,335,252	2,127,788	5,391,402
Net worth	2,592,862	288,780	2,183,767	1,857,600	2,678,504	3,536,236	5,020,641
Total net worth change	62,309	47,981	132,998	38,717	53,813	62,259	110,407
Farm debt to asset ratio	38 %	34 %	25 %	32 %	36 %	41 %	52 %
Total debt to asset ratio	36 %	44 %	22 %	29 %	33 %	38 %	52 %
Change in total net worth %	2 %	20 %	6 %	2 %	2 %	2 %	2 %
Nonfarm Information							
Net nonfarm income	39,590	80,913	69,288	41,249	32,996	36,679	2,938
Farms reporting living expenses	44	2	6	14	17	5	-
Total family living expense	73,384	-	77,405	69,513	75,880	80,884	-
Total living, invest, cap. purch	125,223	-	126,911	121,251	131,030	137,450	-
Crop Acres							
Total crop acres	939	106	328	546	886	1,450	3,238
Total crop acres owned	236	-	150	172	245	384	370
Total crop acres cash rented	651	52	153	315	586	1,007	2,831
Total crop acres share rented	53	55	25	59	55	60	37
Machinery value per crop acre	514	91	486	444	602	603	303

Financial Summary
Southwestern Minnesota Farm Business Management Association
(Farms Sorted By Farm Type)

	<u>Avg. Of All Farms</u>	<u>Crop</u>	<u>Hog</u>	<u>Other</u>
Number of farms	103	71	5	16
Income Statement				
Gross cash farm income	918,546	743,096	3,753,153	549,321
Total cash farm expense	748,909	580,604	3,481,338	368,299
Net cash farm income	169,638	162,491	271,815	181,022
Inventory change	-8,515	-2,472	-159,222	-11,173
Depreciation	-71,987	-67,653	-154,902	-52,577
Net farm income from operations	89,136	92,366	-42,309	117,271
Gain or loss on capital sales	-418	-975	2,789	607
Average net farm income	88,717	91,391	-39,521	117,878
Median net farm income	84,823	84,823	64,563	100,976
Profitability (cost)				
Rate of return on assets	2.5 %	2.7 %	-0.9 %	6.1 %
Rate of return on equity	1.8 %	2.2 %	-4.5 %	7.8 %
Operating profit margin	8.2 %	8.2 %	-3.0 %	20.6 %
Asset turnover rate	30.9 %	32.5 %	31.3 %	29.6 %
Liquidity & Repayment (end of year)				
Current assets	825,230	806,491	2,096,436	455,107
Current liabilities	430,196	385,229	1,372,948	295,411
Current ratio	1.92	2.09	1.53	1.54
Working capital	395,033	421,261	723,488	159,696
Working capital to gross inc	42.1 %	55.6 %	19.1 %	29.1 %
Term debt coverage ratio	1.41	1.64	0.32	1.54
Replacement coverage ratio	0.93	1.00	0.23	1.27
Term debt to EBITDA	2.22	1.96	4.52	2.18
Solvency (end of year at market)				
Number of farms	103	71	5	16
Total assets	4,028,119	3,783,471	7,466,228	2,945,657
Total liabilities	1,435,257	1,327,289	3,250,762	1,080,394
Net worth	2,592,862	2,456,182	4,215,466	1,865,262
Total net worth change	62,309	63,730	-4,402	107,185
Farm debt to asset ratio	38 %	38 %	45 %	42 %
Total debt to asset ratio	36 %	35 %	44 %	37 %
Change in total net worth %	2 %	3 %	0 %	6 %
Nonfarm Information				
Net nonfarm income	39,590	44,289	3,566	34,359
Farms reporting living expenses	44	30	-	7
Total family living expense	73,384	76,458	-	79,143
Total living, invest, cap. purch	125,223	132,143	-	113,409
Crop Acres				
Total crop acres	939	1,069	1,188	438
Total crop acres owned	236	236	372	107
Total crop acres cash rented	651	769	785	331
Total crop acres share rented	53	64	31	1
Machinery value per crop acre	514	469	654	642

Financial Summary
Southwestern Minnesota Farm Business Management Association
(Farms Sorted By Debt to Asset Ratio)

	<u>Avg. Of All Farms</u>	<u>Less than 20%</u>	<u>20% - 40%</u>	<u>40% - 60%</u>	<u>60% - 80%</u>
Number of farms	103	20	49	23	9
Income Statement					
Gross cash farm income	918,546	383,241	908,134	1,276,086	1,305,793
Total cash farm expense	748,909	277,906	715,552	1,123,492	1,066,863
Net cash farm income	169,638	105,334	192,582	152,595	238,930
Inventory change	-8,515	23,846	7,166	-43,592	-90,347
Depreciation	-71,987	-44,745	-80,642	-84,490	-51,310
Net farm income from operations	89,136	84,436	119,106	24,513	97,274
Gain or loss on capital sales	-418	-105	3,419	-9,430	930
Average net farm income	88,717	84,331	122,525	15,083	98,204
Median net farm income	84,823	83,118	103,475	64,021	19,314
Profitability (cost)					
Rate of return on assets	2.5 %	2.8 %	3.1 %	0.7 %	3.4 %
Rate of return on equity	1.8 %	2.7 %	3.0 %	-3.3 %	1.8 %
Operating profit margin	8.2 %	10.0 %	10.8 %	2.2 %	7.6 %
Asset turnover rate	30.9 %	28.2 %	28.5 %	30.6 %	44.4 %
Liquidity & Repayment (end of year)					
Current assets	825,230	576,078	845,674	835,943	1,334,707
Current liabilities	430,196	67,951	339,165	651,288	1,091,951
Current ratio	1.92	8.48	2.49	1.28	1.22
Working capital	395,033	508,127	506,509	184,655	242,756
Working capital to gross inc	42.1 %	119.6 %	54.2 %	14.6 %	18.7 %
Term debt coverage ratio	1.41	6.52	1.92	0.55	1.36
Replacement coverage ratio	0.93	1.29	1.15	0.44	1.19
Term debt to EBITDA	2.22	0.29	1.54	4.57	3.74
Solvency (end of year at market)					
Number of farms	103	20	49	23	9
Total assets	4,028,119	3,423,275	4,496,236	3,983,447	3,448,055
Total liabilities	1,435,257	589,855	1,348,702	2,012,607	2,253,261
Net worth	2,592,862	2,833,420	3,147,534	1,970,840	1,194,795
Total net worth change	62,309	50,169	81,493	7,473	150,675
Farm debt to asset ratio	38 %	19 %	32 %	53 %	68 %
Total debt to asset ratio	36 %	17 %	30 %	51 %	65 %
Change in total net worth %	2 %	2 %	3 %	0 %	14 %
Nonfarm Information					
Net nonfarm income	39,590	34,431	42,653	34,465	56,273
Farms reporting living expenses	44	12	24	6	2
Total family living expense	73,384	56,104	78,679	80,012	-
Total living, invest, cap. purch	125,223	117,350	138,375	86,903	-
Crop Acres					
Total crop acres	939	560	910	997	1,858
Total crop acres owned	236	172	278	263	122
Total crop acres cash rented	651	357	567	664	1,736
Total crop acres share rented	53	32	65	69	-
Machinery value per crop acre	514	567	587	581	181

Financial Summary
Southwestern Minnesota Farm Business Management Association
(Farms Sorted By Age of Operator)

	<u>Avg. Of All Farms</u>	<u>Less Than 31</u>	<u>31 - 40</u>	<u>41 - 50</u>	<u>51 - 60</u>	<u>Over 60</u>
Number of farms	103	8	14	15	22	44
Income Statement						
Gross cash farm income	918,546	1,121,290	683,016	827,405	969,930	962,005
Total cash farm expense	748,909	972,884	500,430	684,792	774,889	796,116
Net cash farm income	169,638	148,407	182,587	142,613	195,041	165,888
Inventory change	-8,515	3,621	-6,555	-43,541	-19,272	5,974
Depreciation	-71,987	-30,236	-69,103	-67,791	-85,261	-75,290
Net farm income from operations	89,136	121,793	106,929	31,282	90,508	96,573
Gain or loss on capital sales	-418	377	270	-14,599	3,930	1,878
Average net farm income	88,717	122,169	107,199	16,682	94,439	98,451
Median net farm income	84,823	52,130	115,068	56,710	95,860	80,479
Profitability (cost)						
Rate of return on assets	2.5 %	4.4 %	4.4 %	0.6 %	2.4 %	2.3 %
Rate of return on equity	1.8 %	5.0 %	5.0 %	-1.8 %	1.7 %	1.9 %
Operating profit margin	8.2 %	8.6 %	13.6 %	1.9 %	7.3 %	8.9 %
Asset turnover rate	30.9 %	51.4 %	32.0 %	31.2 %	33.2 %	26.3 %
Liquidity & Repayment (end of year)						
Current assets	825,230	1,302,093	557,475	743,770	813,106	857,554
Current liabilities	430,196	958,257	318,196	341,673	394,714	417,741
Current ratio	1.92	1.36	1.75	2.18	2.06	2.05
Working capital	395,033	343,836	239,278	402,097	418,392	439,813
Working capital to gross inc	42.1 %	28.1 %	35.0 %	50.4 %	42.9 %	44.2 %
Term debt coverage ratio	1.41	2.05	1.42	0.70	1.31	1.60
Replacement coverage ratio	0.93	1.94	1.13	0.47	0.77	0.98
Term debt to EBITDA	2.22	3.19	2.79	3.39	1.96	1.70
Solvency (end of year at market)						
Number of farms	103	8	14	15	22	44
Total assets	4,028,119	2,977,885	2,916,014	3,267,548	4,188,067	4,752,233
Total liabilities	1,435,257	1,888,852	1,321,998	1,282,701	1,408,754	1,454,081
Net worth	2,592,862	1,089,033	1,594,016	1,984,848	2,779,313	3,298,152
Total net worth change	62,309	192,940	52,426	-25,467	45,357	80,102
Farm debt to asset ratio	38 %	66 %	50 %	42 %	36 %	33 %
Total debt to asset ratio	36 %	63 %	45 %	39 %	34 %	31 %
Change in total net worth %	2 %	22 %	3 %	-1 %	2 %	2 %
Nonfarm Information						
Net nonfarm income	39,590	53,025	46,835	36,636	26,017	42,636
Farms reporting living expenses	44	1	4	9	7	23
Total family living expense	73,384	-	-	83,560	69,291	73,807
Total living, invest, cap. purch	125,223	-	-	123,799	112,172	137,087
Crop Acres						
Total crop acres	939	1,974	762	879	975	810
Total crop acres owned	236	105	108	184	252	309
Total crop acres cash rented	651	1,792	620	646	675	443
Total crop acres share rented	53	77	35	49	48	57
Machinery value per crop acre	514	106	564	599	636	576

Appendix I

Whole Farm Analysis Procedures and Measures

The whole-farm reports include summary financial statements and measures for all farms included in this report. Rounding of individual items may have caused minor discrepancies between those items and the printed totals which are calculated before rounding.

Financial Summary

This table summarizes key measures reported in several of the following tables.

Income Statement

This section summarizes key totals from the Income Statement table. *Average Net Farm Income* is the mean or average farm earnings of the group calculated on an accrual adjusted basis. *Median Net Farm Income* is the farm earnings of the median or middle farm in the group. If it is lower than the average, the average earnings are skewed because some farms had much higher earnings than the rest of the group. If it is higher than the average, the average earnings are skewed because some farms had much lower earnings than the rest of the group.

Profitability

See the Profitability Measures section below for an explanation of these measures.

Liquidity and Repayment

See the Financial Standards Measures and Liquidity Measures sections below for an explanation of these measures.

Solvency

This section summarizes key measures from the Balance Sheet reports.

Nonfarm Information

This section summarizes non-farm earnings for all farms and family living withdrawals for those sole proprietors who kept accurate family living records. More detail is included on the Household and Personal Expenses and Nonfarm Summary pages.

Crop Acres

This section summarizes acres used for cropping from the Crop Production and Marketing table.

Financial Standards Measures

This table contains the Farm Financial Standards Council's 21 financial measures for evaluating a farm's financial position and performance.

Liquidity

Current Ratio is calculated by dividing the total current farm assets by the total current farm liabilities.

Working Capital is calculated by subtracting current farm liabilities from current farm assets.

Working Capital to Gross Income is *Working Capital* divided by *Gross Revenues (accrual)*.

Solvency

Farm Debt to Asset Ratio is calculated by dividing the total farm liabilities by the total farm assets. It measures the proportion of farm assets financed by debt capital.

Farm Equity to Asset Ratio is calculated by dividing farm equity or net worth by the total farm assets. It measures the proportion of the farm assets financed by the owner's equity as opposed to debt. This is the opposite of the debt to asset ratio. These two measures always add up to 100% because they describe how total farm assets are financed.

Farm Debt to Equity Ratio measures farm debt relative to farm equity. It is calculated by dividing the total farm liabilities by the total farm net worth. The debt to equity ratio measures the amount of borrowed capital being employed for every dollar of equity capital.

Profitability

Rate of Return on Farm Assets can be thought of as the average interest rate being earned on all investments in the farm or ranch business. If assets are valued at market value, the rate of return on assets can be looked at as the “opportunity cost” of farming versus alternate investments. If assets are valued at cost value, the rate of return on assets more closely represents the actual return on the average dollar invested in the farm. The rate of return on farm assets is calculated as follows: $\text{Rate of Return on Assets} = \text{Return on Farm Assets} \div \text{Average Farm Investment}$, where: $\text{Return on Farm Assets} = \text{Net Farm Income} + \text{Farm Interest} - \text{Value of Operator's Labor \& Management}$, and $\text{Average Farm Investment} = (\text{Beginning Total Farm Assets} + \text{Ending Total Farm Assets}) \div 2$.

Rate of Return on Farm Equity represents the interest rate being earned on farm net worth. If assets are valued at market value, this return can be compared to returns available if the assets were liquidated and invested in alternate investments. If assets are valued at cost value, this more closely represents the actual return on the funds that have been invested or retained in the business. The rate of return on farm equity is calculated as follows: $\text{Rate of Return on Equity} = \text{Return on Farm Equity} \div \text{Average Farm Net Worth}$, where: $\text{Return on Farm Equity} = \text{Net Farm Income} - \text{Value of Operator's Labor \& Management}$, and $\text{Average Farm Net Worth} = (\text{Beginning Farm Net Worth} + \text{Ending Farm Net Worth}) \div 2$.

Operating Profit Margin is a measure of the operating efficiency of the business. It is calculated as follows: $\text{Operating Profit Margin} = \text{Return to Farm Assets} \div \text{Value of Farm Production}$. If expenses are held in line relative to the value of output produced, the farm will have a healthy operating profit margin. A low net profit margin may be caused by low prices, high operating expenses, or inefficient production.

Net Farm Income represents the returns to unpaid labor, management, and equity capital invested in the business.

EBITDA is Earnings Before Interest, Taxes, Depreciation and Amortization. It is Net Farm Income from Operations from the income statement plus interest expense and depreciation expense. This measure is common in commercial financial analysis but is not commonly used in agriculture.

Repayment Capacity

Capital Debt Repayment Capacity is *Net Farm Income From Operations* plus *Depreciation, Personal Income*, and *Interest on Term Debt* minus *Family Living/Owner Withdrawals*, *Payments on Personal Debt* and *Income Taxes Paid*. This represents total earnings available for debt repayment and cash capital replacement.

Capital Debt Repayment Margin is *Capital Debt Repayment Capacity* minus *Scheduled Term Debt Payments*. This is the amount by which earnings available for debt repayment exceeded payments due.

Replacement Margin is *Capital Debt Repayment Margin* minus *Cash Replacement Allowance*. This is the amount by which earnings available for debt repayment and replacement exceed payments due and cash replacement needs.

Term Debt Coverage Ratio measures whether the business generated enough income to cover term debt payments. It is calculated by dividing the funds generated by the business for debt repayment (net cash farm income + nonfarm income + interest expense - family living expense - income taxes) by total term debt payments (annual scheduled principal and interest payments on intermediate and long term debt). A ratio less than 1.0 indicates that the business did not generate sufficient cash to meet scheduled payments in the past year. A ratio greater than 1.0 indicates the business generated enough cash to pay all term debt payments.

Replacement Coverage Ratio measures whether the business generated enough income to cover scheduled term debt payments plus estimated cash capital replacement needs. A ratio less than 1.0 indicates that the business did not generate sufficient income to meet replacement needs. A ratio greater than 1.0 indicates the business generated enough income to pay all term debt payments and cover an allowance for capital replacement.

Efficiency

Asset Turnover Rate is a measure of efficiency in using capital. It is calculated as follows:
$$\text{Asset Turnover Rate} = \text{Value of Farm Production} \div \text{Total Farm Assets}.$$

The last four ratios reflect the distribution of gross income to cover operating expenses and generate farm income. The sum of the operating expense ratio, the depreciation expense ratio, and the interest expense ratio equals the percent of gross income used to pay business expenses. The amount remaining is net farm income. The gross farm income used to calculate these ratios is the accrual gross farm income.

Operating Expense Ratio is calculated as $(\text{Total Farm Operating Expense} - \text{Farm Interest Expense}) \div \text{Gross Farm Income}$. This ratio indicates the percent of the gross farm income that

was used to pay operating expenses. Total farm operating expense is the accrual total operating expense.

Depreciation Expense Ratio is calculated as $\text{Depreciation} \div \text{Gross Farm Income}$. This ratio indicates the percent of the gross farm income that was used to cover depreciation and other capital adjustments.

Interest Expense Ratio is calculated as $\text{Farm Interest Expense} \div \text{Gross Farm Income}$. This ratio indicates the percent of the gross farm income used for farm interest expenses. This is the same ratio as the accrual interest as a percent of income from the Liquidity table.

Net Farm Income Ratio is calculated as $\text{Net Farm Income} \div \text{Gross Farm Income}$. This ratio indicates the percent of the gross farm income that remained after all expenses.

Farm Income Statement

The Farm Income Statement is a summary of income, expenses, and resultant profit or loss from farming operations during the calendar year. The first section lists cash farm income from all sources. The second section lists *cash* expenses. “Interest” includes only interest actually paid. No opportunity charges on farm equity capital or unpaid labor are included. The difference between *Gross Cash Farm Income* and *Total Cash Expense* is the *Net Cash Farm Income*. This is net farm income on a *cash* basis.

The third and fourth sections deal with noncash changes in the farm business. The *Inventory Changes* and *Depreciation* sections are used to convert the cash income statement (Net Cash Farm Income) derived from the first two sections into an accrual income statement. The resulting “Net Farm Income” represents the return to the operator's and family's unpaid labor, management, and equity capital (net worth). In other words, it represents the return to all of the resources which are owned by the farm family and, hence, not purchased or paid a wage. However, it does not include any asset appreciation, debt forgiveness or asset repossessions.

Profitability Measures

Profitability is measured using assets valued first at cost and then at market. The reports include five measures of profit followed by the values used to calculate the measures.

Net Farm Income is repeated from the Farm Income Statement report. When assets are valued at market, it includes the change in market valuation of capital for the year.

Rate of Return on Assets is the *Return to Farm Assets* divided by *Average Farm Assets*.

Rate of Return on Equity is the *Return to Farm Equity* divided by *Average Farm Equity*.

Operating Profit Margin is the *Return to Farm Assets* divided by *Value of Farm Production*.

Asset Turnover Rate is the *Value of Farm Production* divided by *Average Farm Assets*.

Farm Interest Expense is the accrued interest cost so it will be different from the cash interest paid shown in the Farm Income Statement.

Value of Operator's Labor and Management is its opportunity cost. It is assigned by farm within suggested guidelines.

Return on Farm Assets is calculated by adding *Farm Interest Expense* and *Net Farm Income* and then subtracting the *Value of Operator's Labor and Management*.

Average Farm Assets is the average of beginning and ending total farm assets for all farms, not just those included in the Balance Sheet report.

Return to Farm Equity is calculated by subtracting the *Value of Operator's Labor and Management* from *Net Farm Income*.

Average Farm Equity is the average of beginning and ending farm net worth.

Value of Farm Production is gross farm income minus feeder livestock and feed purchased and adjusted for inventory changes in crops, market livestock and breeding livestock.

Liquidity and Repayment Capacity Measures

Current Ratio is total *Current Assets* divided by total *Current Liabilities*.

Working Capital is total *Current Assets* minus total *Current Liabilities*.

Working Capital to Gross Income is *Working Capital* divided by *Gross Revenues (accrual)*.

Current Assets are taken from the ending balance sheet and include all assets that will be sold or used up in production within one business year.

Current Liabilities are taken from the ending balance sheet and include all loans and other debt due to be repaid within one business year. Principal due within a twelve months on intermediate and long term loans is included.

Gross Revenues (accrual) is gross cash farm income from the income statement adjusted for inventory changes in crops and feed, market livestock, accounts receivable, hedging accounts, breeding livestock and other income related inventories.

Net Farm Income from Operations is from the Income Statement.

Depreciation is the total depreciation from the Income Statement. It is added as a source of repayment because it is a non-cash expense that was subtracted to arrive at *Net Farm Income From Operations*.

Personal Income is the average for all farms, not including *Gifts and Inheritances*.

Family Living/Owner Withdrawals is the amount of owner withdrawals for family living, partnership withdrawals, and corporate dividends. Reported withdrawals are adjusted to include any discrepancy with actual cash disappearance.

Payments on personal debt is the total principal payments made during the year on all non-farm loans.

Income Taxes Paid are total federal, state, and social security taxes paid during the year on farm and personal earnings.

Interest on Term Debt is the amount of interest paid on intermediate and long term loans during the year. Interest is added as a source of repayment because it was previously subtracted to arrive at *Net Farm Income from Operations*.

Capital Debt Repayment Capacity is *Net Farm Income From Operations* plus *Depreciation, Personal Income*, and *Interest on Term Debt* minus *Family Living/Owner Withdrawals*, *Payments on Personal Debt* and *Income Taxes Paid*. This represents total earnings available for debt repayment and cash capital replacement.

Scheduled Term Debt Payments is the scheduled amount of principal and interest payments due on farm intermediate and long term loans from the beginning balance sheet.

Capital Debt Repayment Margin is *Capital Debt Repayment Capacity* minus *Scheduled Term Debt Payments*. This is the amount by which earnings available for debt repayment exceeded payments due.

Cash Replacement Allowance is the estimated amount of cash needed to cover the portion of capital replacement needs that normally come from cash flow. It is estimated for each operator based on their financial structure.

Replacement Margin is *Capital Debt Repayment Margin* minus *Cash Replacement Allowance*. This is the amount by which earnings available for debt repayment and replacement exceed payments due and cash replacement needs.

Term Debt Coverage Ratio is *Capital Debt Repayment Capacity* divided by *Scheduled Term Debt Payments*. This is how many times scheduled payments are covered by repayment capacity.

Replacement Coverage Ratio is *Capital Debt Repayment Capacity* divided by the total of *Scheduled Term Debt Payments* and the *Cash Replacement Allowance*. This represents how many times scheduled payments and cash replacement needs are covered by repayment capacity.

Balance Sheets at Cost and Market Values

These tables include all farm and personal assets and liabilities reported by these farms on their beginning and ending balance sheets. Government crop loans are treated consistently as loans on these tables, meaning that the full asset value is included as an asset and total accrued interest and outstanding principal balances are included as liabilities. Capital assets are valued at original purchase price minus economic depreciation on the Cost Value table. Assets are valued

at a conservative market value on the Market Value table. Deferred liabilities are included on the Market Value table. Deferred liabilities are an estimate of the taxes that would be due if the business was liquidated on the date of the balance sheet.

Statement of Cash Flows

This table reports the sources from which cash was available or obtained and where that cash was used or remains at the end of the year.

Crop Production and Marketing Summary

This table contains three sections. The first section reports average acreage by tenure and general use. The next two sections show average price received from cash sales and average yields for major crops.

Household and Personal Expenses

For those farms that kept records, the household and personal expenses are summarized in this table. Since not all farms keep these records, the number of farms may be different for each group. Averages are determined by the number of farms keeping these records.

Operator and Labor Information

This table has four sections. The first reports the averages for the number of operators per farm, the operator's age, and the number of years farming. The second section reports various measures and results per operator compared to per farm in other reports.

The third section reports the amount of labor used and the returns to that labor. *Total Unpaid Labor Hours* and *Total Hired Labor Hours* are based on farmers' estimates of labor use. No labor records are kept for unpaid labor. *Value of Farm Production/Hour* is the Value of Farm Production divided by Total Labor Hours per Farm. *Net Farm Income/Unpaid Hour* is Net Farm Income divided by Total Unpaid Labor Hours.

The fourth section reports the number of partnerships and withdrawals in each grouping.

Nonfarm Summary

This table reports the income from nonfarm sources which is included in a farmer's total net income. Not all farms have nonfarm income, but the figure reported is the average over all farms not just those reporting nonfarm income. Also reported are the beginning and ending values for nonfarm assets for all farms (not just sole proprietors).

Appendix II

Crop Enterprise Analysis Procedures and Measures

The Crop Enterprise Analysis tables show the profitability of each crop enterprise produced by five or more farms.

Gross Return is the average Yield multiplied by the Value Per Unit plus any other production or income related to the crop. Value Per Unit for cash crops is the average sales price for crops sold before the end of the year and the average ending inventory value for crops remaining unsold. For feed crops, it is the estimated harvest-time value. LDP payments and other commodity-specific income are added to estimate the total value received for crop production. *Direct Expenses* include expenses that are directly related to the production of the specific crop. Most direct expenses are directly assigned to production of the crop and simply divided by acres. Some, such as Fuel and Oil and Repairs, which are difficult to assign directly to specific fields or crops, are determined by allocating the total annual expense across all enterprises using allocation factors entered for each crop.

Overhead Expenses are also determined by allocating the total annual expense across all enterprises using allocation factors entered for each crop.

Net Return per Acre is the Gross Return per Acre minus Total Direct and Overhead Expenses.

Net return with government payments is Net Return per Acre plus Government Payments. Government Payments includes only direct payments and counter-cyclical payments. Payments that are directly attached to production of the crop, such as LDP and disaster payments are included in Gross Return. Because direct government payments have been decoupled from actual production, these payments are generally allocated to all crops excluding vegetables and pasture. This is done for each farm by allocating the direct payments from the whole farm to these crops.

Net Return over Labor and Management is calculated by allocating the farmer's charge for unpaid labor and management across all enterprises and subtracting it from Net Return With Government Payments.

Cost of Production is calculated by dividing the total expense for each category by the yield per acre. *Total Expense Less Government and Other Income* is total expense minus government payments, income from secondary products, and other income, divided by yield per acre.

Machinery Cost Per Acre is the sum of fuel and oil, repairs, custom hire expense, machinery lease payments, machinery depreciation, and interest on intermediate debt divided by acres.

Estimated Labor Hours Per Acre is calculated by allocating the farmer's estimate of total operator and hired labor hours for the year across all enterprises.

Rounding of individual items for the report may have caused minor discrepancies with the calculated totals. If fewer than 5 farms have a certain crop enterprise, that information is not reported. If there are fewer than 25 farms, the high and low groups are not reported.

Appendix III

Livestock Enterprise Analysis Procedures and Measures

The Livestock Enterprise Analysis tables show the profitability of each livestock enterprise produced by five or more farms.

Gross Margin includes product and livestock sales, cull sales, the value of offspring transferred out of the enterprise, the value of inventory change from beginning to end of year, and any other income assigned to the enterprise. Livestock purchases and the value of animals transferred in from other enterprises are subtracted.

Direct Expenses include expenses that are directly related to the specific livestock enterprise. Feed and most other direct expenses are directly assigned based on farm records. Some, such as Fuel and Oil and Repairs, which are difficult to assign directly to enterprises, are determined by allocating the total annual expense across all enterprises using allocation factors entered for each farm.

Overhead Expenses are also determined by allocating the total annual expense across all enterprises using allocation factors entered for each farm.

Net Return is the Gross Return minus Total Direct and Overhead Expenses.

Net Return over Labor and Management is calculated by allocating the farmer's charge for unpaid labor and management across all enterprises and subtracting it from Net Return.

Estimated Labor Hours is calculated by allocating the farmer's estimate of total operator and hired labor hours for the year across all enterprises.

Cost of Production is calculated by dividing the total expense for each category by Total Production. For grow/finish enterprises, the Purchases and Transfers In are included in direct expense. Cull sales, other offspring sales, and any other miscellaneous income are subtracted and replacement purchases and transfers in are added to arrive at the cost *With other revenue adjustments*. *With Labor and Management* is the cost with other revenue adjustments plus the producer's charge for operator's labor and management. This is the breakeven price for the primary product to provide a return for operator labor and management.

The last section of each livestock table contains both economic and technical efficiency measures. *Lbs. feed per lb. of gain* is the pounds of total feed divided by Total production. For grains, these pounds per bushel are used: corn, 56; oats, 32; barley, 48; grain sorghum, 56; wheat, 60; and millet, 48. For these forages, the units are converted to pounds and then adjusted by these factors: alfalfa haylage, 0.5; corn silage, 0.33; oatlage, 0.5; sorghum silage, 0.33; and small grain silage, 0.33.

The calving and weaning percentages are calculated as the number of calves which are calved and weaned, respectively, divided by the number of cows which are supposed to bear young.

Rounding of individual items for the report may have caused minor discrepancies with the calculated totals. If fewer than 5 farms have a certain livestock enterprise, that information is not reported. If there are fewer than 25 farms, the high and low groups are not reported.

Appendix IV

Prices Used In the Analysis Report

Item	Beginning Inventory	Feed	Ending Inventory
All Corn/bu.	3.19	3.10	3.00
Oats/bu.	1.60	1.86	2.26
All Wheat/bu.	4.17	4.42	4.90
Soybeans/bu.	8.04	9.14	9.33
Alfalfa hay/t. (avg quality)	100.00	87.00	100.00
Alfalfa haylage/t	43.00	37.00	43.00
Grass/Mixed hay/r	80.00	78.00	85.00
Corn silage/t.	26.00	25.00	24.00
Oats straw/bale/ton	3.75/125	3.75/125	3.75/125
Cornstalks/t.	30.00	30.00	30.00
Oatlage/t.	20.00	20.00	19.00

Enterprise production valued at actual selling price if sold or contracted, inventory price for balance.
All feeds are valued on an as fed moisture basis.

Other Prices Used:

Pasture: \$50.00/acre (adjusted for quality and carrying capacity)
Value of milk fed calves \$ 1.50/gallon

Depreciation is calculated by using a 5% rate for buildings, 10% for machinery, 20% for beef cattle and sheep and 33% for breeding hogs and dairy cows. The economic depreciation is calculated by taking the beginning cost (book) value, plus new purchases (boot), less book value of sold items multiplied by the appropriate percentage rate.

Value of unpaid operator's labor is calculated by using this formula: For sole proprietors and partnerships, labor and management is valued at \$25,000 per operator plus 5% of the value of farm production, with a minimum of \$30,000 for a full-time farm operator. This value is used in calculating certain whole farm rations and



The University of Minnesota is committed to the policy that all persons shall have equal access to its programs, facilities, and employment without regard to race, color, creed, religion, national origin, sex, age, marital status, disability, public assistance status, veteran status, or sexual orientation.

Information on other titles in this series may be obtained from Waite Library, University of Minnesota, Department of Applied Economics, 1994 Buford Avenue, 232 Ruttan Hall, St. Paul, MN 55108-6040, U.S.A. The Waite Library e-mail address is: lle@umn.edu. This paper is available electronically from AgEcon Search at <http://ageconsearch.umn.edu>.

The entire report is available at:
http://www.cffm.umn.edu/Publications/Pubs/FBMA/SW_MN_FBMA_2016.pdf

This project was partially funded by a National Farm Business Management and Benchmarking Grant from the USDA National Institute of Food and Agriculture.



United States Department of Agriculture
National Institute of Food and Agriculture