

2019

FARM

ANALYSIS

REPORT OF

MOORHEAD

44th Edition



NORTHLAND
COMMUNITY & TECHNICAL COLLEGE

Farm Business Management Program

www.NorthlandFBM-Moorhead.com

March 17, 2020

INTRODUCTION

This is the 44th edition of this report published by the Northland College-Moorhead MN. Farm Business Management Department. The original numbers for this report came from pages of the account book and/or from computerized records kept by each farm family enrolled in the farm management education program provided by Northland Community and Technical College, Thief River Falls, MN. After a closeout procedure to check the accuracy of the records, the analysis is generated for each individual enrollee.

We use the FINPACK and RANKEM software system developed by the Center for Farm Financial Management, University of Minnesota Extension, to do our year-end analysis. This is an excellent farm financial computer package because it incorporates the year-end analysis with a farmers beginning and ending Balance Sheet and with projected Cash Flow.

Use your imagination and figure out ways to use the tables. There are many factors that can affect a farm operations' profitability. We encourage you to look and compare your numbers to the averages and see where you could fine-tune your farming operation. Please feel free to contact Ron or Josh to schedule a review meeting with them before spring planting.

Information about our Farm Business Management program and other financial reports can be found at our website: www.NorthlandFBM-Moorhead.com

We wish you a Successful and Prosperous year!

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Financial Guideline Measures

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

Liquidity

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

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

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

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

Solvency

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

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

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

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

Profitability

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

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

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

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

Financial Guideline Measures

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

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

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

Repayment Capacity

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

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

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

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

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

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

Efficiency

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

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

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

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

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

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

Financial Standards Measures

Moorhead Farm Business Management Program - Northland College

	<u>5-yr Average</u>	<u>2019</u>	<u>2018</u>	<u>2017</u>	<u>2016</u>	<u>2015</u>
Number of Farms	72.2	79	76	74	68	64
Liquidity						
Current Ratio	1.61	1.38	1.47	1.51	1.82	1.88
Working Capital	313,309	244,154	288,430	272,718	353,663	407,578
Working Cap/Gross Revenue	28.2%	21.6%	24.0%	24.1%	33.3%	38.1%
Solvency (market)						
Farm Debt to Asset	43%	44%	45%	41%	42%	41%
Farm Equity to Asset	57%	56%	55%	59%	58%	59%
Farm Debt to Equity	0.74	0.80	0.80	0.69	0.72	0.71
Profitability (cost)						
Rate of Return on Assets	2.6%	-0.3%	3.6%	2.6%	4.6%	2.6%
Rate of Return on Equity	1.5%	-3.8%	3.1%	1.5%	5.1%	1.5%
Operating Profit Margin	6.6%	-0.8%	9.0%	6.4%	11.6%	7.0%
Net Farm Income	109,721	31,286	144,499	108,593	158,418	105,808
EBIDTA	237,523	156,874	275,977	233,153	281,090	240,523
Repayment Capacity						
Capital Debt Repay Capacity	131,026	39,823	168,638	136,321	178,715	131,631
Capital Debt Repay Margin	24,373	-60,609	58,650	28,879	79,207	15,738
Replacement Margin	-28,962	-113,157	5,112	-25,379	23,193	-34,581
Term Debt Coverage Ratio	1.23	0.40	1.53	1.27	1.80	1.14
Replacement Coverage Ratio	0.82	0.26	1.03	0.84	1.17	0.79
Efficiency						
Asset Turnover Rate	39.1%	37.5%	40.4%	40.2%	40.0%	37.6%
Operating Exp Ratio	78.8%	86.1%	77.7%	79.4%	73.5%	77.5%
Depreciation Exp Ratio	7.0%	6.7%	6.3%	6.8%	7.2%	7.9%
Interest Exp Ratio	4.6%	4.9%	4.7%	4.2%	4.3%	4.7%
Net Farm Inc Ratio	9.7%	2.3%	12.0%	9.6%	14.9%	9.9%

Farm Income Statement
2019 Moorhead Farm Business Management Annual Report
(Farms Sorted By Net Farm Income)

	<u>Avg. Of All Farms</u>	<u>Low 20%</u>	<u>40 - 60%</u>	<u>High 20%</u>
Number of farms	79	15	16	16
Cash Farm Income				
Barley	5,151	-	14,411	3,420
Beans, Black Turtle	4,323	22,767	-	-
Corn	160,039	166,147	33,373	297,785
Hay, Alfalfa	2,291	10,496	-	1,472
Hay, Mixed	1,845	-	118	8,899
Soybeans	205,999	411,425	115,558	185,981
Soybeans Seed	66,890	73,568	36,342	152,815
Sugar Beets	234,851	530,019	71,032	231,098
Sunflowers	2,531	-	-	-
Wheat, Spring	166,743	371,386	99,637	157,931
Wheat, Hard White				
Miscellaneous crop income	7,827	9,611	3,417	21,535
Livestock income	12,154		3,719	23,422
Crop government payments	2,264	1,998	1,329	2,079
CRP payments	595	1,078	431	633
Other government payments	80,755	117,262	50,714	105,162
Conservation govt payment	1,743	-	1,609	6,715
Custom work income	7,795	18,141	1,125	6,663
Patronage dividends, cash	17,309	30,082	5,202	20,490
Crop insurance income	91,530	212,048	28,588	112,376
Property insurance income	4,072	1,837	3,942	7,374
Sale of resale items	259	1,364		
Other farm income	33,879	77,792	14,293	35,533
Gross Cash Farm Income	1,110,848	2,057,024	495,173	1,381,381

Farm Income Statement (continued)
2019 Moorhead Farm Business Management Annual Report
(Farms Sorted By Net Farm Income)

	<u>Avg. Of</u> <u>All Farms</u>	<u>Low 20%</u>	<u>40 - 60%</u>	<u>High 20%</u>
Number of farms	79	15	16	16
Cash Farm Expense				
Seed and plants	142,326	262,111	54,711	172,171
Fertilizer	95,692	157,798	63,103	139,991
Crop chemicals	86,277	174,461	38,566	88,901
Crop insurance	34,957	59,087	15,638	45,511
Drying expense	4,335	4,955	1,347	8,716
Storage	1,471	3,719	1,442	326
Crop miscellaneous	9,454	18,952	3,275	17,526
Consultants	5,544	6,684	4,369	7,004
Livestock Expenses	3,448	59	940	3,817
Supplies	6	-	104	81
Interest	49,231	86,249	18,156	54,219
Fuel & oil	42,532	72,278	20,310	53,062
Repairs	83,120	153,607	45,071	90,329
Custom hire	10,914	24,711	7,694	6,013
Hired labor	60,808	110,535	16,699	103,325
Land rent	204,459	371,237	83,203	263,710
Stock/quota lease	12,914	24,509	1,624	14,824
Machinery leases	15,555	36,325	712	20,641
Building leases	2,910	7,454	375	4,211
Real estate taxes	13,422	20,151	7,728	19,366
Farm insurance	17,075	34,840	6,902	14,874
Utilities	10,481	18,519	5,136	9,007
Hauling and trucking	4,258	2,118	1,808	12,419
Marketing	6,479	29,254	640	1,260
Dues & professional fees	8,442	15,636	3,826	8,519
Purchase of resale items	1,915	-	4,891	4,565
Miscellaneous	12,047	24,863	4,350	10,571
Total cash expense	940,133	1,720,113	412,618	1,174,959
Net cash farm income	170,715	336,911	82,554	206,423
Inventory Changes				
Prepays and supplies	-44,857	-62,988	-8,168	-54,170
Accounts receivable	68,603	94,679	13,599	121,384
Hedging accounts	2,078	5,129	-297	689
Other current assets	30	-	-250	253
Crops and feed	-49,967	-351,205	-25,448	82,629
Livestock Changes	-792		462	5,302
Other assets	463	4,641	291	-2,349
Accounts payable	-38,630	-75,997	-8,862	-16,173
Accrued interest	-6,592	9,130	-1,823	-16,157
Total inventory change	-69,664	-376,611	-30,508	121,408
Net operating profit	101,051	-39,700	52,047	327,831
Depreciation				
Machinery and equipment	-62,078	-120,456	-25,720	-63,331
Titled vehicles	-3,519	-3,167	-3,634	-3,662
Buildings and improvements	-9,666	-14,472	-3,536	-16,656
Total depreciation	-75,262	-138,095	-32,891	-83,650
Net farm income from operations	25,788	-177,794	19,156	244,181
Gain or loss on capital sales	5,498	5,763	-164	5,902
Net farm income	31,286	-172,032	18,991	250,083

Inventory Changes
2019 Moorhead Farm Business Management Annual Report
(Farms Sorted By Net Farm Income)

	<u>Avg. Of All Farms</u>	<u>Low 20%</u>	<u>40 - 60%</u>	<u>High 20%</u>
Number of farms	79	15	16	16
Net cash farm income	170,715	336,911	82,554	206,423
Crops and Feed				
Ending inventory	555,884	776,190	319,823	744,696
Beginning inventory	605,851	1,127,395	345,271	662,067
Inventory change	-49,967	-351,205	-25,448	82,629
Market Livestock				
Ending inventory	11,044	-	2,630	40,968
Beginning inventory	12,137	-	2,635	36,761
Inventory change	-1,093	-	-6	4,208
Accts Receivable				
Ending inventory	126,914	235,106	38,139	158,934
Beginning inventory	58,311	140,428	24,541	37,550
Inventory change	68,603	94,679	13,599	121,384
Prepaid Expenses and Supplies				
Ending inventory	75,772	156,017	25,492	124,263
Beginning inventory	120,629	219,005	33,660	178,434
Inventory change	-44,857	-62,988	-8,168	-54,170
Hedging Activities				
Ending inventory	6,907	20,107	4,403	8,110
Withdrawals	5,669	14,529	2,305	6,250
Beginning inventory	7,316	21,827	4,937	9,359
Deposits	3,181	7,680	2,068	4,313
Gain or loss	2,078	5,129	-297	689
Other Current Assets				
Ending inventory	634	-	-	2,548
Beginning inventory	604	-	250	2,295
Inventory change	30	-	-250	253
Breeding Livestock				
Ending inventory	10,684	67	7,875	44,500
Capital sales	-	-	-	-
Beginning inventory	10,351	67	7,419	43,250
Capital purchases	32	-	-	156
Depreciation, capital adjust	301	-	456	1,094
Other Capital Assets				
Ending inventory	404,107	786,546	139,764	418,212
Capital sales	3,563	5,207	2,162	747
Beginning inventory	375,471	759,857	114,848	382,538
Capital purchases	31,736	27,255	26,787	38,770
Depreciation, capital adjust	463	4,641	291	-2,349
Accounts Payable				
Beginning inventory	39,865	69,806	15,889	43,726
Ending inventory	78,495	145,803	24,751	59,898
Inventory change	-38,630	-75,997	-8,862	-16,173
Accrued Interest				
Beginning inventory	22,305	33,481	14,500	25,855
Ending inventory	28,897	24,350	16,323	42,012
Inventory change	-6,592	9,130	-1,823	-16,157
Total inventory change	-69,664	-376,611	-30,508	121,408
Net operating profit	101,051	-39,700	52,047	327,831

Depreciation
2019 Moorhead Farm Business Management Annual Report
(Farms Sorted By Net Farm Income)

	<u>Avg. Of All Farms</u>	<u>Low 20%</u>	<u>40 - 60%</u>	<u>High 20%</u>
Number of farms	79	15	16	16
Net operating profit	101,051	-39,700	52,047	327,831
Machinery and Equipment				
Ending inventory	640,750	1,162,332	286,773	708,410
Capital sales	11,482	31,069	5,195	8,299
Beginning inventory	632,177	1,136,711	283,834	674,066
Capital purchases	82,133	177,147	33,854	105,975
Depreciation, capital adjust.	-62,078	-120,456	-25,720	-63,331
Titled Vehicles				
Ending inventory	34,791	33,557	37,185	26,939
Capital sales	297	-	1,469	-
Beginning inventory	33,497	34,022	37,696	28,851
Capital purchases	5,110	2,702	4,593	1,750
Depreciation, capital adjust.	-3,519	-3,167	-3,634	-3,662
Buildings and Improvements				
Ending inventory	259,800	330,103	147,302	486,835
Capital sales	3,172	6,346	644	-
Beginning inventory	250,907	319,692	142,087	469,066
Capital purchases	21,732	31,229	9,396	34,425
Depreciation, capital adjust.	-9,666	-14,472	-3,536	-16,656
Total depreciation, capital adj.	-75,262	-138,095	-32,891	-83,650
Net farm income from operations	25,788	-177,794	19,156	244,181
Gain or loss on capital sales	5,498	5,763	-164	5,902
Net farm income	31,286	-172,032	18,991	250,083

Profitability Measures
2019 Moorhead Farm Business Management Annual Report
(Farms Sorted By Net Farm Income)

	<u>Avg. Of All Farms</u>	<u>Low 20%</u>	<u>40 - 60%</u>	<u>High 20%</u>
Number of farms	79	15	16	16
Profitability (assets valued at cost)				
Net farm income from operations	25,788	-177,794	19,156	244,181
Rate of return on assets	-0.3 %	-4.9 %	-0.3 %	5.2 %
Rate of return on equity	-3.8 %	-10.0 %	-2.7 %	5.6 %
Operating profit margin	-0.8 %	-13.8 %	-1.1 %	12.2 %
Asset turnover rate	37.5 %	35.5 %	31.1 %	42.4 %
Farm interest expense	55,824	77,119	19,979	70,376
Value of operator lbr and mgmt.	90,731	148,882	44,408	122,408
Return on farm assets	-9,119	-249,558	-5,274	192,148
Average farm assets	3,004,873	5,098,606	1,538,283	3,725,964
Return on farm equity	-64,943	-326,677	-25,253	121,773
Average farm equity	1,688,682	3,278,987	920,656	2,160,279
Value of farm production	1,125,990	1,810,209	477,973	1,580,921
	<u>Avg. Of All Farms</u>	<u>Low 20%</u>	<u>40 - 60%</u>	<u>High 20%</u>
Number of farms	79	15	16	16
Profitability (assets valued at market)				
Net farm income from operations	48,206	-91,928	37,541	226,114
Rate of return on assets	0.3 %	-2.4 %	0.5 %	3.4 %
Rate of return on equity	-1.8 %	-5.9 %	-0.5 %	3.5 %
Operating profit margin	1.2 %	-9.0 %	2.7 %	11.0 %
Asset turnover rate	26.6 %	26.9 %	19.8 %	30.5 %
Farm interest expense	55,824	77,119	19,979	70,376
Value of operator lbr and mgmt.	90,731	148,882	44,408	122,408
Return on farm assets	13,298	-163,692	13,112	174,081
Average farm assets	4,237,701	6,723,239	2,416,435	5,179,496
Return on farm equity	-42,526	-240,810	-6,867	103,706
Average farm equity	2,396,247	4,091,995	1,504,826	2,982,847
Value of farm production	1,125,990	1,810,209	477,973	1,580,921

Liquidity & Repayment Capacity Measures
2019 Moorhead Farm Business Management Annual Report
(Farms Sorted By Net Farm Income)

	<u>Avg. Of All Farms</u>	<u>Low 20%</u>	<u>40 - 60%</u>	<u>High 20%</u>
Number of farms	79	15	16	16
Liquidity				
Current ratio	1.38	1.88	1.45	1.29
Working capital	244,154	706,228	133,923	263,987
Working capital to gross inc	21.6 %	39.0 %	27.7 %	16.6 %
Current assets	886,219	1,511,973	432,574	1,168,804
Current liabilities	642,064	805,745	298,651	904,816
Gross revenues (accrual)	1,131,263	1,810,268	483,518	1,589,289
Repayment capacity				
Net farm income from operations	25,788	-177,794	19,156	244,181
Depreciation	75,262	138,095	32,891	83,650
Personal income	28,427	14,927	32,130	25,716
Family living/owner withdrawals	-95,201	-116,654	-59,200	-111,722
Cash discrepancy	-30	-459	15	78
Payments on personal debt	-7,276	-4,816	-3,822	-8,823
Income taxes paid	-18,330	-41,297	-13,072	-14,976
Interest on term debt	31,183	45,323	16,873	30,732
Capital debt repayment capacity	39,823	-142,675	24,971	248,836
Scheduled term debt payments	-100,431	-130,089	-39,930	-113,850
Capital debt repayment margin	-60,609	-272,764	-14,959	134,986
Cash replacement allowance	-52,549	-101,667	-33,908	-63,249
Replacement margin	-113,157	-374,431	-48,867	71,737
Term debt coverage ratio	0.40	-1.10	0.63	2.19
Replacement coverage ratio	0.26	-0.62	0.34	1.41

Balance Sheet at Cost Values
2019 Moorhead Farm Business Management Annual Report
(Farms Sorted By Net Farm Income)

	<u>Avg. Of All Farms</u>	<u>Low 20%</u>	<u>40 - 60%</u>	<u>High 20%</u>
Number of farms	79	15	16	16
Assets				
Current Farm Assets				
Cash and checking balance	109,065	324,552	42,087	89,284
Prepaid expenses & supplies	75,772	156,017	25,492	124,263
Growing crops	-	-	-	-
Accounts receivable	126,914	235,106	38,139	158,934
Hedging accounts	6,907	20,107	4,403	8,110
Crops held for sale or feed	555,884	776,190	319,823	744,696
Crops under government loan	-	-	-	-
Market livestock held for sale	11,044	-	2,630	40,968
Other current assets	634	-	-	2,548
Total current farm assets	886,219	1,511,973	432,574	1,168,804
Intermediate Farm Assets				
Breeding livestock	10,684	67	7,875	44,500
Machinery and equipment	640,750	1,162,332	286,773	708,410
Titled vehicles	34,791	33,557	37,185	26,939
Other intermediate assets	343,209	601,692	117,616	372,075
Total intermediate farm assets	1,029,433	1,797,648	449,448	1,151,923
Long Term Farm Assets				
Farm land	797,204	1,086,490	536,085	1,078,310
Buildings and improvements	259,800	330,103	147,302	486,835
Other long-term assets	60,898	184,854	22,148	46,138
Total long-term farm assets	1,117,902	1,601,447	705,535	1,611,283
Total Farm Assets	3,033,554	4,911,068	1,587,558	3,932,010
Total Nonfarm Assets	347,054	297,261	309,032	324,602
Total Assets	3,380,608	5,208,328	1,896,590	4,256,612
Liabilities				
Current Farm Liabilities				
Accrued interest	28,897	24,350	16,323	42,012
Accounts payable	78,495	145,803	24,751	59,898
Current notes	466,991	553,834	229,289	719,337
Government crop loans	-	-	-	-
Principal due on term debt	67,681	81,757	28,288	83,570
Total current farm liabilities	642,064	805,745	298,651	904,816
Total intermediate farm liabs	177,612	210,121	94,445	175,309
Total long term farm liabilities	558,749	779,826	285,957	631,806
Total farm liabilities	1,378,425	1,795,691	679,053	1,711,931
Total nonfarm liabilities	114,875	119,903	97,252	108,252
Total liabilities	1,493,300	1,915,594	776,305	1,820,184
Net worth (farm and nonfarm)	1,887,308	3,292,734	1,120,285	2,436,428
Net worth change	-54,590	-314,853	-21,825	140,007
Percent net worth change	-3 %	-9 %	-2 %	6 %
Ratio Analysis				
Current farm liabilities / assets	72 %	53 %	69 %	77 %
Intermediate farm liab. / assets	17 %	12 %	21 %	15 %
Long term farm liab. / assets	50 %	49 %	41 %	39 %
Total debt to asset ratio	44 %	37 %	41 %	43 %

Balance Sheet at Market Values
2019 Moorhead Farm Business Management Annual Report
(Farms Sorted By Net Farm Income)

	<u>Avg. Of</u> <u>All Farms</u>	<u>Low 20%</u>	<u>40 - 60%</u>	<u>High 20%</u>
Number of farms	79	15	16	16
Assets				
Current Farm Assets				
Cash and checking balance	109,065	324,552	42,087	89,284
Prepaid expenses & supplies	75,772	156,017	25,492	124,263
Growing crops	-	-	-	-
Accounts receivable	126,914	235,106	38,139	158,934
Hedging accounts	6,907	20,107	4,403	8,110
Crops held for sale or feed	555,884	776,190	319,823	744,696
Crops under government loan	-	-	-	-
Market livestock held for sale	11,044	-	2,630	40,968
Other current assets	634	-	-	2,548
Total current farm assets	886,219	1,511,973	432,574	1,168,804
Intermediate Farm Assets				
Breeding livestock	11,111	67	9,519	44,500
Machinery and equipment	833,813	1,413,958	399,792	969,822
Titled vehicles	48,443	50,812	49,014	50,089
Other intermediate assets	507,382	999,064	186,386	441,176
Total intermediate farm assets	1,400,750	2,463,900	644,711	1,505,587
Long Term Farm Assets				
Farm land	1,561,649	1,944,706	1,203,020	1,957,124
Buildings and improvements	327,686	388,575	157,894	650,072
Other long-term assets	93,187	228,767	29,904	114,613
Total long-term farm assets	1,982,522	2,562,048	1,390,817	2,721,809
Total Farm Assets	4,269,491	6,537,920	2,468,102	5,396,199
Total Nonfarm Assets	519,423	441,168	607,685	472,251
Total Assets	4,788,914	6,979,089	3,075,788	5,868,450
Liabilities				
Current Farm Liabilities				
Accrued interest	28,897	24,350	16,323	42,012
Accounts payable	78,495	145,803	24,751	59,898
Current notes	466,991	553,834	229,289	719,337
Government crop loans	-	-	-	-
Principal due on term debt	67,681	81,757	28,288	83,570
Total current farm liabilities	642,064	805,745	298,651	904,816
Total intermediate farm liabs	177,612	210,121	94,445	175,309
Total long term farm liabilities	558,749	779,826	285,957	631,806
Total farm liabilities	1,378,425	1,795,691	679,053	1,711,931
Total nonfarm liabilities	114,875	119,903	97,252	108,252
Total liabs excluding deferreds	1,493,300	1,915,594	776,305	1,820,184
Total deferred liabilities	550,522	800,428	343,331	679,530
Total liabilities	2,043,823	2,716,022	1,119,636	2,499,713
Retained earnings	1,887,308	3,292,734	1,120,285	2,436,428
Market valuation equity	857,783	970,332	835,867	932,308
Net worth (farm and nonfarm)	2,745,092	4,263,066	1,956,152	3,368,737
Net worth excluding deferreds	3,295,614	5,063,495	2,299,482	4,048,266
Net worth change	-8,405	-201,450	49,336	150,599
Percent net worth change	0 %	-5 %	3 %	5 %
Ratio Analysis				
Current farm liabilities / assets	72 %	53 %	69 %	77 %
Intermediate farm liab. / assets	13 %	9 %	15 %	12 %
Long term farm liab. / assets	28 %	30 %	21 %	23 %
Total debt to asset ratio	43 %	39 %	36 %	43 %
Debt to assets excl deferreds	31 %	27 %	25 %	31 %

Statement Of Cash Flows
2019 Moorhead Farm Business Management Annual Report
(Farms Sorted By Net Farm Income)

	<u>Avg. Of All Farms</u>	<u>Low 20%</u>	<u>40 - 60%</u>	<u>High 20%</u>
Number of farms	79	15	16	16
Beginning cash (farm & nonfarm)	102,072	349,699	41,492	59,291
Cash Provided By Operating Activities				
Gross cash farm income	1,110,848	2,057,024	495,173	1,381,381
Total cash farm expense	-940,133	-1,720,113	-412,618	-1,174,959
Net cash from hedging transactions	2,487	6,849	237	1,938
Cash provided by operating	173,202	343,760	82,791	208,360
Cash Provided By Investing Activities				
Sale of breeding livestock	-	-	-	-
Sale of machinery & equipment	11,439	26,011	5,031	13,606
Sale of titled vehicles	297	-	1,469	-
Sale of farm land	45,133	118,299	-	-
Sale of farm buildings	3,293	6,346	644	595
Sale of other farm assets	3,925	6,230	2,162	747
Sale of nonfarm assets	3,927	1,960	6,148	-
Purchase of breeding livestock	-32	-	-	-156
Purchase of machinery & equip.	-82,133	-177,147	-33,854	-105,975
Purchase of titled vehicles	-5,110	-2,702	-4,593	-1,750
Purchase of farm land	-59,290	-	-71,563	-135,461
Purchase of farm buildings	-21,732	-31,229	-9,396	-34,425
Purchase of other farm assets	-31,736	-27,255	-26,787	-38,770
Purchase of nonfarm assets	-23,239	-26,677	-32,489	-23,538
Cash provided by investing	-155,258	-106,164	-163,227	-325,127
Cash Provided By Financing Activities				
Money borrowed	639,447	997,542	338,068	820,798
Principal payments	-553,874	-1,097,578	-206,065	-557,455
Personal income	28,427	14,927	32,130	25,716
Family living/owner withdrawals	-95,201	-116,654	-59,200	-111,722
Income and social security tax	-17,315	-30,246	-14,999	-16,707
Capital contributions	1	-	-	3
Capital distributions	-	-	-	-
Dividends paid	-	-	-	-
Cash gifts and inheritances	1,535	1,978	1,814	74
Gifts given	-1,380	-	-	-6,190
Other cash flows	-	-	-	-
Cash provided by financing	1,640	-230,032	91,748	154,517
Net change in cash balance	19,584	7,564	11,312	37,750
Ending cash (farm & nonfarm)	121,626	356,803	52,818	97,119
Discrepancy	30	459	-15	-78

Financial Standards Measures
2019 Moorhead Farm Business Management Annual Report
(Farms Sorted By Net Farm Income)

	<u>Avg. Of All Farms</u>	<u>Low 20%</u>	<u>40 - 60%</u>	<u>High 20%</u>
Number of farms	79	15	16	16
Liquidity				
Current ratio	1.38	1.88	1.45	1.29
Working capital	244,154	706,228	133,923	263,987
Working capital to gross inc	21.6 %	39.0 %	27.7 %	16.6 %
Solvency (market)				
Farm debt to asset ratio	44 %	39 %	39 %	44 %
Farm equity to asset ratio	56 %	61 %	61 %	56 %
Farm debt to equity ratio	0.80	0.65	0.64	0.78
Profitability (cost)				
Rate of return on farm assets	-0.3 %	-4.9 %	-0.3 %	5.2 %
Rate of return on farm equity	-3.8 %	-10.0 %	-2.7 %	5.6 %
Operating profit margin	-0.8 %	-13.8 %	-1.1 %	12.2 %
Net farm income	31,286	-172,032	18,991	250,083
EBITDA	156,874	37,419	72,026	398,206
Repayment Capacity				
Capital debt repayment capacity	39,823	-142,675	24,971	248,836
Capital debt repayment margin	-60,609	-272,764	-14,959	134,986
Replacement margin	-113,157	-374,431	-48,867	71,737
Term debt coverage ratio	0.40	-1.10	0.63	2.19
Replacement coverage ratio	0.26	-0.62	0.34	1.41
Efficiency				
Asset turnover rate (cost)	37.5 %	35.5 %	31.1 %	42.4 %
Operating expense ratio	86.1 %	97.9 %	85.1 %	74.9 %
Depreciation expense ratio	6.7 %	7.6 %	6.8 %	5.3 %
Interest expense ratio	4.9 %	4.3 %	4.1 %	4.4 %
Net farm income ratio	2.3 %	-9.8 %	4.0 %	15.4 %

Crop Production and Marketing Summary
2019 Moorhead Farm Business Management Annual Report
(Farms Sorted By Net Farm Income)

	<u>Avg. Of All Farms</u>	<u>Low 20%</u>	<u>40 - 60%</u>	<u>High 20%</u>
Number of farms	79	15	16	16
Acreage Summary				
Total acres owned	481	626	420	599
Total crop acres	2,060	3,304	1,036	2,669
Crop acres owned	415	533	236	594
Crop acres cash rented	1,602	2,689	743	2,066
Crop acres share rented	43	82	57	9
Total pasture acres	23	-	8	106
Percent crop acres owned	20 %	16 %	23 %	22 %
Mach invest/crop acre cost	326	358	312	269
Mach invest/crop acre market	426	440	431	377
Average Price Received (Cash Sales Only)				
Wheat, Spring per bushel	5.06	5.09	4.91	5.08
Soybeans per bushel	8.16	8.12	7.96	8.13
Corn per bushel	3.35	-	3.11	3.61
Soybeans Seed per bushel	9.44	-	-	-
Average Yield Per Acre				
Soybeans (bushel)	38.66	42.04	38.21	38.54
Wheat, Spring (bushel)	61.34	62.89	58.66	57.21
Sugar Beets (ton)	19.79	16.95	17.46	20.96
Corn (bushel)	161.28	159.53	160.88	158.96
Soybeans Seed (bushel)	39.92	38.90	39.06	41.92
Soybeans, Food (bushel)	33.92	-	-	-

Household and Personal Expenses
2019 Moorhead Farm Business Management Annual Report
(Farms Sorted By Net Farm Income)

	<u>Avg. Of All Farms</u>	<u>40 - 60%</u>
Number of farms	14	5
Average family size	2.6	2.2
Family Living Expenses		
Food and meals expense	8,275	9,203
Medical care	6,088	4,709
Health insurance	4,398	5,938
Cash donations	1,881	3,701
Household supplies	3,484	5,585
Clothing	2,875	2,314
Personal care	2,929	3,291
Child / Dependent care	-	-
Alimony and child support	-	-
Gifts	867	1,101
Education	3,633	6,863
Recreation	5,810	4,851
Utilities (household share)	3,480	3,945
Personal vehicle operating exp	3,669	5,096
Household real estate taxes	1,280	1,608
Dwelling rent	686	1,920
Household repairs	2,834	3,689
Personal interest	4,274	2,705
Disability / Long term care ins	972	56
Life insurance payments	3,043	1,052
Personal property insurance	849	709
Miscellaneous	6,703	4,110
Total cash family living expense	68,032	72,449
Family living from the farm	-	-
Total family living	68,032	72,449
Other Nonfarm Expenditures		
Income taxes	17,915	32,809
Furnishing & appliance purchases	212	594
Nonfarm vehicle purchases	-541	-1,515
Nonfarm real estate purchases	35,857	78,400
Other nonfarm capital purchases	7,143	400
Nonfarm savings & investments	-4,051	-17,814
Total other nonfarm expenditures	56,536	92,874
Total cash family living investment & nonfarm capital purch	124,567	165,323

Operator and Labor Information
2019 Moorhead Farm Business Management Annual Report
(Farms Sorted By Net Farm Income)

	<u>Avg. Of All Farms</u>	<u>Low 20%</u>	<u>40 - 60%</u>	<u>High 20%</u>
Number of farms	79	15	16	16
Operator Information				
Average number of operators	1.1	1.4	0.9	1.3
Average age of operators	47.2	49.1	46.1	48.4
Average number of years farming	24.4	27.8	22.4	23.5
Results Per Operator				
Working capital	214,194	504,449	149,322	201,133
Total assets (market)	4,201,268	4,985,063	3,429,450	4,471,200
Total liabilities	1,793,026	1,940,016	1,248,374	1,904,543
Net worth (market)	2,408,242	3,045,047	2,181,075	2,566,657
Net worth excl deferred liabs	2,891,210	3,616,782	2,563,883	3,084,393
Gross farm income	992,446	1,293,049	539,114	1,210,887
Total farm expense	969,822	1,420,045	517,756	1,024,845
Net farm income from operations	22,624	-126,996	21,358	186,042
Net nonfarm income	24,939	10,662	35,824	19,593
Family living & tax withdrawals	99,626	113,150	80,565	96,472
Total acres owned	421.7	447.0	468.5	456.2
Total crop acres	1,807.1	2,360.3	1,154.6	2,033.4
Crop acres owned	363.9	380.5	262.9	452.5
Crop acres cash rented	1,405.5	1,921.0	828.3	1,574.3
Crop acres share rented	37.6	58.9	63.4	6.6
Total pasture acres	20.4	-	9.4	81.0
Labor Analysis				
Number of farms	79	15	16	16
Total unpaid labor hours	2,017	2,367	1,522	2,538
Total hired labor hours	3,254	4,749	860	6,809
Total labor hours per farm	5,271	7,115	2,381	9,346
Unpaid hours per operator	1,770	1,690	1,697	1,933
Value of farm production / hour	213.62	254.41	200.71	169.15
Net farm income / unpaid hour	12.78	-75.12	12.59	96.23
Average hourly hired labor wage	24.99	32.18	21.33	20.50

Nonfarm Summary
2019 Moorhead Farm Business Management Annual Report
(Farms Sorted By Net Farm Income)

	<u>Avg. Of All Farms</u>	<u>Low 20%</u>	<u>40 - 60%</u>	<u>High 20%</u>
Number of farms	79	15	16	16
Nonfarm Income				
Personal wages & salary	18,606	7,326	30,171	16,949
Net nonfarm business income	1,674	-	473	-78
Personal rental income	78	412	-	-
Personal interest income	20	28	66	2
Personal cash dividends	22	-	110	-
Tax refunds	608	1,037	622	276
Other nonfarm income	7,418	6,123	689	8,568
Total nonfarm income	28,427	14,927	32,130	25,716
Gifts and inheritances	1,535	1,978	1,814	74
Nonfarm Assets (market)				
Checking & savings	12,561	32,252	10,732	7,835
Stocks & bonds	53,610	-	222,221	7,578
Other current assets	9,147	3,453	15,028	25,417
Furniture & appliances	12,448	12,567	10,271	13,940
Nonfarm vehicles	23,944	24,131	15,289	21,054
Cash value of life ins.	17,854	17,076	14,181	18,508
Retirement accounts	132,185	134,076	141,104	149,830
Other intermediate assets	2,965	2,387	3,625	1,781
Nonfarm real estate	210,085	151,114	166,399	206,995
Personal bus. investment	17,533	-	8,836	1,875
Other long term assets	27,090	64,114	-	17,438
Total nonfarm assets	519,423	441,168	607,685	472,251
Nonfarm Liabilities				
Accrued interest	422	165	295	916
Accounts payable	358	-	475	-
Current notes	662	-	1,924	670
Princ due on term debt	7,569	4,633	5,261	7,752
Total current liabilities	24,649	40,815	16,612	22,881
Intermediate liabilities	6,752	1,971	8,724	9,106
Long term liabilities	83,473	77,116	71,916	76,266
Total nonfarm liabilities	114,875	119,903	97,252	108,252
Nonfarm net worth	404,548	321,266	510,433	363,998
Nonfarm debt to asset ratio	22 %	27 %	16 %	23 %

Financial Summary
2019 Moorhead Farm Business Management Annual Report
(Farms Sorted By Net Farm Income)

	<u>Avg. Of All Farms</u>	<u>Low 20%</u>	<u>40 - 60%</u>	<u>High 20%</u>
Number of farms	79	15	16	16
Income Statement				
Gross cash farm income	1,110,848	2,057,024	495,173	1,381,381
Total cash farm expense	940,133	1,720,113	412,618	1,174,959
Net cash farm income	170,715	336,911	82,554	206,423
Inventory change	-69,664	-376,611	-30,508	121,408
Depreciation	-75,262	-138,095	-32,891	-83,650
Net farm income from operations	25,788	-177,794	19,156	244,181
Gain or loss on capital sales	5,498	5,763	-164	5,902
Average net farm income	31,286	-172,032	18,991	250,083
Median net farm income	22,903	-133,016	19,425	185,143
Profitability (cost)				
Rate of return on assets	-0.3 %	-4.9 %	-0.3 %	5.2 %
Rate of return on equity	-3.8 %	-10.0 %	-2.7 %	5.6 %
Operating profit margin	-0.8 %	-13.8 %	-1.1 %	12.2 %
Asset turnover rate	37.5 %	35.5 %	31.1 %	42.4 %
Profitability (market)				
Rate of return on assets	0.3 %	-2.4 %	0.5 %	3.4 %
Rate of return on equity	-1.8 %	-5.9 %	-0.5 %	3.5 %
Operating profit margin	1.2 %	-9.0 %	2.7 %	11.0 %
Asset turnover rate	26.6 %	26.9 %	19.8 %	30.5 %
Liquidity & Repayment (end of year)				
Current assets	886,219	1,511,973	432,574	1,168,804
Current liabilities	642,064	805,745	298,651	904,816
Current ratio	1.38	1.88	1.45	1.29
Working capital	244,154	706,228	133,923	263,987
Change in working capital	-106,247	-351,370	-44,499	-53,650
Working capital to gross inc	21.6 %	39.0 %	27.7 %	16.6 %
Term debt coverage ratio	0.40	-1.10	0.63	2.19
Replacement coverage ratio	0.26	-0.62	0.34	1.41
Term debt to EBITDA	4.52	28.34	4.11	1.90
Solvency (end of year at cost)				
Number of farms	79	15	16	16
Total assets	3,380,608	5,208,328	1,896,590	4,256,612
Total liabilities	1,493,300	1,915,594	776,305	1,820,184
Net worth	1,887,308	3,292,734	1,120,285	2,436,428
Net worth change	-54,590	-314,853	-21,825	140,007
Farm debt to asset ratio	45 %	37 %	43 %	44 %
Total debt to asset ratio	44 %	37 %	41 %	43 %
Change in earned net worth %	-3 %	-9 %	-2 %	6 %
Solvency (end of year at market)				
Number of farms	79	15	16	16
Total assets	4,788,914	6,979,089	3,075,788	5,868,450
Total liabilities	2,043,823	2,716,022	1,119,636	2,499,713
Net worth	2,745,092	4,263,066	1,956,152	3,368,737
Total net worth change	-8,405	-201,450	49,336	150,599
Farm debt to asset ratio	44 %	39 %	39 %	44 %
Total debt to asset ratio	43 %	39 %	36 %	43 %
Change in total net worth %	0 %	-5 %	3 %	5 %
Nonfarm Information				
Net nonfarm income	28,427	14,927	32,130	25,716
Farms reporting living expenses	14	1	5	2
Total family living expense	68,032	-	72,449	-
Total living, invest, cap. purch	124,567	-	165,323	-
Crop Acres				
Total crop acres	2,060	3,304	1,036	2,669
Total crop acres owned	415	533	236	594
Total crop acres cash rented	1,602	2,689	743	2,066
Total crop acres share rented	43	82	57	9
Machinery value per crop acre	426	440	431	377

Summary Farm Income Statement
2019 Moorhead Farm Business Management Annual Report
(Farms Sorted By Net Farm Income)

	<u>Avg. Of All Farms</u>	<u>Low 20%</u>	<u>40 - 60%</u>	<u>High 20%</u>
Number of farms	79	15	16	16
Crop sales	858,196	1,595,421	383,303	1,060,390
Crop inventory change	-49,967	-351,205	-25,448	82,629
Gross crop income	808,229	1,244,217	357,855	1,143,019
Livestock sales	10,888	-	3,460	17,518
Livestock inventory change	-1,093	-	-6	4,208
Gross livestock income	9,795	-	3,455	21,726
Government payments	83,807	120,338	52,474	108,828
Other cash farm income	157,957	341,265	55,935	194,645
Change in accounts receivable	68,603	94,679	13,599	121,384
Gain or loss on hedging accounts	2,078	5,129	-297	689
Change in other assets	493	4,641	41	-2,096
Gain or loss on breeding lvst	301	-	456	1,094
Gross farm income	1,131,263	1,810,268	483,518	1,589,289
Cash operating expenses	890,902	1,633,864	394,462	1,120,740
Change in prepaids and supplies	44,857	62,988	8,168	54,170
Change in growing crops	-	-	-	-
Change in accounts payable	38,630	75,997	8,862	16,173
Depreciation	75,262	138,095	32,891	83,650
Total operating expense	1,049,651	1,910,944	444,384	1,274,733
Interest paid	49,231	86,249	18,156	54,219
Change in accrued interest	6,592	-9,130	1,823	16,157
Total interest expense	55,824	77,119	19,979	70,376
Total expenses	1,105,475	1,988,063	464,362	1,345,108
Net farm income from operations	25,788	-177,794	19,156	244,181
Gain or loss on capital sales	5,498	5,763	-164	5,902
Net farm income	31,286	-172,032	18,991	250,083

Per Operator Information

Moorhead Farm Business Management Program - Northland College

	<u>5-yr Average</u>	<u>2019</u>	<u>2018</u>	<u>2017</u>	<u>2016</u>	<u>2015</u>
Number of Farms	72.2	79	76	74	68	64
Operator Information						
Ave Age of Operator	47.3	47.2	46.7	47.8	47.7	47.3
Ave Years Farming	24.5	24.4	23.7	24.9	24.6	24.7
Net Farm Income / Op	104,357	22,624	135,779	102,601	157,760	103,023
Net Non-farm Income	29,108	24,939	31,624	28,669	30,037	30,269
Family Living + Income Taxes	103,708	99,626	103,499	99,198	107,588	108,628
Crop Acres per Operator						
Total Crop Acres	1,852.3	1,807.1	1,909.9	1,857.7	1,836.1	1,850.8
Crop Acres Owned	409.9	363.9	450.9	425.1	405.5	404.1
Crop Acres Cash Rented	1,417.8	1,405.5	1,488.3	1,402.7	1,392.8	1,399.5
Crop Acres Share Rented	36.1	37.6	27.7	30.0	37.8	47.2
Labor Analysis						
Total labor Hours per farm	4,716	5,271	5,118	5,285	4,016	3,889
Value of farm prod/hour	238.99	213.62	233.58	212.51	262.69	272.56
Net farm Income / unpaid hour	66.21	12.78	86.12	68.48	99.13	64.55

Crop Enterprise Analysis
2019 Moorhead Farm Business Management Annual Report
(Farms Sorted By Return to Overhead)

Corn on Owned Land

	<u>Avg. Of</u> <u>All Farms</u>	<u>40 - 60%</u>	<u>High 20%</u>
Number of farms	24	5	5
Acres	242.27	333.20	174.20
Yield per acre (bu.)	160.09	155.61	194.42
Operators share of yield %	100.00	100.00	100.00
Value per bu.	3.43	3.46	3.47
Total product return per acre	549.46	538.55	674.39
Hedging gains/losses per acre	2.65	-	-
Crop insurance per acre	7.98	8.31	5.99
Other crop income per acre	56.70	55.12	57.98
Gross return per acre	616.78	601.98	738.36
Direct Expenses			
Seed and plants	90.44	99.66	84.73
Fertilizer	105.02	116.74	107.95
Crop chemicals	28.65	28.74	25.58
Crop insurance	19.07	17.12	21.26
Drying expense	11.59	8.79	7.14
Fuel & oil	22.90	18.78	24.79
Repairs	42.78	36.21	47.77
Custom hire	5.21	5.01	1.43
Hired labor	0.76	-	-
Machinery leases	3.50	2.37	12.13
Hauling and trucking	0.20	-	1.36
Marketing	0.31	-	0.63
Operating interest	15.34	18.96	13.09
Miscellaneous	11.97	2.47	1.10
Total direct expenses per acre	357.73	354.85	348.96
Return over direct exp per acre	259.05	247.13	389.40
Overhead Expenses			
Hired labor	32.93	19.17	26.19
Machinery leases	7.01	8.34	11.94
Building leases	1.07	1.17	3.03
RE & pers. property taxes	24.10	23.39	22.13
Farm insurance	8.85	7.39	13.07
Utilities	6.78	7.66	7.74
Dues & professional fees	4.39	3.54	7.16
Interest	62.53	81.61	60.55
Mach & bldg depreciation	41.91	44.24	36.16
Miscellaneous	7.38	4.05	10.36
Total overhead expenses per acre	196.94	200.56	198.35
Total dir & ovhd expenses per acre	554.67	555.41	547.30
Net return per acre	62.11	46.57	191.05
Government payments	1.53	0.30	1.07
Net return with govt pmts	63.64	46.87	192.12
Labor & management charge	48.23	37.39	46.99
Net return over lbr & mgt	15.41	9.48	145.13
Cost of Production			
Total direct expense per bu.	2.23	2.28	1.79
Total dir & ovhd exp per bu.	3.46	3.57	2.82
Less govt & other income	3.03	3.16	2.48
With labor & management	3.34	3.40	2.72
Net value per unit	3.45	3.46	3.47
Machinery cost per acre	120.05	113.72	133.06
Est. labor hours per acre	3.56	2.43	2.73

Crop Enterprise Analysis
2019 Moorhead Farm Business Management Annual Report
(Farms Sorted By Return to Overhead)

Corn on Cash Rent

	<u>Avg. Of</u> <u>All Farms</u>	<u>Low 20%</u>	<u>40 - 60%</u>	<u>High 20%</u>
Number of farms	46	9	9	10
Acres	483.07	376.51	574.20	352.22
Yield per acre (bu.)	161.57	152.04	155.77	184.38
Operators share of yield %	100.00	100.00	100.00	100.00
Value per bu.	3.40	3.31	3.36	3.34
Total product return per acre	548.58	502.78	523.64	616.10
Hedging gains/losses per acre	6.28	-	15.51	16.84
Crop insurance per acre	9.65	-	7.29	-
Other crop income per acre	55.08	51.66	54.56	52.66
Gross return per acre	619.59	554.43	601.00	685.60
Direct Expenses				
Seed and plants	88.45	96.85	79.68	82.54
Fertilizer	105.36	116.57	99.86	103.88
Crop chemicals	28.08	37.77	21.58	26.21
Crop insurance	20.48	20.11	19.28	18.68
Drying expense	12.88	23.17	9.46	11.58
Storage	0.44	0.03	0.07	2.04
Fuel & oil	24.81	34.19	27.01	22.86
Repairs	44.52	48.65	49.61	49.19
Custom hire	5.05	10.03	3.51	2.52
Hired labor	1.64	4.05	3.29	-
Land rent	129.64	120.11	125.31	119.23
Machinery leases	3.23	1.28	10.38	0.56
Marketing	0.66	0.30	0.46	2.34
Operating interest	13.05	6.32	13.12	9.51
Miscellaneous	8.60	5.98	3.56	3.53
Total direct expenses per acre	486.88	525.43	466.18	454.67
Return over direct exp per acre	132.71	29.00	134.82	230.93
Overhead Expenses				
Hired labor	26.14	24.59	26.66	24.16
Machinery leases	4.91	0.40	4.18	3.85
Building leases	0.92	0.72	0.35	2.13
Farm insurance	7.59	11.85	5.97	7.89
Utilities	6.12	9.24	5.31	6.39
Dues & professional fees	3.71	5.68	2.81	4.46
Interest	4.55	5.98	3.09	2.75
Mach & bldg depreciation	43.94	59.59	44.74	36.11
Miscellaneous	8.90	6.60	11.99	8.21
Total overhead expenses per acre	106.79	124.66	105.10	95.95
Total dir & ovhd expenses per acre	593.68	650.09	571.28	550.62
Net return per acre	25.91	-95.66	29.72	134.98
Government payments	1.16	-	0.38	1.18
Net return with govt pmts	27.07	-95.66	30.09	136.16
Labor & management charge	51.20	59.84	59.48	39.88
Net return over lbr & mgt	-24.12	-155.50	-29.38	96.28
Cost of Production				
Total direct expense per bu.	3.01	3.46	2.99	2.47
Total dir & ovhd exp per bu.	3.67	4.28	3.67	2.99
Less govt & other income	3.23	3.94	3.17	2.60
With labor & management	3.54	4.33	3.55	2.82
Net value per unit	3.43	3.31	3.46	3.43
Machinery cost per acre	123.89	153.69	134.36	111.80
Est. labor hours per acre	3.08	3.29	2.58	2.57

Crop Enterprise Analysis
2019 Moorhead Farm Business Management Annual Report
(Farms Sorted By Return to Overhead)

Soybeans on Owned Land

	<u>Avg. Of</u> <u>All Farms</u>	<u>Low 20%</u>	<u>40 - 60%</u>	<u>High 20%</u>
Number of farms	33	6	6	7
Acres	286.48	318.87	263.42	218.74
Yield per acre (bu.)	38.50	34.68	37.86	45.39
Operators share of yield %	100.00	100.00	100.00	100.00
Value per bu.	8.17	7.81	8.11	8.15
Total product return per acre	314.68	271.01	306.88	369.82
Hedging gains/losses per acre	0.61	-	-	-
Crop insurance per acre	4.18	5.03	-	5.67
Other crop income per acre	52.03	49.95	54.94	43.02
Gross return per acre	371.50	325.98	361.82	418.51
Direct Expenses				
Seed and plants	65.05	73.10	65.95	57.83
Fertilizer	10.53	18.69	12.32	4.40
Crop chemicals	33.06	30.70	35.82	30.95
Crop insurance	19.21	18.79	17.67	19.21
Fuel & oil	13.66	13.96	13.45	14.80
Repairs	26.97	30.47	18.96	23.81
Custom hire	4.55	10.57	2.70	4.74
Hired labor	1.22	-	-	-
Operating interest	6.06	5.25	8.59	3.36
Miscellaneous	2.65	0.77	3.63	0.93
Total direct expenses per acre	182.97	202.30	179.09	160.04
Return over direct exp per acre	188.53	123.69	182.73	258.47
Overhead Expenses				
Hired labor	14.11	13.28	16.55	21.26
Machinery leases	2.82	0.23	0.26	8.13
Building leases	0.76	-	1.14	1.79
RE & pers. property taxes	25.56	18.33	22.15	31.36
Farm insurance	7.92	7.35	10.26	6.34
Utilities	5.37	8.32	6.10	4.27
Dues & professional fees	3.42	2.80	3.86	3.03
Interest	46.30	29.16	39.60	35.24
Mach & bldg depreciation	31.87	29.38	33.18	28.66
Miscellaneous	2.67	2.40	1.73	2.64
Total overhead expenses per acre	140.79	111.26	134.83	142.72
Total dir & ovhd expenses per acre	323.76	313.56	313.91	302.76
Net return per acre	47.74	12.43	47.90	115.75
Government payments	0.60	0.10	1.54	0.48
Net return with govt pmnts	48.34	12.53	49.44	116.23
Labor & management charge	32.55	28.62	41.72	33.06
Net return over lbr & mgt	15.79	-16.09	7.72	83.17
Cost of Production				
Total direct expense per bu.	4.75	5.83	4.73	3.53
Total dir & ovhd exp per bu.	8.41	9.04	8.29	6.67
Less govt & other income	6.92	7.45	6.80	5.59
With labor & management	7.76	8.28	7.90	6.31
Net value per unit	8.19	7.81	8.11	8.15
Machinery cost per acre	77.25	81.83	64.47	79.81
Est. labor hours per acre	1.67	1.63	2.28	1.83

Crop Enterprise Analysis
2019 Moorhead Farm Business Management Annual Report
(Farms Sorted By Return to Overhead)

Soybeans on Cash Rent

	<u>Avg. Of</u> <u>All Farms</u>	<u>Low 20%</u>	<u>40 - 60%</u>	<u>High 20%</u>
Number of farms	54	10	11	11
Acres	549.93	491.59	556.00	459.51
Yield per acre (bu.)	38.72	33.31	40.33	44.16
Operators share of yield %	100.00	100.00	100.00	100.00
Value per bu.	8.21	8.17	8.18	8.16
Total product return per acre	317.93	272.28	330.04	360.19
Hedging gains/losses per acre	0.10	-	-	0.56
Crop insurance per acre	11.11	3.06	12.50	21.31
Other crop income per acre	52.56	54.72	53.38	51.42
Gross return per acre	381.69	330.05	395.93	433.48
Direct Expenses				
Seed and plants	63.35	65.89	63.39	58.92
Fertilizer	12.47	25.27	10.34	6.27
Crop chemicals	32.42	32.14	29.78	27.98
Crop insurance	18.41	20.19	22.01	17.33
Drying expense	0.43	-	1.58	0.08
Storage	0.69	-	0.12	0.10
Fuel & oil	14.03	13.85	14.64	12.57
Repairs	25.58	31.48	26.34	24.00
Custom hire	4.90	6.36	4.73	0.61
Hired labor	0.81	-	-	0.30
Land rent	129.01	145.02	136.80	120.06
Machinery leases	1.26	1.49	-	0.61
Operating interest	6.05	3.91	6.86	4.15
Miscellaneous	2.55	1.77	3.66	2.94
Total direct expenses per acre	311.96	347.37	320.26	275.93
Return over direct exp per acre	69.73	-17.32	75.67	157.55
Overhead Expenses				
Hired labor	10.43	10.54	14.17	6.78
Machinery leases	2.63	2.03	5.33	4.79
Building leases	1.25	1.28	1.03	2.21
Farm insurance	6.72	7.25	5.92	5.15
Utilities	3.22	3.63	3.54	2.66
Dues & professional fees	3.13	4.36	3.46	2.71
Interest	3.18	2.30	2.18	3.01
Mach & bldg depreciation	24.55	23.70	19.63	26.54
Miscellaneous	4.28	6.67	2.17	2.80
Total overhead expenses per acre	59.39	61.75	57.42	56.63
Total dir & ovhd expenses per acre	371.35	409.12	377.68	332.56
Net return per acre	10.34	-79.07	18.25	100.92
Government payments	0.56	0.10	0.11	0.19
Net return with govt pmts	10.90	-78.97	18.36	101.11
Labor & management charge	28.93	24.89	30.21	32.52
Net return over lbr & mgt	-18.03	-103.86	-11.85	68.59
Cost of Production				
Total direct expense per bu.	8.06	10.43	7.94	6.25
Total dir & ovhd exp per bu.	9.59	12.28	9.37	7.53
Less govt & other income	7.93	10.54	7.73	5.87
With labor & management	8.68	11.29	8.48	6.60
Net value per unit	8.21	8.17	8.18	8.17
Machinery cost per acre	73.42	78.71	70.65	68.03
Est. labor hours per acre	1.39	1.26	1.45	1.29

Crop Enterprise Analysis
2019 Moorhead Farm Business Management Annual Report
(Farms Sorted By Return to Overhead)

Soybeans Seed on Owned Land

	<u>Avg. Of All Farms</u>
Number of farms	8
Acres	330.08
Yield per acre (bu.)	40.34
Operators share of yield %	100.00
Value per bu.	9.52
Total product return per acre	383.92
Crop insurance per acre	11.75
Other crop income per acre	65.01
Gross return per acre	460.68
Direct Expenses	
Seed and plants	61.91
Fertilizer	3.20
Crop chemicals	35.71
Crop insurance	19.09
Storage	0.42
Fuel & oil	12.33
Repairs	24.07
Machinery leases	3.02
Marketing	0.50
Operating interest	10.83
Miscellaneous	3.99
Total direct expenses per acre	175.06
Return over direct exp per acre	285.61
Overhead Expenses	
Hired labor	34.12
Machinery leases	7.09
Building leases	1.01
RE & pers. property taxes	25.10
Farm insurance	2.38
Utilities	2.45
Dues & professional fees	1.77
Interest	74.18
Mach & bldg depreciation	17.27
Miscellaneous	4.17
Total overhead expenses per acre	169.54
Total dir & ovhd expenses per acre	344.60
Net return per acre	116.08
Government payments	4.65
Net return with govt pmts	120.73
Labor & management charge	27.87
Net return over lbr & mgt	92.86
Cost of Production	
Total direct expense per bu.	4.34
Total dir & ovhd exp per bu.	8.54
Less govt & other income	6.52
With labor & management	7.22
Net value per unit	9.52
Machinery cost per acre	61.33
Est. labor hours per acre	3.36

Crop Enterprise Analysis
2019 Moorhead Farm Business Management Annual Report
(Farms Sorted By Return to Overhead)

Soybeans Seed on Cash Rent

	<u>Avg. Of All Farms</u>
Number of farms	20
Acres	674.91
Yield per acre (bu.)	40.09
Operators share of yield %	100.00
Value per bu.	9.45
Total product return per acre	378.73
Crop insurance per acre	12.54
Other crop income per acre	59.22
Gross return per acre	450.49
Direct Expenses	
Seed and plants	61.26
Fertilizer	8.73
Crop chemicals	37.24
Crop insurance	18.73
Storage	1.24
Fuel & oil	13.24
Repairs	26.77
Custom hire	1.60
Land rent	132.43
Machinery leases	2.95
Hauling and trucking	0.78
Marketing	0.55
Operating interest	8.60
Miscellaneous	4.10
Total direct expenses per acre	318.22
Return over direct exp per acre	132.27
Overhead Expenses	
Hired labor	22.11
Machinery leases	4.04
Building leases	0.62
Farm insurance	4.63
Utilities	3.05
Dues & professional fees	2.86
Interest	1.38
Mach & bldg depreciation	21.67
Miscellaneous	3.95
Total overhead expenses per acre	64.31
Total dir & ovhd expenses per acre	382.52
Net return per acre	67.96
Government payments	2.45
Net return with govt pmts	70.41
Labor & management charge	29.30
Net return over lbr & mgt	41.11
Cost of Production	
Total direct expense per bu.	7.94
Total dir & ovhd exp per bu.	9.54
Less govt & other income	7.69
With labor & management	8.42
Net value per unit	9.45
Machinery cost per acre	68.53
Est. labor hours per acre	2.30

Crop Enterprise Analysis
2019 Moorhead Farm Business Management Annual Report
(Farms Sorted By Return to Overhead)

Wheat, Spring on Owned Land

	<u>Avg. Of</u> <u>All Farms</u>	<u>Low 20%</u>	<u>40 - 60%</u>	<u>High 20%</u>
Number of farms	37	7	8	8
Acres	234.80	159.58	272.56	261.41
Yield per acre (bu.)	61.52	55.31	64.86	62.34
Operators share of yield %	100.00	100.00	100.00	100.00
Value per bu.	4.79	4.61	4.66	5.14
Total product return per acre	294.78	254.91	302.42	320.24
Crop insurance per acre	47.43	11.77	48.29	82.78
Other crop income per acre	55.03	59.72	55.83	47.31
Gross return per acre	397.24	326.39	406.55	450.33
Direct Expenses				
Seed and plants	23.03	20.30	26.32	23.07
Fertilizer	86.73	89.57	90.39	81.14
Crop chemicals	32.24	39.50	30.08	31.67
Crop insurance	15.34	14.01	18.72	15.66
Drying expense	1.46	0.76	2.05	-
Storage	1.08	3.38	1.78	-
Fuel & oil	12.64	15.02	15.56	9.13
Repairs	24.52	30.75	30.95	15.73
Custom hire	6.35	7.84	6.83	4.45
Hired labor	1.64	-	0.13	6.67
Machinery leases	1.37	0.43	4.20	0.76
Hauling and trucking	0.14	-	0.58	-
Operating interest	7.38	11.27	6.31	5.47
Miscellaneous	3.25	3.77	2.07	3.36
Total direct expenses per acre	217.17	236.59	235.96	197.12
Return over direct exp per acre	180.08	89.80	170.58	253.21
Overhead Expenses				
Hired labor	13.88	16.13	21.32	4.88
Machinery leases	3.62	1.19	2.51	6.49
Building leases	1.02	-	1.06	2.56
RE & pers. property taxes	25.54	28.55	23.97	19.64
Farm insurance	8.02	7.25	10.50	6.84
Utilities	4.38	5.68	6.40	2.96
Dues & professional fees	3.80	2.86	4.64	2.80
Interest	51.44	80.37	37.40	35.63
Mach & bldg depreciation	26.66	24.07	29.18	27.55
Miscellaneous	3.73	2.71	3.84	5.84
Total overhead expenses per acre	142.10	168.81	140.81	115.20
Total dir & ovhd expenses per acre	359.26	405.40	376.77	312.32
Net return per acre	37.98	-79.01	29.77	138.01
Government payments	1.55	4.37	0.95	0.16
Net return with govt pmts	39.53	-74.64	30.73	138.17
Labor & management charge	27.88	27.27	30.03	27.83
Net return over lbr & mgt	11.65	-101.91	0.70	110.34
Cost of Production				
Total direct expense per bu.	3.53	4.28	3.64	3.16
Total dir & ovhd exp per bu.	5.84	7.33	5.81	5.01
Less govt & other income	4.15	5.96	4.19	2.92
With labor & management	4.60	6.45	4.65	3.37
Net value per unit	4.79	4.61	4.66	5.14
Machinery cost per acre	74.29	81.05	84.86	66.05
Est. labor hours per acre	1.77	1.78	1.88	1.22

Crop Enterprise Analysis
2019 Moorhead Farm Business Management Annual Report
(Farms Sorted By Return to Overhead)

Wheat, Spring on Cash Rent

	<u>Avg. Of</u> <u>All Farms</u>	<u>Low 20%</u>	<u>40 - 60%</u>	<u>High 20%</u>
Number of farms	62	12	13	13
Acres	576.82	349.37	761.31	464.72
Yield per acre (bu.)	61.25	55.65	62.67	64.12
Operators share of yield %	100.00	100.00	100.00	100.00
Value per bu.	4.77	4.61	4.65	5.22
Total product return per acre	292.08	256.39	291.69	334.48
Hedging gains/losses per acre	0.44	2.61	-	0.77
Crop insurance per acre	61.56	35.27	55.60	72.36
Other crop income per acre	53.20	56.30	54.90	51.65
Gross return per acre	407.28	350.57	402.19	459.26
Direct Expenses				
Seed and plants	22.33	26.30	20.64	21.57
Fertilizer	89.66	99.44	91.69	77.18
Crop chemicals	32.82	33.12	33.78	28.83
Crop insurance	14.81	15.01	13.09	16.09
Drying expense	1.08	2.44	2.11	0.01
Storage	1.21	2.46	1.50	-
Fuel & oil	13.83	13.57	14.34	12.85
Repairs	26.69	26.48	27.10	19.96
Custom hire	5.79	9.51	5.07	2.32
Hired labor	0.94	-	-	0.09
Land rent	133.26	152.69	135.61	117.15
Machinery leases	1.42	7.94	0.08	2.29
Operating interest	6.49	9.28	7.65	5.85
Miscellaneous	4.62	11.48	3.64	5.90
Total direct expenses per acre	354.95	409.72	356.31	310.07
Return over direct exp per acre	52.33	-59.14	45.88	149.18
Overhead Expenses				
Hired labor	12.55	12.78	12.77	9.83
Machinery leases	3.42	1.41	2.30	6.59
Building leases	1.56	0.02	1.30	3.02
Farm insurance	6.73	5.94	7.50	6.56
Utilities	3.15	2.98	2.42	2.41
Dues & professional fees	3.57	5.65	3.11	4.28
Interest	2.81	2.19	4.35	3.59
Mach & bldg depreciation	24.40	22.00	26.03	20.39
Miscellaneous	4.29	3.17	2.79	2.30
Total overhead expenses per acre	62.47	56.14	62.57	58.96
Total dir & ovhd expenses per acre	417.42	465.86	418.88	369.03
Net return per acre	-10.14	-115.28	-16.69	90.23
Government payments	0.79	0.47	0.83	0.87
Net return with govt pmts	-9.35	-114.81	-15.86	91.10
Labor & management charge	28.16	30.60	27.51	30.54
Net return over lbr & mgt	-37.51	-145.41	-43.37	60.56
Cost of Production				
Total direct expense per bu.	5.80	7.36	5.68	4.84
Total dir & ovhd exp per bu.	6.82	8.37	6.68	5.76
Less govt & other income	4.92	6.67	4.91	3.80
With labor & management	5.38	7.22	5.35	4.27
Net value per unit	4.78	4.65	4.65	5.23
Machinery cost per acre	75.72	80.60	76.58	65.79
Est. labor hours per acre	1.48	1.56	1.67	1.29

Crop Enterprise Analysis
2019 Moorhead Farm Business Management Annual Report
Sugarbeets Excluding Joint Ventures
(Farms Sorted By Return to Overhead)

Sugar Beets on Owned Land

	<u>Avg. Of All Farms</u>
Number of farms	16
Acres	142.15
Yield per acre (ton)	20.81
Operators share of yield %	100.00
Value per ton	30.95
Total product return per acre	643.94
Crop insurance per acre	204.40
Other crop income per acre	5.67
Gross return per acre	854.02
Direct Expenses	
Seed and plants	212.94
Fertilizer	86.07
Crop chemicals	116.31
Crop insurance	29.39
Fuel & oil	53.28
Repairs	100.00
Custom hire	9.89
Hired labor	28.53
Machinery leases	0.80
Hauling and trucking	1.48
Operating interest	24.55
Miscellaneous	60.53
Total direct expenses per acre	723.77
Return over direct exp per acre	130.25
Overhead Expenses	
Hired labor	75.64
Machinery leases	15.21
Building leases	5.85
RE & pers. property taxes	27.59
Farm insurance	19.05
Utilities	11.21
Dues & professional fees	8.83
Interest	54.22
Mach & bldg depreciation	98.09
Miscellaneous	12.24
Total overhead expenses per acre	327.93
Total dir & ovhd expenses per acre	1,051.70
Net return per acre	-197.69
Government payments	1.72
Net return with govt pmts	-195.96
Labor & management charge	105.14
Net return over lbr & mgt	-301.10
Cost of Production	
Total direct expense per ton	34.78
Total dir & ovhd exp per ton	50.54
Less govt & other income	40.36
With labor & management	45.42
Net value per unit	30.95
Machinery cost per acre	274.12
Est. labor hours per acre	8.22

Crop Enterprise Analysis
2019 Moorhead Farm Business Management Annual Report
Sugarbeets Excluding Joint Ventures
(Farms Sorted By Return to Overhead)

Sugar Beets on Cash Rent

	<u>Avg. Of</u> <u>All Farms</u>	<u>Low 20%</u>	<u>40 - 60%</u>	<u>High 20%</u>
Number of farms	31	6	6	7
Acres	272.91	335.77	248.60	205.66
Yield per acre (ton)	19.57	20.43	21.11	26.15
Operators share of yield %	100.00	100.00	100.00	100.00
Value per ton	30.87	27.00	30.45	37.16
Total product return per acre	604.33	551.70	642.82	971.64
Crop insurance per acre	268.32	67.97	282.14	126.23
Other crop income per acre	5.99	3.45	5.49	17.62
Gross return per acre	878.65	623.12	930.45	1,115.49
Direct Expenses				
Seed and plants	225.18	206.31	237.45	219.71
Fertilizer	84.11	84.96	72.73	98.58
Crop chemicals	118.08	120.85	127.80	106.87
Crop insurance	29.91	29.66	33.77	27.64
Fuel & oil	53.74	51.65	69.08	57.51
Repairs	103.36	98.12	126.65	99.55
Custom hire	10.55	0.85	12.88	15.11
Hired labor	20.93	18.56	22.86	11.68
Land rent	131.42	118.11	102.34	158.64
Machinery leases	1.38	4.01	-	1.68
Hauling and trucking	11.33	4.84	14.70	31.96
Operating interest	19.44	33.11	21.41	15.60
Miscellaneous	58.11	23.15	86.44	16.47
Total direct expenses per acre	867.53	794.20	928.12	861.00
Return over direct exp per acre	11.12	-171.08	2.33	254.49
Overhead Expenses				
Hired labor	66.64	97.72	95.26	49.27
Machinery leases	9.12	11.43	0.84	9.54
Building leases	3.49	2.12	0.30	6.58
Farm insurance	18.42	9.80	15.89	18.19
Utilities	11.29	7.30	18.49	10.12
Dues & professional fees	9.04	6.70	10.42	11.05
Interest	8.74	6.03	5.76	9.96
Mach & bldg depreciation	95.34	53.00	99.92	120.40
Miscellaneous	17.60	9.51	17.22	25.16
Total overhead expenses per acre	239.69	203.61	264.10	260.26
Total dir & ovhd expenses per acre	1,107.22	997.81	1,192.22	1,121.26
Net return per acre	-228.58	-374.69	-261.77	-5.77
Government payments	1.31	3.49	2.37	-
Net return with govt pmts	-227.27	-371.19	-259.40	-5.77
Labor & management charge	104.94	94.59	115.40	109.63
Net return over lbr & mgt	-332.21	-465.78	-374.81	-115.40
Cost of Production				
Total direct expense per ton	44.32	38.87	43.97	32.93
Total dir & ovhd exp per ton	56.57	48.83	56.48	42.88
Less govt & other income	42.48	45.17	42.74	37.38
With labor & management	47.85	49.79	48.21	41.57
Net value per unit	30.87	27.00	30.45	37.16
Machinery cost per acre	272.60	216.67	299.72	302.83
Est. labor hours per acre	6.87	10.73	6.79	4.80

Crop Enterprise Analysis
2019 Moorhead Farm Business Management Annual Report
Sugarbeets - Joint Ventures
(Farms Sorted By Return to Overhead)

Sugar Beets on Owned Land

	<u>Avg. Of</u> <u>All Farms</u>
Number of farms	12
Acres	148.60
Yield per acre (ton)	19.16
Operators share of yield %	100.00
Value per ton	33.53
Total product return per acre	642.59
Crop insurance per acre	309.79
Other crop income per acre	5.06
Gross return per acre	957.44
Direct Expenses	
Seed and plants	231.37
Fertilizer	95.68
Crop chemicals	127.94
Crop insurance	28.90
Fuel & oil	50.19
Repairs	83.64
Custom hire	10.81
Hired labor	29.58
Stock/quota lease	152.54
Machinery leases	5.02
Hauling and trucking	25.22
Operating interest	28.45
Miscellaneous	55.44
Total direct expenses per acre	924.79
Return over direct exp per acre	32.65
Overhead Expenses	
Hired labor	42.54
Machinery leases	10.79
Building leases	1.73
RE & pers. property taxes	27.83
Farm insurance	8.76
Utilities	11.79
Dues & professional fees	5.79
Interest	100.77
Mach & bldg depreciation	86.63
Miscellaneous	13.90
Total overhead expenses per acre	310.52
Total dir & ovhd expenses per acre	1,235.31
Net return per acre	-277.87
Government payments	0.39
Net return with govt pmts	-277.48
Labor & management charge	71.42
Net return over lbr & mgt	-348.90
Cost of Production	
Total direct expense per ton	48.26
Total dir & ovhd exp per ton	64.47
Less govt & other income	48.01
With labor & management	51.74
Net value per unit	33.53
Machinery cost per acre	243.14
Est. labor hours per acre	4.39

Crop Enterprise Analysis
2019 Moorhead Farm Business Management Annual Report
Sugarbeets - Joint Ventures
(Farms Sorted By Return to Overhead)

Sugar Beets on Cash Rent

	<u>Avg. Of</u> <u>All Farms</u>	<u>Low 20%</u>	<u>40 - 60%</u>	<u>High 20%</u>
Number of farms	25	5	5	5
Acres	294.17	225.12	313.70	448.46
Yield per acre (ton)	17.94	13.79	17.23	20.32
Operators share of yield %	100.00	100.00	100.00	100.00
Value per ton	32.45	33.43	31.46	33.53
Total product return per acre	581.96	460.99	542.01	681.13
Crop insurance per acre	364.13	440.20	385.76	286.16
Other crop income per acre	7.49	2.72	8.31	1.33
Gross return per acre	953.58	903.91	936.07	968.63
Direct Expenses				
Seed and plants	229.25	231.74	222.77	232.25
Fertilizer	86.52	97.21	76.99	87.75
Crop chemicals	117.39	107.84	130.86	110.07
Crop insurance	28.79	29.12	23.93	30.82
Fuel & oil	48.59	41.41	61.89	50.32
Repairs	85.74	79.72	90.09	93.78
Custom hire	20.40	47.13	8.73	9.64
Hired labor	24.71	32.67	29.33	24.76
Land rent	147.87	151.76	150.75	138.57
Stock/quota lease	124.65	264.60	130.19	48.71
Machinery leases	3.25	7.47	9.86	-
Hauling and trucking	19.62	33.13	42.49	7.19
Operating interest	24.13	27.56	18.86	26.18
Miscellaneous	85.64	154.27	47.72	38.04
Total direct expenses per acre	1,046.54	1,305.63	1,044.45	898.08
Return over direct exp per acre	-92.95	-401.72	-108.38	70.54
Overhead Expenses				
Hired labor	42.15	36.70	42.02	40.53
Machinery leases	12.65	3.47	1.96	10.83
Building leases	3.59	4.71	1.90	4.02
Farm insurance	13.40	7.92	12.65	18.80
Utilities	9.81	5.86	8.50	11.58
Dues & professional fees	6.63	4.56	7.52	7.17
Interest	10.70	12.03	2.92	18.26
Mach & bldg depreciation	69.94	78.38	73.98	85.56
Miscellaneous	9.21	5.23	8.28	15.11
Total overhead expenses per acre	178.09	158.87	159.71	211.86
Total dir & ovhd expenses per acre	1,224.63	1,464.50	1,204.16	1,109.94
Net return per acre	-271.05	-560.59	-268.09	-141.32
Government payments	0.42	0.33	0.68	0.54
Net return with govt pmts	-270.62	-560.27	-267.41	-140.78
Labor & management charge	83.14	91.20	89.69	69.07
Net return over lbr & mgt	-353.77	-651.47	-357.10	-209.85
Cost of Production				
Total direct expense per ton	58.35	94.67	60.63	44.21
Total dir & ovhd exp per ton	68.28	106.19	69.90	54.64
Less govt & other income	47.53	74.05	46.98	40.46
With labor & management	52.17	80.67	52.19	43.86
Net value per unit	32.45	33.43	31.46	33.53
Machinery cost per acre	243.27	262.11	241.27	255.94
Est. labor hours per acre	4.15	4.16	3.93	4.10

Corn on Cash Rented Land

Moorhead Farm Business Management Program - Northland College

	<u>5-yr Average</u>	<u>2019</u>	<u>2018</u>	<u>2017</u>	<u>2016</u>	<u>2015</u>
Number of Fields	41	46	41	40	37	
Acres	467.22	483.07	485.92	460.64	475.51	430.94
Yield per Acre	170.94	161.57	184.43	168.11	182.04	158.54
** Value per Unit	3.21	3.40	3.29	2.99	3.06	3.33
Product Value	548.71	548.58	606.27	502.20	557.95	528.54
Other Income	33.47	71.01	19.69	14.18	32.53	29.96
Gross Return	582.18	619.59	625.96	516.38	590.48	558.50
Direct Costs						
Seed	91.44	88.45	92.22	90.66	90.84	95.04
Fertilizer	104.19	105.36	101.04	93.21	97.20	124.16
Chemicals	27.30	28.08	24.80	31.74	27.17	24.71
Crop Insurance	20.02	20.48	17.72	22.23	17.65	22.03
Fuel & Oil	23.06	24.81	25.59	20.13	20.38	24.37
Repairs	36.66	44.52	35.53	34.88	35.53	32.84
Custom Hire	5.45	5.05	5.91	5.76	5.08	5.47
Land Rent	130.19	129.64	135.58	127.14	126.94	131.67
Other Direct Exp	29.16	40.49	36.46	26.26	22.44	20.14
Total Direct	468.95	486.88	474.82	452.02	450.58	480.43
Return over Direct	113.24	132.71	151.15	64.36	139.90	78.07
Overhead Costs						
Other Labor	22.89	26.14	23.20	23.11	21.36	20.66
Intermediate Interest	5.20	4.55	5.15	4.42	5.95	5.92
Depreciation	48.69	43.94	41.92	46.75	51.09	59.75
Other Overhead Exp	31.27	32.15	31.23	33.74	29.33	29.89
Total Ovhd Expenses	108.05	106.79	101.50	108.02	107.73	116.22
<u>Total Direct/Ovhd Expenses</u>	<u>577.00</u>	<u>593.68</u>	<u>576.32</u>	<u>560.04</u>	<u>558.31</u>	<u>596.65</u>
*** Net Return	5.18	25.91	49.65	-43.66	32.17	-38.15

** - Value per Unit is a combination of actual Fall selling price and/or value on Dec 31st of that crop year.

*** - Net Return does **not** include direct government income or principal payment expenses or personal draw expenses

Soybeans on Cash Rented Land

Moorhead Farm Business Management Program - Northland College

	<u>5-yr Average</u>	<u>2019</u>	<u>2018</u>	<u>2017</u>	<u>2016</u>	<u>2015</u>
Number of Fields	58	54	58	61	57	
Acres	640.30	549.93	655.42	721.63	658.37	616.17
Yield per Acre	42.26	38.72	45.36	36.59	46.00	44.61
** Value per Unit	8.58	8.21	8.09	8.99	9.19	8.44
Product Value	362.68	317.93	367.09	329.10	422.91	376.35
Other Income	39.85	63.77	90.31	19.74	18.99	6.44
Gross Return	402.52	381.69	457.40	348.84	441.89	382.79
Direct Costs						
Seed	64.04	63.35	61.92	63.07	64.44	67.43
Fertilizer	13.26	12.47	9.09	15.27	15.78	13.68
Chemicals	31.76	32.42	31.88	36.24	29.39	28.87
Crop Insurance	18.28	18.41	18.68	19.36	16.62	18.31
Fuel & Oil	12.58	14.03	13.80	11.06	10.91	13.12
Repairs	20.82	25.58	20.52	19.53	19.52	18.95
Custom Hire	4.77	4.90	5.49	5.34	4.49	3.63
Land Rent	131.43	129.01	134.28	132.93	129.90	131.03
Other Direct Exp	13.50	11.79	18.55	12.64	13.99	10.55
Total Direct	310.45	311.96	314.23	315.45	305.04	305.58
Return over Direct	92.07	69.73	143.16	33.39	136.86	77.21
Overhead Costs						
Other Labor	11.82	10.43	12.19	13.62	11.08	11.76
Intermediate Interest	2.83	3.18	2.64	2.32	3.19	2.80
Depreciation	25.66	24.55	23.95	24.76	26.16	28.86
Other Overhead Exp	20.36	21.23	19.09	22.08	19.66	19.74
Total Ovhd Expenses	60.66	59.39	57.87	62.78	60.09	63.16
<u>Total Direct/Ovhd Expenses</u>	<u>371.11</u>	<u>371.35</u>	<u>372.10</u>	<u>378.22</u>	<u>365.12</u>	<u>368.74</u>
*** Net Return	31.41	10.34	85.30	-29.39	76.77	14.05

** - Value per Unit is a combination of actual Fall selling price and/or value on Dec 31st of that crop year.

*** - Net Return does **not** include direct government income or principal payment expenses or personal draw expenses

Spring Wheat on Cash Rented Land

Moorhead Farm Business Management Program - Northland College

	<u>5-yr Average</u>	<u>2019</u>	<u>2018</u>	<u>2017</u>	<u>2016</u>	<u>2015</u>
Number of Fields	56	62	61	51	48	
Acres	487.81	576.82	547.54	431.66	444.99	438.06
Yield per Acre	68.49	61.25	63.11	73.41	69.20	75.50
** Value per Unit	5.26	4.77	5.55	6.01	5.03	4.95
Product Value	361.21	292.08	350.24	441.53	348.36	373.82
Other Income	34.05	115.20	24.69	3.26	15.10	11.99
Gross Return	395.25	407.28	374.93	444.79	363.46	385.81
Direct Costs						
Seed	20.67	22.33	19.87	19.55	18.86	22.75
Fertilizer	85.10	89.66	80.23	77.42	80.49	97.71
Chemicals	28.14	32.82	29.05	29.24	25.07	24.50
Crop Insurance	13.46	14.81	12.23	13.74	13.94	12.60
Fuel & Oil	13.26	13.83	14.86	12.31	11.53	13.76
Repairs	23.11	26.69	23.14	22.95	22.04	20.74
Custom Hire	5.84	5.79	6.54	5.29	6.05	5.52
Land Rent	132.50	133.26	131.87	131.79	132.94	132.66
Other Direct Exp	15.03	15.76	15.74	12.89	15.40	15.35
Total Direct	337.12	354.95	333.53	325.19	326.31	345.61
Return over Direct	58.14	52.33	41.40	119.60	37.15	40.20
Overhead Costs						
Other Labor	13.39	12.55	12.53	15.46	13.41	13.01
Intermediate Interest	2.68	2.81	3.05	2.02	2.71	2.80
Depreciation	25.57	24.40	25.00	24.50	26.95	26.99
Other Overhead Exp	20.76	22.71	19.34	21.03	19.54	21.18
Total Ovhd Expenses	62.40	62.47	59.92	63.01	62.61	63.98
<u>Total Direct/Ovhd Expenses</u>	<u>399.52</u>	<u>417.42</u>	<u>393.45</u>	<u>388.20</u>	<u>388.92</u>	<u>409.59</u>
*** Net Return	-4.26	-10.14	-18.52	56.59	-25.46	-23.78

** - Value per Unit is a combination of actual Fall selling price and/or value on Dec 31st of that crop year.

*** - Net Return does **not** include direct government income or principal payment expenses or personal draw expenses

Sugarbeets on Cash Rented Land (excluding joint venture)

Moorhead Farm Business Management Program - Northland College

	<u>5-yr Average</u>	<u>2019</u>	<u>2018</u>	<u>2017</u>	<u>2016</u>	<u>2015</u>
Number of Fields	23	31	24	20	17	
Acres	240.04	272.91	258.36	259.34	211.26	198.35
Yield per Acre	28.50	19.57	29.66	31.47	33.10	28.69
** Value per Unit	37.82	30.87	37.60	39.78	36.08	44.77
Product Value	1,090.00	604.33	1,115.26	1,251.65	1,194.32	1,284.46
Other Income	75.35	274.31	15.63	6.82	4.64	
Gross Return	1,150.29	878.65	1,130.89	1,258.47	1,198.97	1,284.46
Direct Costs						
Seed	222.76	225.18	216.81	226.50	227.09	218.20
Fertilizer	82.81	84.11	73.43	78.06	82.95	95.49
Chemicals	102.78	118.08	112.63	98.77	104.04	80.38
Crop Insurance	30.21	29.91	30.74	33.08	30.29	27.03
Fuel & Oil	51.72	53.74	55.81	46.03	43.83	59.17
Repairs	96.02	103.36	95.82	81.62	100.44	98.87
Direct Labor	38.05	20.93	46.51	36.83	40.92	45.05
Custom Hire	13.25	10.55	15.55	10.67	14.01	15.45
Land Rent	139.24	131.42	137.94	141.53	143.21	142.11
Other Direct Exp	51.62	90.25	58.55	40.08	39.72	29.50
Total Direct	828.45	867.53	843.79	793.17	826.51	811.24
Return over Direct	321.84	11.12	287.10	465.31	372.46	473.21
Overhead Costs						
Other Labor	75.59	66.64	69.43	85.73	82.37	73.80
Intermediate Interest	9.32	8.74	10.15	7.30	8.81	11.60
Depreciation	103.65	95.34	96.40	99.89	114.15	112.48
Other Overhead Exp	54.60	68.97	39.06	52.54	54.56	57.86
Total Ovhd Expenses	243.16	239.69	215.04	245.46	259.89	255.74
<u>Total Direct/Ovhd Expenses</u>	<u>1,071.61</u>	<u>1,107.22</u>	<u>1,058.83</u>	<u>1,038.63</u>	<u>1,086.40</u>	<u>1,066.98</u>
*** Net Return	78.67	-228.58	72.06	219.84	112.57	217.48

** - Value per Unit is a combination of actual Fall selling price and/or value on Dec 31st of that crop year.

*** - Net Return does **not** include direct government income or principal payment expenses or personal draw expenses

MyFarm Financial Scorecard

Year: _____

Name: _____

	This Year	5-Year Ave	Strong		Vulnerable
Liquidity					
Current ratio			2.0		1.3
Working capital					
Working cap to gross revenue			30%		10%
Solvency (market)	Note: These solvency ratios include deferred liabilities				
Farm debt/asset ratio			30%		60%
Farm equity/asset ratio			70%		40%
Farm debt/equity ratio			0.43		1.50
Profitability (Cost)					
Rate of return on farm assets			8%		4%
Rate of return on farm equity			10%		3%
Operating profit margin			25%		15%
Net farm income					
EBITDA					
Repayment Capacity (Accrual)					
Capital debt repay capacity					
Capital debt repay margin					
Replacement margin					
Term-debt coverage ratio			1.75		1.25
Replacement margin ratio			1.50		1.10
Financial Efficiency					
Asset-turnover rate (market)			45%		30%
Operating-expense ratio			60%		80%
Depreciation-expense ratio			5%		10%
Interest-expense ratio			5%		10%
Net farm income ratio			20%		10%