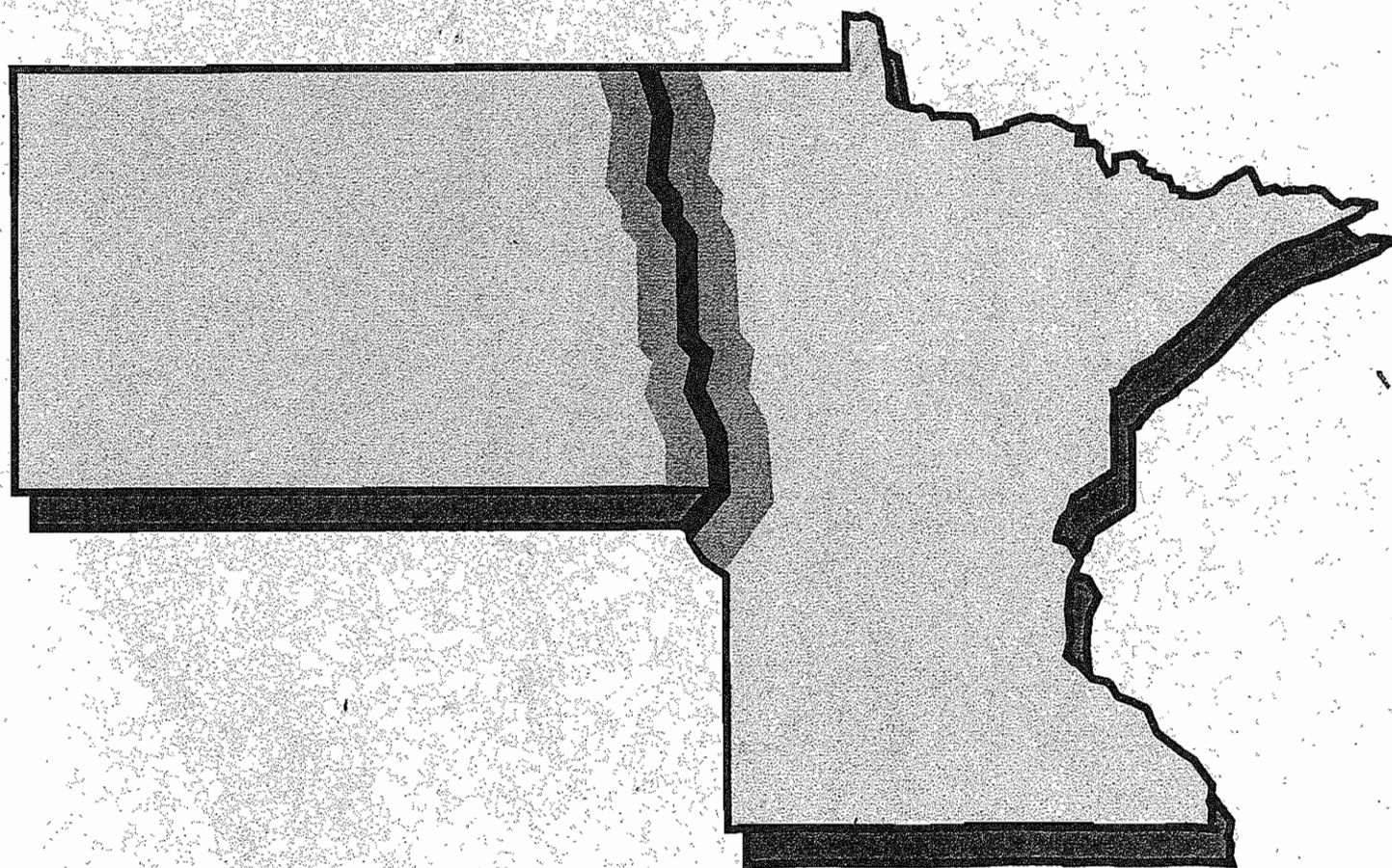


**North Dakota
Farm and Ranch
Business Management
Education**



**Minnesota
Farm Business
Management
Education**

1998 Red River Valley Report



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RED RIVER VALLEY AVERAGES
1998 ANNUAL REPORT

ACKNOWLEDGEMENTS

The Red River Valley farm business analyses were submitted by the following cooperating instructors and farm management programs:

<u>North Dakota</u>	<u>Instructor</u>
Kindred High School	Ron Smithberg
Wahpeton (NDSCS)	Keith Torgerson
<u>Minnesota</u>	
NCTC-Detroit Lakes	Mark Berg
NCTC-East Grand Forks	Ron Dvergsten
NCTC-Fergus Falls	Rudy Hasbargen
NCTC-Mahnomen/Ulen	Mike Lockhart
NCTC-Moorhead	Rick Morgan
	Greg Tullis
NCTC-Red Lake Falls	Greg Kalinoski
NCTC-Thief River Falls	Bob Bollesen
	Danie Packard
	Greg Dvergsten

This report was made possible by the farm families who cooperated with their farm management instructors in getting the farm records for 1998 closed out on a timely basis. The farm management instructors cited above generated Finpack year-end farm analyses for 1998. Andrew Swenson, NDSU Extension Service, databased the Finpack analyses of farms geographically located within the Red River Valley and generated the comparative tables for this report.

A special acknowledgement is due Robert E. Bollesen, Dean of Management Education, Northland Community and Technical College, Thief River Falls, Minnesota, and the North Dakota State Board for Vocational and Technical Education for cooperation in the development of the second annual Red River Valley Report.

1998 Red River Valley Report
Minnesota and North Dakota Farm Business Management Education

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INTRODUCTION

This report summarizes the individual farm records of farms in the Red River Valley that are enrolled in Farm Management Education programs. The current financial status of farm operators and net returns from each crop enterprise is reported. In addition to the average of all farms, the averages for the high and low net income groups are also presented. To insure anonymity, only averages of five or more farms are reported. Regional averages reports can be used by producers for comparison purposes to identify and study the areas that may need management improvement. A review of the comparative information may reveal how certain aspects of the business or enterprises excel and help answer why they are profitable. The data contained in this report should also be useful to instructors, extension agents, bankers and agricultural consultants.

The Red River Valley averages reports are divided into three major categories. Explanatory notes precede the farm operators' reports and the crop reports. Tables 1 through 11 present farm operator information. The table 12 series provide performance information on crop enterprises. Lastly, tables 13-1, 13-2 and 13-3 compares the analysis of farms sorted by total cash farm income, type of farm based on major crop and livestock enterprises, and by age of farm operator, respectively.

The 1998 Red River Valley Report is based upon data generated by the Finan individual farm analysis completed by farm/ranch families enrolled in the Farm and Ranch Business Management Education programs in Minnesota and North Dakota. Instructors pooled the individual business analysis and submitted the combined school data of farms located in the Red River Valley to the FINPACK Center located at North Dakota State University, where the comparison tables were generated.

You may contact Robert E. Bollesen, Northland Technical College, Highway 1 East, Thief River Falls, MN 56701, to order a copy of this report. This report and regional reports for north central, south central and western North Dakota can be ordered for \$5 per copy from Farm Business Management, PO Box 6022, Bismarck, ND 58506-6022. A state average book which includes all North Dakota farms excluding the Red River Valley is also available.

EXPLANATORY NOTES FOR THE FARM OPERATORS' REPORTS

Tables 1 through 4 and 7 include the same number of farms, which were all of the farms whose records were judged to be of sufficient quality to be included in the overall report. Table 5 and 6, the Comparative Financial Statement, on cost and market basis, respectively, includes only sole proprietors. Partnerships and corporations are excluded because some debt is held outside of the business causing potential misinterpretations of the financial statement. The number of farms included in each of the crop tables varies because all farms do not have the same enterprises. Also, some farmers' records were complete enough to be included in the whole-farm tables, but at times, these same farmers' crop records were not complete enough to include in the respective crop tables.

Rounding of individual items for the report may have caused minor discrepancies with the printed totals which are calculated before rounding.

Tables 1. Detailed Farm Income Statement

This statement is a summary of income, expenses, or resultant profit or loss from farming operations during the calendar year.

The first section of Table 1 lists cash farm income from all sources. There are three possible sources of cash income from crops. The first is income from cash sales. The second is income from crops stored under government programs with the crop value treated as income for the year in which the crop was stored. If the crop value has not been entered as income when it was stored, then its entire value would be treated as income in the year it was sold. The third is "Net Government Sales," which refers to the difference between income credited in the year a crop was stored and the actual income received at the time it was sold. There are two categories of cash income from livestock sales. "Raised" steer, hogs, and lambs refer to animals raised from birth to market weight on the farm. "Finished" animals refers to those purchased as feeders and fed to market weight. "Other Government Payments" refers to all farm government payments other than farm program and CRP payments.

The second section of Table 1 lists cash expenses. "Labor" includes only labor hired. "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 Expenses" is the "Net Cash Farm Income." This is net farm income on a cash basis.

The last two sections of Table 1 deal with the non-cash changes in the farm business. The "Inventory Changes" and "Depreciation and Other Capital Adjustments" 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 "bottom line," labeled "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 debt forgiveness or asset repossessions.

Table 2. Inventory Changes

This is the detailed statement of inventory changes which is summarized in Table 1. It includes

beginning and ending inventories and the calculated changes.

Table 3. Depreciation and Other Capital Adjustments

This is the detailed statement of depreciation and other capital adjustments which is summarized in Table 1. It includes beginning and ending inventories, sales, purchases, and depreciation.

Table 4. Profitability and Liquidity Analysis

Various measures of performance are calculated for the farms in this report. These include measures of profitability and liquidity. (Solvency measures are in Table 5 and 6.) In Tables 1 through 3, no opportunity costs are used. In Table 4, opportunity costs for labor, capital, management are used. The measures and their components are described below.

Profitability

"Labor and management earnings" equals "Net farm income" from Table 1 minus an opportunity interest cost of 6% an average farm net worth.

"Rate of return on assets" is the "Return on farm assets" divided by "Average farm assets."

"Rate of return on equity" is the "Return of farm equity" divided by "Average farm equity."

"Operating profit margin" is the "Return on farm assets" divided by "Value of farm production."

"Asset turnover rate" is the "Value of farm production" divided by "Average farm assets."

"Interest on farm net worth" is the "Average farm equity" multiplied by a 6% opportunity interest cost charge.

"Farm interest expense" is the accrual interest cost, usually it will be different from the cash interest expense shown on Table 1.

"Value of operator's labor and management" is an opportunity cost for unpaid operator's labor and management that is used in the calculation of several financial performance measures. A value of \$20,000 per full time operator plus 5% of gross sales greater than \$200,000 was normally used.

"Return of farm assets" is calculated by adding "Farm interest expense" to "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.

"Return on 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 cash farm income minus purchased feed and feeder livestock and adjusted for inventory changes in crops, market livestock, accounts receivable and breeding livestock.

Liquidity: Cash Basis

"Family living and taxes" is calculated cash family living plus income and social security taxes.

"Cash available for intermediate debt" on the cash basis is the sum of "Net cash farm income" and "Net nonfarm income" minus "Family living and taxes" and "Real estate principal payments."

"Average intermediate debt" is the average of beginning and ending intermediate farm liabilities.

"Years to turn over debt" is "Average intermediate debt" divided by "Cash available for intermediate debt." If the cash-based or accrual-based "Cash available for intermediate debt" is a negative number, debt repayment is not possible because of negative cash flow on a cash or accrual basis, respectively, and "Years to turn over intermediate debt" cannot be calculated.

Cash "Expense as a percent of income" is "Total cash expense" divided by "Gross cash farm income."

"Interest as a percent of income" is "Interest paid" divided by "Gross cash farm income"

Liquidity: Accrual Basis

"Available for intermediate debt" on the accrual basis is "Net accrual operating income" plus "Net nonfarm income" minus "Family living and taxes" and "Real estate principal payments."

Accrual "Expense as a percent of income" is "Total cash expense" adjusted by inventory changes in accounts payable, accrued expense items, prepaid expenses and growing crops divided by "Gross farm income." "Gross farm revenue" is "Gross cash farm income" adjusted by changes in inventories of crops and feed, feeder livestock and accounts receivable.

"Interest as a percent of income" is "Interest paid" adjusted by changes in accrued interest for the year, divided by "Gross farm revenue."

Tables 5 and 6. Balance Sheet

The beginning and ending net worth statements and solvency measures are presented for sole proprietors only in Tables 5 and 6. Current assets are valued at market price at the time of the inventory which is January 1, and December 31, for the beginning and ending inventories respectively. In Table 5, intermediate and long-term assets that are depreciable are valued at cost remaining (amount remaining to be depreciated, plus salvage value). Raised breeding livestock is valued at conservative market replacement costs. Land is valued at cost or conservative market value. In Table 6, the intermediate and long term assets are listed at market value, and deferred income tax liabilities are estimated.

Table 7. Statement of Cash Flows

This statement organizes cash inflows and outflows by the following three categories: Operating activities, investing activities, and financing activities.

Table 8. Financial Guidelines Measures

This table contains the 16 measures of financial performance recommended by the Farm Financial Standards Task Force (FFSTF). The Finpack financial management program used by the North Dakota Farm Business Education in most part, but not completely, complies with the FFSTF recommendations for calculating the financial guidelines measures. The measures are calculated on

an accrual basis.

Liquidity

"Current ratio" is "Total current farm assets" divided by "Total current farm liabilities."

"Working capital" is "Total current farm assets" less "Total current farm liabilities."

Solvency

"Farm debt to asset ratio" is "Total farm liabilities" divided by "Total farm assets."

"Farm equity to asset ratio" is "Total farm assets" minus "Total farm liabilities," divided by "Total farm assets."

"Farm debt to equity ratio" is "Total farm liabilities," divided by the result of "Total farm assets" minus "Total farm liabilities."

Profitability

"Rate of return on farm assets" is "Net farm income" plus "interest expense" minus "Value of operator's labor and management," divided by the average of beginning and ending "Total farm assets."

"Rate of return on farm equity" is "Net farm income" minus "Value of operator's labor and management," divided by the average of beginning and ending farm net worth.

"Operating profit margin" is "Net farm income" plus "interest expense" minus "Value of operator's labor and management," divided by "Value of farm production."

Repayment Capacity

"Term debt coverage ratio" is "Net farm income" plus "depreciation and other capital adjustments" plus "Net nonfarm income" plus scheduled interest on term debt minus "Family living and taxes," divided by scheduled term debt principal and interest payments.

"Capital replacement margin" is "Net farm income" plus "Depreciation and other capital adjustments" plus "Net nonfarm income" minus "Family living and taxes" and scheduled term debt principal payments.

Efficiency

"Asset turnover rate" is "Value of farm production" divided by the average of beginning and ending "Total farm assets."

"Operating expense ratio" is total expense less "Farm interest expense" and "Depreciation and capital adjustment," divided by "Gross farm revenue."

"Depreciation expense ratio" is "Depreciation and capital adjustments" divided by "Gross farm revenue."

"Interest expense ratio" is "Farm interest expense" divided by "Gross farm revenue"

"Net farm income ratio" is "Net farm income" divided by "Gross farm revenue."

Table 9. Crop Production and Marketing Summary

This table contains three sections. The first section reports average acreage by land use. The next two sections show average price received and average yields for major crops. These tables are sorted on the basis of "Net farm income."

Table 10. Household and Personal Expenses

For those farms that keep records, the household and personal expenses are summarized in Table 10. The farms are grouped in the same ranking as in Table 1. Not all farms keep these records, therefore, the numbers may be different for each group. Averages are determined by the number of farms keeping these records. Table 7 presents calculated family living and includes all farms. Income tax paid is also shown on table 7 and includes all farms.

Table 11. Operator Information, Nonfarm Summary

Table 11 reports the average for the number of operators per farm, the operator's age, and the number of years farming. This table also reports the income from nonfarm income, but the figure reported is the average over all farms not just those reporting nonfarm income.

Table 13-1. Size of Farm Report

Table 13-1 sorts farms according to total cash farm income. Each column, representing a range of cash farm income, gives profitability, liquidity, and solvency analysis as well as family living expense and farm acreage information. A study of each column reveals the number of farms and the various financial characteristics of each group.

Table 13-2. Type of Farm Report

Table 13-2 sorts farms according to type of farm. Each column represents a type of crop or livestock farm or combination of crop and livestock enterprises. Farms with 70% or more of total farm sales from the same enterprise are grouped together. A study of this table reveals the comparative profitability of each farm type.

Table 13-3. Age of Operator Report

Table 13-3 sorts farms according to age of operator. Each column, representing a range of age, gives profitability, liquidity, and solvency analysis as well as family living expense and farm acreage information. A study of each column reveals the number of farms and the various financial characteristics of each group.

Financial Guideline Measures

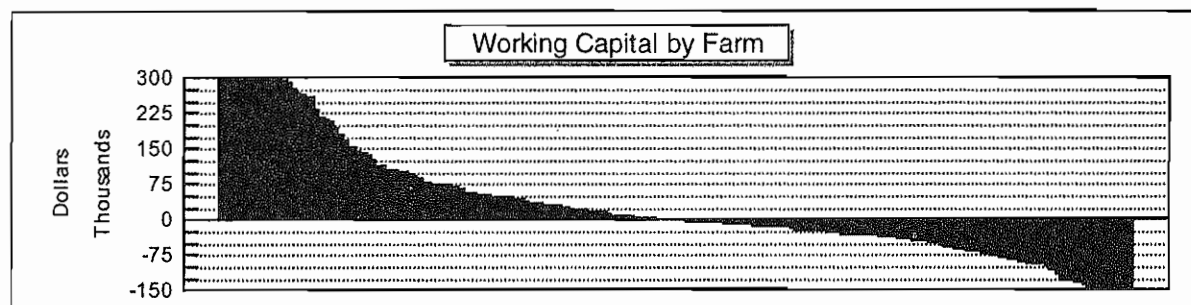
The Farm Financial Standards Task Force recommended the use of sixteen financial measures to evaluate a farm's financial position and financial performance. These measures are grouped by Liquidity, Solvency, Profitability, Repayment Capacity and Efficiency.

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.

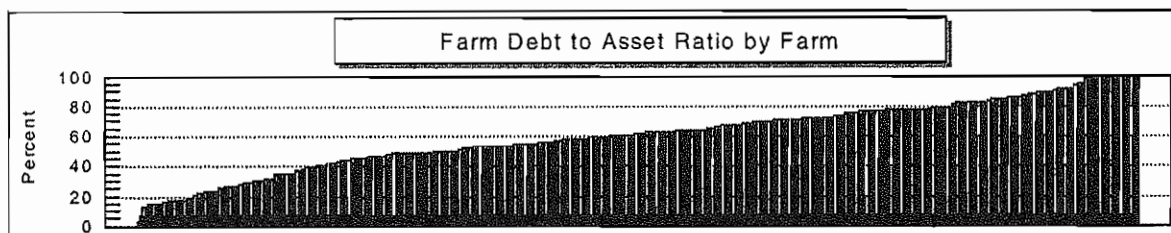
Working Capital: Working capital shows the dollar amount that current assets can or can not cover current liabilities. It approximates the amount of capital available to purchase crop and livestock inputs and equipment necessary to produce farm products. The amount of working capital considered adequate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



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 which have debt against them. A higher ratio is considered an indicator of greater financial risk.



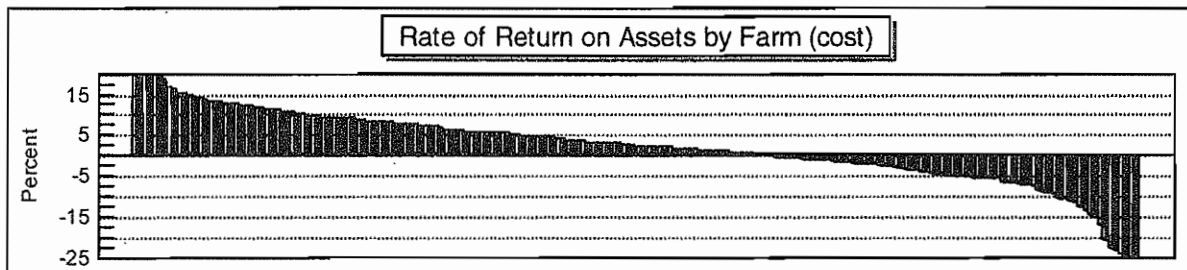
Farm Equity To Asset Ratio: The farm equity to asset ratio measures the farm equity relative to the value of the farm assets. It measures the proportion of the farm assets financed by the owner's equity whereas the debt to asset ratio measured the proportion of farm assets financed by debt.

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 the farm has.

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.

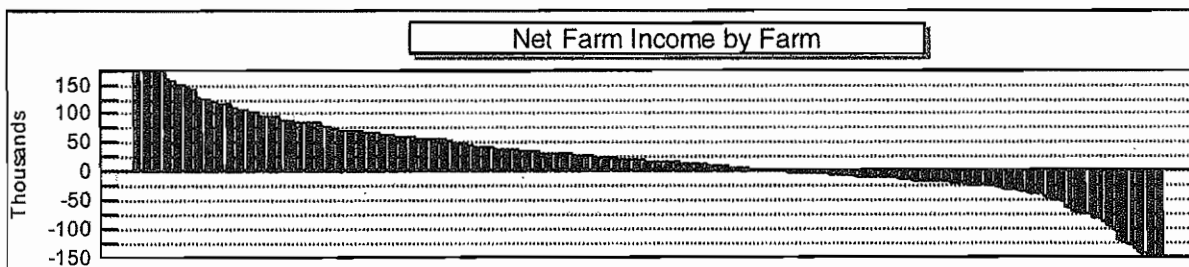
Rate of Return on Assets: Rate of return on assets is, in effect, the interest rate your farm earned in the past year on all money invested in the business. If assets are valued at market value, the rate of return on investment can be looked at as the "opportunity cost" of investing money in the farm 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. As your debt to asset ratio increases, these relationships become more pronounced. So profitability becomes a key concern when substantial debt capital is used in the business.

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.



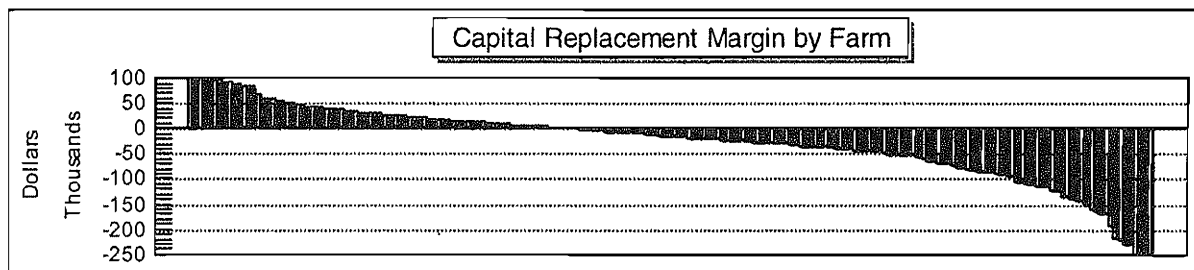
Operating Profit Margin: The operating profit margin is a measure of the profit margin from the employment of assets. It measures how effectively you are employing assets relative to the value of output produced. Low prices, high operating expenses, or production problems are all possible causes of a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

Repayment Capacity

Repayment capacity measures the ability to repay term debt (longer than one year) and to replace capital assets.

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 nonfarm 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.

Capital Replacement Margin: The capital replacement margin is the amount of money remaining from farm and nonfarm income after all operating expenses, taxes, family living and debt payments have been paid. It is the amount available for acquiring capital assets, such as machinery and land, or servicing additional debt.

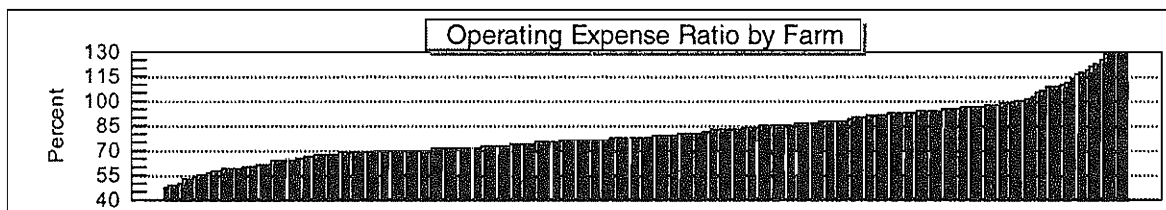


Efficiency

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.

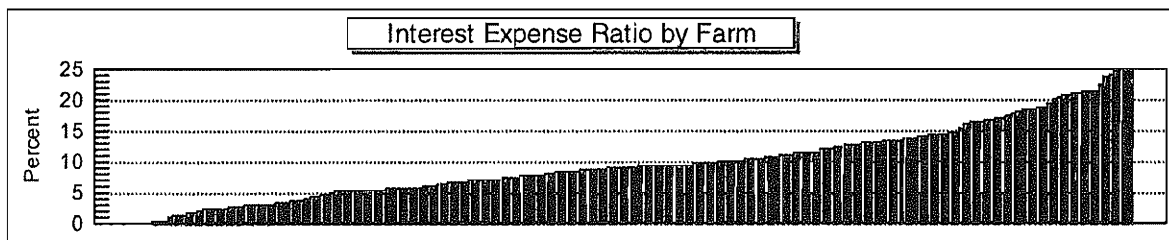
Asset Turnover: Asset turnover is a measure of how efficiently assets are used in the business. A farm with good operating profit margin and asset turnover will show a strong rate of return on farm assets. If operating profit margin is low, the asset turnover rate must be strong, or vice versa, to maintain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

Five Year Trends Red River Valley Farm Business Management Education

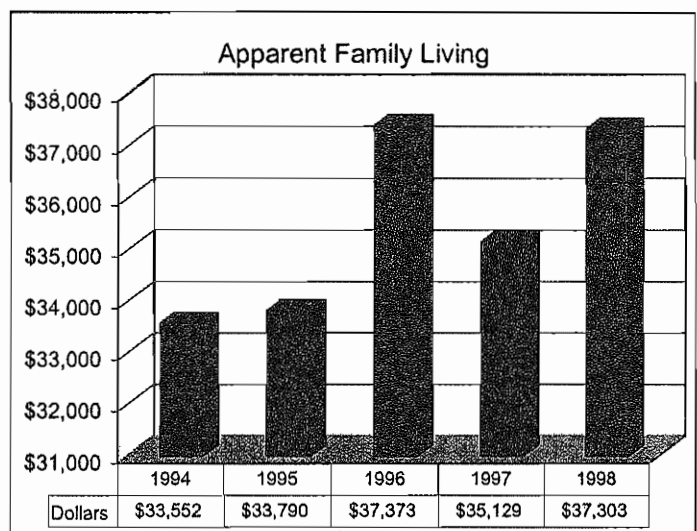
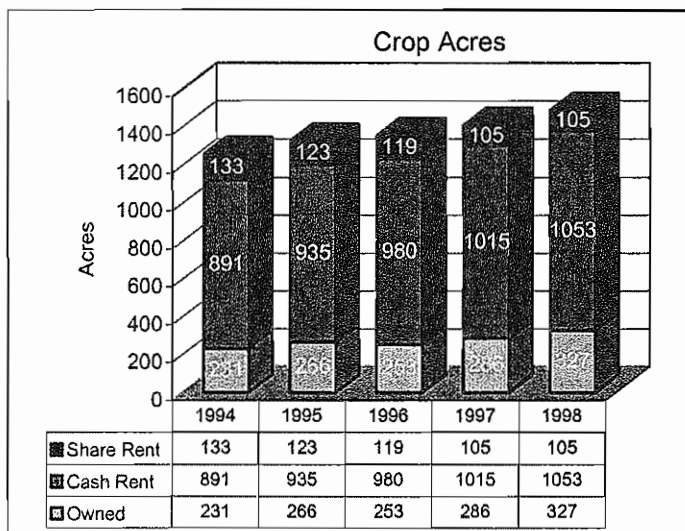
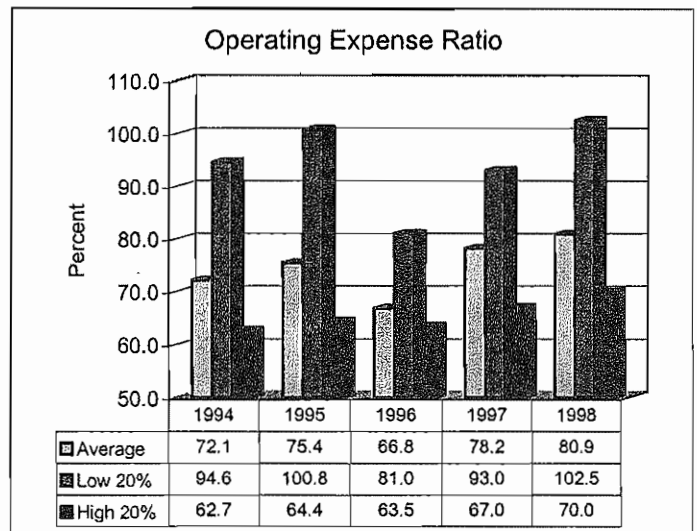
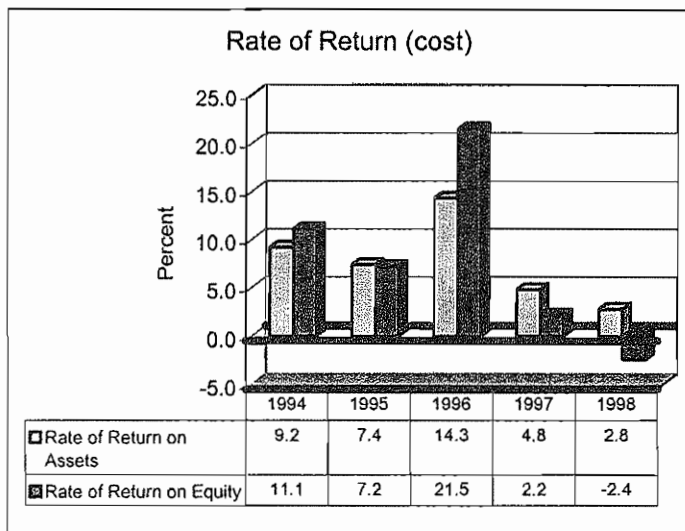
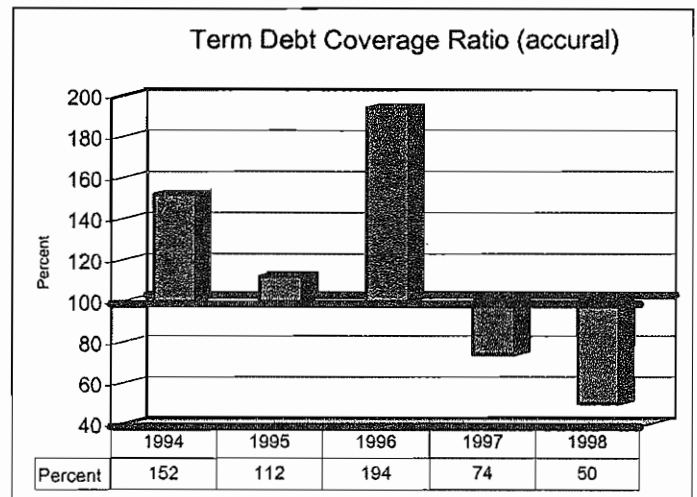
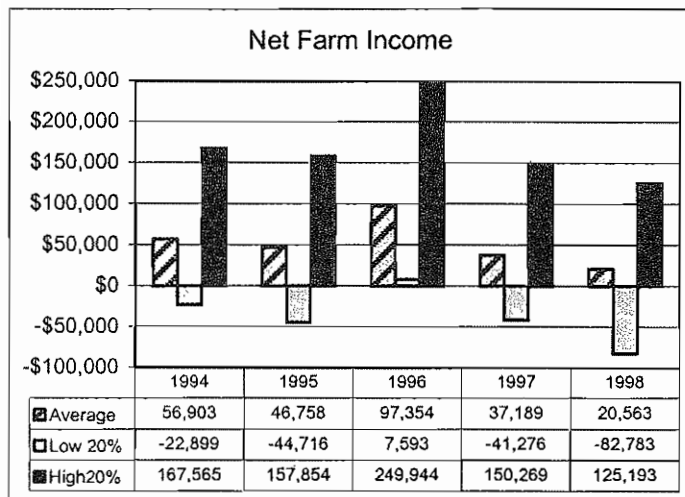


TABLE 1
FARM INCOME STATEMENT, 1998
Minnesota and North Dakota Farm Business Mgmt Education
Red River Valley
(Farms sorted by Net Farm Income)

	Average Of All Farms	Average Of Low 20%	Average Of High 20%
Number of Farms	197	39	39
CASH FARM INCOME			
Barley	8057	12383	9733
Black Turtle Beans	609	575	1631
Dark Red Kidney Beans	109	-	-
Great Northern Beans	246	1242	-
Navy Beans	3741	5517	9617
Pinto Beans	3528	346	8789
Buckwheat	14	-	-
Canola	1362	-	4614
Corn	27516	41765	41472
Corn Silage	15	-	-
Flax	29	-	-
Alfalfa Hay	879	1090	2833
Oats	87	-	421
Potatoes	8036	-	27907
Seed Potatoes	4196	12516	7144
Soybeans	62591	50056	96432
Straw	936	260	3964
Sugar Beets	104696	171234	163430
Sunflowers	1067	1215	1845
Confectionary Sunflowers	759	-	1567
Durum Wheat	239	427	-
Spring Wheat	75882	74129	124812
Winter Wheat	177	25	872
Other crops	2356	-	-
Miscellaneous crop income	16	-	56
Beef Calves	84	-	-
Background Beef	1721	-	1090
Finish Yrlg Steers	1018	204	-
Milk	2443	-	7515
Dairy Calves	19	-	83
Dairy Heifers (for sale)	80	-	-
Dairy Replacement Heifers	131	-	-
Wool	25	-	-
Raised Hogs	2640	-	10043
Feeder Pigs	35	-	-
Finish Feeder Pigs	250	-	-
Mkt Lambs	258	-	-
Finish Cull Cows	27	-	-
Cull breeding livestock	180	-	435
Misc. livestock income	134	27	53
Government program payments	32555	31964	50644
CRP payments	620	158	58
Other government payments	6328	5519	8298
Custom work income	5133	2966	9557
Patronage dividends, cash	3709	5095	5683
Insurance income	23564	52214	33936
Cash from hedging accts	631	988	1290
Other farm income	10282	10055	17577
Gross Cash Farm Income	399008	481971	653398

TABLE 1
FARM INCOME STATEMENT, 1998 (Continued)
Minnesota and North Dakota Farm Business Mgmt Education
Red River Valley
(Farms sorted by Net Farm Income)

	Average Of All Farms	Average Of Low 20%	Average Of High 20%
Number of Farms	197	39	39
CASH FARM EXPENSE			
Seed	23545	30678	37734
Fertilizer	29680	35788	50539
Crop chemicals	50910	68901	80329
Crop insurance	11320	14191	16971
Drying fuel	476	751	602
Crop marketing	3475	3340	6581
Crop miscellaneous	13405	16814	16423
Feeder livestock purchase	2011	297	710
Purchased feed	2623	58	9207
Breeding fees	167	-	432
Veterinary	245	1	561
Livestock supplies	316	100	1148
Grazing fees	2	-	-
Livestock marketing	60	-	191
Interest	31049	41536	45700
Fuel & oil	12340	13267	20325
Repairs	24705	32808	37225
Custom hire	8402	10586	15949
Hired labor	19803	27846	38364
Land rent	70347	102547	95089
Machinery & bldg leases	6611	10789	9334
Real estate taxes	4779	7061	7570
Farm insurance	5199	6582	8619
Utilities	3944	4908	6639
Dues & professional fees	2712	3005	5685
Hedging account deposits	757	1217	1010
Miscellaneous	9152	10903	17305
Total cash expense	337948	443974	530240
Net cash farm income	61061	37998	123158
INVENTORY CHANGES			
Crops and feed	-18437	-63808	4080
Market livestock	-593	-	2236
Accounts receivable	8488	4735	19920
Prepaid expenses and supplies	-6188	-19474	-50
Accounts payable	-4804	-19486	4767
Total inventory change	-21534	-98033	30952
Net operating profit	39527	-60036	154110
DEPRECIATION AND OTHER CAPITAL ADJUSTMENTS			
Breeding livestock	-242	116	517
Machinery and equipment	-19830	-23601	-31147
Buildings and improvements	-751	-536	-2099
Other farm capital	1859	1273	3812
Total depr. and other capital adj	-18964	-22747	-28917
Net farm income	20563	-82783	125193

TABLE 2
INVENTORY CHANGES, 1998
Minnesota and North Dakota Farm Business Mgmt Education
Red River Valley
(Farms sorted by Net Farm Income)

	Average Of All Farms	Average Of Low 20%	Average Of High 20%
Number of Farms	197	39	39
Net cash farm income	61061	37998	123158
CROPS AND FEED			
Ending inventory	140386	154562	265826
Beginning inventory	158822	218370	261745
Inventory change	-18437	-63808	4080
MARKET LIVESTOCK			
Ending inventory	3655	-	9661
Beginning inventory	4248	-	7425
Inventory change	-593	-	2236
ACCTS RECEIVABLE & OTHER CURRENT ASSETS			
Ending inventory	30893	14361	69942
Beginning inventory	22406	9626	50022
Inventory change	8488	4735	19920
PREPAID EXPENSES AND SUPPLIES			
Ending inventory	18730	15614	37053
Beginning inventory	24919	35088	37103
Inventory change	-6188	-19474	-50
ACCOUNTS PAYABLE			
Beginning inventory	24009	27475	41366
Ending inventory	28813	46962	36599
Inventory change	-4804	-19486	4767
Total inventory change	-21534	-98033	30952
Net operating profit	39527	-60036	154110

TABLE 3
DEPRECIATION AND OTHER CAPITAL ADJUSTMENTS, 1998
Minnesota and North Dakota Farm Business Mgmt Education
Red River Valley
(Farms sorted by Net Farm Income)

	Average Of All Farms	Average Of Low 20%	Average Of High 20%
Number of Farms	197	39	39
Net operating profit	39527	-60036	154110
BREEDING LIVESTOCK			
Ending inventory	3072	526	8788
Capital sales	597	58	2366
Beginning inventory	3761	467	10213
Capital purchases	151	0	425
Depreciation, capital adj.	-242	116	517
MACHINERY AND EQUIPMENT			
Ending inventory	196109	201969	338739
Capital sales	3593	2959	5920
Beginning inventory	193951	203398	328860
Capital purchases	25580	25131	46946
Depreciation, capital adj.	-19830	-23601	-31147
BUILDINGS AND IMPROVEMENTS			
Ending inventory	39532	21539	94788
Capital sales	318	-	-
Beginning inventory	36976	21188	93104
Capital purchases	3625	888	3783
Depreciation, capital adj.	-751	-536	-2099
OTHER CAPITAL ASSETS			
Ending inventory	159594	233552	248726
Capital sales	2428	3259	6362
Beginning inventory	145816	232417	216074
Capital purchases	14347	3120	35201
Depreciation, capital adj.	1859	1273	3812
Total depreciation, capital adj.	-18964	-22747	-28917
Net farm income	20563	-82783	125193

TABLE 4
 PROFITABILITY AND LIQUIDITY ANALYSIS, 1998
 Minnesota and North Dakota Farm Business Mgmt Education
 Red River Valley
 (Farms sorted by Net Farm Income)

	Average Of All Farms	Average Of Low 20%	Average Of High 20%
Number of Farms	197	39	39
PROFITABILITY (Cost)			
Net farm income	20563	-82783	125193
Labor and management earnings	-3876	-101942	76676
Rate of return on assets	2.8 %	-7.2 %	8.7 %
Rate of return on equity	-2.4 %	-37.7 %	10.2 %
Operating profit margin	6.5 %	-16.2 %	19.8 %
Asset turnover rate	43.8 %	44.2 %	43.9 %
Interest on farm net worth	24439	19159	48517
Farm interest expense	34625	49585	49593
Value of operator lbr and mgmt.	30259	35353	42352
Return on farm assets	24929	-68550	132434
Average farm assets	874898	955938	1526654
Return on farm equity	-9696	-118136	82841
Average farm equity	403863	312972	808617
Value of farm production	383590	422660	670234
Number of Farms	197	39	39
LIQUIDITY (Cash)			
Net cash farm income	61061	37998	123158
Net nonfarm income	15088	19922	7612
Family living and taxes	48540	48920	73346
Real estate principal payments	9083	10656	16445
Cash available for interm. debt	18526	-1657	40979
Average intermediate debt	156803	236952	191976
Years to turnover interm. debt	8.5	**	4.7
Expense as a % of income	85 %	92 %	81 %
Interest as a % of income	8 %	9 %	7 %
LIQUIDITY (Accrual)			
Total accrual farm income	388466	422899	679633
Total accrual farm expense	348940	482934	525523
Net accrual operating income	39527	-60036	154110
Net nonfarm income	15088	19922	7612
Family living and taxes	48540	48920	73346
Real estate principal payments	9083	10656	16445
Available for intermediate debt	-3008	-99690	71931
Average intermediate debt	156803	236952	191976
Years to turnover interm. debt	**	**	2.7
Expense as a % of income	90 %	114 %	77 %
Interest as a % of income	9 %	12 %	7 %

** Income insufficient to meet debt servicing requirements

TABLE 5
BALANCE SHEET AT COST VALUES, 1998
Minnesota and North Dakota Farm Business Mgmt Education
(Farms sorted by Net Farm Income)

Number of Farms	Average Of All Farms		Average Of Low 20 %		Average Of High 20 %	
	173		32		28	
	Beginning	Ending	Beginning	Ending	Beginning	Ending
ASSETS						
Current Farm Assets						
Cash and checking balance	8559	12824	5333	14076	8341	16810
Prepaid expenses & supplies	21865	17156	26715	12962	35393	36070
Growing crops	167	36	-	-	-	-
Accounts receivable	18331	24102	8737	13262	47438	50377
Hedging accounts	763	807	761	2026	1861	621
Crops held for sale or feed	125193	114023	176901	124898	191943	206851
Crops under government loan	8493	6981	14753	16448	6012	9696
Market livestock held for sale	4255	2577	-	-	6744	3664
Other current assets	363	1081	338	-	79	5348
Total current farm assets	187990	179586	233537	183672	297810	329438
Intermediate Farm Assets						
Breeding livestock	2369	1849	569	641	5880	5012
Machinery and equipment	169646	171703	174354	172234	287642	296037
Other intermediate assets	108410	121055	167578	169310	150856	183335
Total intermediate farm assets	280425	294606	342501	342185	444378	484385
Long-Term Farm Assets						
Farm land	245084	260254	255423	263660	409242	466183
Buildings and improvements	31973	35118	23294	23746	74597	78182
Other long-term assets	15940	17424	14117	13904	51465	56676
Total long-term farm assets	292997	312796	292834	301311	535304	601040
Total Farm Assets	761413	786988	868872	827168	1277492	1414863
Total Nonfarm Assets	123351	135322	151391	162021	147905	151621
Total Assets	884763	922310	1020263	989189	1425398	1566484
LIABILITIES						
Current Farm Liabilities						
Accrued interest	8823	11929	8269	17517	12606	12768
Accounts payable	11421	13706	14737	29085	17929	12148
Current notes	95320	96753	138886	147021	128862	125648
Government crop loans	3413	4052	8441	12205	3661	6340
Principal due on term debt	30050	33740	38876	50101	41975	46891
Total current farm liabilities	149056	160273	209252	255974	205055	203834
Intermediate Farm Liabilities	115487	122295	167431	158927	156529	165487
Long-term Farm Liabilities	139408	161439	169094	193234	224177	286119
Total Farm Liabilities	403951	444008	545777	608136	585761	655440
Total Nonfarm Liabilities	20956	21604	39475	41815	13997	12727
Total Liabilities	424907	465612	585251	649951	599758	668168
Net Worth (farm and nonfarm)	459857	456698	435011	339238	825640	898316
Net Worth Change		-3159		-95773		72676
RATIO ANALYSIS						
Current Farm Liabilities / Assets	79 %	89 %	90 %	139 %	69 %	62 %
Curr. & Inter Farm Liab / Assets	56 %	60 %	65 %	79 %	49 %	45 %
Long Term Farm Liab. / Assets	48 %	52 %	58 %	64 %	42 %	48 %
Total Liabilities / Assets	48 %	50 %	57 %	66 %	42 %	43 %

TABLE 6
BALANCE SHEET AT MARKET VALUES, 1998
Minnesota and North Dakota Farm Business Mgmt Education
(Farms sorted by Net Farm Income)

Number of Farms	Average Of All Farms		Average Of Low 20 %		Average Of High 20 %	
	173		32		28	
	Beginning	Ending	Beginning	Ending	Beginning	Ending
ASSETS						
Current Farm Assets						
Cash and checking balance	8559	12824	5333	14076	8341	16810
Prepaid expenses & supplies	21865	17156	26715	12962	35393	36070
Growing crops	167	36	-	-	-	-
Accounts receivable	18331	24102	8737	13262	47438	50377
Hedging accounts	763	807	761	2026	1861	621
Crops held for sale or feed	125193	114023	176901	124898	191943	206851
Crops under government loan	8493	6981	14753	16448	6012	9696
Market livestock held for sale	4255	2577	-	-	6744	3664
Other current assets	363	1081	338	-	79	5348
Total current farm assets	187990	179586	233537	183672	297810	329438
Intermediate Farm Assets						
Breeding livestock	2294	1775	569	641	5880	4591
Machinery and equipment	228129	233707	254305	263354	383488	388071
Other intermediate assets	164682	178234	277281	277862	231381	266494
Total intermediate farm assets	395105	413715	532156	541857	620750	659156
Long-Term Farm Assets						
Farm land	286002	304232	299546	309665	489261	550499
Buildings and improvements	38530	42297	30538	31472	79174	84842
Other long-term assets	17691	19237	18045	17884	57558	63005
Total long-term farm assets	342222	365766	348129	359021	625993	698345
Total Farm Assets	925318	959068	1113822	1084550	1544553	1686939
Total Nonfarm Assets	130749	145043	169091	180959	149129	160580
Total Assets	1056067	1104111	1282913	1265509	1693681	1847518
LIABILITIES						
Current Farm Liabilities						
Accrued interest	8823	11929	8269	17517	12606	12768
Accounts payable	11421	13706	14737	29085	17929	12148
Current notes	95320	96753	138886	147021	128862	125648
Government crop loans	3413	4052	8441	12205	3661	6340
Principal due on term debt	30050	33740	38876	50101	41975	46891
Total current farm liabilities	149056	160273	209252	255974	205055	203834
Intermediate Farm Liabilities	115487	122295	167431	158927	156529	165487
Long-term Farm Liabilities	139408	161439	169094	193234	224177	286119
Total Farm Liabilities	403951	444008	545777	608136	585761	655440
Total Nonfarm Liabilities	20956	21604	39475	41815	13997	12727
Total Deferred Liabilities	103409	101517	141462	119108	172052	191749
Total Liabilities	528316	567129	726714	769059	771810	859917
Net Worth (farm and nonfarm)	527752	536982	556199	496450	921871	987602
Net Worth Change		9230		-59749		65731
RATIO ANALYSIS						
Current Farm Liabilities / Assets	79 %	89 %	90 %	139 %	69 %	62 %
Curr. & Inter Farm Liab. / Assets	45 %	48 %	49 %	57 %	39 %	37 %
Long Term Farm Liabilities / Assets	41 %	44 %	49 %	54 %	36 %	41 %
Total Liabilities / Assets	50 %	51 %	57 %	61 %	46 %	47 %

TABLE 7
STATEMENT OF CASH FLOWS, 1998
Minnesota and North Dakota Farm Business Mgmt Education
Red River Valley
(Farms sorted by Net Farm Income)

		Average Of All Farms	Average Of Low 20%	Average Of High 20%
Number of Farms		197	39	39
(a) Beginning cash balance (farm & nonfarm)		13840	16260	16528
CASH FROM OPERATING ACTIVITIES				
Gross cash farm income		399008	481971	653398
Net nonfarm income	(+)	15088	19922	7612
Total cash farm expense	(-)	337948	443974	530240
Apparent family living expense	(-)	37303	36207	55746
Income and social security tax	(-)	10573	9483	17601
(b) Cash from operations	(=)	28273	12230	57424
CASH FROM INVESTING ACTIVITIES				
Sale of breeding livestock		597	58	2366
Sale of machinery & equipment	(+)	3593	2959	5920
Sale of farm land	(+)	3274	59	8231
Sale of farm buildings	(+)	318	-	-
Sale of other farm assets	(+)	2428	3259	6362
Sale of nonfarm assets	(+)	3762	5946	4371
Purchase of breeding livestock	(-)	151	0	425
Purchase of machinery & equip.	(-)	25580	25131	46946
Purchase of farm land	(-)	16818	6759	48246
Purchase of farm buildings	(-)	3625	888	3783
Purchase of other farm assets	(-)	14347	3120	35201
Purchase of nonfarm assets	(-)	10829	10873	11224
(c) Cash from investing activities	(=)	-57378	-34490	-118575
CASH FROM FINANCING ACTIVITIES				
Money borrowed		267877	289351	456411
Cash gifts and inheritances	(+)	4420	973	10626
Principal payments	(-)	236790	261884	394555
Dividends paid	(-)	664	3231	-
Gifts given	(-)	143	182	141
(d) Cash from financing activities	(=)	34700	25027	72341
(e) Net change in cash balance (b+c+d)		5596	2767	11190
Ending cash balance (farm & nonfarm)		19435	19027	27718

TABLE 8
FINANCIAL GUIDELINES MEASURES, 1998
Minnesota and North Dakota Farm Business Mgmt Education
Red River Valley
(Farms sorted by Net Farm Income)

	Average For All Farms		Average For Low 20 %		Average For High 20 %	
Number of Farms	197		39		39	
LIQUIDITY	Beginning	Ending	Beginning	Ending	Beginning	Ending
Current ratio	1.32	1.18	1.21	0.72	1.50	1.71
Working capital	53371	31985	47287	-78214	121832	167188
SOLVENCY (Market)	Beginning	Ending	Beginning	Ending	Beginning	Ending
Farm debt to asset ratio	54 %	56 %	60 %	66 %	51 %	50 %
Farm equity to asset ratio	46 %	44 %	40 %	34 %	49 %	50 %
Farm debt to equity ratio	118 %	127 %	149 %	193 %	103 %	101 %
PROFITABILITY (Cost)						
Rate of return on farm assets	2.8 %		-7.2 %		8.7 %	
Rate of return on farm equity	-2.4 %		-37.7 %		10.2 %	
Operating profit margin	6.5 %		-16.2 %		19.8 %	
Net farm income	20563		-82783		125193	
REPAYMENT CAPACITY	Accrual		Accrual		Accrual	
Term debt coverage ratio	50 %		-79 %		147 %	
Capital replacement margin	-29469		-139112		39910	
EFFICIENCY						
Asset turnover rate (cost)	43.8 %		44.2 %		43.9 %	
Operating expense ratio	80.9 %		102.5 %		70.0 %	
Depreciation expense ratio	4.9 %		5.4 %		4.3 %	
Interest expense ratio	8.9 %		11.7 %		7.3 %	
Net farm income ratio	5.3 %		-19.6 %		18.4 %	

TABLE 9
CROP PRODUCTION AND MARKETING SUMMARY, 1998
Minnesota and North Dakota Farm Business Mgmt Education
Red River Valley
(Farms sorted by Net Farm Income)

	Average Of All Farms	Average Of Low 20%	Average Of High 20%
Number of Farms	197	39	39
ACREAGE SUMMARY			
Total Acres Owned	372	343	631
Total Crop Acres	1485	1740	2231
Crop Acres Owned	327	311	599
Crop Acres Cash Rented	1052	1386	1448
Crop Acres Share Rented	105	43	184
Total Pasture Acres	4	-	13
AVERAGE PRICE RECEIVED (Cash Sales Only)			
Canola per lb.	0.11	-	-
Wheat, Spring per bu.	3.29	3.18	3.31
Soybeans per bu.	5.67	5.54	5.80
Corn per bu.	1.95	2.10	-
Barley per bu.	1.79	-	1.98
Sugar Beets per ton	33.60	-	34.44
Beans, Navy per cwt.	14.66	-	-
Beans, Pinto per cwt.	16.84	-	-
Sunflowers per cwt.	11.02	-	-
AVERAGE YIELD PER ACRE			
Wheat, Spring (bu.)	41.03	35.60	44.21
Soybeans (bu.)	33.72	31.90	36.02
Custom Work (\$)	6.14	-	-
Sugar Beets (ton)	17.79	14.85	21.31
Corn (bu.)	118.98	110.00	138.82
Barley (bu.)	59.32	60.54	69.83
Beans, Pinto (cwt.)	14.65	-	17.66
Potatoes (cwt.)	157.17	-	-
Beans, Navy (cwt.)	15.33	12.74	17.67

TABLE 10
HOUSEHOLD AND PERSONAL EXPENSES, 1998
Minnesota and North Dakota Farm Business Mgmt Education
Red River Valley
(Average of all farms reporting)

	Average For All Farms
Number of Sole Proprietors	20
Average family size	3.1
FAMILY LIVING EXPENSES	
Food and meals expense	5148
Medical care and health insurance	3373
Cash donations	1092
Household supplies	4090
Clothing	1992
Personal care	3149
Child / Dependent care	438
Gifts	1593
Education	1017
Recreation	2882
Utilities (household share)	1161
Nonfarm vehicle operating expense	930
Household real estate taxes	139
Dwelling rent	8
Household repairs	1727
Nonfarm interest	826
Life insurance payments	1691
Total cash family living expense	31256
Family living from the farm	-
Total family living	31256
OTHER NONFARM EXPENDITURES	
Income taxes	11672
Furnishing & appliance purchases	101
Nonfarm vehicle purchases	2632
Nonfarm real estate purchases	-
Other nonfarm capital purchases	10518
Nonfarm savings & investments	1840
Total other nonfarm expenditures	26764
Total cash family living, investment & nonfarm capital purch	58020

TABLE 11
 OPERATOR INFORMATION & NONFARM SUMMARY, 1998
 Minnesota and North Dakota Farm Business Mgmt Education
 Red River Valley
 (Farms sorted by Net Farm Income)

	Average Of All Farms	Average Of Low 20%	Average Of High 20%
Number of Farms	197	39	39
OPERATOR INFORMATION			
Average number of operators	1.1	1.2	1.4
Average age of operators	42.9	44.1	43.3
Average number of years farming	20.2	21.9	20.8
NONFARM INCOME			
Nonfarm wages & salary	10867	11516	5387
Nonfarm business income	1993	5367	563
Nonfarm rental income	473	830	39
Nonfarm interest income	356	143	449
Nonfarm cash dividends	69	76	265
Tax refunds	507	845	263
Gifts and inheritances	4420	973	10626
Other nonfarm income	824	1146	647
Total nonfarm income	19509	20895	18238

EXPLANATORY NOTES FOR CROPS TABLES

The "Crop Enterprise Analysis" tables show the average physical production, gross return, direct costs, overhead costs, and net returns per acre. The "Net Return per Acre" is the "Gross Return per Acre" minus the direct and overhead costs. "Net Return" represents the return to the operator's and family's unpaid labor, management, and equity. It represents the return to all of the resources which are owned by the farm family and hence, not purchased or paid a wage. The last section of each crop table contains economic efficiency measures which provide useful standards or goals for the individual managers and net return per acre including government payments.

There are potentially three tables for each crop depending on the farmer's tenure on the land. The crop tables may be for (1) owned land, (2) cash rented land, and (3) share rented land. Individual farms may have data in all three tables if all three land tenure categories are represented in that farm business. When there are less than five farms with a particular crop and tenure, that table is not included in the report. Farms are classified into low 20% or high 20% on the basis of returns to overhead per acre. The classification is done separately for each table, i.e., an individual farm may be in the low 20% for one crop, the high 20% for a second, and the middle 60% for a third. When there are less than 25 total farms with any particular crop and farmer's tenure, only overall averages are presented.

Several cost items, such as "utilities," "hired labor," and "interest paid," are listed under both "direct" and "overhead" costs because some of these costs are specific to that crop whereas others are general overhead costs of the farm. For example, "Direct Lease Payments" refers to non-land inputs or resources leased and used only in that crop enterprise and not listed elsewhere under direct costs; the most common example is the lease of equipment that is crop specific. However, cost of leasing machinery that is used for the entire farm operation is listed as an overhead cost. Interest payments are likewise divided into those incurred directly for a specific crop and those that are not. "Land Rent" is listed as a separate category and is assigned as a direct cost for each crop enterprise because it is identifiable with the specific crop. In the case of double cropping, one-half of the rent is charged to each crop.

The "unit" referred to the "Value per unit" and the efficiency measure at the bottom is the unit of measurement for the principal product from this enterprise. It is "bushel" for corn, soybeans, wheat and oats. It is "ton" for corn silage and hay.

"Total direct costs per unit" and "Total listed costs per unit" are calculated by dividing "Total direct costs per acre" and "Total listed costs per acre," respectively, by "Yield per acre." "Breakeven yield per acre" is "Total listed costs per acre" minus "Miscellaneous income per acre," divided by "Value per unit."

Rounding of individual items for the report may have caused minor discrepancies with the calculated totals.

Five Year Crop History of Yields and Cost of Production Red River Valley Farm Business Management Education

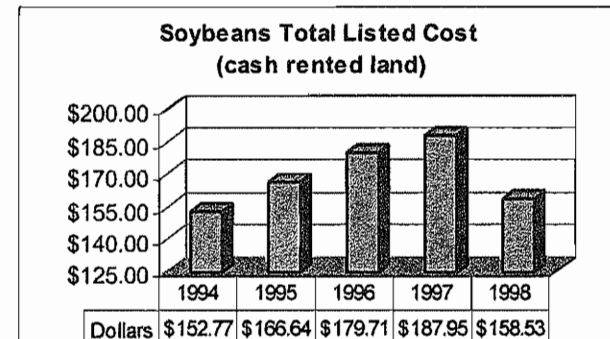
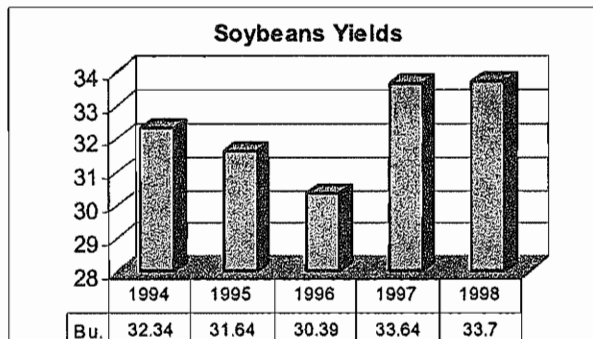
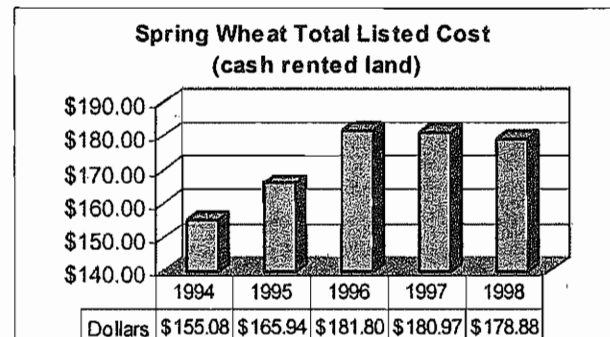
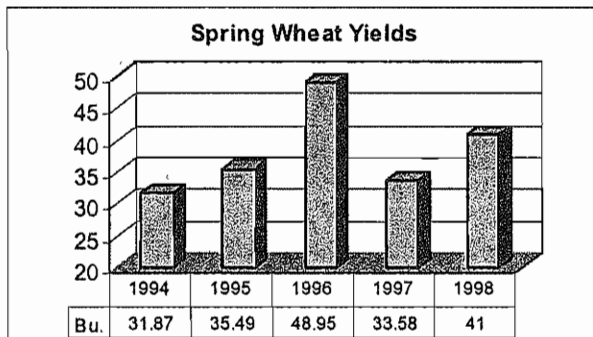
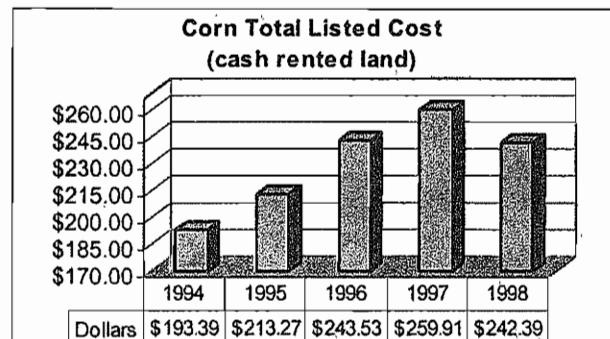
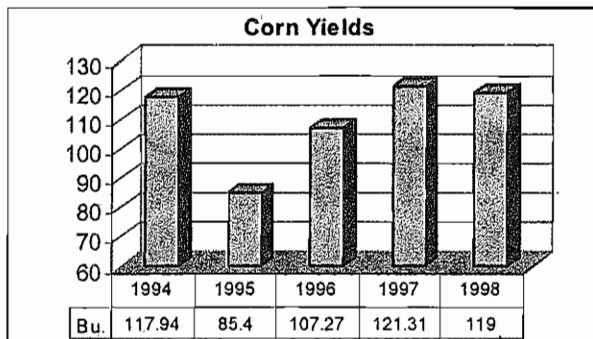
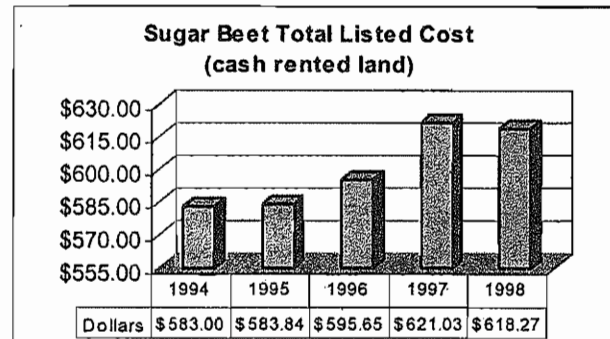
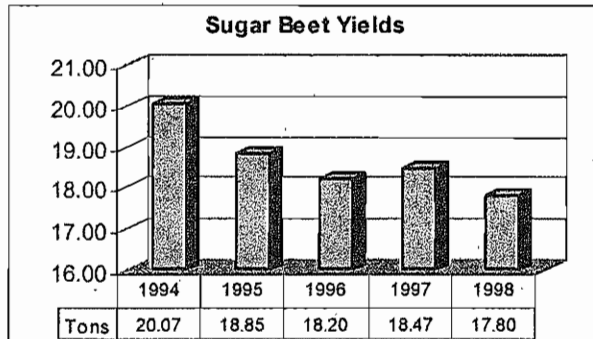


TABLE 12 - 1
Crop Enterprise Analysis, 1998
Minnesota and North Dakota Farm Business Mgmt Education
Red River Valley
(Average of all farms reporting)

BARLEY ON OWNED LAND

	Average For All Farms
Number of fields	22
Number of farms	21
Acres	69.27
Yield per acre (bushel)	65.17
Operators share of yield %	100.00
Value per bushel	1.54
Total product return per acre	100.58
Miscellaneous income per acre	19.93
Gross return per acre	120.51
Direct expenses per acre	
Seed	7.60
Fertilizer	23.01
Crop chemicals	13.16
Crop insurance	6.08
Drying fuel	0.18
Fuel & oil	4.99
Repairs	11.33
Custom hire	2.12
Hired labor	0.11
Operating interest	3.62
Miscellaneous	0.47
Total direct expenses per acre	72.68
Return over direct expenses per acre	47.84
Overhead expenses per acre	
Custom hire	0.68
Hired labor	3.85
Machinery & bldg leases	1.21
RE & pers. property taxes	11.50
Farm insurance	2.93
Utilities	1.80
Dues & professional fees	1.15
Interest	32.18
Mach & bldg depreciation	10.47
Miscellaneous	2.84
Total overhead expenses per acre	68.59
Total listed expenses per acre	141.26
Net return per acre	-20.75
Total direct expense per bushel	1.12
Total listed expense per bushel	2.17
Net return per bushel	-0.32
Breakeven yield per acre	78.61
Net return including govt. payments	4.73
Lbr & mgt charge per acre	14.29
Net return over lbr & mgt	-9.57

TABLE 12 - 2
Crop Enterprise Analysis, 1998
Minnesota and North Dakota Farm Business Mgmt Education
Red River Valley
(Farms sorted according to Return to Overhead per Acre)

BARLEY ON CASH RENTED LAND

	Average Of All Farms	Average Of Low 20%	Average Of High 20%
Number of fields	75	19	13
Number of farms	59	12	12
Acres	143.08	164.77	104.17
Yield per acre (bushel)	57.65	45.18	61.48
Operators share of yield %	100.00	100.00	100.00
Value per bushel	1.67	1.44	2.28
Total product return per acre	96.30	64.95	140.31
Miscellaneous income per acre	13.52	6.80	16.69
Gross return per acre	109.82	71.76	157.01
Direct expenses per acre			
Seed	7.69	7.24	7.89
Fertilizer	23.00	25.90	22.40
Crop chemicals	15.97	19.68	8.82
Crop insurance	5.92	7.67	4.03
Drying fuel	0.03	0.00	0.00
Fuel & oil	4.42	4.37	4.48
Repairs	9.46	10.26	9.49
Custom hire	2.13	0.29	2.80
Hired labor	0.08	0.00	0.01
Land rent	56.51	60.32	55.04
Operating interest	4.17	4.79	2.92
Miscellaneous	0.21	0.18	0.04
Total direct expenses per acre	129.59	140.70	117.91
Return over direct expenses per acre	-19.77	-68.94	39.10
Overhead expenses per acre			
Custom hire	0.65	1.37	0.03
Hired labor	4.45	3.45	3.57
Machinery & bldg leases	1.42	1.40	1.97
Farm insurance	2.23	2.48	1.58
Utilities	1.22	1.13	1.12
Dues & professional fees	1.12	0.43	0.80
Interest	4.76	4.45	7.04
Mach & bldg depreciation	8.68	7.42	8.31
Miscellaneous	2.43	1.69	1.22
Total overhead expenses per acre	26.97	23.82	25.63
Total listed expenses per acre	156.56	164.52	143.55
Net return per acre	-46.74	-92.76	13.46
Total direct expense per bushel	2.25	3.11	1.92
Total listed expense per bushel	2.72	3.64	2.33
Net return per bushel	-0.81	-2.05	0.22
Breakeven yield per acre	85.63	109.70	55.58
Net return including govt. payments	-23.22	-64.20	34.68
Lbr & mgt charge per acre	11.52	11.86	12.71
Net return over lbr & mgt	-34.74	-76.06	21.97

TABLE 12 - 3
Crop Enterprise Analysis, 1998
Minnesota and North Dakota Farm Business Mgmt Education
Red River Valley
(Average of all farms reporting)

BARLEY ON SHARE RENTED LAND

	Average For All Farms
Number of fields	7
Number of farms	6
Acres	127.79
Yield per acre (bushel)	69.35
Operators share of yield %	67.60
Value per bushel	1.99
Total product return per acre	93.34
Miscellaneous income per acre	5.46
Gross return per acre	98.80
Direct expenses per acre	
Seed	7.26
Fertilizer	23.85
Crop chemicals	11.24
Crop insurance	5.48
Fuel & oil	6.51
Repairs	11.86
Custom hire	2.29
Operating interest	4.27
Miscellaneous	0.04
Total direct expenses per acre	72.81
Return over direct expenses per acre	25.99
Overhead expenses per acre	
Custom hire	0.02
Hired labor	5.51
Machinery & bldg leases	1.13
Farm insurance	2.53
Utilities	2.62
Dues & professional fees	0.50
Interest	3.43
Mach & bldg depreciation	10.91
Miscellaneous	1.01
Total overhead expenses per acre	27.67
Total listed expenses per acre	100.48
Net return per acre	-1.68
Total direct expense per bushel	1.55
Total listed expense per bushel	2.14
Net return per bushel	-0.04
Breakeven yield per acre	70.70
Net return including govt. payments	10.31
Lbr & mgt charge per acre	12.32
Net return over lbr & mgt	-2.01

TABLE 12 - 4
Crop Enterprise Analysis, 1998
Minnesota and North Dakota Farm Business Mgmt Education
Red River Valley
(Average of all farms reporting)

BLACK TURTLE BEANS ON CASH RENTED LAND

	Average For All Farms
Number of fields	6
Number of farms	6
Acres	107.02
Yield per acre (cwt)	16.39
Operators share of yield %	100.00
Value per cwt	20.62
Total product return per acre	338.08
Miscellaneous income per acre	0.00
Gross return per acre	338.08
Direct expenses per acre	
Seed	33.08
Fertilizer	20.93
Crop chemicals	32.03
Crop insurance	16.84
Fuel & oil	8.20
Repairs	11.07
Custom hire	4.99
Land rent	67.32
Machinery & bldg leases	0.61
Operating interest	6.59
Miscellaneous	0.60
Total direct expenses per acre	202.26
Return over direct expenses per acre	135.82
Overhead expenses per acre	
Custom hire	0.26
Hired labor	9.93
Machinery & bldg leases	2.26
Farm insurance	5.93
Utilities	4.32
Dues & professional fees	1.17
Interest	4.66
Mach & bldg depreciation	23.25
Miscellaneous	6.06
Total overhead expenses per acre	57.83
Total listed expenses per acre	260.09
Net return per acre	77.99
Total direct expense per cwt	12.34
Total listed expense per cwt	15.87
Net return per cwt	4.76
Breakeven yield per acre	12.61
Lbr & mgt charge per acre	17.72
Net return over lbr & mgt	60.27

TABLE 12 - 5
Crop Enterprise Analysis, 1998
Minnesota and North Dakota Farm Business Mgmt Education
Red River Valley
(Average of all farms reporting)

NAVY BEANS ON OWNED LAND

	Average For All Farms
Number of fields	8
Number of farms	8
Acres	49.58
Yield per acre (cwt)	13.98
Operators share of yield %	100.00
Value per cwt	16.62
Total product return per acre	232.32
Miscellaneous income per acre	27.29
Gross return per acre	259.61
Direct expenses per acre	
Seed	30.04
Fertilizer	17.35
Crop chemicals	29.70
Crop insurance	15.53
Fuel & oil	6.89
Repairs	13.74
Custom hire	5.24
Operating interest	5.73
Miscellaneous	2.56
Total direct expenses per acre	126.76
Return over direct expenses per acre	132.85
Overhead expenses per acre	
Custom hire	1.61
Hired labor	7.94
Machinery & bldg leases	6.03
RE & pers. property taxes	12.47
Farm insurance	2.96
Utilities	2.65
Dues & professional fees	2.00
Interest	48.88
Mach & bldg depreciation	7.69
Miscellaneous	2.07
Total overhead expenses per acre	94.30
Total listed expenses per acre	221.06
Net return per acre	38.55
Total direct expense per cwt	9.07
Total listed expense per cwt	15.82
Net return per cwt	2.76
Breakeven yield per acre	11.66
Lbr & mgt charge per acre	16.45
Net return over lbr & mgt	22.10

TABLE 12 - 6
 Crop Enterprise Analysis, 1998
 Minnesota and North Dakota Farm Business Mgmt Education
 Red River Valley
 (Average of all farms reporting)
 NAVY BEANS ON CASH RENTED LAND

	Average For All Farms
Number of fields	20
Number of farms	18
Acres	99.17
Yield per acre (cwt)	15.60
Operators share of yield %	100.00
Value per cwt	16.90
Total product return per acre	263.67
Miscellaneous income per acre	20.05
Gross return per acre	283.72
Direct expenses per acre	
Seed	28.47
Fertilizer	18.78
Crop chemicals	26.25
Crop insurance	18.16
Fuel & oil	7.51
Repairs	15.04
Custom hire	4.12
Hired labor	0.27
Land rent	62.54
Machinery & bldg leases	0.30
Operating interest	6.56
Miscellaneous	0.80
Total direct expenses per acre	188.80
Return over direct expenses per acre	94.91
Overhead expenses per acre	
Custom hire	0.31
Hired labor	9.32
Machinery & bldg leases	4.67
Farm insurance	4.35
Utilities	3.30
Dues & professional fees	2.60
Interest	5.68
Mach & bldg depreciation	14.97
Miscellaneous	2.80
Total overhead expenses per acre	48.00
Total listed expenses per acre	236.80
Net return per acre	46.91
Total direct expense per cwt	12.10
Total listed expense per cwt	15.18
Net return per cwt	3.01
Breakeven yield per acre	12.83
Lbr & mgt charge per acre	21.40
Net return over lbr & mgt	25.51

TABLE 12 - 7
Crop Enterprise Analysis, 1998
Minnesota and North Dakota Farm Business Mgmt Education
Red River Valley
(Average of all farms reporting)

PINTO BEANS ON OWNED LAND

	Average For All Farms
Number of fields	8
Number of farms	7
Acres	120.65
Yield per acre (cwt)	14.62
Operators share of yield %	100.00
Value per cwt	16.25
Total product return per acre	237.62
Miscellaneous income per acre	43.30
Gross return per acre	280.92
Direct expenses per acre	
Seed	26.59
Fertilizer	13.67
Crop chemicals	34.54
Crop insurance	13.16
Fuel & oil	7.25
Repairs	12.82
Operating interest	5.41
Miscellaneous	0.43
Total direct expenses per acre	114.65
Return over direct expenses per acre	166.27
Overhead expenses per acre	
Custom hire	1.38
Hired labor	11.59
Machinery & bldg leases	3.27
RE & pers. property taxes	12.94
Farm insurance	5.40
Utilities	2.85
Dues & professional fees	1.95
Interest	38.14
Mach & bldg depreciation	9.52
Miscellaneous	1.50
Total overhead expenses per acre	88.54
Total listed expenses per acre	203.20
Net return per acre	77.73
Total direct expense per cwt	7.84
Total listed expense per cwt	13.90
Net return per cwt	5.32
Breakeven yield per acre	9.84
Lbr & mgt charge per acre	15.10
Net return over lbr & mgt	62.63

TABLE 12 - 8
Crop Enterprise Analysis, 1998
Minnesota and North Dakota Farm Business Mgmt Education
Red River Valley
(Average of all farms reporting)

PINTO BEANS ON CASH RENTED LAND

	Average For All Farms
Number of fields	21
Number of farms	16
Acres	144.57
Yield per acre (cwt)	13.65
Operators share of yield %	100.00
Value per cwt	16.79
Total product return per acre	229.19
Miscellaneous income per acre	43.70
Gross return per acre	272.89
Direct expenses per acre	
Seed	27.48
Fertilizer	15.16
Crop chemicals	33.67
Crop insurance	12.29
Fuel & oil	7.13
Repairs	10.45
Custom hire	4.08
Land rent	60.34
Machinery & bldg leases	2.78
Operating interest	7.47
Miscellaneous	0.17
Total direct expenses per acre	181.05
Return over direct expenses per acre	91.84
Overhead expenses per acre	
Custom hire	2.49
Hired labor	11.65
Machinery & bldg leases	1.62
Farm insurance	5.58
Utilities	2.78
Dues & professional fees	1.65
Interest	4.09
Mach & bldg depreciation	13.52
Miscellaneous	2.54
Total overhead expenses per acre	45.92
Total listed expenses per acre	226.97
Net return per acre	45.92
Total direct expense per cwt	13.27
Total listed expense per cwt	16.63
Net return per cwt	3.37
Breakeven yield per acre	10.91
Lbr & mgt charge per acre	18.87
Net return over lbr & mgt	27.06

TABLE 12 - 9
Crop Enterprise Analysis, 1998
Minnesota and North Dakota Farm Business Mgmt Education
Red River Valley
(Average of all farms reporting)

CANOLA ON CASH RENTED LAND

	Average For All Farms
Number of fields	8
Number of farms	6
Acres	183.48
Yield per acre (lb)	1510.19
Operators share of yield %	100.00
Value per lb	0.12
Total product return per acre	175.51
Miscellaneous income per acre	16.60
Gross return per acre	192.10
Direct expenses per acre	
Seed	20.96
Fertilizer	22.02
Crop chemicals	16.82
Crop insurance	10.46
Fuel & oil	5.45
Repairs	8.28
Custom hire	0.42
Land rent	44.36
Operating interest	3.24
Miscellaneous	0.33
Total direct expenses per acre	132.33
Return over direct expenses per acre	59.78
Overhead expenses per acre	
Custom hire	9.02
Hired labor	5.70
Farm insurance	2.65
Utilities	1.42
Dues & professional fees	0.55
Interest	3.72
Mach & bldg depreciation	5.83
Miscellaneous	2.79
Total overhead expenses per acre	31.68
Total listed expenses per acre	164.01
Net return per acre	28.10
Total direct expense per lb	0.09
Total listed expense per lb	0.11
Net return per lb	0.02
Breakeven yield per acre	1268.41
Net return including govt. payments	53.41
Lbr & mgt charge per acre	12.02
Net return over lbr & mgt	41.39

TABLE 12 - 10,
Crop Enterprise Analysis, 1998
Minnesota and North Dakota Farm Business Mgmt Education
Red River Valley
(Farms sorted according to Return to Overhead per Acre)

CORN ON OWNED LAND

	Average Of All Farms	Average Of Low 20%	Average Of High 20%
Number of fields	36	8	7
Number of farms	32	6	6
Acres	106.99	122.41	72.26
Yield per acre (bushel)	114.25	86.68	146.21
Operators share of yield %	100.00	100.00	100.00
Value per bushel	1.76	1.64	1.76
Total product return per acre	201.32	142.45	257.42
Miscellaneous income per acre	13.36	3.84	12.80
Gross return per acre	214.68	146.30	270.22
Direct expenses per acre			
Seed	30.63	33.65	29.40
Fertilizer	32.72	36.88	28.77
Crop chemicals	20.08	16.91	20.82
Crop insurance	7.71	6.43	8.72
Drying fuel	4.31	8.22	1.64
Fuel & oil	8.20	6.87	8.24
Repairs	15.42	19.85	13.66
Custom hire	2.46	0.69	1.57
Operating interest	7.65	12.29	5.27
Miscellaneous	2.69	0.71	0.47
Total direct expenses per acre	131.86	142.50	118.55
Return over direct expenses per acre	82.82	3.79	151.68
Overhead expenses per acre			
Custom hire	1.56	3.30	0.73
Hired labor	11.12	8.21	7.88
Machinery & bldg leases	2.20	2.46	4.35
RE & pers. property taxes	11.02	11.08	11.31
Farm insurance	4.34	3.28	3.72
Utilities	2.65	3.50	2.18
Dues & professional fees	2.02	1.49	1.94
Interest	39.78	31.70	42.36
Mach & bldg depreciation	13.47	16.33	11.68
Miscellaneous	4.37	7.42	2.11
Total overhead expenses per acre	92.51	88.75	88.25
Total listed expenses per acre	224.37	231.26	206.80
Net return per acre	-9.69	-84.96	63.42
Total direct expense per bushel	1.15	1.64	0.81
Total listed expense per bushel	1.96	2.67	1.41
Net return per bushel	-0.08	-0.98	0.43
Breakeven yield per acre	119.75	138.38	110.18
Net return including govt. payments	13.54	-60.20	87.00
Lbr & mgt charge per acre	17.31	23.74	15.24
Net return over lbr & mgt	-3.78	-83.95	71.76

TABLE 12 - 11
Crop Enterprise Analysis, 1998
Minnesota and North Dakota Farm Business Mgmt Education
Red River Valley
(Farms sorted according to Return to Overhead per Acre)

CORN ON CASH RENTED LAND

	Average Of All Farms	Average Of Low 20%	Average Of High 20%
Number of fields	87	15	14
Number of farms	66	13	13
Acres	157.20	142.81	263.84
Yield per acre (bushel)	114.30	78.17	142.45
Operators share of yield %	100.00	100.00	100.00
Value per bushel	1.85	1.67	2.06
Total product return per acre	211.26	130.44	293.59
Miscellaneous income per acre	20.98	13.45	22.91
Gross return per acre	232.24	143.89	316.51
Direct expenses per acre			
Seed	32.42	32.34	32.72
Fertilizer	32.98	33.81	33.51
Crop chemicals	22.27	25.07	24.94
Crop insurance	8.13	7.41	6.53
Drying fuel	4.32	1.65	5.26
Fuel & oil	6.94	6.50	7.05
Repairs	15.16	17.36	16.25
Custom hire	3.55	4.81	2.03
Land rent	62.34	63.95	64.59
Machinery & bldg leases	0.30	0.10	0.00
Operating interest	9.11	8.96	8.92
Miscellaneous	0.65	0.11	1.26
Total direct expenses per acre	198.16	202.08	203.07
Return over direct expenses per acre	34.08	-58.19	113.44
Overhead expenses per acre			
Custom hire	1.83	1.29	2.38
Hired labor	9.24	4.00	15.31
Machinery & bldg leases	3.37	4.63	2.52
Farm insurance	3.27	2.53	4.83
Utilities	2.65	2.43	2.59
Dues & professional fees	1.81	0.40	1.31
Interest	6.35	9.26	4.61
Mach & bldg depreciation	12.91	11.68	11.11
Miscellaneous	2.80	3.77	1.83
Total overhead expenses per acre	44.23	39.99	46.49
Total listed expenses per acre	242.39	242.07	249.55
Net return per acre	-10.15	-98.18	66.96
Total direct expense per bushel	1.73	2.59	1.43
Total listed expense per bushel	2.12	3.10	1.75
Net return per bushel	-0.09	-1.26	0.47
Breakeven yield per acre	119.79	137.01	109.96
Net return including govt. payments	11.58	-75.24	85.09
Lbr & mgt charge per acre	17.97	21.90	15.20
Net return over lbr & mgt	-6.39	-97.14	69.89

TABLE 12 - 12
Crop Enterprise Analysis, 1998
Minnesota and North Dakota Farm Business Mgmt Education
Red River Valley
(Average of all farms reporting)

CORN ON SHARE RENTED LAND

	Average For All Farms
Number of fields	7
Number of farms	6
Acres	130.17
Yield per acre (bushel)	103.81
Operators share of yield %	67.37
Value per bushel	1.79
Total product return per acre	125.05
Miscellaneous income per acre	7.19
Gross return per acre	132.24
Direct expenses per acre	
Seed	31.59
Fertilizer	39.97
Crop chemicals	16.94
Crop insurance	7.00
Drying fuel	3.83
Fuel & oil	7.17
Repairs	14.49
Custom hire	3.08
Operating interest	4.19
Miscellaneous	0.45
Total direct expenses per acre	128.71
Return over direct expenses per acre	3.53
Overhead expenses per acre	
Hired labor	9.70
Machinery & bldg leases	3.89
Farm insurance	2.14
Utilities	1.41
Dues & professional fees	0.96
Interest	0.93
Mach & bldg depreciation	11.59
Miscellaneous	3.12
Total overhead expenses per acre	33.73
Total listed expenses per acre	162.44
Net return per acre	-30.20
Total direct expense per bushel	1.84
Total listed expense per bushel	2.32
Net return per bushel	-0.43
Breakeven yield per acre	128.79
Net return including govt. payments	-16.27
Lbr & mgt charge per acre	10.48
Net return over lbr & mgt	-26.75

TABLE 12 - 13
Crop Enterprise Analysis, 1998
Minnesota and North Dakota Farm Business Mgmt Education
Red River Valley
(Average of all farms reporting)

ALFALFA HAY ON OWNED LAND

	Average For All Farms
Number of fields	9
Number of farms	9
Acres	50.89
Yield per acre (ton)	3.89
Operators share of yield %	100.00
Value per ton	67.47
Total product return per acre	262.16
Miscellaneous income per acre	0.00
Gross return per acre	262.16
Direct expenses per acre	
Seed	5.65
Fertilizer	15.59
Crop chemicals	2.27
Fuel & oil	13.32
Repairs	39.72
Custom hire	1.70
Operating interest	8.93
Total direct expenses per acre	87.19
Return over direct expenses per acre	174.97
Overhead expenses per acre	
Custom hire	1.89
Hired labor	8.20
Machinery & bldg leases	1.09
RE & pers. property taxes	9.66
Farm insurance	3.78
Utilities	1.98
Dues & professional fees	2.71
Interest	29.56
Mach & bldg depreciation	25.20
Miscellaneous	5.36
Total overhead expenses per acre	89.43
Total listed expenses per acre	176.62
Net return per acre	85.54
Total direct expense per ton	22.44
Total listed expense per ton	45.46
Net return per ton	22.02
Breakeven yield per acre	2.62
Net return including govt. payments	95.16
Lbr & mgt charge per acre	17.01
Net return over lbr & mgt	78.15

TABLE 12 - 14
 Crop Enterprise Analysis, 1998
 Minnesota and North Dakota Farm Business Mgmt Education
 Red River Valley
 (Average of all farms reporting)
 ALFALFA HAY ON CASH RENTED LAND

	Average For All Farms
Number of fields	13
Number of farms	13
Acres	106.55
Yield per acre (ton)	3.20
Operators share of yield %	100.00
Value per ton	61.82
Total product return per acre	197.63
Miscellaneous income per acre	0.00
Gross return per acre	197.63
Direct expenses per acre	
Seed	5.77
Fertilizer	5.56
Crop chemicals	1.19
Fuel & oil	6.14
Repairs	12.04
Custom hire	9.05
Land rent	66.06
Operating interest	6.47
Miscellaneous	5.18
Total direct expenses per acre	117.47
Return over direct expenses per acre	80.16
Overhead expenses per acre	
Custom hire	0.62
Hired labor	7.53
Machinery & bldg leases	3.53
Farm insurance	2.00
Utilities	2.23
Dues & professional fees	1.42
Interest	4.38
Mach & bldg depreciation	14.72
Miscellaneous	4.02
Total overhead expenses per acre	40.46
Total listed expenses per acre	157.93
Net return per acre	39.70
Total direct expense per ton	36.75
Total listed expense per ton	49.40
Net return per ton	12.42
Breakeven yield per acre	2.55
Net return including govt. payments	43.71
Lbr & mgt charge per acre	15.17
Net return over lbr & mgt	28.54

TABLE 12 - 15
Crop Enterprise Analysis, 1998
Minnesota and North Dakota Farm Business Mgmt Education
Red River Valley
(Farms sorted according to Return to Overhead per Acre)

SOYBEANS ON OWNED LAND

	Average Of All Farms	Average Of Low 20%	Average Of High 20%
Number of fields	113	22	25
Number of farms	88	18	18
Acres	121.30	106.38	118.71
Yield per acre (bushel)	32.56	25.96	38.01
Operators share of yield %	100.00	100.00	100.00
Value per bushel	5.12	5.04	5.20
Total product return per acre	166.59	130.81	197.79
Miscellaneous income per acre	22.35	13.48	35.73
Gross return per acre	188.94	144.29	233.52
Direct expenses per acre			
Seed	15.99	15.88	14.17
Fertilizer	5.69	6.84	6.82
Crop chemicals	26.03	30.55	22.58
Crop insurance	8.64	8.17	8.73
Drying fuel	0.04	0.07	0.00
Fuel & oil	7.22	6.47	7.55
Repairs	13.07	14.82	13.62
Custom hire	2.42	2.09	2.20
Hired labor	0.09	0.00	0.27
Operating interest	4.77	5.91	3.10
Miscellaneous	0.54	1.17	0.35
Total direct expenses per acre	84.47	91.98	79.39
Return over direct expenses per acre	104.47	52.31	154.13
Overhead expenses per acre			
Custom hire	0.90	1.53	0.84
Hired labor	5.93	4.76	5.75
Machinery & bldg leases	2.02	2.15	1.35
RE & pers. property taxes	11.53	13.84	10.52
Farm insurance	3.19	2.67	2.98
Utilities	2.13	2.90	2.16
Dues & professional fees	1.50	2.01	1.52
Interest	37.73	34.70	28.06
Mach & bldg depreciation	11.92	10.54	14.10
Miscellaneous	3.18	3.78	2.95
Total overhead expenses per acre	80.04	78.87	70.22
Total listed expenses per acre	164.51	170.85	149.61
Net return per acre	24.43	-26.56	83.91
Total direct expense per bushel	2.59	3.54	2.09
Total listed expense per bushel	5.05	6.58	3.94
Net return per bushel	0.75	-1.02	2.21
Breakeven yield per acre	27.79	31.23	21.89
Net return including govt. payments	47.59	-2.00	108.63
Lbr & mgt charge per acre	17.25	20.36	15.31
Net return over lbr & mgt	30.34	-22.36	93.32

TABLE 12 - 16
Crop Enterprise Analysis, 1998
Minnesota and North Dakota Farm Business Mgmt Education
Red River Valley
(Farms sorted according to Return to Overhead per Acre)

SOYBEANS ON CASH RENTED LAND

	Average Of All Farms	Average Of Low 20%	Average Of High 20%
Number of fields	273	57	64
Number of farms	157	31	31
Acres	215.31	152.24	178.60
Yield per acre (bushel)	33.22	28.33	37.07
Operators share of yield %	100.00	100.00	100.00
Value per bushel	5.11	5.00	5.16
Total product return per acre	169.68	141.75	191.29
Miscellaneous income per acre	18.59	13.72	26.39
Gross return per acre	188.27	155.47	217.68
Direct expenses per acre			
Seed	16.22	16.82	14.84
Fertilizer	5.46	7.08	6.75
Crop chemicals	26.87	31.94	21.56
Crop insurance	9.17	10.03	8.04
Drying fuel	0.03	0.00	0.06
Fuel & oil	5.68	5.05	6.39
Repairs	11.86	11.70	13.09
Custom hire	2.17	3.40	0.98
Hired labor	0.14	0.28	0.06
Land rent	59.12	65.13	50.02
Operating interest	5.49	6.95	4.06
Miscellaneous	0.49	0.17	0.62
Total direct expenses per acre	142.70	158.53	126.46
Return over direct expenses per acre	45.57	-3.06	91.22
Overhead expenses per acre			
Custom hire	1.17	1.09	1.37
Hired labor	6.20	5.41	6.46
Machinery & bldg leases	2.97	4.50	1.64
Farm insurance	3.08	2.84	3.63
Utilities	1.92	1.86	2.63
Dues & professional fees	1.25	1.51	1.01
Interest	4.78	5.68	4.07
Mach & bldg depreciation	10.40	8.22	13.98
Miscellaneous	2.85	3.82	3.23
Total overhead expenses per acre	34.62	34.93	38.02
Total listed expenses per acre	177.33	193.45	164.48
Net return per acre	10.94	-37.99	53.20
Total direct expense per bushel	4.30	5.60	3.41
Total listed expense per bushel	5.34	6.83	4.44
Net return per bushel	0.33	-1.34	1.44
Breakeven yield per acre	31.08	35.92	26.76
Net return including govt. payments	34.79	-12.49	77.12
Lbr & mgt charge per acre	15.04	16.48	16.38
Net return over lbr & mgt	19.74	-28.97	60.74

TABLE 12 - 17
Crop Enterprise Analysis, 1998
Minnesota and North Dakota Farm Business Mgmt Education
Red River Valley
(Farms sorted according to Return to Overhead per Acre)

SOYBEANS ON SHARE RENTED LAND

	Average Of All Farms	Average Of Low 20%	Average Of High 20%
Number of fields	55	8	8
Number of farms	31	6	6
Acres	146.21	105.55	93.65
Yield per acre (bushel)	33.38	31.81	36.53
Operators share of yield %	64.21	60.45	67.88
Value per bushel	5.11	4.95	5.07
Total product return per acre	109.01	93.24	124.52
Miscellaneous income per acre	10.69	7.07	16.34
Gross return per acre	119.70	100.31	140.86
Direct expenses per acre			
Seed	13.09	14.16	14.03
Fertilizer	1.23	7.03	1.25
Crop chemicals	23.36	27.38	19.50
Crop insurance	8.77	7.22	11.60
Fuel & oil	6.85	7.05	5.67
Repairs	13.14	14.40	13.05
Custom hire	1.85	2.22	0.00
Operating interest	4.22	6.91	3.82
Miscellaneous	0.74	0.00	0.00
Total direct expenses per acre	73.25	86.36	68.92
Return over direct expenses per acre	46.45	13.95	71.94
Overhead expenses per acre			
Custom hire	0.36	0.60	0.73
Hired labor	7.49	4.01	4.97
Machinery & bldg leases	3.44	4.29	1.60
Farm insurance	2.23	2.71	2.15
Utilities	2.22	1.70	1.81
Dues & professional fees	1.39	0.64	0.81
Interest	3.12	5.04	4.70
Mach & bldg depreciation	11.48	5.83	15.10
Miscellaneous	2.59	4.03	3.25
Total overhead expenses per acre	34.32	28.85	35.12
Total listed expenses per acre	107.57	115.21	104.04
Net return per acre	12.13	-14.90	36.82
Total direct expense per bushel	3.42	4.49	2.78
Total listed expense per bushel	5.02	5.99	4.20
Net return per bushel	0.57	-0.78	1.48
Breakeven yield per acre	29.55	36.12	25.47
Net return including govt. payments	23.54	-1.37	50.51
Lbr & mgt charge per acre	14.77	11.73	18.25
Net return over lbr & mgt	8.77	-13.10	32.26

TABLE 12 - 18
Crop Enterprise Analysis, 1998
Minnesota and North Dakota Farm Business Mgmt Education
Red River Valley
(Farms sorted according to Return to Overhead per Acre)

SUGAR BEETS ON OWNED LAND

	Average Of All Farms	Average Of Low 20%	Average Of High 20%
Number of fields	75	18	12
Number of farms	53	11	11
Acres	89.42	48.54	84.34
Yield per acre (ton)	19.63	11.85	22.92
Operators share of yield %	100.00	100.00	100.00
Value per ton	33.06	31.96	32.95
Total product return per acre	648.91	378.65	755.37
Miscellaneous income per acre	29.25	68.70	37.00
Gross return per acre	678.16	447.35	792.37
Direct expenses per acre			
Seed	39.75	43.19	38.13
Fertilizer	31.80	34.76	27.68
Crop chemicals	106.97	105.44	105.22
Crop insurance	13.17	15.27	10.67
Fuel & oil	22.51	25.94	22.69
Repairs	48.46	51.37	24.32
Custom hire	12.88	5.59	13.14
Hired labor	17.18	29.48	22.34
Sugar beet stock	59.71	95.08	53.79
Operating interest	20.53	20.75	14.29
Miscellaneous	2.43	2.71	0.51
Total direct expenses per acre	375.39	429.57	332.78
Return over direct expenses per acre	302.77	17.78	459.59
Overhead expenses per acre			
Custom hire	3.00	2.16	4.59
Hired labor	29.46	22.26	17.44
Machinery & bldg leases	8.32	14.05	15.21
RE & pers. property taxes	13.77	9.91	11.32
Farm insurance	4.95	6.97	3.24
Utilities	7.53	5.51	5.89
Dues & professional fees	5.25	5.74	4.02
Interest	63.78	46.71	72.12
Mach & bldg depreciation	43.59	44.96	39.07
Miscellaneous	11.83	7.65	11.11
Total overhead expenses per acre	191.47	165.93	183.99
Total listed expenses per acre	566.86	595.50	516.78
Net return per acre	111.30	-148.15	275.59
Total direct expense per ton	19.13	36.26	14.52
Total listed expense per ton	28.88	50.27	22.55
Net return per ton	5.67	-12.51	12.02
Breakeven yield per acre	16.26	16.48	14.56
Lbr & mgt charge per acre	58.77	59.29	55.19
Net return over lbr & mgt	52.53	-207.44	220.40

TABLE 12 - 19
Crop Enterprise Analysis, 1998
Minnesota and North Dakota Farm Business Mgmt Education
Red River Valley
(Farms sorted according to Return to Overhead per Acre)

SUGAR BEETS ON CASH RENTED LAND

	Average Of All Farms	Average Of Low 20%	Average Of High 20%
Number of fields	159	25	37
Number of farms	96	19	19
Acres	166.56	216.81	167.27
Yield per acre (ton)	17.10	12.50	23.74
Operators share of yield %	100.00	100.00	100.00
Value per ton	33.28	29.36	35.88
Total product return per acre	569.00	367.04	851.76
Miscellaneous income per acre	66.20	123.22	11.49
Gross return per acre	635.20	490.26	863.25
Direct expenses per acre			
Seed	42.67	45.30	41.75
Fertilizer	32.00	31.08	31.27
Crop chemicals	113.47	110.97	121.07
Crop insurance	14.48	16.11	13.88
Fuel & oil	20.71	18.66	21.56
Repairs	45.13	51.24	29.94
Custom hire	13.92	6.21	29.61
Hired labor	17.30	14.80	21.83
Land rent	72.34	75.34	72.74
Machinery & bldg leases	1.57	1.68	0.40
Sugar beet stock	76.84	98.42	41.64
Operating interest	21.33	31.18	11.16
Miscellaneous	1.61	0.34	1.12
Total direct expenses per acre	473.38	501.32	437.98
Return over direct expenses per acre	161.83	-11.06	425.27
Overhead expenses per acre			
Custom hire	5.50	6.82	2.11
Hired labor	32.69	39.45	35.94
Machinery & bldg leases	11.88	10.51	13.87
Farm insurance	4.93	4.98	6.89
Utilities	5.74	5.58	4.72
Dues & professional fees	4.27	3.37	7.34
Interest	30.45	24.89	33.08
Mach & bldg depreciation	38.04	30.41	50.05
Miscellaneous	11.40	5.99	15.29
Total overhead expenses per acre	144.89	131.99	169.29
Total listed expenses per acre	618.27	633.32	607.27
Net return per acre	16.94	-143.06	255.97
Total direct expense per ton	27.69	40.10	18.45
Total listed expense per ton	36.16	50.66	25.58
Net return per ton	0.99	-11.44	10.78
Breakeven yield per acre	16.59	17.37	16.61
Lbr & mgt charge per acre	56.88	51.20	61.59
Net return over lbr & mgt	-39.94	-194.26	194.38

TABLE 12 - 20
Crop Enterprise Analysis, 1998
Minnesota and North Dakota Farm Business Mgmt Education
Red River Valley
(Average of all farms reporting)

SUGAR BEETS ON SHARE RENTED LAND

	Average For All Farms
Number of fields	14
Number of farms	6
Acres	85.61
Yield per acre (ton)	21.50
Operators share of yield %	76.05
Value per ton	34.43
Total product return per acre	564.70
Miscellaneous income per acre	0.00
Gross return per acre	564.70
Direct expenses per acre	
Seed	36.75
Fertilizer	28.78
Crop chemicals	121.06
Crop insurance	14.38
Fuel & oil	19.51
Repairs	27.98
Custom hire	8.25
Hired labor	18.83
Machinery & bldg leases	8.64
Marketing	48.51
Operating interest	17.01
Miscellaneous	0.55
Total direct expenses per acre	350.24
Return over direct expenses per acre	214.45
Overhead expenses per acre	
Custom hire	31.46
Hired labor	27.46
Machinery & bldg leases	25.05
Farm insurance	4.73
Utilities	7.72
Dues & professional fees	3.25
Interest	13.28
Mach & bldg depreciation	32.00
Miscellaneous	15.33
Total overhead expenses per acre	160.27
Total listed expenses per acre	510.52
Net return per acre	54.18
Total direct expense per ton	21.42
Total listed expense per ton	31.23
Net return per ton	3.31
Breakeven yield per acre	19.50
Lbr & mgt charge per acre	52.78
Net return over lbr & mgt	1.40

TABLE 12 - 21
Crop Enterprise Analysis, 1998
Minnesota and North Dakota Farm Business Mgmt Education
Red River Valley
(Average of all farms reporting)

SUNFLOWERS ON CASH RENTED LAND

	Average For All Farms
Number of fields	8
Number of farms	8
Acres	147.29
Yield per acre (cwt)	16.95
Operators share of yield %	100.00
Value per cwt	11.33
Total product return per acre	192.03
Miscellaneous income per acre	4.34
Gross return per acre	196.37
Direct expenses per acre	
Seed	17.16
Fertilizer	22.16
Crop chemicals	10.72
Crop insurance	6.34
Drying fuel	1.55
Fuel & oil	5.92
Repairs	12.66
Custom hire	2.83
Land rent	54.78
Utilities	0.21
Operating interest	2.06
Miscellaneous	0.39
Total direct expenses per acre	136.79
Return over direct expenses per acre	59.59
Overhead expenses per acre	
Custom hire	0.54
Hired labor	4.51
Machinery & bldg leases	2.03
Farm insurance	2.45
Utilities	2.14
Dues & professional fees	0.83
Interest	1.69
Mach & bldg depreciation	13.14
Miscellaneous	3.11
Total overhead expenses per acre	30.45
Total listed expenses per acre	167.24
Net return per acre	29.14
Total direct expense per cwt	8.07
Total listed expense per cwt	9.86
Net return per cwt	1.72
Breakeven yield per acre	14.38
Net return including govt. payments	51.42
Lbr & mgt charge per acre	16.99
Net return over lbr & mgt	34.42

TABLE 12 - 22
Crop Enterprise Analysis, 1998
Minnesota and North Dakota Farm Business Mgmt Education
Red River Valley
(Average of all farms reporting)

CONFECTIONARY SUNFLOWERS ON CASH RENTED LAND

	Average For All Farms
Number of fields	5
Number of farms	5
Acres	173.94
Yield per acre (cwt)	16.02
Operators share of yield %	100.00
Value per cwt	14.33
Total product return per acre	229.67
Miscellaneous income per acre	0.00
Gross return per acre	229.67
Direct expenses per acre	
Seed	18.16
Fertilizer	17.20
Crop chemicals	19.17
Crop insurance	6.42
Drying fuel	0.69
Fuel & oil	5.74
Repairs	13.19
Custom hire	6.84
Land rent	61.83
Operating interest	4.95
Total direct expenses per acre	154.19
Return over direct expenses per acre	75.48
Overhead expenses per acre	
Hired labor	6.87
Machinery & bldg leases	2.10
Farm insurance	2.02
Utilities	1.60
Dues & professional fees	0.94
Interest	3.43
Mach & bldg depreciation	6.03
Miscellaneous	4.05
Total overhead expenses per acre	27.05
Total listed expenses per acre	181.24
Net return per acre	48.43
Total direct expense per cwt	9.62
Total listed expense per cwt	11.31
Net return per cwt	3.02
Breakeven yield per acre	12.65
Net return including govt. payments	74.33
Lbr & mgt charge per acre	10.61
Net return over lbr & mgt	63.71

TABLE 12 - 23
Crop Enterprise Analysis, 1998
Minnesota and North Dakota Farm Business Mgmt Education
Red River Valley
(Farms sorted according to Return to Overhead per Acre)

SPRING WHEAT ON OWNED LAND

	Average Of All Farms	Average Of Low 20%	Average Of High 20%
Number of fields	144	36	27
Number of farms	115	23	23
Acres	190.43	227.93	173.71
Yield per acre (bushel)	41.01	29.91	49.82
Operators share of yield %	100.00	100.00	100.00
Value per bushel	3.30	3.25	3.41
Total product return per acre	135.48	97.33	169.99
Miscellaneous income per acre	13.78	12.70	28.29
Gross return per acre	149.26	110.04	198.29
Direct expenses per acre			
Seed	11.28	11.12	11.21
Fertilizer	26.64	30.24	24.01
Crop chemicals	21.49	28.57	19.69
Crop insurance	7.24	8.44	6.26
Drying fuel	0.16	0.00	0.23
Fuel & oil	4.75	3.84	5.11
Repairs	9.40	9.44	8.55
Repair, machinery	0.36	0.10	0.33
Custom hire	1.95	1.45	2.58
Hired labor	0.12	0.06	0.21
Operating interest	3.96	5.98	2.34
Miscellaneous	0.63	0.21	0.66
Total direct expenses per acre	87.52	99.36	80.82
Return over direct expenses per acre	61.74	10.67	117.46
Overhead expenses per acre			
Custom hire	1.09	0.23	0.85
Hired labor	5.82	7.24	6.68
Machinery & bldg leases	1.83	3.73	0.52
RE & pers. property taxes	12.86	13.78	11.47
Farm insurance	3.41	3.36	5.29
Utilities	1.73	2.04	1.46
Dues & professional fees	0.82	0.59	0.94
Interest	36.29	38.65	29.58
Mach & bldg depreciation	8.64	7.81	9.56
Miscellaneous	2.38	2.66	1.74
Total overhead expenses per acre	74.88	80.09	68.10
Total listed expenses per acre	162.40	179.45	148.92
Net return per acre	-13.14	-69.42	49.37
Total direct expense per bushel	2.13	3.32	1.62
Total listed expense per bushel	3.96	6.00	2.99
Net return per bushel	-0.32	-2.32	0.99
Breakeven yield per acre	44.98	51.23	35.35
Net return including govt. payments	11.94	-50.46	75.01
Lbr & mgt charge per acre	11.50	9.12	11.04
Net return over lbr & mgt	0.45	-59.59	63.98

TABLE 12 - 24
Crop Enterprise Analysis, 1998
Minnesota and North Dakota Farm Business Mgmt Education
Red River Valley
(Farms sorted according to Return to Overhead per Acre)

SPRING WHEAT ON CASH RENTED LAND

	Average Of All Farms	Average Of Low 20%	Average Of High 20%
Number of fields	281	75	57
Number of farms	169	34	34
Acres	256.16	256.20	181.42
Yield per acre (bushel)	41.01	31.95	48.56
Operators share of yield %	100.00	100.00	100.00
Value per bushel	3.28	3.15	3.39
Total product return per acre	134.59	100.68	164.39
Miscellaneous income per acre	12.85	15.75	19.98
Gross return per acre	147.44	116.43	184.36
Direct expenses per acre			
Seed	11.80	13.20	11.42
Fertilizer	26.68	30.96	24.64
Crop chemicals	20.33	22.55	18.38
Crop insurance	6.80	7.00	6.11
Drying fuel	0.10	0.00	0.04
Fuel & oil	4.47	4.14	4.75
Repairs	9.07	10.01	8.63
Custom hire	2.23	1.63	3.13
Hired labor	0.25	0.87	0.00
Land rent	59.99	68.32	54.03
Operating interest	4.17	5.68	3.27
Miscellaneous	0.59	0.35	0.41
Total direct expenses per acre	146.47	164.71	134.82
Return over direct expenses per acre	0.97	-48.28	49.54
Overhead expenses per acre			
Custom hire	1.23	1.93	0.95
Hired labor	5.48	5.33	7.82
Machinery & bldg leases	2.58	2.74	1.74
Farm insurance	3.15	3.41	4.16
Utilities	1.50	1.49	1.85
Dues & professional fees	1.06	0.87	1.36
Interest	3.90	4.05	3.37
Mach & bldg depreciation	8.09	6.92	10.04
Miscellaneous	2.42	2.63	2.06
Total overhead expenses per acre	29.41	29.37	33.36
Total listed expenses per acre	175.88	194.08	168.18
Net return per acre	-28.44	-77.65	16.18
Total direct expense per bushel	3.57	5.15	2.78
Total listed expense per bushel	4.29	6.07	3.46
Net return per bushel	-0.69	-2.43	0.33
Breakeven yield per acre	49.68	56.60	43.78
Net return including govt. payments	-2.92	-51.76	40.77
Lbr & mgt charge per acre	12.01	12.78	11.28
Net return over lbr & mgt	-14.93	-64.54	29.49

TABLE 12 - 25
Crop Enterprise Analysis, 1998
Minnesota and North Dakota Farm Business Mgmt Education
Red River Valley
(Farms sorted according to Return to Overhead per Acre)

SPRING WHEAT ON SHARE RENTED LAND

	Average Of All Farms	Average Of Low 20%	Average Of High 20%
Number of fields	61	11	15
Number of farms	35	7	7
Acres	133.55	71.72	163.73
Yield per acre (bushel)	41.07	31.51	46.33
Operators share of yield %	63.46	65.61	67.98
Value per bushel	3.37	3.29	3.38
Total product return per acre	87.99	67.52	106.55
Miscellaneous income per acre	11.97	11.82	20.37
Gross return per acre	99.96	79.34	126.92
Direct expenses per acre			
Seed	8.85	8.35	9.03
Fertilizer	26.49	28.40	26.59
Crop chemicals	12.86	24.46	10.73
Crop insurance	4.44	5.28	6.06
Fuel & oil	5.04	6.17	4.85
Repairs	10.17	10.52	9.65
Custom hire	2.25	0.79	3.74
Operating interest	3.01	3.22	1.95
Miscellaneous	0.64	0.25	0.53
Total direct expenses per acre	73.76	87.45	73.13
Return over direct expenses per acre	26.20	-8.11	53.79
Overhead expenses per acre			
Custom hire	0.43	2.20	0.00
Hired labor	4.75	1.88	5.31
Machinery & bldg leases	1.83	1.30	2.65
Farm insurance	1.89	2.03	2.03
Utilities	1.77	2.09	2.02
Dues & professional fees	0.88	1.17	1.38
Interest	3.01	4.17	4.14
Mach & bldg depreciation	9.05	9.06	8.87
Miscellaneous	2.11	3.25	1.95
Total overhead expenses per acre	25.70	27.15	28.35
Total listed expenses per acre	99.46	114.61	101.48
Net return per acre	0.50	-35.27	25.44
Total direct expense per bushel	2.83	4.23	2.32
Total listed expense per bushel	3.82	5.54	3.22
Net return per bushel	0.02	-1.71	0.81
Breakeven yield per acre	40.92	47.63	35.30
Net return including govt. payments	12.84	-18.98	32.36
Lbr & mgt charge per acre	11.97	19.67	10.55
Net return over lbr & mgt	0.87	-38.66	21.81

TABLE 13 - 1
Size Of Farm Report, 1998
Minnesota and North Dakota Farm Business Mgmt Education
Red River Valley
(Farms Sorted By Gross Cash Farm Income)

	Average For All Farms	40,001 - 100,000	100,001 - 200,000	200,001 - 500,000	500,001 +
Number of farms	197	10	36	103	46
Income Statement					
Gross cash farm income	399008	73736	151933	328896	836515
Total cash farm expense	337948	69489	128518	276666	710804
Net cash farm income	61061	4246	23415	52230	125711
Inventory change	-21534	-2396	-2013	-22527	-39766
Depreciation and capital adjustment	-18964	-4165	-7233	-17729	-34905
Net farm income	20563	-2315	14169	11974	51040
Profitability (cost)					
Labor and management earnings	-3876	-9749	5132	-9220	2570
Rate of return on assets	3 %	-3 %	3 %	2 %	4 %
Rate of return on equity	-2 %	-15 %	-4 %	-4 %	-0 %
Operating profit margin	6 %	-11 %	6 %	5 %	8 %
Asset turnover rate	44 %	26 %	44 %	43 %	45 %
Liquidity					
Term debt coverage ratio	50 %	-6 %	68 %	45 %	52 %
Expense as a percent of income	90 %	98 %	86 %	91 %	89 %
Interest as a percent of income	9 %	13 %	9 %	9 %	8 %
Solvency (market)					
Number of sole proprietors	173	9	36	96	30
Ending farm assets	959068	351568	475411	898143	1971418
Ending farm liabilities	545060	201109	279986	508231	1115728
Ending total assets	1104111	435360	566086	1044816	2203836
Ending total liabilities	567129	223381	298159	532691	1135940
Ending net worth	536982	211979	267927	512125	1067896
Net worth change	9230	-2940	10722	1461	35833
Ending farm debt to asset ratio	57 %	57 %	59 %	57 %	57 %
Beg total debt to asset ratio	50 %	48 %	50 %	49 %	51 %
End total debt to asset ratio	51 %	51 %	53 %	51 %	52 %
Nonfarm Information					
Farms reporting living expenses	23	3	7	10	2
Total family living expense	29932	-	29269	29942	-
Total living, invest, & capital purch	55087	-	39481	64750	-
Net nonfarm income	15088	17419	16961	17551	7025
Crop Acres					
Total acres owned	372	177	239	328	629
Total crop acres	1485	405	785	1379	2563
Total crop acres owned	327	162	186	277	599
Total crop acres cash rented	1052	203	522	987	1839
Total crop acres share rented	105	40	77	115	125

TABLE 13 - 2
Type Of Farm Report, 1998
Minnesota and North Dakota Farm Business Mgmt Education
Red River Valley

	Average For All Farms	Crop	Other
Number of farms	197	146	47
Income Statement			
Gross cash farm income	399008	423552	297537
Total cash farm expense	337948	356900	256575
Net cash farm income	61061	66653	40961
Inventory change	-21534	-24249	-14168
Depreciation and capital adjustment	-18964	-18863	-17592
Net farm income	20563	23541	9201
Profitability (cost)			
Labor and management earnings	-3876	-2287	-9520
Rate of return on assets	3 %	3 %	2 %
Rate of return on equity	-2 %	-2 %	-5 %
Operating profit margin	6 %	6 %	5 %
Asset turnover rate	44 %	45 %	42 %
Liquidity			
Term debt coverage ratio	50 %	48 %	47 %
Expense as a percent of income	90 %	90 %	91 %
Interest as a percent of income	9 %	9 %	10 %
Solvency (market)			
Number of sole proprietors	173	126	44
Ending farm assets	959068	979426	787062
Ending farm liabilities	545060	537839	494305
Ending total assets	1104111	1138390	897950
Ending total liabilities	567129	558744	519975
Ending net worth	536982	579646	377976
Net worth change	9230	15268	-6667
Ending farm debt to asset ratio	57 %	55 %	63 %
Beg total debt to asset ratio	50 %	48 %	56 %
End total debt to asset ratio	51 %	49 %	58 %
Nonfarm Information			
Farms reporting living expenses	23	16	7
Total family living expense	29932	32305	24508
Total living, invest, & capital purch	55087	60898	41805
Net nonfarm income	15088	14949	16117
Crop Acres			
Total acres owned	372	386	272
Total crop acres	1485	1538	1303
Total crop acres owned	327	343	222
Total crop acres cash rented	1052	1094	961
Total crop acres share rented	105	101	120

TABLE 13 - 3
Age Of Operator Report, 1998
Minnesota and North Dakota Farm Business Mgmt Education
Red River Valley

	Average For All Farms	Under 31	31 - 40	41 - 50	51 - 60
Number of farms	196	15	61	86	31
Income Statement					
Gross cash farm income	400491	192527	379617	401219	463922
Total cash farm expense	339336	169070	326979	332830	396281
Net cash farm income	61155	23456	52638	68388	67641
Inventory change	-21652	10112	-16304	-22424	-26698
Depreciation and capital adjustment	-19028	-5894	-15642	-21594	-21775
Net farm income	20474	27674	20692	24371	19168
Profitability (cost)					
Labor and management earnings	-4034	19983	3056	-3425	-17186
Rate of return on assets	3 %	7 %	3 %	3 %	2 %
Rate of return on equity	-2 %	6 %	-3 %	-1 %	-2 %
Operating profit margin	6 %	11 %	6 %	8 %	7 %
Asset turnover rate	44 %	61 %	52 %	42 %	34 %
Liquidity					
Term debt coverage ratio	49 %	110 %	41 %	61 %	51 %
Expense as a percent of income	90 %	84 %	90 %	88 %	91 %
Interest as a percent of income	9 %	8 %	8 %	9 %	10 %
Solvency (market)					
Number of sole proprietors	172	14	54	78	24
Ending farm assets	960273	397492	795528	1061149	1316401
Ending farm liabilities	546309	265893	481756	592938	722278
Ending total assets	1105591	448709	923356	1202081	1520377
Ending total liabilities	568434	294699	505993	616961	730977
Ending net worth	537157	154010	417363	585119	789401
Net worth change	9128	23452	13149	5076	168
Ending farm debt to asset ratio	57 %	67 %	61 %	56 %	55 %
Beg total debt to asset ratio	50 %	61 %	54 %	50 %	46 %
End total debt to asset ratio	51 %	66 %	55 %	51 %	48 %
Nonfarm Information					
Farms reporting living expenses	22	1	8	10	3
Total family living expense	30373	-	35078	28997	-
Total living, invest, & capital purch	56505	-	47862	68707	-
Net nonfarm income	15103	9391	17174	15950	12311
Crop Acres					
Total acres owned	370	187	235	409	625
Total crop acres	1489	860	1468	1496	1636
Total crop acres owned	326	143	189	371	574
Total crop acres cash rented	1057	685	1149	1032	940
Total crop acres share rented	106	32	130	92	122