

Farm Financial Data Collection Task Force
1987 Report to the Minnesota Legislature



Field Report

FARM FINANCIAL DATA COLLECTION TASK FORCE

1987 REPORT TO THE MINNESOTA LEGISLATURE

FIELD REPORT

MINNESOTA FARM FINANCIAL SURVEY

Field Report

In addition to an overall summary report for the benefit of the State Legislature, the MFFS gathered sufficient information to allow an analysis of farm operators by location, farm enterprise and farm size. The tables that follow summarize the farm operations in Agricultural Reporting Districts 10, 50 and 80 -- Northwest, Central and South Central regions of the state. Farm enterprises, as in the legislative report, are defined according to the proportion of total receipts contributed by the enterprises or combination of enterprises. Farm size is defined according to Total Cash Receipts and operators were divided into two groups -- less than \$150,000 total cash farm receipts and \$150,000 or greater.

This Field Report follows the same outline as the Legislative Report -- Cash Flow Situation, Debt-Asset Situation and Measures of Financial Performance -- by Region, by Farm Enterprise and by Farm Size. The intent is to be of assistance to farm operators, farm managers and instructors and credit advisors by providing summary income statements and balance sheets to be used for evaluation of one's own operation, teaching and advising.

MINNESOTA FARM FINANCIAL SURVEY

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CASH FLOW SITUATION

The following Tables (Tables 1-4) summarize the "Cash Flow" situation of farm operators by Region for 1987. Table 1 is a Cash Flow Summary by Region compared to all farms and Tables 2-4 are Income Statements by Region, by Farm Enterprise, by Farm Size.

TABLE 1
REGIONAL
CASH FLOW SUMMARY¹
1987

ITEM	<u>All Farms</u> (N = 978)	<u>Northwest</u> (N = 188)	<u>Central</u> (N = 244)	<u>South Central</u> (N = 219)
Cash Farm Receipts	\$154,285	\$172,472	\$125,719	\$170,277
Cash Production Expenses	117,751	137,078	95,040	126,334
Net Cash Farm Income	\$ 37,157	\$ 35,458	\$ 30,484	\$ 44,924
Off-Farm Income	8,354	9,756	6,322	9,792
Total Cash Income	\$ 45,595	\$ 45,267	\$ 37,002	\$ 54,781
Sale of Farm Assets	4,234	6,324	4,715	4,862
Total Cash Available	\$ 49,875	\$ 51,607	\$ 41,775	\$ 59,710
"Fixed Obligations"²				
Number of Times "Fixed" Obligations Covered³				
By Farm Income, Alone	0.91	0.87	0.80	1.01
By Total Cash Income	1.12	1.11	0.97	1.23
By Total Cash Available	1.22	1.26	1.09	1.34

¹This table is a summary of all 978 surveys used, but for which all questions were not answered. Hence, the columns may not add due to missing observations.

²Principle reduction payments, family living expenses plus social security and income taxes. All interest expenses are included in cash production expenses.

³Income divided by fixed obligations. This ratio will be "1.0" or greater if these obligations are fully covered.

TABLE 2
SUMMARY INCOME STATEMENT
BY
FARM ENTERPRISE AND FARM SIZE¹
1987

Agricultural Reporting District 10
(Northwest)

ITEM	Cash Grain		Dairy-Swine		Grain-Beef		Grain-Dairy		Grain-Sugar Beets	
	<\$150 (n=22)	\$150+ (n=25)	<\$150 (n=17)	\$150+ (n=3)	<\$150 (n=15)	\$150+ (n=5)	<\$150 (n=18)	\$150+ (n=6)	<\$150 (n=6)	\$150+ (n=23)
Operating Receipts	\$ 85,304	\$255,607	\$ 77,426	\$252,430	\$ 72,481	\$468,864	\$ 91,357	\$262,661	\$120,830	\$329,058
Oper. Expenses b/f Int.	60,192	190,564	54,901	136,788	39,555	452,601	56,462	159,744	80,162	232,179
Interest Expense	8,831	18,367	7,919	19,538	8,221	31,857	9,956	34,933	11,966	28,692
NET CASH OPER. INC.	\$ 16,281	\$ 46,668	\$ 14,606	\$ 96,104	\$ 24,704	(\$ 15,594)	\$ 24,938	\$ 67,984	\$ 28,702	\$ 68,187
Depreciation Expense	8,428	25,226	7,008	25,059	10,347	18,117	9,313	28,599	8,518	20,376
Change in Value of Inv.	7,317	13,298	2,950	13,162	3,109	92,129	3,358	27,234	27,918	45,002
Extra Ordinary Income:										
Sale of Assets	- -	9,008	1,078	- -	8,667	- -	835	22,136	- -	15,863
Debt Forgiveness	- -	- -	- -	- -	5,167	- -	1,944	10,867	- -	- -
BEFORE TAX RETURN	\$ 15,624	\$ 43,756	\$ 11,626	\$ 84,207	\$ 31,299	\$ 58,419	\$ 21,765	\$ 99,622	\$ 48,101	\$108,676
Income Tax Paid (1986)	2,888	5,549	436	883	726	5,849	505	2,185	5,481	9,369
AFTER TAX RETURN	\$ 12,281	\$ 38,207	\$ 11,190	\$ 83,323	\$ 30,573	\$ 52,569	\$ 21,260	\$ 97,436	\$ 42,620	\$ 99,307
Off-Farm Income	12,429	16,049	5,558	1,740	10,823	1,026	1,918	10,875	4,347	12,274
Withdrawals (Fam. Living)	21,965	26,005	12,297	42,966	13,951	28,537	16,194	23,734	16,907	29,330
ADD. TO OWNER EQUITY	\$ 2,745	\$ 28,250	\$ 4,452	\$ 42,097	\$ 27,445	\$ 25,058	\$ 6,983	\$ 84,579	\$ 30,060	\$ 82,252

¹Farm size is defined according to Total Gross Farm Receipts. The operators were divided into two groups: (1) less than \$150,000 and (b) \$150,000 or greater.

TABLE 3
SUMMARY INCOME STATEMENT
BY
FARM ENTERPRISE AND FARM SIZE¹
1987

Agricultural Reporting District 50
(Central)

ITEM	Dairy-Swine		Grain-Dairy		Grain-Swine	
	<\$150 (n=61)	\$150+ (n=16)	<\$150 (n=33)	\$150+ (n=3)	<\$150 (n=9)	\$150+ (n=12)
Operating Receipts	\$ 90,072	\$204,916	\$ 88,152	\$231,570	\$ 99,374	\$248,207
Oper. Expenses b/f Int.	54,452	126,375	50,805	142,016	66,887	171,049
Interest Expense	8,647	16,615	11,424	13,062	9,615	25,785
NET CASH OPER. INC.	\$ 26,973	\$ 61,926	\$ 25,924	\$ 76,492	\$ 22,872	\$ 51,372
Depreciation Expense	10,774	21,814	10,127	31,565	9,181	20,169
Change in Value of Inv.	12,195	31,676	6,384	56,688	9,008	29,561
Extra Ordinary Income:						
Sale of Assets	1,133	12,284	4,643	4,314	350	5,487
Debt Forgiveness	89	293	1,975	- -	3,746	324
BEFORE TAX RETURN	\$ 29,617	\$ 84,366	\$ 28,799	\$105,929	\$ 26,795	\$ 66,576
Income Tax Paid (1986)	591	731	895	1,358	1,034	2,083
AFTER TAX RETURN	\$ 29,026	\$ 83,635	\$ 27,904	\$104,570	\$ 25,760	\$ 64,493
Off-Farm Income	4,290	5,154	7,475	261	10,482	7,561
Withdrawals (Fam. Living)	16,381	21,720	15,052	15,850	14,860	20,423
ADD. TO OWNER EQUITY	\$ 16,936	\$ 67,069	\$ 20,326	\$ 88,981	\$ 21,382	\$ 51,631

¹Farm size is defined according to Total Gross Farm Receipts. The operators were divided into two groups: (a) less than \$150,000 and (b) \$150,000 or greater.

TABLE 4
SUMMARY INCOME STATEMENT
BY
FARM ENTERPRISE AND FARM SIZE¹
1987

Agricultural Reporting District 80
(South Central)

ITEM	Cash Grain		Grain-Dairy		Grain-Swine	
	<\$150 (n=30)	\$150+ (n=13)	<\$150 (n=15)	\$150+ (n=8)	<\$150 (n=18)	\$150+ (n=37)
Operating Receipts	\$ 68,298	\$236,754	\$ 85,856	\$228,996	\$105,432	\$302,724
Oper. Expenses b/f Int.	49,733	127,025	51,865	149,207	69,697	197,613
Interest Expense	6,606	23,882	7,403	17,350	9,577	18,917
NET CASH OPER. INC.	\$ 11,960	\$ 85,847	\$ 26,595	\$ 62,439	\$ 26,158	\$ 86,194
Depreciation Expense	8,323	18,615	10,710	27,094	16,690	64,643
Change in Value of Inv.	15,266	(2,351)	5,465	18,518	9,591	27,547
Extra Ordinary Income:						
Sale of Assets	725	15,868	227	- -	9,354	7,344
Debt Forgiveness	134	30,225	107	- -	1,250	5,936
BEFORE TAX RETURN	\$ 19,762	\$110,975	\$ 21,683	\$ 53,863	\$ 29,663	\$ 62,379
Income Tax Paid (1986)	3,006	6,247	1,092	534	2,045	7,782
AFTER TAX RETURN	\$ 16,756	\$104,728	\$ 20,591	\$ 53,329	\$ 27,617	\$ 54,596
Off-Farm Income	14,460	4,840	5,567	2,123	8,069	7,914
Withdrawals (Fam. Living)	14,413	20,514	15,329	28,430	17,560	22,912
ADD. TO OWNER EQUITY	\$ 16,803	\$ 89,054	\$ 10,829	\$ 27,023	\$ 18,126	\$ 39,598

¹Farm size is defined according to Total Gross Farm Receipts. The operators were divided into two groups: (a) less than \$150,000 and (b) \$150,000 or greater.

MINNESOTA FARM FINANCIAL SURVEY

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DEBT-ASSET SITUATION

Tables 5-8, below, summarize the "Debt-Asset" Situation of farm operators by Region. Table 5 consists of Regional Balance Sheets compared to all farms and Tables 6-8 are Balance Sheets by Region, by Farm Enterprise, by Farm Size.

TABLE 5

REGIONAL BALANCE SHEET
January 1, 1988

<u>ITEM</u>	<u>All Farms</u> (N = 978)	<u>Northwest</u> (N = 188)	<u>Central</u> (N = 244)	<u>South Central</u> (N = 219)
ASSETS				
Current Assets	\$ 77,716	\$ 76,331	\$ 49,564	\$ 96,040
Intermediate Assets	64,361	75,045	78,423	53,320
Long-Term Assets	152,028	168,173	136,574	\$159,047
Total Bus. Assets	\$294,105	\$319,549	\$264,561	\$308,407
Personal Assets	40,420	55,490	34,287	32,029
TOTAL ASSETS	\$334,525	\$375,039	\$298,848	\$340,436
LIABILITIES				
Current Liabilities	\$ 19,357	\$ 19,087	\$ 8,363	\$ 23,437
Intermediate Liabilities	56,232	69,530	61,538	47,527
Long-Term Liabilities	97,510	111,863	88,703	104,197
Total Bus. Liabilities	\$173,099	\$200,480	\$158,604	\$175,161
Personal Liabilities	1,355	662	720	3,529
TOTAL LIABILITIES	\$174,454	\$201,142	\$159,324	\$178,690
EQUITY				
Business Equity	\$121,006	\$119,069	\$105,597	\$133,246
TOTAL EQUITY	\$160,071	\$173,897	\$139,524	\$161,746
TOTAL LIAB. & OWNER EQUITY	\$333,525	\$375,039	\$298,848	\$340,436
RATIOS				
Current ¹	4.01	4.00	5.93	4.00
Working Capital ²	1.88	1.71	1.83	2.10
Debt-Asset ³	0.52	0.54	0.53	0.52
Debt-Equity ⁴	1.09	1.16	1.14	1.10

¹Current Assets divided by Current Liabilities.

²Current plus Intermediate Assets divided by Current plus Intermediate Liabilities.

³Total Liabilities divided by Total Assets.

⁴Total Liabilities divided by Total Equity.

TABLE 6
SUMMARY BALANCE SHEET
BY
FARM ENTERPRISE AND FARM SIZE¹
JANUARY 1, 1988

Agricultural Reporting District 10
(Northwest)

ITEM	Cash Grain		Dairy-Swine		Grain-Beef		Grain-Dairy		Grain-Sugar Beets	
	<\$150 (n=27)	\$150+ (n=28)	<\$150 (n=17)	\$150+ (n=3)	<\$150 (n=18)	\$150+ (n=7)	<\$150 (n=20)	\$150+ (n=9)	<\$150 (n=6)	\$150+ (n=23)
ASSETS										
Current Assets	\$ 46,810	\$ 84,537	\$ 29,775	\$100,073	\$ 58,812	\$230,486	\$ 23,730	\$ 73,855	\$ 90,984	\$185,118
Intermediate Assets	48,329	109,691	43,484	188,811	45,838	110,658	53,943	180,135	38,142	115,727
Long-Term Assets	145,573	203,960	83,818	301,907	105,629	318,452	103,863	205,197	116,539	321,640
Tot. Bus. Assets	\$240,712	\$398,188	\$157,057	\$590,791	\$210,279	\$659,596	\$181,536	\$459,188	\$245,665	\$622,485
Personal Assets	41,428	96,562	11,008	59,874	28,525	52,762	21,020	30,616	76,536	138,226
TOTAL ASSETS	\$282,140	\$494,751	\$168,065	\$650,665	\$238,805	\$712,358	\$202,556	\$489,804	\$322,201	\$760,711
LIABILITIES										
Current Liabilities	\$ 5,783	\$ 10,203	\$ 3,449	\$ 14,440	\$ 3,254	\$138,881	\$ 5,017	\$ 19,902	\$ 26,719	\$ 51,371
Intermediate Liab.	47,085	79,317	59,578	100,839	38,367	127,371	58,665	124,231	29,030	104,302
Long-Term Liabilities	72,830	134,991	63,155	160,217	72,368	259,603	90,395	190,920	79,052	147,582
Total Bus. Liabilities	\$125,698	\$244,511	\$126,183	\$275,497	\$113,988	\$525,855	\$154,077	\$335,054	\$134,801	\$303,254
Personal Liabilities	- -	- -	- -	- -	1,088	- -	430	- -	4,917	1,754
TOTAL LIABILITIES	\$125,698	\$224,511	\$126,183	\$275,497	\$115,077	\$525,855	\$154,507	\$335,054	\$139,718	\$305,008
EQUITY										
Business Equity	\$115,013	\$173,678	\$ 30,874	\$315,294	\$ 96,291	\$133,742	\$ 27,459	\$124,134	\$110,864	\$319,231
TOTAL EQUITY	\$156,442	\$270,240	\$ 41,882	\$375,169	\$123,728	\$186,503	\$ 48,049	\$154,751	\$182,483	\$455,703
TOTAL LIABILITIES & OWNER EQUITY	\$282,140	\$494,751	\$168,065	\$650,665	\$238,805	\$712,358	\$202,556	\$489,804	\$322,201	\$760,711

¹Farm size is defined according to Total Gross Farm Receipts. The operators were divided into two groups: (a) less than \$150,000 and (b) \$150,000 or greater.

TABLE 7
SUMMARY BALANCE SHEET
BY
FARM ENTERPRISE AND FARM SIZE¹
JANUARY 1, 1988

Agricultural Reporting District 50
(Central)

ITEM	Dairy-Swine		Grain-Dairy		Grain-Swine	
	<\$150 (n=87)	\$150+ (n=23)	<\$150 (n=39)	\$150+ (n=8)	<\$150 (n=9)	\$150+ (n=13)
ASSETS						
Current Assets	\$ 32,929	\$ 66,280	\$ 32,077	\$ 56,571	\$ 49,778	\$103,417
Intermediate Assets	65,065	143,108	59,996	175,878	30,845	72,055
Long-Term Assets	115,720	213,503	105,465	191,182	113,560	154,124
Total Bus. Assets	\$213,714	\$422,891	\$197,538	\$423,631	\$194,183	\$329,597
Personal Assets	23,109	28,614	30,967	48,625	46,028	64,304
TOTAL ASSETS	\$236,823	\$451,505	\$228,505	\$472,256	\$240,211	\$393,902
LIABILITIES						
Current Liabilities	\$ 3,571	\$ 8,088	\$ 5,427	\$ 7,546	\$ 7,415	\$ 34,827
Intermediate Liab.	54,463	94,052	54,883	97,009	36,525	85,523
Long-Term Liabilities	66,021	125,880	72,480	155,046	115,115	149,840
Total Bus. Liabilities	\$124,055	\$228,020	\$132,789	\$259,601	\$159,055	\$270,189
Personal Liabilities	380	108	1,650	- -	1,604	- -
TOTAL LIABILITIES	\$124,435	\$228,128	\$134,440	\$259,601	\$160,659	\$270,189
EQUITY						
Business Equity	\$ 89,660	\$194,871	\$ 64,749	\$164,031	\$ 35,127	\$ 59,408
TOTAL EQUITY	\$112,388	\$223,377	\$ 94,066	\$212,655	\$ 79,552	\$123,712
TOTAL LIABILITIES & OWNER EQUITY	\$236,823	\$451,505	\$228,505	\$472,256	\$240,211	\$393,902

¹Farm size is defined according to Total Gross Farm Receipts. The operators were divided into two groups: (a) less than \$150,000 and (b) \$150,000 or greater.

TABLE 8
SUMMARY BALANCE SHEET
BY
FARM ENTERPRISE AND FARM SIZE¹
JANUARY 1, 1988

Agricultural Reporting District 80
(South Central)

ITEM	Dairy-Swine		Grain-Dairy		Grain-Swine	
	<\$150 (n=38)	\$150+ (n=18)	<\$150 (n=18)	\$150+ (n=10)	<\$150 (n=23)	\$150+ (n=50)
ASSETS						
Current Assets	\$ 53,415	\$137,069	\$ 55,411	\$156,179	\$ 47,430	\$140,338
Intermediate Assets	27,860	71,575	51,059	84,785	36,838	67,093
Long-Term Assets	55,609	328,610	108,718	200,157	96,141	202,937
Total Bus. Assets	\$136,885	\$537,255	\$215,188	\$441,121	\$180,410	\$410,368
Personal Assets	23,703	48,423	21,144	36,811	21,822	42,678
TOTAL ASSETS	\$160,587	\$585,678	\$236,332	\$477,932	\$202,232	\$453,046
LIABILITIES						
Current Liabilities	\$ 6,130	\$ 61,955	\$ 15,165	\$ 19,530	\$ 8,617	\$ 34,264
Intermediate Liab.	32,159	74,125	33,836	94,266	30,854	49,654
Long-Term Liabilities	46,692	178,441	70,377	138,949	80,829	135,414
Total Bus. Liabilities	\$ 84,981	\$314,522	\$119,377	\$252,744	\$120,300	\$219,333
Personal Liabilities	2,629	6,794	88	1,666	3,218	6,088
TOTAL LIABILITIES	\$ 87,610	\$321,316	\$119,465	\$254,410	\$123,519	\$225,420
EQUITY						
Business Equity	\$ 51,904	\$222,733	\$ 95,810	\$188,377	\$ 60,109	\$191,035
TOTAL EQUITY	\$ 72,978	\$264,361	\$116,867	\$223,522	\$ 78,713	\$227,626
TOTAL LIABILITIES AND OWNER EQUITY	\$160,587	\$585,678	\$236,332	\$477,932	\$202,232	\$453,046

¹Farm size is defined according to Total Gross Farm Receipts. The operators were divided into two groups: (a) less than \$150,000 and (b) \$150,000 or greater.

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MEASURES OF FINANCIAL PERFORMANCE

Tables 9-11, below, contain a selected set of statistics that provide a measure of the financial performance of farm operators by Region and by Farm Enterprise.

TABLE 9
MEASURES OF FINANCIAL PERFORMANCE
BY
FARM ENTERPRISE
1987

Agricultural Reporting District 10
(Northwest)

	<u>All Farms</u> (ARD 10)	<u>Cash Grain</u> (n=55)	<u>Dairy-Swine</u> (n=20)	<u>Grain-Beef</u> (n=25)	<u>Grain-Dairy</u> (n=29)	<u>Grain-Sugar Beets</u> (n=29)
<u>FINANCIAL MEASURE¹</u>						
<u>LIQUIDITY MEASURES</u>						
1. Current Ratio	4.00	8.22	7.93	2.59	4.08	3.58
2. Current Debt Ratio	0.09	0.04	0.03	0.18	0.05	0.17
3. Debt Service Coverage Ratio						
a. Farm Income, Alone	0.87	0.71	0.76	0.74	1.30	1.10
b. Total Cash Income	1.18	1.17	1.03	0.98	1.45	1.34
c. Total Cash Available	1.38	1.33	1.07	1.11	1.62	1.62
<u>SOLVENCY MEASURES</u>						
4. Debt-Asset Ratio	0.54	0.45	0.62	0.62	0.72	0.40
5. Leverage Ratio	1.16	0.82	1.65	1.63	2.59	0.68
<u>PROFITABILITY MEASURES</u>						
6. Return on Equity (%)	13.90	7.42	12.84	10.83	48.20	13.69
7. Return on Assets (%)	9.95	7.51	8.26	9.82	15.67	11.38
8. Profit Margin Ratio	0.18	0.14	0.18	0.16	0.30	0.20
<u>EFFICIENCY MEASURES</u>						
9. Gross Expense Ratio (%)	87.8	92.9	87.0	84.8	79.5	85.3
10. Asset Turnover Ratio	0.55	0.56	0.46	0.62	0.52	0.55
11. Interest Expense (% of receipts)	9.3	7.9	9.4	10.6	12.6	8.8

¹Definitions of Financial Measures are contained in Table 12, below.

TABLE 10
MEASURES OF FINANCIAL PERFORMANCE
BY
FARM ENTERPRISE
1987

Agricultural Reporting District 50
(Central)

	<u>All Farms</u> (ARD 50)	<u>Dairy-Swine</u> (n=11)	<u>Grain-Dairy</u> (n=47)	<u>Grain-Swine</u> (n=22)
<u>FINANCIAL MEASURE¹</u>				
<u>LIQUIDITY MEASURES</u>				
1. Current Ratio	5.93	8.84	6.26	3.45
2. Current Debt Ratio	0.05	0.03	0.04	0.10
3. Debt Service Coverage Ratio				
a. Farm Income, Alone	0.78	1.03	1.00	0.59
b. Total Cash Income	0.97	1.19	1.23	0.73
c. Total Cash Available	1.12	1.32	1.39	0.78
<u>SOLVENCY MEASURES</u>				
4. Debt-Asset Ratio	0.53	0.52	0.57	0.68
5. Leverage Ratio	1.14	1.08	1.36	2.10
<u>PROFITABILITY MEASURES</u>				
6. Return on Equity (%)	13.9	14.4	23.5	60.0
7. Return on Assets (%)	10.6	10.8	13.4	15.1
8. Profit Margin Ratio	0.22	0.24	0.28	0.22
<u>EFFICIENCY MEASURES</u>				
9. Gross Expense Ratio (%)	87.3	81.6	77.5	87.6
10. Asset Turnover Ratio	0.48	0.45	0.48	0.69
11. Interest Expense (% of receipts)	10.8	9.9	12.1	10.0

¹Definitions of Financial Measures are contained in Table 12, below.

TABLE 11
MEASURES OF FINANCIAL PERFORMANCE
BY
FARM ENTERPRISE
1987

Agricultural Reporting District 80
(South Central)

	<u>All Farms</u> (ARD 80)	<u>Cash Grain</u> (n=56)	<u>Grain-Dairy</u> (n=28)	<u>Grain-Swine</u> (n=73)
<u>FINANCIAL MEASURE¹</u>				
<u>LIQUIDITY MEASURES</u>				
1. Current Ratio	4.09	3.33	5.46	4.24
2. Current Debt Ratio	0.13	0.15	0.10	0.14
3. Debt Service Coverage Ratio				
a. Farm Income, Alone	1.03	0.78	1.39	1.18
b. Total Cash Income	1.31	1.11	1.62	1.37
c. Total Cash Available	1.45	1.28	1.62	1.56
<u>SOLVENCY MEASURES</u>				
4. Debt-Asset Ratio	0.52	0.55	0.52	0.52
5. Leverage Ratio	1.10	1.21	1.08	1.07
<u>PROFITABILITY MEASURES</u>				
6. Return on Equity (%)	21.7	19.4	17.2	32.5
7. Return on Assets (%)	13.4	11.9	11.1	18.2
8. Profit Margin Ratio	0.23	0.26	0.23	0.25
<u>EFFICIENCY MEASURES</u>				
9. Gross Expense Ratio (%)	89.0	84.3	83.3	91.5
10. Asset Turnover Ratio	0.57	0.46	0.48	0.73
11. Interest Expense (% of receipts)	8.3	10.9	8.3	7.1

¹Definitions of Financial Measures are contained in Table 12, below.

TABLE 12

DEFINITION OF FINANCIAL MEASURES

FINANCIAL MEASURE	DEFINITION OF FINANCIAL MEASURE
<u>Liquidity Measures</u> -- Measures the ability to make loan and debt payments as they come due during the year.	
1. Current Ratio	Current Assets divided by Current Liabilities. This ratio is used to measure the liquidity available for paying short-term obligations. It shows the ability to pay debts as they come due during the year.
2. Current Debt Ratio	Current Liabilities divided by Total Liabilities. This measure reveals the debt structure of the farm operation between current and total liabilities. It shows the proportion of the total farm debt that must be repaid within the next year.
3. Debt Service Coverage Ratios	
a. Farm Income, Alone	Net Cash Farm Income plus Interest Payments less Family Living and Income Taxes divided by debt service costs (Interest plus Principal Payments). This ratio reveals the ability to service debt, meet family living needs and pay taxes out of annual farm income. A ratio less than "1.0" indicates a problem in meeting debt service requirements.
b. Total Cash Income	Same as (a), above, except Off-Farm Income is included.
c. Total Cash Available	Same as (b), above, except the Sale of Farm Assets is included as an additional source of income.
<u>Solvency Measures</u> -- Reflects the risk of the farm's financial structure and ability to repay all outstanding farm debt at a point in time.	
4. Debt-Asset Ratio	Total Liabilities divided by Total Assets. This measure reflects the overall financial risk of the farm operator. It shows the amount of debt pledged against the assets of the farm. The larger the ratio, the greater the risk.
5. Leverage Ratio	Total Debt divided by Net Worth or Equity. Commonly referred to as "Debt-Equity" ratio. Measures the amount of debt pledged against the farmer's equity. This measure reflects the overall financial risk of the farm to the farmer <u>and</u> the lender. The higher the ratio, the larger the creditor's share of farm assets, as do negative values.

TABLE 12
(Continued)

DEFINITION OF FINANCIAL MEASURES

FINANCIAL MEASURE	DEFINITION OF FINANCIAL MEASURE
<u>Profitability Measures</u> -- Measures the farm's profitability and indirectly reflects the farmer's managerial ability.	
6. Return on Equity (%)	Net Farm Income minus Family Living Expenses divided by Average Net Worth. Reflects the relationship between farm income and equity by measuring the returns to equity.
7. Return on Assets (%)	Net Farm Income plus Interest Payments minus Family Living divided by Average Total Assets. Measures the profitability in terms of the relationship to total assets employed on the farm including both debt and equity capital.
8. Profit Margin Ratio	Net Farm Income plus Interest Payments minus Family Living divided by Total Cash Farm Receipts. This is measure of the farm operator's ability to control the level of costs relative to revenues generated.
<u>Efficiency Measures</u> -- Measures the financial efficiency of the farm business.	
9. Gross Expense Ratio	Total Expenses including Depreciation divided by Cash Farm Receipts. This ratio measures the extent to which the value of production exceeds the cost of production. The lower the ratio, the more efficient the farm operation.
10. Asset Turnover Ratio	Cash Farm Receipts divided by Average Total Assets. This is a measure of the ability to generate revenues from a given level of investment in assets. The higher the ratio, the greater the turnover of assets and, thus, a greater opportunity to earn profits.
11. Interest Expense - % of Receipts	Interest Expense divided by Total Cash Receipts. This ratio shows the proportion of cash receipts that are used for interest payments.