

Kansas Agriculture: An Economic Overview

Kansas Farm Management Program

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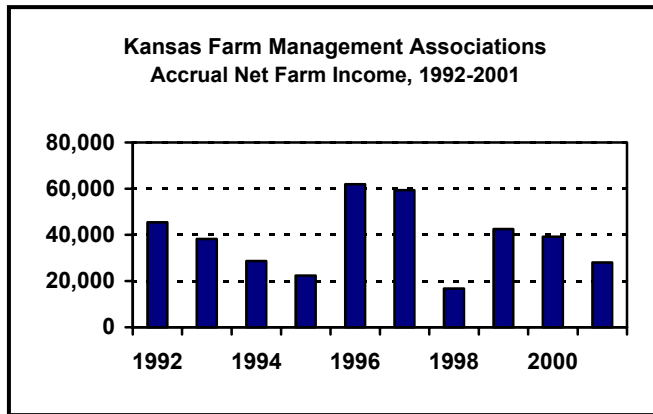
Website: www.agecon.ksu.edu/kfma/

Abstract

Net Farm Income averaged \$27,995 per farm in 2001 for the 1,937 farms in the Kansas Farm Management Association data bank. This represents a 28.6% drop from the 2000 average of \$39,197, a 36.3% decline from the 5-year (1996-2000) average of \$43,946, and a 25.8% decreased compared to the 10-year (1991-2000) average of \$37,727. The Value of Farm Production for 2001 at \$214,664 increased only \$560, or 0.3 percent, from 2000. In the same period, total farm expense increased \$11,761 or 6.7%. Therefore, 2001 net farm income per farm declined \$11,201 from 2000. While Value of Farm Production was stable, the variables that comprise it did change significantly. Income from livestock enterprises and government payments both declined, but gross crop value was higher for the state. Therefore, the decline in net income resulted primarily from higher input costs. Total 2001 government payments of \$39,636 exceeded net farm income by \$11,641 or 42%. Farm income was highly variable across associations in 2001. Net Farm Incomes for the six Associations ranged from \$11,996 in SC to \$38,788 in SE. Dry growing conditions contributed greatly to the wide variation.

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 Department of Agricultural Economics, K-State Research and Extension

The K-State Research & Extension Kansas Farm Management Association (KFMA) *ProfitLink* Program collects and analyzes financial and production information from farms across the state. This information is verified by Extension Agricultural Economists for completeness and accuracy. Of the 61,593 Kansas farms counted in the latest Agricultural Census¹, 13,436 farms have sales of \$100,000 or more. The KFMA farms are full-time commercial operations mainly representative of farms with gross sales exceeding \$100,000 (KFMA State average = \$214,664). The farms in the sample are also representative of the various farming areas and farm types in Kansas. Kansas Farm Management data represent the operator's share of all income, expense, and balance sheet items.

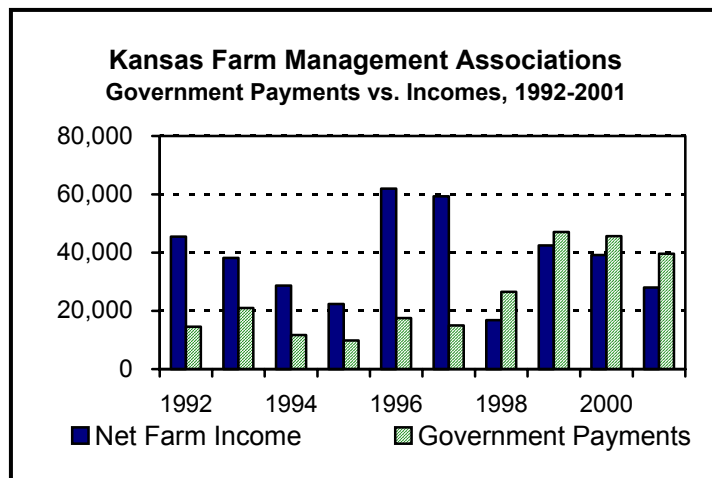


The *Executive Summary*, attached as an appendix, summarizes many of the key income, expense, and financial indicators for KFMA member families. The Department of Agricultural Economics issues this report soon after the 23 Extension Economists have finalized their data with the assistance of the K-MAR-105 staff. The *Executive Summary* provides the first glimpse each spring at key income and financial trends for Kansas farmers at the

State and Farm Management Association level.

Net Farm Income –Accrual Net Farm Income, which provides a much clearer picture of the financial situation, averaged \$27,995 per farm in 2001 for the 1,937 farms in the Kansas Farm Management data bank. This represents a 28.6% drop from the 2000 average of \$39,197, a 36.3% decline from the 5-year (1996-2000) average of \$43,946, and a 25.8% decreased compared to the 10-year (1991-2000) average of \$37,727.

For the 4th year in a row, all government payments, which include Agricultural and Marketing Transition (AMTA) payments, CRP payments, Market Loss Assistance (MLA) payments, Oilseed payments,



¹USDA 1997 Census of Agriculture Kansas State and County Data, Vol. 1, Part 16, March 1999.

and Loan Deficiency Payments (LDP's) and Marketing Loan payments, exceeded Net Farm Income. Total 2001 government payments of \$39,636 exceeded net farm income by \$11,641 or 42%. Government payments were lower for two reasons in 2001. AMTA payments dropped in 2001 by law. Also, those areas with low yields had lower loan deficiency payments. LDP's are based on actual production, so if you don't produce it, you don't get paid for it. This is the primary drawback of marketing loan programs. Nonetheless, government program payments remain an important contributor to gross and net farm income.

Net Farm Income is a return to Operator Equity, Labor and Management. Therefore, family living expenses (and income taxes) and a return to the producer's equity and labor have not been subtracted from Net Farm Income. Machinery replacement costs may be partially allocated by the "non-cash" depreciation included in total expenses.

Family living expenses and Federal and State Income taxes are a significant expenditure for Kansas farm families. Family living expenses were \$36,332 in 2001 and \$8,801 was paid out for

2001 KFMA Family Living Income and Expense Analysis							
	NC	SC	SW	NE	NW	SE	State
# Farms in Family Living Analysis	99	40	78	50	144	97	508
Net Farm Income (all farms)	\$28,999	\$11,996	\$13,446	\$33,717	\$27,643	\$38,788	\$27,995
Non-farm Income	\$28,529	\$20,570	\$33,389	\$40,310	\$30,802	\$41,010	\$32,835
Total Net Income	\$57,528	\$32,566	\$46,835	\$74,027	\$58,445	\$79,798	\$60,830
Family Living Expenditures	\$32,992	\$37,216	\$40,991	\$34,527	\$37,267	\$35,159	\$36,332
Income Taxes	\$6,863	\$5,500	\$10,776	\$12,307	\$10,401	\$6,368	\$8,801
Total Non-Farm Expense	\$39,855	\$42,716	\$51,767	\$46,834	\$47,668	\$41,527	\$45,133
Available for debt service / building net worth, etc.	\$17,673	(\$10,150)	(\$4,932)	\$27,193	\$10,777	\$38,271	\$15,697

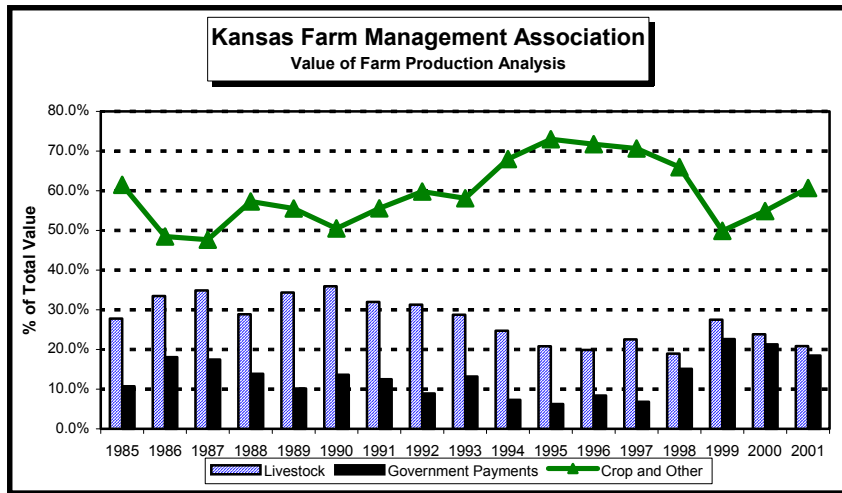
federal and state income taxes and self-employment taxes, making the total outflow of expenditures for family living and taxes \$45,133. Family living expenditures and income taxes are paid from one or a combination of three sources of income: Net Farm Income, Net Non-Farm Income and/or Borrowed Capital. Thus, \$15,697/farm was left to contribute towards debt service, machinery replacement, and net worth. The non-farm source of revenue is obviously a key source of funds for farm families.

Value of Farm Production - The Value of Farm Production for 2001 was \$214,664, an increase of only \$560, or 0.3 percent, from 2000. While Value of Farm Production was stable, the variables that comprise it did change significantly. Income from livestock enterprises and government payments both declined, but gross crop value was higher for the state.

The contribution of crop and miscellaneous income towards Value of Farm Production increased to 61% in 2001, up from 55% in 2000. Despite some dry areas of the state and reduced government payments, the increase came from statewide yields that were flat to slightly higher. Drought conditions were present in 1999 as well. Yields in those many of those areas improved in 2000, especially for central and eastern Kansas non-irrigated soybeans. The hay and forage component of Value of Farm Production also increased, primarily on the strength of alfalfa prices.

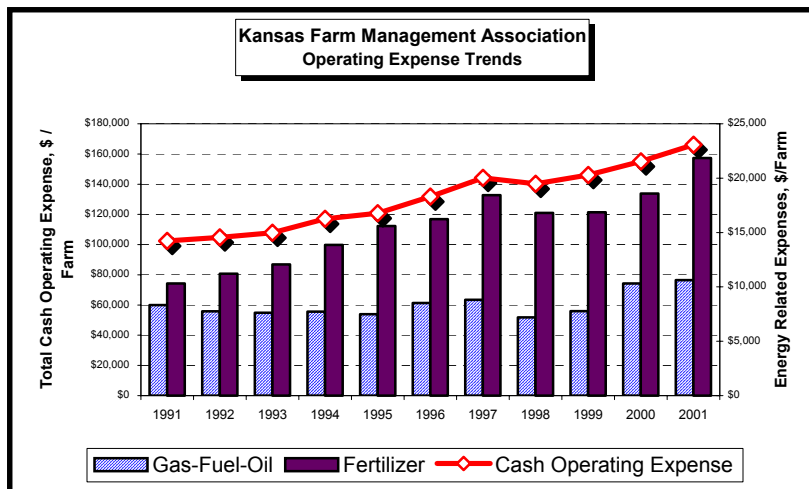
Livestock operations were hit very hard by the weaker U.S. economy, the terrorist attacks on September 11 and a slowdown in meat exports to Japan. Cowherd and cattle backgrounding

operations saw some of the most dramatic losses, partly because of an absolute drop in prices for many of them, but also in an accrual sense. The weaker beef sector led to a decline in livestock's share of Value of Farm Production to 20.8%. This occurred despite stable returns in the hog industry and significantly improved profitability for dairy producers.



Government payments continue to be a significant component of total Value of Production, finishing 2001 at 18.5%, down from 21.3% in 2000. Even with the decline, this is nearly triple the values seen during the mid-1990's. As the *Executive Summary* illustrates, government payments are generally highest per farm in the western areas of Kansas (in absolute dollars) and decline (with farm size) as one moves east.

Operating Expenses- Cash operating expenses increased 7.1% to \$166,103 per farm in 2001. This sharp increase comes on the heels of a 6.2% increase in 2000.

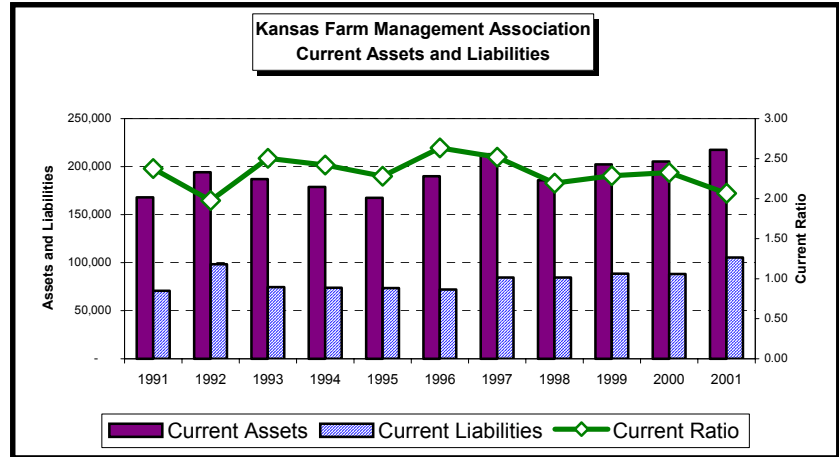


Rising energy prices again had a significant impact on Kansas farmers. Higher diesel and natural gas prices increased fuel, irrigation energy, and fertilizer costs. Sharply higher natural gas prices, the primary feedstock for nitrogen fertilizers, were the primary determinant of the increased fertilizer costs. Fertilizer costs for the average KFMA farm increased by \$3,259 or 17.5%. Irrigation energy costs for farms classified as cash crop

irrigated farms remained at levels that are more than double recent historical averages. In an environment of static gross income, these sharp increases in operating expenses equate to the net farm income decline experienced in 2001.

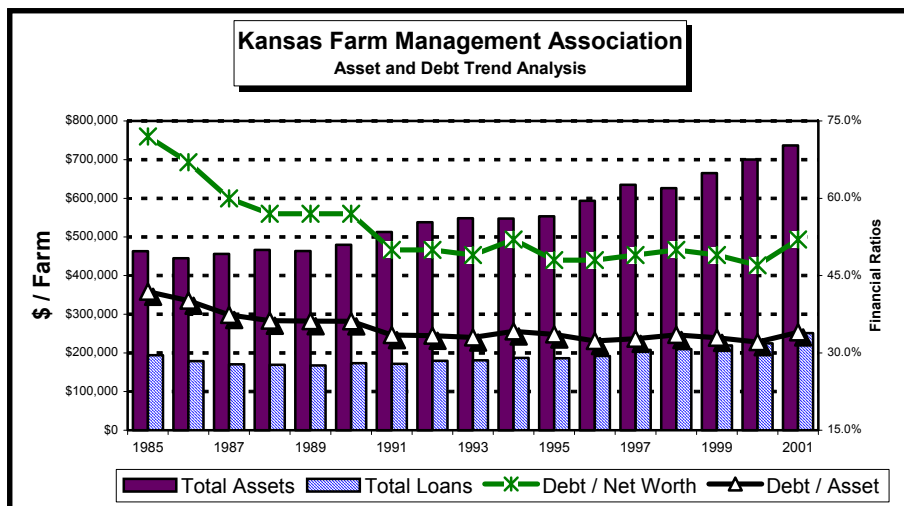
Financial and Efficiency Measures for KFMA Farms

The liquidity of KFMA farms was eroded somewhat as of December 31, 2001. Current assets increased an average of \$12,222 in 2001, while current liabilities increased \$16,950. This led to a decline in the current ratio to 2.07 at the end of 2001 as compared to 2.32 for 2000.



Intermediate and long-term assets increased \$24,211 in 2001, indicating a net increase in machinery and/or land purchases in 2001. Non-current debt saw a relatively modest increase of \$9,458 as of December 31, 2001. This resulted in a Debt / Net Worth Ratio of 0.52 at the end of 2001. This is an increase (worsening) from the end of 2000 ratio of 0.47. While this decline is cause for concern, current solvency ratios remain at quite satisfactory levels when compared with the statistics from the 1980's farm crisis.

Total loans continue to rise as farms have increased in size and machinery has replaced labor. The total debt per farm is some 40% above the mid-1980's, but asset values are nearly 60%

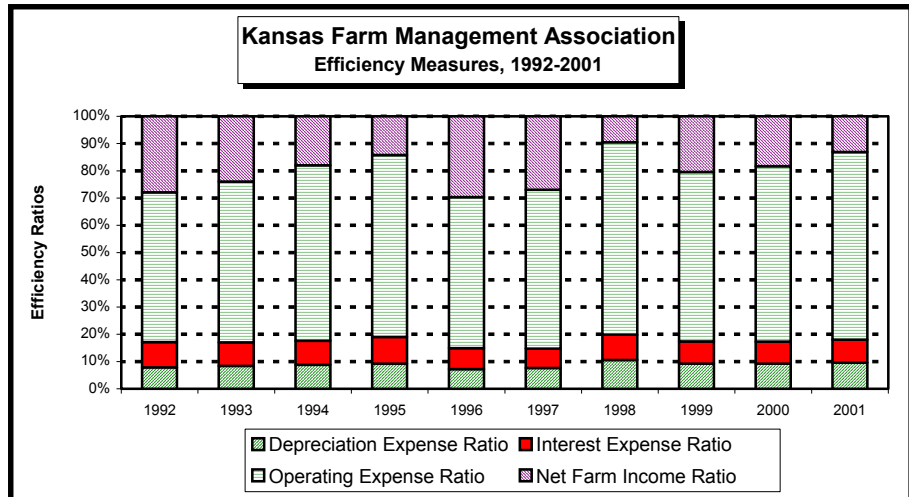


greater than in the mid-1980s. Debt is less approximately one-third of the average farm's assets today compared to 40% of asset value in the 1980s. The Debt/Asset Ratio rose to 0.34 for the KFMA farms in 2001. Government payments have allowed producers to maintain adequate cash flow

and debt service. Strong land values, partially a function of high government payments, are also keeping the financial situation "healthy", especially when compared to the mid 1980's.

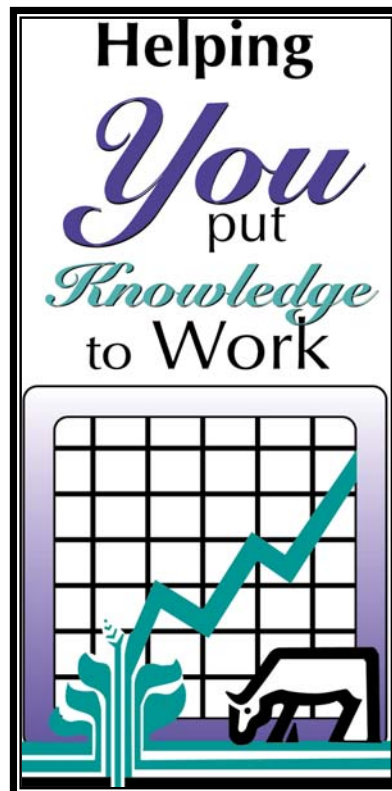
Financial efficiency indicators measure the intensity with which a farm business uses its assets to generate the Value of Farm Production and the effectiveness of production, purchasing, pricing, financing, and marketing decisions. Specifically, the operational ratios reflect the relationship of expense and income categories to Value of Farm Production. The Operating Expense Ratio clearly illustrates why Net Farm Income dropped in 2001. For every \$100 of VFP, KFMA farms spent \$68.97. This is an increase from \$64.42 in 2000. As a general rule, one would prefer the

Operating Expense Ratio to be around 55-60% or less. As it approaches 65-70%, this warning signal should not be ignored. The Interest Expense Ratio and Depreciation Expense Ratio were relatively stable at 8.41% and 9.58% respectively. These levels are comfortably below the desired target of 10-15%. The residual is a Net Farm



Income Ratio of 13.04%, down from 18.31% in 2000. The desired Net Farm Income Ratio is above 20%, while anything in the 10-20% range should be monitored closely.

This document provides a snapshot of the Kansas agricultural economy utilizing the Kansas Farm Management Association database. As the attached *Executive Summary* illustrates, results are highly variable across regions, farm type, and enterprises. The Kansas Farm Management Associations website www.agecon.ksu.edu/kfma/ contains many other summary reports and studies at the whole-farm and enterprise level. These data are useful for illustrating the financial status of the typical Kansas producer as well as establishing benchmarks or guidelines for producers to measure their operations against.



April, 2002

Dear Farm Manager:



EXECUTIVE SUMMARY
2001 ProfitLink Analysis
Kansas Farm Management Associations
www.agecon.ksu.edu/kfma

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The efforts of many farm families throughout Kansas keeping detailed farm business and financial records make possible the annual report of whole farm and enterprise cost-of-production analysis information. The Association Economists, clerical staff, and the K-MAR-105 staff, have just completed a very successful year of working with the Farm Management Association member families to make this information available. The K-MAR-105 Association (www.kmar105.com), under the direction of Larry N. Langemeier, Administrator, has developed the *ProfitLink* Analysis program and other software required to process each farm's production and financial records.

The following tables provide you with a glimpse of the information on a state-wide basis. More detailed analysis will be published soon.

Sincerely,

Martin L. Albright, Administrator
Farm Management Association Program

Michael R. Langemeier, Professor
Department of Agricultural Economics

VALUE OF FARM PRODUCTION

Year	NW	NC	NE	SW	SC	SE
2001	\$256,952	\$193,220	\$206,584	\$230,898	\$214,650	\$207,852
2000	\$258,165	\$197,131	\$182,059	\$258,140	\$213,822	\$208,140
1999	\$265,071	\$201,678	\$178,044	\$254,208	\$214,729	\$187,208
1998	\$250,761	\$160,384	\$163,209	\$212,828	\$175,685	\$150,441
1997	\$212,015	\$192,747	\$217,564	\$243,839	\$216,508	\$234,280
5 Year Avg	\$248,593	\$189,032	\$189,492	\$239,983	\$207,079	\$197,584

NET FARM INCOME

Year	NW	NC	NE	SW	SC	SE
2001	\$27,643	\$28,999	\$33,717	\$13,446	\$11,996	\$38,788
2000	\$38,277	\$30,745	\$28,518	\$48,604	\$36,056	\$49,509
1999	\$67,537	\$44,561	\$25,123	\$55,674	\$43,664	\$37,493
1998	\$50,485	\$14,767	\$12,170	\$31,286	\$16,156	\$3,460
1997	\$30,228	\$51,263	\$51,698	\$48,589	\$60,919	\$81,951
5 Year Avg	\$42,834	\$34,067	\$30,245	\$39,520	\$33,758	\$42,240

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PERCENT OF FARMS IN INCOME GROUPS
FARM MANAGEMENT ASSOCIATIONS
2001

	NW	SW	NC	SC	NE	SE	All Assn.
	%	%	%	%	%	%	%
Over \$140,000 Net Income	6.31	3.38	2.10	1.57	6.06	6.48	4.59
\$120,000 - \$140,000	1.80	0.48	1.40	0.00	1.65	1.85	1.29
\$100,000 - \$120,000	2.70	1.93	3.50	1.88	3.58	2.96	2.84
\$ 80,000 - \$100,000	3.15	1.45	2.10	3.76	4.96	4.44	3.61
\$ 60,000 - \$ 80,000	12.16	7.25	8.39	3.45	8.82	7.59	7.74
\$ 40,000 - \$ 60,000	10.81	10.63	15.38	8.78	14.05	11.85	12.03
\$ 20,000 - \$ 40,000	17.12	15.46	18.18	19.75	13.50	16.30	16.62
\$ 0 - \$ 20,000	19.82	21.26	26.57	21.94	22.59	25.37	23.39
\$ 0 - \$ 20,000 Loss	12.61	15.94	13.99	22.57	14.88	16.11	16.21
\$ 20,000 - \$ 40,000 Loss	5.41	10.14	5.59	7.84	3.86	4.44	5.78
\$ 40,000 - \$ 60,000 Loss	2.70	6.28	1.40	4.08	2.75	1.48	2.79
Over - \$ 60,000 Loss	5.41	5.80	1.40	4.39	3.31	1.11	3.10
TOTAL NUMBER OF FARMS	222	207	286	319	363	540	1,937
AVERAGE NET FARM INCOME	\$27,643	\$13,446	\$28,999	\$11,996	\$33,717	\$38,788	\$27,995

FIVE-YEAR TREND ANALYSIS
TYPE OF FARM
1997-2001

Type of Farm	No. of Farms	Net Income/Operator					
		<u>(2001)</u>	<u>2001</u>	<u>2000</u>	<u>1999</u>	<u>1998</u>	<u>1997</u>
All Farms	1,937		\$28,169	\$39,273	\$42,246	\$16,608	\$58,235
Cash Crop Dryland	1,261		29,534	35,154	34,574	17,981	61,975
Cash Crop Irrigated	129		13,251	60,286	77,954	56,395	50,127
Stock-Ranch Cowherd	41		11,102	21,340	31,550	5,726	26,644
Cowherd	21		2,583	23,804	14,915	(2,932)	15,056
Dairy	50		42,638	38,891	46,847	41,945	39,179
Sow & Litter (Market)	10		116,495	137,405	136,708	(42,228)	103,127
Backgrounding	22		5,454	22,515	31,089	(30,490)	58,220
Cash Crop-Cowherd	174		18,623	28,795	28,742	9,313	31,147
Cash Crop-Dairy	22		40,980	41,602	42,396	34,418	65,888
Cash Crop-Sow & Litter (Market)	7		49,187	103,311	47,279	(341)	58,709
Cash Crop -Livestock	59		38,433	64,522	61,772	(8,644)	60,211
Cash Crop-Backgrounding	36		(7,241)	34,755	72,026	(14,983)	67,982
Cash Crop-Background Finish	15		30,363	102,410	128,708	(14,558)	89,072
Cash Crop-Beef	51		39,263	40,793	77,391	1,651	60,433
Turkeys	12		30,848	41,617	36,085	41,414	42,122
Cash Crop - Feeder Pig	5		92,219	80,987	--	--	--

**VALUE OF PRODUCTION, TOTAL EXPENSE, and NET FARM INCOME
by INCOME --2001**

Assn	Number Farms (25% of Total)	High Income Farms (25%)				Low Income Farms (25%)				Average of all Farms				
		Value of Farm Production	Government Payments	Total Farm Expenses	Net Farm Income	Value of Farm Production	Government Payments	Total Farm Expenses	Net Farm Income	Number of Farms	Value of Farm Production	Government Payments	Total Farm Expenses	Net Farm Income
NW	56	\$405,977	\$73,798	\$299,897	\$106,080	\$242,307	\$56,077	\$292,824	(\$50,518)	222	\$256,952	\$52,606	\$229,309	\$27,643
SW	52	\$335,121	\$58,849	\$247,359	\$87,762	\$261,787	\$56,211	\$319,849	(\$58,061)	207	\$230,898	\$48,244	\$217,452	\$13,446
NC	72	\$319,199	\$52,811	\$230,726	\$88,473	\$129,657	\$25,276	\$148,869	(\$19,212)	286	\$193,220	\$34,791	\$164,221	\$28,999
SC	80	\$304,962	\$48,883	\$237,339	\$67,623	\$245,779	\$46,773	\$285,426	(\$39,647)	319	\$214,650	\$38,952	\$202,654	\$11,996
NE	91	\$379,278	\$66,292	\$266,780	\$112,499	\$151,273	\$22,365	\$180,721	(\$29,447)	363	\$206,584	\$36,563	\$172,867	\$33,717
SE	135	\$431,862	\$71,548	\$307,846	\$124,015	\$121,974	\$23,881	\$139,596	(\$17,622)	540	\$207,852	\$36,040	\$169,064	\$38,788
2001	484	\$367,089	\$62,918	\$264,222	\$102,867	\$182,642	\$36,000	\$214,652	(\$32,010)	1,937	\$214,664	\$39,636	\$186,669	\$27,995
State Average														
2000	521	\$393,589	\$77,393	\$271,536	\$122,053	\$134,965	\$33,280	\$155,068	(\$20,103)	2,083	\$214,104	\$45,614	\$174,907	\$39,197
1999	524	\$398,602	\$81,154	\$272,377	\$126,225	\$117,669	\$31,480	\$133,792	(\$16,123)	2,097	\$207,858	\$47,056	\$165,370	\$42,488
1998	535	\$304,419	\$42,525	\$220,779	\$83,640	\$135,548	\$21,914	\$177,607	(\$42,058)	2,139	\$175,615	\$26,504	\$158,836	\$16,778
1997	541	\$410,484	\$22,648	\$257,880	\$152,604	\$115,173	\$11,206	\$121,628	(\$ 6,455)	2,164	\$220,426	\$14,980	\$161,074	\$59,352
1996	529	\$420,075	\$27,018	\$257,734	\$162,341	\$91,087	\$13,299	\$95,924	(\$ 4,837)	2,115	\$208,860	\$17,496	\$146,945	\$ 61,915
1995	532	\$277,591	\$15,517	\$189,164	\$ 88,427	\$109,340	\$8,224	\$139,173	(\$29,833)	2,126	\$157,621	\$9,800	\$135,268	\$22,353
1994	534	\$285,498	\$17,946	\$194,762	\$ 90,736	\$103,126	\$8,945	\$123,585	(\$20,459)	2,136	\$159,788	\$11,663	\$131,136	\$28,652
1993	529	\$289,189	\$33,718	\$183,020	\$106,120	\$93,369	\$14,695	\$104,293	(\$10,924)	2,110	\$159,371	\$21,005	\$121,202	\$ 38,170
1992	524	\$307,000	\$19,395	\$190,701	\$116,299	\$85,483	\$11,379	\$89,235	(\$ 3,752)	2,096	\$163,164	\$14,529	\$117,689	\$ 45,475
1991	504	\$237,268	\$26,097	\$158,613	\$ 78,655	\$103,153	\$14,135	\$126,357	(\$23,204)	2,013	\$138,121	\$17,267	\$115,234	\$ 22,887

FIVE-YEAR TREND ANALYSIS
AVERAGE OF ALL FARMS
1997 - 2001

	<u>2001</u>	<u>2000</u>	<u>1999</u>	<u>1998</u>	<u>1997</u>
Number of Farms	1,937	2,083	2,097	2,139	2,164
Livestock Gross Income	44,712	51,008	57,134	33,266	49,709
Value of Farm Production	214,664	214,104	207,858	175,615	220,426
Cash Operating Expense - Interest	148,047	137,934	129,242	124,037	128,666
Interest Expense	18,056	17,202	16,905	16,217	15,573
Depreciation	20,566	19,772	19,223	18,582	16,835
Total Farm Expense	186,669	174,908	165,370	158,836	161,074
Accrual Net Farm Income	27,995	39,197	42,488	16,778	59,352
Return to Labor-Management	(12,034)	443	6,351	(18,675)	24,202
Return to Capital	8,920	17,474	19,817	(2,507)	18,913
<u>Values / \$100 of Farm Production:</u>					
Operating Expense	68.97	64.42	62.18	70.63	58.37
Interest Expense	8.41	8.03	8.13	9.23	7.06
Depreciation Expense	9.58	9.23	9.25	10.58	7.64
Total Expense	86.96	81.69	79.56	90.45	73.07
Net Farm Income	13.04	18.31	20.44	9.55	26.93
% Return on Net Worth	(1.89)	0.06	0.67	(4.46)	0.81
Total Loans (Dec. 31)	251,166	224,758	219,063	209,746	207,818
Total Assets (Dec. 31)	736,735	700,302	665,129	626,118	634,881
Total Capital Managed	1,402,614	1,347,954	1,250,010	1,189,423	1,163,752
Current Assets/Current Liabilities (Dec. 31)	2.07	2.32	2.28	2.19	2.52
Total Loans/Total Assets (Dec. 31)	0.34	0.32	0.33	0.33	0.33
Total Acres	1,770	1,754	1,738	1,684	1,686
Crop Acres	1,154	1,144	1,095	1,076	1,062
Number of Workers	1.46	1.41	1.46	1.45	1.49
Number of Operators	0.99	1.00	1.01	1.01	1.02
Gross Crop Value / Crop Acre	173.76	163.46	162.09	165.90	203.31
Crop Production Costs / Crop Acre	120.69	113.93	109.48	108.21	111.29
Machinery Investment / Crop Acre	114.44	108.00	108.40	102.80	94.72
Machinery Costs / Crop Acre	49.38	48.00	47.09	46.14	46.73
Total Family Living Expense	36,332	34,467	35,261	33,611	33,059