



A COMPARISON OF STATE-WIDE KFMA DATA FROM 2006 TO 2007

Kansas farms enjoyed an outstanding year in 2007. Net farm income increased from \$46,930 to \$115,035, a 145% increase. High commodity prices coupled with high yields increased farm revenues more than farm expenses. Producers now need to plan for the future by understanding how the agricultural industry will likely react. Anytime there are large economic profits in a competitive industry such as agriculture, the cost of inputs will increase, a result of producers competing for the same limited resources. Both fixed and operating expenses have already begun and continue to increase for agricultural producers. Producers can expect a lag before expenses catch up with revenue. Uncertainty is one of the causes of this lag. For example, the revenue a farmer receives for his corn crop isn't realized until after the crop has been harvested. After the revenue has been realized, producers will begin planning their next years' crop accordingly. If there were large revenues compared with the expenses required to produce the crop, competition among producers to acquire the inputs necessary to produce the crop will increase.

Table 1 illustrates the changes in crop and miscellaneous revenue from 2006 to 2007. Revenue from all sources, with the exception of

hay and forage and other crop enterprises, increased. The largest percentage increase in revenue from a crop source was derived from sunflowers, while the largest dollar increase in revenue came from the corn enterprise.

The percentage change in individual crop enterprises does not translate into an identical percentage change in total revenue. Figure 1 illustrates the distribution of crop revenue by crop enterprise. This figure does not include government payments, crop insurance proceeds, machine work, or other income. Note from Figure 1 that the large percentage increase in the sunflower enterprise added very little to the total increase in farm revenue. The lower percentage increase in the soybean enterprise added much more to the revenue received by the average KFMA farm. The increase in revenue received from corn had the largest impact on farms in the state. It is also interesting to note that in 2006 corn revenue was not much higher than that of wheat. However in 2007 there was 18% more revenue received from corn than from wheat. It is important to note that wheat yields were relatively low in the central and eastern portions of the state. Thus, part of the change in the relative revenue generated from corn and wheat can be attributed to relatively low wheat yields. The remaining portion of this change is attributable to the increase in demand for corn used to produce ethanol.

Livestock income also increased for most enterprises. Table 2 shows the change in livestock income from 2006 to 2007. Though important to specialized livestock farms, the enterprises that experienced decreases in

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revenue accounted for a very low percentage of the revenue of the average KFMA farm. The largest percentage and dollar increase came from the beef enterprise. Any dollar increase in this sector will be more heavily weighted than other livestock enterprises because of the high percentage of total livestock revenue received from beef relative to the other enterprises.

As alluded to earlier in this article, costs also increased from 2006 to 2007, but not as much as revenue. Table 3 illustrates the change in per farm expenses from 2006 to 2007. The largest dollar increase was for fertilizer. The largest percentage increase was for crop insurance premiums. When any commodity becomes more valuable, the price a producer must pay to insure the commodity will also have to increase. This is almost directly attributable to an increase in commodity prices. The only operating costs that experienced decreases were veterinarian expense, crop storage and marketing expense, dairy expense, irrigation energy, and conservation expense. These expenses were relatively small for the average KFMA farm and thus had little impact on overall operating expense. Fixed costs also increased. Depreciation expenses for both machinery and buildings increased. This increase in fixed cost

is attributable to producers purchasing buildings and equipment. The total increase in farm expense was 15%, much lower than the 35% increase in farm revenue.

Producers now must look to the future. Agriculture is presently going through a very unique time. There is increased volatility in the commodity markets. With increased volatility comes increased risk, however, these increases also present opportunities. Marketing and planning can benefit producers perhaps more now than in any recent time. Farmers need to expect costs to continue to rise as agricultural products become more valuable. The larger highs and lows in the commodity markets present opportunities for farmers to achieve high profits. Farmers must also concern themselves with managing what large profits they may have received as these profit margins will decline. The agricultural industry, as a whole, is far too mature to sustain profit margins such as those experienced in 2007. In summary, excellent planning and management will continue to be essential to farmers.

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Figure 1: Distribution of Crop Revenue for Average KFMA Farm.

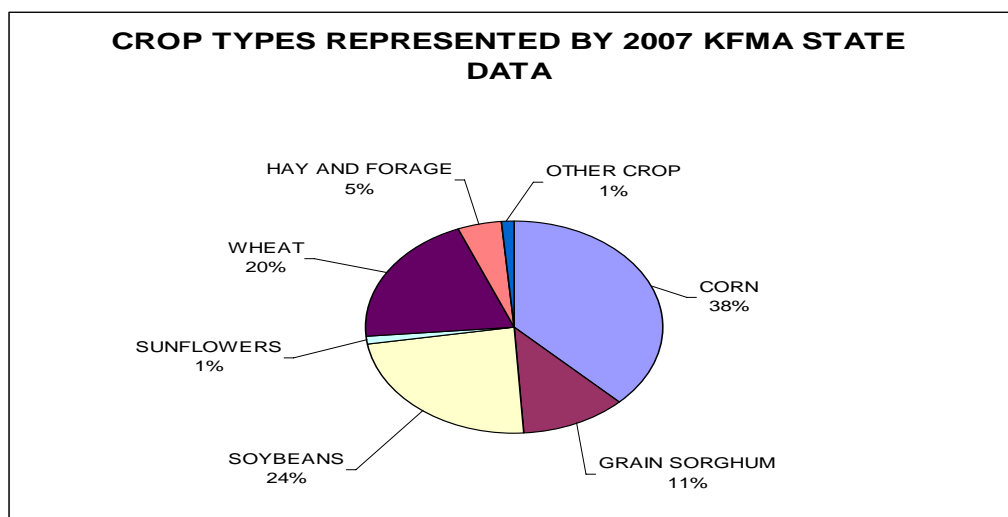


Table 1: Crop and Miscellaneous Revenue Received by Average KFMA Farm.

ITEM	PER FARM (2006)	PER FARM (2007)	% CHANGE	DOLLAR CHANGE
CORN	\$56,095	\$99,879	78%	\$43,784
GRAIN SORGHUM	\$17,074	\$30,194	77%	\$13,120
SOYBEANS	\$38,816	\$63,438	63%	\$24,622
SUNFLOWERS	\$1,145	\$2,381	108%	\$1,236
WHEAT	\$52,658	\$54,454	3%	\$1,796
HAY AND FORAGE	\$14,858	\$12,432	-16%	(\$2,426)
OTHER CROP	\$5,113	\$3,769	-26%	(\$1,344)
GOVERNMENT PAYMENTS	\$22,862	\$23,801	4%	\$939
CROP INSURANCE PROCEEDS	\$12,040	\$27,696	130%	\$15,656
MACHINE WORK	\$8,355	\$8,452	1%	\$97
OTHER INCOME	\$6,732	\$9,505	41%	\$2,773
VALUE OF FARM PRODUCTION	\$301,484	\$407,787	35%	\$106,303

Table 2: Livestock Revenue Received by Average KFMA Farm.

ITEM	PER FARM (2006)	PER FARM (2007)	% CHANGE	DOLLAR CHANGE
BEEF	\$62,156	\$72,704	17%	\$10,548
DAIRY AND MILK	\$14,679	\$16,159	10%	\$1,480
SHEEP	\$278	\$174	-37%	(\$104)
SWINE	\$11,270	\$11,926	6%	\$656
POULTRY AND EGGS	\$1,492	\$1,523	2%	\$31
OTHER LIVESTOCK	\$412	\$400	-3%	(\$12)
CUSTOM FEEDING	\$8,951	\$6,773	-24%	(\$2,178)
FEED PURCHASED	(\$33,502)	(\$37,873)	13%	(\$4,371)
LIVESTOCK INCOME	\$65,735	\$71,786	9%	\$6,051

Table 3: Expenses Incurred by Average KFMA Farm.

ITEMIZED FARM EXPENSES	PER FARM (2006)	PER FARM (2007)	% CHANGE	DOLLAR CHANGE
HIRED LABOR	\$13,610	\$13,655	0%	\$45
MACHINERY REPAIRS	\$22,393	\$24,446	9%	\$2,053
IRRIGATION REPAIRS	\$886	\$1,148	30%	\$262
BUILDING REPAIRS	\$1,990	\$2,183	10%	\$193
INTEREST PAID	\$19,954	\$22,933	15%	\$2,979
SEED-OTHER CROP EXPENSE	\$21,877	\$27,484	26%	\$5,607
CROP INSURANCE	\$6,435	\$10,060	56%	\$3,625
FERTILIZER-LIME	\$33,847	\$46,348	37%	\$12,501
MACHINE HIRE	\$11,876	\$13,484	14%	\$1,608
ORGANIZATION FEE, PUBLICATION	\$3,101	\$3,266	5%	\$165
VET-MED-DRUGS	\$4,793	\$4,476	-7%	(\$317)
CROP STORAGE- MARKETING	\$1,360	\$1,292	-5%	(\$68)
LIVESTOCK MARKETING- BREEDING	\$3,923	\$4,075	4%	\$152
DAIRY EXPENSE	\$1,242	\$950	-24%	(\$292)
GAS-FUEL OIL	\$20,493	\$22,179	8%	\$1,686
IRRIGATION ENERGY	\$4,324	\$4,050	-6%	(\$274)
REAL ESTATE TAXES	\$4,822	\$4,973	3%	\$151
PERSONAL PROPERTY TAXES	\$944	\$1,087	15%	\$143
GENERAL FARM INSURANCE	\$5,086	\$5,408	6%	\$322
UTILITIES	\$5,041	\$5,337	6%	\$296
CASH FARM RENT	\$19,850	\$21,625	9%	\$1,775
HERBICIDE-INSECTICIDE	\$18,017	\$21,513	19%	\$3,496
CONSERVATION	\$760	\$502	-34%	(\$258)
AUTO EXPENSE	\$909	\$954	5%	\$45
TOTAL OPERATING EXPENSE	\$227,534	\$263,428	16%	\$35,894
DEPRECIATION-MACHINERY	\$23,952	\$25,796	8%	\$1,844
DEPRECIATION-BUILDINGS	\$3,069	\$3,528	15%	\$459
TOTAL FARM EXPENSE	\$254,554	\$292,752	15%	\$38,198

LONG-TERM TRENDS IN FARM INCOME

This article documents the long-term trends in value of farm production, net farm income, and the net farm income ratio using Kansas Farm Management Association (KFMA) summary data from 1973 to 2007. Trends in farm income are also compared to inflation over the same time period. Given the relatively high net farm income in 2007, it is important to relate this year to previous years and determine whether 2007

was as unusual as it has been suggested to be by some individuals.

The net farm income ratio is computed by dividing net farm income by value of farm production. The accompanying figure illustrates this ratio for KFMA farms from 1973 to 2007. The net farm income ratio averaged 28.21% in 2007. The net farm income ratio has been over

25% four other times since the early 1970's: 1973 (46.34%), 1978 (27.60%), 1979 (28.29%), and 1996 (25.85%). Thus, though relatively high in 2007, the net farm income ratio in 2007 was not that unusual compared to historical ratio values.

One of the reasons why 2007 seems so unusual to some individuals is due to their failure to take account of inflation when examining trends in income. The annual growth rates in value of farm production and net farm income over the 1973 to 2007 periods were 2.99% and 3.65%, respectively. These growth rates are comparable to the growth rate in the implicit price deflator for personal consumption expenditures of 3.61% per year over the same period. Interestingly, there was not a significant trend in the net farm income ratio over the 1973 to 2007 period.

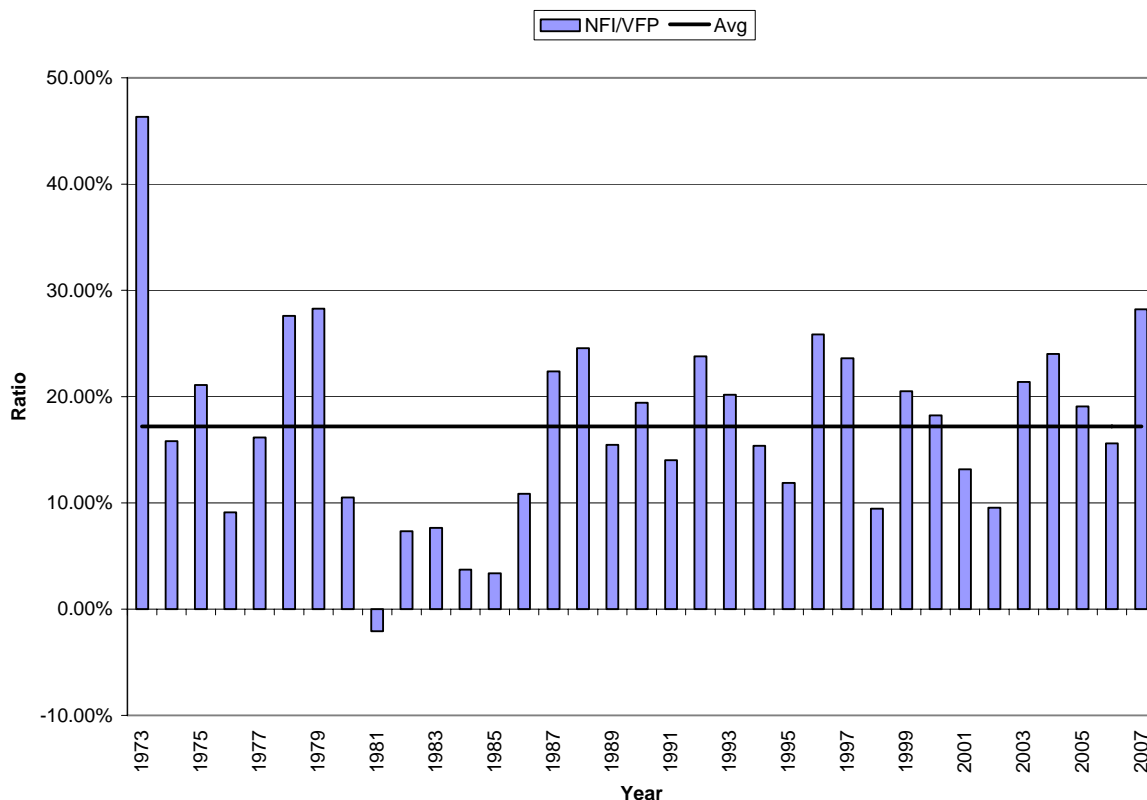
The net farm income ratio is likely to be lower in 2008 than it was in 2007. Using USDA price

indices, prices received by farmers were approximately 10% higher in May 2008 than they were in May 2007. Now, for the not so good news, prices paid by farmers were approximately 14% higher in May 2008 than they were in May 2007. Fuel and fertilizer prices are up sharply. Fuel prices are up 49% while fertilizer prices are up 69% since May 2007.

As I have indicated in previous newsletter articles (see February 2008 newsletter for a discussion of benchmarking), profitability, measured using the net farm income ratio, profit margin, or a similar measure, can vary significantly among farms. Individual farms are encouraged to compare their five-year average net farm income ratio to producers in their association.

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Trend in Net Farm Income Ratio



IMPACT OF ENERGY PRICE INCREASES ON IRRIGATED AND NON-IRRIGATED CROP FARMS IN KANSAS

This article documents increases in seed expense; fertilizer and lime expense; herbicide and insecticide expense; gas, fuel, and oil expense; crop machinery cost; and crop production cost from 2002 to 2007 using data from non-irrigated and irrigated crop farms participating in Kansas Farm Management Association (KFMA) program. Crop machinery cost includes the crops' share of repairs, gas, fuel, oil, machine hire, economic depreciation, an opportunity charge on machinery and equipment investment, and an adjustment for machine work income. Crop production cost includes hired labor, machinery cost, seed, fertilizer and lime, herbicide and insecticide, storage and marketing, insurance, supplies, utilities, and dues and fees.

On average, 1,194 KFMA farms were classified as non-irrigated farms and 94 KFMA farms were classified as irrigated crop farms over the 2002 to 2007 time period. At least two-thirds of the labor for these farms was used to produce non-irrigated or irrigated crops. Many of these farms also had a livestock enterprise.

Production cost is impacted by price changes, technology, and crop mix. Adopting technology (e.g., switching to a reduced tillage system) and changes in a farm's crop mix often change the optimal mix of inputs. It was not possible to disentangle the impacts of price changes, technology adoption, and crop mix changes in the analysis summarized below.

Table 1 compares a five year average (2002-2006) to 2007 for non-irrigated farms. Increases in per acre costs ranged from 28.03% for

herbicide and insecticide to 59.50% for fertilizer and lime. A large portion of the increase in fertilizer cost occurred last year. Fertilizer cost per acre increased by 30.41% from 2006 to 2007. Crop machinery cost increased 21.36% and crop production cost increased 29.15% on a per acre basis from 2002-2006 to 2007.

Table 2 compares a five year average (2002-2006) to 2007 for irrigated farms. Many of the irrigated expenses increased at a higher rate than the non-irrigated expenses. Once again, fertilizer and lime had the largest percent change at 106.58%. From 2006 to 2007, fertilizer cost per acre increased 61.89%. Crop machinery cost increased 25.15% and crop production cost increased 41.07% on a per acre basis from 2002-2006 to 2007.

Though not shown in the tables, fertilizer costs are expected to also increase sharply in 2008. Using a USDA prices paid index for fertilizer, the price of fertilizer increased 65% from April 2007 to April 2008.

More information pertaining to increases in production costs on non-irrigated and irrigated crop farms can be found on the AgManager web site (www.agmanager.info) under "Energy".

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Table 1. Major Crop Related Expenses for Non-Irrigated KFMA Crop Farms, 5-Year Average and 2007.

Expense Category	2002-2006	2007	% Change
<u>Expense per Crop Acre</u>			
Seed	\$14.26	\$19.83	39.07%
Fertilizer and Lime	\$20.74	\$33.08	59.50%
Herbicide and Insecticide	\$12.32	\$15.77	28.03%
Gas, Fuel, and Oil	\$11.97	\$16.41	37.07%
Machinery Cost	\$48.68	\$59.07	21.36%
Crop Production Cost	\$122.63	\$158.38	29.15%

Source: Kansas Farm Management Association 2007 Databank.

Table 2. Major Crop Related Expenses for Irrigated KFMA Crop Farms, 5-Year Average and 2007.

Expense Category	2002-2006	2007	% Change
<u>Expense per Crop Acre</u>			
Seed	\$23.33	\$34.59	48.26%
Fertilizer and Lime	\$27.65	\$57.12	106.58%
Herbicide and Insecticide	\$20.29	\$28.99	42.88%
Gas, Fuel, and Oil	\$41.42	\$49.55	19.63%
Machinery Cost	\$70.79	\$88.59	25.15%
Crop Production Cost	\$204.91	\$289.07	41.07%

Source: Kansas Farm Management Association 2007 Databank.

The Kansas Farm Management Association (KFMA) Newsletter is distributed monthly to provide farm management information to farm decision makers. Further farm management information can be found on the KFMA program website: www.kmar105.com/kfma; and, on the Extension Agricultural Economics website: www.agmanager.info. The Newsletter is edited by Michael Langemeier, Professor, Department of Agricultural Economics, Kansas State University.



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