



KANSAS FARM MANAGEMENT ASSOCIATION

Your Farm - Your Information - Your Decision

N E W S L E T T E R

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CELEBRATE AMERICAN AGRICULTURE

July is the month that we as Americans celebrate our independence and freedom. President Thomas Jefferson said “Cultivators of the earth are the most valuable citizens. They are the most vigorous, the most independent, the most virtuous and they are tied to their country and wedded to its liberty and interests by the most lasting bonds...”. Truly those employed in production agriculture are vital to our nation. During the era of the civil war, nearly 150 years ago, half of the United States population was employed in agriculture. As of 2006, less than 1% of the population was directly employed in agriculture.

Recent data indicates American consumers spend only 10.9% of their income on food products compared to the following countries:

United Kingdom	11.2%
Sweden	14.6%
France	14.8%
Australia	14.9%
New Zealand	15.4%
Italy	17.2%
Germany	17.3%
Japan	17.6%
Spain	18.2%
Israel	20.5%
Mexico	24.5%
South Africa	27.5%

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The media likes to discuss the cost of agricultural federal farm programs. Dollars spent on US farm policy accounts for a little more than ½ of 1% of the entire US budget. Broken down per person, it costs about 13 pennies per day to fund federal farm programs. This is certainly a small price to pay to assure that we maintain the quality of life that we are used to as well as a dependable food supply.

We certainly are going to face challenges in American agriculture. In the United States the average age for farmers and ranchers is 52.4 years old, an increase of 3 years from just 10 years ago. 22% of United States producers are older than 65 while only 10% are less than 35 years old. Net income as a percent of the gross in the 1950's was 35%. Today across the nation it averages 20% and without government payments, it drops to 12%.

Operating expenses continue to be of concern. According to the 2007 state-wide analysis summary, total farm expense increased \$40,594 or up 16.1% from 2006. Most of the increase came from fertilizer (up 36.7%), seed and other crop expense (up 26.4%) and herbicide and insecticide (up 18.6%).

With all of the concerns expressed earlier, this is still an exciting time to be involved in production agriculture. In the last several years we have seen the development of crops that are resistant to extreme weather and disease (increased yields). We have experienced the improvement in farm equipment by Global Positioning Systems using satellites. Producers have been encouraged (through government

programs) to place environmentally sensitive lands out of production and enroll them in the Conservation Reserve Program. More than 36 million acres have been enrolled at one time or another. Especially in the last 10 years, the use of the Internet has increased communication and

provided a method of educating farmers and ranchers 24/7. Let us as a country celebrate the blessings we indeed have.

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THE 2008 FARM BILL

After months of public debate, behind-the-scenes political wrangling, and various delays, the 2008 Farm Bill finally became law. Officially known as the *Food, Conservation, and Energy Act of 2008*, this legislation will allocate approximately \$300 billion for agriculture and nutrition programs over the next five years. Following are some highlights of the 2008 Farm Bill that will be relevant to Kansas producers.

Commodity Programs

Direct payments, counter-cyclical payments, and marketing assistance loans and loan deficiency payments, the commodity program safety net from the 2002 Farm Bill, received only minor changes in the 2008 Farm Bill. Direct payments will be reduced by 1.7% for 2009-2011 by lowering the percentage payment on base acres from 85% to 83.3%. Target prices for the counter-cyclical program were rebalanced for most commodities. Target prices for wheat, grain sorghum, barley, oats, soybeans, and other oilseeds were increased modestly for crop years 2010-2012, while the target price for cotton was reduced slightly for all five years of the Farm Bill. Similarly, marketing loan rates in the marketing assistance loan program were increased slightly for wheat, barley, oats, and other oilseeds for crop years 2010-2012. There were no reductions in marketing loan rates for any commodity.

A new, optional program in the 2008 Farm Bill is the Average Crop Revenue Election (ACRE) program. This program is a revenue counter-cyclical program that is designed to provide

support to producers when crop revenue falls below the established revenue guarantee for that crop. So instead of only providing support when prices fall, ACRE offers the opportunity to provide support when yields are reduced as well. Sign up for ACRE will begin with the 2009 crop and will be offered each year through 2012. However, producers who choose ACRE must stay in the program for the remainder of the farm bill.

Although the overall mechanics of ACRE are more involved, it is basically designed as a state-level revenue counter-cyclical program that makes payments when actual state revenue is less than the state revenue guarantee. The state revenue guarantee equals the 5-year average crop yield (excluding the crop years with the highest and lowest yields) times the national average market price for the most recent 2 crop years. Actual state revenue equals the state yield per planted acre times the national average market price.

Another provision of ACRE would require producers who enroll in the program to give up 20% of their direct payment and reduce marketing loan rates by 30%. Because of the tradeoffs between ACRE and the traditional commodity programs, the decision to sign up may not be straightforward. As a result, considerable thought and analysis should be given before deciding whether or not to sign up for ACRE.

Supplemental Agricultural Disaster Assistance

The 2008 Farm Bill also established an Agricultural Disaster Relief Trust Fund to provide support to producers in the event of an agricultural disaster. Through the Trust Fund, supplemental disaster assistance will be provided in several different forms. Most notably for Kansas producers, supplemental revenue (SURE) coverage is available to eligible producers in counties with a qualifying natural disaster declaration that have incurred crop production and/or crop quality losses. This program is a whole farm program in which producers must insure at least 50% of yield and 55% of price for each crop on a whole farm. If whole farm revenue is less than the disaster guarantee, then payments will be made.

In addition to SURE for crop producers, two programs offer disaster assistance for livestock producers. Livestock indemnity payments will be available to eligible producers who have incurred livestock death losses in excess of the normal mortality due to adverse weather. The Livestock Forage Disaster Program offers compensation to eligible livestock producers for grazing losses due to drought conditions or fire.

Payment Limitations

Payment limitations and payment eligibility were two of the most contentious issues in the farm bill debate. The 2008 Farm Bill maintains the current payment limit caps for direct payments and counter-cyclical payments at \$40,000 and \$65,000, respectively. However, all limits on marketing loan benefits, including loan deficiency payments and marketing loan gains were removed. If a producer enrolls in ACRE, payment limitations will be \$32,000 for direct payments and \$73,000 for ACRE payments.

The most significant change in regard to payment limitations is that the 2008 Farm Bill eliminates the three-entity rule in which

producers can effectively double the individual payment limit by receiving full payments under one business entity and payments up to half the individual limit in up to two additional entities. By eliminating the three-entity rule, direct attribution of payments to individuals will be required. With direct attribution, producers will be able to be involved in as many entities as they choose, but payments from those entities cannot total more than the individual limits for direct and counter-cyclical payments. However, spouses in farming operations receiving payments will also be eligible to receive payments—effectively doubling the individual limits for the farm operation.

In addition to the individual payments limits, the 2008 Farm Bill modifies the adjusted gross income (AGI) eligibility standard. The 2002 Farm Bill established commodity program eligibility requirements based on AGI. Producers with AGI greater than \$2.5 million were not eligible for commodity payments unless 75 percent of that income came from agricultural sources. The 2008 Bill makes all producers with *non-farm* AGI greater than \$500,000 or *farm* AGI greater than \$750,000 ineligible for commodity payments. As with payment limitations, spouses also qualify under the new rules which will effectively double the eligibility standard for married couples.

Conservation Programs

Conservation spending in the 2008 Farm Bill was increased by nearly \$8 billion. Focusing on some of the most popular conservation programs in Kansas, the Conservation Reserve Program (CRP) was extended through 2012, and funding for the Environment Quality Incentives Program (EQIP) and Conservation Stewardship Program, formerly called the Conservation Security Program (CSP), was increased.

Although CRP was extended, total acreage is capped at 32 million acres from 2010-2012. The acreage cap in the 2002 Farm Bill was 39.2 million acres (current CRP enrollment is 34.7

million acres.) The reduction in CRP acreage is not the result of a government mandated cutback, but reflects the expected conversion of CRP back to crop production as a result of current market conditions.

Country of Origin Labeling

After implementation was delayed following passage in the 2002 Farm Bill, new provisions for mandatory Country of Origin Labeling (COOL) for beef, lamb, pork, chicken, and goat were agreed to be implemented in 2008. The COOL provisions in the 2008 Farm Bill establish three labeling options for meat. These options include: 1) U.S. Country of Origin label for animals exclusively born, raised, and slaughtered in the U.S., 2) Multiple Countries of Origin label for animals that were not exclusively born, raised, and slaughtered in the U.S., 3) Imported for Immediate Slaughter label for animals imported in the U.S. for immediate slaughter, and 4) Foreign Country of Origin label for meat products that are derived from an animal that is not born, raised, or slaughtered in the U.S. COOL provisions also allow for ground

meat products to be labeled with a list of countries from which the products could be derived. Verification of country of origin can be provided through existing business records, animal health papers, import or customs documents, or producer affidavits.

Summary

The 2008 Farm Bill maintains many old programs and implements some new programs. Whether new or old it is important that producers become familiar with programs that may pertain to them. This is especially true with the commodity programs, as producers must decide whether to participate in ACRE or stay with the traditional commodity programs. Because final regulations on the 2008 Farm Bill will not be completed by USDA for some time, immediate decisions will not be necessary for most programs. As more details emerge, information will be made available at <http://www.agmanager.info/policy/>.

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THE RELATIVE COST EFFICIENCY OF NO-TILL FARMS IN CENTRAL KANSAS

Using KFMA data for North Central and South Central Kansas, this article documents cost differences between farms that have adopted a no-till production system, and those with conventional or a reduced tillage system. The characteristics and profitability of no-till and mixed tillage farms are also compared.

The KFMA program provides detailed cost information on a harvested acre basis for each participating farm. These costs are often summarized and compared across farms or groups of farms. Cost comparisons include the following cost breakdowns: labor cost, machinery cost, crop cost, improvement cost, asset charges, and other expenses. In addition to documenting differences in detailed cost

categories between no-till and mixed tillage farms, this article examines differences in the following farm characteristics: total acres, crop acres, harvested acres, a crop intensity index, percent of crop acres planted to wheat, percent of crop acres planted to feed grains, percent of crop acres planted to oilseeds, value of farm production, net farm income, labor cost as a percent of value of farm production, value of farm production per worker, expense ratios, operating profit margin, and asset turnover ratio. The crop intensity index is computed by dividing harvested acres by crop acres. Farms that are double cropping would have an index above 1.00.

Tables 1-2 contain detailed cost comparisons for

north central and south central KFMA farms. The no-till farms have relatively more crop acres. The no-till farms in south central Kansas had a relatively higher crop intensity index. Total cost per harvested acre was similar between tillage groups in north central Kansas. In contrast, the no-till farms in south central Kansas had a total cost per harvested acre that was approximately \$13 lower than that of the mixed tillage farms. Labor cost, machinery cost, and asset charges per acre were relatively lower for the no-till farms. Crop cost per acre was relatively higher for the no-till farms.

Table 3 contains a comparison of the characteristics of no-till and mixed tillage farms. The no-till farms tend to be larger, as measured using either total acres or value of farm production, farm their ground more intensely, produce less wheat, and produce more feed grains and oilseeds. Crop rotation information is not collected from KFMA farms. However, using the information in Table 3, it appears that the no-till farms are including feed grains and oilseeds in their rotations to a greater extent than the mixed tillage farms.

The no-till farms are relatively more labor efficient (i.e., have a lower labor cost as a percent of value of farm production and a higher value of farm production per worker) and have a lower economic total expense ratio indicating that they are more cost efficient. The no-till

farms, on average, have a higher operating profit margin ratio and asset turnover ratio. Though the no-till farms are on average larger, more cost efficient, and more profitable, it is important to note that these tendencies are not true for all farms. A relatively large percent of the no-till farms, approximately 24%, have a value of farm production below \$250,000. Similarly, approximately 16% of the mixed tillage farms have a value of farm production above \$500,000. In terms of profitability, approximately 19% of the no-till farms had a negative profit margin and approximately 31% of the mixed tillage farms have above average profit margins.

In summary, the no-till farms in the central KFMA associations have, on average, a cost advantage. Having said that, adopting a no-till system will not necessarily translate into a cost advantage. As indicated in an earlier newsletter, every farm has a unique set of resources to work with (see the article pertaining to the identification of unique resources in the April 2008 newsletter). Thus, what works for some farms will not necessarily work for other farms. If a farm does decide to reduce tillage, examining analysis trends is an excellent way to determine the impact of the change on the farm operation.

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Table 1. Detailed Cost per Acre Comparisons for North Central Kansas Farms.^a

Item	No-Till Farms	Mixed Tillage Farms
Number of Farms	66	195
Crop Acres	1,512	971
Harvested Acres	1,578	1016
Crop Intensity Index	1.044	1.046
<u>Labor Cost</u>		
Hired Labor	6.13	6.52
Operator and Family Labor	26.69	31.62
Sub-Total	32.82	38.14
<u>Machinery Cost</u>		
Repairs	16.83	16.30
Machine Hire	4.45	8.15
Gas, Fuel, and Oil	11.57	14.14
Depreciation	11.38	11.10
Sub-Total	44.23	49.69
<u>Crop Cost</u>		
Seed and Crop Insurance	23.09	19.97
Fertilizer	35.73	32.14
Herbicide	20.49	12.25
Miscellaneous	1.12	1.08
Sub-Total	80.43	65.44
<u>Improvement Cost</u>		
Sub-Total	2.09	2.31
<u>Asset Charges</u>		
Interest Paid	11.14	11.94
Cash Farm Rent	12.18	11.01
Opportunity Charges	24.26	28.26
Sub-Total	47.58	51.21
<u>Other Expenses</u>		
Sub-Total	12.76	13.41
Total Cost per Harvested Acre	219.91	220.20

^a Source: Kansas Farm Management Association Databank, 2007.

Table 2. Detailed Cost per Acre Comparisons for South Central Kansas Farms.^a

Item	No-Till Farms	Mixed Tillage Farms
Number of Farms	39	256
Crop Acres	2,065	1,416
Harvested Acres	2,203	1,405
Crop Intensity Index	1.067	0.992
<u>Labor Cost</u>		
Hired Labor	8.86	7.12
Operator and Family Labor	22.67	30.61
Sub-Total	31.53	37.73
<u>Machinery Cost</u>		
Repairs	13.51	17.54
Machine Hire	8.58	9.34
Gas, Fuel, and Oil	10.11	16.06
Depreciation	16.63	14.18
Sub-Total	48.83	57.12
<u>Crop Cost</u>		
Seed and Crop Insurance	27.19	24.90
Fertilizer	34.85	35.17
Herbicide	19.03	13.57
Miscellaneous	2.28	2.72
Sub-Total	83.35	76.36
<u>Improvement Cost</u>		
Sub-Total	2.75	2.31
<u>Asset Charges</u>		
Interest Paid	11.12	12.09
Cash Farm Rent	6.54	8.04
Opportunity Charges	26.06	29.76
Sub-Total	43.72	49.89
<u>Other Expenses</u>		
Sub-Total	11.55	11.62
Total Cost per Harvested Acre	221.73	235.03

^a Source: Kansas Farm Management Association Databank, 2007.

Table 3. Characteristics of No-Till and Mixed Tillage Farms in Central Kansas.^a

Item	No-Till Farms	Mixed Tillage Farms
Total Acres	2,130	1,661
Crop Acres	1,708	1,250
Harvested Acres	1,800	1,264
Crop Intensity Index	1.054	1.011
Percent of Crop Acres Planted to Wheat	43.97%	54.00%
Percent of Crop Acres Planted to Feed Grains	29.92%	23.04%
Percent of Crop Acres Planted to Oilseeds	21.25%	11.92%
Value of Farm Production (VFP)	\$481,842	\$318,880
Net Farm Income (NFI)	\$134,027	\$73,585
Labor Cost as a Percent of VFP	13.82%	17.87%
Value of Farm Production per Worker	\$308,873	\$243,792
Total Expense Ratio (TER)	0.722	0.769
Adjusted Total Expense Ratio (ATER)	0.829	0.915
Economic Total Expense Ratio (ETER)	0.955	1.077
Percent of Farms with ETER less than 1.000	55.14%	34.01%
Operating Profit Margin Ratio	0.2226	0.1447
Percent of Farms with Negative Profit Margin	18.69%	36.49%
Percent of Farms with Above Average Profit Margin	47.66%	31.08%
Asset Turnover Ratio	0.4303	0.3422
Percent of Farms with VFP less than \$100,000	0.00%	15.77%
Percent of Farms with VFP between \$100,000 and \$250,000	24.30%	32.88%
Percent of Farms with VFP between \$250,000 and \$500,000	42.99%	35.14%
Percent of Farms with VFP greater than \$500,000	32.71%	16.22%

^a Source: Kansas Farm Management Association Databank, 2007.

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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