

# **FARM ECONOMICS** Facts & Opinions

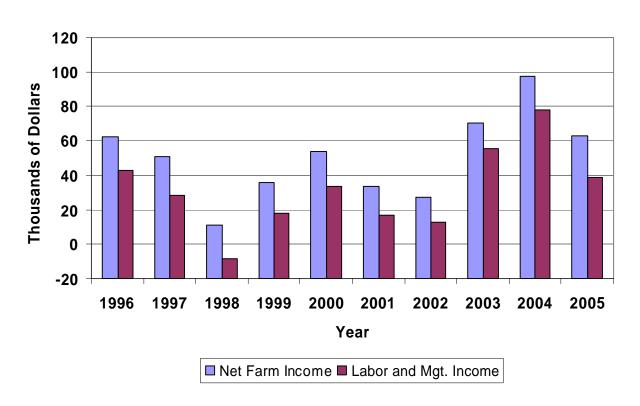
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# Lower Corn Yields and Higher Input Costs Reduce Farm Earnings in 2005

Based on recently summarized Illinois Farm Business Farm Management Association (FBFM) records, average returns for labor and management on 2,940 Illinois farms was lower for all geographic areas in 2005 compared to 2004 and slightly below the average for the last five years. Significantly lower corn yields and increased costs were the main factors leading to the lower incomes. Returns to the livestock enterprises were above the last five year average and contributed positively to earnings on livestock farms. Lower grain prices resulted in higher farm program payments which supported farm incomes. The highest earnings were recorded in central and southern Illinois. Lower earnings were recorded in western, north-central and north-eastern Illinois.

Figure 1. Operator's Net Farm Income and Labor and **Management Income** 



#### **Labor and Management Earnings**

The average return to the operator's labor and management income in 2005 was \$38,787 (Figure 1). This return can be thought of as the farmer's "wage" or "salary". This is what remains from the operator's net farm income after a fair return to the operator's equity in machinery and land has been subtracted. The 2005 return was \$39,119 below the 2004 average of \$77,906 and \$1,625 below the five-year average. There were two years during the last five where earnings were above the 2005 average and two years where earnings were below. Labor and management incomes varied greatly during the last five years, ranging from a low of \$12,976 in 2002 to the high of \$77,906 in 2004.

Operator's labor and management income was \$40,000 to \$60,000 in central and southern Illinois and \$15,000 to \$25,000 from western Illinois to north-eastern Illinois.

# **Crop Yields and Prices**

The average corn yield on the 2,940 farms was 148 bushels per acre. Soybean yields averaged 51 bushels per acre. Corn yields in 2005 were significantly below the record-setting 2004 levels. Corn yields were 36 bushels per acre lower in 2005 compared to yields recorded in 2004. Soybean yields were only slightly below the 2004 record high level, 2 bushels per acre lower than in 2004. Corn and soybean yields were the highest in the central and east-central Illinois. Although significantly below 2004 yields, corn yields were better than expected for many producers considering the dry summer.

Year-end inventory price for the 2005 corn crop of \$1.95 per bushel was 10 cents per bushel higher than a year earlier. Soybeans were inventoried at \$5.90 per bushel, 50 cents higher than December 31, 2004. Average sales prices received for the 2004 corn and soybean crop sold in 2005 were above their inventory price resulting in a positive marketing margin. Crop returns averaged \$407 per tillable acre, \$16 per acre lower than the 2004 crop returns.

#### **Earnings by Farm Type**

Wages earned by farm operators were highest on hog farms followed by dairy, grain and beef farms. Returns to operator's labor and management averaged \$89,912 on hog farms, \$72,012 on dairy farms, \$36,472 on grain farms and \$15,830 on beef farms. Farms classified as grain farms were 88 percent of all farms while hog farms comprise 4 percent of the total.

#### **Government Farm Program Payments**

Total government farm program payments to producers increased in 2005 compared to the three previous years mainly because of lower corn prices at harvest time resulted in large loan deficiency payments on a high percentage of the corn crop. The marketing year price for the 2005 corn crop will average low enough for counter cyclical payments to be paid out also. Payments per acre were similar to payments received by producers during the 1999 through 2001 time period. Government farm program payments in 2005 were about 19 percent of gross farm returns. In 2004, farm program payments were 13 percent of gross farm returns.

# **Farm Size**

The average size of these farms continues to grow, averaging 977 tillable acres in 2005. This was 18 acres larger than the previous year and 99 acres larger than five years ago. Farms classified as grain farms averaged 1,034 tillable acres compared to dairy farms, which averaged 426 tillable acres.

#### **Machinery and Equipment Expenditures**

Spending for machinery and equipment was lower than the year before. Expenditures decreased 12 percent in 2005 compared to 2004, averaging \$44,110 per farm, or \$45 per tillable acre. Machinery purchases in 2004 averaged \$52 per tillable acre and in 2003 averaged \$39.

#### **Increased Costs**

Per acre fertilizer, chemical, seed and fuel costs increased significantly in 2005 compared to 2004. Fertilizer costs increased 16 percent, chemical and seed costs 11 percent and fuel costs 29 percent. Crop costs (fertilizer, pesticides and seeds) on the 2,940 farms averaged almost \$126 per acre in 2005. Crop costs averaged \$111 per acre in 2004 and \$97 per acre in 2001. Fuel and oil costs averaged \$16.50 in 2005 compared to \$12.80 in 2004 and \$10.80 in 2001. These costs are expected to remain at relatively high levels in 2006.

# **Costs to Grow Corn and Sovbeans**

Total economic costs per acre to produce corn and soybeans in 2005 increased as compared to 2004. Large increases occurred in crop, fuel and interest categories. Cost per bushel to produce corn also increased in all areas of the state due to the higher costs and lower yields. Cost per bushel to raise soybeans also increased in all areas of the state because of the higher costs and slightly lower yields in 2005 compared to 2004. Total economic costs per acre to raise corn and soybeans on these farms averaged \$458 and \$353 respectively.

From a sample of pure grain farms in the state, the total economic costs per bushel of corn produced were \$3.05 with an average yield of 150 bushels per acre. The total costs per bushel of soybeans were \$6.84 with an average yield of 52 bushels per acre. This compared with costs per bushel of \$2.31 and \$6.23 for corn and soybeans respectively in 2004. This was the highest cost per bushel to grow corn since 1997. The 2005 cost to grow soybeans was below the last five and ten-year average. The variation in yields and costs the past few years makes it important to analyze these costs over more than one year. The 2001-05 five-year average to produce corn and soybeans on these farms is \$2.60 per bushel for corn and \$7.05 per bushel for soybeans.

#### **Livestock Returns**

Returns to dairy and beef cow enterprises were higher than the year before while returns to hog, feeder pig and feeder cattle enterprises were lower. However, returns to all five enterprises in 2005 were higher than the last five-year average. All livestock enterprises benefited from lower feed costs. Lower market hog and year-end inventory prices were the main factor for the lower hog returns. Even though they were lower than the year before, returns for farrow-to-finish hog producers were estimated to be about \$6 to \$8 per hundredweight above the breakeven level in covering total costs in 2005. Dairy producers experienced better returns even though milk prices were lower due to lower feed costs, \$2,196 returns above feed per cow in 2005 compared to \$2,029 in 2004. Milk prices were 3 percent lower compared to the year before. Returns to feeder cattle enterprises were at their lowest level in three years but above the last five-year average. Returns were lower primarily due to higher prices paid for replacement cattle. Slaughter cattle prices received were 1 percent lower while prices paid for replacement feeder cattle were 8 percent higher. Returns above feed per cow increased for beef cow enterprises due to higher prices received for market animals. Returns were significantly above the last five-year average.

#### Looking Ahead to 2006

Crop costs (fertilizer, chemicals and seed), fuel and interest costs are projected to remain at relatively high levels or increase in 2006. For farm earnings to remain at above average levels, crop yields, grain prices or both will need to be above the last five-year averages. Incomes on livestock farms will be lower than



in recent years due to projected lower product prices. Producers need to plan accordingly for 2006 and monitor their actual cash flows against projections.

# **Good Records a Key**

The author would like to acknowledge that data used in this study comes from the local Farm Business Farm Management (FBFM) Associations across the State of Illinois. Without their cooperation, information as comprehensive and accurate as this would not be available for educational purposes. FBFM, which consists of 6,000 plus farmers and 60 professional field staff, is a not-for-profit organization available to all farm operators in Illinois. FBFM field staff provides on-farm counsel with computerized recordkeeping, farm financial management, business entity planning and income tax management. For more information, please contact the State FBFM Office located at the University of Illinois Department of Agricultural and Consumer Economics at 217-333-5511 or visit the FBFM website at www.fbfm.org.

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