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Higher Costs and Lower Grain Prices Lead to Lower Farm Earnings in 2023

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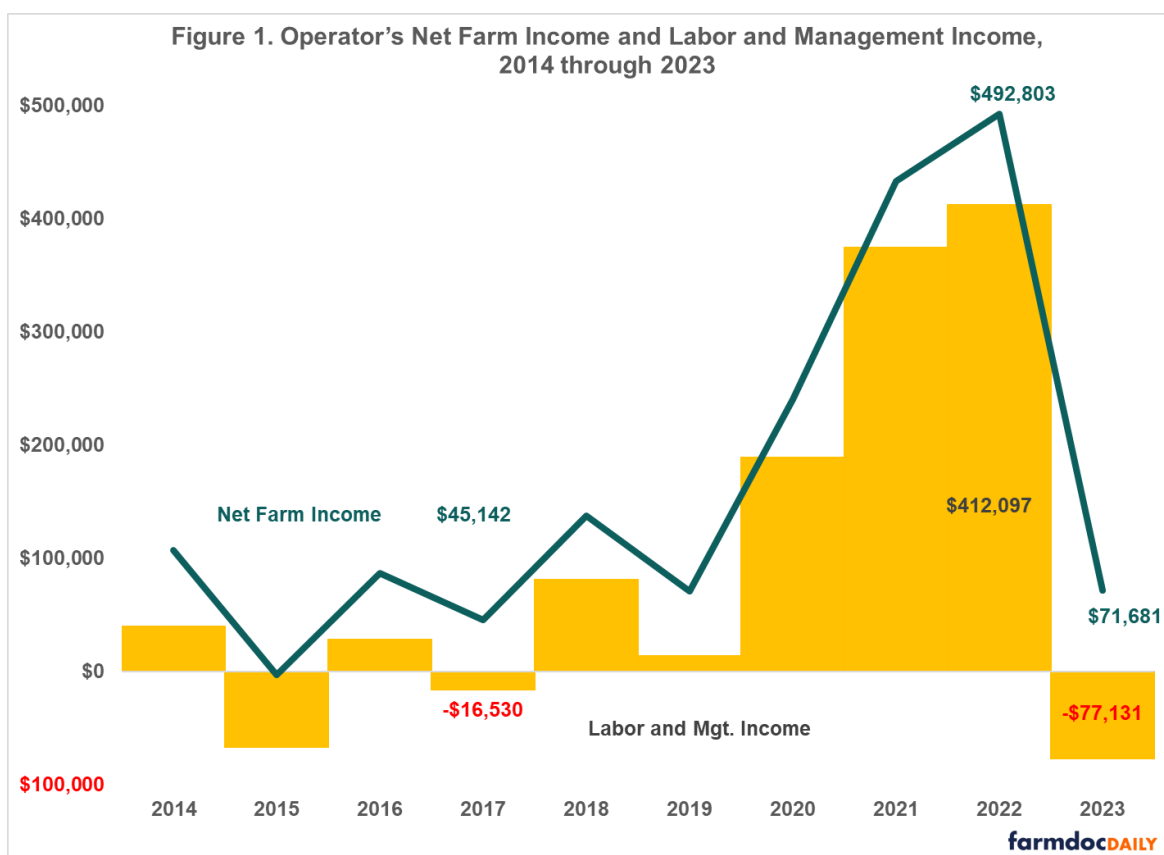
Based on Illinois Farm Business Farm Management Association (FBFM) records, average farm operator returns for labor and management on 2,013 Illinois farms was much lower for all geographic areas in the state in 2023 compared to 2022 and below the average for the last five years. Higher costs, along with lower grain prices were the main reasons for the lower incomes. Livestock farmers were also much lower.

Farm earnings were highest in the central and east central areas of the state. Earnings were lowest in the far southern part of the state.

Operator's Labor and Management Earnings

The average return to the operator's labor and management income in 2023 was *negative* \$77,131 (Figure 1). This figure 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 2023 returns were \$489,228 below the 2022 average of \$412,097 and \$259,449 below the average for the last five years. Operator's labor and management income ranged from about *negative* \$202,000 in the most southern part of Illinois to over *negative* \$18,000 in the most central part of Illinois. The 2023 earnings are the lowest for any year during the last ten years. Labor and management incomes have varied greatly during the last ten years, ranging from a low of *negative* \$77,131 in 2023 to the high of \$412,097 in 2022.

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While the 2023 labor and management earnings are at low levels, one needs to remember that farm earnings, like earnings for many other businesses, can be cyclical in nature and have wide swings from year to year. Farm earnings are dependent on several factors outside the farmer's control, such as weather, markets, and government policy. From that standpoint, it may be helpful to look at farm earnings over a longer period. The 2019 through 2023 five-year average of labor and management earnings was \$182,318 while the 2014 through 2023 ten-year average of labor and management earnings was \$97,616, \$174,747 above the 2023 earnings. If you remove the 2 highest values on record that occurred in the last ten years (2021 and 2022) from the latest ten-year average, that eight-year average is only \$23,707. The 2023 level of earnings is considerably below the last five and ten-year averages.

Crop Yields and Prices

Corn yields were slightly below the relatively good yields recorded the year before. Corn yields were 4 bushels per acre lower in 2023 compared to yields recorded in 2022. Soybean yields were 2 bushels per acre higher than in 2022. The average corn yield on the 2,013 farms was 223 bushels per acre. Soybean yields averaged 68 bushels per acre. Corn yields were generally highest in the central parts of the state. Soybean yields were the highest in the east and central parts of the state along the I-74 corridor. The average corn yield was the second highest on record and the average soybean yield was tied with 2018 for the highest year. Year-end inventory price for the 2023 corn crop of \$4.40 per bushel was \$2.10 per bushel lower than a year earlier. Soybeans were inventoried at \$12.75 per bushel, \$2.00 lower than December 31, 2022. The average sales price received for the 2022 corn and soybean crop sold in 2023 was below their inventory prices. Crop returns averaged \$975 per tillable acre, \$319 per acre lower than the 2022 crop returns. The average crop returns per acre were the fourth highest in recent history.

Earnings By Farm Type

Wages earned by farm operators were highest on dairy farms followed by grain, beef and hog farms. Returns to operator's labor and management averaged *negative* \$19,073 on dairy farms, *negative*

\$75,356 on grain farms, *negative* \$123,281 on beef farms and *negative* \$465,063 on hog farms. Farms classified as grain farms were 92 percent of all farms while hog farms comprise one percent of the total. Livestock farms many times also include returns from grain production as well. Thus, most livestock farms had lower returns than grain farms due to having lower returns from grain and livestock on those farms.

The average size of these farms continues to grow, averaging 1,349 tillable acres in 2023. This was 38 acres larger than the previous year and 108 acres larger than five years ago. Farms classified as grain farms averaged 1,4000 tillable acres compared to dairy farms, which averaged 452 tillable acres.

Costs Continue to Increase

Per acre fertilizer, pesticides and seed costs were higher compared to the year before and five years earlier, except for pesticides which did not have much change from 2022. Crop costs on the 2,013 farms averaged \$392.78 per acre in 2023 compared to \$355.31 in 2022. Fertilizer increased 17 percent, pesticides were similar, and seed increased ten percent. Tillable acres planted to corn increased by 0.9 percent while acres planted to soybeans decreased by 1.6 percent when compared to 2022. Compared to 2019, fertilizer costs have increased 97 percent, pesticides have increased 72 percent, and seed has increased 18 percent. Fuel and oil costs averaged \$30.82 in 2023 compared to \$34.39 in 2022 and \$20.77 in 2019. Most of these costs are expected to stay about the same or increase slightly for 2024 and 2025, except for fuel and fertilizer costs.

Spending on machinery and equipment was higher than the year before. Expenditures increased 18 percent in 2023 compared to 2022, averaging \$327,874 per farm, or \$243 per tillable acre. Machinery purchases in 2022 averaged \$212 per tillable acre while 2021 averaged \$175 per tillable acre.

Costs to Grow Corn and Soybeans

Total economic costs per acre to produce corn and soybeans in 2023 increased as compared to 2022 in all areas of the state. The main factors for the increase in per acre costs were due to higher fertilizer, machinery depreciation, non-land interest charge, and land costs. Cost per bushel to produce corn increased in all areas of the state due to much higher costs compared to 2022. The cost per bushel to raise soybeans increased in all areas of the state. Total economic costs per acre to raise corn and soybeans on these farms averaged \$1,303 and \$929 respectively.

From a sample of pure grain farms in the state, the total economic costs per bushel of corn produced were \$5.82 with an average yield of 224 bushels per acre. The total costs per bushel of soybeans were \$13.46 with an average yield of 69 bushels per acre. This compared with costs per bushel of \$5.13 and \$12.43 for corn and soybeans respectively in 2022. Even with the high yield, this was the second highest cost per bushel to grow corn since 2012. The 2023 cost to grow soybeans per bushel was \$2.02 higher than the last five-year average and \$2.65 higher than the ten-year average. This was the highest cost per bushel on record for soybeans. The variation in yields and costs over the past few years makes it important to analyze these costs over more than one year. The 2014-2023 ten-year average to produce corn and soybeans on these farms is \$4.51 per bushel for corn and \$10.81 per bushel for soybeans.

Livestock Returns

Returns above feed cost were lower than the year before for all livestock enterprises except feeder cattle and beef enterprises. Also, except for hogs and feeder pigs, returns above feed costs in 2023 were above the last five-year average. All livestock enterprises experienced lower feed costs in 2023 compared to 2022 besides feeder cattle. Much lower pork prices were the main factor for the lower hog returns. Returns for farrow-to-finish hog producers were estimated to be about \$12 per hundredweight below the breakeven level in covering total economic costs in 2023. Dairy producers experienced lower returns due to lower milk prices, \$2,767 returns above feed per cow in 2023 compared to \$3,407 in 2022. Milk prices were 22 percent lower while feed costs were 15 percent lower compared to the year before. Returns to feeder cattle enterprises were higher than the year before and the highest in the last five years. Returns were higher due to higher prices received for market cattle. Prices paid in 2023 for replacement cattle were 28 percent above the year before. Cattle prices received were about \$49 per hundredweight lower than prices paid for replacement cattle, but 18 percent higher market price last year. Returns

above feed per cow increased \$412 for beef cow enterprises due to higher prices received. Returns were the highest during the last five years.

Good Records a Key

The author would like to acknowledge that data used in this study comes from the Illinois Farm Business Farm Management (FBFM) Association. Without Illinois FBFM, information as comprehensive and accurate as this would not be available for educational purposes. FBFM, which consists of 5,000+ farmers and 70 professional field staff, is a not-for-profit organization available to all farm operators in Illinois. FBFM field staff provide on-farm counsel along with recordkeeping, farm financial management, business entity planning and income tax management. For more information, please contact our office located on the campus of the University of Illinois in the Department of Agricultural and Consumer Economics at 217-333-8346 or visit the FBFM website at www.fbfm.org.