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Economic Review of Milk Costs in 2021 and Projections for the Rest of 2022 and 2023

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Higher costs coupled with higher milk prices still resulted in continued negative economic returns for Illinois dairy producers in 2021, according to figures summarized by the Illinois Farm Business Farm Management Association.

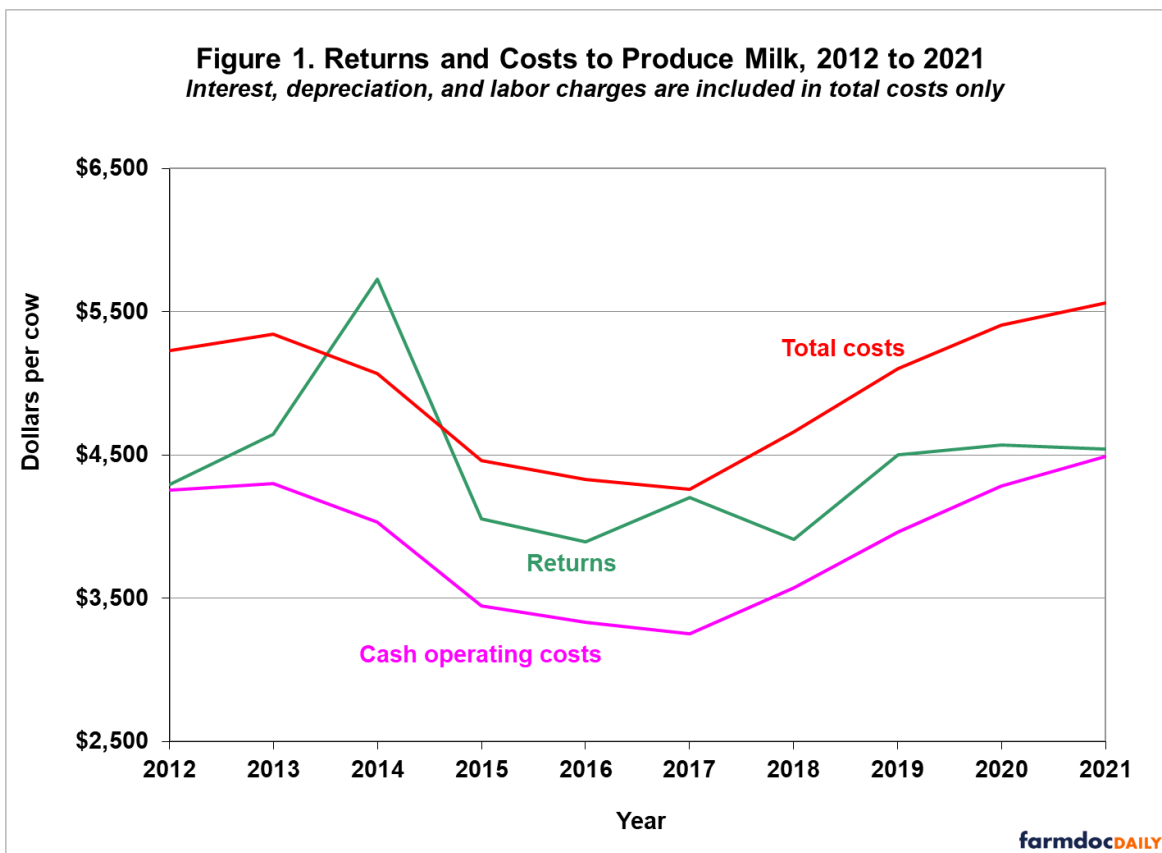
The average net price received per 100 pounds of milk was \$19.29, which was less than total economic costs of \$23.67. The price received for milk in 2021 was \$1.19 higher than 2020. On a per cow basis, total returns from milk were \$4,540 compared to the total cost to produce milk of \$5,826 per cow. Total returns from milk per cow decreased slightly from 2020. The net returns per cow in 2021 were a negative \$1,021. Total returns have exceeded total economic costs only once out of the last ten years.

Milk production per cow for all herds averaged 23,730 pounds. The average was 1,573 pounds less per cow than in 2020.

Costs and Returns

Trends in total costs and returns per cow for all herds are given from 2012 to 2021 in Figure 1. The economic profit margin (return above all cost) decreased— from a negative \$836 in 2020 to negative \$1,021 per cow in 2021. The last five-year returns above all costs have averaged a negative \$654 per cow. During this period, returns above all costs per cow have varied from negative \$60 in 2017 to negative \$1,021 in 2021. In Figure 1, labor and interest charges are included in total costs only. Most dairy producers will incur hired labor and cash interest expense and would include them as cash operating costs.

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The 2021 returns were 90 cents per 100 pounds produced less than the 2020 returns. The average net price received for milk was \$19.29 per 100 pounds. This is \$1.19 per 100 pounds or six percent higher than the average price received in 2020. Based on 23,730 pounds of milk produced per cow, this increase in price increased total returns per cow by \$282. The average net price received for milk for the last five-year period is \$18.24 per hundred pounds. Dairy assistance and patronage returns related to the dairy enterprise would add about \$1.36 per 100 pounds of milk produced to returns in 2021.

While the price received increased, so did feed and nonfeed costs per 100 pounds of milk. Feed costs in 2021 averaged \$13.43 per 100 pounds of milk produced as compared to \$11.64 in 2020. In 2012, feed costs were at their highest level ever at \$13.85, only 42 cents higher than 2021. The 2021 feed costs were \$2.37 above the last five-year average of \$11.06. Feed costs were about 57 percent of the total economic cost to produce milk. Nonfeed costs per 100 pounds of milk produced were \$10.24 in 2021 compared to \$9.94 in 2020. Total nonfeed costs were the highest recorded in 2014.

Positive Profit Margins Projected for Dairy Producers in 2022, But Negative Margins Projected for 2023

2022 is projected to be better than 2021 with higher milk prices exceeding economic costs resulting in positive profit margins for dairy producers. However, 2023 is projected to have lower milk prices and slightly lower feed costs leading to a small projected negative economic return in 2023. The average milk price for 2022 is projected to be about 39 percent more or about \$7.40 per hundredweight higher than the average for 2021. Higher milk production and continued uncertainties in the world will be offset by much higher exports and more demand leading to much higher prices in 2022. United States milk production is expected to increase about one percent in 2022. 2023 projections from the United States Department of Agriculture show milk production increasing one percent from 2022 and milk prices decreasing 12 percent from 2022 estimates.

While milk prices increase for 2022, feed costs for 2022 are expected to increase due to higher corn and soybean prices. Feed costs per 100 pounds of milk produced are projected to average about \$14.50 using prices of \$6.73 per bushel for corn, 25 cents a pound for protein and \$190 per ton for hay. This is

based on annual feed consumption per cow, including replacement animals, of 93 bushels of corn, 5,059 pounds of protein, and 9.1 tons of hay or hay equivalents. If nonfeed costs per 100 pounds of milk produced averaged \$10, total costs to produce 100 pounds of milk would be \$24.50. A 39 percent increase in milk prices in 2022 for Illinois producers would result in an annual price of about \$25.35 per 100 pounds. If total economic costs averaged \$24.50 per 100 pounds of milk produced, the average Illinois producer would have returns above total economic costs by 85 cents per 100 pounds of milk produced. However, a decrease in milk prices, lower projected feed prices and similar nonfeed costs will lead to negative economic returns in 2023.

The author would like to acknowledge that data used in this study comes from farms across the State of Illinois enrolled in Illinois Farm Business Farm Management (FBFM) Association. Without their cooperation, information as comprehensive and accurate as this would not be available for educational purposes. FBFM, which consists of 5,000 plus 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 with recordkeeping, farm financial management, business entity planning and income tax management. For more information, please contact the State Headquarters located at the University of Illinois Department of Agricultural and Consumer Economics at 217-333-8346 or visit the FBFM website at www.fbfm.org.

A more thorough report can be found at the University of Illinois *farmdoc* website: <https://farmdoc.illinois.edu/handbook/cost-to-produce-milk-in-illinois>