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Economic Review of Milk Costs in 2023 and Projections for 2024 and 2025

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December 20, 2024

farmdoc daily (14): 231

Recommended citation format: Zwilling, B. "Economic Review of Milk Costs in 2023 and Projections for 2024 and 2025." *farmdoc daily* (14): 231, Department of Agricultural and Consumer Economics, University of Illinois at Urbana-Champaign, December 20, 2024.

Permalink: <https://farmdocdaily.illinois.edu/2024/12/economic-review-of-milk-costs-in-2023-and-projections-for-2024-and-2025.html>

Lower milk prices coupled with slightly lower costs still resulted in positive cash returns but continued negative economic returns for Illinois dairy producers in 2023, according to figures summarized by the Illinois Farm Business Farm Management Association.

The average net price received per 100 pounds of milk was \$20.84, which was less than total economic costs of \$24.23, but still higher than feed and cash operating costs of \$18.42. The price received for milk in 2023 was \$4.52 lower than 2022. On a per cow basis, total returns from milk were \$4,794 compared to the total cost to produce milk of \$5,552 per cow. This resulted in a net return of negative \$758 per cow in 2023. Total returns from milk per cow decreased from 2022 and have exceeded total economic costs only once out of the last ten years, although they have consistently exceeded feed and cash operating costs during this period.

Milk production per cow for all herds averaged 22,981 pounds in 2023, a decrease of 2,104 pounds per cow compared to 2022.

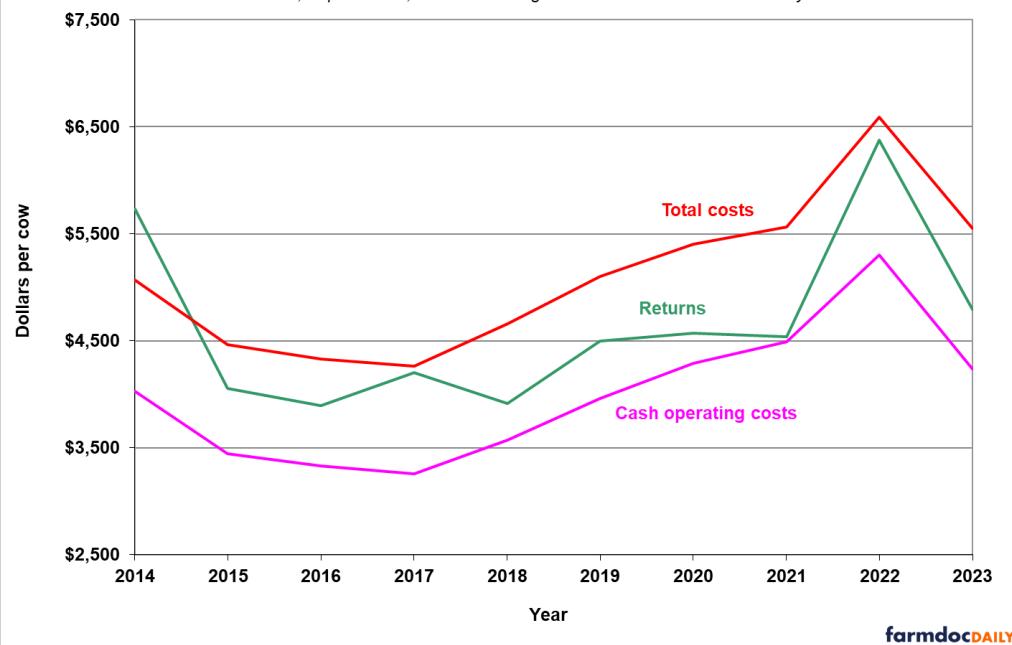
Costs and Returns

Trends in total costs and returns per cow for all herds are given from 2014 to 2023 in Figure 1. When cash and noncash costs are considered, the economic profit margin (return above all costs) decreased from a negative \$213 in 2022 to negative \$758 per cow in 2023. Over the last five years, returns above all costs have averaged negative \$686 per cow, ranging from negative \$213 in 2022 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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Figure 1. Returns and Costs to Produce Milk, 2014 to 2023

Interest, depreciation, and labor charges are included in total costs only.



The 2023 economic returns were \$2.29 per 100 pounds produced lower than the 2022 returns. The average net price received for milk was \$20.84 per 100 pounds, an 18 percent decrease or \$4.52 per 100 pounds less than the average price received in 2022. Based on 22,981 pounds of milk produced per cow, this decrease in price reduced total returns per cow by \$1,039. The average net price received for milk over the last five years was \$20.46 per hundred pounds. Dairy assistance and patronage returns related to the dairy enterprise added about \$1.46 per 100 pounds of milk produced to returns in 2023.

While the price received decreased, feed and nonfeed costs per 100 pounds of milk also decreased. Feed costs in 2023 averaged \$12.78 per 100 pounds of milk produced, compared to \$14.68 in 2022, which was the highest level ever recorded. The 2023 feed costs were \$1.90 lower than in 2022 and \$0.04 above the last five-year average of \$12.74. Feed costs represented approximately 53 percent of the total economic cost to produce milk. Nonfeed costs per 100 pounds of milk produced averaged \$11.45 in 2023, compared to \$11.81 in 2022, the highest recorded level.

Increasing Profit Margins Projected for Dairy Producers, but Still Negative Economic Margins in 2024, but Maybe Not in 2025

The average milk price for 2024 is projected to increase 8 percent, or \$1.74 per hundredweight, according to the United States Department of Agriculture (USDA), Economic Research Service (ERS) dairy forecast. Similar milk production level, greater exports, and higher prices for cheese and butter are contributing to projection. United States milk production is expected to increase about 102 pounds per cow in 2024.

Feed costs for 2024 are expected to decrease due to lower corn and soybean prices. Feed costs per 100 pounds of milk produced are projected to average \$11.96 using prices of \$4.17 per bushel for corn, \$0.18 per pound for protein, and \$160 per ton for hay. With annual feed consumption per cow, including replacement animals, of 83 bushels of corn, 5,867 pounds of protein, and 8.6 tons of hay or hay equivalents. Nonfeed costs per 100 pounds of milk produced are projected to average \$11.70. With an 8 percent increase in milk prices, Illinois producers could see an annual price of approximately \$22.58 per 100 pounds. If total economic costs averaged \$23 per 100 pounds of milk produced, Illinois producers would have returns below total economic costs by \$0.38 per 100 pounds of milk produced.

Projections for 2025 suggest further improvements despite lower USDA-projected milk prices, as declining feed costs are expected to offset these reductions. Economic costs are projected to be slightly below total returns in 2025, marking the first time in the last ten years this has occurred.

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>.

References

USDA-ERS (2024) "Livestock, Dairy, and Poultry Outlook: December 2024" (available at <https://www.ers.usda.gov/webdocs/outlooks/110630/ldp-m-366.pdf?v=5141.1>)