

**Costs to Produce Beef in Illinois—2023**

Bradley L. Zwilling  
Illinois FBFM Association and  
Department of Agricultural and Consumer Economics  
University of Illinois  
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Total *economic* returns in 2023 for Illinois beef feeding enterprises exceeded total costs by \$2.04 per 100 pounds of beef produced in preliminary findings for farms enrolled in Illinois Farm Business Farm Management (see Table 1). The 2023 returns were lower than the 2022 total returns above all costs (2022 was the highest since this study began) by \$19.73 per 100 pounds produced. Total returns have exceeded total economic costs in five out of the last ten years. The 2023 level of return above all costs was \$1.89 per 100 pounds beef produced above the average return above all costs for the 2014 through 2023 period. Figure 1 illustrates average returns, cash operating costs and total costs for this same period.

Higher price received contributed to the higher total gross returns for these enterprises. Total gross returns per 100 pounds produced increased from \$141.65 in 2022 to \$149.12 in 2023. Total gross returns for 2023 were the highest on record. The average price received per 100 pounds of beef sold of \$166.79 was 16 percent higher than 2022. This price was the highest price received since this study began. The average

price paid for feeder cattle replacements in 2023 of \$210.96 was 31 percent higher than 2022. This was the highest price paid for feeder cattle replacements, even higher than 2015. 2023 was the third year that the price paid for feeder cattle averaged over \$200.00 per hundredweight, with 2014 and 2015 being the other two years. The purchase cost of feeder cattle is subtracted from finished cattle sales in determining total gross returns per 100 pounds produced.

Higher costs were enough to lower net returns more than 2022 even with higher gross returns as compared to 2022. Feed costs increased 13 percent in 2023 as compared to 2022. Feed costs were \$97.23 per 100 pounds produced in 2023 compared to \$85.94 in 2022. Non-feed costs increased from \$33.94 per 100 pounds produced in 2022 to \$49.85 in 2023. Total interest of \$23.13 per 100 pounds produced make up the largest portion of the non-feed costs. Feed and non-feed costs were \$147.08 per 100 pounds produced in 2023. Total costs in 2023 were \$27.20 per 100 pounds produced above 2022 and \$48.87 above the last ten-year average of \$98.21. Excluding the cost of

feeder cattle, feed costs were 66 percent of the total cost to produce beef in 2023, compared to 68 percent for the four-year average.

Total cash costs in 2023 averaged \$125.47 per 100 pounds of beef produced. This cost was \$20.29 per 100 pounds produced above 2022 costs on the average farm and \$28.12 above the 2020-2023 average. This cost includes all grain fed priced at average market price for the year—corn \$5.80 per bushel. Roughage fed was valued at on-farm market prices while protein and minerals were valued at cost. The study assumes all feeds fed had alternative markets other than for feed to cattle. Other cash costs include utilities, machinery, equipment and building repairs, machine hire and fuel, insurance, taxes, and overhead, as well as an interest charge on investment in cattle.

Total costs, both cash and non-cash, on these farms, including depreciation, labor and an interest charge on facilities used, were accounted for in either crop or livestock production. The farms had no other kind of livestock enterprises. These were considered farms specializing primarily in beef production. These results were compiled from records kept by farmers enrolled in the Illinois Farm Business Farm Management (FBFM) Association program.

Note in the table that the 2020-2023 average total returns per 100 pounds of beef produced of \$118.81 is \$21.46 above the average total cash costs of \$97.35 for this period. The return above cash costs has fluctuated from

\$11.97 per 100 pounds gain in 2020 to \$36.47 in 2022. Producers may decide to continue to feed cattle as long as there is at least a small return after cash costs are paid but will be hesitant to expand production without an equitable return to cover depreciation, labor, and interest on investment costs (*economic costs*).

During the last ten years, the average pounds of beef produced in this sample has fluctuated. In 2023, operators in this group produced an average of 10,742 hundredweight of beef, or finished 2,261 head of cattle at 475-pound gain equivalents. In 2022, operators produced an average of 8,074 cwt. of beef, or 1,700 head and in 2014 they produced an average of 5,843 cwt. of beef, or 1,230 head. These producers also farmed an average of 1,546 tillable acres in 2023.

Returns to cattle feeders decreased in 2023 compared to 2022 but still had positive economic returns. The increase in costs was the main factor for the decreased *economic* returns. Higher feed costs coupled with higher interest costs led to lower returns. Projections for 2024 show that beef production is estimated to decrease about 1% and thus market cattle prices are expected to increase about 5%. Returns for 2024 are projected to slightly increase due to similar cattle prices and feed costs will be lower with projected lower grain and forage prices. With these factors combined, *economic* returns to all costs for 2024 are estimated to be similar to higher than 2023.

**Table 1. Costs and Returns for Beef Feeding Enterprises, 2020-2023<sup>f</sup>**

	2023 <sup>f</sup>	2022	2021	2020	Average 2023 <sup>f</sup> -20
Number of farms.....	18	8	8	8	10
<b>Average per farm</b>					
Tillable acres.....	1,546	828	839	835	1,012
Hundredweight beef produced.....	10,742	8,074	7,706	9,241	8,941
Number head @ 475-lb. gain equivalents.....	2,261	1,700	1,622	1,945	1,882
Average weight purchased, lb.....	617	689	673	681	665
Average weight sold, lb.....	1,397	1,370	1,212	1,395	1,344
Price received per 100 lb. sold.....	\$166.79	\$143.57	\$121.25	\$112.75	\$136.09
Price paid per 100 lb. purchased.....	\$210.96	\$160.63	\$139.71	\$129.06	\$160.09
<b>per 100 pounds of beef produced</b>					
Cash costs					
Feed <sup>a</sup> .....	\$97.23	\$85.94	\$74.66	\$48.25	\$76.52
Operating expenses					
Maintenance and power <sup>b</sup> .....	9.47	8.76	7.70	6.53	8.11
Livestock expense.....	4.59	3.95	6.65	4.25	4.86
Insurance, taxes and overhead.....	2.14	1.74	1.39	1.88	1.79
Interest on cattle <sup>c</sup> .....	<u>12.04</u>	<u>4.79</u>	<u>3.50</u>	<u>3.95</u>	<u>6.07</u>
Total operating expense.....	\$28.24	\$19.24	\$19.24	\$16.61	\$20.83
<b>TOTAL CASH COSTS</b> .....	<b>\$125.47</b>	<b>\$105.18</b>	<b>\$93.90</b>	<b>\$64.8</b>	<b>\$97.35</b>
Other costs					
Depreciation <sup>d</sup> .....	\$5.64	\$5.25	\$4.61	\$4.99	\$5.12
Labor.....	4.88	4.52	4.00	4.08	4.37
Interest on other capital.....	<u>11.09</u>	<u>4.93</u>	<u>5.33</u>	<u>4.05</u>	<u>6.35</u>
<b>TOTAL OTHER COSTS</b> .....	<b>\$21.61</b>	<b>\$14.70</b>	<b>\$13.94</b>	<b>\$13.12</b>	<b>\$15.84</b>
<b>TOTAL ALL COSTS</b> .....	<b>\$147.08</b>	<b>\$119.88</b>	<b>\$107.84</b>	<b>\$77.98</b>	<b>\$113.20</b>
Total returns <sup>e</sup> .....	<u>\$149.12</u>	<u>\$141.65</u>	<u>\$107.65</u>	<u>\$76.83</u>	<u>\$118.81</u>
<b>Return above all costs</b> .....	<b>\$2.04</b>	<b>\$21.77</b>	<b>(\$0.19)</b>	<b>(\$1.15)</b>	<b>\$5.61</b>

<sup>a</sup> All grain fed was priced at average market price for the year. Market values were used for roughage fed while protein and minerals were charged at cost. Assumes all feed fed were marketable.

<sup>b</sup> Includes utilities, machinery, equipment and building repairs, machine hire and fuel.

<sup>c</sup> Interest is a charge on average value of beginning- and end-of-year inventories on hand. Rate was 4.0 percent for 2020, 3.5 percent for 2021, 4.0 percent for 2022, and 7.5 percent for 2023.

<sup>d</sup> Includes machinery, equipment, and building depreciation.

<sup>e</sup> Sales less cost of purchased animals plus or minus inventory value change. No credit has been calculated for reduced fertility cost for manure applied to crops.

<sup>f</sup> Preliminary data for 2023

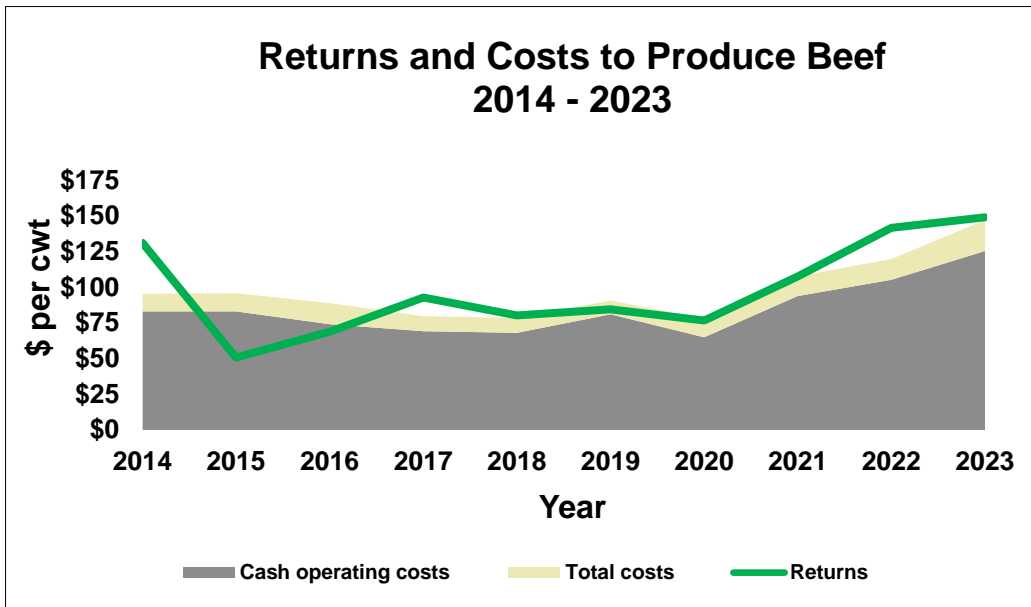


Figure 1. Returns and costs to produce beef on Illinois farms, 2014 - 2023.

The author would like to acknowledge that data used in this study comes from Illinois Farm Business Farm Management (FBFM) Associations across the state. 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 65 plus 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 FBFM Office 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](http://www.fbfm.org).