

Costs to Produce Beef in Illinois—2007

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Total economic costs in 2007 for Illinois beef feeding enterprises exceeded total returns by \$10.81 per 100 pounds of beef produced on 6 beef feeding farms (see Table 1). The 2007 returns were the second lowest return for any year of the last five years and the second lowest since 1998. However, the 2007 returns were higher than the 2006 returns. Total costs exceeded total returns by \$16.55 per 100 pounds produced in 2006. Total returns have exceeded total economic costs in only five years since 1980, when this study began. Those years were 2003, 1999, 1992, 1990, and 1987. The 2007 level of returns was \$6.37 per 100 pounds beef produced below the average returns for the 1998 through 2007 time period. Figure 1 illustrates average returns, cash operating costs and total costs for the 1998 through 2007 time period.

Higher total returns due to lower prices paid for feeder cattle and higher market cattle prices contributing to the higher total returns for these enterprises. Total returns per 100 pounds produced increased from \$51.83 in 2006 to \$64.92 in 2007. Total returns for 2003 and 2004 were some of the highest on record. The average price received per 100 pounds of beef sold of \$91.05 was about 9 percent higher than 2006. This was the

highest price received since this study began and the fifth year in a row that the price received averaged over \$80 per hundredweight and the first time the price has averaged over \$90. The average price paid for feeder cattle replacements in 2007 of \$103.22 was about 8 percent lower than 2006. The 2005 and 2006 prices paid for feeder cattle replacements are the highest since this study began. The price paid for feeder cattle in 2004 through 2007 were the only years where the price paid averaged over \$100.00 per hundredweight. The purchase cost of feeder cattle is subtracted from finished cattle sales in determining total returns per 100 pounds produced.

Increasing feed costs limited the improvement in returns as compared to 2006. Feed costs increased about 13 percent in 2007 as compared to 2006. Feed costs were \$43.17 per 100 pounds produced in 2007 compared to \$38.21 in 2006. Nonfeed costs increased from \$30.17 per 100 pounds produced in 2006 to \$32.56 in 2007 and were the highest on record since this study began. Maintenance and power expenses of \$7.99 per 100 pounds produced make up the largest portion of the nonfeed costs. Feed and nonfeed costs totaled \$75.73 per 100 pounds produced in 2007. Total costs in

2007 were \$14.52 per 100 pounds produced above the last ten year average of \$61.21. Excluding the cost of feeder cattle, feed costs were 57 percent of the total cost to produce beef in 2007.

Total cash costs in 2007 averaged \$64.65 per 100 pounds of beef produced. This cost was \$5.51 cents per 100 pounds produced above 2006 costs on the same farms and \$5.19 cents above the 2004-2007 average. This cost includes all grain fed priced at average market price for the year—corn \$3.42 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 in the University of Illinois Department of Agricultural and Consumer Economics from Illinois Farm Business Records kept by farmers enrolled in the Illinois Farm Business Farm Management (FBFM) Association recordkeeping and business analysis program.

Note in the table that the 2004-2007 average total returns per 100 pounds of beef produced of \$59.99 is 53 cents above the

average total cash costs of \$59.46 for this period. The return above cash costs has fluctuated from \$6.54 per 100 pounds gain in 2004 to a negative \$7.31 in 2006. 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.

During the last ten years, the average pounds of beef produced in this sample has fluctuated. In 2007, operators in this group produced an average of 4,431 cwt. of beef, or finished 993 head of cattle at 475-pound gain equivalents. In 2000 operators produced an average of 3,901 cwt. of beef, or 821 head and in 2005 they produced an average of 3,205 cwt. of beef, or 675 head. These producers also farmed an average of 543 tillable acres in 2007.

Returns to cattle feeders increased in 2007 compared to 2006 but were below the last four year average. Higher total returns due to lower prices paid for replacement cattle and higher prices received for market cattle were the main factors for the increased returns. Higher feed costs offset some of the higher total returns. Returns to cattle producers in 2008 will be supported by slightly higher finished cattle prices and the possibility of lower prices paid for replacement cattle. Offsetting the higher finished cattle prices will be significantly higher feed costs. Feed costs will increase in 2008 due to higher corn and forage prices. Even with higher finished cattle prices, significantly higher feed costs will most likely result in returns to cattle feeders in 2008 below 2007 returns.

Table 1. Costs and Returns for Beef Feeding Enterprises, 2004-2007

	2007	2006	2005	2004	Average 2004-07
Number of farms	6	8	11	11	9
Average per farm					
Tillable acres.....	543	549	523	618	558
Hundredweight beef produced.....	4,431	4,734	3,205	4,309	4,170
Number head @ 475-lb. gain equivalents.....	933	997	675	907	878
Average weight purchased, lb.....	660	640	666	693	665
Average weight sold, lb	1,214	1,256	1,244	1,255	1,242
Price received per 100 lb. sold.....	\$91.05	\$83.69	\$85.19	\$83.95	\$85.97
Price paid per 100 lb. purchased.....	\$103.22	\$112.26	\$112.25	\$103.69	\$107.86
per 100 pounds of beef produced					
Cash costs					
Feed ^a	\$43.17	\$38.21	\$37.36	\$41.19	\$39.98
Operating expenses					
Maintenance and power ^b	7.99	7.18	6.21	5.59	6.74
Livestock expense.....	4.06	5.76	3.91	5.62	4.84
Insurance, taxes and overhead	2.12	1.28	1.96	1.57	1.73
Interest on cattle ^c	<u>7.31</u>	<u>6.71</u>	<u>6.00</u>	<u>4.66</u>	<u>6.17</u>
Total operating expense	\$21.48	\$20.93	\$18.08	\$17.44	\$19.48
TOTAL CASH COSTS	\$64.65	\$59.14	\$55.44	\$58.63	\$59.46
Other costs					
Depreciation ^d	\$2.95	\$2.85	\$2.65	\$2.67	\$2.78
Labor.....	5.00	4.09	3.21	3.87	4.04
Interest on other capital.....	<u>3.13</u>	<u>2.30</u>	<u>1.43</u>	<u>1.55</u>	<u>2.10</u>
TOTAL OTHER COSTS.....	\$11.08	\$9.24	\$7.29	\$8.09	\$8.92
TOTAL ALL COSTS	\$75.73	\$68.38	\$62.73	\$66.72	\$68.38
Total returns ^e	<u>\$64.92</u>	<u>\$51.83</u>	<u>\$57.05</u>	<u>\$66.17</u>	<u>\$59.99</u>
Return above all costs.....	\$-10.81	\$-16.55	\$-5.68	\$-0.55	\$-8.39

^a 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.

^b Includes utilities, machinery, equipment and building repairs, machine hire and fuel.

^c Interest is a charge on average value of beginning- and end-of-year inventories on hand. Rate was 5.5% for 2004, 6.5 percent for 2005 and 8.0 percent for 2006 and 2007.

^d Includes machinery, equipment, and building depreciation.

^e 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.

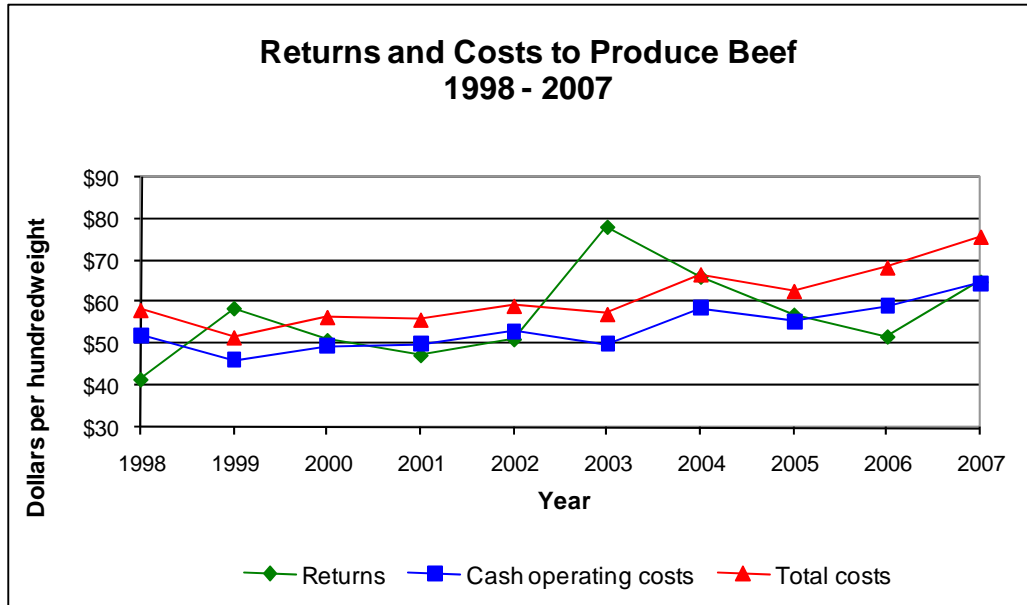


Figure 1. Returns and costs to produce beef on Illinois farms, 1998 - 2007.

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 5,500 plus farmers and 60 professional field staff, is a not-for-profit organization available to all farm operators in Illinois. FBFM field staff provide 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.