

Marketing corn through cattle

IOWA STATE UNIVERSITY
Iowa Beef Center



Iowa farmers have been marketing corn through cattle for more than 100 years. The practice, which peaked in the early 1970s when Iowa annual cattle marketings approached 5 million head, can add several cents to each bushel of corn. The practice declined in 1973 when corn prices moved from the \$1-per-bushel range to a new higher plateau and thousands of farmer-feeders chose to market corn grain rather than cattle. Adding value to corn by feeding it to cattle can still be an important marketing tool for Iowa corn producers, however. After all, if High Plains feedlots are willing to pay the equivalent to Iowa corn prices plus transportation to feed to cattle, why shouldn't Iowa farmers gain from feeding cattle closer to home?

Corn farmers should consider starting a cattle feeding enterprise on their farms ONLY if they have the appropriate commitment, facilities, technology, and skills to do so properly. A good alternative is teaming up with custom feedyards. These operations, commonplace across Iowa today, offer professional cattle feeding services including facilities, nutritional and animal health expertise, financing, procurement, marketing, and risk management. These larger, specialized feedyards have experience, the best technology, and are able to attract multiple packer buyers to bid on cattle.

In a typical agreement, corn growers deliver their corn to custom feedlots where they own cattle and where the corn is stored. Depending on the feedyard, a grain farmer may be able deliver corn to the feedyard at harvest or throughout the year. This is a particular advantage to the corn farmer if a local feedyard can handle high moisture corn and harvest can begin earlier with less harvest loss and no drying cost.


An alternative arrangement involves corn growers selling their corn on the cash market at the best prices they can find and then purchasing corn at a lower price to feed to the cattle. For example, a grain farmer near the Mississippi River is able to feed cattle in northwest Iowa, and benefit from selling cash grain into the narrow basis and buying feed grain in a wide basis.

“By marketing corn through cattle, corn growers can generate revenue, essentially increasing the size of their operations without investing in new resources.”

— John Lawrence,
director, Iowa Beef Center

The Numbers

The following analysis uses the Iowa State University Estimated Livestock Returns series to evaluate the value of corn fed to cattle in a custom feedyard as a corn marketing strategy. The analysis considers corn harvested and marketed in 1988-1997 crop years (October to September). The corn prices used (Table 1) are North Central Iowa monthly average elevator bids for #2 yellow corn. Feeder and fed cattle prices also are monthly average prices in the Iowa market.



“In six out of 10 years, marketing corn through cattle was more profitable than selling corn at the highest monthly cash price of each year.”

 — John Lawrence, director, Iowa Beef Center

Table 1. North Central Iowa Corn Prices and Corn Value Fed Through Cattle.

Oct-Sep Crop Year	October Harvest Price	Monthly Average Price	Highest Monthly Price	Sell Cattle - Every Month Corn Value		Sell Cattle Oct & April Corn Value
	A	B	C	v. Monthly D	v. October E	v. October F
1988	2.52	2.41	2.54	2.49	2.53	2.89
1989	2.09	2.30	2.62	3.21	3.18	3.53
1990	2.03	2.21	2.40	2.44	2.47	2.13
1991	2.21	2.27	2.48	2.48	2.51	3.46
1992	2.04	2.01	2.13	3.48	3.50	3.13
1993	2.19	2.44	2.76	1.71	1.69	2.26
1994	1.87	2.25	2.60	2.39	2.31	2.90
1995	2.86	3.60	4.55	3.48	3.09	3.88
1996	3.04	2.55	3.04	3.49	3.90	3.44
1997	2.52	2.25	2.52	1.35	1.48	1.42
Average	2.34	2.43	2.76	2.65	2.67	2.90
Yrs higher than Oct.		6	8	7	8	9
Yrs higher than monthly avg.			10	7	5	7
Years higher than highest monthly price				4	5	6



The analysis used the Medium-Large Frame Yearling Steers Estimated Return series (M1284a). This series originated in 1974 and has changed its assumptions about gain, efficiency, and yardage over time. From 1988 to 1990, steers consumed a total of 56.6 bushels of corn in a corn-corn silage diet to gain from 650 to 1,150 pounds, and yardage was 20 cents per head per day. From 1991 to 1998, steers consumed 62.7 bushels of corn in a corn-corn silage diet to gain from 750 to 1,250 pounds, and yardage was 25 cents per head per day. Any returns, positive or negative, are divided by the number of bushels of corn fed per head and added to the original corn prices to calculate the value of corn fed through cattle.

Three different corn marketing/cattle-feeding strategies were evaluated:

- 1) Price corn at the average monthly price and start and finish cattle every month. (Column D)
- 2) Price corn at the October harvest price and start and finish cattle every month. (Column E)
- 3) Price corn at the October harvest price and start and finish cattle in April and October. (Column F)

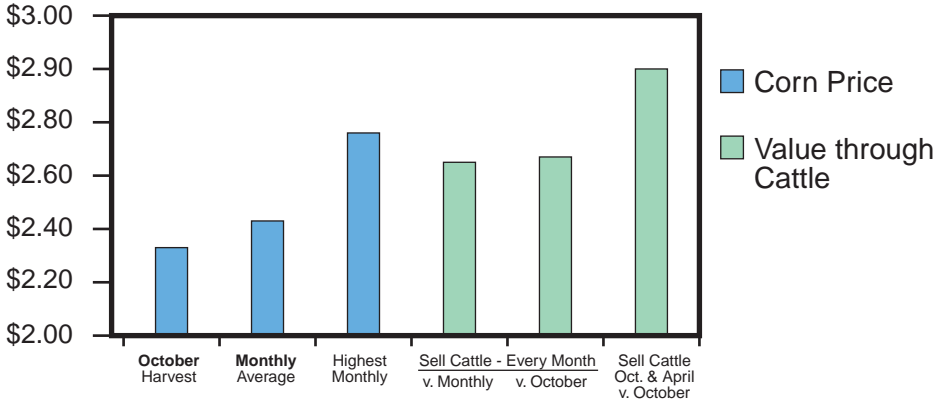


October harvest-time prices averaged \$2.34 per bushel during the 10 years (Column A). Selling an equal amount of corn every month increased the average price to \$2.43 per bushel, excluding the cost of storage (Column B). Using hindsight, Column C identifies the highest monthly price during the October-September marketing year. Farmers able to sell all their corn in this highest month of the year would have averaged \$2.76 per bushel before storage cost, 42 cents per bushel over the October price.

Table 1 also shows the advantages of marketing corn through cattle. Feeding two groups of cattle sold in April and October

(Column F) resulted in a 10-year average corn price 56 cents per bushel higher than selling cash corn at harvest. This strategy produced higher net corn prices than selling corn in October in nine out of 10 years, higher than the monthly average price in seven of 10 years, and higher than the highest single

Figure 1. North Central Iowa Average Corn Prices and Corn Value Fed Through Cattle

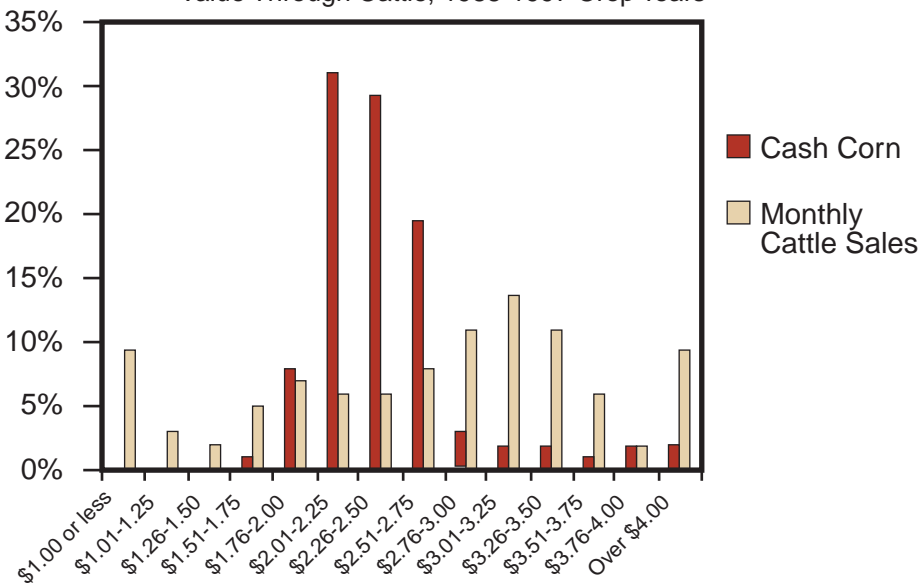


monthly price of the year in six of 10 years. The strategy of selling cattle every month added 33 cents per bushel to October corn prices (Columns E v. A) and 22 cents per bushel to selling corn every month (Columns D v. B).

The Risks

Cattle feeding is not without risk. Figure 2 shows the value per bushel of corn fed to cattle under strategy D compared with the monthly average price of corn (Column B). The cattle feeding losses result in lower-than-cash market prices for the corn fed in some months. However, cattle feeding also provides opportunities for marketing corn at higher prices as well. The cash corn price spent 86% of the months between \$1.75 and \$2.75. The value of corn through cattle was less than \$1.75 20 percent of the time and greater than \$2.75 53 percent of the time.

Figure 2. Distribution of Monthly Corn Prices and Value Through Cattle, 1988-1997 Crop Years



◆
“Today custom feeding is a viable business, and feedlots are located across the state.”
 — Dan Loy,
 extension beef specialist,
 Iowa Beef Center

◆
“Producers should explore ways to diversify their operations, manage risk, and add value to their grain. Adding cattle feeding to the crop enterprise does these things.”
 — John Lawrence,
 director, Iowa Beef Center

The Bottom Line

Corn producers can market their grain profitably by feeding cattle in professionally managed custom feedyards. During the last 10 years, cattle feeding added an average 22 cents to 56 cents per bushel to corn prices, depending on the strategy. If not properly managed, cattle feeding increases risk, resulting in lower net corn prices. However, this analysis showed that the value of corn through cattle was greater than \$2.75 per bushel 53 percent of the time compared with only 13 percent of the time for the cash corn market. Grain farmers who want to consider this marketing alternative should contact custom feedyards in Iowa to learn more about their services, fee structure, track record, and programs to market corn through cattle.



Getting Started

If you're seriously considering marketing corn through cattle, here's some additional information to consider.

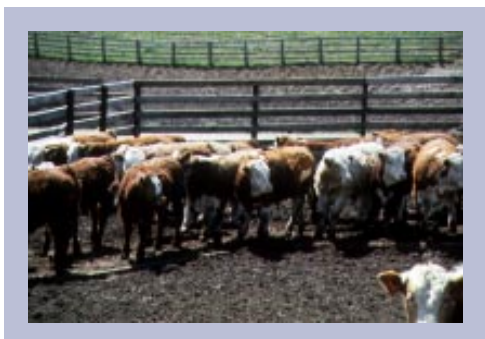
Corn production requirements

Depending on the size and weight of the cattle, the amount of forage available for growing lighter calves, access to low-priced byproducts and other factors, 50 to 80 bushels are typically required to finish one steer. Assuming that 750-pound steers are fed a typical corn/hay/supplement ration for 160 days, about 60 bushels of corn are required for each steer. Depending on grain yields, two to three steers can be finished from the production of one acre of corn. The value of corn production from this acre will equal 20 to 30 percent of the value of

the two to three feeder cattle required, or \$120 to \$150 per head, depending on corn and feeder cattle prices. This is similar to the equity requirement many lenders require for cattle feeding loans.

What to expect from custom feedyards

Custom feedyards acquire cattle from cow-calf producers, auction markets, and order buyers. The feedyard will inspect your cattle when they arrive at the facility and develop receiving and health programs. The receiving program includes vaccinations for major viral diseases, implants to improve growth rate and efficiency, treatment for internal and external parasites, and a nutritional starting program. Most cattle are started on a 40 to 60 percent grain ration. Yearling cattle often are placed on a finishing ration of 80 to 90 percent grain by 30 to 40 days on feed.

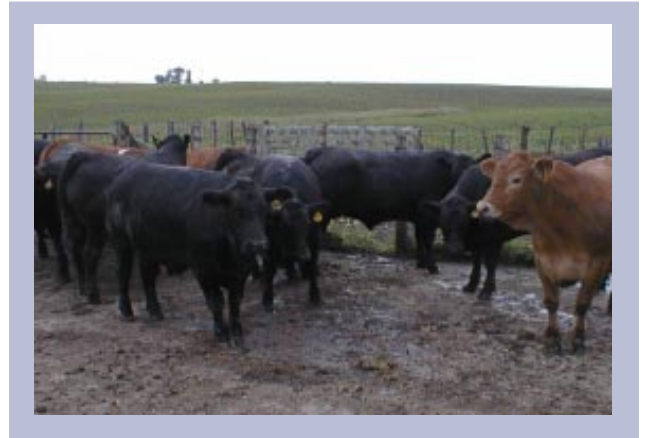


Cattle are inspected each day for signs of sickness. Those requiring medical attention are pulled and either treated by a veterinarian or according to protocol established by a consulting veterinarian. Feedbunks are inspected daily to monitor feed consumption and to make feeding decisions.

Most cattle are fed 100 to 200 days, depending on initial size, weight, age, and feeding program. As cattle approach finished weight they may be placed on a show list, indicating they are available for sale. Actual marketing decisions are made quickly. Grid marketing opportunities, which give premiums

to high-quality cattle, are becoming more common. However, these programs also discount low-quality cattle.

Most custom feedyards bill bi-weekly or monthly for feed and yardage. Feedlots charge a cost per ton of feed fed to the cattle. This may include a markup to cover feed processing and delivery. Yardage costs include most additional costs and services, however, cattle processing and medical expenses may be billed separately. Feedlots may charge a combination of feed markup and yardage, so it may be difficult to shop on the basis of yardage. Most feedlots need to receive the equivalent of at least 30 cents per head per day to cover their costs. Many report estimates of cattle weight, costs of gain, and breakeven prices based on feed energy consumption at the end of each billing period to keep the customer informed.



Factors to consider/questions to ask

(adapted from Gerry Kuhl, Kansas State University Beef Specialist)

- 1. Quality of personnel:** Honesty, experience with cattle, and commitment to feeding your cattle are the most important qualities in a custom feedyard. Pride and commitment to quality assurance are more important than the size of the feedlot. Ask your lender, extension specialist, or other professionals for recommendations and always ask the feeder for references. Visit several feedlots and be sure to ask if they use a consulting nutritionist or veterinarian.
- 2. Location:** Be sure the feedyard has access to markets, high-quality grain, byproduct feeds, and roughage.
- 3. Feedlot facilities and appearance:** A neat, clean yard and grounds reflects employee pride. Be sure the facilities are adequate for proper cattle handling, feed storage and processing and ration management and delivery. The feedlot also should have adequate bunk space, pen slope and drainage, concrete feeding aprons, and shade and wind protection to provide animal comfort and optimum performance.
- 4. Services:** Ask about the standard feeding, marketing, financing and risk management services, their costs, and how those costs will be billed. Request a typical closeout and projection printout, and ask how to interpret each statement. Base cost comparisons between feedlots on the total cost of gain and final breakeven prices of similar cattle, rather than yardage charges, feed markup, or processing charges alone. Check to see if the feedlot will work as a partner or share ownership on pens of cattle.

Additional resources

To receive a copy of the Commercial Cattle Feeders Directory, contact the Iowa Cattlemen's Association at (515) 296-2266; Box 1490, Ames, Iowa 50014.

For additional information, contact the Iowa Beef Center at Iowa State University at www.abc.iastate.edu or (515) 294-BEEF.

Prepared by John Lawrence, director, Iowa Beef Center and associate professor and extension economist, Department of Economics, and Dan Loy, extension beef specialist, Iowa Beef Center and professor, Department of Animal Science.

IOWA STATE UNIVERSITY

University Extension

File: Animal Science 4

IBC-4 1999

... and justice for all

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, gender, religion, age, disability, political beliefs, sexual orientation, and marital or family status. (Not all prohibited bases apply to all programs.) Many materials can be made available in alternative formats for ADA clients. To file a complaint of discrimination, write USDA, Office of Civil Rights, Room 326-W, Whitten Building, 14th and Independence Avenue, SW, Washington, DC 20250-9410 or call 202-720-5964.

Issued in furtherance of Cooperative Extension work, Acts of May 8 and June 30, 1914, in cooperation with the U.S. Department of Agriculture. Stanley R. Johnson, director, Cooperative Extension Service, Iowa State University of Science and Technology, Ames, Iowa.