1990

The Economics of Placing Heavy Steers Back in the Feedlot

C.M. Pankonin
South Dakota State University

R.H. Pritchard
South Dakota State University

THE ECONOMICS OF PLACING HEAVY STEERS BACK IN THE FEEDLOT

C. M. Pankonin[1] and R. H. Pritchard[2]
Department of Animal and Range Sciences

CATTLE 90-14

Summary

In the fall of 1989, 30 fed steers (1,069 lb) marketed through the Sioux Falls Stockyards were purchased by a feeder to go back on feed rather than to slaughter. The cattle were purchased for $70/cwt on a $63/cwt fed steer market. These steers were previously on trial at the SDSU research feedlot. Thirty-two contemporary steers were retained at SDSU for determining subsequent costs of production and economic risks of placing heavy cattle on feed. The fed steer and futures markets were tracked for the next 27 days. During this period, there was no potential for profit based on breakevens in relation to the cash market. The only potential for profit was seen near the close of the October futures contracts on days 17 through 27 of the feeding period. After 2 weeks back on feed, weight losses due to shrink were compensated for and steers regressed to average daily gains of 2.5 lb. A companion study holding similar frame size steers on feed an additional 29 days caused an increase ($P<.01$) in frequency of yield grade 4 from 0 to 17%.

Introduction

It is a common practice in the upper midwest to buy heavy (1,000 lb) feeders to be placed in short feeding programs. By doing this, a large economic risk is involved. The feeder must be aware of what is happening to cost of production, how well the cattle perform, at what point are cattle overfed and how this can affect carcass grade and yield.

The objective of this experiment was to determine the economic feasibility and changes in performance and carcass value when feeding heavy steers.

Materials and Methods

Mixed crossbred steers were previously utilized in a study to determine feedlot performance of cattle fed finishing diets that included hay or sunflower hulls. Upon completion of that experiment, 96 head were sold at the Sioux Falls Stockyards during the week of September 14, 1989. Thirty head of these steers weighing an average of 1,069 lb were purchased for $70/cwt to go back to the country. The fed steer market on that date was $63/cwt. It was then decided to retain 32 steers of similar weight to serve as a contemporary group at the SDSU research feedlot.

Costs of production (i.e., cost of gains and breakeven prices) were calculated using a $.20 per head per day yardage fee and an interest rate of 12%, charged only against the purchase price of the cattle. Ration costs were $80/ton. Interim average daily gains, dry matter intake and feed/gain were determined on a full weight basis. Cash and futures markets were tracked throughout the 27-day period. Breakeven calculations included a 4% shrink adjustment.

In a companion study, 170 Limousin x Angus steers of similar weights and frame size and managed similarly were used to determine potential carcass changes late in the feeding period. The Limousin cross steers were serially slaughtered after 82, 95 and 111 days on feed. Carcass data needed to determine yield and quality grades were collected.

Results and Discussion

During the previous 72-day feeding period, these steers gained 3.03 lb per day and consumed 17.71 lb dry matter daily with a feed/gain of 5.89. Table 1 illustrates what happens to performance once heavy cattle have been bought and placed back into a short feeding program. Initial and final weights were 1,069 and 1,211 lb, respectively. Cattle performed well during the first 2 weeks back on feed. However, these gains represent compensation for shrink incurred at the time of sale. A significant decrease in performance was noted thereafter.

---

[1]Animal Science graduate.
[2]Associate Professor.

TABLE 1. PERFORMANCE OF HEAVY FEEDER STEERS

Item	Feeding period: Sept 14-Sept. 20	Sept. 21-Sept. 27	Sept. 28-Oct. 4	Oct. 5-Oct. 11	Oct. 12-Oct. 20	$\bar{x}$	SEM
ADG[a], lb	5.39[c]	5.00[c]	3.04[c]	2.68[c]	1.59[b]	3.54	.63
DMI[a], lb/day	22.82[d]	25.24[c]	26.13[c]	27.17[c]	25.58[a]	25.39	.69
F/G[a]	4.28[d]	5.37[d]	9.93[cd]	13.80[cd]	28.52[c]	12.38	6.25
Cost of gain[b], cents/lb	28.17[d]	32.85[cd]	59.0[cd]	80.5[cd]	83.3[c]	56.77	16.06

[a] Calculated on a full weight basis.
[b] Includes 4% shrink adjustment.
[c,d] Means within a row with uncommon superscripts differ ($P<.05$).

A feeder may allow cattle to remain on feed until a certain date to act upon a more favorable market. Caution should be taken in these situations to ensure that cattle do not become overly fat at that point and performance is not substantially reduced. The companion study of Limousin x Angus steers (Table 2) clearly shows how extra days on feed result in heavy carcasses as well as noting a significant increase in the percentage of yield grade 4 carcasses. Dockage as a result of overly fat or heavy carcasses may offset anticipated profits.

In this study, potential for profit could be seen if a futures contract was sold between October 10 and October 20, 1989 (Figure 1). During this time, October futures contract showed a profit, with the greatest gains occurring on October 18, 1989. Other than this short time during the feeder/ownership period, there was no potential for a positive return on the cattle on the cash or futures markets (Figure 2).

In a given situation, the producer may want to evaluate methods to lower costs of production. Each feeder is presented with a set of circumstances that affect his method of determining costs. For example, one feeder may not include a yardage feed (i.e., buildings are already paid for or depreciated out) or feed resources and costs may differ from one producer to the next. These and other alternatives may reduce costs of production to allow a feeder to realize a profit where someone else may not.

Rather than trying to sell cattle at maximum market price, an optimum market price is preferred. Sometimes producers may fail to realize that time on feed and variables such as average daily gains, feed efficiency and cost of gain that increase with time on feed dramatically influence figures used to determine a breakeven price. In order to project potential returns, purchase price, interest rates, fixed costs and feed costs as well as market price must be considered.

No matter how large or small, the effective feedlot operator should closely monitor levels of performance to maintain maximum efficiency in his operation, know the windows of acceptability in terms of carcass grade and yield and utilize marketing tools available.

TABLE 2. DAYS ON FEED IN RELATION TO CARCASS QUALITY

Item	Days on feed 82	95	111	SEM
No. of animals	64	43	63	
Initial wt, lb	904	903	902	5.3
Final wt, lb	1217[a]	1227[b]	1329[c]	7.3
Carcass wt, lb	751[a]	780[b]	826[c]	3.9
Rib fat, in.	.51[a]	.63[b]	.66[c]	.023
Yield grade, %				
1	0	4	0	
2	52	47	25	
3	44	42	57	
4	4	7	17	

[a,b,c] Means within a row with uncommon superscripts differ (P<.05).
[d] Heterogeneity among days on feed (P<.01).

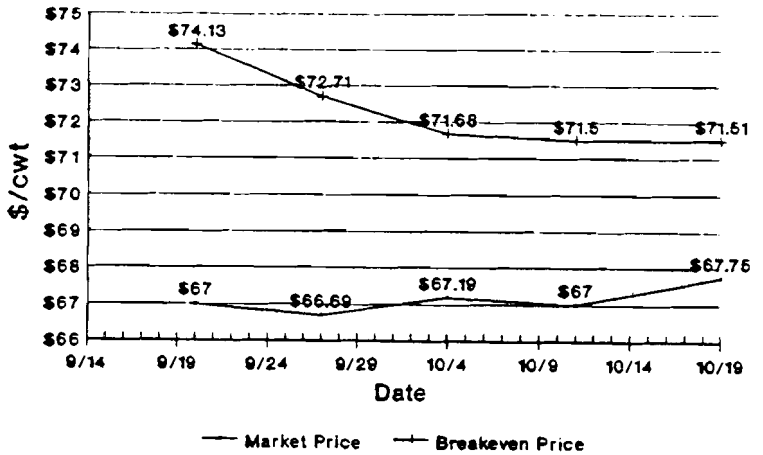

Figure 1. Breakeven in relation to market prices during feeding period.

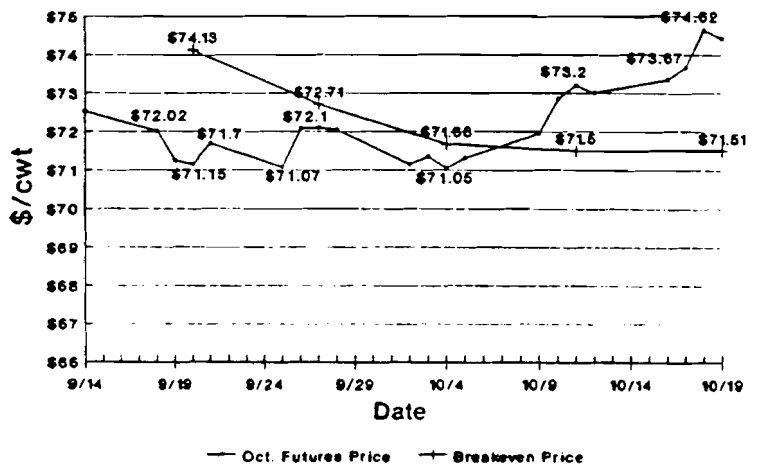

Figure 2. Breakeven in relation to October futures prices during feeding period.