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A Five-Year Case History of Retained Ownership

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Summary

A case history of retaining ownership of steer calves from weaning through slaughter was examined for calves born in 1985 through 1989. Calves were reared to weaning at the SDSU Antelope Range Livestock Station and following weaning were managed under a custom feedlot arrangement. Retaining ownership from weaning through slaughter resulted in profits of $1.83, $215.41, $162.75, $78.58 and $80.65 (excluding interest on calf) for the 1985 through 1989 calf crops, respectively. Cattle prices, feed costs and postweaning profitability tended to vary over years considerably more than cattle performance.

(Key Words: Beef, Retained Ownership, Feedlot.)

Introduction

Retained ownership may be defined as maintaining ownership of cattle beyond the traditional sale time. For cow-calf producers, retained ownership represents another marketing alternative where ownership of the calf crop is maintained beyond the traditional sale at weaning.

When examined over a period of several years, retained ownership of feeder calves through slaughter has been shown to consistently improve profitability of cow-calf operations. Kansas data showed that, when calves were sold at weaning, average net profit per cow was $4.89 from 1974 through 1988. Profit ranged from -$106.79 in 1974-75 to $115.00 in 1987-88. Average profitability for the feedlot phase of production of over 7,000 steers that were fed as part of the Kansas steer futurities was $49.57 per head. Producers selling calves at weaning would have experienced positive returns in six of the 14 years studied. Producers who retained ownership of steer calves through the feedlot phase of production experienced positive returns (cow-calf and postweaning production phases combined) in 10 of the 14 years studied.

Ownership has been retained through slaughter of a portion of calves born at the SDSU Antelope Range Livestock Station for the past five calf crops. While the primary purpose of retaining ownership was so that carcass information could be obtained as part of a breeding research project, the project also provides an actual case study of one particular type of retained ownership. The objective of this paper is to summarize our experiences over the past five years with retaining ownership of calves through slaughter in a custom feeding arrangement.

Materials and Methods

This study included data from two- and three-breed crossbred steers born primarily in March or April at the Antelope Range Livestock Station in northwest South Dakota. The calves were weaned at an average age of 7 months and transferred to a commercial custom feedlot about three weeks later. Half of the steers were retained each of the first 3 years and all steers were retained the last 2 years (Table 1).

The primary feedstuffs used at the feedlot were corn grain, corn silage and alfalfa hay. Energy levels were increased quite rapidly after entry of cattle into the feedlot. Steers were slaughtered the following May or June at commercial slaughter facilities and carcasses were graded after a minimum 24-hour chill. For calf birth years 1985 through 1988, all steers were slaughtered on the same day. Calves born in 1989 were slaughtered on two dates (4 weeks apart), and the figures presented in Table 1 represent averages over the two slaughter dates.

Calf price at weaning (Table 2) is the estimated price at which the calves could have been sold at weaning time if ownership had not been retained. Estimated value of calves at weaning is the estimated weaning price multiplied by the average weight of calves entering the feedlot. Performance and costs during the period between actual weaning and entry

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TABLE 1. FEEDLOT PERFORMANCE OF STEERS

Item	Year of calf birth					Average[a]
	1985	1986	1987	1988	1989	
No. calves started	56	57	55	106	94	
No. calves finished	54	57	54	104	91	
Days in feedlot	211	203	210	206	196	205
Avg daily gain, lb/day	3.18	3.16	3.12	3.41	3.11	3.20
Final live wt, lb	1185	1158	1188	1177	1158	1173
Avg feed intake, lb/day	25.3	26.7	24.8	26.4	25.9	25.8
Feed/gain, air dry	6.94	6.92	6.55	6.01	6.78	6.64
Percent Choice carcasses	77	73	78	60	68	71
Cost/lb gain, $[b]	.433	.324	.353	.398	.439	.389
Cost/head/day, $[b]	1.34	1.03	1.10	1.34	1.36	1.23

[a] Simple average of the 5 years.
[b] Does not include death loss.

TABLE 2. ECONOMIC PERFORMANCE OF STEERS IN THE FEEDLOT

Item	Year of calf birth				
	1985	1986	1987	1988	1989
Estimated calf price at weaning, $/cwt	62.00	67.00	85.00	98.00	95.00
Slaughter price, $/cwt	54.52	67.60	73.34	72.09	76.46
Slaughter sales, $/head	617.00	778.83	855.22	832.52	857.12
Feedlot charges, $/head	282.93	208.24	229.84	276.07	262.02
Estimated value of calves entering feedlot, $/head	318.86	345.72	452.05	465.45	502.92
Estimated gross profit, $/head	15.21	224.87	173.33	91.00	92.18
Estimated net profit (less operating interest), $/head	1.83	215.41	162.75	78.58	80.65

into the custom feedlot were not considered in the postweaning analysis. Slaughter price is the price at which the calves were actually marketed, and slaughter sales represents the amount received per head when marketed. The figures for both slaughter price and slaughter sales have had costs of trucking from the feedlot to slaughter plant and beef promotion check-off charges deducted. The line labeled feedlot charges was the total amount actually paid to the custom feedlot per calf entering the feedlot for feed, lot space, health treatment, etc. All items expressed on a per-head basis in Table 2 are based on the number of calves entering the feedlot. Therefore, financial losses associated with death loss in the feedlot have been accounted for.

Estimated gross profit during the postweaning feedlot period was computed as slaughter sales minus the estimated value of calves at weaning minus cumulative feedlot charges. Estimated net profit was computed by deducting interest on feedlot charges from estimated gross profit. Interest on feedlot costs accrued during the first half of the feedlot period was charged for the full feedlot period. Interest on feedlot costs accrued during the second half of the feeding period was charged for only one-half of the feedlot period. No interest was charged for the value of calves entering the feedlot.

Results and Discussion

Cattle performance in the feedlot is presented in Table 1. Postweaning death losses in the feedlot over the 5-year period amounted to 8 out of 368 steers (2.2%). Average daily gain and feed conversion were quite consistent from year to year except for the 1988-born calves. Apparently, drought conditions in 1988 were associated with depressed weights of calves entering the feedlot and with subsequent compensatory gains and improved feed efficiency in the feedlot. Relatively mild weather during the winter and spring of 1988-89 may have contributed to the improved feedlot performance compared to the other years. Average daily feedlot costs per animal and cost per pound of gain tended to vary over years (death loss effects were not included in these figures). These costs appeared to be more closely associated with feedstuff costs than with calf performance.

Presented in Table 2 are various costs and returns associated with postweaning feedlot production. A striking feature of these figures is the magnitude of variation over years in cattle prices, feedlot costs (primarily a function of feed prices) and estimated profitability of retaining ownership. Relative profitability was largely dependent upon feedlot cost of gain and the relationship between estimated weaned calf price and slaughter calf price. Death losses were also an important factor. Profitability was not closely related to fall calf price alone. Relatively high feed costs and a death loss of two out of 56 calves contributed to the relative lack of profitability of the 1985-born calves. Retaining ownership of the 1986-born calves proved to be highly profitable, as there was a general increase in cattle prices between fall of 1986 and spring of 1987, along with low feed costs and no death loss in the feedlot. Relatively large profits from retaining ownership continued for the 1987-born calf crop. Relatively higher

opportunity costs associated with not selling at weaning (i.e., higher estimated fall calf price), along with relatively higher feed costs, contributed to lower profits for the 1988- and 1989-born calf crops compared to the two previous calf crops. As mentioned previously, no interest charge was assumed for the value of calves entering the feedlot (capital investment). Thus, the estimated net profit figures in Table 2 should be interpreted as dollar return on the value of calves entering the feedlot (dollar return on investment). If interest for the opportunity cost associated with not selling calves at weaning was charged for the feedlot period at an annual rate of 11%, then estimated net profit figures would be $-18.45, $194.26, $134.14, $49.68 and $50.94 per head for 1985, 1986, 1987, 1988 and 1989, respectively.

These figures do not take profitability of the cow-calf operation into account, which helps explain why profitability of retained ownership for the 1986-born calf crop exceeded that of the last three calf crops even though cattle prices were lower. If calves had been marketed at weaning, profitability would have been higher for the last three calf crops than for the 1986-born calf crop. Profitability of retained ownership was calculated essentially the same as it would be if calves were purchased at weaning, with the purchase price equal to the estimated value of calves at weaning. With all other factors held constant, an increase in the value of calves at weaning would result in increased profitability of the cow-calf operation but decreased profitability of retaining ownership. Of course, the combined profitability of weaned calf production and postweaning production through slaughter is not actually affected by weaned calf value if the calf is not marketed at weaning.

The decisions involved in participation in retained ownership must be determined by each individual cow-calf producer after careful consideration of various factors such as financing, risk tolerance, price outlook for cattle and feed, identification of a feedlot and postweaning performance of the cattle. Also, the choice to retain ownership isn't simply a yes/no question but also one of magnitude, because of the option to limit participation in retained ownership to only a portion of the calf crop. The fact that the financial figures tended to fluctuate relatively much more than cattle performance over years illustrates the risks associated with retaining ownership. Postweaning performance should not vary tremendously from year to year for cattle from the same herd fed in the same feedlot. Therefore, it is possible that price risks could be reduced through use of forward contracting and(or) futures markets.