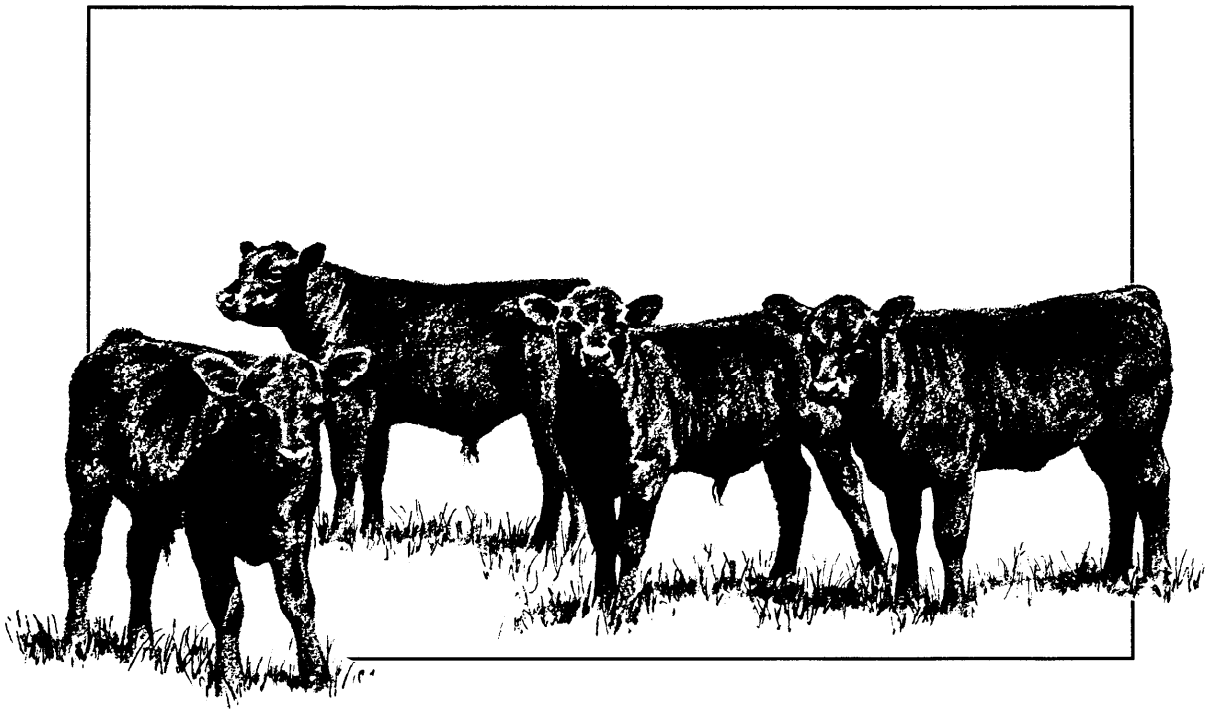
KANSAS STEER

F U T U R I T I E S:

An Analysis of the Retained Ownership Program



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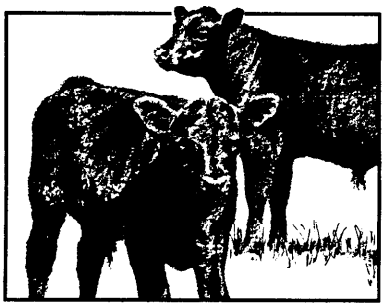

KANSAS STEER FUTURITIES:

An Analysis of the Retained Ownership Program

Cowherds are an important industry in Kansas with annual cow numbers ranging from 1.3 to 2.0 million. Traditionally, most Kansas cow–calf producers have marketed their calves in one of two ways: calves were either sold shortly after weaning in the fall or put into growing programs during the winter and then onto pasture or directly into a feedyard in spring.

However, significant changes began to occur in the cattle industry during the 1960's and 1970's. Cattle type was shifting to a larger, growthier animal, a result of the introduction of the medium and large Continental breeds into breeding programs and also the selection for larger frame sizes within the English breeds. Over time, this helped produce a sharp increase in weaning weights and growth rates. But as weaning and growth rates increased, it became apparent that many calves no longer fit the traditional low rate of gain growing programs since they tended to produce carcasses larger than desired by packers and meat retailers. Furthermore, feeding trials suggested that slow growth wintering and grazing programs for calves with high growth potential were inefficient, particularly when high cattle ownership costs were taken into account.

The changing economics of cattle ownership and the change in cattle type led to interest in "accelerated" feeding programs in which the calves were placed on a finishing ration shortly after weaning, reaching slaughter weight at 14 to 15 months of age. Demonstrations of these accelerated feeding programs were begun in the mid-1970's to help cow–calf producers evaluate their merit. This bulletin summarizes the results of a number of accelerated feeding programs conducted from 1974 to 1988 throughout Kansas.

Futurity steers were generally fed longer, had a higher weight per day of age, and had a higher death loss than typical feedlot steers. Additionally, a smaller percentage of futurity steers graded choice than is typical for more mature feedlot steers.

Results from this study suggest that retaining ownership of calves into the feedlot can be a profitable practice for cow–calf producers. Estimated returns from retaining ownership into the feedyard were positive in 10 of the 14 years studied. Although breed type was not a major factor influencing profitability of futurity steers, breed types that were heavier at delivery, exhibited higher rates of gain in the feedlot and had a greater tendency to grade choice at slaughter tended to be the most profitable.

Cow–calf producers considering retaining ownership of their calves by placing them on feed in a feedyard are strongly encouraged to evaluate the potential profitability of the finishing program prior to placing the cattle on feed. The decision to retain ownership of the calves or to sell them at weaning should be based on expected returns for that year, not on estimated historical returns to retained ownership programs.

About the Futurities

The concept of testing calves for gainability and profitability through the feedlot phase was implemented at two Kansas locations in fall 1974. One futurity was cosponsored by the Kansas Livestock Association and the Kansas State University Cooperative Extension Service, and the other was managed by the Guaranty State Bank and Trust of Beloit. "Futurities" were soon expanded to several other locations through the leadership of area and county Extension personnel. A total of 70 futurities involving more than 8,000 cattle in 14 locations conducted between 1974 and 1988 are included in this summary.

The original goal of the futurities was to give producers the opportunity to evaluate cattle for postweaning gain and carcass merit. With this goal in mind, producers entered five head lots representing specific breed types, sire groups, or simply a sample of the herd.

During the early years, the economic data the program provided producers was considered secondary in importance; however, it soon became clear that this type of feeding program could be very profitable. As a result, interest in the use of accelerated feeding as a marketing option for cow-calf producers increased.

Cattle Management Procedures

Although there has been some variation in management among the futurities, calves generally have been weaned a few weeks prior to delivery to a commercial feedyard in late November or early December. Following a 3-week warm-up period during which the cattle were "worked up" to the finishing ration, the official gain test was initiated.

The cattle were fed until they had approximately 0.4 inch of backfat based on visual appraisal or until they approached 1,400 pounds. This meant that cattle were sold in groups since a typical pen of futurity cattle varied greatly in maturity pattern. In general, small-framed, early maturing steers were slaughtered in late April and large-framed steers in early June. At slaughter, carcass data were collected on all cattle.

Performance and Carcass Results

Table 1 shows the performance and carcass characteristics of the average steer fed in the Kansas futurity program. These calf-fed steers were younger and lighter at arrival than a typical feedlot steer. Futurity steers were fed longer and generally had a much higher weight per day of age and had less finish at slaughter than the typical feedlot steer. Correspondingly, fewer futurity steers graded choice than typical for feedlot steers, which is partially attributable to the futurity steers having less finish, being younger and, hence, less mature.

Table 1. Average Performance and Carcass Characteristics of Steers in the Kansas Steer Futurities, 1974 through 1988

Birth date:	Feb. 16
Delivery weight, lbs:	601
Starting weight, lbs:	646
Days on feed:	164
Final weight, lbs:	1144
Gain per day on test, lbs:	3.06
Weight per day of age, lbs:	2.55
Carcass weight, lbs:	693
Rib-eye area, square inches:	12.8
Backfat, inches:	0.34
Yield grade:	2.3
USDA Quality Grade[a]	6.5
Retail Product, %:	772.3

[a]6.0 = USDA High Select, 7.0 = USDA Low Choice

It is worth noting that the average steer in the futurity program more closely fits the "lean beef" specifications outlined by the major packers with respect to carcass weight, muscling and backfat than carcasses from steers fed in a traditional program. Accelerated feeding not only has profit potential, but the carcasses produced meet the consumer's desire for a leaner product. However, steers fed on an accelerated program tend to produce a lower percentage choice than steers fed in a traditional program which, under the current market structure, means that packers will often pay less for "accelerated" steers.

Table 2 shows cattle performance by year. The biggest changes have been the increase in the placement weights and frame scores, both of which reflect the change in cattle type that occurred from 1974 to 1988. Growth rate in the feedlot increased only slightly, contrary to expectations. The total number of days on feed and age at the end of the test also remained essentially unchanged from 1974 to 1988.

Table 3 shows average carcass characteristics by year. Carcass weights increased while quality grade, yield grade and fat thickness declined. These changes reflect the industry's shift towards growthier, larger cattle. The results also indicate the trend toward marketing steers with less fat. The reduction in average backfat at slaughter is primarily attributable to an increased percentage of steers being slaughtered because of weight rather than finish. This change in endpoint reflects the shift in frame type which resulted in a higher percentage of steers approaching 1,400 pounds with minimal (< 0.20) backfat. The degree of muscling changed very little from 1974 to 1988 as evidenced by only a slight increase in actual ribeye areas and no change in ribeye per hundredweight of carcass.

During the 14 years of the futurity, 58 percent of the carcasses graded choice and 40.8 percent select. As noted previously, the percentage grading choice is somewhat below the level for typical yearling steers.

Death Loss and Sickness

One of the major concerns of cattle feeders is the rate of sickness and death loss for calves placed in a commercial feedlot. In general, futurity steers have been treated for more sickness than typical yearling feedlot steers; however, only 1.26 percent of the steers died or were removed in the 14 years of this study. An analysis of 10 years of fed cattle closeouts from a western Kansas feedyard indicates that the average death loss for all steers placed during the month of November was approximately 0.9 percent, suggesting that the futurity steers' rate of death loss was almost 40 percent higher than for more mature steers.

Table 2. Performance of Futurity Steers by Year

Year	No. Head	Placement Weight, lbs	Final Weight, lbs	Start Age, Days	Final Age, Days	Frame Score	ADG, lbs	Wt/d Age, lbs	Days on Feed
1974-75	448	525	1038	271	438	2.0	3.10	2.39	169
1975-76	477	553	1084	281	441	2.5	3.32	2.49	159
1976-77	513	588	1111	281	446	3.0	3.17	2.52	166
1977-78	545	620	1127	284	460	2.6	2.93	2.48	176
1978-79	554	632	1148	286	463	2.6	2.95	2.54	177
1979-80	533	617	1125	281	456	3.1	2.95	2.48	174
1980-81	551	618	1142	283	451	3.4	3.13	2.55	170
1981-82	599	672	1175	296	444	3.9	3.33	2.67	152
1982-83	583	664	1160	279	445	3.4	3.03	2.60	166
1983-84	587	649	1162	288	457	4.2	3.10	2.54	166
1984-85	647	668	1185	288	462	4.9	3.01	2.52	171
1985-86	657	677	1199	287	454	5.1	3.20	2.62	165
1986-87	644	665	1144	280	441	4.3	3.04	2.57	159
1987-88	668	706	1218	297	450	4.9	3.49	2.68	150

Table 3. Carcass Characteristics by Year

Start year	Carcass Wt, lbs	USDA Quality Grade[a]	Yield Grade	Fat Thickness, in.	Rib-eye Area, sq. in.	% Retail Product	Ribeye Area per cwt of carcass wt., sq. in.
1974-75	640	6.9	2.6	.41	11.9	71.1	1.87
1975-76	677	6.8	2.5	.41	13.0	71.7	1.92
1976-77	679	6.8	2.4	.37	12.6	71.9	1.85
1977-78	680	6.3	2.5	.34	12.2	71.5	1.80
1978-79	697	6.2	2.3	.35	13.0	72.4	1.88
1979-80	688	6.5	2.6	.35	12.2	71.2	1.78
1980-81	687	6.6	2.4	.34	12.6	72.0	1.85
1981-82	709	6.3	2.6	.35	12.4	71.3	1.77
1982-83	696	6.5	2.3	.33	12.7	72.3	1.84
1983-84	693	6.1	2.3	.35	12.8	72.5	1.85
1984-85	714	6.6	2.1	.32	13.3	73.3	1.87
1985-86	725	6.2	2.1	.33	13.8	73.3	1.92
1986-87	683	6.5	1.9	.27	12.8	74.0	1.88
1987-88	732	6.3	2.0	.30	13.6	73.9	1.87

[a]6.0 = USDA High Select, 7.0 = USDA Low Choice

Economic Comparisons

The primary purpose of the futurity program was to help cattle producers evaluate the carcass merit of breed types and sire groups. However, because many cow–calf producers also were interested in the profitability of this type of feeding program, we have attempted to estimate the return per cow that might have been earned by the average futurity steer.

Estimated gross returns for an average cow were estimated using the delivery weights for the futurity steers, average prices for 500- to 600-pound steers, 500- to 600-pound heifers and cull cow prices, all from Kansas City, for the appropriate year. Annual cash costs of cow ownership were estimated based on the Kansas State University Farm Management Guide, "Beef Cowherds" (MF-266), adjusted for a 60 percent debt load on operating expenses and livestock. Finally, estimated on-farm weaning costs were also used to separate costs from the cow–calf enterprise and the finishing enterprise. Although this procedure made it possible to estimate returns from the cow–calf enterprise, there are several weaknesses in this technique. First, since average prices from the Kansas City auction market were used to estimate sales revenue, the estimated returns do not adequately account for the differences in physical characteristics among calves and cull cows. Second, the actual cost of maintaining a cow varies greatly across cow herds. Actual returns above all cash costs on a given farm or ranch could vary markedly from those identified here simply because of different cost structures. Finally, the estimated revenue from the cow–calf enterprise was based on the assumption that

Table 4. Estimated Cow-Calf Returns, 1974-75 through 1987-88

Year	Actual Wt. at delivery, lbs	Est. Calf Price at delivery, $/cwt	Steer Calf Value at delivery[a], $/head	Est. Annual Cash Costs of Cow Ownership[b], $/head	Est. Gross Cow Returns[c], $/head	On-farm Weaning Costs[d], $/head	Est. Net Calf Returns, $/head
1974-75	524	27.70	145.15	221.67	124.10	9.22	-106.79
1975-76	552	37.44	206.67	223.96	168.32	8.15	-63.79
1976-77	583	37.37	217.87	228.85	176.93	8.40	-60.32
1977-78	589	40.95	241.20	221.52	201.20	8.35	-28.67
1978-79	590	69.45	409.76	244.21	342.35	9.15	88.99
1979-80	573	88.18	505.27	296.07	416.57	10.45	110.05
1980-81	576	77.14	444.33	348.93	370.70	14.12	7.65
1981-82	605	64.35	389.32	345.27	327.04	12.43	-30.66
1982-83	598	64.85	387.80	345.31	321.58	13.22	-36.95
1983-84	587	62.74	368.28	331.86	306.39	10.98	-36.45
1984-85	647	65.10	421.20	320.33	347.83	9.95	17.55
1985-86	657	62.70	411.94	287.85	342.16	8.48	45.83
1986-87	644	64.20	413.45	279.39	348.83	7.45	61.99
1987-88	668	79.50	531.06	326.18	450.02	8.04	115.80
Average	599.5	$60.12	$363.81	$287.24	$303.14	$9.89	$6.02

[a]Actual wt at delivery x estimated calf price at delivery.
[b]Based on KSU Farm Management Guides for Beef Cowherds (MF-266) adjusted for a sixty percent debt load on operating expenses and livestock, for the appropriate years.
[c]Steer weaning wt x sale price x 46% (% of steer calf weaned) + heifer wt (steer wt - 50 lbs) x heifer sale price x 30% (% of heifer calf weaned) + cull cow value (1,050 lbs x sale price) = estimated gross returns from cows if calves sold on delivery date.
[d]One half of daily feedlot costs x 14 days.

the productive life span of an average cow would be approximately 6 years. Heifer retention and cull cow revenue have been included in the calculations accordingly. Of course, the actual productive life span of a cow can vary significantly from the estimated average of 6 years, which affects revenues.

Results of the cow–calf enterprise analysis, included in table 4, show an average return during the study of about $6 per head. But the average return masks the variability in cow–calf returns. Estimated returns were lowest during the first year of the futurities, 1974–1975, and highest during the last year studied, 1987–1988. During the 7 years when returns were negative, estimated losses averaged nearly $52 per cow. The 7 years of positive estimated returns averaged approximately $64 per head.

The estimated returns data in table 4 reaffirm that returns to the cow–calf sector are cyclical, suggesting that cow–calf operators evaluate the potential returns of marketing their calves through a retained ownership program instead of simply selling the calves at weaning.

Profitability of each steer in the various futurities also had to be estimated since the steer futurities were originally designed as demonstration programs, not research trials. Because precise records regarding each animal's estimated value at the start of the feeding program were not maintained, starting values for each futurity steer were estimated from weekly average feeder steer prices for November at Kansas City for that weight group and year. For example, the futurity steers weighing between 500 and 600 pounds were assigned a starting value equal to the Kansas City average price for 500-to 600-pound steers in November of that year. Similarly, feed costs were allocated on an average maintenance weight and rate of gain basis using National Research Council (NRC) formulas for energy requirements for maintenance and gain. These formulas were adjusted for differences in frame type as described by NRC.

Total feedlot costs included several other costs which were assigned to each steer. Miscellaneous costs of $21.50 per head were allocated for processing charges and estimated medical costs. Yardage charges of $0.05 per head per day also were included in the total feedlot costs. Since cow–calf producers would receive cash for cattle sold at weaning and have an opportunity to reinvest that cash, the analysis assumed that 100 percent of the starting value of the calf was financed; it was also assumed that all of the feed was financed. Interest costs were calculated using the average interest rate on feeder cattle loans (Kansas City Federal Reserve District) for the first two quarters of the year the cattle were slaughtered, assuming the cattle were on feed for 180 days.

The estimated profitability of the futurity steers during the finishing phase from 1975 through 1988 is shown in table 5. The futurity steers averaged a positive return of $38.47 per head with positive returns occurring during 10 of the 14 years. Returns were quite variable, however, ranging from a low of $–73.31 to a high of $147.61 per head. Wide fluctuations in cattle prices and feed costs explain much of the variation in feeding returns, but a fundamental change in the cost of feeding cattle also occurred during this time.

A close look at table 5 reveals that the opportunity cost of having capital invested in feed and a feeder animal has risen dramatically since the mid-1970's. The interest charge on the money invested in the feeder animal expressed as a percentage of total feedlot costs (including interest on the feeder) ranged from a low of 2 percent during 1974–75 when the futurities were initiated to a high of 14 percent in 1979–80. Moreover, interest paid on the feeder has consistently averaged over 7 percent of all costs, excluding the purchase price of the feeder, since 1978–79. The rise in the value of the feeder animal, combined with the increase in interest rates since the mid-1970's, produced a dramatic increase in the cost of owning cattle.

Many factors influence the profitability of a cattle feeding program. When attempting to explain why the estimated returns for the accelerated feeding programs were positive in more than two-thirds of the 14 years examined, however, two reasons stand out. First, the growth in the ownership cost of cattle tends to favor rapid feeding programs that bring cattle to slaughter weight quickly, thereby helping to minimize the total cost of cattle ownership. Second, the accelerated feeding program takes advantage of favorable seasonal price trends, particularly for slaughter cattle.

Figures 1 and 2 depict the seasonal price trends for both 500- to 600-pound feeder steers at Kansas City and for 1,100- to 1,300-pound slaughter steers in western Kansas from 1975 through 1988. The graphs depict how prices tend to fluctuate, on a monthly basis, around the annual average price. Lightweight steer prices tend to peak in the spring when the supply of calves tends to be small and demand for lightweight cattle suitable for placement on grass peaks. Calf prices then tend to decline sharply during the early summer, before recovering modestly into late summer and early fall. By the time futurity steers are placed on feed in November, however, calf prices tend to fall somewhat below their annual average, implying that the "purchase price" for steers placed in a steer futurity tends to be below the annual average price for steer calves. The seasonal price pattern for slaughter steers tends to be even more favorable for futurity steers since slaughter cattle prices tend to peak during April, May and June when steers from the accelerated feeding program are slaughtered.

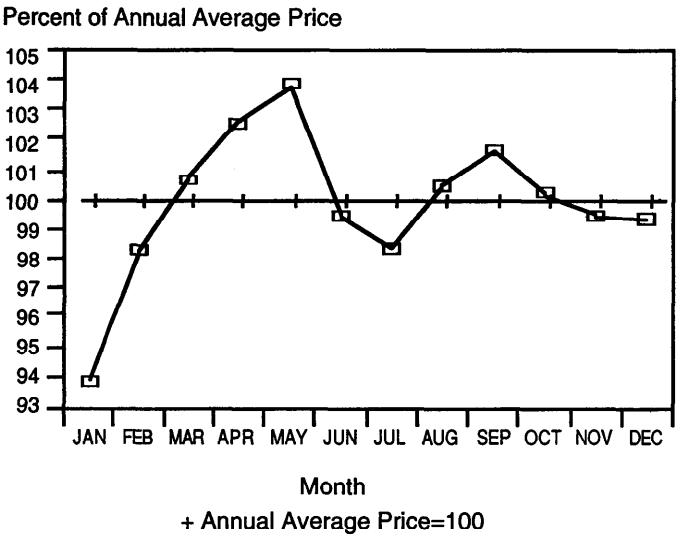

Figure 1. Kansas City 500-600 Lb. Feeder Steer Monthly Price Index, 1975-1988

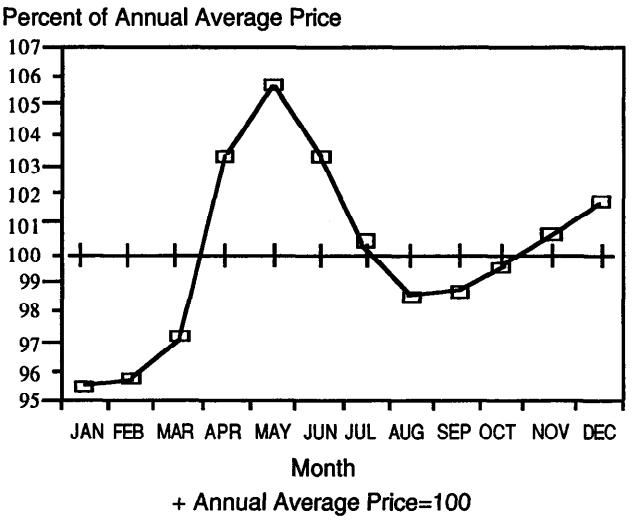

Figure 2. Western Kansas 110-1300 Lb. Steer Monthly Price Index, 1975-1988

Table 5. Estimated Feedlot Returns and Lifetime Returns for Futurity Steers, 1974-75 through 1987-88

Year	Interest Rate[a], %	Interest Cost on Feeder (180 days), $/head	Est. Total Feedlot Costs[b], $/head	Est. Value of Steer at Slaughter, $/head	Est. Return from Feeding[c], $/head	Est. Total Lifetime Returns[d], $/head
1974-75	6.5	4.83	242.42	525.75	138.18	31.39
1975-76	8.0	8.88	224.44	432.35	1.24	-62.55
1976-77	8.8	9.72	217.88	450.15	14.40	-45.92
1977-78	8.9	11.29	224.50	591.58	125.88	97.21
1978-79	10.1	21.77	246.11	753.74	97.88	186.87
1979-80	14.7	39.00	278.08	710.96	-72.39	37.66
1980-81	16.6	37.18	358.04	737.80	-64.57	-56.92
1981-82	17.2	31.00	286.33	808.95	133.30	102.64
1982-83	14.3	27.35	328.94	739.24	22.50	-14.45
1983-84	14.3	26.31	348.31	728.57	11.98	-24.47
1984-85	13.5	28.37	323.12	671.01	-73.31	-55.76
1985-86	12.4	25.60	261.25	645.21	-27.98	17.85
1986-87	11.4	23.57	211.65	772.71	147.61	209.60
1987-88	11.5	30.59	242.99	857.85	83.80	199.60
Average	12.0	23.25	271.00	673.28	38.47	44.48

[a]Average of interest rate paid on feeder cattle loans (first two quarters of each year), Kansas City Federal Reserve District.
[b]Includes cost of feed, yardage, miscellaneous costs, interest on feedlot costs, plus death loss and removal costs.
[c]Value of steer at slaughter minus total feedlot costs minus calf value at delivery (table 4).
[d]Estimated return from feeding plus estimated net calf return (table 4).

Although the actual price pattern in any given year can vary significantly from the normal seasonal pattern, the seasonal price patterns have been consistent enough to explain a portion of the futurity steer program's success.

Breed Comparisons

The futurities were not specifically designed to make breed comparisons; however, the large numbers of cattle of representative breeds made it possible for breed type comparisons to be made using the classification system developed at the USDA's Meat Animal Research Center (table 6). Separate categories were also identified for Longhorns, Longhorn crosses, dairy cattle and cattle having a significant level of Brahman breeding.

For purposes of classification, cattle with 75 percent or more of any one breed were considered purebred. Crosses of breeds within a type were considered to be in the same type. For example, Angus–Hereford crosses were considered British and Simmental–Charolais crosses were considered Large Continental. Crosses of cattle from different categories were assigned to an intermediate classification. For example, Charolais–Angus crosses were considered Large Continental–British crosses.

Table 7 shows the performance, carcass characteristics and profitability of steers by breed groups. The profitability shown is the result of using the average feed costs and prices for 1983–1988, a period in which the level of profitability was higher than in 1974–1988. However, the relative differences between breed types were maintained. In general, the large and medium Continentals and their crosses were most profitable.

Additionally, the most profitable breed types were heavier at delivery and had higher rates of gain in the feedlot. The ability to grade choice was also a significant factor in breed type profitability. The British and Small Continentals and their crosses were similar in performance, carcass characteristics, and profitability. Despite the fact that these cattle were fed through the winter, the performance of the Brahman crosses (noting that Brahman crosses were only one-fourth Brahman in most cases) was comparable to the British and Small Continental crosses. The Longhorn crosses were the least profitable breed types as a result of their low rate of gain and light carcass weight which often resulted in significant discounts.

Frame Score Comparisons

Frame score (FS) has been widely used in the beef cattle industry to describe the relative height of cattle. With this in mind, hip height was taken on most of the steers in the futurities, and this height was converted to a frame score using the Beef Improvement Federation's formula. A summary of performance data, carcass characteristics, and profitability by FS is shown in table 8.

Average daily gain tended to increase with frame score up to a FS of 6. Starting weights and carcass weights increased linearly with FS. Conversely, quality grade, fat thickness, and yield grade decreased as FS increased. Although an attempt was made to slaughter the cattle at a constant endpoint (0.4 in.), larger-framed steers were slaughtered with less external fat because they often reached excessive weight (> 1,300 lbs.) before they reached the fat thickness goal.

Profitability increased from FS 1 to FS 3 and then remained essentially constant from FS 3 to FS 7. It appears that a wide range of frame scores will produce acceptable carcass weights profitably. The exception is the very small-framed cattle which are usually less profitable as a result of lower average daily gains and price discounts resulting from light carcass weights.

Table 6. Breed Classifications

Large Continentals (LC)	Medium Continentals (MC)	British	Small Continentals (SC)
Beef Friesian	Blonde D'Aquitaine	Hereford	Limousin
Charolais	Beef Brown Swiss	Angus	Pinzgauer
Maine Anjou	Gelbvieh	Shorthorn	Salers
Marchigiana		Red Angus	South Devon
Simmental		Polled Hereford	Tarentaise

Table 7. Performance, Carcass Composition, and Profitability by Breed Type

	British	LC	LC x Brit.	MC x Brit.	SC	SC Brit.	Dairy x	Brahman x	Long-horn X
Number	1257	106	2496	201	172	306	53	213	84
Profit, $/head	72.82	87.08	86.62	96.54	70.90	79.90	94.10	77.16	35.31
Starting Wt., lbs	616	661	652	633	612	627	685	641	561
Frame Score	3.2	4.6	4.2	3.8	2.8	4.0	3.7	4.2	2.6
ADG, lbs	2.99	3.32	3.25	3.31	3.07	3.22	3.32	3.10	2.61
Quality Grade	6.8	6.4	6.4	6.6	6.5	6.3	7.0	6.4	6.8
Carcass Wt., lbs	664	738	722	726	679	701	746	701	614
Fat Thickness, in.	0.48	0.29	0.36	0.38	0.30	0.37	0.41	0.39	0.31
Weight per day of age	2.45	2.80	2.69	2.69	2.50	2.60	2.74	2.45	2.21
Ribeye Area, sq. in.	12.1	13.5	13.1	13.6	13.1	13.2	12.7	12.7	11.9
Yield Grade	2.8	2.1	2.4	2.3	2.1	2.3	2.5	2.6	2.3
Days Fed	160	168	166	167	166	165	163	166	171

Table 8. Performance, Carcass Composition, and Profitability by Frame Score

Frame Score	1	2	3	4	5	6	7
Number	273	500	712	1027	771	321	50
Profit, $/head	67.68	77.40	89.48	92.41	89.70	82.56	90.79
Starting Wt., lbs	586	605	635	664	686	707	749
ADG, lbs	2.88	3.07	3.23	3.33	3.40	3.48	3.50
Quality Grade	6.8	6.6	6.6	6.4	6.2	5.8	5.6
Carcass Wt., lbs	645	674	706	735	755	767	805
Fat Thickness, in.	0.43	0.41	0.40	0.36	0.33	0.28	0.27
Ribeye Area, sq. in.	12.1	12.5	13.0	13.3	13.5	13.6	14.1
Yield Grade	2.6	2.5	2.5	2.4	2.3	2.2	2.1
Days Fed	167	164	163	164	165	162	166

Conclusions

Results from an analysis of 14 years of retained ownership suggest that retaining ownership of calves into the feedlot can be a profitable practice for cow-calf producers. Estimated returns from retaining ownership into the feedyard were positive in 10 of the 14 years studied. Although breed type was not a major factor influencing profitability of futurity steers, breed types that were heavier at delivery, exhibited higher rates of gain in the feedlot and had a higher tendency to grade choice at slaughter tended to be the most profitable.

Futurity steers generally were fed longer, had a higher weight per day of age and had a higher death loss than typical for feedlot steers. Additionally, a smaller percentage of futurity steers graded choice than is typical for more mature feedlot steers.

Producers need to consider several factors before making the decision to retain ownership of their calves through the finishing phase. The delayed returns from the calf crop, the extra financing needed to cover all costs associated with finishing the calves, plus the adverse market moves, weather and the risk of additional death loss may cause many producers to eliminate this option from their production plans. However, retaining ownership may be a profitable marketing alternative for cow–calf producers if:

1. adequate financing to cover the additional feeding expenses and the delay in receiving sales revenue is available,
2. calves are the large, growthy type with potential for relatively high average daily gains, and
3. the market outlook and expected feeding costs for the finishing program appear favorable at weaning time.

Cow-calf producers considering retaining ownership of their calves until they reach slaughter weight are strongly encouraged to evaluate the potential profitability of the finishing program prior to placing the calves on feed. All costs should be estimated and a budget developed to calculate the “breakeven” price on the cattle. The “cost” of the calves should be included in this budget at the price they could have been sold at weaning time. The breakeven price should then be compared with fed cattle price expectations for the expected slaughter date and a decision made to retain or sell the calves. The decision to retain ownership of the calves or to sell them at weaning should be based on expected returns for that year, not on estimated historical returns to retained ownership programs.

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C-725 August 1991

8-91—5M

File Code: Marketing 1—Agricultural