



BEEF COW ENTERPRISES

1999 Costs and Returns Summary

KENTUCKY FARM BUSINESS MANAGEMENT PROGRAM

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A Special Note to Our Readers

The data for this study are drawn from the detailed financial records of producers cooperating with the Kentucky Farm Business Management Program. The data are not drawn from a random sample of farms in the state. However, these data are the most accurate and detailed farm financial data which are available to researchers and educators. Every attempt has been made to select a set of farms for these research studies which are Atypical® operations and have complete financial information available for analysis. These data are carefully cross-checked by our farm management specialists before inclusion in this analysis. It should be noted that farms included in this study are representative of commercial farms producing major commodities and livestock but not of all farms in Kentucky.

About the Author

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KFBM BEEF SUMMARY: 1999

Introduction

Beef producers in 1999 saw an increase in net returns from 1998 in both the beef calves sold and calves backgrounded. Price received for the calves sold category increased substantially from 1998 (\$8.63 per hundred weight). Price received for selling backgrounded cattle came down \$2.78 /cwt from 1998. While the general trend was for cattle prices to be higher in 1999 over 1998, there were a couple of dips in prices that could explain why the average price received was a little lower in 1999.

Prices were not the only up trend in 1999. Total costs of production in both cattle groups realized a sizeable increase. The calves sold category had an increase in cost of production of \$41 per cow over the previous year and a \$27 higher cost of production in 1999 over the five year average. Beef calves backgrounded saw a much higher increase, \$111 more in 1999 than 1998 and a \$78 higher cost of production per cow than the five year average.

While the averages in both categories showed negative returns over all costs for 1999 as well as the four previous years, there were farms that realized positive returns in 1999. Comparing high-third and low-third producers brings out several differences discussed further on page 4.

Description of Beef Enterprises

This report summarizes Kentucky Farm Business Management data for a sample of beef production enterprises. Two types of cow/calf enterprises are represented in this summary: those in which calves are sold at weaning and those in which calves are retained for at least 45 days after weaning (backgrounding). Sample size for both of these types of enterprises is small (see summary table). Thus it is inaccurate

to consider this information to be a comprehensive summary of the performance of Kentucky beef enterprises. Rather, this information is more accurately described as a survey of beef enterprises that are thought to be representative of beef operations enrolled in the KFBM program. Hence, it is inappropriate to generalize the results of this survey to the beef industry in the state as a whole. On the positive side, while mostly anecdotal, this study provides a depth of information not available from other sources. The KFBM program allows producers to observe the financial details of participating beef cattle operations. The descriptions included in this report can help producers diagnose potential problems and measure success.

Methods and Definitions Used in Study

Most of the production and financial data in this report were calculated as a regular part of the complete farm business records kept by participants in the Kentucky Farm Business Management Program. For inputs used by more than one enterprise, the cooperating farmers and their Farm Business Analysis Specialist allocated the proportion of costs to the beef enterprise. The following definitions and explanations are used:

Total Enterprise Returns - These are the total returns attributable to the beef enterprise for the year. It includes the value of all beef animals sold (including market and breeding), the value of beef slaughtered for family consumption, and an inventory adjustment (positive or negative) for the difference in the value of beef animals on the farm at the start and the end of the year.

Cash Costs - The cash or (out-of-pocket) expenses such as supplies and services used in the production year are considered cash costs.

Non-cash Costs - Home-grown feed, unpaid labor, depreciation and interest on investments are considered non-cash costs.

Total Enterprise Cost - This is the total charge (cash and non-cash) for all factors of production, except management, used by the beef enterprise during the year. Purchased inputs were charged at the price actually paid. Other inputs were charged using the procedures and rates employed in the Farm Business Management Program. Rates charged for operator and family labor, interest on both borrowed and equity capital, and fed corn produced on the farm can be found in the following table:

	Fed Corn Produced on Farm (\$/Bu.)	Unpaid Labor Rate (\$/Year)	Interest Rate: Non Land	Interest Rate: Land
1995	2.75	19,200	9.5%	5%
1996	3.75	19,800	9.0%	5%
1997	2.78	21,600	9.0%	5%
1998	2.39	22,800	9.0%	5%
1999	2.11	24,000	8.5%	5%

Depreciation on buildings, machinery and equipment used in the beef enterprise was taken from the farmer's economic depreciation schedule, which represents a more accurate cost over the useful life of the purchase. Feed raised on the farm was charged at its yearly average "on-farm" market value (what farmers would receive if the feed was sold and marketing costs were deducted). Prices for hay and silage depended upon type and quality. As an example, in 1999, corn silage prices were \$20 per ton. Grass hay prices for each of the five years ranged from \$20 to \$40 per ton while legume hay prices were considerably higher, ranging from \$60 to \$120 per ton depending on the type of bales and the quality of legume hay. Pasture was charged at \$0.22 per day of grazing

by an animal unit (1,000 pounds = 1 animal unit).

Net Enterprise Returns - This is what remains after **Total Enterprise Cost** is deducted from **Total Enterprise Returns**. Because all cash and non-cash costs, except a charge for management, are deducted, **Net Enterprise Returns** represent the financial reward attributable to management of the beef enterprise.

Charges must be made for all inputs to correctly determine enterprise profitability. One must recognize, however, that to the individual farmer, the non-cash charges for his or her labor and interest on his or her equity capital are also **returns** to these factors of production (to the extent that returns are high enough to reward these inputs). Since these are the farmer's resources, the returns can be used for whatever purposes he or she wishes: family living, principal repayment, investment, etc.

Returns per \$100 Feed Fed - A gauge for every \$100 worth of feed fed calculated by dividing total feed costs into beef returns and multiplying by 100.

High-Third and Low-Third - These classifications are determined by the net enterprise returns per cow and per cwt.

Beef Enterprise Survey - Calves Sold

The survey of beef operations in which calves were sold at weaning is quite thin, especially in 1996 through 1998. On average, these operations were not profitable over the 1995 - 1999 period. Net returns (over all costs) ranged from an average of -\$270 per cow in 1996 to -\$92 per cow in 1997 (Table 8).

The economic environment was improving for cow/calf producers over this period. Cattle

prices increased in each year of this survey with the exception of 1996.

In all five years, gross returns were sufficient to cover out-of-pocket expenses (i.e., purchased feed and cash costs). In 1996, the lowest gross return year (\$39.08/cwt of beef produced) these out-of-pocket costs totaled only \$24.88/cwt of beef produced (Table 9 and Figure 25). Thus, on a cash flow basis, the farms in this survey made out quite well. The fact that cash costs are so low for these beef operations helps to explain how they can persist in the cow/calf business despite extended periods of low (and even negative) profitability.

Beef Enterprise Survey - Calves Backgrounded

Net returns to backgrounding were negative for all five years represented in this survey. Net returns were highest in 1997 - an average of -\$7,074 per farm or -\$87 per cow (Tables 10 and 11). The increase in net returns from 1996 to 1997 was due to increased production and higher calf prices. Costs of production actually increased from 1996 to 1997; however, these costs were more than offset by production and output price increases. Still, as noted, these improvements were not sufficient to result in positive net returns over all costs. Net returns for 1999 were the second highest out of the five years of data. For 1999 total beef return dollars were the highest of the five year period, but total costs of production were also the highest that year. Net returns declined from 1997 to 1998 in spite of the fact that prices over this period increased and costs of production decreased. This decrease in net returns appears to be due to the fact that pounds of beef per cow declined during this period by 28 pounds.

In spite of poor returns in all five years of this survey, these operations did generate sufficient revenue to maintain a positive cash flow (Figure

26). In every year, gross returns were sufficient to cover purchased feed and all other cash costs. For example, in 1995 – the lowest return year represented here – out-of-pocket expenses totaled \$24.41/cwt of beef produced compared with gross returns of \$39.71/cwt of beef produced. In 1999 – the highest return year – out-of-pocket expenses totaled just \$29.82/cwt of beef produced versus gross returns of \$73.35/cwt of beef produced. Clearly, in terms of returns over cash costs the beef operations in this survey performed rather well. However, the failure to cover all costs in any year particularly 1997 and 1999 when prices and production were both relatively favorable, does raise concern over the long-run survivability of the beef operations in this survey. It is realized that many beef operations serve as a supplemental enterprise in the farming operation.

Major Differences Between High-Third and Low-Third Producers

It isn't unusual to find when comparing high-third and low-third producers that a sizeable dollar amount in costs of production separates the two groups. In livestock enterprises, feed costs make up a large portion of the total production costs. In 1999 calves sold had a \$52 per cow difference in feed costs between high-third and low-third. Calves back-grounded had \$109 difference for the same period. In all other major production costs categories, the low-third realized higher costs. Non-feed cash costs had a \$104 difference for the calves sold and a \$155 difference for the backgrounded group. The total non-cash costs for the beef calves sold group had a \$36 difference while the backgrounded group realized an \$82 difference between the high and low-third groups. When the total costs of production are compared, major dollar differences show up. The high-third calves sold group had a \$350 total cost of production while the bottom third

added \$192 more cost for a total of \$542. Total cost of production for the backgrounded group had a much wider spread. There was \$347 separating the high-third and low-third producers, \$461 for the high-third compared to \$808 for the low-third.

Summary

The beef enterprise involves a complex production process with a number of factors affecting costs and returns. Some are, for the most part, beyond the individual farmer's control, such as beef prices, weather and interest rates. Others are influenced directly by the operator's decisions and actions (or inaction). KFBM records and analysis help producers identify problems in their operations that adversely affect profitability. Once the problem areas have been analyzed, producers have the opportunity to make changes and improve the profitability.

In the long run, an enterprise should produce returns sufficient to cover the total cost of production and have something left to reward the operator for his or her management and ability.

The consequences of not covering all costs depend on three things: (1) the business's financial position (2) the magnitude of the deficit and (3) how long the deficit continues. While some people play down the non-cash costs as "paper costs," accounting for both cash and non-cash costs is necessary when analyzing the profitability of an enterprise and the opportunities one has to invest their own labor and money elsewhere.

WHY PRODUCE? KFBM data indicates that average beef returns did not cover all costs in any of the five years, even during "high price years". In the short run producers must cover cash costs and the value of home-grown feed or

they would be better off to sell the cattle and the feed.

The value a farmer places on the home-grown feed and other non-cash costs will have a great bearing on whether they feel that their beef enterprise is making a profit. Most beef operations do cover their cash costs while only the more efficient top producers cover their total costs consistently. Unless there is income from some other source on the farm or off-farm, income must be provided for family living expenses as well as cash for repayment of principal on loans, replacement of current capital items and any farm improvements that must be made. Farms that consistently fail to cover all or most non-cash costs will have difficulty surviving in the long run. If they do survive, it is because they are either willing or able to accept a return on labor and/or capital that is below the opportunity of these resources or are willing to subsidize losses with income from another farm enterprise or an off-farm income source.

Appendix - Tables and Figures

Table 1. 1999 KFBM Enterprise Production Summary: Beef Calves Sold

	Average	High-Third	Low-Third
NUMBER OF HERDS	13	4	4
SUMMARY			
Total Beef Returns	36721	28512	42787
Total Feed Cost	19671	12973	26525
Returns Above Feed Cost	17051	15539	16262
Total Non-feed Costs	27687	15497	40758
Net Returns (over all costs)	-10636	43	-24496
OTHER ECONOMIC VARIABLES			
Returns per \$100 Feed Fed	192.23	215.00	173.25
Price Rec'd per Cwt: Market	76.95	81.03	75.85
Price Rec'd per Cwt: All Sales	57.72	72.13	63.67
CAPITAL INVESTMENT PER COW			
Livestock	736	628	794
Non-Livestock	323	157	432
Total	1058	785	1227
OTHER PRODUCTION VARIABLES			
Average Number of Cows	92	75	113
Animal Units in Herd	134	100	181
Total Beef Produced (LB)	49139	34147	57503
Pounds of Beef per Cow	517	481	474
Death Loss: % of LB Produced	9.1%	5.2%	19.5%
Total Concentrates (Lb/Cwt of Beef)	69	47	63
Hay and Dry Forage (Lb/Cwt of Beef)	1069	893	1296
Corn Silage (Lb/Cwt of Beef)	250	248	196
Other Silage (Lb/Cwt of Beef)	0	0	0
Pasture Days per Animal Unit	186	192	131
Hay Equiv. per Cow (Ton)	6.3	6.1	6.6
LABOR SUMMARY			
Months per Cow	0.05	0.03	0.06
Hours per Cow	9.8	6.6	13.3
Beef Production/Worker/Year	183850	200133	113440

Table 2. 1999 KFBM Enterprise Cost and Return Summary: Beef Calves Sold \$/Cow

	Average	High-Third	Low-Third
TOTAL BEEF RETURNS	378	359	347
FEED COSTS			
Purchased Concentrates	20	24	15
Purchased Hay and Other	7	1	9
Home Raised Feed	177	141	194
Total Feed Costs	205	166	218
NON-FEED CASH COSTS			
Veterinary & Livestock Supplies	24	13	31
Fuel & Oil	9	7	11
Machinery Repair	14	7	19
Bldg/Fence Repair	9	11	8
Machinery Hire	2	0	6
Utilities	6	3	6
Auto-Farm Share	1	0	1
Paid Labor	27	11	60
Insurance, Property Taxes, & Misc.	10	7	10
Cash Interest	9	3	14
Total Non-Feed Cash Costs	111	62	166
NON-FEED NON-CASH COSTS			
Unpaid Labor	54	46	45
Machinery Depreciation	12	11	6
Building/Fence Depreciation	9	2	18
Non-Cash Interest	81	63	89
Total Non-Feed Non-Cash Costs	156	122	158
Total Costs of Production	472	350	542
Net Returns (over all costs)	-93	9	-195
COSTS AND RETURNS SUMMARY: \$/COW			
Total Beef Returns	378	359	347
Feed Costs	205	166	218
Non-Feed Costs	267	184	324
Net Returns (over all costs)	-93	9	-195
COSTS SUMMARY: \$/COW			
Feed Costs	205	166	218
Non-Feed Cash Costs	111	62	166
Non-Feed Non-Cash Costs	156	122	158

Table 3. 1999 KFBM Enterprise Cost and Return Summary: Beef Calves Sold \$/Cwt

	Average	High-Third	Low-Third
TOTAL BEEF RETURNS	73.46	76.22	71.22
FEED COSTS			
Purchased Concentrates	3.99	5.44	3.03
Purchased Hay and Other	1.23	0.31	1.59
Home Raised Feed	34.92	29.64	40.77
Total Feed Costs	40.14	35.39	45.38
NON-FEED CASH COSTS			
Veterinary & Livestock Supplies	4.33	2.50	5.73
Fuel & Oil	1.79	1.61	2.31
Machinery Repair	2.66	1.43	3.87
Bldg/Fence Repair	1.91	2.35	2.11
Machinery Hire	0.42	0.00	1.14
Utilities	1.06	0.69	1.28
Auto-Farm Share	0.18	0.00	0.18
Paid Labor	4.84	2.06	10.85
Insurance, Property Taxes, & Misc.	1.90	1.42	2.01
Cash Interest	1.64	0.83	2.76
Total Non-Feed Cash Costs	20.72	12.88	32.22
NON-FEED NON-CASH COSTS			
Unpaid Labor	10.45	10.01	9.93
Machinery Depreciation	2.53	2.45	1.14
Building/Fence Depreciation	1.92	0.40	4.14
Non-Cash Interest	16.58	13.60	20.37
Total Non-Feed Non-Cash Costs	31.50	26.45	35.59
Total Costs of Production	92.36	74.72	113.19
Net Returns (over all costs)	-18.91	1.50	-41.97
COSTS AND RETURNS SUMMARY: \$/CWT			
Total Beef Returns	73.46	76.22	71.22
Feed Costs	40.14	35.39	45.38
Non-Feed Costs	52.22	39.34	67.80
Net Returns (over all costs)	-18.91	1.50	-41.97
COSTS SUMMARY: \$/CWT			
Feed Costs	40.14	35.39	45.38
Non-Feed Cash Costs	20.72	12.88	32.22
Non-Feed Non-Cash Costs	31.50	26.45	35.59

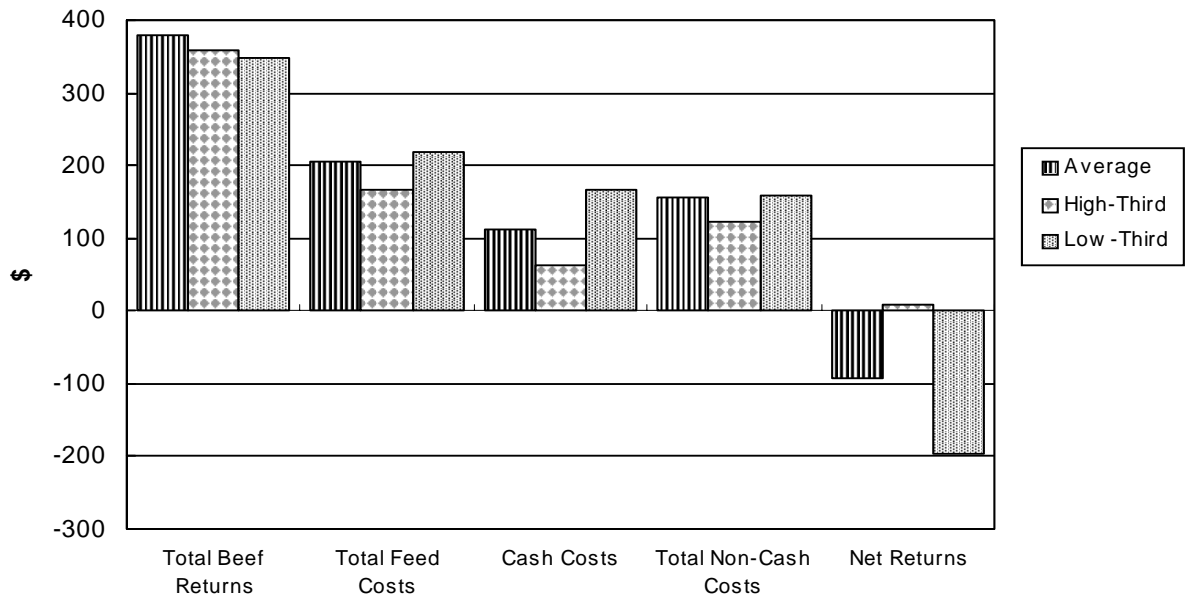


Figure 1. 1999 Costs and Returns per Cow: Beef Calves Sold

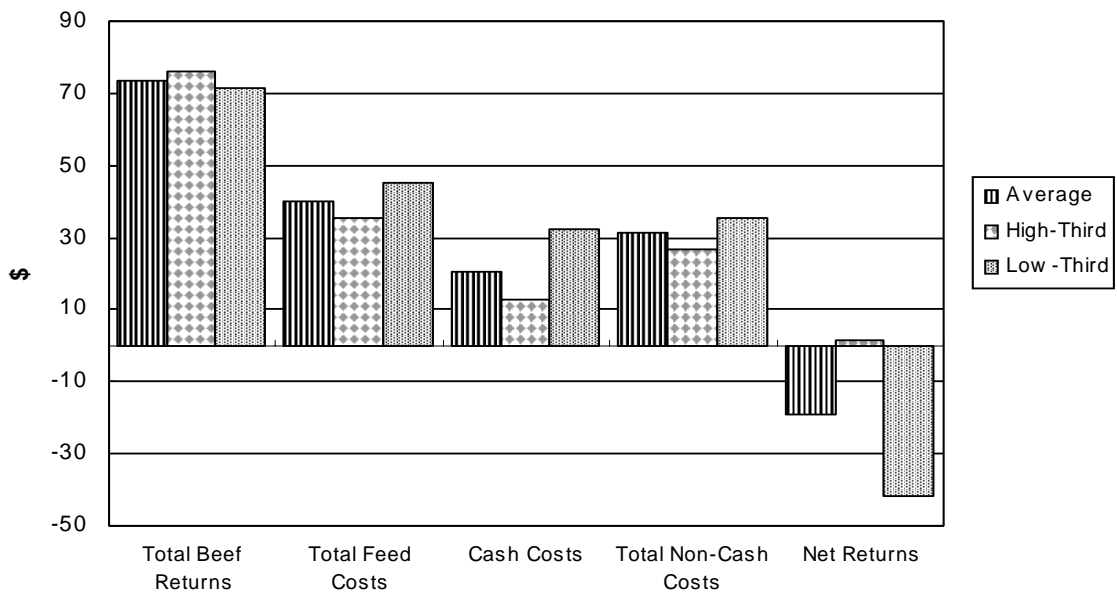


Figure 2. 1999 Costs and Returns per Cwt: Beef Calves Sold

Table 4. 1999 KFBM Enterprise Production Summary: Beef Calves Backgrounded

	Average	High-Third	Low-Third
NUMBER OF HERDS	10	3	3
SUMMARY			
Total Beef Returns	32427	34141	25009
Total Feed Cost	18690	16821	18307
Returns Above Feed Cost	13737	17320	6701
Total Non-feed Costs	21607	16876	27408
Net Returns (over all costs)	-7870	443	-20707
OTHER ECONOMIC VARIABLES			
Returns per \$100 Feed Fed	171	208	131
Price Rec'd per Cwt: Market	68.70	68.56	68.46
Price Rec'd per Cwt: All Sales	60.13	63.92	58.86
CAPITAL INVESTMENT PER COW			
Livestock	982	892	1168
Non-Livestock	311	252	464
Total	1293	1144	1632
OTHER PRODUCTION VARIABLES			
Average Number of Cows	71	73	55
Animal Units in Herd	102	100	96
Total Beef Produced (Lb)	44093	43945	34238
Pounds of Beef per Cow	618	604	617
Death Loss: % of Lb Produced	6.5%	3.3%	11.3%
Total Concentrates (Lb/Cwt of Beef)	141	117	216
Hay and Dry Forage (Lb/Cwt of Beef)	990	630	1207
Corn Silage (Lb/Cwt of Beef)	262	0	0
Other Silage (Lb/Cwt of Beef)	0	0	0
Pasture Days per Animal Unit	182	227	166
Hay Equiv. per Cow (Ton)	6.3	6.3	6.7
LABOR SUMMARY			
Months per Cow	0.05	0.04	0.06
Hours per Cow	10.1	7.7	12.9
Beef Production/Worker/Year	167617	201787	135497

Table 5. 1999 KFBM Enterprise Cost and Return Summary: Beef Calves Backgrounded \$/Cow

	Average	High-Third	Low-Third
TOTAL BEEF RETURNS	452	470	438
FEED COSTS			
Purchased Concentrates	33	47	40
Purchased Hay and Other	16	14	31
Home Raised Feed	226	167	267
Total Feed Costs	276	228	337
NON-FEED CASH COSTS			
Veterinary & Livestock Supplies	26	27	45
Fuel & Oil	7	3	12
Machinery Repair	25	9	51
Bldg/Fence Repair	17	2	42
Machinery Hire	1	0	5
Utilities	5	1	10
Auto-Farm Share	1	2	1
Paid Labor	17	10	25
Insurance, Property Taxes, & Misc.	18	15	27
Cash Interest	16	11	18
Total Non-Feed Cash Costs	134	80	235
NON-FEED NON-CASH COSTS			
Unpaid Labor	71	60	76
Machinery Depreciation	13	7	24
Building/Fence Depreciation	4	2	10
Non-Cash Interest	94	84	125
Total Non-Feed Non-Cash Costs	182	153	235
Total Costs of Production	592	461	808
Net Returns (over all costs)	-139	9	-370
COSTS AND RETURNS SUMMARY: \$/COW			
Total Beef Returns	452	470	438
Feed Costs	276	228	337
Non-Feed Costs	316	233	471
Net Returns (over all costs)	-139	9	-370
COSTS SUMMARY: \$/COW			
Feed Costs	276	228	337
Non-Feed Cash Costs	134	80	235
Non-Feed Non-Cash Costs	182	153	235

Table 6. 1999 KFBM Enterprise Cost and Return Summary: Beef Calves Backgrounded \$/Cwt

	Average	High-Third	Low-Third
TOTAL BEEF RETURNS	73.35	77.91	71.03
FEED COSTS			
Purchased Concentrates	5.38	7.69	6.54
Purchased Hay and Other	2.84	2.30	4.96
Home Raised Feed	36.77	27.77	43.74
Total Feed Costs	44.99	37.76	55.24
NON-FEED CASH COSTS			
Veterinary & Livestock Supplies	4.17	4.39	7.18
Fuel & Oil	1.12	0.49	1.95
Machinery Repair	4.01	1.41	8.20
Bldg/Fence Repair	2.75	0.34	6.91
Machinery Hire	0.23	0.00	0.76
Utilities	0.86	0.25	1.56
Auto-Farm Share	0.23	0.37	0.10
Paid Labor	2.82	1.76	3.89
Insurance, Property Taxes, & Misc.	2.87	2.47	4.35
Cash Interest	2.56	1.84	2.85
Total Non-Feed Cash Costs	21.60	13.31	37.74
NON-FEED NON-CASH COSTS			
Unpaid Labor	11.39	9.76	12.38
Machinery Depreciation	2.09	1.23	3.88
Building/Fence Depreciation	0.69	0.34	1.55
Non-Cash Interest	15.22	13.81	20.21
Total Non-Feed Non-Cash Costs	29.39	25.14	38.01
Total Costs of Production	95.98	76.21	130.99
Net Returns (over all costs)	-22.63	1.70	-59.96
COSTS AND RETURNS SUMMARY: \$/CWT			
Total Beef Returns	73.35	77.91	71.03
Feed Costs	44.99	37.76	55.24
Non-feed Costs	50.99	38.45	75.75
Net Returns (over all costs)	-22.63	1.70	-59.96
COSTS SUMMARY: \$/CWT			
Feed Costs	44.99	37.76	55.24
Non-Feed Cash Costs	21.60	13.31	37.74
Non-Feed Non-Cash Costs	29.39	25.14	38.01

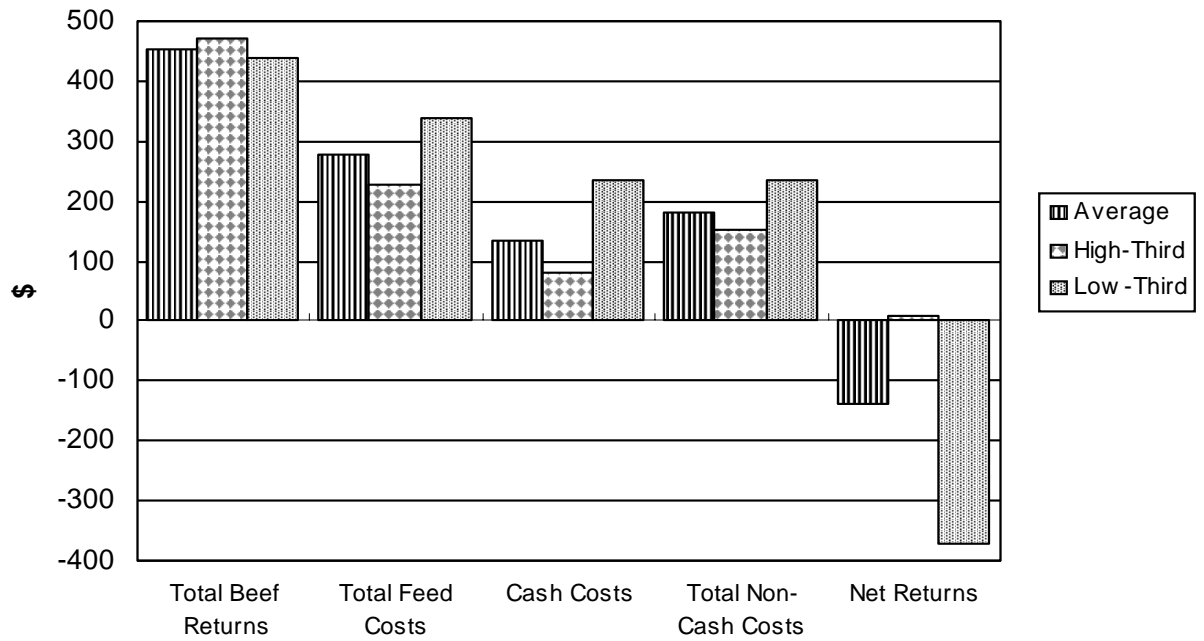


Figure 3. 1999 Costs and Returns per Cow: Beef Calves Backgrounded

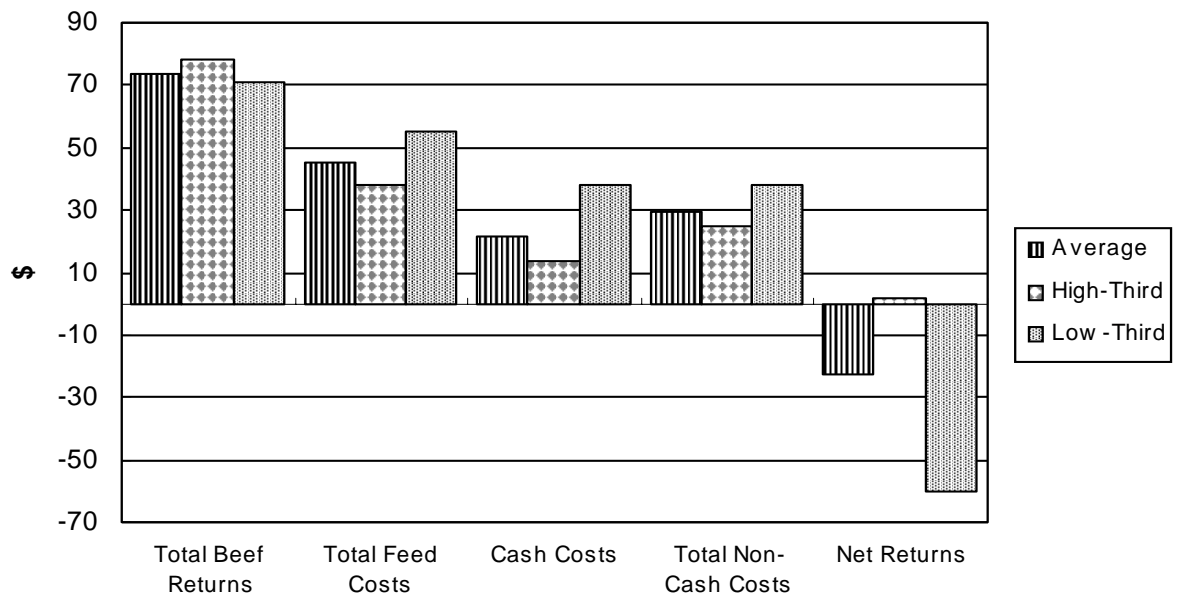


Figure 4. 1999 Costs and Returns per Cwt: Beef Calves Backgrounded

Table 7. KFBM Enterprise Production Summary: Beef Calves Sold

	1995	1996	1997	1998	1999	5 YR AVG
NUMBER OF HERDS	20	2	2	3	13	8
SUMMARY						
Total Beef Returns	20752	17701	30181	21243	36721	25320
Total Feed Cost	17858	21095	19202	16744	19671	18914
Returns Above Feed Cost	2894	-3394	10980	4498	17051	6406
Total Non-feed Costs	20790	19250	18121	15984	27687	20366
Net Returns (over all costs)	-17896	-22644	-7141	-11485	-10636	-13960
OTHER ECONOMIC VARIABLES						
Returns per \$100 Feed Fed	101.00	96.50	158.00	128.33	192.23	135.21
Price Rec'd per Cwt: Market	57.51	49.34	64.68	68.32	76.95	63.36
Price Rec'd per Cwt: All Sales	53.71	44.09	59.63	62.43	65.00	56.97
CAPITAL INVESTMENT PER COW						
Livestock	711	652	623	675	736	679
Non-Livestock	178	296	315	293	323	281
Total	889	948	938	968	1058	960
OTHER PRODUCTION VARIABLES						
Average Number of Cows	101	89	88	80	92	90
Animal Units in Herd	128	123	121	105	134	122
Total Beef Produced (Lb)	50327	45635	49945	41747	49139	47359
Pounds of Beef per Cow	500	521	585	554	517	535
Death Loss: % of Lb Produced	7.2%	5.6%	3.0%	3.3%	9.1%	5.6%
Total Concentrates (Lb/Cwt of Beef)	79	166	111	139	69	113
Hay and Dry Forage (Lb/Cwt of Beef)	1138	876	738	901	1069	944
Corn Silage (Lb/Cwt of Beef)	76	0	0	0	250	65
Other Silage (Lb/Cwt of Beef)	0	0	0	0	0	0
Pasture Days per Animal Unit	220	243	248	244	186	228
Hay Equiv. per Cow (Ton)	6.1	6.3	6.3	6.1	6.3	6.2
LABOR SUMMARY						
Months per Cow	0.06	0.03	0.03	0.03	0.05	0.04
Hours per Cow	12.2	6.8	5.8	6.0	9.8	8.1
Beef Production/Worker/Year	132606	200272	258475	233762	183850	201793

Table 8. KFBM Enterprise Cost and Return Summary: Beef Calves Sold \$/Cow

	1995	1996	1997	1998	1999	5 YR AVG
TOTAL BEEF RETURNS	206	198	357	276	378	283
FEED COSTS						
Purchased Concentrates	20	42	29	39	20	30
Purchased Hay and Other	15	0	1	0	7	5
Home Grown Feed	146	205	196	181	177	181
Total Feed Costs	181	247	226	220	205	216
NON-FEED CASH COSTS						
Veterinary & Livestock Supplies	16	15	12	25	24	18
Fuel & Oil	6	5	7	6	9	7
Machinery Repair	14	11	10	9	14	12
Bldg/Fence Repair	5	23	34	12	9	17
Machinery Hire	2	4	5	3	2	3
Utilities	3	2	2	2	6	3
Auto-Farm Share	1	0	0	0	1	0
Paid Labor	19	15	12	16	27	18
Insurance, Property Taxes, Misc	12	4	2	4	10	6
Cash Interest	13	14	14	21	9	14
Total Non-Feed Cash Costs	90	93	98	98	111	98
NON-FEED NON-CASH COSTS						
Unpaid Labor	58	35	31	31	54	42
Machinery Depreciation	8	15	15	11	12	12
Building/Fence Depreciation	2	7	9	6	9	7
Non-Cash Interest	69	71	70	65	81	71
Total Non-Feed Non-Cash Costs	136	128	125	113	156	132
Total Costs of Production	407	468	449	431	472	445
Net Returns (over all costs)	-201	-270	-92	-155	-93	-162
COSTS AND RETURNS SUMMARY: \$/COW						
Total Beef Returns	206	198	357	276	378	283
Feed Costs	181	247	226	220	205	216
Non-Feed Costs	226	221	223	211	267	230
Net Returns (over all costs)	-201	-270	-92	-155	-94	-162
COSTS SUMMARY: \$/COW						
Feed Costs	181	247	226	220	205	216
Non-Feed Cash Costs	90	93	98	98	111	98
Non-Feed Non-Cash Costs	136	128	125	113	156	132

Note: These data give costs and returns in \$/cow in the herd.

Table 9. KFBM Enterprise Cost and Return Summary: Beef Calves Sold \$/Cwt

	1995	1996	1997	1998	1999	5 YR AVG
TOTAL BEEF RETURNS	41.23	39.08	60.75	52.09	73.46	53.32
FEED COSTS						
Purchased Concentrates	4.33	7.12	5.03	7.05	3.99	5.50
Purchased Hay and Other	2.84	0.00	0.09	0.00	1.23	0.83
Home Grown Feed	30.93	38.61	33.37	34.60	34.92	34.49
Total Feed Costs	38.10	45.73	38.49	41.65	40.14	40.82
NON-FEED CASH COSTS						
Veterinary & Livestock Supplies	3.32	2.56	1.83	4.19	4.33	3.25
Fuel & Oil	1.32	0.94	1.16	1.16	1.79	1.27
Machinery Repair	2.98	1.95	1.57	1.71	2.66	2.17
Bldg/Fence Repair	1.10	4.72	5.66	2.53	1.91	3.18
Machinery Hire	0.35	0.78	0.87	0.45	0.42	0.57
Utilities	0.59	0.37	0.35	0.37	1.06	0.55
Auto-Farm Share	0.20	0.00	0.00	0.00	0.18	0.08
Paid Labor	3.97	2.94	2.08	3.30	4.84	3.43
Insurance	2.51	0.79	0.43	0.78	1.90	1.28
Cash Interest	2.94	2.71	2.60	6.13	1.64	3.20
Total Non-Feed Cash Costs	19.27	17.76	16.55	20.62	20.72	18.98
NON-FEED NON-CASH COSTS						
Unpaid Labor	12.67	6.48	5.17	5.75	10.45	8.10
Machinery Depreciation	1.72	3.04	2.55	2.40	2.53	2.45
Building/Fence Depreciation	0.36	1.24	1.36	0.93	1.92	1.16
Non-Cash Interest	14.11	13.63	11.60	10.05	16.58	13.19
Total Non-Feed Non-Cash Costs	28.86	24.39	20.68	19.13	31.50	24.91
Total Costs of Production	86.23	87.88	75.72	81.40	92.36	84.72
Net Returns (over all costs)	-44.99	-48.80	-14.97	-29.31	-18.91	-31.40
COSTS AND RETURNS SUMMARY: \$/CWT						
Total Beef Returns	41.23	39.08	60.75	52.09	73.46	53.32
Feed Costs	38.10	45.73	38.49	41.65	40.14	40.82
Non-feed Costs	48.13	42.15	37.23	39.75	52.22	43.90
Net Returns (over all costs)	-44.99	-48.80	-14.97	-29.31	-18.90	-31.39
COSTS SUMMARY: \$/CWT						
Feed Costs	38.10	45.73	38.49	41.65	40.14	40.82
Non-Feed Cash Costs	19.27	17.76	16.55	20.62	20.72	18.98
Non-Feed Non-Cash Costs	28.86	24.39	20.68	19.13	31.50	24.91

Note: These data give costs and returns on the basis of \$/cwt of beef produced.

Table 10. KFBM Enterprise Production Summary: Beef Calves Backgrounded

	1995	1996	1997	1998	1999	5 YR AVG
NUMBER OF HERDS	22	7	8	8	10	11
SUMMARY						
Total Beef Returns	23329	23434	41862	33460	32427	30902
Total Feed Cost	25316	19960	23038	21256	18690	21652
Returns Above Feed Cost	-1988	3473	18824	12205	13737	9250
Total Non-feed Costs	23762	22086	25898	25502	21607	23771
Net Returns (over all costs)	-25750	-18613	-7074	-13298	-7870	-14521
OTHER ECONOMIC VARIABLES						
Returns per \$100 Feed Fed	97.27	106.43	178.88	153.14	170.90	141.32
Price Rec'd per Cwt: Market	64.02	52.08	66.40	71.48	68.70	64.54
Price Rec'd per Cwt: All Sales	58.92	47.34	59.31	55.32	60.13	56.20
CAPITAL INVESTMENT PER COW						
Livestock	906	803	860	746	982	859
Non-Livestock	229	203	242	287	311	254
Total	1134	1006	1102	1033	1293	1114
OTHER PRODUCTION VARIABLES						
Average Number of Cows	88	101	102	97	71	92
Animal Units in Herd	131	149	151	141	102	135
Total Beef Produced (Lb)	61157	57441	67498	63114	44093	58661
Pounds of Beef per Cow	678	551	668	640	618	631
Death Loss: % of Lb Produced	3.2%	7.1%	6.0%	10.0%	6.5%	6.6%
Total Concentrates (Lb/Cwt of Beef)	157	72	86	125	141	116
Hay and Dry Forage (Lb/Cwt of Beef)	852	842	795	808	990	857
Corn Silage (Lb/Cwt of Beef)	181	165	155	91	262	171
Other Silage (Lb/Cwt of Beef)	0	0	0	0	0	0
Pasture Days per Animal Unit	194	228	205	213	182	204
Hay Equiv. per Cow (Ton)	6.6	6.4	6.5	6.4	6.3	6.4
LABOR SUMMARY						
Months per Cow	0.06	0.04	0.04	0.05	0.05	0.05
Hours per Cow	12.6	7.7	8.6	9.3	10.1	9.7
Beef Production/Worker/Year	178924	186761	204906	177980	167617	183238

Table 11. KFBM Enterprise Cost and Return Summary: Beef Calves Backgrounded \$/Cow

	1995	1996	1997	1998	1999	5 YR AVG
TOTAL BEEF RETURNS	267	214	415	337	452	337
FEED COSTS						
Purchased Concentrates	37	28	28	26	33	30
Purchased Hay and Other	13	26	3	32	16	18
Home Grown Feed	237	152	209	165	226	198
Total Feed Costs	287	206	240	223	276	246
NON-FEED CASH COSTS						
Veterinary & Livestock Supplies	27	19	18	20	26	22
Fuel & Oil	8	4	6	4	7	6
Machinery Repair	13	11	15	8	25	14
Bldg/Fence Repair	8	10	9	13	17	11
Machinery Hire	4	3	9	3	1	4
Utilities	4	3	3	3	5	4
Auto-Farm Share	1	2	2	2	1	2
Paid Labor	17	7	9	17	17	13
Insurance, Property Taxes, Misc	13	11	10	15	18	13
Cash Interest	19	13	19	9	16	15
Total Cash Costs	114	83	100	94	134	105
NON-FEED NON-CASH COSTS						
Unpaid Labor	70	50	60	64	71	63
Machinery Depreciation	7	7	12	12	13	10
Building/Fence Depreciation	5	3	4	5	4	4
Non-Cash Interest	86	78	86	83	94	85
Total Non-Feed Non-Cash Costs	168	138	162	164	182	163
Total Costs of Production	569	427	502	481	592	514
Net Returns (over all costs)	-302	-213	-87	-144	-139	-177
COSTS AND RETURNS SUMMARY: \$/COW						
Total Beef Returns	267	214	415	337	452	337
Feed Costs	287	206	240	223	276	246
Non-feed Costs	282	221	262	258	316	268
Net Returns (over all costs)	-302	-213	-87	-144	-139	-177
COSTS SUMMARY: \$/COW						
Feed Costs	287	206	240	223	276	246
Non-Feed Cash Costs	114	83	100	94	134	105
Non-Feed Non-Cash Costs	168	138	162	164	182	163

Note: These data give costs and returns in \$/cow in the herd.

Table 12. KFBM Enterprise Cost and Return Summary: Beef Calves Backgrounded \$/Cwt

	1995	1996	1997	1998	1999	5 YR AVG
TOTAL BEEF RETURNS	39.71	37.89	62.59	52.74	73.35	53.26
FEED COSTS						
Purchased Concentrates	5.48	5.63	4.20	4.45	5.38	5.03
Purchased Hay and Other	1.87	5.78	0.45	6.09	2.84	3.41
Home Grown Feed	35.46	27.01	31.44	25.02	36.77	31.14
Total Feed Costs	42.81	38.42	36.09	35.56	44.99	39.57
NON-FEED CASH COSTS						
Veterinary & Livestock Supplies	3.89	3.12	2.63	3.15	4.17	3.39
Fuel & Oil	1.16	0.79	0.90	0.67	1.12	0.93
Machinery Repair	2.03	2.18	2.35	1.31	4.01	2.38
Bldg/Fence Repair	1.24	1.91	1.69	1.98	2.75	1.91
Machinery Hire	0.70	0.30	0.95	0.78	0.23	0.59
Utilities	0.53	0.58	0.42	0.52	0.86	0.58
Auto-Farm Share	0.19	0.41	0.35	0.34	0.23	0.30
Paid Labor	2.43	1.27	1.38	2.93	2.82	2.17
Insurance, Property Taxes, Misc	1.99	1.97	1.47	2.28	2.87	2.12
Cash Interest	2.91	2.76	3.07	1.36	2.56	2.53
Total Non-Feed Cash Costs	17.06	15.29	15.21	15.32	21.60	16.90
NON-FEED NON-CASH COSTS						
Unpaid Labor	10.09	9.44	9.16	9.86	11.39	9.99
Machinery Depreciation	1.06	1.44	1.78	1.96	2.09	1.67
Building/Fence Depreciation	0.80	0.53	0.63	0.73	0.69	0.68
Non-Cash Interest	12.86	14.31	12.96	13.54	15.22	13.78
Total Non-Feed Non-Cash Costs	24.80	25.72	24.53	26.09	29.39	26.11
Total Costs of Production	84.67	79.43	75.83	76.97	95.98	82.58
Net Returns (over all costs)	-44.97	-41.54	-13.24	-24.23	-22.63	-29.32
COSTS AND RETURNS SUMMARY: \$/CWT						
Total Beef Returns	39.71	37.89	62.59	52.74	73.35	53.26
Feed Costs	42.81	38.42	36.09	35.56	44.99	39.57
Non-feed Costs	41.86	41.01	39.74	41.41	50.99	43.00
Net Returns (over all costs)	-44.97	-41.54	-13.24	-24.23	-22.63	-29.32
COSTS SUMMARY: \$/CWT						
Feed Costs	42.81	38.42	36.09	35.56	44.99	39.57
Non-Fed Cash Costs	17.06	15.29	15.21	15.32	21.60	16.90
Non-Feed Non-Cash Costs	24.80	25.72	24.53	26.09	29.39	26.11

Note: These data give costs and returns on the basis of \$/cwt of beef produced.

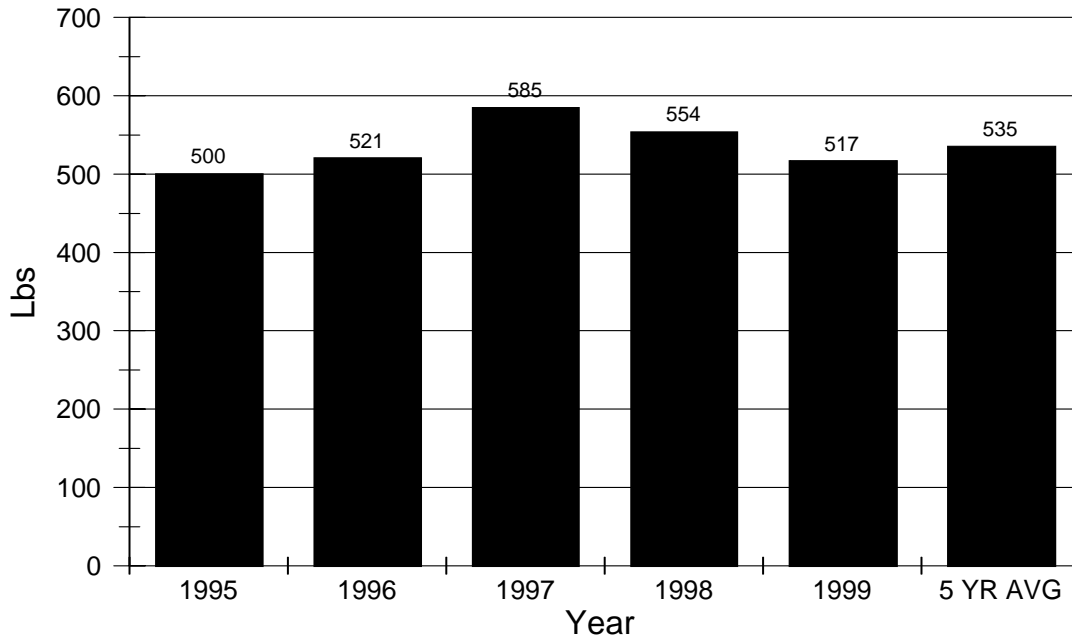


Figure 5. Pounds of Beef Produced per Cow: Beef Calves Sold

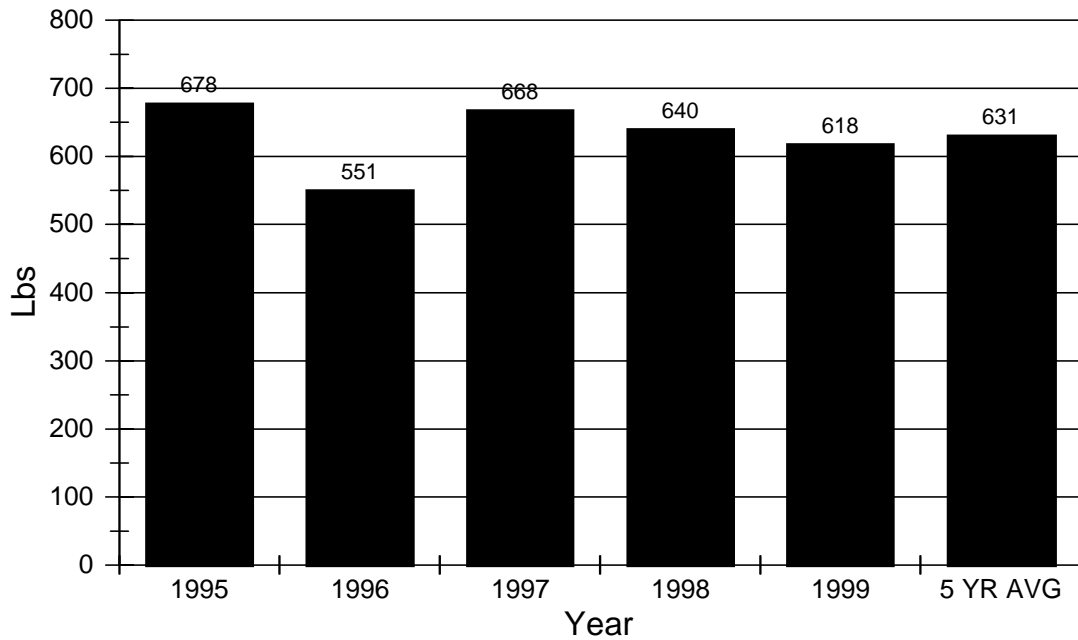


Figure 6. Pounds of Beef Produced per Cow: Beef Calves Backgrounded

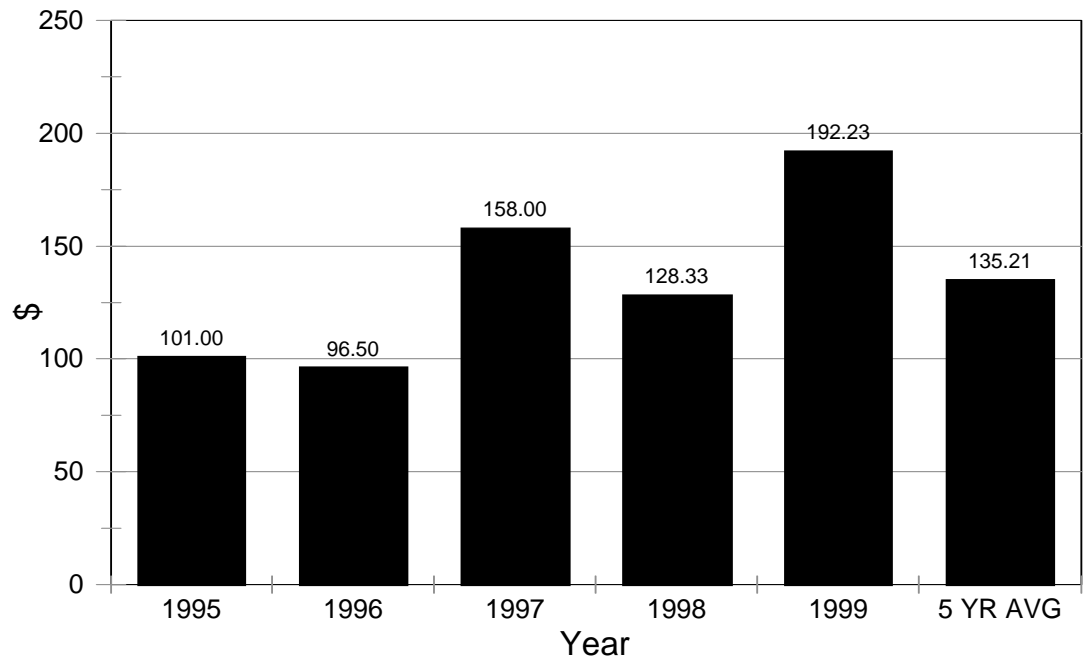


Figure 7. Returns per \$100 of Feed Fed: Beef Calves Sold

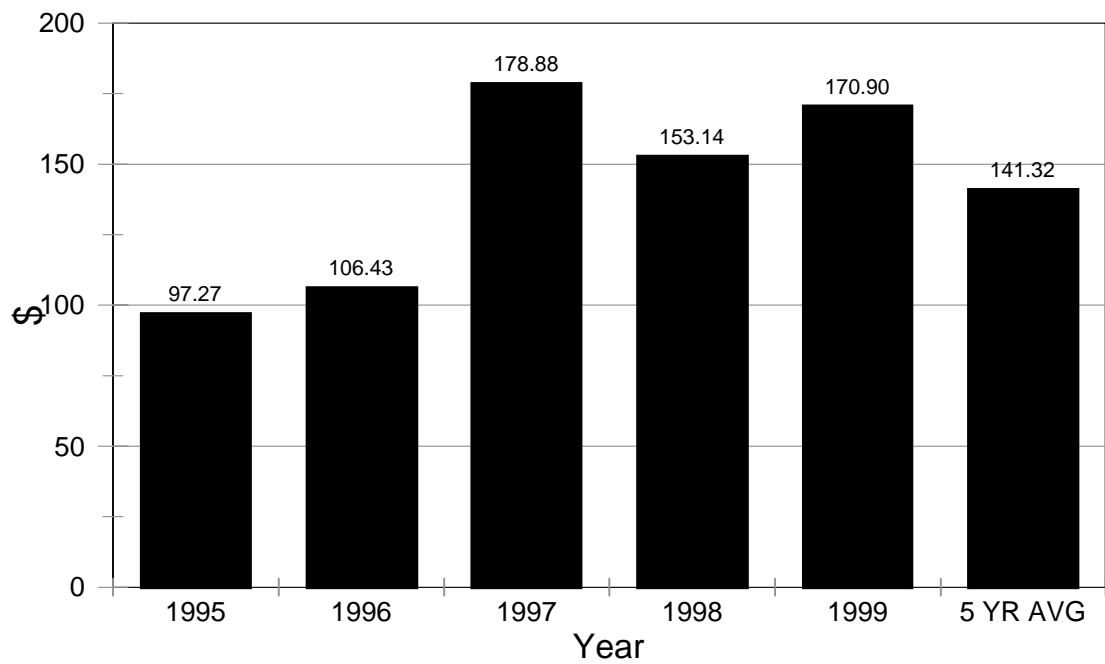


Figure 8. Returns per \$100 Feed Fed: Beef Calves Backgrounded

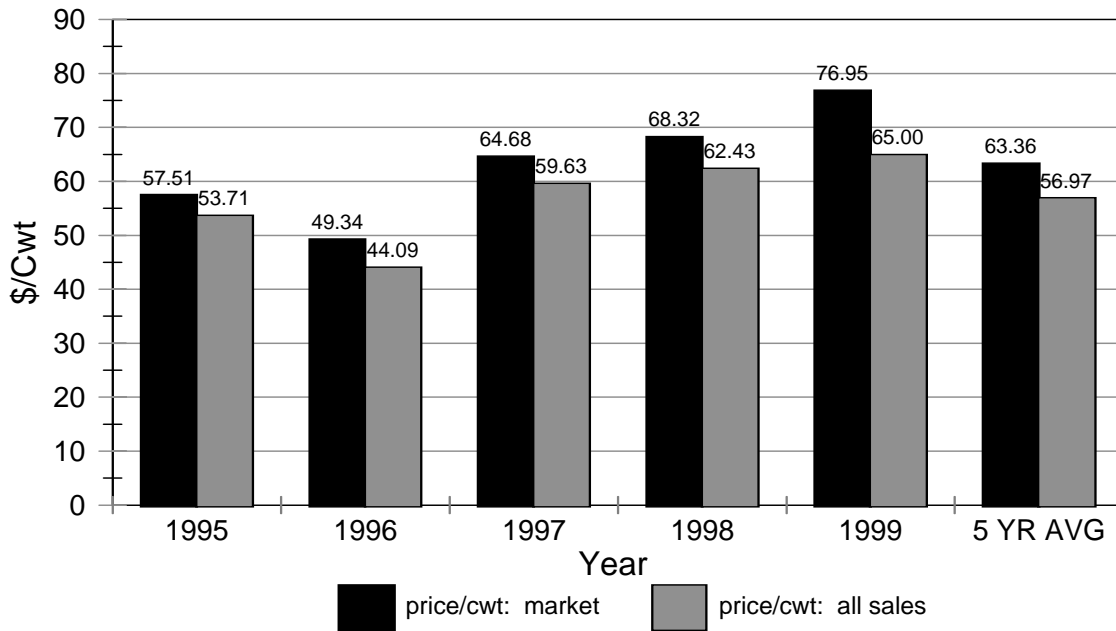


Figure 9. Prices Received by Farmers: Beef Calves Sold

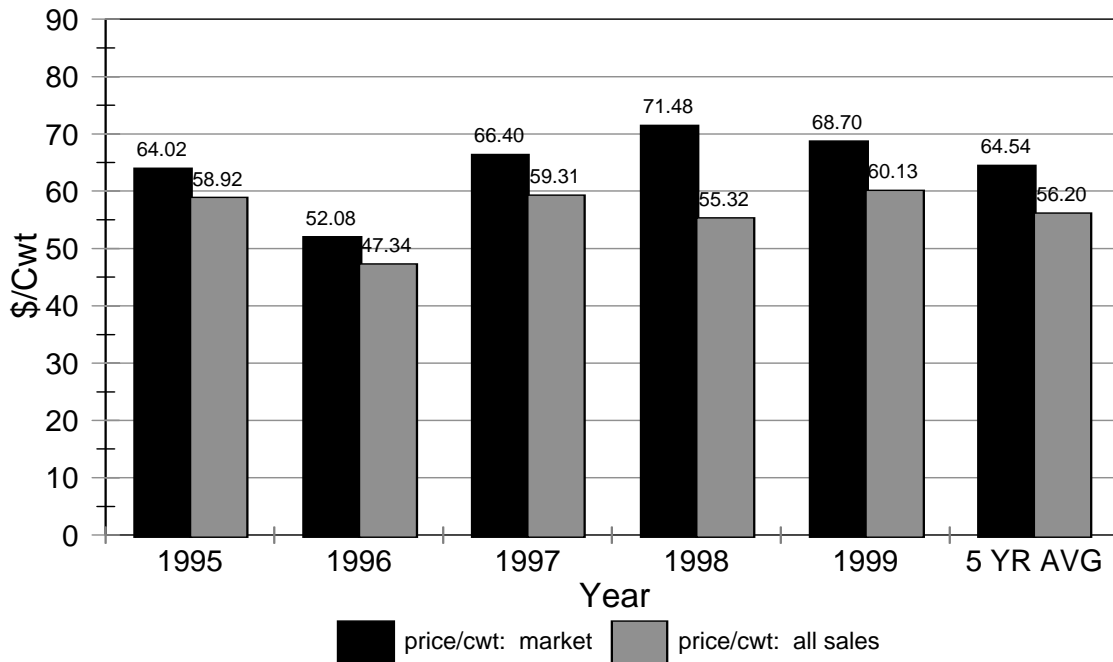


Figure 10. Prices Received by Farmers: Beef Calves Backgrounded

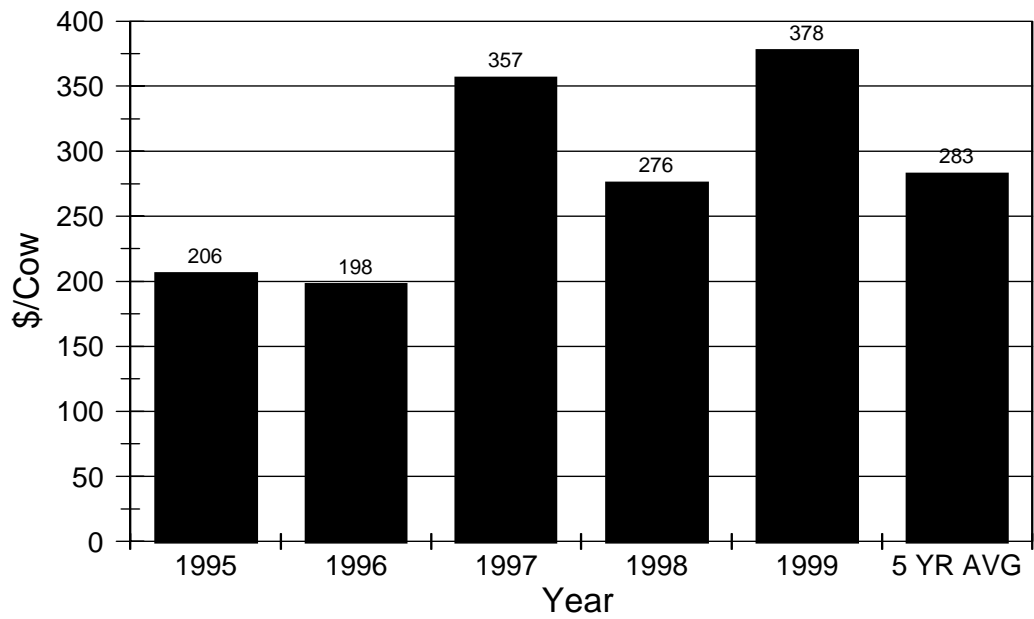


Figure 11. Total Beef Returns: Beef Calves Sold (\$/Cow)

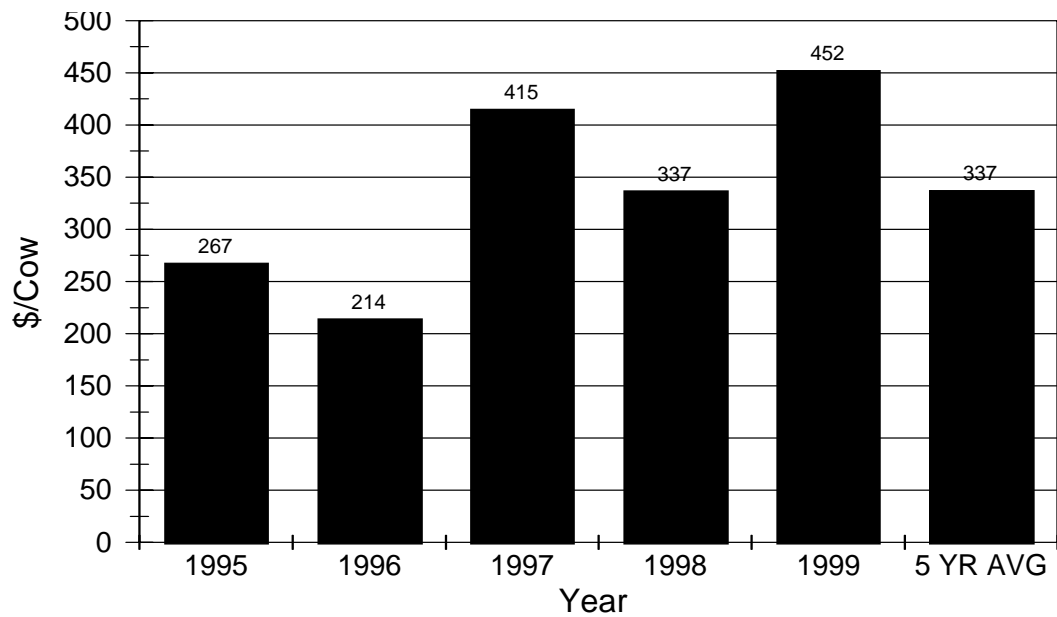


Figure 12. Total Beef Returns: Beef Calves Backgrounded (\$/Cow)

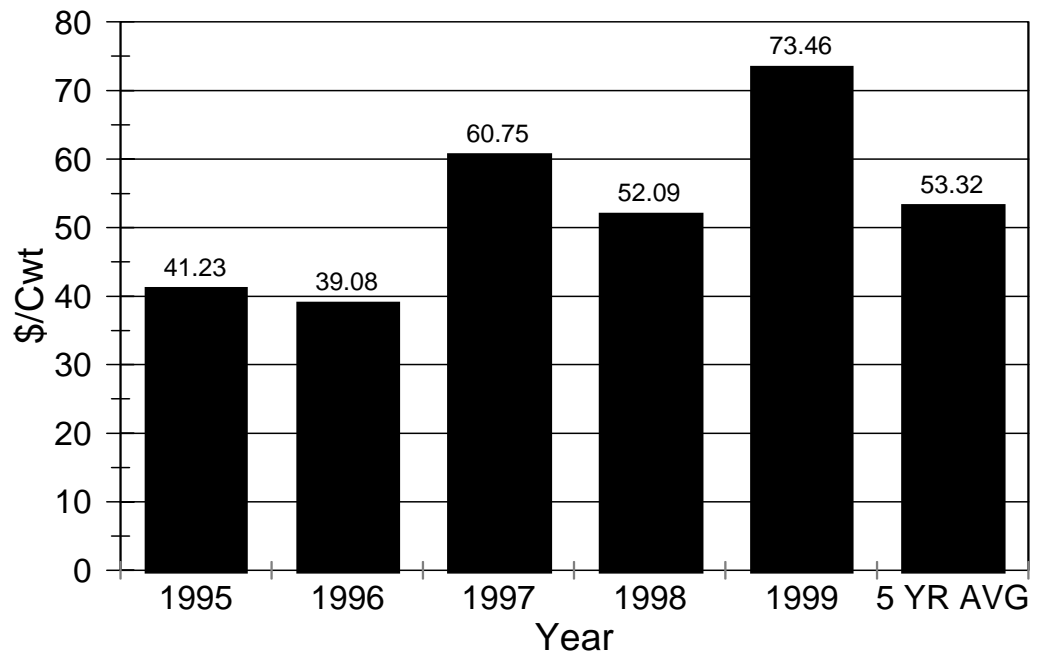


Figure 13. Total Beef Returns: Beef Calves Sold (\$/Cwt)

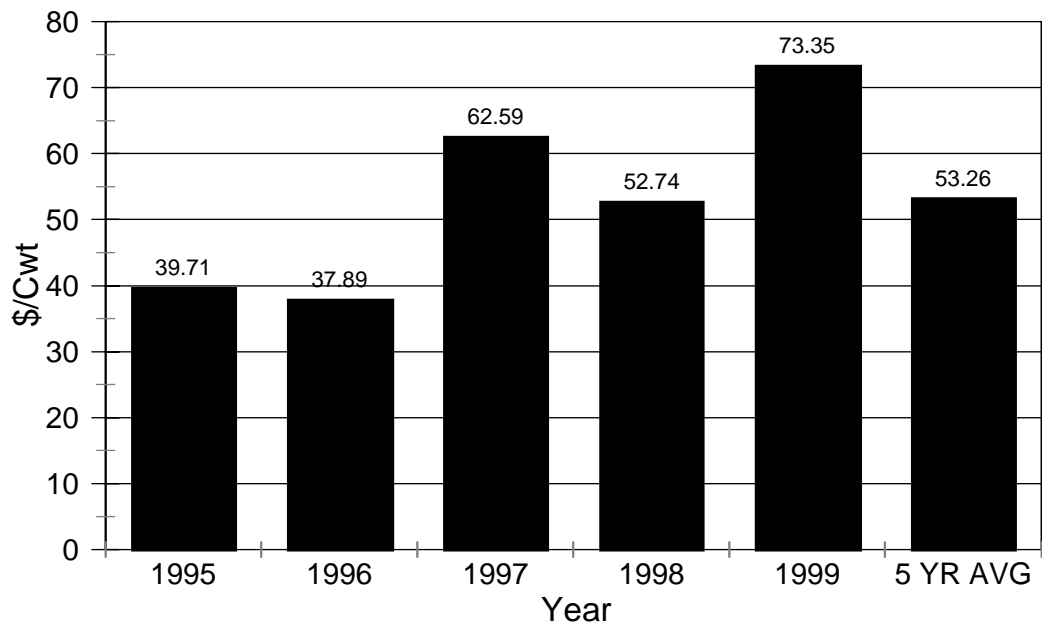


Figure 14. Total Beef Returns: Beef Calves Backgrounded (\$/Cwt)

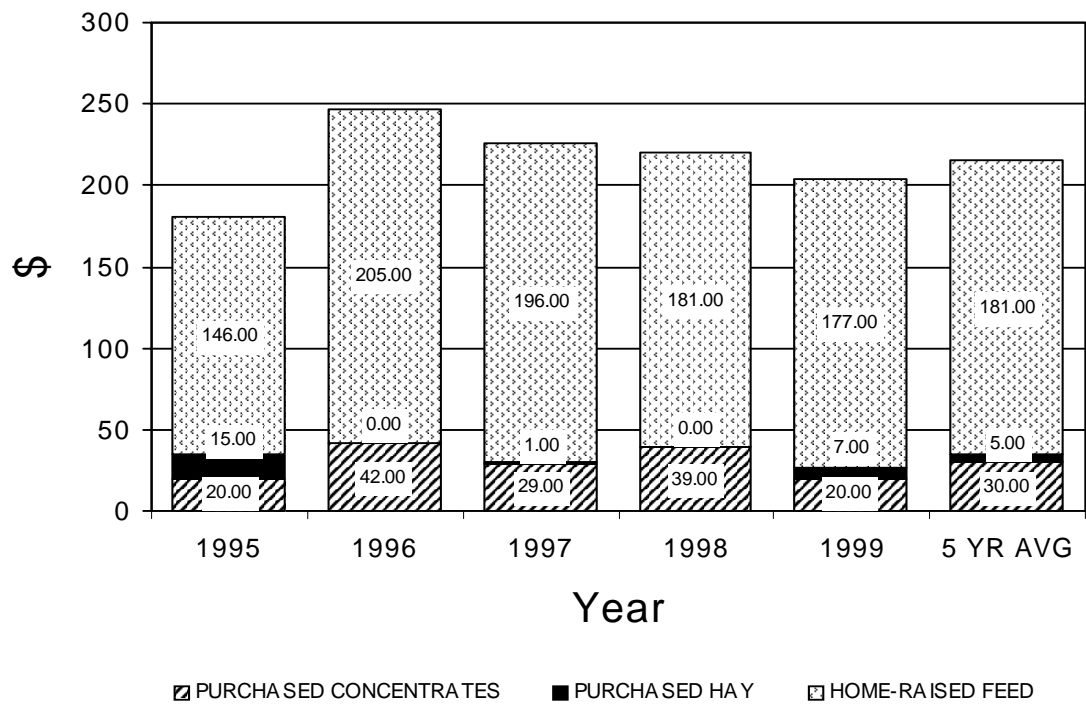


Figure 15. Total Feed Cost: Beef Calves Sold (\$/Cow)

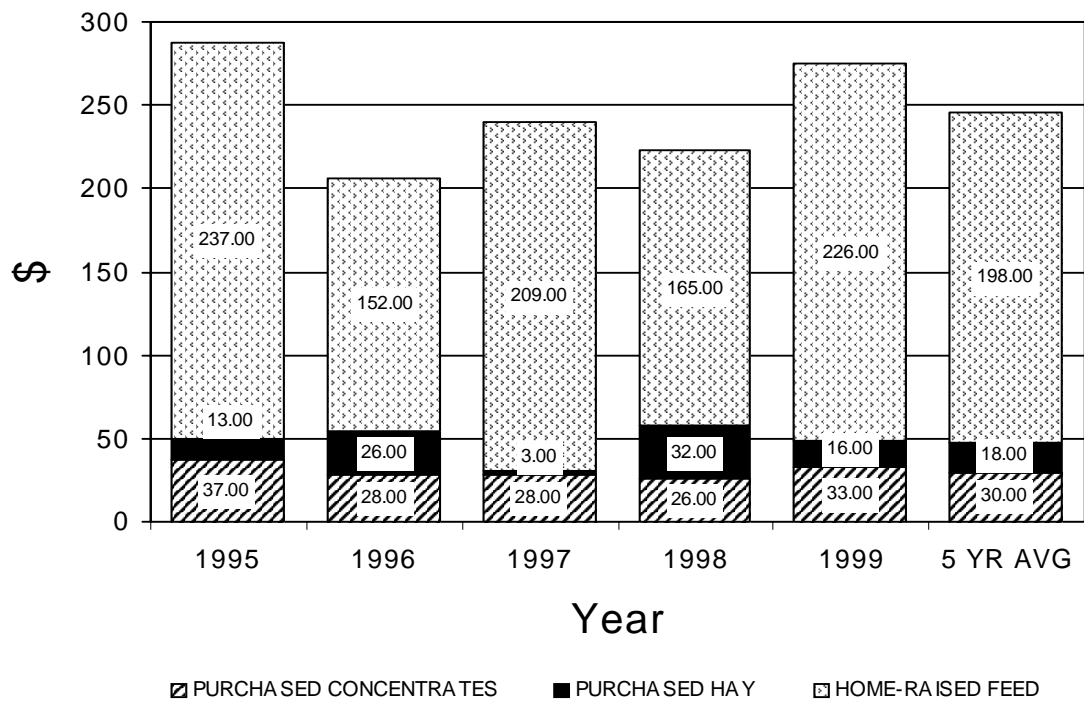


Figure 16. Total Feed Cost: Beef Calves Backgrounded (\$/Cow)

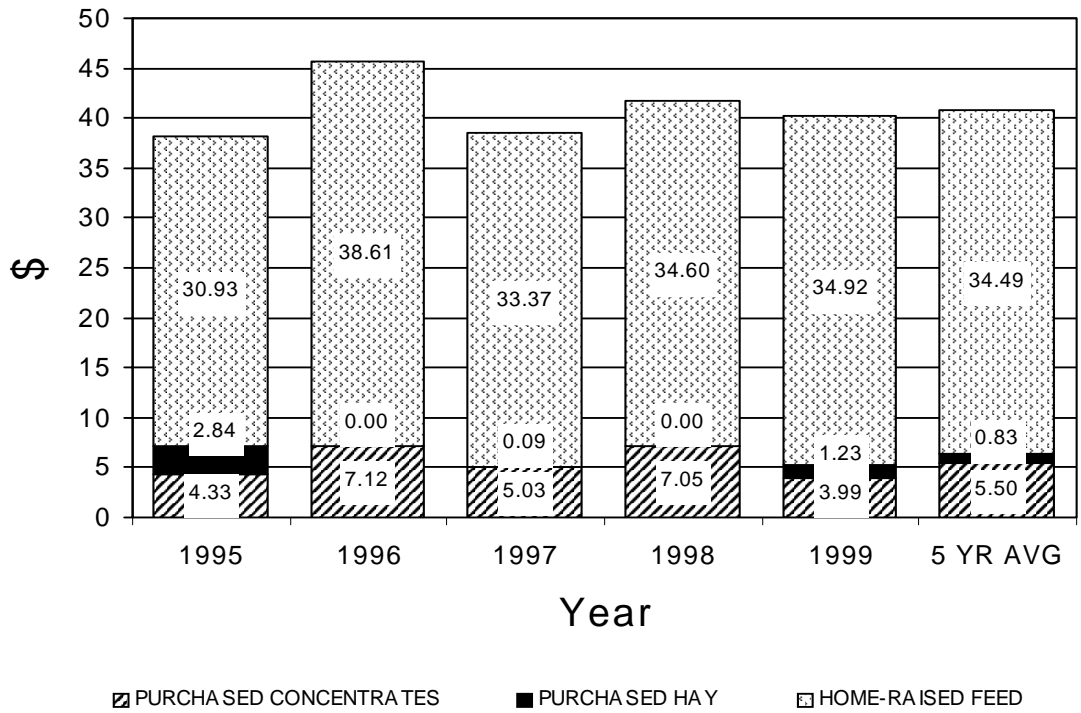


Figure 17. Total Feed Costs: Beef Calves Sold (\$/Cwt)

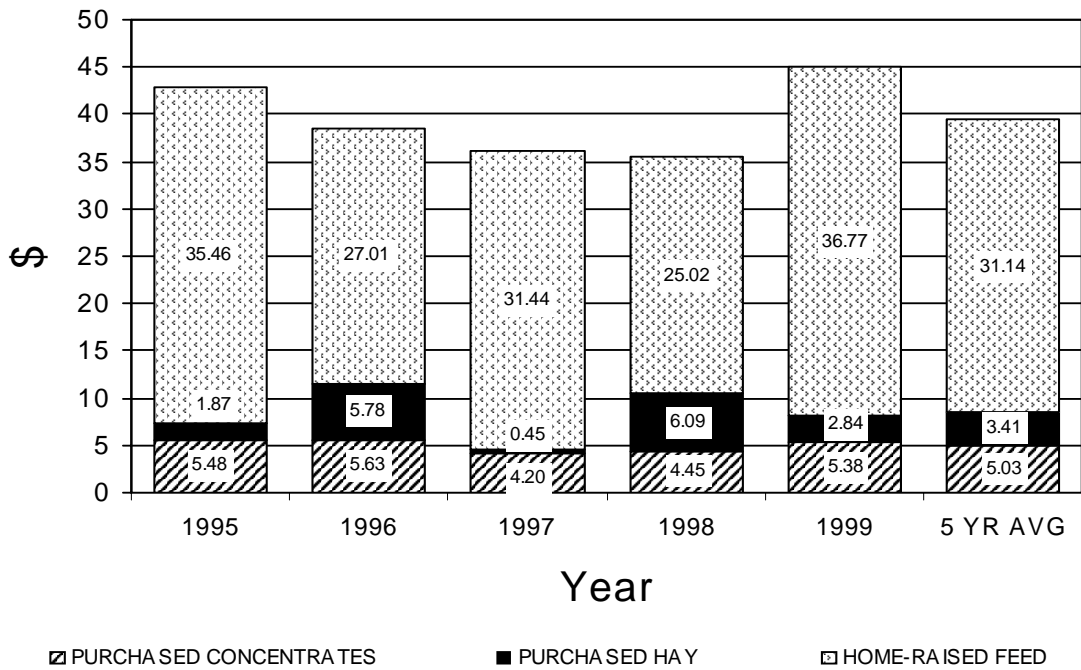


Figure 18. Total Feed Costs: Beef Calves Backgrounded (\$/Cwt)

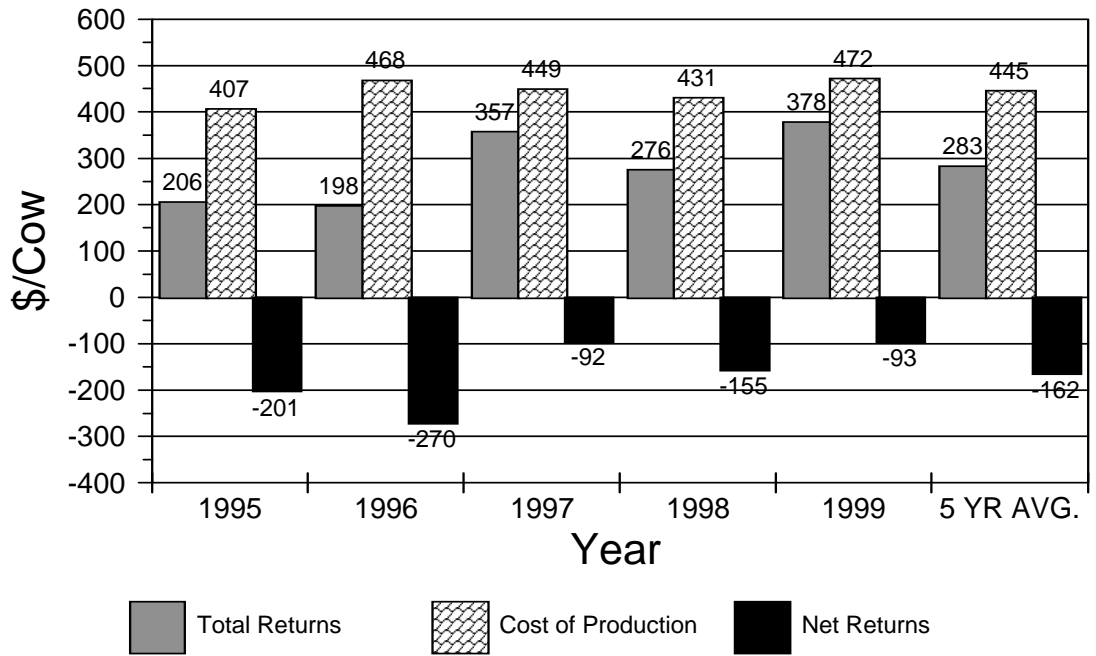


Figure 19. Cost and return summary: beef calves sold (\$/cow)

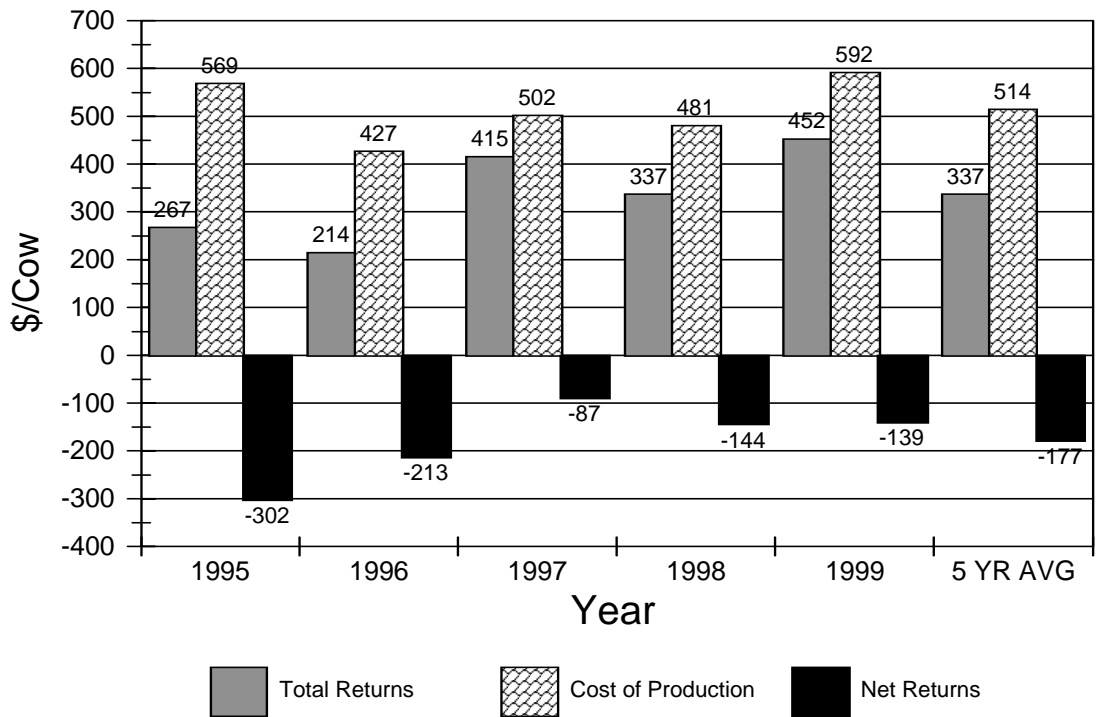


Figure 20. Cost and return summary: beef calves backgrounded (\$/cow)

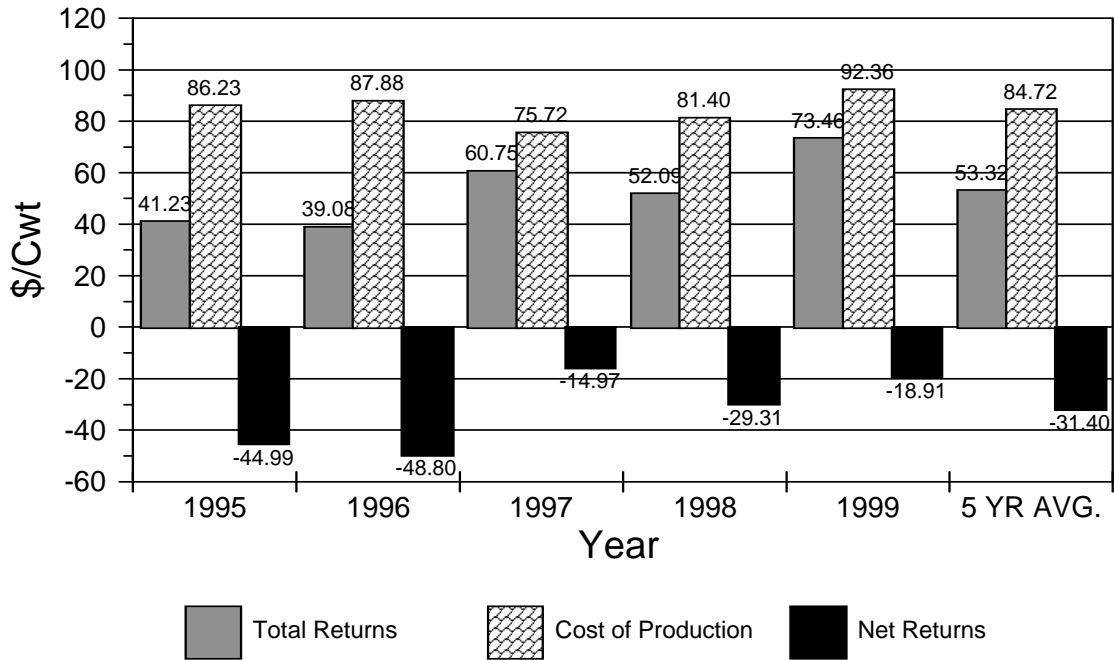


Figure 21. Cost and return summary: beef calves sold (\$/cwt)

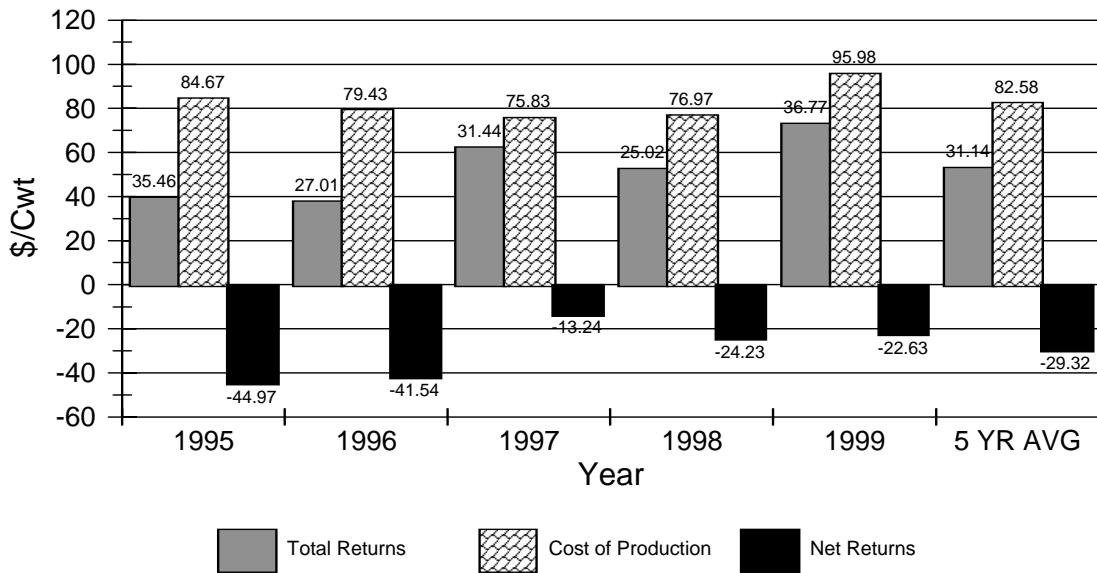


Figure 22. Cost and return summary: beef calves backgrounded (\$/cwt)

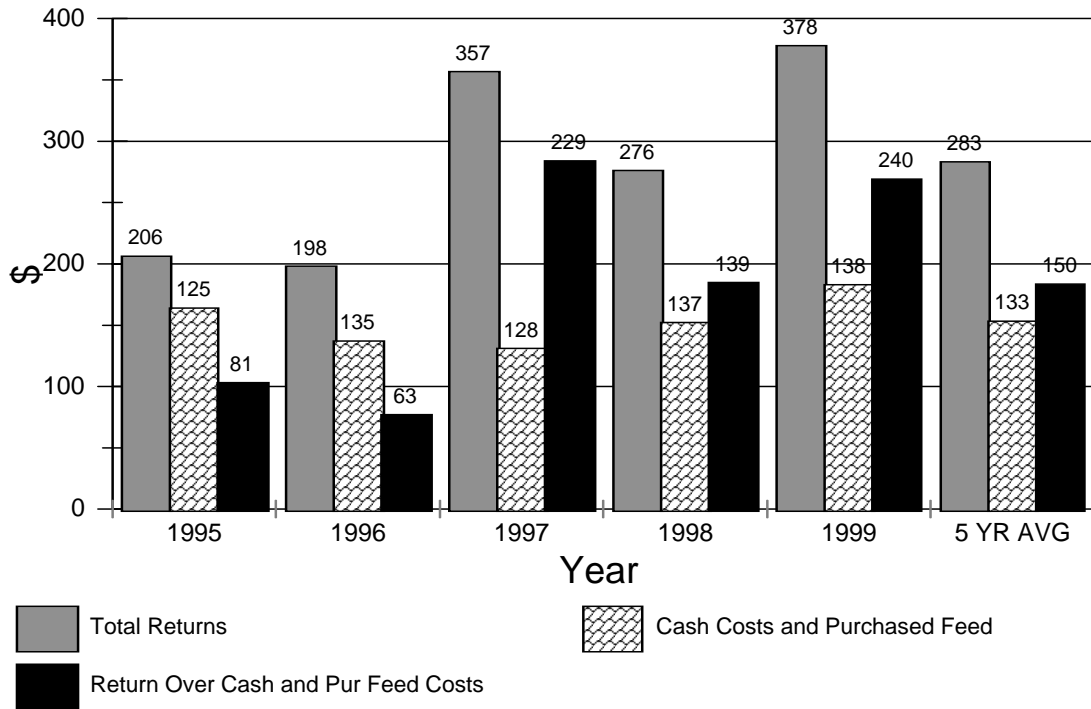


Figure 23. Return Over Cash Costs and Purchased Feed: Beef Calves Sold (\$/Cow)

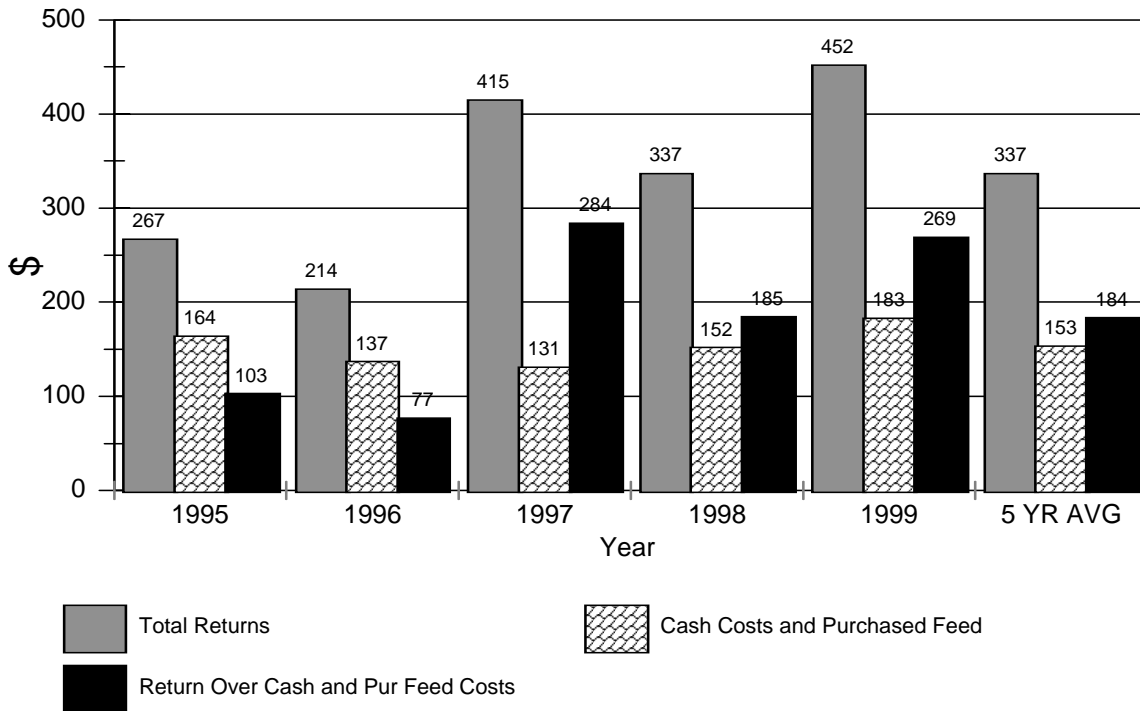


Figure 24. Return Over Cash Costs and Purchased Feed: Beef Calves Backgrounded (\$/Cow)

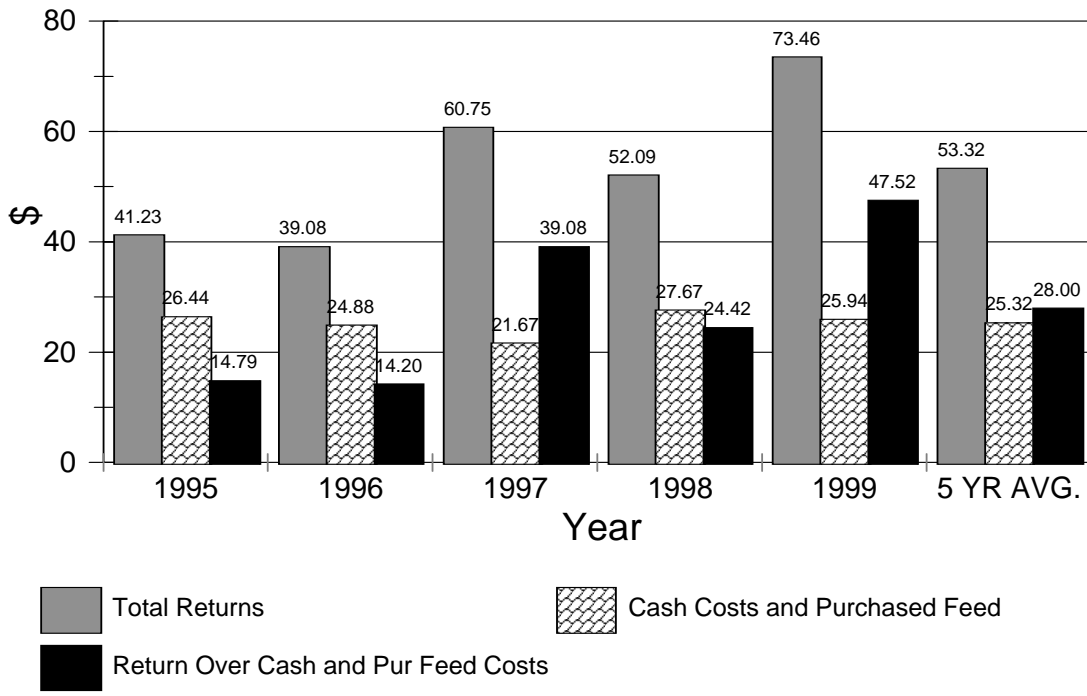


Figure 25. Return Over Cash Costs and Purchased Feed: Beef Calves Sold (\$/Cwt)

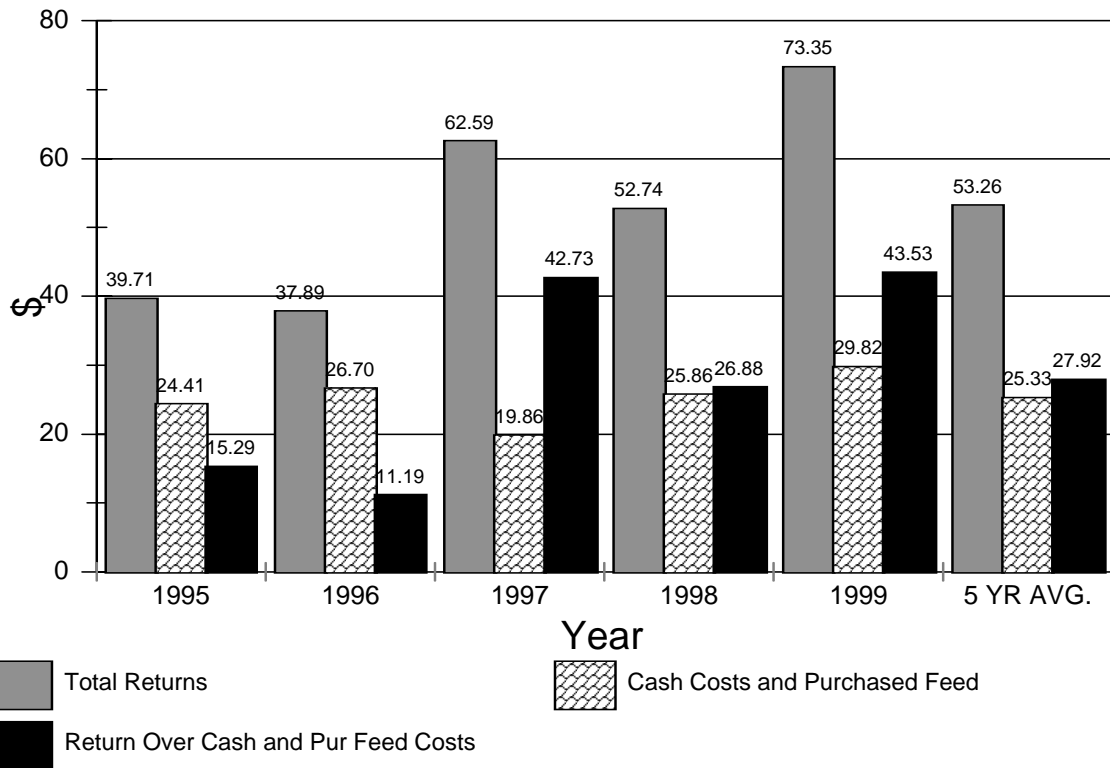


Figure 26. Return over cash costs and purchased feed: beef calves backgrounded (\$/cwt)