
Beef Cow Enterprises 2000 Costs and Returns Summary

Kentucky Farm Business Management Program

Rick Costin

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University of Kentucky
Department of Agricultural Economics
400 Charles E. Barnhart Bldg.
Lexington, KY 40546-0276
Phone: 859-257-5762
Fax: 859-323-1913
URL: <http://www.uky.edu/Ag/AgEcon/>

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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 "typical" 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

Rick Costin, Area Farm Management Specialist, Department of Agricultural Economics, University of Kentucky.

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KFBM BEEF SUMMARY: 2000

Introduction

Beef producers in 2000 continued the trend of the nineties of increasing net returns. Both the beef calves sold and calves backgrounded realized higher net returns or less loss on the average. Price received for the calves sold category increased substantially from 1999 (\$9.43 per cwt.). Price received for selling backgrounded cattle went up \$14.95 per cwt. from 1999. Cattle prices received in 2000 were the highest prices received in the past ten years for backgrounded calves, and all but one of those years for the calves sold group.

Prices were not the only up trend in 2000. Total costs of production in calves sold realized a sizeable increase, \$24 per cow over the previous year and a \$33 per cow higher cost of production in 2000 over the five-year average. Beef calves backgrounded saw a slight reduction in 2000 from 1999 but realized a \$65 higher production cost per cow over the five-year average.

While the averages in both categories showed negative returns over all costs for 2000 as well as the four previous years, there were farms that realized positive returns in 2000. 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 Beef Returns - These are the total returns attributable to the beef enterprise for the year. These include the value of all beef animals sold (including market and capital), 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 from the start to 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 Kentucky 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
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%
2000	2.09	25,200	9.0%	4.5%

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 2000, 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 – These are what are left after **Total Enterprise Cost** is deducted from **Total Beef 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 profit-ability. 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 1996 - 2000 period. Net returns (over all costs) ranged from an average of -\$270 per cow in 1996 to -\$75 per cow in 2000 (Table 8).

The economic environment was improving for cow/calf producers over this period. Cattle prices increased in each year of this survey from a low of \$49.34 in 1996 to a high of \$86.38 in 2000.

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 per cwt. of beef produced) these out-of-pocket costs totaled only \$24.88 per cwt. of beef produced (Table 9 and Figure 21). 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 - \$87 per cow (Table 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 2000 were the second highest out of the five years of data. For 2000, total beef return dollars were the highest of the five-year period, but total costs of production were the second highest out of the five years. Net returns declined from 1997 to 1998 despite 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 22). In every year, gross returns were sufficient to cover purchased feed and all other cash costs. For example, in 1996 - the lowest return year represented here - out-of-pocket expenses totaled \$26.70 per cwt. of beef produced compared with gross returns of \$37.89 per cwt. of beef produced. In 2000 - the highest return year - out-of-pocket expenses totaled just \$31.58 per cwt. of beef produced versus gross returns of \$76.59 per cwt. of beef produced. Clearly, in terms of return over cash costs the beef operations in this survey performed rather well. However, the failure to cover all costs in any year particularly 1997, 1999, and 2000, when prices and production were both relatively favorable, does raise concern over the long-run viability 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 2000 calves sold had a \$24 per cow difference in feed costs between high-third and low-third. Calves backgrounded had a \$59 difference for the same period. In all other major production costs categories, the low-third realized higher costs. Non-feed cash costs showed a \$41 difference between the calves sold and the backgrounded group. The total non-feed non-cash costs for the beef calves sold group had a \$39 difference while the backgrounded group realized a \$31 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 \$441 total cost of production while the bottom third added \$104 more cost for a total of \$545. Total cost of production for the backgrounded group had a wider spread. There was \$132 separating the high-third and low-third producers, \$529 for the high-third compared to \$661 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 inactions). 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 costs 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 his 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 he feels that his 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.

Table 1. 2000 KFBM Enterprise Production Summary: Beef Calves Sold

	Average	High-Third	Low-Third
NUMBER OF HERDS	13	4	4
SUMMARY			
Total Beef Returns	34136	35997	33028
Total Feed Cost	15634	14363	17151
Returns Above Feed Cost	18502	21634	15877
Total Non-Feed Costs	24578	21467	28800
Net Returns (over all costs)	-6076	167	-12923
OTHER ECONOMIC VARIABLES			
Returns per \$100 Feed Fed	224.46	251.00	186.00
Price Rec'd per CWT: Market	86.38	88.84	82.99
Price Rec'd per CWT: Breeding	40.47	38.65	40.85
CAPITAL INVESTMENT PER COW			
Livestock	786	707	845
Non-Livestock	412	231	419
Total	1198	938	1264
OTHER PRODUCTION VARIABLES			
Average Number of Cows	81	85	83
Animal Units in Herd	108	103	117
Total Beef Produced (LB)	43105	42583	45343
Pounds of Beef per Cow	526	509	538
Death Loss: % of LB Produced	4.46%	1.16%	8.7%
Total Concentrates (LB/CWT of Beef)	78	73	75
Hay and Dry Forage (LB/CWT of Beef)	724	752	715
Corn Silage (LB/CWT of Beef)	254	275	342
Other Silage (LB/CWT of Beef)	0	0	0
Pasture Days per Animal Unit	201	172	198
Hay Equiv. per Cow (TON)	5.8	5.4	6.2
LABOR SUMMARY			
Months per Cow	0.05	0.04	0.04
Hours per Cow	10.2	8.7	8.3
Beef Production/Worker/Year	168507	146806	203355

Table 2. 2000 KFBM Enterprise Cost and Return Summary: Beef Calves Sold \$/Cow

	Average	High-Third	Low-Third
TOTAL BEEF RETURNS	421	442	379
FEED COSTS			
Purchased Concentrates	28	25	37
Purchased Hay and Other	9	11	3
Home Raised Feed	154	141	161
Total Feed Costs	191	177	201
NON-FEED CASH COSTS			
Veterinary & Livestock Supplies	20	13	27
Fuel & Oil	14	13	16
Machinery Repair	18	16	23
Bldg/Fence Repair	15	17	28
Machinery Hire	1	0	2
Utilities	7	8	8
Auto-Farm Share	2	1	2
Paid Labor	26	33	22
Insurance, Property Taxes, & Misc.	13	12	12
Cash Interest	25	27	41
Total Non-Feed Cash Costs	141	140	181
NON-FEED NON-CASH COSTS			
Unpaid Labor	59	54	52
Machinery Depreciation	16	10	25
Building/Fence Depreciation	10	4	13
Non-Cash Interest	79	56	73
Total Non-Feed Non-Cash Costs	164	124	163
Total Costs of Production	496	441	545
Net Returns (over all costs)	-75	1	-166
COSTS AND RETURNS SUMMARY: \$/COW			
Total Beef Returns	421	442	379
Feed Costs	191	177	201
Non-Feed Costs	305	264	344
Net Returns (over all costs)	-75	1	-166
COSTS SUMMARY: \$/COW			
Feed Costs	191	177	201
Non-Feed Cash Costs	141	140	181
Non-Feed Non-Cash Costs	164	124	163

Table 3. 2000 KFBM Enterprise Cost and Return Summary: Beef Calves Sold \$/CWT

	Average	High-Third	Low-Third
TOTAL BEEF RETURNS	80.29	86.54	69.81
FEED COSTS			
Purchased Concentrates	5.12	4.64	6.38
Purchased Hay and Other	1.57	1.76	0.54
Home Raised Feed	29.65	28.27	30.98
Total Feed Costs	36.34	34.67	37.90
NON-FEED CASH COSTS			
Veterinary & Livestock Supplies	3.77	2.62	4.69
Fuel & Oil	2.60	2.65	2.95
Machinery Repair	3.54	3.13	4.40
Bldg/Fence Repair	3.20	3.65	5.64
Machinery Hire	0.11	0.05	0.31
Utilities	1.24	1.64	1.38
Auto-Farm Share	0.38	0.31	0.30
Paid Labor	4.80	5.50	3.95
Insurance, Property Taxes, & Misc.	2.50	2.42	2.25
Cash Interest	4.66	5.37	7.36
Total Non-Feed Cash Costs	26.80	27.33	33.23
NON-FEED NON-CASH COSTS			
Unpaid Labor	11.47	11.06	9.30
Machinery Depreciation	3.07	1.60	5.01
Building/Fence Depreciation	1.90	0.86	2.75
Non-Cash Interest	15.66	11.35	14.94
Total Non-Feed Non-Cash Costs	32.10	24.87	32.00
Total Costs of Production	95.24	86.86	103.12
Net Returns (over all costs)	-14.95	-0.33	-33.32
COSTS AND RETURNS SUMMARY: \$/CWT			
Total Beef Returns	80.29	86.54	69.81
Feed Costs	36.34	34.67	37.90
Non-Feed Costs	58.90	52.20	65.23
Net Returns (over all costs)	-14.95	-0.33	-33.32
COSTS SUMMARY: \$/CWT			
Feed Costs	36.34	34.67	37.90
Non-Feed Cash Costs	26.80	27.32	33.23
Non-Feed Non-Cash Costs	32.11	24.87	32.00

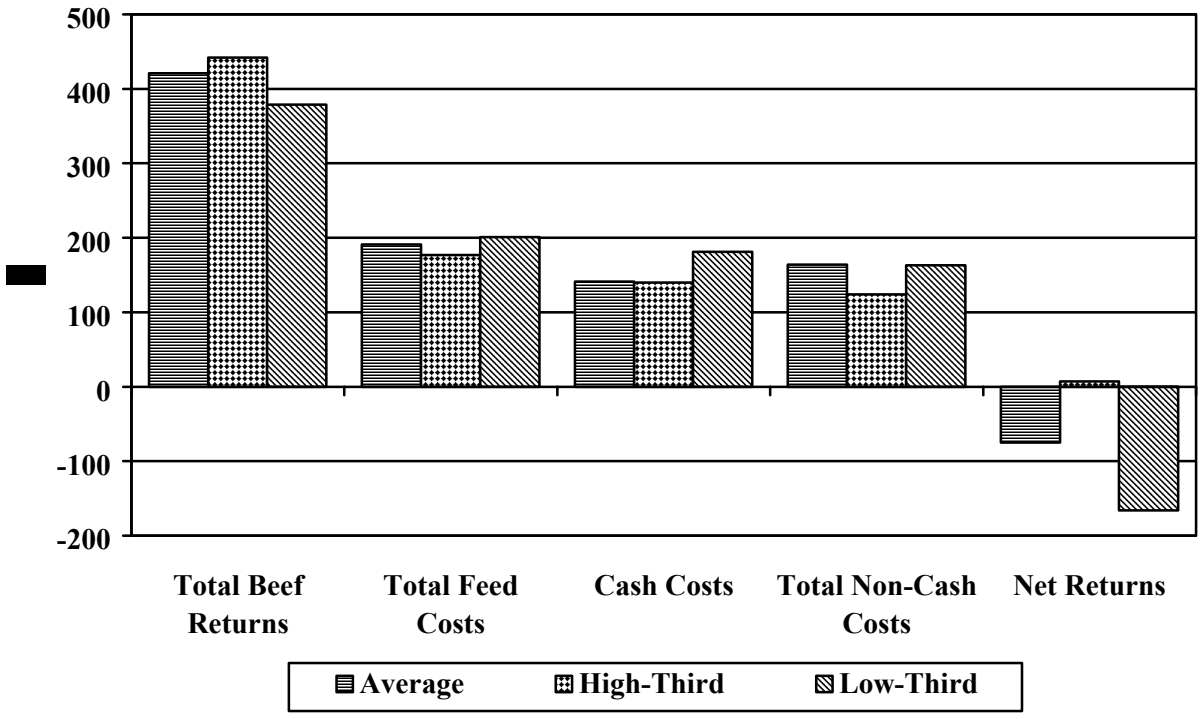


Figure 1. 2000 Costs and Returns per Cow: Beef Calves Sold

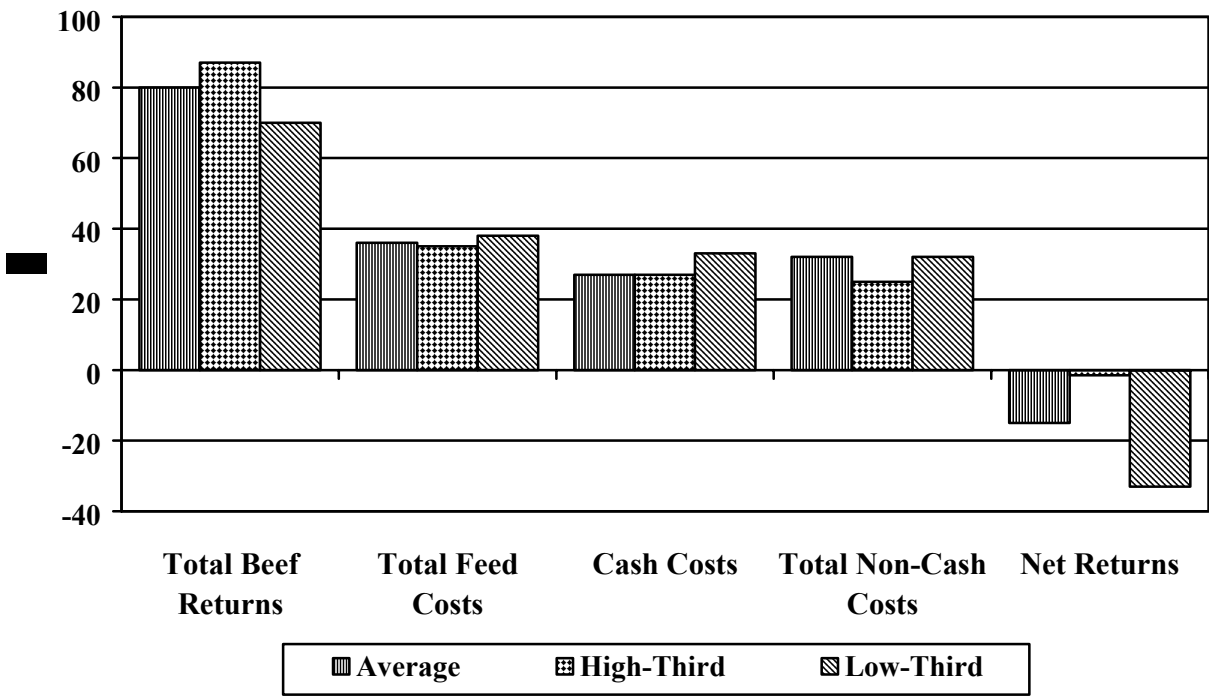


Figure 2. 2000 Costs and Returns per Cwt: Beef Calves Sold

Table 4. 2000 KFBM Enterprise Production Summary: Beef Calves Backgrounded

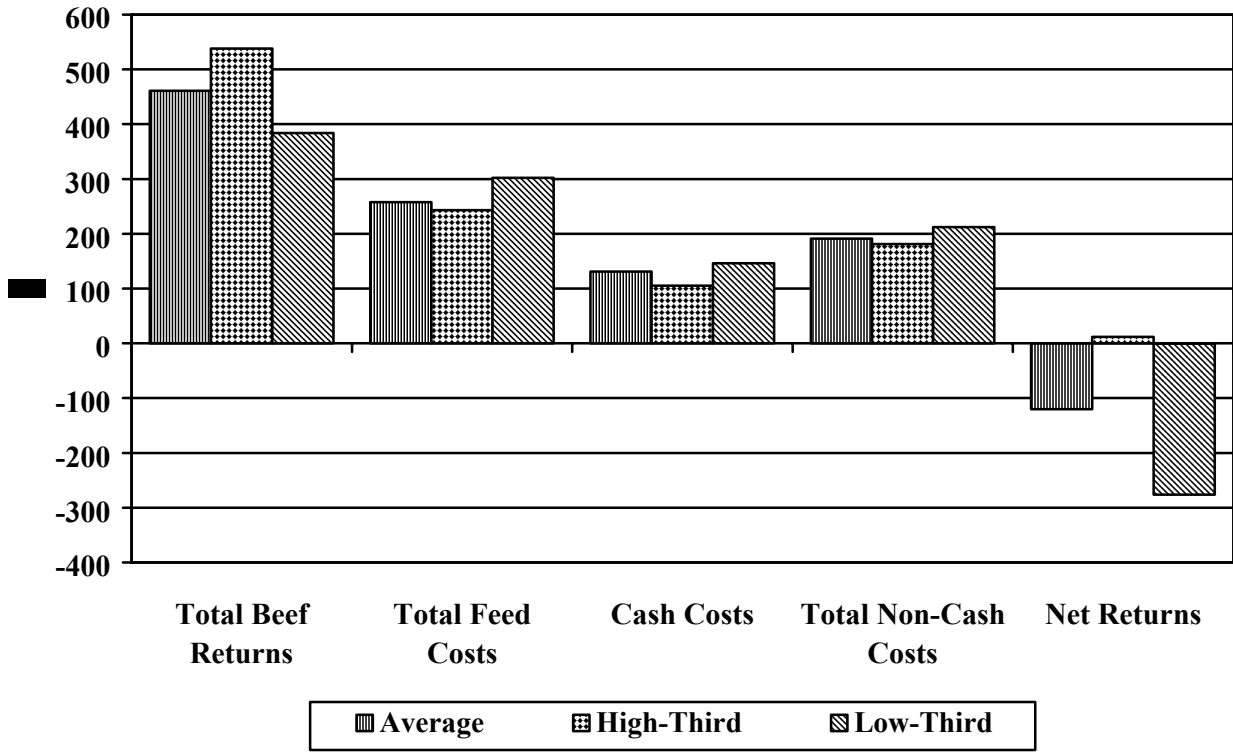
	Average	High-Third	Low-Third
NUMBER OF HERDS	21	7	7
SUMMARY			
Total Beef Returns	32092	43840	20891
Total Feed Cost	17499	19717	17056
Returns Above Feed Cost	14593	24123	3835
Total Non-Feed Costs	21361	22868	19448
Net Returns (over all costs)	-6768	1255	-15613
OTHER ECONOMIC VARIABLES			
Returns per \$100 Feed Fed	186.05	224.71	133.00
Price Rec'd per CWT: Market	83.65	82.27	85.43
Price Rec'd per CWT: Breeding	38.90	38.13	36.43
CAPITAL INVESTMENT PER COW			
Livestock	1011	984	1076
Non-Livestock	302	255	409
Total	1313	1239	1485
OTHER PRODUCTION VARIABLES			
Average Number of Cows	67	78	52
Animal Units in Herd	100	122	78
Total Beef Produced (LB)	42350	57088	28576
Pounds of Beef per Cow	607	689	522
Death Loss: % of LB Produced	8.54%	11.87%	6.9%
Total Concentrates (LB/CWT of Beef)	149	112	171
Hay and Dry Forage (LB/CWT of Beef)	899	851	1075
Corn Silage (LB/CWT of Beef)	100	15	250
Other Silage (LB/CWT of Beef)	44	133	0
Pasture Days per Animal Unit	213	222	194
Hay Equiv. per Cow (TON)	6.6	7.0	6.8
LABOR SUMMARY			
Months per Cow	0.05	0.04	0.05
Hours per Cow	10.0	8.0	11.5
Beef Production/Worker/Year	166754	217122	134355

**Table 5. 2000 Enterprise Cost and Return Summary:
Beef Calves Backgrounded \$/Cow**

	Average	High-Third	Low-Third
TOTAL BEEF RETURNS	461	538	384
FEED COSTS			
Purchased Concentrates	28	20	30
Purchased Hay and Other	36	76	21
Home Raised Feed	194	148	251
Total Feed Costs	258	243	302
NON-FEED CASH COSTS			
Veterinary & Livestock Supplies	32	32	32
Fuel & Oil	12	12	13
Machinery Repair	22	18	26
Bldg/Fence Repair	11	8	12
Machinery Hire	2	1	3
Utilities	4	2	5
Auto-Farm Share	2	1	1
Paid Labor	14	12	16
Insurance, Property Taxes, & Misc.	14	12	18
Cash Interest	18	5	20
Total Non-Feed Cash Costs	131	105	146
NON-FEED NON-CASH COSTS			
Unpaid Labor	77	67	77
Machinery Depreciation	12	7	16
Building/Fence Depreciation	3	1	7
Non-Cash Interest	99	106	113
Total Non-Feed Non-Cash Costs	191	181	212
Total Costs of Production	581	529	661
Net Returns (over all costs)	-120	9	-276
COSTS AND RETURNS SUMMARY: \$/COW			
Total Beef Returns	461	538	384
Feed Costs	258	243	302
Non-Feed Costs	322	286	359
Net Returns (over all costs)	-119	9	-277
COSTS SUMMARY: \$/COW			
Feed Costs	258	243	302
Non-Feed Cash Costs	131	105	146
Non-Feed Non-Cash Costs	191	181	212

**Table 6. 2000 KFBM Enterprise Cost and Return Summary:
Beef Calves Backgrounded \$/Cwt**

	Average	High-Third	Low-Third
TOTAL BEEF RETURNS	76.59	79.13	73.72
FEED COSTS			
Purchased Concentrates	4.59	2.76	5.66
Purchased Hay and Other	5.09	9.76	3.63
Home Raised Feed	34.37	23.36	48.27
Total Feed Costs	44.05	35.88	57.56
NON-FEED CASH COSTS			
Veterinary & Livestock Supplies	4.99	4.80	5.59
Fuel & Oil	2.10	1.58	2.84
Machinery Repair	3.93	2.76	5.31
Bldg/Fence Repair	2.05	1.25	2.24
Machinery Hire	0.31	0.06	0.46
Utilities	0.64	0.34	1.02
Auto-Farm Share	0.35	0.21	0.23
Paid Labor	2.28	2.07	2.90
Insurance, Property Taxes, & Misc.	2.45	1.77	3.58
Cash Interest	2.79	0.85	3.43
Total Non-Feed Cash Costs	21.90	15.68	27.60
NON-FEED NON-CASH COSTS			
Unpaid Labor	13.51	9.67	16.37
Machinery Depreciation	2.03	1.16	2.86
Building/Fence Depreciation	0.61	0.22	1.18
Non-Cash Interest	17.46	15.93	22.48
Total Non-Feed Non-Cash Costs	33.61	26.98	42.90
Total Costs of Production	99.56	78.55	128.06
Net Returns (over all costs)	-22.97	0.57	-54.33
COSTS AND RETURNS SUMMARY: \$/CWT			
Total Beef Returns	76.59	79.13	73.72
Feed Costs	44.05	35.88	57.56
Non-Feed Costs	55.51	42.67	70.50
Net Returns (over all costs)	-22.97	0.57	-54.33
COSTS SUMMARY: \$/CWT			
Feed Costs	44.05	35.88	57.56
Non-Feed Cash Costs	21.90	15.68	27.60
Non-Feed Non-Cash Costs	33.61	26.98	42.90



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Figure 3. 2000 Costs and Returns per Cow: Beef Calves Backgrounded

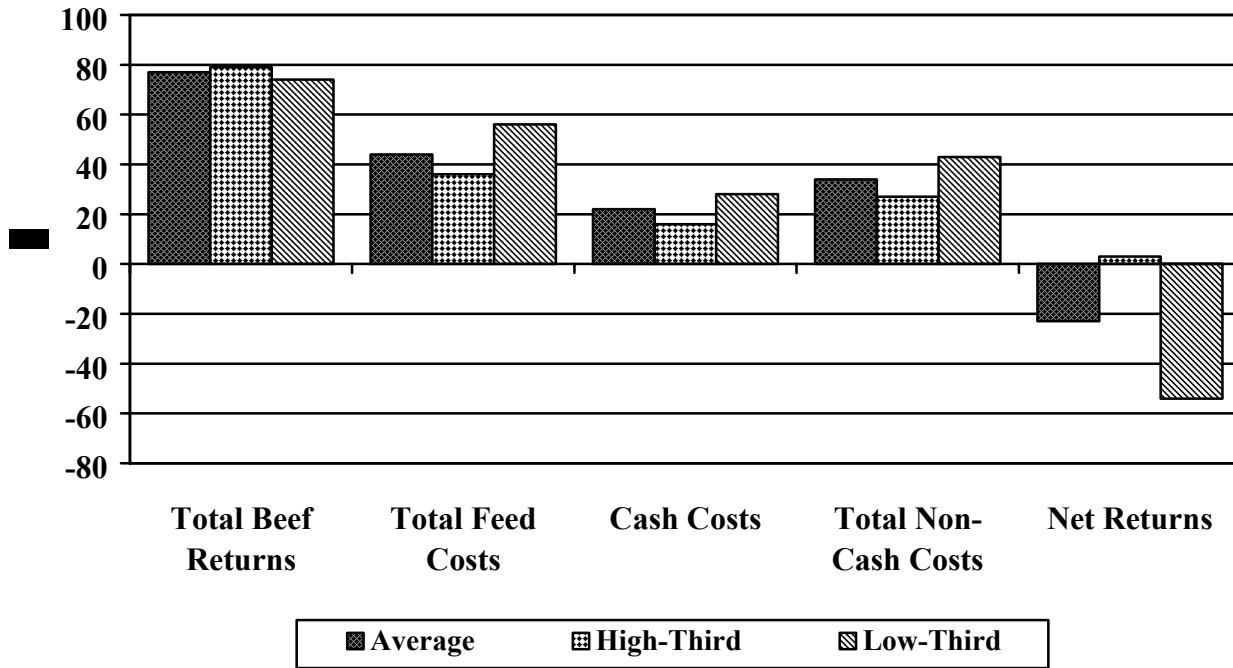


Figure 4. 2000 Costs and Returns per Cwt: Beef Calves Backgrounded

Table 7. KFBM Enterprise Production Summary: Beef Calves Sold

	1996	1997	1998	1999	2000	5 YR AVG
NUMBER OF HERDS	2	2	3	13	13	7
SUMMARY						
Total Beef Returns	17701	30181	21243	36721	34136	27996
Total Feed Cost	21095	19202	16744	19671	15634	18469
Returns Above Feed Cost	-3394	10980	4498	17051	18502	9527
Total Non-feed Costs	19250	18121	15984	27687	24578	21124
Net Returns (over all costs)	-22644	-7141	-11485	-10636	-6076	-11596
OTHER ECONOMIC VARIABLES						
Returns per \$100 Feed Fed	96.50	158.00	128.33	192.23	224.46	159.90
Price Rec'd per Cwt: Market	49.34	64.68	68.32	76.95	86.38	69.13
Price Rec'd per Cwt: Breeding	44.09	59.63	62.43	65.00	40.47	54.32
CAPITAL INVESTMENT PER COW						
Livestock	652	623	675	736	786	694
Non-Livestock	296	315	293	323	412	328
Total	948	938	968	1058	1198	1022
OTHER PRODUCTION VARIABLES						
Average Number of Cows	89	88	80	92	81	86
Animal Units in Herd	123	121	105	134	108	118
Total Beef Produced (Lb)	45635	49945	41747	49139	43105	45914
Pounds of Beef per Cow	521	585	554	517	526	541
Death Loss: % of Lb Produced	5.6%	3.0%	3.3%	9.1%	4.46%	5.10%
Total Concentrates (Lb/Cwt of Beef)	166	111	139	69	78	113
Hay & Dry Forage (Lb/Cwt of Beef)	876	738	901	1069	724	862
Corn Silage (Lb/Cwt of Beef)	0	0	0	250	254	101
Other Silage (Lb/Cwt of Beef)	0	0	0	0	0	0
Pasture Days per Animal Unit	243	248	244	186	201	224
Hay Equiv. per Cow (Ton)	6.3	6.3	6.1	6.3	5.8	6.2
LABOR SUMMARY						
Months per Cow	0.03	0.03	0.03	0.05	0.05	0.04
Hours per Cow	6.8	5.8	6.0	9.8	10.2	7.7
Beef Production/Worker/Year	200272	258475	233762	183850	168507	208973

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

	1996	1997	1998	1999	2000	5 YR AVG
TOTAL BEEF RETURNS	198	357	276	378	421	326
FEED COSTS						
Purchased Concentrates	42	29	39	20	28	32
Purchased Hay and Other	0	1	0	7	9	3
Home Grown Feed	205	196	181	177	155	183
Total Feed Costs	247	226	220	205	191	218
NON-FEED CASH COSTS						
Veterinary & Livestock Supplies	15	12	25	24	20	19
Fuel & Oil	5	7	6	9	14	8
Machinery Repair	11	10	9	14	18	12
Bldg/Fence Repair	23	34	12	9	15	19
Machinery Hire	4	5	3	2	1	3
Utilities	2	2	2	6	7	4
Auto-Farm Share	0	0	0	1	2	1
Paid Labor	15	12	16	27	26	19
Insurance, Property Taxes, Misc	4	2	4	10	13	7
Cash Interest	14	14	21	9	25	17
Total Non-Feed Cash Costs	93	98	98	111	141	108
NON-FEED NON-CASH COSTS						
Unpaid Labor	35	31	31	54	59	42
Machinery Depreciation	15	15	11	12	16	14
Building/Fence Depreciation	7	9	6	9	10	8
Non-Cash Interest	71	70	65	81	79	73
Total Non-Feed Non-Cash Costs	128	125	113	156	164	137
Total Costs of Production	468	449	431	472	497	463
Net Returns (over all costs)	-270	-92	-155	-93	-75	-137
COSTS AND RETURNS SUMMARY: \$/COW						
Total Beef Returns	198	357	276	378	421	326
Feed Costs	247	226	220	205	191	218
Non-Feed Costs	221	223	211	267	305	245
Net Returns (over all costs)	-270	-92	-155	-94	-75	-137
COSTS SUMMARY: \$/COW						
Feed Costs	247	226	220	205	191	218
Non-Feed Cash Costs	93	98	98	111	141	108
Non-Feed Non-Cash Costs	128	125	113	156	164	137

Note: These data give costs and returns on the basis of \$/Cow in the herd.

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

	1996	1997	1998	1999	2000	5 YR AVG
TOTAL BEEF RETURNS	39.08	60.75	52.09	73.46	80.29	53.32
FEED COSTS						
Purchased Concentrates	7.12	5.03	7.05	3.99	5.12	5.50
Purchased Hay and Other	0.00	0.09	0.00	1.23	1.57	0.83
Home Grown Feed	38.61	33.37	34.60	34.92	29.65	34.49
Total Feed Costs	45.73	38.49	41.65	40.14	36.34	40.82
NON-FEED CASH COSTS						
Veterinary & Livestock Supplies	2.56	1.83	4.19	4.33	3.77	3.25
Fuel & Oil	0.94	1.16	1.16	1.79	2.60	1.27
Machinery Repair	1.95	1.57	1.71	2.66	3.54	2.17
Bldg/Fence Repair	4.72	5.66	2.53	1.91	3.20	3.18
Machinery Hire	0.78	0.87	0.45	0.42	0.11	0.57
Utilities	0.37	0.35	0.37	1.06	1.24	0.55
Auto-Farm Share	0.00	0.00	0.00	0.18	0.38	0.08
Paid Labor	2.94	2.08	3.30	4.84	4.80	3.43
Insurance	0.79	0.43	0.78	1.90	2.50	1.28
Cash Interest	2.71	2.60	6.13	1.64	4.66	3.20
Total Non-Feed Cash Costs	17.76	16.55	20.62	20.72	26.80	18.98
NON-FEED NON-CASH COSTS						
Unpaid Labor	6.48	5.17	5.75	10.45	11.47	8.10
Machinery Depreciation	3.04	2.55	2.40	2.53	3.07	2.45
Building/Fence Depreciation	1.24	1.36	0.93	1.92	1.90	1.16
Non-Cash Interest	13.63	11.60	10.05	16.58	15.66	13.19
Total Non-Feed Non-Cash Costs	24.39	20.68	19.13	31.50	32.11	24.91
Total Costs of Production	87.88	75.72	81.40	92.36	95.25	84.72
Net Returns (over all costs)	-48.80	-14.97	-29.31	-18.91	-14.95	-31.40
COSTS AND RETURNS SUMMARY: \$/CWT						
Total Beef Returns	39.08	60.75	52.09	73.46	80.29	53.32
Feed Costs	45.73	38.49	41.65	40.14	36.34	40.82
Non-feed Costs	42.15	37.23	39.75	52.22	58.90	43.90
Net Returns (over all costs)	-48.80	-14.97	-29.31	-18.90	-14.95	-31.40
COSTS SUMMARY: \$/CWT						
Feed Costs	45.73	38.49	41.65	40.14	36.34	40.82
Non-Feed Cash Costs	17.76	16.55	20.62	20.72	26.80	18.98
Non-Feed Non-Cash Costs	24.39	20.68	19.13	31.50	32.11	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

	1996	1997	1998	1999	2000	5 YR AVG
NUMBER OF HERDS	7	8	8	10	21	11
SUMMARY						
Total Beef Returns	23434	41862	33460	32427	32092	32655
Total Feed Cost	19960	23038	21256	18690	17499	20089
Returns Above Feed Cost	3473	18824	12205	13737	14593	12566
Total Non-feed Costs	22086	25898	25502	21607	21361	23291
Net Returns (over all costs)	-18613	-7074	-13298	-7870	-6768	-10725
OTHER ECONOMIC VARIABLES						
Returns per \$100 Feed Fed	106.43	178.88	153.14	170.90	186.05	159.08
Price Rec'd per Cwt: Market	52.08	66.40	71.48	68.70	83.65	68.46
Price Rec'd per Cwt: Breeding	47.34	59.31	55.32	60.13	38.90	52.20
CAPITAL INVESTMENT PER COW						
Livestock	803	860	746	982	1011	880
Non-Livestock	203	242	287	311	302	269
Total	1006	1102	1033	1293	1313	1149
OTHER PRODUCTION VARIABLES						
Average Number of Cows	101	102	97	71	67	88
Animal Units in Herd	149	151	141	102	100	129
Total Beef Produced (Lb)	57441	67498	63114	44093	42350	54899
Pounds of Beef per Cow	551	668	640	618	607	617
Death Loss: % of Lb Produced	7.1%	6.0%	10.0%	6.5%	8.54%	7.63%
Total Concentrates (Lb/Cwt of Beef)	72	86	125	141	149	115
Hay & Dry Forage (Lb/Cwt of Beef)	842	795	808	990	899	867
Corn Silage (Lb/Cwt of Beef)	165	155	91	262	100	155
Other Silage (Lb/Cwt of Beef)	0	0	0	0	44	9
Pasture Days per Animal Unit	228	205	213	182	213	208
Hay Equiv. per Cow (Ton)	6.4	6.5	6.4	6.3	6.6	6.4
LABOR SUMMARY						
Months per Cow	0.04	0.04	0.05	0.05	0.05	0.05
Hours per Cow	7.7	8.6	9.3	10.1	10.0	9.1
Beef Production/Worker/Year	186761	204906	177980	167617	166754	180804

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

	1996	1997	1998	1999	2000	5 YR AVG
TOTAL BEEF RETURNS	214	415	337	452	461	376
FEED COSTS						
Purchased Concentrates	28	28	26	33	28	29
Purchased Hay and Other	26	3	32	16	36	23
Home Grown Feed	152	209	165	226	194	189
Total Feed Costs	206	240	223	276	258	241
NON-FEED CASH COSTS						
Veterinary & Livestock Supplies	19	18	20	26	32	23
Fuel & Oil	4	6	4	7	12	7
Machinery Repair	11	15	8	25	22	16
Bldg/Fence Repair	10	9	13	17	11	12
Machinery Hire	3	9	3	1	2	4
Utilities	3	3	3	5	4	4
Auto-Farm Share	2	2	2	1	2	2
Paid Labor	7	9	17	17	14	13
Insurance, Property Taxes, Misc	11	10	15	18	14	14
Cash Interest	13	19	9	16	18	15
Total Cash Costs	83	100	94	134	131	108
NON-FEED NON-CASH COSTS						
Unpaid Labor	50	60	64	71	77	64
Machinery Depreciation	7	12	12	13	12	11
Building/Fence Depreciation	3	4	5	4	3	4
Non-Cash Interest	78	86	83	94	99	88
Total Non-Feed Non-Cash Costs	138	162	164	182	191	167
Total Costs of Production	427	502	481	592	581	517
Net Returns (over all costs)	-213	-87	-144	-139	-120	-141
COSTS AND RETURNS SUMMARY: \$/COW						
Total Beef Returns	214	415	337	452	461	376
Feed Costs	206	240	223	276	258	241
Non-feed Costs	221	262	258	316	322	276
Net Returns (over all costs)	-213	-87	-144	-139	-120	-141
COSTS SUMMARY: \$/COW						
Feed Costs	206	240	223	276	258	241
Non-Feed Cash Costs	83	100	94	134	131	108
Non-Feed Non-Cash Costs	138	162	164	182	191	167

Note: These data give costs and returns on the basis of \$/Cow in the herd.

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

	1996	1997	1998	1999	2000	5 YR AVG
TOTAL BEEF RETURNS	37.89	62.59	52.74	73.35	76.59	60.63
FEED COSTS						
Purchased Concentrates	5.63	4.20	4.45	5.38	4.59	4.85
Purchased Hay and Other	5.78	0.45	6.09	2.84	5.09	4.05
Home Grown Feed	27.01	31.44	25.02	36.77	34.37	30.92
Total Feed Costs	38.42	36.09	35.56	44.99	44.05	39.82
NON-FEED CASH COSTS						
Veterinary & Livestock Supplies	3.12	2.63	3.15	4.17	4.99	3.61
Fuel & Oil	0.79	0.90	0.67	1.12	2.10	1.12
Machinery Repair	2.18	2.35	1.31	4.01	3.93	2.76
Bldg/Fence Repair	1.91	1.69	1.98	2.75	2.05	2.08
Machinery Hire	0.30	0.95	0.78	0.23	0.31	0.51
Utilities	0.58	0.42	0.52	0.86	0.64	0.60
Auto-Farm Share	0.41	0.35	0.34	0.23	0.35	0.34
Paid Labor	1.27	1.38	2.93	2.82	2.28	2.14
Insurance, Property Taxes, Misc	1.97	1.47	2.28	2.87	2.45	2.21
Cash Interest	2.76	3.07	1.36	2.56	2.79	2.51
Total Non-Feed Cash Costs	15.29	15.21	15.32	21.60	21.90	17.86
NON-FEED NON-CASH COSTS						
Unpaid Labor	9.44	9.16	9.86	11.39	13.51	10.67
Machinery Depreciation	1.44	1.78	1.96	2.09	2.03	1.86
Building/Fence Depreciation	0.53	0.63	0.73	0.69	0.61	0.64
Non-Cash Interest	14.31	12.96	13.54	15.22	17.46	14.70
Total Non-Feed Non-Cash Costs	25.72	24.53	26.09	29.39	33.61	27.87
Total Costs of Production	79.43	75.83	76.97	95.98	99.56	85.55
Net Returns (over all costs)	-41.54	-13.24	-24.23	-22.63	-22.97	-24.92
COSTS AND RETURNS SUMMARY: \$/CWT						
Total Beef Returns	37.89	62.59	52.74	73.35	76.59	60.63
Feed Costs	38.42	36.09	35.56	44.99	44.05	39.82
Non-feed Costs	41.01	39.74	41.41	50.99	55.51	45.73
Net Returns (over all costs)	-41.54	-13.24	-24.23	-22.63	-22.97	-24.92
COSTS SUMMARY: \$/CWT						
Feed Costs	38.42	36.09	35.56	44.99	44.05	39.82
Non-Fed Cash Costs	15.29	15.21	15.32	21.60	21.90	17.86
Non-Feed Non-Cash Costs	25.72	24.53	26.09	29.39	33.61	27.87

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

APPENDIX

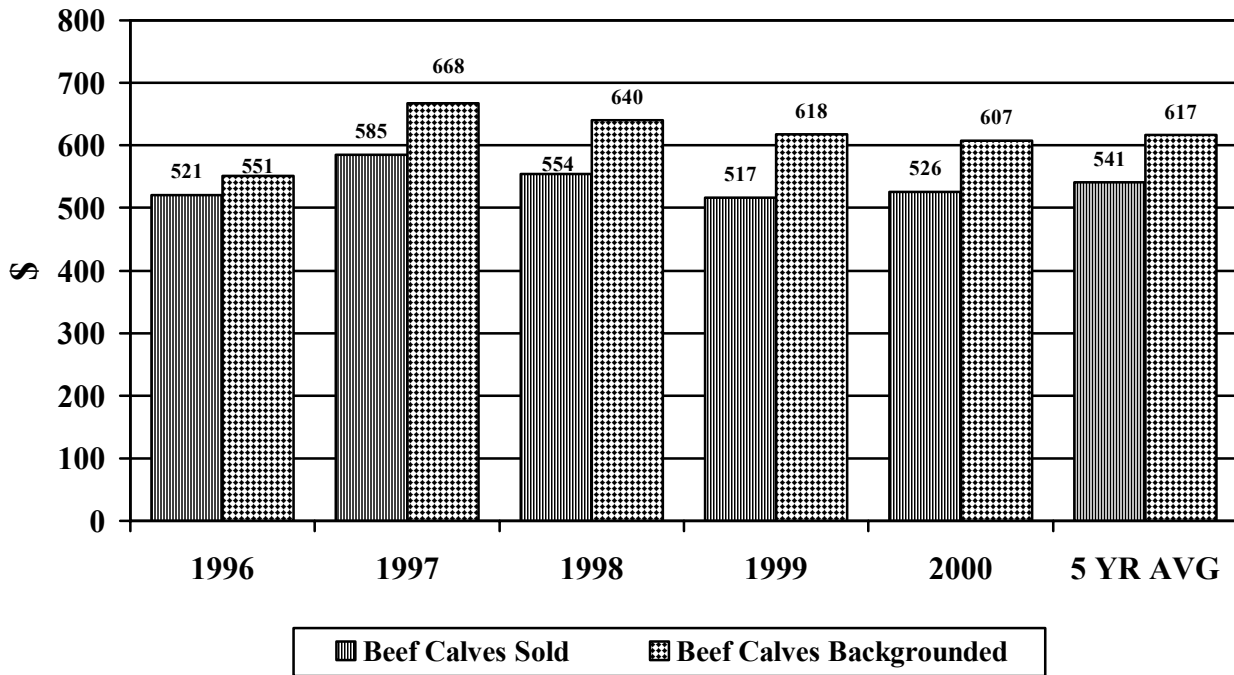


Figure 5. Pounds of Beef Produced per Cow

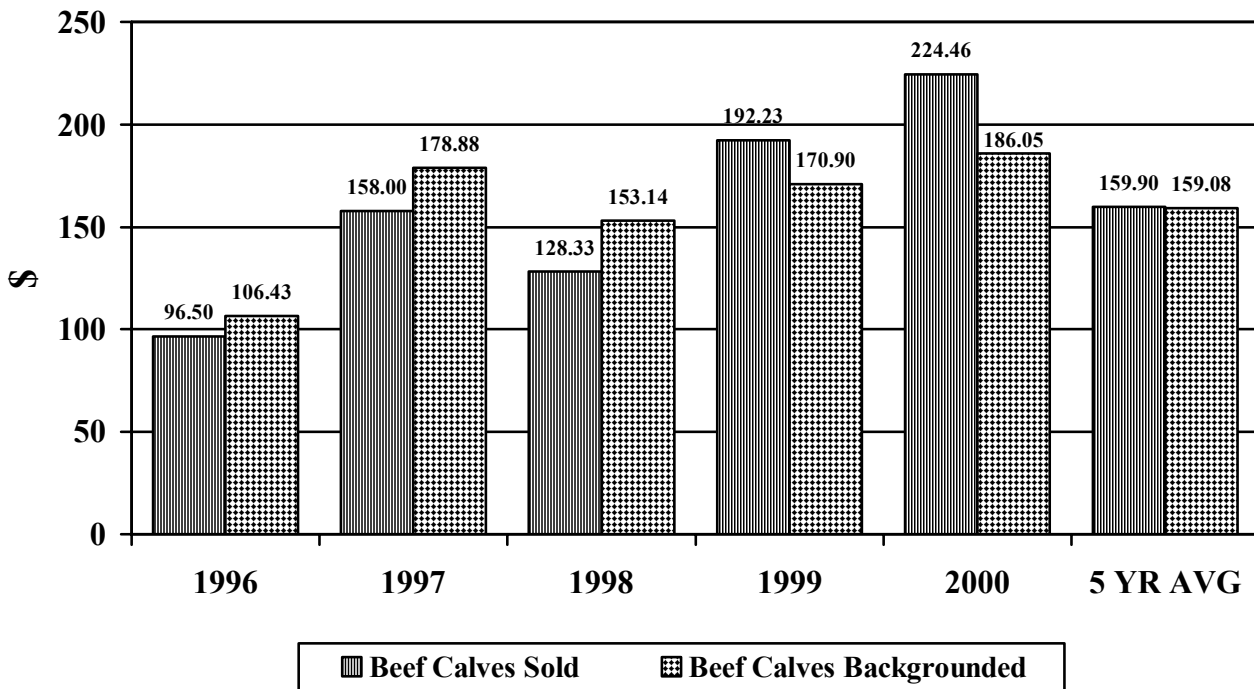


Figure 6. Returns per \$100 Feed Fed

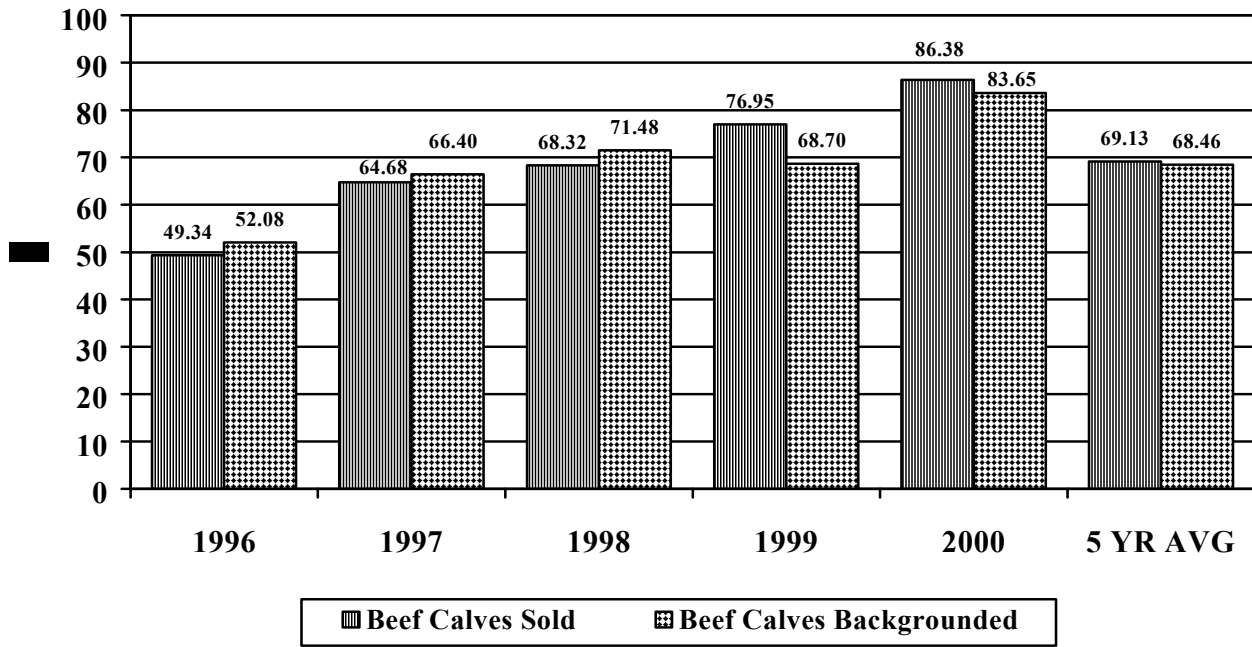


Figure 7. Market Prices Received by Farmers

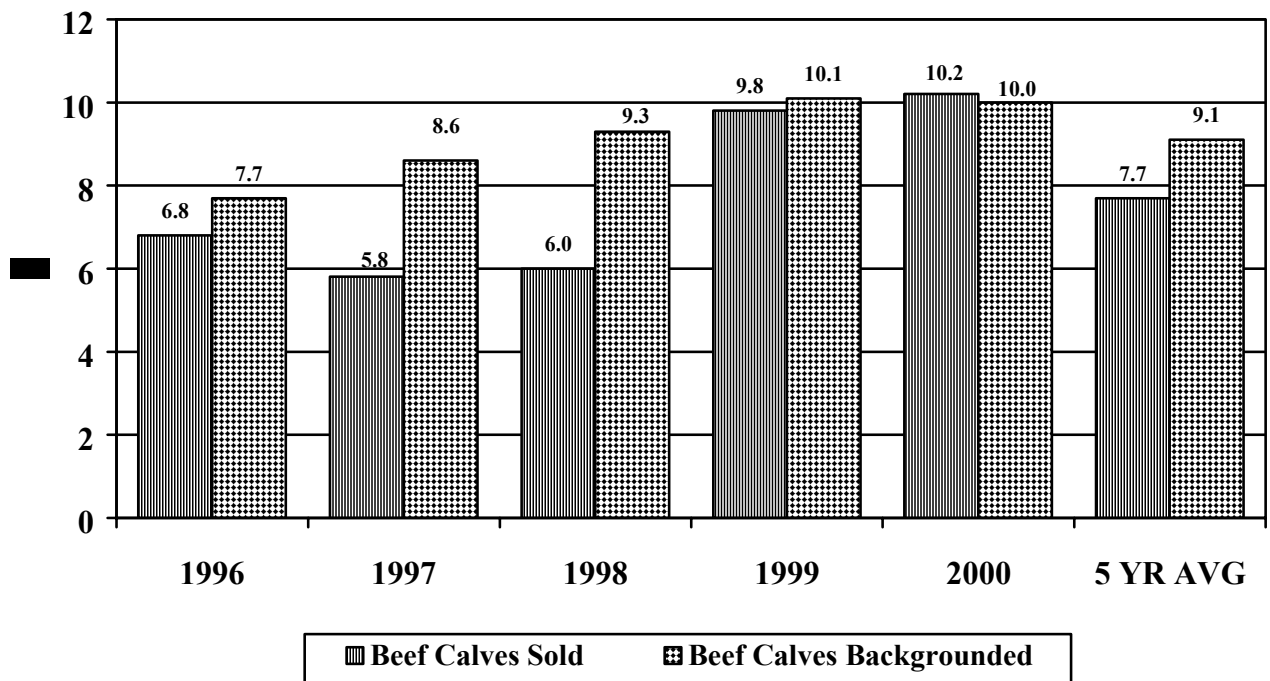


Figure 8. Labor Hours per Cow

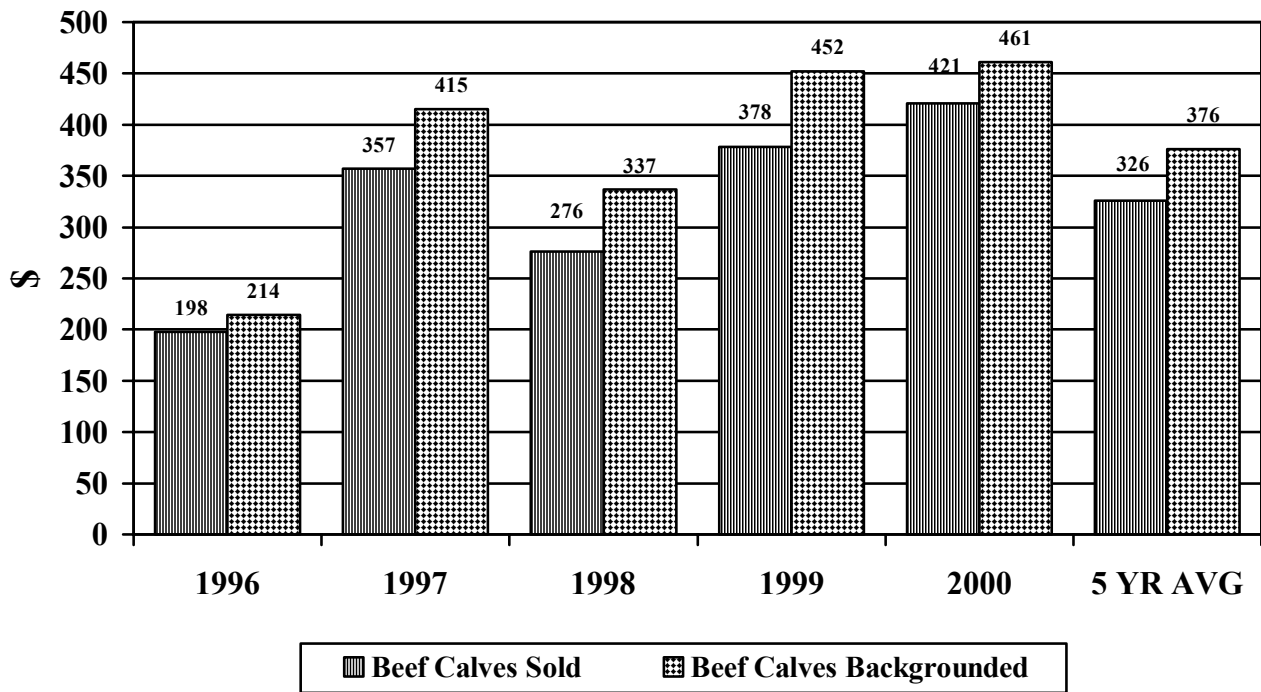


Figure 9. Total Beef Returns (\$/Cow)

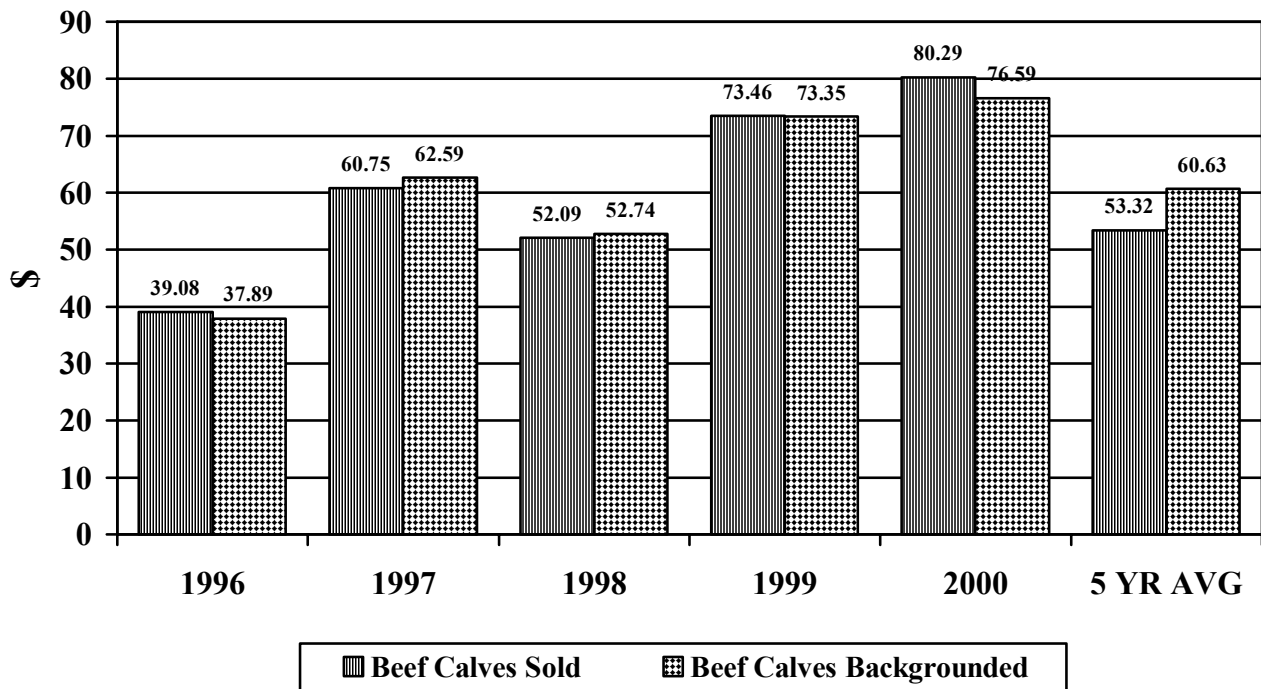


Figure 10. Total Beef Returns(\$/Cwt)

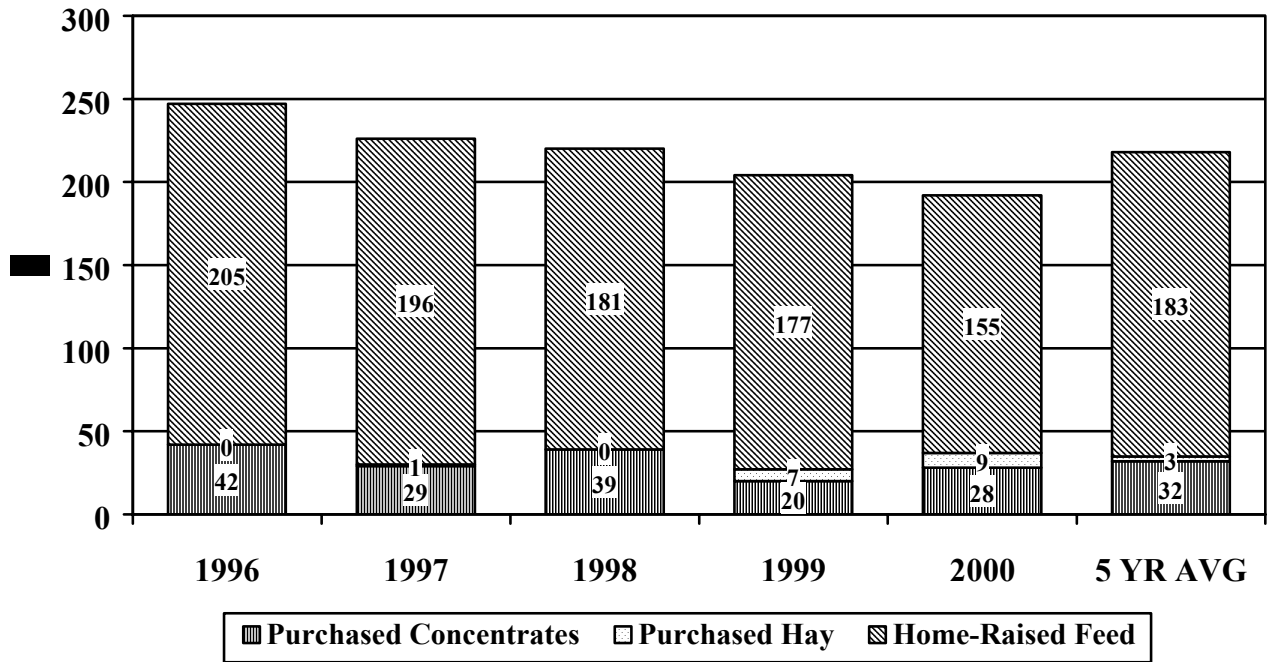


Figure 11. Total Feed Costs: Beef Calves Sold (\$/Cow)

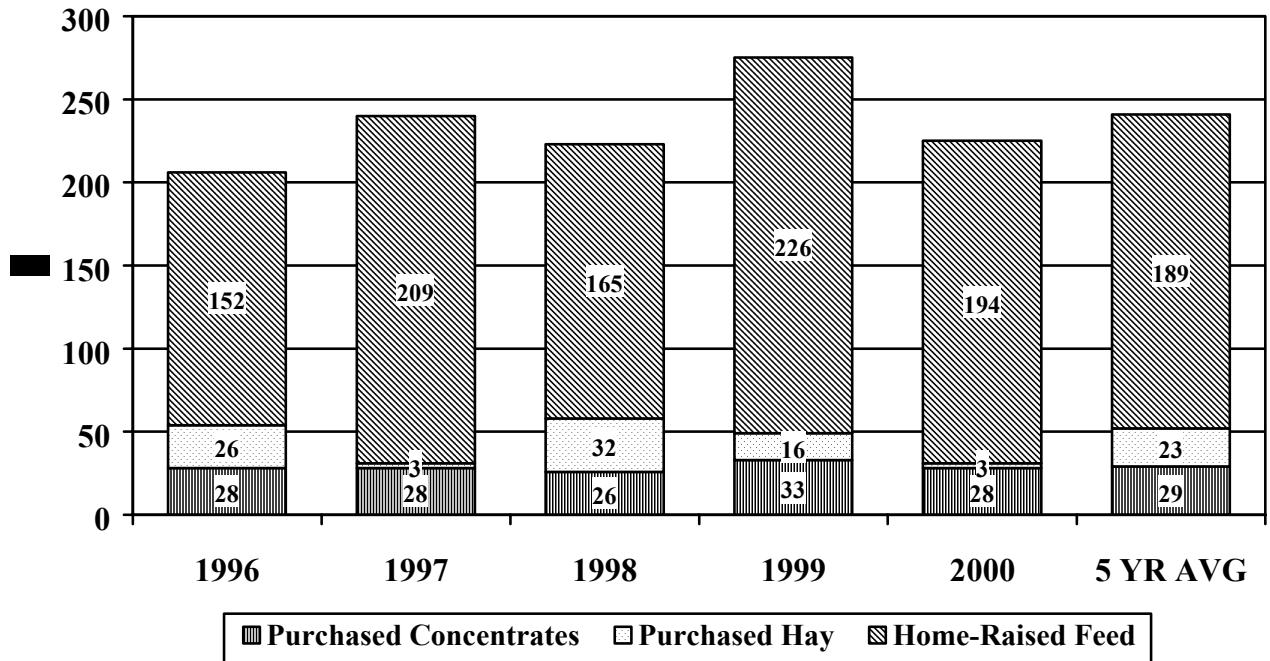


Figure 12. Total Feed Costs: Beef Calves Backgrounded (\$/Cow)

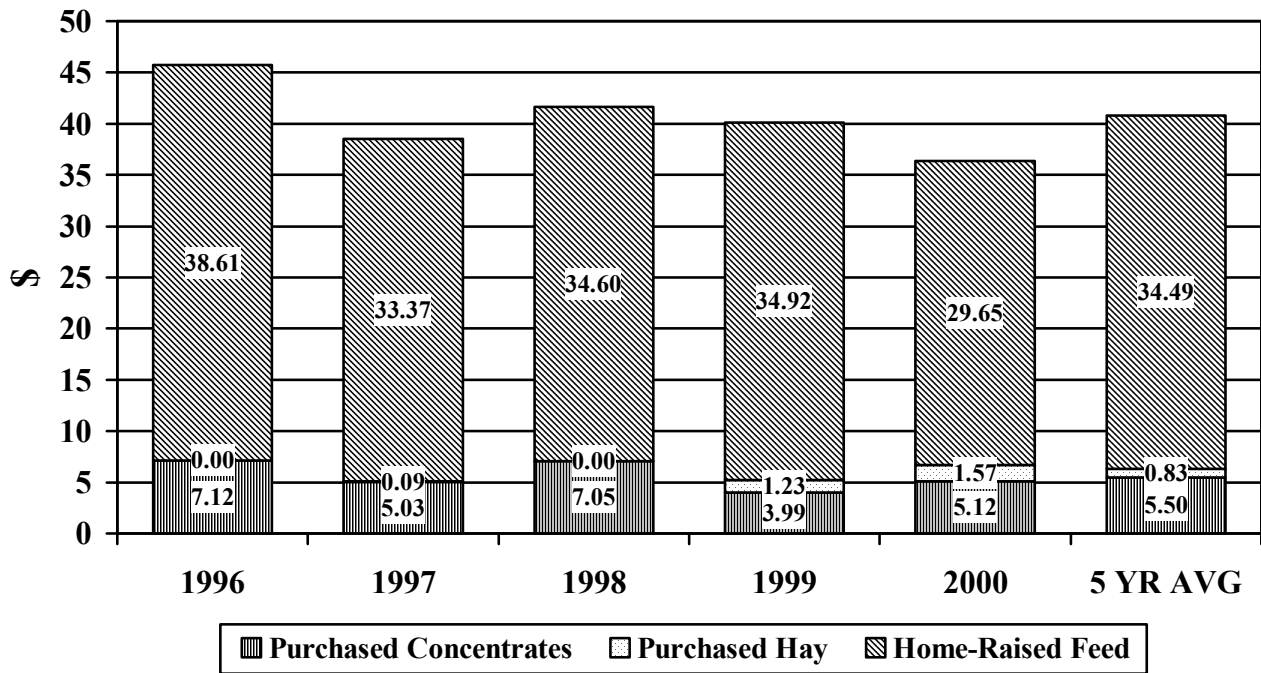


Figure 13. Total Feed Costs: Beef Calves Sold (\$/Cwt)

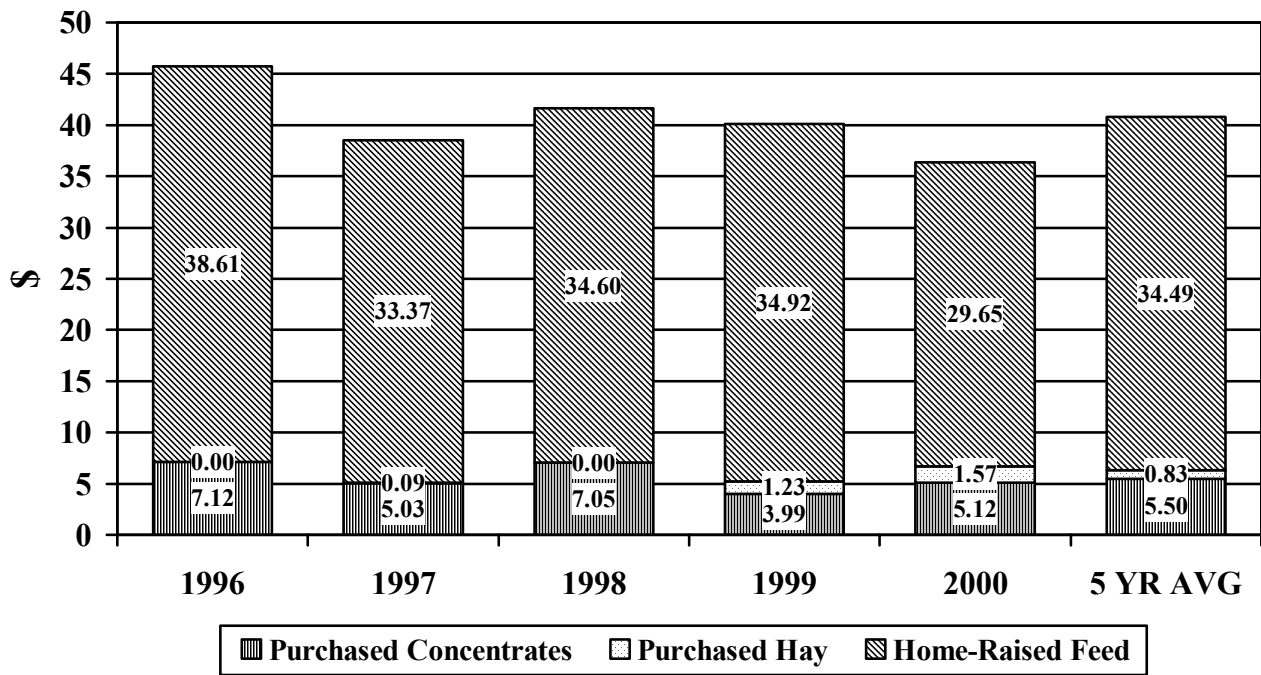


Figure 14. Total Feed Costs: Beef Calves Backgrounded (\$/Cwt)

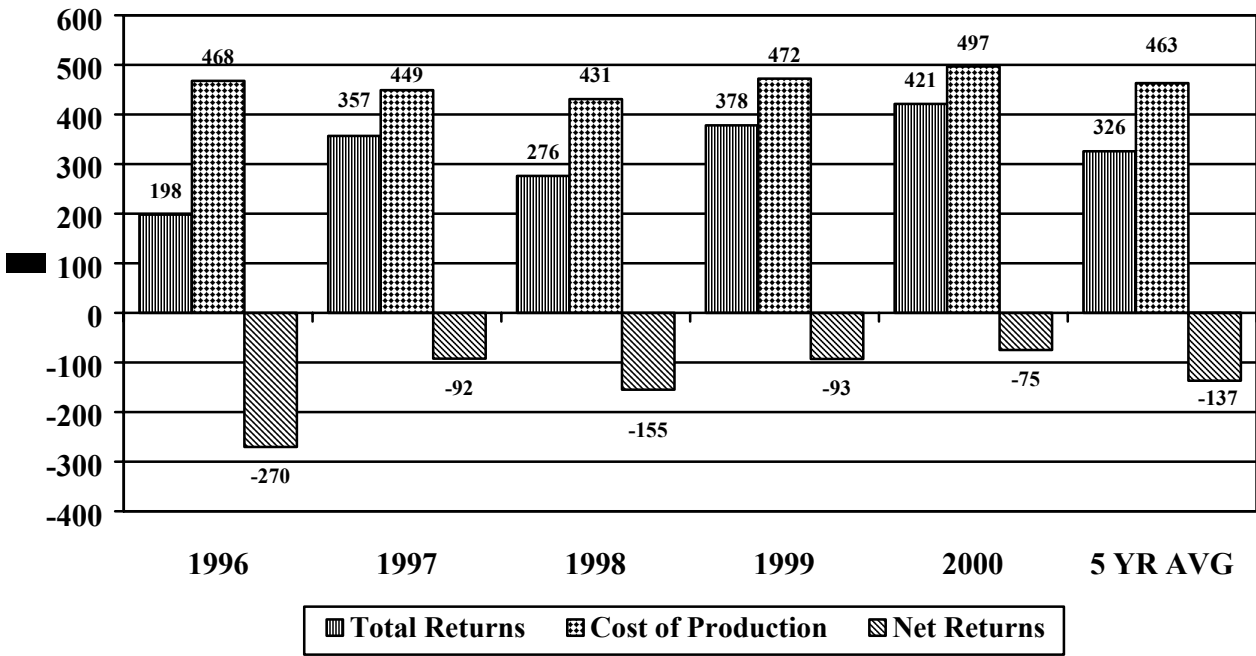


Figure 15. Cost and Return Summary: Beef Calves Sold (\$/Cow)

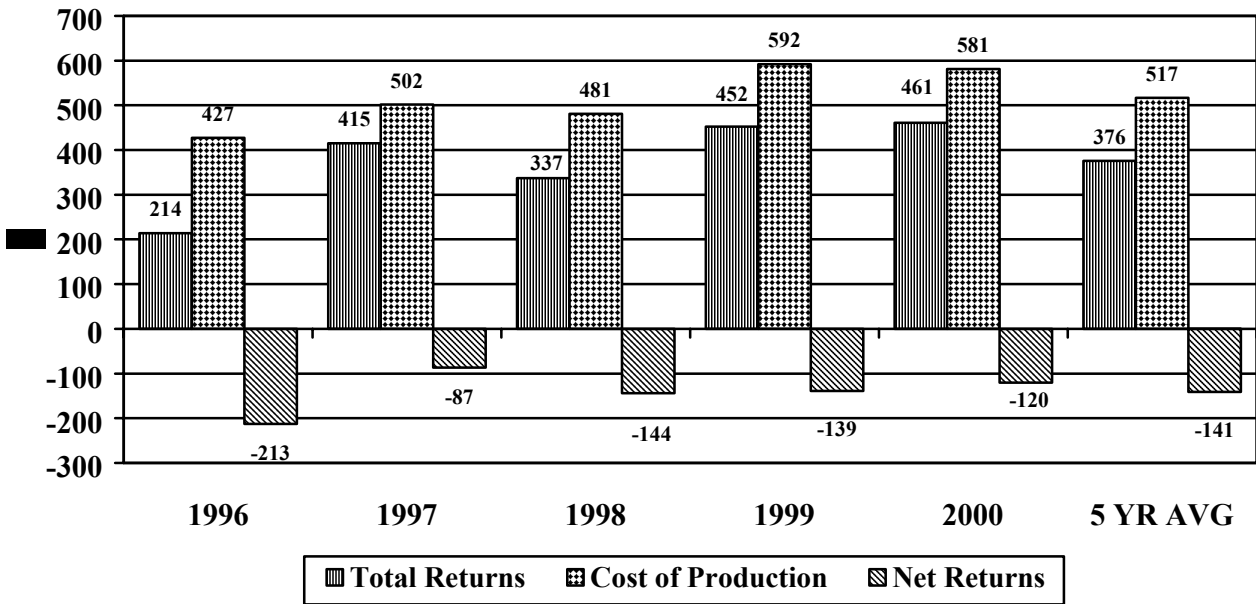


Figure 16. Cost and Return Summary: Beef Calves Backgrounded (\$/Cow)

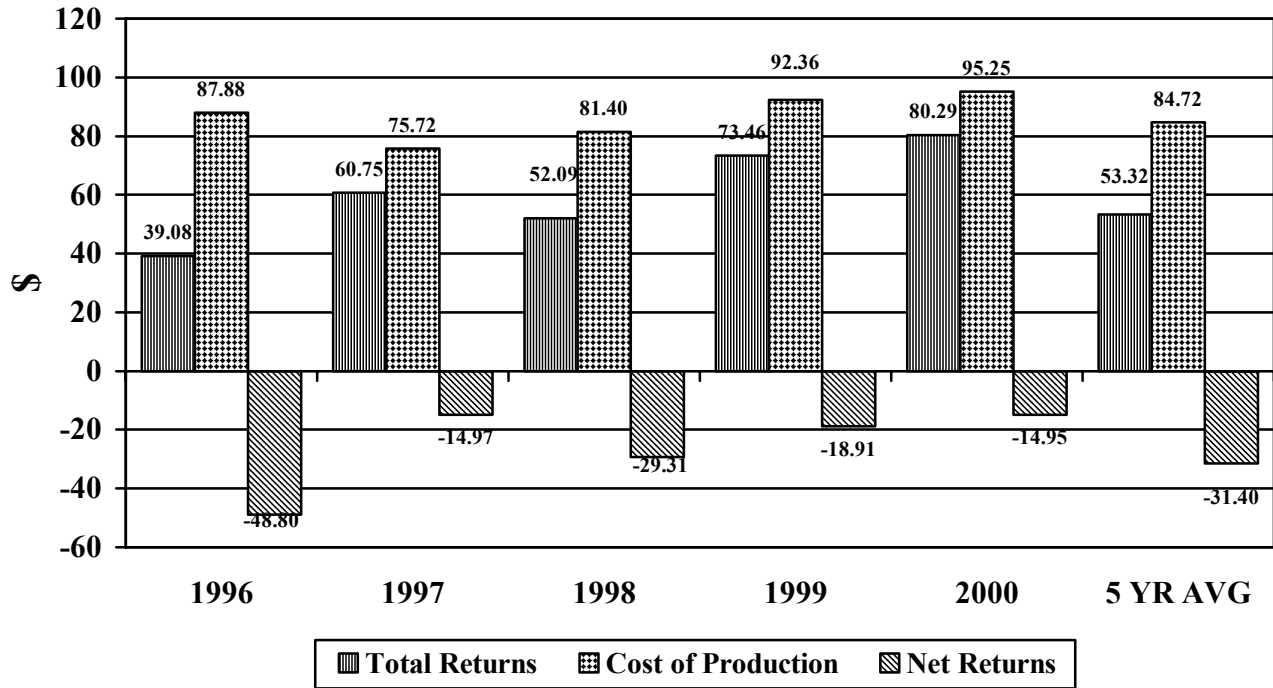


Figure 17. Cost and Return Summary: Beef Calves Sold (\$/Cwt)

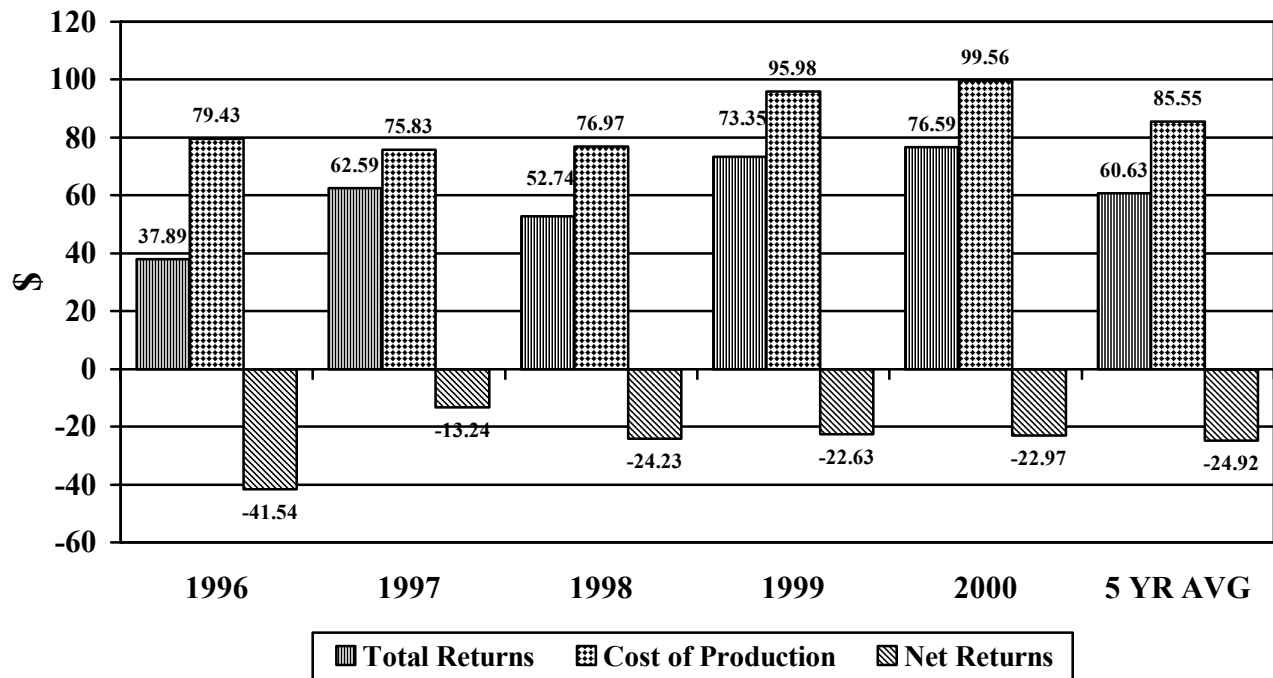


Figure 18. Cost and Return Summary: Beef Calves Backgrounded (\$/Cwt)

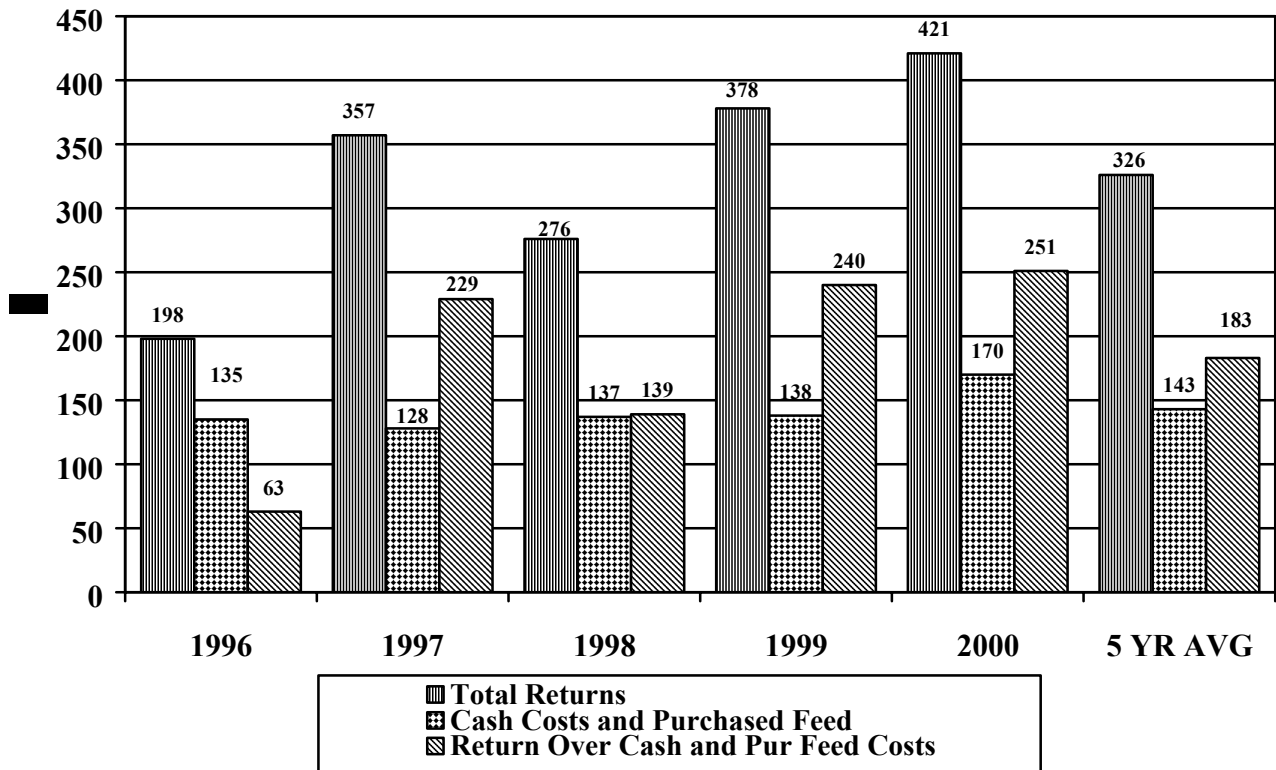


Figure 19. Return Over Cash Costs and Purchased Feed: Beef Calves Sold (\$/Cow)

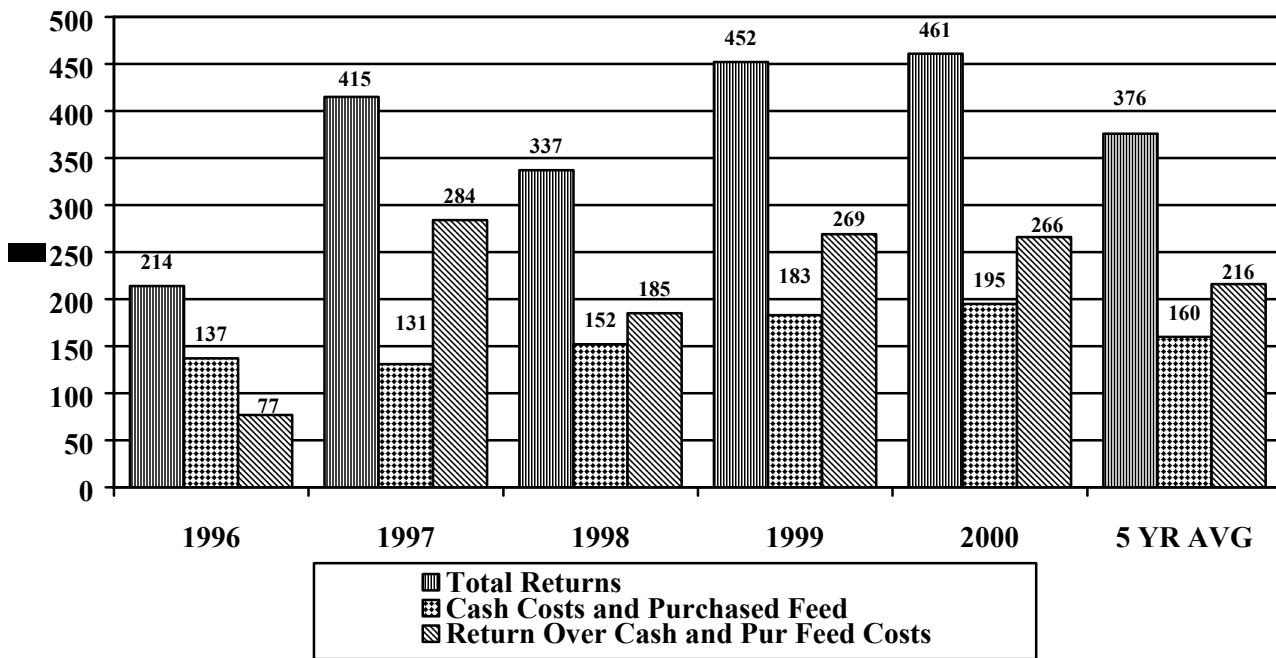


Figure 20. Return Over Cash Costs and Purchased Feed: Beef Calves Backgrounded (\$/Cow)

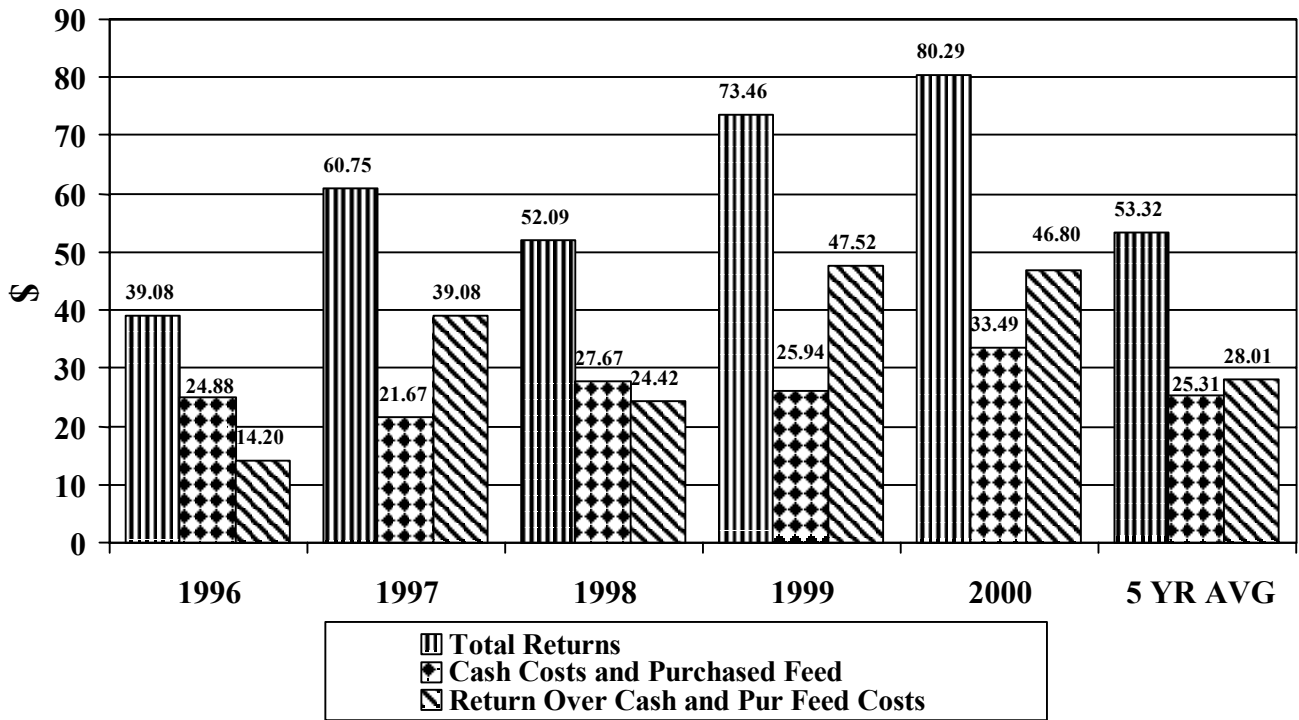


Figure 21. Return Over Cash Costs and Purchased Feed: Beef Calves Sold (\$/Cwt)

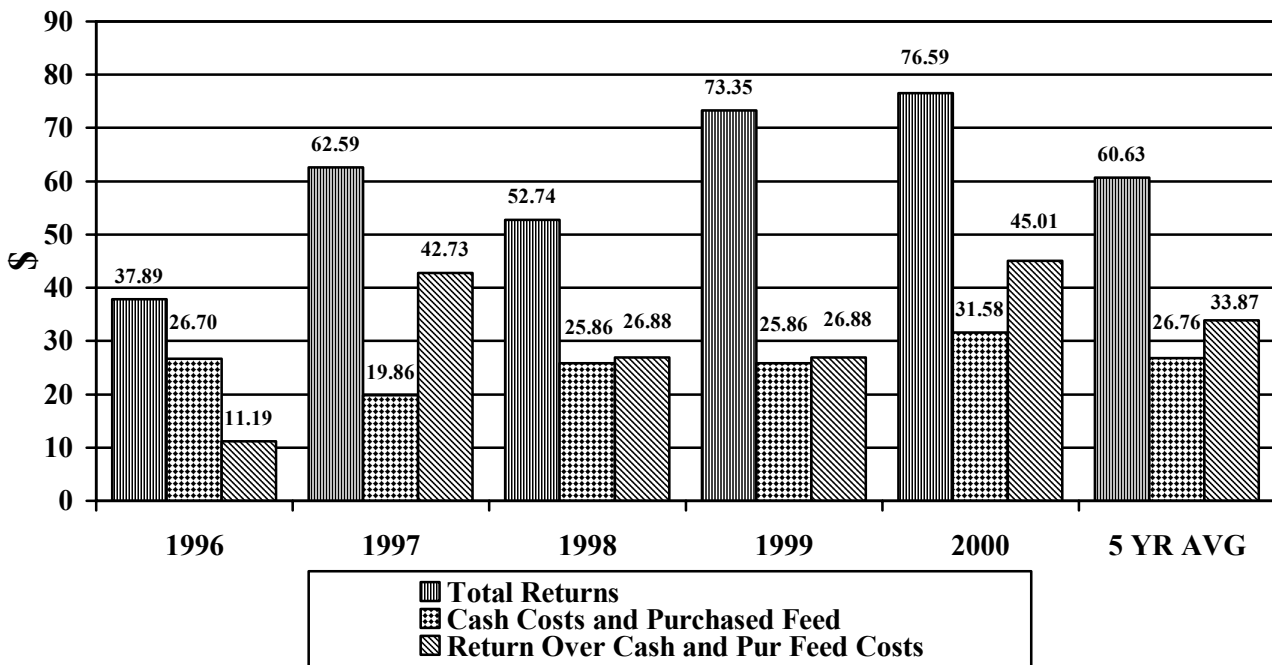


Figure 22. Return Over Cash Costs and Purchased Feed: Beef Calves Backgrounded (\$/Cwt)