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# ESTIMATED PRODUCTION AND EXPENSES FOR BEEF COW-CALF ENTERPRISES IN FIVE REGIONS OF THE U.S.



Reprinted from the Livestock and Meat Situation • August 1976



# ESTIMATED PRODUCTION AND EXPENSES FOR BEEF COW-CALF ENTERPRISES IN FIVE REGIONS OF THE U.S.

by  
James E. Nix, Agricultural Economist<sup>1</sup>  
Commodity Economics Division, ERS

**ABSTRACT:** Detailed cost of production estimates for "typical" beef cow-calf enterprises in five regions of the United States are presented for 1974 and 1975. The cost estimates are identified and grouped so that estimates of the selling price of feeder cattle needed to cover various categories of cost can be computed. Plans are to update them periodically.

**KEYWORDS:** Cow-calf enterprise, production costs, cattle raising, enterprise budgets.

## Introduction

Beef calves are produced on many different types and sizes of cow-calf operations representing numerous levels of management and production practices in all parts of the United States. These operations are too numerous to permit preparation of cost and returns budgets that would adequately represent all of them. Instead, production and expenses were estimated for one common or "typical" cow-calf enterprise in each of five regions of the United States. The estimates presented in this article are not meant to duplicate or exactly portray all cow-calf operations in the United States or all cow-calf operations in the regions selected. These estimates show the composition of the enterprises, the cost of all inputs, and how these factors differ among major cattle raising regions and through time. Through annual updates of these production and cost estimates, changes in cost, both for selected items and for total costs, can be monitored.

## Regions Selected and Enterprise Size

The regions selected, and the size of enterprise chosen for each region, are indicative of the diver-

sity of situations in which beef calves are produced in the United States. A brief description of each region and of the selected cow-calf enterprise is presented to provide a better understanding of the production and cost estimates given.

### Western Corn Belt

This region includes most of Iowa plus northwest and west central Illinois. It has highly productive prairie soils most of which are suitable for row crops. A 50-cow herd on a farm where most of the land is in corn and soybeans is typical. The feeding system consists of summer pasture, corn stalks in the fall, and mixed hay during winter. Supplemental protein is fed during the fall and winter. Calving occurs during the spring and calves are sold in late fall.

### Southeast (Southern Piedmont)

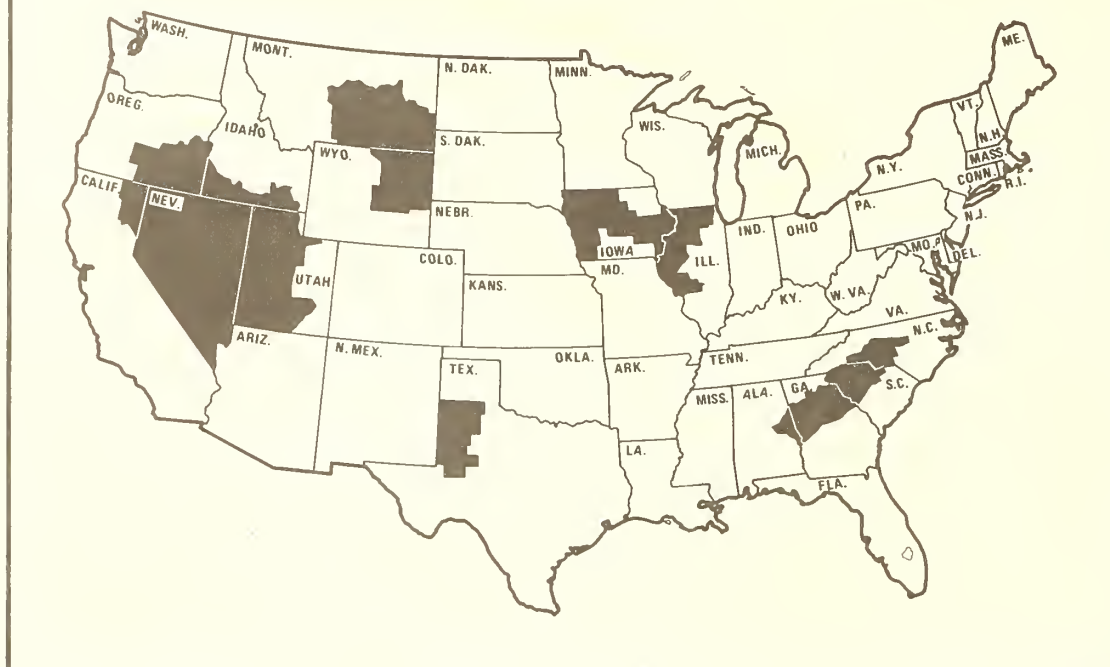
The Piedmont areas of Alabama, Georgia, South Carolina, and North Carolina are included in this region. A 50-cow herd found on farms that have corn, small grains, and soybeans is typical. A high

<sup>1</sup>Estimates for the cow-calf enterprises presented here were prepared by Roy Van Arsdall, CED, ERS, Urbana, Illinois; Henry Gilliam, CED, ERS, Raleigh, North Carolina; Kerry Gee, CED, ERS, Ft. Collins, Colorado; Cal Boykin, CED, ERS, College Station, Texas; and Jack Triewiler, CED, ERS, Corvallis, Oregon.

**NOTE:** Plans are to periodically revise and update the production and cost estimates presented in this article as new data becomes available. A survey of livestock producers was made earlier this year but the results are not yet available. Data from this survey and from other sources will be used to revise and update these estimates as new data become available.



## COW-CALF PRODUCTION REGIONS REPRESENTED BY BUDGETS



percentage of the land, however, is in woods and pasture. Grazing from perennial pastures of fescue and coastal bermudagrass is the primary source of feed. During periods of surplus pasture growth, some of the pasture forage is cut for hay which is fed during the winter. Crop residue is used during the fall and supplemental protein is fed during the winter. Calving occurs during the winter and calves are sold in early fall.

### Northern Plains

This region encompasses the southeastern quarter of Montana and part of eastern Wyoming. The soils of this region are relatively unfavorable for crop production. The typical beef-cow enterprise consisting of 150 cows is commonly found on ranches where a high percentage of the land is in native grasses and shrubs. Some ranches have small areas of irrigated meadow land. Grazing from land owned by the Federal Government is available to some ranches. Typically, cattle graze on public land during the summer and on privately owned land the rest of the year. Grass hay supplemented with protein is fed during the winter. Calving occurs during the spring and calves are sold in the fall.

### Southwest High Plains (Texas)

This is a region where most of the land is in cattle ranches. The typical enterprise has 300 cows grazing year-round on privately owned range. No crops are grown. Supplemental feeding of concentrates and hay occurs during winter and sometimes during extended droughts. Calving occurs during the winter and calves are sold during late fall.

### Intermountain Area

This region includes Nevada, western Utah, southern Idaho, southeastern Oregon, and a small area along the eastern California border. Much of the land is owned by the Federal Government. Low precipitation and forest vegetation consisting of desert shrubs at the lower elevations and native grasses, sage brush, and timber at the higher elevations make range livestock the primary agricultural enterprise. The typical beef herd contains 300 cows. They use private range and aftermath hayland for about 3 months and public ranges for about 5 months. Hay and supplemental protein are fed during winter. Calving occurs during the spring with calves being sold during late fall.

## Structure and Bases of Estimates

To permit direct comparisons among the cow-calf enterprises, which vary greatly in size from region to region, estimates are presented on the basis of a cow unit, consisting of 1.0 mature cows and bred heifers plus typically associated fractions of herd bulls and unbred heifers intended for herd replacements. The estimates of livestock investment, costs, and production apply to the one-cow unit. All estimates, however, reflect those for a herd of the size indicated for each region.

The estimates include both physical quantities and dollar values. They are presented in blocks ranging from variable inputs, most of which reflect cash outlays, through fixed or overhead charges, a charge for land, and an allowance for management. This allows change in production systems, facilitates price updates, and permits users of the data to delete any item not relevant to a given decisionmaking situation. For example, the estimates could be adjusted for a feeding program in which leased grazing is used instead of grazing from land owned by the producer by substituting the applicable lease fee for the combined costs of pasture, public grazing, crop residue, real estate taxes, and other land costs.

Cost and production estimates are presented for 1974 and for 1975. Costs were estimated in detail for 1974 using the latest data available. Inputs and prices used reflect regional differences that existed for cow-calf producers in each region. Appropriate indexes were used to update these estimates to 1975. Some of the indexes used were selected from the prices paid indexes published in *Agricultural Prices*, while others were computed from other published sources.

Returns are not computed since it is the intention to allow use of these data to estimate what prices for feeder cattle would have to be to cover part or all of the costs associated with the enterprise. Also, no allowances were made for any increases in net worth resulting from appreciation in the value of land used by the enterprise. The estimated value of cull cows that are sold was deducted from the cost estimates to determine what the selling price of calves alone would have to be to cover costs.

### Livestock Investment

Investments in livestock are estimated as of January 1 of each year. They reflect regional differences in beef breeding stock values and differences in the composition of breeding herds. The per cow-unit number of replacement heifers under one year of age ranges from .15 in the Southwest High Plains to .23 in the Intermountain area reflecting different culling rates in each region. Inter-

mountain area ranches also have .23 replacement heifers over one year of age for each cow unit because heifers are usually not bred until they are about 2 years old compared to a 15-month breeding age in other regions. Replacement heifers are commonly selected from the herd calf-crop in all regions. The number of bulls per cow unit ranges from .04 in three of the regions to .06 in the Intermountain area.

### Variable Expenses

Two categories of variable expenses are considered separately—feed costs and nonfeed costs.

#### Feed Costs

Estimates were made of the nutritional requirements of animals in each herd during various phases of the production cycle. Requirements differ by regions because of differences in weights of animals, number of replacements, environment, and management systems. Estimates were also made of the quantity of nutrients that would be derived from the different types of feed typically used in each region.

Feeds are charged at market price if they are commonly purchased items such as protein supplement, salt, minerals, and leased grazing on public land. Cost of production, including such inputs as seed, fertilizer, machinery, and labor—but excluding charges for land, fencing, and water supply which are included in separate categories of cost—is used for pricing feeds not commonly bought and sold. This includes all pasture and hay produced on privately-owned land except in the Southwest High Plains where hay is commonly purchased.

Feed costs per cow unit are affected by regional differences in both amount and unit price of purchased items. For example, supplemental protein ranges from 40 pounds per cow unit in the Intermountain area where legumes comprise a considerable part of the pasture and hay, to 224 pounds in the Southwest High Plains where winter range is supplemented with cottonseed cake. Grazing on public land cost \$1.00 per animal month in 1974 and \$1.10 per animal month in 1975 in regions where it was used. The cost of salt and minerals reflect differences in both price and mixtures fed.

Even greater differences in feed costs among regions result from differences in cost of producing forages for cattle. The heavy rate of pasture fertilization used by farmers in the Southeast, coupled with price increases for fertilizer, has contributed to the high cost of pasture production in that region. Pastures in the Corn Belt, where native soil fertility is greater, typically receive lower rates of fertilization and more extensive use is made of crop



residue at no cost (other than fencing and supplying livestock water), hence pasture costs are considerably lower in the Corn Belt. Pastures (or ranges) in other regions receive little or no treatment, hence their cost of production is much lower. Virtually all of their expense appears as a land charge.

### Nonfeed Costs

Some variation between regions occurs in the veterinary and medicine expenses. Farmers with small herds are often not capable of treating many of the ailments of cattle and the services of a professional veterinarian are needed. On the larger more specialized operations the operator or one of the employees usually performs many of these services. The size of the operation also affects the unit cost of services and supplies.

Hauling and marketing practices differ substantially by region. In some regions, for example the Southwest High Plains, most of the cattle are sold at the ranch and no hauling or selling costs are incurred. In other regions, the animals must be hauled to market and in many instances a selling commission paid. The distance these animals have to be hauled also contributes to variation in cost.

Variable expenses associated with machinery, equipment, and other facilities include repairs, fuel, oil, and grease for work directly with cattle. They do not include tractor and machinery costs associated with and included in the cost of producing the pastures and hay. The cost differences among regions reflect differences in mechanization, housing, and production practices.

Labor required per cow unit varies from 5.25 hours in the Intermountain area to 10.21 hours in the Southwest High Plains. Size of herd and type of operations performed are among factors determining the labor input. A charge for labor is entered even though it might more appropriately be called an "allowance" for labor, particularly in the Corn Belt and Southeast. In these two regions beef cows are usually a supplementary enterprise which utilizes labor that might not otherwise be used.

A charge for interest on operating capital was also made. This varies directly with the amount of variable costs incurred by the enterprise.

General farm overhead expenses were charged at the rate of 5 percent of all other variable expenses. This charge covers such items as book-keeping supplies, telephone services, and membership fees.

### Ownership Expenses

Ownership expenses (depreciation, interest, and taxes) vary by region and reflect the type of oper-

ation being represented. Almost all of the livestock ownership expenses are interest on investment in the breeding herd. A depreciation charge for bulls make up the remainder of this cost. This item of cost varies from year to year with changes in the value of the breeding herd and interest rate.

Ownership expenses for machinery, e.g., tractors and manure spreaders, and for other equipment and fencing, e.g., feed troughs and pasture fencing, tend to be higher in the more humid eastern regions than in the drier western regions where the operations are much larger.

Two factors are major contributors to these higher costs in the eastern regions. First, the operations in the East are smaller and their per unit ownership expenses are higher. Second, the eastern farms tend to have more barns, fencing, feed troughs, and other buildings than the western operations.

The basis for computing ownership expenses for machinery, equipment, and fencing is explained here because of its influence on costs. All investments reflect replacement cost at either 1974 or 1975 prices. This gives annual ownership expenses that would be faced by a new entrant into the cow-calf business following existing typical practices. Those who are already in the business, particularly those who have been in the business for several years, could have annual machinery and other equipment ownership costs less than those presented here. On the other hand, those with assets purchased at an earlier date and at lower cost must at some time consider the newer and higher replacement costs that generally prevail and figure annual ownership expenses on this basis for any replacements. In this sense, depreciation charges are really a replacement charge.

The ownership expenses for equipment and fencing reflect assets now in use. They have essentially zero cost for decisionmaking purposes as they represent sunk capital for which there is little or no use other than cattle raising. It is unlikely that such facilities would be reproduced at current prices by someone entering the beef cattle business. The composition of items making up the ownership expenses will change through time as dictated by costs and returns. Such considerations must be examined when trying to determine why beef cattle producers continue to produce calves when it appears that they are not covering expenses.

Real estate taxes are an ownership expense charged on land that is used to support the cow herd. Taxes reflect the value of land in each region and the tax rate that is charged. Note, however, that real estate taxes are not charged for public grazing land or for land from which crop residue is grazed.

In these cost estimates a charge is made for interest on investment in the land from which hay or pasture (excluding crop residue) was charged to cattle at cost of production. The basis for this charge is the current value of land in each region. This is only an opportunity cost to the present owner, but it is a real cost to the prospective producer. The acres of land required per cow unit and the per-acre value of land varies by region. The estimated investment in land per cow unit at current values is \$1,140, \$1,215, \$1,356, \$3,363, and \$575 for 1974 and \$1,410, \$1,372, \$1,573, \$3,383, and \$575 for 1975 in the Corn Belt, Southeast, Northern Plains, Southwest High Plains, and Intermountain area, respectively. The wide variation in privately-owned land required per cow unit and the use of public land in some regions contributes to this wide variation in land investment per cow unit.

A charge or allowance is made for management. It is computed at the rate of 2 percent of all other costs. Therefore, management charge differences among regions are in direct proportion to other cost differences.

### Production

The number and weight of different classes of cattle sold from each typical enterprise are presented on a cow unit basis. This production is largely determined by calving percentages, death loss, replacement rate, breed, age at which calves are sold, environmental conditions, nutrition, and management practices.

### Selling Prices Required to Cover Expenses

Returns were not estimated for these cow-calf enterprises. Instead, the average selling price for feeder calves that would be required to cover various levels of expenses was computed. Cull cows sold were valued at prices prevailing at the time of sale. This value was subtracted from cost to obtain the feeder calf selling prices required to cover cost.

The selling price required to cover various levels of cost varied greatly among regions in both 1974 and 1975, especially the price needed to cover variable costs. Many factors contribute to these differences, several of which have already been discussed. Most significant is that the selling price of feeder calves required to cover variable expenses in some regions is above prices received for calves in either 1974 or 1975. The Kansas City average price per hundredweight of 400- to 500-pound Choice and Good steers was \$38.40 in 1974. Heifers of the same weight and grade brought \$33.58. The average

price in 1975 was \$29.90 for steers and \$23.48 for heifers.

Why do producers continue to produce beef calves when they are not covering expenses? In the short run, producers must cover only their variable costs to be able to stay in production. Their other inputs represent sunk capital and are outside producers' control regardless of how high they may be. Thus, these cost estimates indicate relatively great rigidity in production in the Northern Plains and Southwest High Plains where variable costs are in the \$13 to \$19 range per 100 pounds of feeder calf. Adjustments can be expected quickly in the Southeast with variable costs at the \$56 level.

As time passes and facilities wear out and require replacements, the planning horizon lengthens bringing more and more of the costs into the variable category, that is, under producer control. Eventually, all costs are variable. In this long run situation the position of the regions switches dramatically. While the Southwest High Plains rancher now in business has the lowest variable cost viewed on a year-to-year basis, he would have the highest cost were a new entrant considering buying a cattle raising business in that region—a situation where all costs are variable. This distribution, as well as the level of costs among regions, reveals much about the probable production response to changes in cattle prices.

Feeder calf producers have been caught in a price-cost squeeze and several have reduced or liquidated their beef cow herds. There are explanations of why the large majority of producers remain in business in the short run, even when they are not covering the level of variable expenses shown. One explanation is that some of the costs listed as variable expenses do not represent actual cash outlays.

For example, the labor charge, particularly for the Corn Belt and Southeast, could probably more appropriately be called an allowance for labor. This is because the cow herd is usually a supplementary enterprise on a crop-livestock farm. Crops support the farm and the beef enterprise uses only labor that might otherwise go unused. Subtracting labor cost would reduce the cost per hundredweight by more than \$7 in the Corn Belt and by more than \$4 in the Southeast.

This same kind of analogy may be true for the other regions, but it is likely that the beef cow-calf enterprise in these regions is more of a full-time job and that there are not other enterprises to support the ranch.

There are other costs that may not require annual cash outlays of the amount shown. When fertilizer costs rise sharply, producers may simply reduce rates of fertilization for a short time. Charges for interest on operating capital may be



noncash and general farm overhead costs may be relatively unaffected by cattle.

Ownership charges are based on the use of equipment and facilities currently being used and priced at 1974 and 1975 replacement prices. Therefore, ownership expenses for machinery, equipment, and facilities for many producers could be less than those shown. In any case, the level of production does not affect these costs in an ongoing operation.

Inclusion of a land and management charge raises the cost per hundredweight to very high levels. The land charge is quite relevant to persons purchasing land for cattle raising and it will affect supply response in the longer term. Many present beef cow-calf producers have their land paid for and/or use part of the land on their farm for other uses. To these producers, the land charge is an accounting charge and does not represent an "actual" cost to the producer.

Current land values and interest rates were used to impute a charge for land. Therefore, these land values represent appreciated land values to a large number of the cow-calf producers. For these producers the increase in net worth over the years may in fact be substantial and change their cost structure. If their costs were computed on their original investment in land, their total cost could be considerably lower than those presented.

The management charge is also an accounting charge and does not represent a cash outlay by the producer.

### Summary and Conclusions

The cost of producing beef calves varies significantly by region. More importantly, the com-

position of costs differ greatly among regions, bringing producers under different pressure as costs and prices change. The variable cost estimates reflect the adjustment situation on a year-to-year basis for producers already in business. The total cost estimates show the situation facing a new entrant into the business who is having to buy land, equipment, and facilities. Inputs have been identified and quantified so that adjustments can be made as management systems change and costs can be indexed to current levels as cost rates change. This will be done periodically to keep a current picture of the cost of cattle raising.

Regional differences of the magnitude presented here may continue for an extended period if beef production represents the best, or only, economic use of resources in regions with relatively high production costs. It may be, for example, that regions where costs are lowest are already producing at near their capacity. If this is true, then there could not be a shift of production toward the lower cost regions. Lowest cost production is not sufficient to achieve increased production. If all costs can be covered, even relatively high-cost regions will continue production of feeder calves if that is the most profitable use of resources available; e.g., range land with few alternative economic uses.

There must, however, be some adjustments made rather soon in regions where variable costs exceed the selling price. Regions where variable costs are a higher percentage of total costs can be expected to respond by decreasing production much quicker than other regions.

The long range picture is not bright for one interested in devoting all new resources wholly to beef production. There will either have to be much higher prices for feeder calves or ways will have to be found to substantially cut production costs.

Table 1—Estimated livestock investment, expenses, and production per cow for a beef cow-calf enterprise in 5 regions of the U.S., 1974

Item	Unit	50 cow herd Corn Belt		50 cow herd Southeast		150 cow herd Northern Plains		300 cow herd Southwest High Plains		300 cow herd Intermountain Area	
		Number of units	Value per unit	Number of units	Value per unit	Number of units	Value per unit	Number of units	Value per unit	Number of units	Value per unit
Livestock Investment											
Brood cows and heifers .....	HEAD	1.00	390	1.00	440	1.00	375	1.00	410	1.00	355
Replacement heifers, 1-2 yrs. ....	HEAD	---	---	---	---	---	---	---	---	.23	275
Replacement heifers, under 1 yr. ....	HEAD	.20	225	.16	225	.16	225	.15	260	.23	190
Bulls .....	HEAD	.04	510	.04	585	.04	480	.05	565	.06	465
Total livestock in- vestment per breeding unit ....	---	---	455	---	499	---	430	---	447	---	490
Variable Expenses		Units per cow	Dollars per cow	Units per cow	Dollars per cow	Units per cow	Dollars per cow	Units per cow	Dollars per cow	Units per cow	Dollars per cow
Pasture .....	CWT. TDN	24.80	28.89	38.27	96.52	14.70	0.00	43.14	0.00	6.63	6.93
Public grazing .....	AM	---	---	---	---	4.72	4.72	---	---	6.72	6.72
Crop residue .....	CWT. TDN	7.29	0.00	3.17	0.00	1.50	0.00	---	---	4.37	0.00
Hay .....	TON	1.66	56.72	.83	35.61	1.20	22.78	.05	4.31	1.62	45.03
Protein supplement ..	CWT.	.50	4.80	.50	5.50	.75	5.77	2.24	20.45	.40	4.40
Salt and minerals ....	CWT.	.20	1.18	.26	1.52	.36	.90	.65	1.80	.36	2.05
Veterinary and medicine .....	---	---	2.20	---	2.00	---	1.70	---	1.95	---	1.67
Hauling livestock and marketing fees .....	---	---	6.88	---	5.40	---	5.30	---	.51	---	3.59
Machinery, equip- ment & facilities ...	---	---	12.15	---	9.70	---	2.44	---	6.57	---	8.45
Labor .....	HR.	10.00	24.10	7.21	13.34	9.16	21.52	10.21	19.91	5.25	13.17
Miscellaneous expenses .....	---	---	---	---	---	---	2.60	---	---	---	---
Interest on oper- ating capital .....	DOL.	72.95	6.64	75.12	6.99	35.12	3.30	33.73	3.17	34.57	3.25
General farm overhead .....	---	---	6.85	---	8.48	---	3.39	---	2.78	---	4.60
Total variable expenses .....	---	---	150.41	---	185.06	---	74.42	---	61.45	---	99.86
Ownership Expenses											
Livestock .....	---	---	43.06	---	53.35	---	42.22	---	49.36	---	52.95
Machinery .....	---	---	6.37	---	4.32	---	2.19	---	3.15	---	5.43
Other equipment and fencing .....	---	---	31.77	---	37.16	---	24.42	---	29.08	---	19.57
Real estate taxes .....	---	---	11.40	---	6.29	---	11.85	---	18.46	---	3.67
Total ownership expenses .....	---	---	92.60	---	101.12	---	80.68	---	100.05	---	81.62
Land <sup>a</sup> .....	ACRE	3.00	92.68	2.70	98.78	19.11	110.22	29.76	273.40	4.40	46.75
Management .....	---	---	6.71	---	7.70	---	5.31	---	8.70	---	4.56
Total all expenses ..	---	---	342.40	---	392.66	---	270.63	---	443.60	---	232.79
Production		Units per cow	Average weight	Units per cow	Average weight	Units per cow	Average weight	Units per cow	Average weight	Units per cow	Average weight
		Head	Pounds	Head	Pounds	Head	Pounds	Head	Pounds	Head	Pounds
Steer calves .....		.42	500	.40	470	.41	420	.43	475	.35	380
Heifer calves .....		.22	450	.26	450	.27	390	.28	460	.12	350
Cull replacement heifers .....		.04	850	.02	850	.01	680	.01	650	.08	670
Cull cows .....		.14	1,000	.12	1,000	.13	950	.12	900	.11	900
Average selling price for cwt. to cover: <sup>b,c</sup>											
Variable expenses ....			33.91		44.34		16.87		12.63		33.25
All expenses except land management ..			60.91		75.74		45.24		42.06		68.95
All expenses (including an imputed charge for land and man- agement) .....			89.88		108.81		85.88		125.03		91.40

<sup>a</sup>Does not include public grazing land nor land from which crop residue is grazed. <sup>b</sup>With credit for cull cows of: \$34.10 in the Corn Belt; \$42.30 in the Southeast; \$26.47 in the Northern Plains; \$18.50 in the Southwest High Plains and \$23.85 in the

Intermountain area. <sup>c</sup>The Kansas City average price per hundred-weight of 400 to 500 pound Choice and Good steers was \$38.40 in 1974. Heifers of the same weight and grade brought \$33.58.

Table 2—Estimated livestock investment, expenses, and production per cow for a beef cow-calf enterprise in 5 regions of the U.S., 1975

Item	Unit	50 cow herd Corn Belt		50 cow herd Southeast		150 cow herd Northern Plains		300 cow herd Southwest High Plains		300 cow herd Intermountain Area	
		Number of units	Value per unit	Number of units	Value per unit	Number of units	Value per unit	Number of units	Value per unit	Number of units	Value per unit
Livestock Investment											
Brood cows and heifers . . . . .	HEAD	1.00	185	1.00	210	1.00	195	1.00	180	1.00	210
Replacement heifers, 1-2 yrs. . . . .	HEAD	---	---	---	---	---	---	---	---	.23	165
Replacement heifers, under 1 yr. . . . .	HEAD	.20	100	.16	100	.16	100	.15	110	.23	75
Bulls . . . . .	HEAD	.04	240	.04	280	.04	250	.05	250	.06	315
Total livestock in- vestment per breeding unit . . . .		---	215	---	237	---	221	---	209	---	284
Variable Expenses		Units per cow	Dollars per cow	Units per cow	Dollars per cow	Units per cow	Dollars per cow	Units per cow	Dollars per cow	Units per cow	Dollars per cow
Pasture . . . . .	CWT, TDN	24.80	31.53	38.27	105.11	14.70	0.00	43.14	0.00	6.63	7.56
Public grazing . . . . .	AM	---	---	---	---	4.72	5.19	---	---	6.72	7.39
Crop residue . . . . .	CWT, TDN	7.29	0.00	3.17	0.00	1.50	0.00	---	---	4.37	0.00
Hay . . . . .	TON	1.66	61.25	.83	38.46	1.20	24.60	.05	4.65	1.62	48.63
Protein supplement . . . .	CWT.	.50	4.70	.50	5.39	.75	5.66	2.24	20.05	.40	4.31
Salt and minerals . . . .	CWT.	.20	1.34	.26	1.72	.36	1.02	.65	2.04	.36	2.32
Veterinary and medicine . . . . .		---	2.40	---	2.18	---	1.80	---	2.13	---	1.82
Hauling livestock and marketing fees . . . . .		---	7.38	---	5.85	---	5.70	---	.55	---	3.84
Machinery, equipment and facilities . . . . .		---	13.93	---	10.79	---	2.82	---	7.56	---	10.05
Labor . . . . .	HR.	10.00	26.50	7.21	14.71	9.16	23.72	10.21	21.96	5.25	14.48
Miscellaneous ex- pense . . . . .		---	---	---	---	---	2.85	---	---	---	---
Interest on operating capital . . . . .	DOL.	79.27	7.21	81.40	7.41	37.83	3.44	35.29	3.21	37.79	3.44
General farm overhead		---	7.45	---	9.21	---	3.67	---	2.95	---	5.02
Total variable expenses . . . . .	---	---	163.69	---	200.83	---	80.47	---	65.10	---	108.86
Ownership Expenses											
Livestock . . . . .	---	---	20.48	---	25.07	---	20.98	---	19.41	---	29.80
Machinery . . . . .	---	---	7.44	---	4.29	---	2.55	---	3.73	---	6.35
Other equipment and fencing . . . . .	---	---	36.19	---	42.00	---	27.42	---	32.64	---	21.98
Real estate taxes . . . . .	---	---	11.15	---	7.00	---	12.42	---	19.64	---	3.67
Total ownership expenses . . . . .	---	---	75.26	---	78.36	---	63.37	---	75.42	---	61.80
Land <sup>a</sup> . . . . .	ACRE	3.00	122.67	2.70	119.33	19.11	136.81	29.76	295.16	4.40	50.02
Management . . . . .	---	---	7.23	---	7.97	---	5.61	---	8.71	---	4.41
Total all expenses . .	---	---	368.85	---	406.49	---	286.26	---	444.39	---	225.09
Production		Units per cow	Average per cow	Units per cow	Average per cow	Units per cow	Average per cow	Units per cow	Average per cow	Units per cow	Average per cow
		Head	Pounds	Head	Pounds	Head	Pounds	Head	Pounds	Head	Pounds
Steer calves . . . . .		.42	500	.40	470	.41	420	.43	475	.35	380
Heifer calves . . . . .		.22	450	.26	450	.27	390	.28	460	.12	350
Cull replacement heifers . . . . .		.04	850	.02	850	.01	680	.01	650	.08	670
Cull cows . . . . .		.14	1,000	.12	1,000	.13	950	.12	900	.11	900
Average selling price per cwt. to cover <sup>bc</sup>											
Variable expenses . . . .			39.03		55.94		18.99		12.74		37.66
All expenses except land and man- agement . . . . .			60.97		80.28		41.28		34.93		64.70
All expenses (including an imputed charge for land and management . . . . .			98.85		119.81		91.37		124.30		88.51

<sup>a</sup>Does not include public grazing land nor land from which crop residue is grazed. <sup>b</sup>With credit for cull cows of: \$29.81 in the Corn Belt; \$20.70 in the Southeast; \$26.49 in the Northern Plains; \$21.77 in the Southwest High Plains and \$22.76 in the

Intermountain area. <sup>c</sup>The Kansas City average price per hundred-weight of 400 to 500 pound Choice and Good steers was \$29.90 in 1975. Heifers of the same weight and grade brought \$23.48.





UNITED STATES DEPARTMENT OF AGRICULTURE  
WASHINGTON, D. C. 20250

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PENALTY FOR PRIVATE USE, \$300

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