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# **COSTS OF PRODUCING FEEDER CATTLE IN THE UNITED STATES, 1976, PRELIMINARY ESTIMATES**



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## COSTS OF PRODUCING FEEDER CATTLE IN THE UNITED STATES, 1976—PRELIMINARY ESTIMATES

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**ABSTRACT:** Preliminary estimates of costs of producing feeder cattle in 1976 are presented for five regions and the United States. These cost estimates, listed by cost item, are separated into cash and noncash components. Land allocations and charges will be treated more fully in an expanded regional and subregional analysis to be published as a Senate Committee print at a later date.

**KEYWORDS:** Feeder cattle, cost of production, cattle raising, Firm Enterprise Budgets, decision framework.

Considerable variability exists in the types and sizes of beef-cattle-raising enterprises in the United States. Variability is due to the nature and level of resources used and differences in management practices associated with resource allocation.

Detailed cost budgets are being developed to represent the major producing systems characterized by differences in soil and vegetative types, climate, topography, and farming and ranching practices. These characteristics, plus relative size of livestock inventories, were used to define geographic regions (figure 1) where input-output relationships and resource requirements are relatively similar. Factors such as the types, amounts, and seasonality of forages grazed, supplemental feeding practices, and timing of production in cow-calf and cow-yearling systems were also considered in delineating the cattle-raising subregions. Approximately 98 percent of the beef cows in the Nation are included in the five regions—the Southeast, Southwest, West, Great Plains, and North Central regions.

A sample of producers in each region was interviewed in the spring of 1976 to determine production practices and inputs used in producing feeder

cattle for 1975. Forty-two tentative enterprise budgets were developed for selected typical cattle-raising situations. The budgets were based primarily on input-output data from the survey and on published USDA price data. They were compiled on the ESCS Firm Enterprise Data System (FEDS).<sup>1</sup> Weighted averages of production costs from these budgets were used to estimate the national and regional costs of beef-cattle raising discussed in this report.

These cost of production estimates are preliminary because they are based on budgets for only part of the production systems and enterprise sizes that contribute significantly to the overall supply of feeder cattle in the various subregions and regions. Additional budgets are being developed to provide greater delineation of cost by production system and enterprise size within and between subregions and regions. These additional budgets and possible revisions to the budgets summarized in this report will provide the basis for final cost estimates for 1977, preliminary 1978 estimates, and projected costs for 1979 which will be filed with the Senate Agriculture Committee later

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<sup>1</sup>A computerized livestock budget generator and aggregation routine operated by ESCS personnel at Oklahoma State University to service a series of computerized enterprise budgets, which are collectively termed the Firm Enterprise Data System, was used to calculate and average the cattle-raising budgets. The budget generator computes detailed costs from price and input quantity data supplied by researchers or stored as parameters in the computer program.



this year for publication as a committee print. Sub-regional and size data will also be provided in the expanded report, which will include an analysis of the allocation and charges for land used to support the beef-raising enterprises.

### Cost Analysis Framework

Producer decisionmaking and, consequently, analyses of supply response involve many planning situations, ranging from day-to-day problems to long-range adjustments. No single cost of production estimate can apply to all questions that involve cost. Detailed cost information in the tables that follow has been designed to provide flexibility in selecting and/or combining those cost items which apply to specific problem situations. Cash and noncash components of costs are presented in typical groupings to permit estimation of relevant costs applicable to a wide range of decision settings.

National and regional feeder cattle production costs per cow and per hundredweight of feeder animal sold are presented in tables 1-6. The cost estimates represent the production costs, in total and by specific categories, that would have been faced by an average producer whose costs are based on investments for land, machinery, buildings, equipment, and facilities at average date of acquisition. The cost of production survey for 1975 indicated that, on the average, machinery and equipment used in cow-calf and cow-yearling production were purchased new in 1965, and that the average construction date of buildings and facilities was 1957.

### Production Levels

In 1975, according to the cost of production survey, approximately 73 calves were weaned per 100 breeding-age beef cows and heifers in inventory January 1. This production figure is based on a weighted average calving rate (calves born as a percentage of beef cows and heifers bred) of 78 percent<sup>2</sup> and a calf loss rate prior to weaning that averaged 6.4 percent of the calves born in all regions. Replacement of cows that died or were culled during the year required an average retention of 17 heifer calves per 100 cows. Therefore, 56 calves were available for sale as feeder calves and yearlings per 100 cows and heifers. Based on these data and the average sale weight of feeder animals reported in the survey, 1976 feeder calf and yearling sales per cow in the inventory averaged 284

pounds in all regions combined. (Average feeder cattle sales weights per cow in the inventory by region are listed in footnote 1 of table 1.)

Feeder cattle are the primary product in cow-calf and cow-yearling enterprises, with culled breeding stock representing a secondary joint product. To isolate the costs of producing feeder cattle, estimated receipts from the sale of cull breeding stock, averaging \$34.56 per cow in inventory, were deducted from total and cash components of enterprise costs. These adjusted costs, divided by the pounds of feeder animals sold, represent the cost per hundredweight of feeder cattle sold. (Adjusted cull values by region are listed in tables 1-6.)

### Direct Costs

Direct costs include costs of all input items—feed, veterinary charges, energy, repairs, hired labor, etc.—that vary with the level of feeder cattle production plus a proportionate share of the general farm overhead expenses. Producers with resources already committed to raising beef cattle, or with cattle as a minor enterprise that is not expected to cover all costs, are primarily concerned with direct costs.

Total direct costs (cash and noncash items) of raising feeder calves and yearlings in the United States in 1976 are estimated to have been \$112.78 per cow, or \$39.71 per hundredweight of feeder animal sold (table 1). These costs are reduced to \$78.22 and \$27.54, respectively, when the cull-cow credit is included. This component of costs that normally determines shortrun supply response amounts to almost 54 percent of estimated total nonland costs, excluding the cull credit.

Feed costs, \$70.11 per cow, comprise almost two-thirds of total direct costs. The costs of grazed forages (private pasture, range, and public grazing) and harvested forages (hay and silage) dominate the feed costs. However, the relative importance of forages is not fully reflected in the feed cost data, because investment costs for the forage land are not included in the forage cost estimates. In the feed cost component, private pasture and range costs include only the costs of improvements, such as seeding, fertilization, and brush and weed control; no direct costs are applicable to crop residues or unimproved private range that was grazed in some regions. Likewise, costs for hay and silage harvested from land operated by the cattle-raising enterprise are based on costs of production, exclusive of imputed land charges. By contrast, the costs of grain, other concentrates, and protein supplements involve market prices that tend, at least over time, to reflect total production costs including land.

Other direct costs amount to \$42.67 per cow. They include costs of veterinary services and

<sup>2</sup>This computation is based on cows and yearling heifers in the breeding herd on January 1. Consequently, this calving percentage figure is lower than alternative figures based only on cows that had calved on January 1, which omits heifers in the breeding herd that will calve during the year but had not calved prior to January 1.



medical supplies; hired livestock hauling; marketing commissions and fees; fuels, lubricants, and electricity; machinery and building repairs; hired labor; interest; and overhead. Note that the value of operator and family labor, although computed at the applicable hired farm labor wage rates, is not considered a direct cost because the value of this labor is normally included in residual "returns." Thus, only one-fourth of the total labor constitutes a direct cost.

General farm overhead and interest on operating capital comprise \$11.52 of the direct costs per cow. These costs may or may not vary with changes in the operating level of the cattle-raising enterprise. Most of the direct production costs other than forages require cash outlays as indicated in the cost budgets. Interest on this operating capital was calculated using the 1976 Production Credit Association (PCA) interest rate in each of the areas represented and the average time that each input was tied up in cattle raising.

The proportionate share of general farm overhead chargeable to the cattle-raising enterprise was set at 5 percent of total feed, other production items, hired labor, and operator and family labor costs. This cost includes items not directly chargeable to any specific enterprise such as telephone, road maintenance, service buildings, organization membership expenses, and accounting fees. It is possible that this charge might change very little on multi-enterprise farms, even if the cattle enterprise were discontinued. However, the cattle-raising enterprise was charged a proportionate share of such costs.

### Ownership Costs

Ownership costs include depreciation, interest, taxes, and insurance (DITI). Repairs are included in direct costs. Cash costs, consisting of personal property taxes and insurance premiums on machinery and equipment used in raising feeder cattle, constituted less than 6 percent of total ownership costs. Noncash replacement charges and interest on investment in machinery, equipment, buildings, and facilities (including feed storage and livestock shelter buildings, fences, corrals, stock water facilities and other equipment), based on average acquisition dates, represented nearly 35 percent of the total ownership costs. Interest on investment could be either a cash or noncash cost. For this analysis, all interest (except that on operating capital) was placed in the noncash column of the budget, implying full operator equity for depreciable assets. Debt-equity ratios are not available. Cash and noncash livestock DITI, averaging nearly \$29 per cow in 1976, accounted for the remaining 59 percent of ownership costs. A large part of the livestock ownership costs is interest on

the 1976 investment value of the breeding herd. Depreciation charges for herd bulls, and where applicable saddle horses, are other components of livestock ownership costs. No depreciation is charged on the value of brood cows or replacement heifers, based on the assumption that they are raised in the feeder cattle operation and cull breeding stock sales are credited to the enterprise.

### Other Specified Costs

Operator and family labor were cited as an implicit noncash cost, charged at the existing regional rate used for hired labor. A management charge, computed at 7 percent of total nonland costs, also represents an indirect noncash cost, as most of the management input in feeder-cattle raising is supplied by the operator. Land taxes, a cash cost, add \$12.27 per cow to production costs. These three cost items add nearly \$50 per cow to the production costs, but only 25 percent of this charge is cash costs.

Operator and family labor, management charges, land charges, and other noncash costs are often treated as claimants of the residual returns after all cash costs are paid. Internal labor and management charges can be approximated by using rates comparable with fees charged in other industries. Comparable land charges do not exist; consequently, the land issue is treated separately from the other specified cost items.

### Cost Settings

Three decision settings are presented to aid in demonstrating that all costs are meaningful only in the long run. These cost settings differ by the importance of the cow-calf enterprise in relation to other enterprises and the applicable time horizon for production planning.

Consider first a shortrun decision framework on a farm or ranch where the cow-calf enterprise is a small supplementary contributor to the primary crop or other livestock enterprises. The cattle use residual land and crop residues. In this situation, applicable total production costs were estimated at \$20.78 per hundredweight of feeder animal sold (table 1).

Relevant costs are cash expenses for feed, "other production items," hired labor, and interest on operating capital minus a cash credit of \$34.50 per cow (\$12.17 per hundredweight of feeder animal sold) from sale of cull breeding stock. If the operator had adequate cash reserves to finance variable input purchases, interest on operating capital could also be ignored. Costs for farm overhead, buildings and equipment, family labor, and taxes are attributed to other enterprises, given the supplementary nature of the feeder cattle enterprise.



A second decision setting involves the same shortrun planning horizon but with the cow-calf enterprise as the primary or sole enterprise. In this setting, all cash costs must be met. In addition, funds must be available to support the family through operator and family labor and management charges. Cash charges, after deducting the cash cull cow credit, were \$28.34 cents per hundredweight of feeder animal sold. However, the addition of noncash costs—\$13.27 per hundredweight—increased total shortrun breakeven costs to \$41.61 per hundredweight.

Weighted average feeder cattle prices were \$35.27 per hundredweight in 1976. Economic principles dictate continued production in the short run if cash costs are covered. Cash costs are covered in both decision settings as outlined above. However, family needs are only partially met if cow-calf production is the only enterprise. This decision principle helps explain why supplemental cattle enterprises continued full production and those with larger units cut back (additional cull sales helped meet family living costs), but still maintained much of their production even in a year of low prices.

Decision setting three assumes a longrun planning horizon where feeder calf production is the primary enterprise. Cash costs are the same as in the second decision setting. Extension of the planning horizon results in an increase in relevant average total production costs for the ongoing producer, because more of the categories of costs that are fixed in the short run become variable and payable over time. Over the period assumed, all costs—cash and noncash—must be considered. Operators must now consider machinery, equipment, buildings and facilities in the same decision framework as a prospective new entrant. Consequently, all of the depreciation and interest charges must be included to permit eventual replacement of these capital items.

Addition of the full \$33.82 noncash charge increases total breakeven charges to \$62.16 per hundredweight of feeder calf sold. Feeder cattle prices in recent years have been well below the estimated 1976 total nonland production cost. Why, then, has there not been an even greater decline in production?

In the short run, continued production is economic if expected returns provide any revenue above cash cost that can be used to even partially offset fixed costs of past investments in machinery, buildings, livestock, and land. Over the longer run, appreciation in land value is an important planning consideration. Thus, the expectation that rapid appreciation in ranch and farmland values will continue may provide a strong incentive for current producers to hold land and to continue pro-

ducing feeder cattle if long-term prospects for cattle raising appear favorable. Incentives for new entrants, at full 1976 costs, are less favorable, particularly when principal and interest payments on the land investment must be met.

#### Land: A Cost or a Source of Capital Gains

Land charges represent a perplexing aspect of cost of production analysis for any commodity. Land is a capital expenditure that must be paid. However, in the 1970's, land has been a major source of capital gains and a hedge against inflation. For the ongoing operator, as net worth increases through land appreciation, his capacity to borrow and/or expand is increased and the capital gains can be earned upon sale of the land. This issue is further intensified in a land-extensive enterprise such as feeder cattle production. For the past several years, land value appreciation, not net income, has been the primary economic incentive for feeder cattle producers. Producer-operated land values for all regions in 1976 averaged \$2,375 per cow. Land values per cow were lower in areas where public lands provide more grazing and in the humid areas where fewer, though more expensive, acres per cow were utilized. Land values per cow were highest in the Southwest where the most extensive land base was provided.

Land value and appreciation rates indexed from the new entrant 1976 COP values, all regions, 1970-77

Year	Index	Land value	Appreciation
		per cow unit	
		<i>Dollars</i>	<i>Percent</i>
1970 .....	117	1,146.71	4.27
1971 .....	122	1,195.72	8.20
1972 .....	132	1,293.73	13.64
1973 .....	150	1,470.14	24.67
1974 .....	187	1,832.78	13.90
1975 .....	213	2,087.60	13.62
1976 .....	242	2,371.83	16.94
1977 .....	283	2,773.67	9.00

Land values have increased sharply in the last 5 years, while returns from feeder calf production have been reduced due to cyclical over-expansion. Annual land value appreciation from 1972 to 1976 has varied from 13 to almost 25 percent. Land values per cow, indexed from the 1976 survey findings, have more than doubled since 1970. The cost of production survey revealed that more than 86 percent of the land owned by cow-calf and cow-yearling operations was acquired prior to 1971. While actual information is not available on acquisition dates or debt load, data are available which indicate that slightly less than 3 percent of the



U.S. farmland acreage is sold each year. Consequently, an average land value during the period 1942-1976 of 31.8 percent of the 1976 value is used to estimate the average ongoing feeder cattle producer's land cost. The investment in land for this average ongoing producer in 1976 was \$755 dollars per cow unit versus \$2,375 cost for the new entrant.

### Profitability

In 1976, the all-regions weighted average Choice grade feeder cattle price was \$35.27 per hundredweight. This price reflects average weight and sex composition of the feeder cattle available for sale in the subregions and the months during which most sales occur, as indicated by the cost of production survey.

Even with the low returns of 1976, all cash costs were met, with additional returns available to offset some noncash costs. However, sufficient funds were not available to cover operator and family labor nor management charges. Returns failed to cover total breakeven costs by \$26.89 (\$35.27-\$62.16) per hundredweight sold after subtracting the cash credit for cull cows.

Land charges and appreciation remain to be considered. In 1976, no return to land was realized from the cow-calf enterprise. In other years, feeder calf prices would have to exceed \$62.16 (in terms of 1976 dollars) before the feeder calf enterprise would yield a return to land investment. Thus, in many years land appreciation is the only source of return to land investment.

Farms and ranches where feeder cattle production is the primary enterprise, or in any case where the full cost of production must be paid, have had a cash flow problem in meeting cost of living needs and servicing any remaining land debt. Full 1976 land charges further raise the issue of incentive for new entrants if the debt load is to be serviced and cost of living needs met. Land appreciation since 1970 has been a most attractive aspect of the land and cattle investment, but cash flow requirements must be met in the short run to reap the potential longrun capital gains.

### Regional Cost Variation

Production costs estimated in this analysis varied considerably from region to region because of differences in the types, quantities, and prices or values of resources used in production and in the production rates and mixes. For instance, variation in calf birth and death rates, brood cow replacement rates, and the age and weight at which feeder cattle are sold all influence production per cow. In addition, the cash cull-cow credit varies regionally because of differences in cow culling rates, average

cull weights, and cull cow prices. Average weights of feeder cattle sold and cull-cow values per cow in the herd are listed in tables 2-6.

Some costs vary sharply between regions while others such as veterinary services, marketing costs, and custom livestock hauling charges per cow exhibited little variation. Feed and land charges showed the greatest variation among regions. However, many regional variations tend to be offsetting.

Total direct costs per cow, primarily a cash cost, ranged from a high of \$130.55 in the Southeast to a low of \$93.97 in the Southwest. Feedstuff costs are the primary component of direct costs. The high costs in the Southeast are attributable to pasture production charges which are high, primarily because of relatively heavy use of commercial fertilizer. While the Southeast's direct charges are high compared to the Southwest's, the lower land base necessary per cow more than offsets the Southwest's direct cost advantage.

Total nonland costs exceeded the prices received by the average producer in every region in 1976. However, feeder cattle prices were greater than either total direct or total cash costs per hundredweight of feeder cattle sold, providing some returns to be allocated to fixed costs in all regions except the Southeast. Under such circumstances, cattle raisers may continue production over the useful life of their capital facilities. Much of the production in the Southeast is comprised of smaller herds on mixed-enterprise farms and ranches. In this situation, which is illustrated by the supplementary shortrun cost setting, the direct cash costs of the feeder cattle enterprise were more than covered by feeder cattle sales. Feeder cattle production typically occurs on acreages with few alternative uses. Coverage of direct cash costs with a residual to cover the remaining cash costs such as land taxes, which are incurred regardless of land use, encourages continued production.

Private land values in 1976 averaged \$2,375 per cow for the new entrant in all regions. Land values per cow for ongoing operations were assumed to be 31.8 percent of the corresponding 1976 land values—\$755 per cow. Land values per cow for new entrants and ongoing operations in 1976 by region were respectively: North Central—\$2,446 and \$778; Southeast—\$1,800 and \$572; Great Plains—\$1,500 and \$477; Southwest—\$3,868 and \$1,230; and West—\$1,450 and \$461. An extensive acreage of rangeland per cow results in sharply increased costs in the Southwest. However, land charges per cow vary more within many of these regions than among regions.

Addition of a land charge would increase costs substantially; however, a land appreciation credit could be considered as an offsetting receipt.

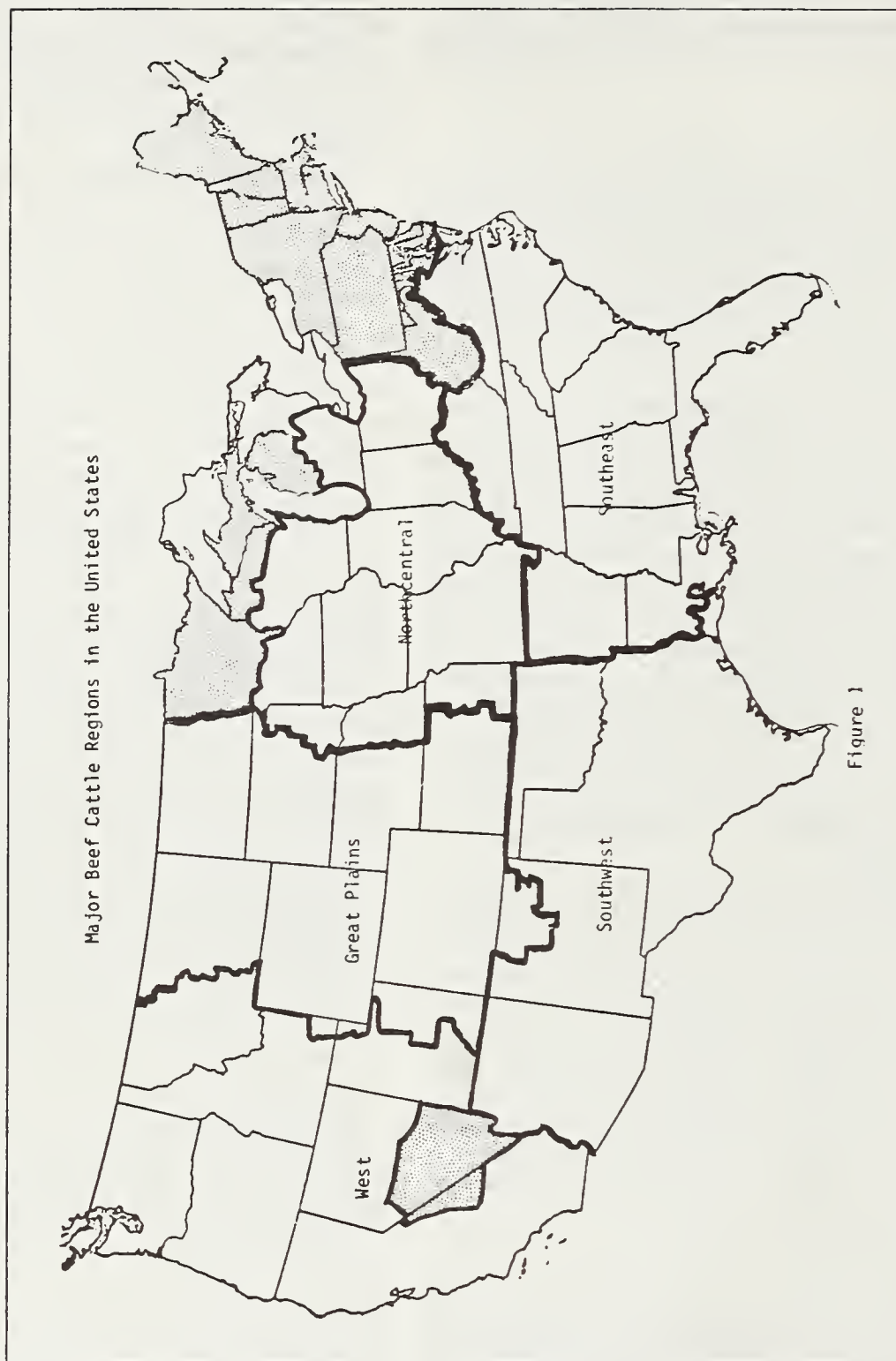




Table 1--Costs of raising feeder cattle 1976, all regions

Item	Costs per cow			Costs per cwt. feeder sold 1/					
	Cash	Noncash	Total	Supplementary enter-		Primary enterprise		Primary enterprise	
				Cash	Noncash	short-run	long-run	Cash	Noncash
Private pasture and range. . . . .	20.12	3.41	23.53	7.08	---	7.08	---	7.08	1.20
Public grazing . . . . .	1.20	---	1.20	.42	---	.42	---	.42	---
Hay . . . . .	20.08	7.23	27.31	7.07	---	7.07	---	7.07	2.55
Silage . . . . .	.92	.41	1.33	.32	---	.32	---	.32	.14
Grain and concentrates . . . . .	5.68	---	5.68	2.00	---	2.00	---	2.00	---
Protein supplements. . . . .	9.13	---	9.13	3.21	---	3.21	---	3.21	---
Salt and minerals. . . . .	1.93	---	1.93	.70	---	.70	---	.70	---
Subtotal, feed . . . . .	59.06	11.05	70.11	20.80	---	20.80	---	20.80	3.89
Veterinary and medicine. . . . .	3.62	---	3.62	1.27	---	1.27	---	1.27	---
Livestock hauling. . . . .	.95	---	.95	.33	---	.33	---	.33	---
Marketing. . . . .	2.31	---	2.31	.82	---	.82	---	.82	---
Fuel, lube, and electricity. . . . .	7.50	---	7.50	2.64	---	2.64	---	2.64	---
Machinery and building repair. . . . .	9.15	---	9.15	3.22	---	3.22	---	3.22	---
Subtotal, other production items . . . . .	23.53	---	23.53	8.28	---	8.28	---	8.28	---
Hired labor. . . . .	7.62	---	7.62	2.68	---	2.68	---	2.68	---
Interest on operating capital. . . . .	3.36	1.51	4.87	1.19	---	1.19	---	1.19	.53
General farm overhead. . . . .	6.65	---	6.65	---	---	2.34	---	2.34	---
Total direct costs . . . . .	100.22	12.56	112.78	32.95	---	35.29	---	35.29	4.42
Less cull-cow credit . . . . .	34.56	---	34.56	12.17	---	12.17	---	12.17	---
Net direct costs . . . . .	65.66	12.56	78.22	20.78	---	23.12	---	23.12	4.42
Machinery and equipment, DITI 2/ . . . . .	.80	5.98	6.78	---	---	.28	---	.28	2.10
Buildings and facilities, DITI 2/ . . . . .	1.77	11.06	12.83	---	---	.62	---	.62	3.90
Livestock, DITI 3/ . . . . .	---	28.77	28.77	---	---	---	---	---	10.13
Subtotal, ownership costs. . . . .	2.57	45.81	48.38	---	---	.90	---	.90	16.13
Operator and family labor. . . . .	---	22.84	22.84	---	---	---	8.05	---	8.05
Management . . . . .	---	14.84	14.84	---	---	---	5.22	---	5.22
Land taxes . . . . .	12.27	---	12.27	---	---	4.32	---	4.32	---
Total nonland costs 4/ . . . . .	80.50	96.05	176.55	20.78	---	28.34	13.27	28.34	33.82
Breakeven cost, excluding land, per cwt. of feeder sold. . . . .					20.78		41.61		62.16

1/ Sum of designated costs per cow divided by the hundredweight per cow of steer and heifer feeder calves and yearlings sold: All regions 2.84 cwt.; Southeast 2.55 cwt.; North Central 2.82 cwt.; Great Plains 3.08 cwt.; Southwest 2.97 cwt.; and West 2.81 cwt.

2/ Applicable depreciation, interest, taxes, and insurance. Repairs are included above. 3/ Depreciation on herd bulls only. Assumes that all brood cows are raised from heifer calves born in each operation, so the costs of raising replacements is included in the per-cow costs, and salvage values are recovered through the sale of culls. 4/ Specified cash cost less the cash cull-cow credit.

Table 2--Costs of raising feeder cattle 1976, Southeast

Item	Costs per cow			Costs per cwt. feeder sold 1/					
				Supplementary enter-		Primary enterprise		Primary enterprise	
	Cash	Noncash	Total	prise short-run	Noncash	Cash	Noncash	Cash	Noncash
Dollars									
Private pasture and range . . . . .	46.86	6.47	53.33	18.37	---	18.37	---	18.37	2.54
Public grazing . . . . .	---	---	---	---	---	---	---	---	---
Hay . . . . .	14.13	3.04	17.17	5.55	---	5.55	---	5.55	1.19
Silage . . . . .	---	---	---	---	---	---	---	---	---
Grain and concentrates . . . . .	7.54	---	7.54	2.95	---	2.95	---	2.95	---
Protein supplements . . . . .	5.39	---	5.39	2.12	---	2.12	---	2.12	---
Salt and minerals . . . . .	2.06	---	2.06	.81	---	.81	---	.81	---
Subtotal, feed . . . . .	75.98	9.51	85.49	29.80	---	29.80	---	29.80	3.73
Veterinary and medicine . . . . .	3.18	---	3.18	1.25	---	1.25	---	1.25	---
Livestock hauling . . . . .	.73	---	.73	.29	---	.29	---	.29	---
Marketing . . . . .	2.43	---	2.43	.95	---	.95	---	.95	---
Fuel, lube, and electricity . . . . .	8.04	---	8.04	3.15	---	3.15	---	3.15	---
Machinery and building repair . . . . .	9.59	---	9.59	3.76	---	3.76	---	3.76	---
Subtotal, other production items . . . . .	23.97	---	23.97	9.40	---	9.40	---	9.40	---
Hired labor . . . . .	7.66	---	7.66	3.00	---	3.00	---	3.00	---
Interest on operating capital . . . . .	4.32	1.60	5.92	1.69	---	1.69	---	1.69	.63
General farm overhead . . . . .	7.51	---	7.51	---	---	2.95	---	2.95	---
Total direct costs . . . . .	119.44	11.11	130.55	43.89	---	46.84	---	46.84	4.36
Less cull-cow credit . . . . .	30.56	---	30.56	11.98	---	11.98	---	11.98	---
Net direct costs . . . . .	88.88	11.11	99.99	31.91	---	34.86	---	34.86	4.36
Machinery and equipment, DIT 2/ . . . . .	1.01	7.43	8.44	---	---	.40	---	.40	2.91
Buildings and facilities, DIT 2/ . . . . .	1.49	10.25	11.74	---	---	.58	---	.58	4.02
Livestock, DIT 3/ . . . . .	---	25.29	25.29	---	---	---	---	---	9.92
Subtotal, ownership costs . . . . .	2.50	42.97	45.47	---	---	.98	---	.98	16.85
Operator and family labor . . . . .	---	25.29	25.29	---	---	---	9.92	---	9.92
Management . . . . .	---	15.97	15.97	---	---	---	6.26	---	6.26
Land taxes . . . . .	7.12	---	7.12	---	---	2.79	---	2.79	---
Total nonland costs 4/ . . . . .	98.50	95.34	193.84	31.91	---	38.63	16.18	38.63	37.39
Break-even cost, excluding land, per cwt. of feeder sold . . . . .				31.91		54.81			76.02

See table 1 for footnotes.

Table 3 --Costs of raising feeder cattle 1976, North Central

Item	Costs per cow			Costs per cwt. feeder sold 1/						
				Supplementary enter- prise short-run		Primary enterprise short-run		Primary enterprise long-run		
	Cash	Noncash	Total	Cash	Noncash	Cash	Noncash	Cash	Noncash	
Dollars										
Private pasture and range. . . . .	15.45	6.43	21.88	5.48	---	5.48	---	5.48	2.28	
Public grazing . . . . .	---	---	---	---	---	---	---	---	---	
Hay. . . . .	16.85	9.30	26.15	5.98	---	5.98	---	5.98	3.30	
Silage . . . . .	---	---	---	---	---	---	---	---	---	
Grain and concentrates . . . . .	14.86	---	14.86	5.27	---	5.27	---	5.27	---	
Protein supplements. . . . .	5.04	---	5.04	1.79	---	1.79	---	1.79	---	
Salt and minerals. . . . .	1.98	---	1.98	.70	---	.70	---	.70	---	
Subtotal, feed . . . . .	54.18	15.73	69.91	19.21	---	19.21	---	19.21	5.58	
Veterinary and medicine. . . . .	4.20	---	4.20	1.49	---	1.49	---	1.49	---	
Livestock hauling. . . . .	1.00	---	1.00	.35	---	.35	---	.35	---	
Marketing. . . . .	2.29	---	2.29	.81	---	.81	---	.81	---	
Fuel, lube, and electricity. . . . .	8.54	---	8.54	3.03	---	3.03	---	3.03	---	
Machinery and building repair. . . . .	12.69	---	12.69	4.50	---	4.50	---	4.50	---	
Subtotal, other production items . . . . .	28.72	---	28.72	10.18	---	10.18	---	10.18	---	
Hired labor. . . . .	1.54	---	1.54	.55	---	.55	---	.55	---	
Interest on operating capital. . . . .	4.11	2.37	6.48	1.46	---	1.46	---	1.46	.84	
General farm overhead. . . . .	6.85	---	6.85	---	---	2.43	---	2.43	---	
Total direct costs . . . . .	95.40	18.10	113.50	31.40	---	33.83	---	33.83	6.42	
Less cull-cow credit . . . . .	42.98	---	42.98	15.24	---	15.24	---	15.24	---	
Net direct costs . . . . .	52.42	18.10	70.52	16.16	---	18.59	---	18.59	6.42	
Machinery and equipment, DITI 2/ . . . . .	.88	6.45	7.33	---	---	.31	---	.31	2.29	
Buildings and facilities, DITI 2/ . . . . .	2.08	14.26	16.34	---	---	.74	---	.74	5.06	
Livestock, DITI 3/ . . . . .	---	29.12	29.12	---	---	---	---	---	10.32	
Subtotal, ownership costs. . . . .	2.96	49.83	52.79	---	---	1.05	---	1.05	17.67	
Operator and family labor. . . . .	---	24.00	24.00	---	---	---	8.51	---	8.51	
Management . . . . .	---	15.86	15.86	---	---	---	5.62	---	5.62	
Land taxes . . . . .	13.43	---	13.43	---	---	4.76	---	4.76	---	
Total nonland costs 4/ . . . . .	68.81	107.79	176.60	16.16	---	24.40	14.13	24.40	38.22	
Breakeven cost, excluding land, per cwt. of feeder sold. . . . .				16.16	38.53	62.62				

See table 1 for footnotes.



Table 4--Costs of raising feeder cattle 1976, Great Plains

Item	Costs per cow			Costs per cwt. feeder sold 1/					
				Supplementary enter-		Primary enterprise		Primary enterprise	
	Cash	Noncash	Total	Cash	Noncash	short-run	long-run	Cash	Noncash
Dollars									
Private pasture and range. . . . .	11.58	---	11.58	3.76	---	---	---	3.76	---
Public grazing . . . . .	1.84	---	1.84	.60	---	---	---	.60	---
Hay. . . . .	25.39	9.68	35.07	8.24	---	---	---	8.24	3.14
Silage . . . . .	4.90	2.19	7.09	1.59	---	---	---	1.59	.71
Grain and concentrates . . . . .	1.93	---	1.93	.63	---	---	---	.63	---
Protein supplements. . . . .	13.21	---	13.21	4.29	---	---	---	4.29	---
Salt and minerals. . . . .	1.98	---	1.98	.64	---	---	---	.64	---
Subtotal, feed . . . . .	60.83	11.87	72.70	19.75	---	---	---	19.75	3.85
Veterinary and medicine. . . . .	3.61	---	3.61	1.17	---	---	---	1.17	---
Livestock hauling. . . . .	1.13	---	1.13	.37	---	---	---	.37	---
Marketing. . . . .	1.85	---	1.85	.60	---	---	---	.60	---
Fuel, lube, and electricity. . . . .	8.49	---	8.49	2.76	---	---	---	2.76	---
Machinery and building repair. . . . .	9.22	---	9.22	2.99	---	---	---	2.99	---
Subtotal, other production items . . . . .	24.30	---	24.30	7.89	---	---	---	7.89	---
Hired labor. . . . .	7.79	---	7.79	2.53	---	---	---	2.53	---
Interest on operating capital. . . . .	1.96	.82	2.78	.64	---	---	---	.64	.27
General farm overhead. . . . .	6.72	---	6.72	---	---	---	---	2.18	---
Total direct costs . . . . .	101.60	12.69	114.29	30.81	---	---	---	32.99	4.12
Less cull-cow credit . . . . .	35.12	---	35.12	11.40	---	---	---	11.40	---
Net direct costs . . . . .	66.48	12.69	79.17	19.41	---	---	---	21.59	4.12
Machinery and equipment, DFT 2/ . . . . .	.95	7.00	7.95	---	---	---	---	.31	2.27
Buildings and facilities, DFT 2/ . . . . .	1.30	7.91	9.21	---	---	---	---	.42	2.57
Livestock, DFT 3/ . . . . .	---	30.10	30.10	---	---	---	---	---	9.77
Subtotal, ownership costs. . . . .	2.25	45.01	47.26	---	---	---	---	.73	14.61
Operator and family labor. . . . .	---	20.01	20.01	---	---	---	---	---	6.50
Management . . . . .	---	14.49	14.49	---	---	---	---	---	4.70
Land taxes . . . . .	10.54	---	10.54	---	---	---	---	3.42	---
Total nonland costs 4/ . . . . .	79.27	92.20	171.47	19.41	---	---	---	25.74	29.93
Break-even cost, excluding land, per cwt. of feeder sold. . . . .			19.41					36.94	55.67

See table 1 for footnotes.



Table 6 ---Costs of raising feeder cattle 1976, West

Item	Costs per cow			Costs per cwt. feeder sold 1/					
				Supplementary enter-		Primary enterprise		Primary enterprise	
				prise short-run		short-run		long-run	
	Cash	Noncash	Total	Cash	Noncash	Cash	Noncash	Cash	Noncash
Dollars									
Private pasture and range. . . . .	1.80	2.24	4.04	.64	---	.64	---	.64	.80
Public grazing . . . . .	4.17	---	4.17	1.48	---	1.48	---	1.48	---
Hay. . . . .	35.76	26.05	61.81	12.73	---	12.73	---	12.73	9.27
Silage . . . . .	---	---	---	---	---	---	---	---	---
Grain and concentrates . . . . .	---	---	---	---	---	---	---	---	---
Protein supplements. . . . .	2.99	---	2.99	1.07	---	1.07	---	1.07	---
Salt and minerals. . . . .	1.19	---	1.19	.42	---	.42	---	.42	---
Subtotal, feed . . . . .	45.91	28.29	74.20	16.34	---	16.34	---	16.34	10.07
Veterinary and medicine. . . . .	4.13	---	4.13	1.47	---	1.47	---	1.47	---
Livestock hauling. . . . .	1.81	---	1.81	.64	---	.64	---	.64	---
Marketing. . . . .	1.95	---	1.95	.69	---	.69	---	.69	---
Fuel, lube, and electricity. . . . .	6.23	---	6.23	2.22	---	2.22	---	2.22	---
Machinery and building repair. . . . .	4.21	---	4.21	1.50	---	1.50	---	1.50	---
Subtotal, other production items . . . . .	18.33	---	18.33	6.52	---	6.52	---	6.52	---
Hired labor. . . . .	6.23	---	6.23	2.21	---	2.21	---	2.21	---
Interest on operating capital. . . . .	2.55	2.37	4.92	.91	---	.91	---	.91	.84
General farm overhead. . . . .	7.13	---	7.13	---	---	2.54	---	2.54	---
Total direct costs . . . . .	80.15	30.66	110.81	25.98	---	28.52	---	28.52	10.91
Less cull-cow credit . . . . .	40.54	---	40.54	14.43	---	14.43	---	14.43	---
Net direct costs . . . . .	39.61	30.66	70.27	11.55	---	14.09	---	14.09	10.91
Machinery and equipment, DITI 2/ . . . . .	.63	4.76	5.39	---	---	.23	---	.23	1.69
Buildings and facilities, DITI 2/ . . . . .	2.31	8.40	10.71	---	---	.82	---	.82	2.99
Livestock, DITI 3/ . . . . .	---	24.77	24.77	---	---	---	---	---	8.82
Subtotal, ownership costs. . . . .	2.94	37.93	40.87	---	---	1.05	---	1.05	13.50
Operator and family labor. . . . .	---	21.03	21.03	---	---	---	7.48	---	7.48
Management . . . . .	---	14.72	14.72	---	---	---	5.24	---	5.24
Land taxes . . . . .	16.57	---	16.57	---	---	5.90	---	5.90	---
Total nonland costs 4/ . . . . .	59.12	104.34	163.46	11.55	---	21.04	12.72	21.04	37.13
Breakeven cost, excluding land, per cwt. of feeder sold. . . . .				11.55		33.76		58.17	

See table 1 for footnotes.





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