

# **BEEF FARM BUSINESS SUMMARY**

November 1987

A. E. Ext. 87-26  
A.S. Mimeo 105

## **New York Beef Cow-Calf Farm Business Program: 1986 Summary of Ten Farms**

**Caroline Nowak Rasmussen  
Stuart F. Smith  
Danny G. Fox  
William M. Greene**

**Department of Animal Science  
and  
Department of Agricultural Economics  
New York State College of Agriculture and Life Sciences  
A Statutory College of the State University  
Cornell University, Ithaca, New York 14853**

NEW YORK BEEF COW-CALF FARM BUSINESS PROGRAM:  
1986 SUMMARY OF TEN FARMS

by Caroline Nowak Rasmussen, Stuart F. Smith,  
Danny G. Fox and William M. Greene

<u>Table of Contents</u>	<u>Page</u>
Introduction	1
Summary of the Farm Business - Selected Factors	2
Definitions of Selected Factors	2
Analysis of Selected Beef Summary Factors	3
Business Characteristics and Resources Used	5
Farm Income	7
Farm Expenses	8
Farm Profitability Measures	9
Farm Statement of Net Worth	11
Herd and Crop Management	13
Cow-Calf Business Summary Comparisons	15

<u>List of Tables</u>	<u>Page</u>
Table 1. Selected Business Factors	3
Table 2. Business Characteristics on Ten New York Beef Farms, 1986	5
Table 3. Resources Used on Ten New York Beef Farms, 1986	6
Table 4. Farm Income, Average of Ten New York Beef Farms, 1986	7
Table 5. Farm Expenses, Average of Ten New York Beef Farms, 1986	8
Table 6. Measures of Farm Profitability, Average of Ten New York Beef Farms, 1986	10
Table 7. Livestock Market Values, January 1, 1986 and December 31, 1986	11
Table 8. Farm Statement of Net Worth, Average of Ten New York Beef Farms, 1986	12
Table 9. Herd and Crop Management Measures, Average of Ten New York Beef Farms, 1986	14
Table 10. Herd Females by Age Group, Average of Ten New York Beef Farms, 1986	15
Table 11. A Comparison of Selected Economic Factors, Ten New York Beef Farms and Reporting Iowa Cow-Calf Producers	16

## Introduction

Beef farm business summaries have a long tradition in New York State. In 1941, The Department of Agricultural Economics in cooperation with the Department of Animal Husbandry at Cornell University conducted a study of beef breeding enterprises.<sup>1</sup> Of a total of 121 farms visited, 42 usable records were obtained for the study.

The following farm business summary was compiled in 1987 by the Department of Animal Science in conjunction with the Department of Agricultural Economics, using data submitted by ten New York State beef producers from seven counties. Farms with a variety of resources and management objectives were selected so that a new data check-in form could be tested thoroughly. Data was collected for the calendar year 1986. All of the producers have a cow-calf component to their operation. Some sell all calves at weaning, others feed out some or all of their calves to a finished cattle weight.

These ten farms are not a scientific sample and are not necessarily representative of New York State beef farms. The averages published in this report are not intended to represent the average of all beef farms and should not be interpreted as such. The averages are calculated to provide the cooperators with a comparison when analyzing their own records. The purpose of the Beef Farm Business Summary is to present the cooperators and other beef producers with a format for summarizing and analyzing their business and to offer some data which may be useful to potential beef producers and Cooperative Extension agents.

The Beef Farm Business Summary was made possible with the help of several Cooperative Extension agents and the kind cooperation of the participating beef producers. This is the first Beef Farm Business Summary published since 1983. As the economics of beef enterprises tends to be cyclic, a one year summary may be deceiving. We hope to continue and expand the Beef Farm Business Summary in the future and will then be able to provide multi-year analysis.

---

<sup>1</sup> W.M. Curtiss and J.I. Miller. "Beef Cattle on Some New York Farms." Farm Economics v.7 no. 130. April 1942.

### Summary of the Farm Business - Selected Factors

Selected farm business summary factors include the size of the farm business, rates of production, cost control, capital efficiency, profitability, return on equity and financial summary measures. The average and the range values for selected business factors are presented in Table 1.

### Definitions of Selected Business Factors

The average number of cows is the mean number of open and bred cows held during the year ( $[\text{open and bred cows as of January 1} + \text{open and bred cows as of December 31}] / 2$ ). The average number of heifers and average number of bulls is computed in the same way. The percent calves weaned/cow wintered is calculated as the total number of calves weaned divided by the number of breeding cows wintered. This value includes open cows wintered but does not include yearling replacement heifers or bulls wintered. Average cow age is the average of all breeding cows wintered and does not include yearling replacement heifers. Cost control, capital efficiency, and profitability measures given on a per cow basis use the average number of cows (as defined above) as the denominator.

Purchased feed/cow is the sum of beef grain purchased and beef roughage purchased, on an accrual basis, per cow. Labor and machinery cost per cow is calculated as the sum of accrued expenditures for hired labor, machinery repair, farm auto, machinery hire and lease, machinery depreciation and an interest charge of five percent on the average machinery investment. The interest charge represents the opportunity cost of the dollars invested in machinery. Labor, machinery and crop cost per cow is the sum of: labor and machinery cost per cow (as defined above), accrued fertilizer & lime and accrued seed, spray and other crop expenses.

All of the capital efficiency measures are averages of the beginning and ending of the year. The profitability measures are calculated in Table 6. Farm net worth is the total market value of assets less liabilities as of December 31, 1986. The debt to asset ratio is the total dollars of debt per each dollar of assets. Farm debt per cow is the December 31 total liability value divided by the total number of open and bred cows as of December 31.

Table 1. Selected Business Factors  
Average and Range of Ten New York Beef Farms, 1986

Item	My Farm	Average	Range
<b>Size of Business</b>			
Average number of cows	_____	44.2	14.0 - 148.5
Average number of heifers	_____	10.4	0 - 30.0
Average number of bulls	_____	2.9	.3 - 9.0
Total lbs. weaned	_____	19,047	5,250 - 67,055
<b>Rates of Production</b>			
% Calves weaned/cow wintered	_____	90.0	75 - 100
% Calves born/cow wintered	_____	95.4	83 - 100
Average weaning weight, lbs.	_____	525	364 - 642
Average cow age, yrs.	_____	5.78	3.95 - 7.68
<b>Cost Control</b>			
Purchased feed cost/cow	\$ _____	\$ 86	\$ 0 - 409
Labor & machinery cost/cow	_____	267	60 - 728
Labor, mach. & crop cost/cow	_____	336	93 - 883
<b>Capital Efficiency (average for year)</b>			
Mach. & equip. investment/cow	\$ _____	\$ 1,013	\$ 291 - 4,876
Real estate investment/cow	_____	2,847	0 - 13,075
Total capital investment/cow	_____	4,944	1,233 - 19,512
<b>Profitability</b>			
Net cash farm income	\$ _____	\$ (10,550)	\$ (52,221) - 11,790
Net farm income	_____	(2,689)	(34,913) - 33,189
<b>Financial Summary</b>			
Farm Net Worth (12/31/1986)	\$ _____	\$ 137,208	\$ 30,435 - 482,050
Debt to asset ratio	_____	.20	0 - .63
Farm debt per cow	\$ _____	\$ 1,205	\$ 0 - 6,207

#### Analysis of Selected Business Factors

The selected business factors shown in Table 1 are a one page synopsis of the farm business's size, productivity and profitability. The average number of cows on the ten farms was 44 with a range of 14 to 149. The productivity of the farms tended to be very good with Percent calves born and Average weaning weights above "most efficient herd"<sup>1</sup> measurements. The variation in the rates of production was not significant: eight farms had between 80 and 100 percent calves weaned per cow wintered and eight farms had between 90 and 100 percent calves born per cow wintered.

<sup>1</sup> Cornell Beef Production Reference Manual. Fact Sheet 5000.  
Guidelines for developing a Beef Herd Management System. D.G.  
Fox and T.P. Solan.

In contrast, there was a large variation in the economic factors: cost control, capital efficiency and profitability. This variation was evident in the cost control measures where purchased feed per cow varied from \$0 to \$409 per cow and labor and machinery cost varied from \$60 to \$728 per cow. Labor and machinery cost tended to be related to farm size with the smaller farms having the highest machinery and labor cost per cow. This reflects the fixed component of investment in machinery required for a farming operation.

Capital efficiency is an important factor in the operation of a beef cow-calf enterprise. As cow-calf businesses tend to be labor and capital extensive with a small profit margin, over capitalization can be devastating to the health of the business. The cow-calf industry is, however, prone to this problem partially because many part-time producers, under a time constraint, need reliable equipment. The machinery and equipment investment per cow ranged from \$291 to \$4876. The farm with the highest machinery and equipment investment per cow also had the lowest net farm income per cow. Inversely, the farm with the lowest machinery and equipment investment per cow had the highest net farm income per cow. Of the average total capital investment per cow of \$4944, 58 percent or \$2847 was real estate investment. This is an especially high percentage considering that two of the farm's operators did not own the primary farm real estate. The average real estate investment per cow for the eight farm owners was \$3549.

Net cash farm income, which is farm cash receipts less farm cash expenses and purchased breeding stock, is the money available to make principal payments, capital purchases and contribute toward family living and savings. Net farm income, calculated on an accrual basis, includes depreciation of buildings and machinery and changes in inventory. Farm net worth is the market value of all farm assets less all farm debt. The debt to asset ratio (Table 1) indicates that on the average for every \$1.00 of farm assets there is \$ .20 of farm debt.

### Business Characteristics and Resources Used

Some major business characteristics are shown in Table 2. Six of the farms are part time business and four are full time. The average farm tenure is over 8 years and six of the ten producers use artificial insemination for part of their herd breeding. Table 3 lists land, labor and animal resources used in the farm business. Labor is measured in months. In this analysis 200 hours is considered one month of labor. Averages include only those farms reporting a value for the item. The range is of all farms. The total worker equivalent of 15.9 is the months of labor per year required to operate the average beef enterprise in the study. This value is equivalent to 1.3 full time people working 200 hours each month of the year.

Table 2.

<u>Business Characteristics of Ten New York Beef Farms, 1986</u>			
	<u>Number of</u>		<u>Average</u>
	<u>Farms</u>		<u>Years</u>
Full Time Business	4	Farmer has operated farm	8.6
Part Time Business	6	Has owned beef herd	9.1
Business Type			
Single Proprietor	8	AI Used (number farms)	6
Partnership	2		
Record Keeping System			
Agrifax	1		
Account Book	6		
Check-Write System	2		
On-farm Micro Computer	1		

Table 3.

## Resources Used on Ten New York Beef Farms, 1986

Item	My Farm	Average	Range
Land Used			
Total Acres			
Owned	_____	276	0 - 1166
Rented	_____	221	0 - 450
Tillable Acres			
Owned	_____	74	0 - 130
Rented	_____	102	0 - 305
Total Tillable	_____	134	15 - 305
Herd Size			
Average Number Cows	_____	44.2	14.0 - 148.5
Average All Beef Animals	_____	57.5	21.0 - 187.5
Labor (months)			
Operator(s)			
Management	_____	1.77	.40 - 5.20
Labor	_____	8.50	0 - 25.10
Hired Labor	_____	1.65	0 - 7.75
Family Unpaid	_____	3.97	0 - 26.00
Total Worker Equivalent	_____	15.88	7.96 - 30.16
Total Worker Equivalent/cow	_____	.45	.20 - .67



### Farm Income

Cash receipts include the actual amount of cash received for farm products, services and government payments. Accrual Receipts represent the value of all farm production and services actually provided during the year. A negative change in crop inventory, such as that shown in Table 4 is indicative of a decrease in grown feeds in inventory from the beginning to the end of the year. Conversely, a positive change in crop inventory is shown if there is an increase in grown feeds in inventory. The change in finished cattle and breeding stock inventory reflects both a physical increase in the number of livestock and an increase in the value of the livestock. The market value of all beef livestock increased in 1986. The Farm Statement of Net Worth presents the details of change in inventory values (page 10). Changes in accounts receivable are also accounted for in the accrual receipts. An increase in accounts receivable will increase the accrual receipts accordingly. A decrease in accounts receivable will decrease accrual receipts to exclude income received in the calendar year for goods or services provided in a previous year. Accrual receipts per cow is calculated by dividing the accrued receipts from all farms by the total number of cows.

Non-farm receipts such as non-farm income are excluded from the farm income statement. Gas lease payments and other payments attributed to the farm land base are included as miscellaneous receipts.

Two of the farms sold only feeder calves, one farm sold only finished beef, five of the farms sold both feeder calves and finished beef, two farms sold breeding stock in addition to feeders and finished beef.

Table 4.

Farm Income, Average of Ten New York Beef Farms, 1986					
Item	Cash + Receipts	Change in Inventory	+ Change in Acct's Rec'bl	= Accrual Receipts	Accrual per cow <sup>1</sup>
Feeder calf sales	\$ 5,469		\$ (7)	\$ 5,462	\$ 124
Finished cattle	7,145	\$ 694	12	7,851	178
Breeding stock	1,985	9848	700	12,533	284
Cull cattle	2,605		0	2,605	59
Other livestock	638		0	638	14
Crop Sales	6	(909)	10	(893)	(20)
Custom work	7		0	7	0
Government payments	1,472		0	1,472	33
Misc. receipts	688		0	688	16
Total Receipts	\$ 20,015	\$ 9,633	\$ 715	\$ 30,363	\$ 688

<sup>1</sup> Total Accrual Receipts / Sum open and bred cows on all farms.

### Farm Expenses

Cash Expenses are those farm expenses which were paid for in 1986. Accrual Expenses include the costs of inputs actually used in the year's production. The value of purchased feeds and supplies used out of the farm inventory are included as a cost. When feed and supplies inventories increase during the year, accrual expenses are decreased, as in Table 5. Charges for items purchased but not paid for in 1986 shown as an increase in accounts payable are also included in accrual expenses. Conversely, decreases in accounts payable, items purchased in previous years and paid for in 1986, decrease accrual expenses. Accrual expenses/cow is calculated by dividing the accrued expenses from all farms by the total number of cows. The largest beef operating expense was hired labor, followed by grain purchased and real estate taxes. Most of the farms in the summary increased their herd size in 1986, resulting in an average breeding stock purchase of \$4,400.

Table 5.

Farm Expenses, Average of Ten New York Beef Farms, 1986					
Item	Cash + Expenses	Change in Inventory	+ Change in Acct's Pay'bl	= Accrual Expenses	Accrual <sup>1</sup> Exp./cow
Hired labor	\$ 3,360	\$	\$	\$ 3,360	\$ 76
Beef grain purchased	2,705	(215)		2,490	56
Beef roughage purchased	390	(120)		270	6
Other livestock feed	900			900	20
Gasoline & oil	1,717	11		1,727	39
Machinery repairs	1,477			1,477	33
Farm auto expense	279			279	6
Machinery hire & lease	868			868	20
Vet & medicine	810	(1)		809	18
Breeding expense	471	(31)		440	10
Feeders purchased	1,089		230	1,319	30
Stockers purchased	120			120	3
Mktg & other beef exp.	626	(8)		618	14
Fertilizer & lime	1,050	1		1,051	24
Seed, spray & oth crop	563	(1)		562	13
Land, bld & fence repair	799	(87)		712	16
Taxes (real estate)	2,066			2,066	47
Insurance	1,584			1,584	36
Rent & lease	1,146			1,146	26
Telephone	249			249	6
Electricity	977			977	22
Interest Paid	1,587			1,587	36
Misc. beef expenses	1,306			1,306	30
Other operating expenses	24			24	
Total Operating Exp.	\$ 26,164	\$ (452)	\$ 230	\$ 25,942	\$ 588
Breeding Stock Purch.	4,400			4,400	100
Machinery Depreciation				2,235	51
Building Depreciation				474	11
Total Farm Expenses	\$ 30,564	\$ (452)	\$ 230	\$ 33,051	\$ 750

<sup>1</sup> Total Accrual Expenses / Sum open and bred cows on all farms.

### Farm Profitability Measures

A series of farm profitability measures are summarized in Table 6. The average net cash farm income of the ten summary farms is negative \$10,549, representing the amount (excluding principal payments) the producer contributes to the farm business from savings or off-farm income. Cash expenses include the cash purchase of breeding livestock but exclude cash paid for any other business asset. To calculate the actual value of all farm output in 1986 less the cost of farm inputs used, the net cash farm income must be adjusted for changes in inventory, changes in open accounts and depreciation. The remainder, total accrual receipts less total accrual expenses, is Net Farm Income. The average Net Farm Income shown in Table 6 is greater than the average Net Cash Farm Income, primarily because the average farm in the study was growing. The average livestock inventory increased \$10,542. This increase was due to both an increase in the number of animals held and an increase in the value of the livestock held (see Farm Statement of Net Worth, Table 7).

An opportunity cost represents the alternative use of funds invested in farm assets. An interest charge of five percent on the farm operator's average equity in livestock, machinery and equipment adjusts net farm income to reflect the Return to operator labor, management and real estate ownership. An additional charge for average real estate equity is deducted from this measure to determine the Return to operator labor and management (and unpaid family labor).

Table 6.

Measures of Farm Profitability, Average of Ten New York Farms, 1986		
Item	My Farm	Average
Total Farm Cash Receipts	_____	\$ 20,015
- Total Farm Cash Expenses	- _____	- 30,564
= Net Cash Farm Income	= _____	= \$ (10,549)
Net Cash Farm Income	_____	\$ (10,549)
+ Increase in inventory <sup>1</sup>	+ _____	+ 10,085
+ Change in accounts receivable	+ _____	+ 715
- Change in accounts payable	- _____	- 230
- Machinery & building depreciation	- _____	- 2,709
= Net Farm Income	= _____	= \$ (2,688)
Net Farm Income	_____	\$ (2,688)
- Interest on mach. & livestock net worth <sup>2</sup>	- _____	- 2,992
= Return to operator labor, management and real estate ownership	_____	= \$ (5,680)
- Interest on real estate net worth <sup>3</sup>	- _____	- 2,752
= Return to operator labor and management	= _____	= \$ ( 8,432)

<sup>1</sup> \$ 9633 net increase in cattle and crop inventory (Table 4) plus \$ 452 net increase in feed and supplies inventory (Table 5).

<sup>2</sup> [(Jan 1, 1986 net worth in cattle, other livestock and machinery + Dec 31, 1986 net worth in cattle, other livestock and machinery)/2 \* .05]. Net worth = investment - (short + intermediate term debt).

<sup>3</sup> [(Jan 1, 1986 real estate net worth + Dec. 31, 1986 real estate net worth)/2 \* .05]. Real estate net worth = real estate assets - long term debt.

Farm Statement of Net Worth

Farm assets were valued at market value. Beef livestock is valued at the Federal-State Livestock Market News quoted values.<sup>1</sup> The value of bred cows and heifers was estimated by Peter Comerford, New York State Ag. and Markets, Table 7. Liabilities include only farm liabilities and the farm portion of liabilities such as mortgages and auto loans. The farm net worth and equity position of the farms in the summary tended to be very good with an average net worth of \$137,208. The average farm net worth increased from the beginning to the end of the year due to an increase in farm assets and a decrease in farm liabilities. This is an increase of eighteen percent. In comparison, The New York State 1986 Dairy Farm Business Summary<sup>2</sup> showed an average increase in net worth of six percent for 414 dairy farms.

Table 7.

Livestock Market Values - January 1, 1986 and December 31, 1986<sup>3</sup>

<u>Cattle Type</u>	<u>Jan. 1, 1986</u>	<u>Dec. 31, 1986</u>
Bred cows and heifers	\$ 400.00 /hd	\$ 600.00 /hd
Open cows	.35 /lb	.38 /lb
Bulls	.44 /lb	.45 /lb
Replacement heifers	.47 /lb	.60 /lb
Finish cattle weighing less than 800 lbs.	.47 /lb	.60 /lb
Finish cattle weighing more than 800 lbs.	.59 /lb	.62 /lb

---

<sup>1</sup> Livestock Market News. New York State Department of Agriculture and Markets. Volume 5. Issue 1. and Volume 6. Issue 1.

<sup>2</sup> Stuart F. Smith, Wayne A. Knoblauch, and Linda D. Putnam. AE Research 87-20, Dairy Farm Management Business Summary - New York 1986. Department of Agricultural Economics, Cornell University, Ithaca New York. July 1987.

<sup>3</sup> Data sources: Federal-State Livestock Market News quoted values and estimates by Peter Comerford, New York State Department of Ag. & Markets.

Table 8.

Farm Statement of Net Worth,  
Average of Ten New York Beef Farms, 1986

ASSETS	Jan 1, 1986	Dec. 31, 1986	Change
Current			
Farm cash, checking, savings	\$ 516	\$ 1,031	\$ 514
Accounts receivable	37	752	715
Stocks & certificates	110	116	6
Feed & supplies	10,732	10,275	(456)
Intermediate			
Cows	\$ 17,650	\$ 26,449	\$ 8,799
Heifers	3,099	4,065	966
Bulls	1,670	1,753	83
Finish cattle	6,038	6,732	694
Other livestock	680	246	435
Machinery & equipment	29,918	34,913	4,995
Long-term			
Land & buildings	\$ 81,549	\$ 82,555	\$ 1,006
Total Farm Assets	\$ 151,998	\$ 168,885	\$ 16,887
<u>LIABILITIES &amp; NET WORTH</u>			
Current			
Accounts payable	\$ 0	\$ 0	\$ 0
Operating debt	530	27	(\$503)
Short term debt	0	500	\$ 500
Intermediate debt	6,640	5,835	(\$805)
Long-term debt	28,749	25,285	(\$3,465)
Total Farm Liabilities	\$ 35,920	\$ 31,647	\$ (4,273)
Farm Net Worth	\$ 116,078	\$ 137,238	\$ 21,159

### Herd and Crop Management

Tables 9 and 10 contain summaries of productivity in various categories. The average herd and crop management measures include only those farms reporting a given measure. The range is the top and bottom value of all farms in the summary. Percentage calves weaned indicates herd reproductive efficiency, which reflects percent of cows kept that settled and raised calves. This measure is indicative of herd health and nutritional management prior to breeding as well as bull fertility. In herd reproductive efficiency, those at the low end of the range compare with the average for the United States (81% calf crop) and those at the upper end compare with the top five percent (90 % calf crop or better)<sup>1</sup>. Average weaning weight is indicative of genetic capability of the herd as well as pasture management. Weaning weights for the low end of the range compares to a U.S. average of approximately 400 lbs. and the high end compares to an average of 525 lbs. or higher for the top 5 percent. Cow longevity is important because of the time needed to overcome the cost of heifer rearing. A cow doesn't reach maturity and maximum productivity until four to five years of age.

On the average, about half of the calves were sold as feeders and the other half were sold as finished beef. If cost of gain is competitive, retaining ownership to finished weights can be an effective way to increase profits and decrease risk by selling more weight per cow maintained and spreading price risk over two phases of beef production. In addition, the average price received for finished cattle reported by the ten farms was higher than the U.S. average for 1986 but the price for feeder cattle was below average, indicating that these producers have a better market for finished than for feeder cattle. It is difficult to evaluate the importance of acres/cow kept because of variations in land and production costs/acre. One of the key measures of efficiency is the number of days productive pasture is available. Every day on pasture saves an average of 50 cents to one dollar in feed costs<sup>2</sup>. The average days on pasture was 184, which is typical of New York State. However, it is not known how productive the pasture was over the 184 days. A decline in pasture quality and quantity in late summer and fall can reduce calf gains by 1 to 2 lbs/day<sup>3</sup>. An important measure which should be considered when measuring productivity is total feed cost/cow. The cost of increasing land productivity must be weighed against reductions in feed costs/cow and the increased number of cows that can be kept. However, increasing the stocking rate can help dilute overhead costs.

---

<sup>1</sup> National Cattlemen's Association estimates. Personal communication.

<sup>2</sup> Philip Teague, Soil Conservations Service Economist. Personal communication.

<sup>3</sup> Dan G. Fox, Fact Sheet 1300B. Cornell Beef Production Manual. Cornell University 1986.

Table 9. Herd and Crop Management Measures,  
Average of Ten New York Beef Farms, 1986

Item	My Farm	Average	Range
Calves weaned/cow wintered %	_____	90.0	79 - 100
Calves born/cow wintered %	_____	95.4	83 - 100
Average weaning weight, lbs.			
First calf heifers	_____	436.9	330 - 602
Second calf and mature cows	_____	533.1	375 - 655
Percent of calves weaned/cow exposed			
First calf heifers	_____	73.2	0 - 100
Second calf and mature cows	_____	90.9	74 - 100
Average age cows, years	_____	5.80	3.95 - 7.68
Number of bulls used	_____	1.8	1 - 5
Number of feeders sold	_____	19.1	0 - 61
Average weight / feeder sold	_____	533.1	0 - 700
Aver. feeder price received/cwt.	_____	59.8	0 - 62.98
Number of finished cattle sold	_____	17	0 - 81
Ave. wt/ finished animal	_____	1042	0 - 1300
Ave. finish cattle \$/cwt. received	_____	64.22	0 - 84.61
Tons hay crop dry matter per acre	_____	1.67	0 - 2.98
Tons forage dry matter per acre	_____	1.90	0 - 3.90
Total tons dry matter harvested /cow	_____	4.84	.40 - 9.41
Direct crop expenses /ton dry matter	_____	\$ 12.64	\$ 1.13 - 54.54
Tillable acres /cow	_____	4.2	.5 - 10.5
Pasture acres /cow	_____	4.6	2.1 - 8.6
Days on pasture	_____	184	153 - 230

Table 10 shows the average distribution of females in the herd and average weaning weights by age group. For example, cows one year of age made up 21 percent of the cows held over the winter. Two year old cows accounted for producing 20 percent of the calves born and 18 percent of the calves weaned. Of all of the females exposed to the bull, 21 percent were two year olds. Calves born to two year old cows had an average weaning weight of 499 pounds. Table 10 shows that the heaviest weaning weights were obtained by the cows in the 4 and 5-10 year old weight groups. The average for the United States has been estimated to be between 4 to 6 calves produced in a lifetime. The age distribution shown in Table 10 appears to be near average. Those farms that are expanding with their own replacement heifers will have an average younger age; however average weaning weights may not be lower for long if the heifers are genetically superior to the cows that they are replacing.



Table 10.

Age group (years)	Herd Females by Age Group, Average of Ten New York Beef Farms, 1986				Weaning Weight (lbs)
	Percentage of Herd Females Cows wintered	Calves born	Calves weaned	Exposed to bull	
1	21	0	0	0	
2	16	20	18	21	499
3	12	15	15	16	543
4	12	15	16	15	577
5-10	31	39	40	38	549
11+	8	11	11	10	515

#### Cow-calf Business Summary Comparisons

In the long run, the most important indicator of the beef cattle enterprise's ability to survive as a business is its productive and economic efficiency as compared to industry averages for competing regions and the United States as a whole. Table 11 contains a comparison of selected factors contained in the Iowa cow calf business summary<sup>1</sup> and the corresponding values for the ten New York State producers surveyed. A comparison of the two regions is important because cattle and beef move readily from one region to another, and therefore the competitive advantage or disadvantage is determined by cost of production/lb of calf produced adjusted for transportation to or from competing regions. The New York average herd size is smaller than the herd size in either of the Iowa State profit groups. Vet and medicine costs per cow were similar to the average for the Iowa State low profit group. Total operating were much higher in the New York State group than that reported by either of the Iowa groups. The most striking difference between the New York and Iowa State costs were those related to capital investment. The average for these ten farms greatly exceeded even the low profit group in the categories of depreciation, taxes and interest and capital use. The profitability measures of Net Farm Income and Return to Operator Labor and Management were more favorable on the Iowa beef farms sampled.

<sup>1</sup> Daryl R. Strohhahn. 1986 State Summary - Iowa Beef Cow Business Record. Iowa State University Extension Service.

However, differences in the Iowa and New York farm's structure may explain some of these disparities. Most of the Iowa herds are on farms with crop enterprises. For example, the typical Iowa beef producer would allocate machinery purchase as well as fixed expenses such as taxes, utilities, insurance, interest and repairs over several enterprises. All of the producers in the New York beef summary were primarily beef producers and all expenses were charged solely to the beef business. In many cases, a beef cow-calf enterprise is maintained on land which would be held even if there was no farm enterprise operated. Dr. Strohbehn, author of the Iowa State summary, stated that "inflated figures for land tends to skew the actual performance results of the cowherd."<sup>1</sup> Land ownership and other personal expenses such as taxes, utilities, building and auto maintenance may be charged to the beef enterprise making the calculated profitability appear worse than it actually is. In these cases, the farm owner and manager must honestly determine which expenses would continue despite the beef enterprise and evaluate the business in that context. Other factors that should be considered by an individual when making decisions relative to the beef business are possible income tax benefits and building equity position through investment in the farm.

Table 11.

A Comparison of Selected Economic Factors,  
Ten New York Beef Farms and Reporting Iowa State Cow-calf Producers

Item	Your Farm	New York	Iowa Lower 1/3 <sup>2</sup>	Iowa Higher 1/3
Number of cows	_____	44.2	57.0	51.8
Net Farm Income	\$ _____	\$ (2,688)	\$ 3,912	\$ 13,620
Return to Labor and Management	_____	(10,121)	(917)	10,418
Cash cost/cow:				
Vet & Medicine	_____	18	18	13
Total Operating <sup>3</sup>	_____	446	205	161
Depr., Taxes & Insurance	_____	145	25	18
Capital Charge/cow <sup>4</sup>	_____	179	83	63

<sup>1</sup> Daryl Strohbehn (quoted). Greg Henderson. "Cowherds in the Black." The Drovers Journal Magazine. September 1986.

<sup>2</sup> Sorted on Margin over all costs per cwt. weight of beef produced.

<sup>3</sup> This value does not include taxes, insurance, livestock purchased or non-beef enterprise expenses.

<sup>4</sup> In the Iowa State Summary cooperators estimate their long and short term interest charges which are used to calculate this value (approximately 11 and 6 % respectively). The New York value is average net worth charged at 5 % plus interest paid.

AMENDED TABLE 11.

Table 11.

A Comparison of Selected Economic Factors,  
Ten New York Beef Farms and Reporting Iowa State Cow-calf Producers

Item	Your Farm	New York	Iowa Lower 1/3	Iowa Higher 1/3
Number of cows	_____	44.2	57.0	51.8
Net Farm Income	\$ _____	\$ (2,688)	\$ 3,912	\$ 13,620
Return to Labor and Management	_____	( 8,432)	(917)	10,418
Cash cost/cow:				
Vet & Medicine	_____	18	18	13
Total Operating	_____	446	205	161
Depr., Taxes & Insurance	_____	145	25	18
Capital Charge/cow	_____	179	83	63