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**BEEF COSTS AND RETURNS ON
41 NEW YORK FARMS, 1951**

by

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BEEF COSTS AND RETURNS
ON 41 NEW YORK FARMS, 1951

INTRODUCTION

Among many New York farmers there has been considerable interest in beef cattle production during recent years. The beef enterprise offers an opportunity for the efficient utilization of relatively low quality roughage. It has low labor requirements, especially during the summer and fall months. Due primarily to these characteristics, the beef enterprise combines well with many New York farm enterprises--particularly such enterprises as fruit and cash crops.

However, there has been no up-to-date data available on costs and returns from the beef enterprise on New York farms. To obtain such data, and additional information about the nature of the beef enterprise, a survey of 41 farms with beef enterprises was made in New York State during the summer of 1952. The study covered the twelve-month period ending December 31, 1951. The farms included in the survey were located throughout central and western New York (figure 1).

Purposes

The primary purpose of this study was to obtain the costs and returns from the beef enterprise on a group of New York farms. Other objectives were to determine: (1) the amounts of feed, labor and other physical cost factors required to carry on the beef enterprise on these farms, and (2) the changes, if any, that have taken place during the past decade in the raising of beef cattle on New York farms-- particularly, changes in costs and returns, physical cost factors, and management practices.

Economic Situation

One measure of the economic situation relative to beef production is a comparison between beef prices in New York State and the prices

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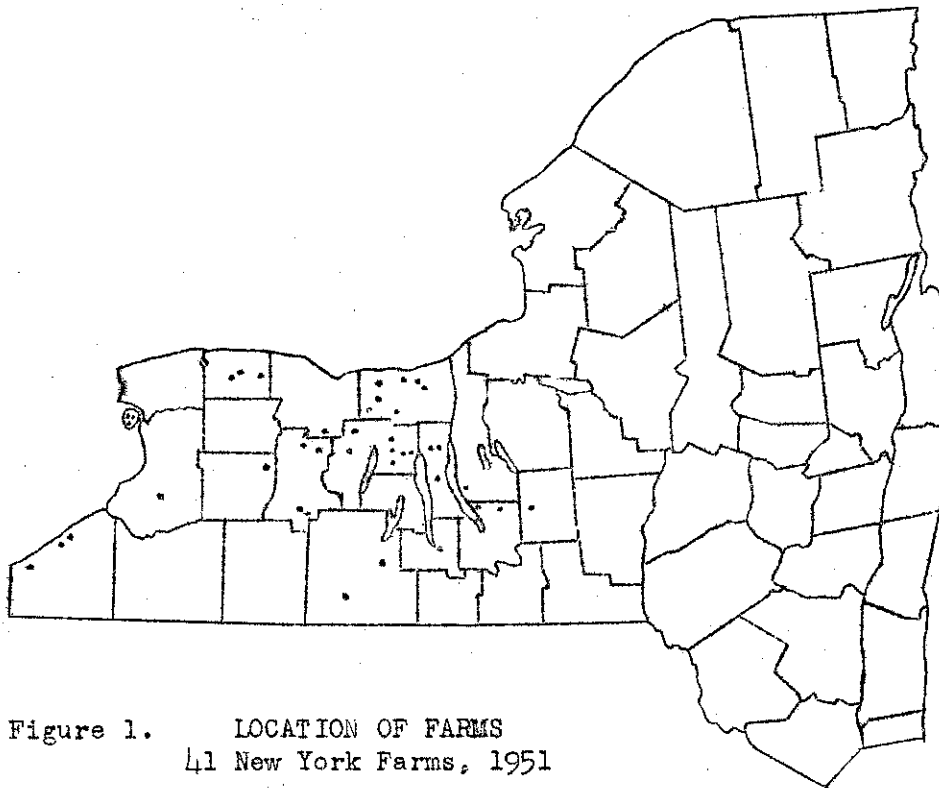


Figure 1. LOCATION OF FARMS
41 New York Farms, 1951

farmers in the United States pay for articles they buy. Figure 2 shows the purchasing power of beef based on these prices for the period 1910 through 1952. The index of 160 in 1951 was the highest point reached during this period of more than 40 years. Certainly, 1951 was a very favorable year for profitable beef production in New York State.

DESCRIPTION OF FARMS STUDIED

Measured in terms of total acres and acres of crops, the farms in the study were relatively large in size. They averaged approximately a 2-man business with a total of 610 work units (table 1).

Table 1. SIZE OF FARM BUSINESS
41 New York Farms, 1951

Measure of size	Average per farm
Total acres operated	303
Acres of crops	166
Total work units	610
Man equivalent	1.8

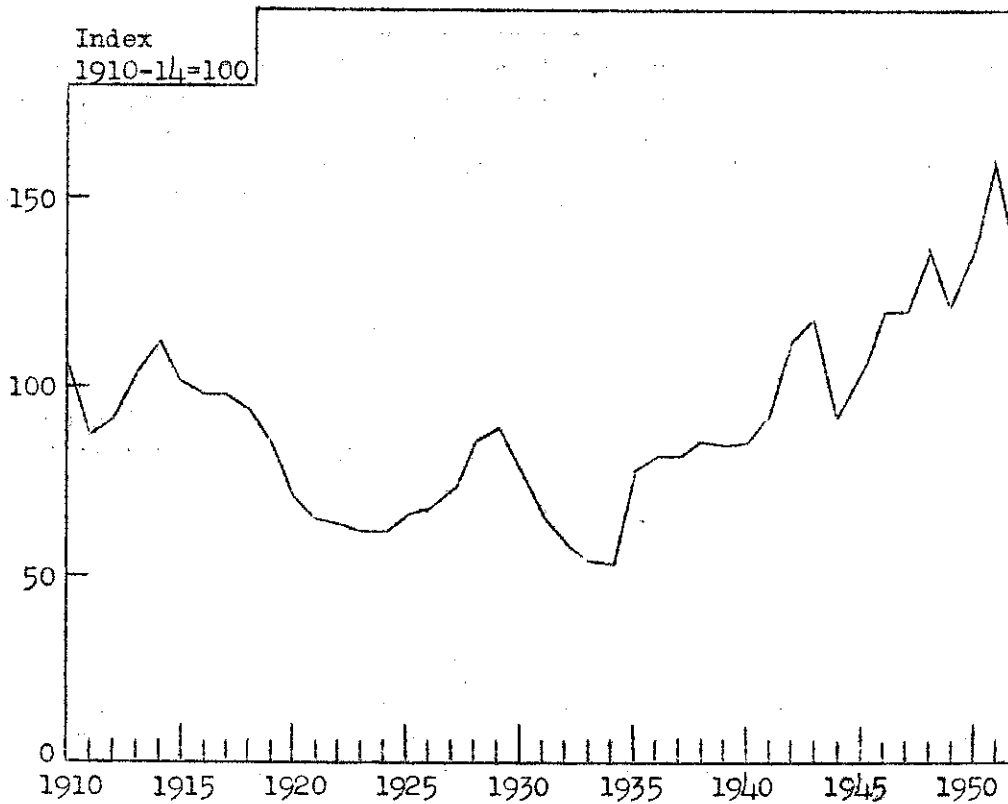


Figure 2. PURCHASING POWER OF BEEF IN NEW YORK STATE, 1910-52
 (Based on indexes of Annual-Average Farm Prices for Beef Cattle in New York and Prices Farmers Pay for Articles They Buy, United States)

As a rule, the farms were well diversified with no single enterprise absorbing the major part of the productive labor, although fruit and cash crops were somewhat more important than other enterprises. An average of slightly over 14 per cent of the total productive labor on these farms was directly on the beef enterprise (table 2). This labor does not include the time spent in growing feed crops for the beef herd.

Table 2. DISTRIBUTION OF PRODUCTIVE WORK
 41 New York Farms, 1951

Enterprise	Work units per farm	Percentage of total
Beef	87	14.3
Dairy	64	10.5
Poultry	72	11.8
Other livestock	21	3.5
Forage crops	67	11.0
Grain crops	82	13.4
Fruit	114	18.7
Cash crops	103	16.8
Total	610	100.0

On 14 of the farms 25 per cent or more of the productive labor was spent on the beef enterprise. If an enterprise absorbing 25 per cent or more of the labor on a farm is considered a major enterprise, the growing of grain crops was a major enterprise on 9 of the farms; fruit on 8; dairying on 8; the growing of cash crops on 7; and poultry on 6 of the farms. The growing of forage crops was a major enterprise on 5 of the farms studied.

THE BEEF-BREEDING ENTERPRISE

Thirty-nine of the farms included in the survey carried on beef-breeding enterprises while two farms had strictly feeder operations. Since the number of farms with feeder enterprises was so low, no analysis of these records was made.

Breeds of Beef Cattle

Of the beef-breeding herds studied, 18, or about 46 per cent, were Hereford. Fourteen herds were Aberdeen-Angus and 6 were Shorthorn. One herd consisted of both Shorthorn and Hereford cattle.

Size of the Beef Enterprise

The farms with beef-breeding enterprises had an average of 39 animals in their herds during the year (table 3). Of this number, 20, or approximately one-half of the total were mature breeding cows. On the average, there were 10 calves, 5 yearlings, 3 steers, and 1 bull in these herds.

Table 3.

SIZE OF THE BEEF ENTERPRISE
39 New York Farms, 1951

Type of animals	Number per farm	
	Average	Range
Breeding cows	20	7 - 51
Bulls	1	0 - 2
Yearlings	5	0 - 17
Steers	3	0 - 26
Calves	10	1 - 25
Total	39	11 - 102

There was considerable variation between farms in size of herds as well as in numbers of the different types of beef animals. The average number of breeding cows ranged from a low of 7 to a high of 51. On the majority of farms only one bull was kept for the year. However, 7 of the farms had 2 bulls, and 1 farm had none.

The average number of yearlings and steers ranged from none to 17, and none to 26, respectively. There was a range in the number of calves from a low of 1 calf to a high of 25. The average size of herd for the 39 farms ranged from a low of 11 animals to a high of 102.

The beef enterprises included in this study were larger on the average, than those included in a similar survey made in New York State in 1941. At that time the 42 farms surveyed had an average of 14 mature breeding cows in their herds and an average of 30 animals wintered.

Feed Used

The average amount of feed used per farm and per animal unit is presented in Table 4. To maintain the herd with an average size of 20 breeding cows and the accompanying other types of beef livestock required approximately 9 tons of grain per farm. The grain ration was comprised mainly of home-grown corn and oats although some protein supplement was fed on practically all of the farms. Sixty-two tons of silage and nearly forty-two tons of dry forage were used. An average of 620 pounds of grain and 7068 pounds of roughage were required per animal unit.

Table 4. FEED USED PER FARM AND PER ANIMAL UNIT
39 New York Farms, 1951

Kind of feed	Average per farm	Average per animal unit
	Tons	Pounds
Grain	9.1	620.0
Silage	62.0	4230.9
Dry forage	41.9	2837.3
Total	113.0	7688.2

Approximately 98 per cent of the feed used was homegrown. This might be expected since the farms studied were located primarily in an area in which a relatively large amount of grain is grown. By way of comparison, the average amount of feed used per animal unit for 47 farms in 1941 was about 743 pounds of grain, 1.6 tons of hay and 2.2 tons of silage. This was slightly more than the average amount used in 1951. The kind and amount of both homegrown and purchased feed used is given in Table A in the Appendix.

Primarily, on the basis of records obtained from the farmers surveyed, it was possible to distribute the average amount of feed used per farm among the five types of beef animals kept (table 5). In some instances where complete feed records for each type were not available, estimates were made based on animal units. On the majority of the farms the mature breeding cows received no grain during the year. The feeding of some grain to the breeding cows on a few farms resulted in an average

of 76 pounds per cow for the 39 farms. Slightly over 4 tons of roughage was fed per cow, of which about 2.6 tons was silage.

Table 5. FEED USED PER TYPE OF BEEF ANIMAL
39 New York Farms, 1951

Kind of feed	Average per type of beef animal				
	Cow	Bull	Yearling	Steer	Calf
	<u>Number of pounds</u>				
Grain	76	562	685	1984	707
Silage	5219	2688	2386	1185	447
Dry forage	2891	3112	1922	1484	1020
Total	8186	6362	4993	4653	2174

The large amount of grain fed per steer, nearly a ton, was due to the feeding practices followed by some of the purebred-herd owners. On these farms the steers were fed from 1 1/2 to 2 tons of grain, presumably to grow them out to a larger size and to put a better finish on these animals.

Labor Required

An average of slightly over 629 hours of labor was required per farm on the beef enterprise (table 6). As might be expected, over 80 per cent of the labor was spent in feeding and bedding the animals during the barn-feeding period. The average amount of labor required per animal unit was 21.4 hours, of which 17.4 hours was used in feeding and bedding.

Table 6. LABOR REQUIRED PER FARM AND PER ANIMAL UNIT
39 New York Farms, 1951

Item	Average per farm	Average per animal unit
	<u>Number of hours</u>	
Feeding and bedding	512.5	17.4
Cleaning	97.4	3.3
Other	19.5	0.7
Total	629.4	21.4

On the average, for 47 farms in 1941, the labor required was approximately 418 hours per farm and 21.3 hours per animal unit. There appears to have been no significant change in the labor requirements of the beef enterprise during this period.

The average amount of labor required for the different types of beef animals kept is shown in Table 7. There was little difference in the labor spent per yearling, steer, and calf--averaging about 11.5 hours per year for each type.

Table 7. LABOR REQUIRED PER TYPE OF BEEF ANIMAL
39 New York Farms, 1951

Type of beef animal	Average hours per type
Cow	20.3
Bull	25.4
Yearling	11.6
Steer	11.6
Calf	11.5

Of the approximately 629 hours of labor used per farm on the beef enterprise, 383 hours were spent by the operator. Slightly over 201 hours of paid labor and about 45 hours of unpaid labor (other than the operator) were also used on the enterprise. The amounts of the various types of labor spent on each type of beef animal are presented in the Appendix, Table B.

Investment in Buildings and Equipment

The method used in this study in determining building and equipment costs was to apply a cost rate to the investment in these items. On 36 of the farms the buildings were used not only by the beef enterprise but for other enterprises as well. In such cases the farmer was asked to estimate the total value of the buildings used and then to estimate what portion of the total value should be charged to the beef enterprise. That portion of the total investment in buildings allocated to the beef enterprise averaged nearly \$3415 per farm for the 39 farms. The average total investment in buildings used amounted to approximately \$9435 per farm. Thus, about \$6020 of the total investment was charged to enterprises other than beef.

The same method was used in determining the investment in equipment. About \$312 was invested per farm in equipment such as feeding and watering equipment, scales, loading chutes, and fitting and showing equipment. That portion of this investment allocated to the beef enterprise averaged approximately \$275 per farm.

Calf Crop

The percentage calf crop in this study was determined from the beginning number of cows and the number of calves born during the year. From the 771 breeding cows kept on the 39 farms studied, 697 calves were

born, resulting in a calf crop of 90.4 per cent. This percentage ranged from a low of 50 per cent. to a high of 100 per cent. On 13, or one-third of the farms, the percentage calf crop was 100 per cent. Approximately 66 per cent of the calves were born during the two months of April and May, and slightly over 78 per cent of the calves were born during the period from April 1 to June 30.

Manure, Bedding, and Pasture

The manure produced by the animals in the beef enterprise on these farms averaged about 19.4 tons per farm or 6.6 tons per animal unit. Approximately 18 tons of bedding were used per farm, averaging slightly over 0.6 ton per animal unit. The average length of the pasture season for the beef enterprise was about 180 days.

Sales of Animals

From the 39 herds, 467 beef animals of all types were sold. This number includes not only animals sold for breeding purposes, but also those sold for beef. Approximately 37 per cent of these animals were calves, and slightly over 32 per cent were steers. The 6 bulls were sold for breeding purposes (table 8).

Table 8. TYPES AND NUMBER OF BEEF ANIMALS SOLD
39 New York Farms, 1951

Type of beef animal	Total sold		Average value per head	
	Number		Dollars	
Cow	35		324	
Bull	6		686	
Yearling	104		404	
Steer	150		339	
Calf	172		221	
<u>All types</u>	<u>467</u>		<u>313</u>	

The average value per head ranged from \$221 for calves to \$686 for bulls. The entire 467 head averaged \$313 each. Returns from the sales of steers, yearlings, and calves represented about 35 per cent, 29 per cent, and 26 per cent, respectively, of the total income from sales.

The farmers in this study used several market outlets in selling their animals. Some of the more common outlets used were: livestock auctions, local sales at the farm, Dutchess County purebred sale, New York State sale, and the Buffalo livestock market. About 75 per cent

of the total number of animals sold were marketed through four outlets-- the regular livestock auction at Caledonia and the annual beef cattle auction at Palmyra, the Buffalo livestock market and local sales. The auction at Caledonia, through which over 39 per cent of the animals were sold, was the most important single market outlet used.

COSTS AND RETURNS

In determining costs and returns the value of the feed used by the beef animals during the year was obtained from the farmer. The cost of purchased feed was taken from the feed purchase slips or account books kept by the farmer while the amounts and values of home-grown feeds used were estimated by the farmer.

The number of hours of each type of labor spent on the beef enterprise was secured from the farm operator. The value of the operator's time was set at \$1.00 per hour. Labor rates for all other unpaid labor and for all paid labor were calculated from information supplied by the farmer.

The costs for buildings and equipment, horse and tractor use, and use of auto and truck were calculated by applying a cost rate to the average inventories and to the hours or miles of use.

An interest charge of 5 per cent was made on the average capital invested in the beef animals.

Pasture costs were charged at a flat rate of \$10 per head pastured. In those cases in which the farmer rented pasture the average cost was \$9.45, indicating that the figure of \$10 per head was in line with prevailing farm conditions.

Returns from animals sold were obtained from the farmer. Manure was credited in this study at the rate of \$2 per ton.

Gain or loss on the beef enterprise was computed by taking the difference between total receipts and total costs.

Return per hour of labor was calculated by adding the gain or loss to the total cost of labor and dividing that sum by the total hours of labor on the beef enterprise.

Costs and Returns per Farm

The average total cost per farm of the beef enterprise was \$44.85 (table 9). Approximately 46 per cent of this total expense was for feed, including grain, roughage, and pasture. The value of the hay fed averaged about \$18 per ton; silage, \$4.50 per ton; and grain, \$3.44 per hundred pounds.

Table 9. COSTS AND RETURNS PER FARM FROM THE BEEF ENTERPRISE
39 New York Farms, 1951

Item	Average per farm	Proportion of total
	Dollars	Per cent
Costs:		
Roughage	1039	
Grain	629	
Pasture	401	
Total feed	2069	46
Labor	592	13
Bedding	268	6
Buildings and equipment	610	14
Interest on investment	687	15
Miscellaneous	259	6
Total costs	4485	100
Returns:		
Sales	3748	62
Increase in inventory	1881	31
Manure credit	388	6
Miscellaneous	25	1
Total returns	6042	100
Net profit per farm	1557	
Return per hour of labor	3.41	

The interest on the investment in beef cattle amounted to \$687 per farm and was about 15 per cent of the total costs. Labor costs and the charge for use of buildings and equipment were also important items of expense--averaging 13 per cent and 14 per cent of the total costs respectively.

The net profit on the beef enterprise averaged \$1557 per farm. Only four of the farms studied suffered a net loss on their beef operations. This does not mean that they suffered actual cash losses but that these operators worked for lower wages and/or received less than estimated for other non-cash items.

Return per hour of labor averaged \$3.41--a substantial return for time spent on the beef enterprise. It should be remembered, however, that a total of only 629 hours of labor was spent per farm. Beef is a relatively extensive enterprise and requires a relatively small amount of labor as compared with dairying, poultry and some other New York farm enterprises.

The total sales of both breeding stock and beef animals averaged \$3748 per farm and represented 62 per cent of the total returns. About 31 per cent of the total returns came from a net increase in the inventory value of the beef animals.

As shown in Table 10 a significant reason for the net increase in inventory value was the increase in the number of animals during the year. There were 1685 animals on hand at the end of the year, compared with 1312 at the beginning of the year--an increase in numbers of over 25 per cent.

Table 10. CHANGES IN INVENTORY OF BEEF ANIMALS
39 New York Farms, 1951

Type of beef animal	Beginning inventory	Purchased	Born	Sold	Died	Ending inventory
			Number			
Cow	736	26	--	35	1	778
Bull	43	9	--	6	--	53
Yearling	108	43	--	104	--	219
Steer	69	13	--	150	--	82
Calf	356	69	697	172	16	553
Total	1312	160	697	467	17	1685

Another important factor affecting the increase in inventory value was the increase in weight of some of the animals, particularly calves and yearlings. A writing-up of the values of the mature animals was held to a minimum.

Costs and Returns per Breeding Cow

The total costs of the beef enterprise averaged \$231 per mature breeding cow in the herd. Of this total, feed costs were the most important item of expense--averaging \$107 per breeding cow (table 11).

The total income from sales and increase in inventory averaged \$290 per cow, over 90 per cent of the total returns of \$311. Manure credit for the manure produced by all beef animals amounted to \$20 per breeding cow.

Subtracting the total costs of the enterprise from the total returns, a net profit of \$80 per breeding cow remained.

Profits During a Period of Lower Purchasing Power

The purchasing power of beef was at an abnormally high level during the period covered by this study. For this reason, the profits realized from the beef enterprise in 1951 were much higher than those that might normally be expected.

Table 11. COSTS AND RETURNS PER BREEDING COW IN THE BEEF ENTERPRISE
39 New York Farms, 1951

Item	Average per cow in the herd
	<u>Dollars</u>
Costs:	
Roughage	54
Grain	32
Pasture	21
Total feed	107
Labor	30
Bedding	14
Buildings and equipment	32
Interest on investment	35
Miscellaneous	13
Total costs	231
Returns:	
Sales	193
Increase in inventory	97
Manure credit	20
Miscellaneous	1
Total returns	311
Net profit	80

It seemed desirable to estimate the profits for a period during which the purchasing power of beef in New York State was somewhat lower than in 1951. The period selected was the 10 years from 1941 through 1950. The index of the purchasing power of the farm prices of beef cattle in New York in terms of the prices farmers in the United States pay for articles they buy, averaged approximately 118 during this period. As compared to the index of purchasing power of 160 in 1951, the index for the 1941-50 period was 42 points or slightly over 26 per cent lower.

To adjust for this decrease in purchasing power the returns from the sales of beef animals and the inventory values for 1951 were reduced by about 26 per cent, while the 1951 costs were kept the same. The results of this deflation process are shown in Table 12.

With lower purchasing power of New York farm prices for beef, the estimated average returns from the sales of beef animals was \$2764 for the 1941-50 period. The net increase in inventory value dropped to \$1387 while returns from manure and miscellaneous returns were left unchanged. This resulted in an estimated net profit per farm of \$79 and a return for labor of \$1.06 per hour. This compares closely with the return per hour of labor of \$1.00 during the 1940-41 period.

Table 12. COMPARISON OF PROFITS FROM THE BEEF ENTERPRISE IN 1951 WITH ESTIMATED AVERAGE PROFITS FOR THE TEN-YEAR PERIOD, 1941-50
39 New York Farms

Item	Actual 1951	Estimated 1951 based on average conditions, 1941-50
	<u>Dollars</u>	
Costs per farm:		
Roughage	1039	1039
Grain	629	629
Pasture	401	401
Total feed	2069	2069
Labor	592	592
Bedding	268	268
Buildings and equipment	610	610
Interest	687	687
Miscellaneous	259	259
Total costs	4485	4485
Returns per farm:		
Sales	3748	2764
Increase in inventory	1881	1387
Manure	388	388
Miscellaneous	25	25
Total returns	6042	4564
Net profit per farm	1557	79
Return per hour of labor	3.41	1.06

It is estimated that, on the average, over a considerable period of time, the profits above all costs from the beef enterprise will be relatively low. Farmers may expect to: (1) have a reasonably good market for their roughage and other feed, (2) get reasonable wages for the time spent on the enterprise, and (3) have the manure for use on their crops.

Comparison with Study Made in 1941

As shown in Table 13, both the costs and returns per farm in 1951 were more than 4 times their level in 1940-41. Both net profit per cow and return per hour of labor were over 3 times as high in 1951 as in the 1940-41 period.

Table 13. COMPARISON OF COSTS AND RETURNS FROM THE BEEF ENTERPRISE
42 New York Farms, 1940-41; and 39 New York Farms, 1951

Item	Average per farm		Average per cow	
	1940-41	1951	1940-41	1951
<u>Dollars</u>				
Costs:				
Roughage	399	1039	30	54
Grain	213	629	15	32
Pasture	<u>113</u>	<u>401</u>	<u>8</u>	<u>21</u>
Total feed	725	2069	53	107
Labor	150	592	11	30
Buildings and equipment*	42	610	3	32
Interest on investment	158	687	11	35
Miscellaneous**	22	527	2	27
Total costs	1097	4485	80	231
Returns:				
Sales	889	3748	64	193
Increase in inventory	357	1881	25	97
Manure credit	150	388	11	20
Miscellaneous	18	25	1	1
Total returns	1414	6042	101	311
Net profit	317	1557	21	80
Return per hour of labor	1.00	3.41		

* Listed in 1941 as housing.

** Includes bedding costs in 1951.

FACTORS AFFECTING COSTS AND RETURNS

Size of Breeding Herd

One of the major factors affecting costs and returns and thus profits, from the beef-breeding enterprise was the number of cows in the breeding herd. The 39 herds were divided into three groups--small, medium, and large on the basis of the number of mature breeding cows in the herd.

The largest one-third of the herds were very efficient in the use of labor, requiring only 14.8 hours per animal unit as compared with 39.5 hours for the group of small herds (table 14). Feed used per animal unit was lowest for the one-third of the herds that were medium in size. There was little difference between the groups of small and large herds in the amount of feed required per animal unit.

Costs for the individual expense items as well as total costs per cow were much lower for the group of large herds than for the group of small herds. The most significant differences in costs were in feed,

Table 14.

RELATION OF SIZE OF BREEDING HERD TO COSTS
AND RETURNS FROM THE BEEF ENTERPRISE
39 New York Farms, 1951

Item	Size of breeding herd		
	Small	Medium	Large
Number of farms	13	13	13
Average number of cows	10	16	32
Average number of animal units	17	25	46
Per cent calf crop	89.6	94.9	85.9
Labor per animal unit (hours)	39.5	21.2	14.8
Feed per animal unit:			
Grain (pounds)	621	578	642
Roughage (pounds)	7636	5956	7406
		Dollars	
Costs per mature cow:			
Feed	125.27	114.86	96.57
Labor	63.72	29.44	20.45
Bedding	23.28	12.22	11.58
Buildings and equipment	56.22	26.22	26.18
Interest	52.78	33.45	30.82
Other	21.79	11.15	11.78
Total costs	343.06	227.34	197.38
Returns per mature cow:			
Sales	158.82	193.62	203.69
Increase in inventory	220.19	94.38	59.07
Manure	30.19	20.73	16.44
Other	5.34	--	0.63
Total returns	414.54	308.73	279.83
Net profit per cow	71.48	81.39	82.45
Return per hour of labor	2.06	3.30	4.82

labor, and building and equipment costs. The total costs for the large herds averaged about \$30 less per cow than the costs for the group of medium size herds, and approximately \$146 less per cow than the costs for the small herds.

Total returns per breeding cow were highest for the small herds, averaging slightly over \$414 per cow. Over one-half of the returns for this group were due to an increase in inventory. The returns per cow were lowest for the large herds--nearly \$280 per cow.

Even with relatively low total returns, the group of large herds averaged the highest net profit per cow. The profit of over \$82 per cow for this group was about \$1 more than the profit per cow for the group of medium-size herds and approximately \$11 higher than that of the small herds.

Returns per hour of labor were highest on the farms with the large herds. They were more than twice that for the operators with small herds and approximately \$1.50 per hour greater than that for those with herds of medium size.

Type of Operation

Another important factor affecting costs and returns was the type of beef enterprise carried on by the operator. It was possible to divide 34 of the farms into four groups on this basis, as follows: those with purebred herds who raised and sold breeding animals only; those with purebred herds who raised and sold some breeding stock but also fed out their steers for beef; those who fed out different types of animals for beef and in many different ways; and those with grade herds who fed out their steers for beef.

The labor requirements per animal unit were the highest for the farms with a purebred breeding enterprise and were the lowest for the farms that carried on a purebred breeding and feeding operation--approximately 35 hours and 16 hours, respectively. The farms with grade herds also used labor efficiently on the beef enterprise. It should be noted that the two groups with the highest labor efficiency had herds that were larger in size than those of the other two groups. With similar size herds, the farms with a purebred breeding enterprise required about 8 hours more per animal unit than the farms with a mixed enterprise (table 15).

The costs per mature breeding cow were the highest for the farms with a purebred breeding enterprise--averaging about \$385 per cow. Costs per cow for the grade herds averaged about \$189--the lowest of the four groups.

Returns per breeding cow were highest for the farms with a purebred breeding enterprise and lowest for the farms with grade herds; approximately \$488 and \$227, respectively. There was little difference between the other two groups in returns per cow.

Profit per cow for the purebred herds was slightly over \$103--the highest of the four groups. However, this was only slightly higher than the profit per cow for the farms with a purebred breeding and feeding enterprise. The group of farms with grade herds and a feeding enterprise had the lowest average profit per breeding cow, about \$38.

With \$5.07 per hour, the return for labor was highest for the farmers with a purebred breeding and feeding enterprise. There was little difference between the other three groups in return per hour of labor.

Table 15.

RELATION OF TYPE OF OPERATION TO COSTS
AND RETURNS FROM THE BEEF ENTERPRISE
34 New York Farms, 1951

Item	Purebred enter- prise	Breeding and feeding enterprise	Mixed enter- prise	Grade herds with feeding enterprise
Number of farms	5	11	12	6
Average number of cows	12	29	13	22
Average number of animal units	21	44	21	30
Per cent calf crop	84	95	93	87
Labor per animal unit (hours)	34.8	16.1	26.7	16.6
Feed per animal unit:				
Grain (pounds)	610	744	672	419
Roughage (pounds)	8737	7041	5501	7974
		<u>Dollars</u>		
Costs per breeding cow:				
Feed	136.40	103.99	121.61	100.30
Labor	59.71	22.63	39.63	22.11
Bedding	20.96	14.06	15.30	9.75
Buildings and equipment	67.97	33.71	28.22	20.91
Interest	68.42	35.71	34.37	27.37
Other	31.23	12.78	14.48	8.22
Total costs	384.69	222.88	253.61	188.66
Returns per breeding cow:				
Sales	281.60	211.49	148.69	173.57
Increase in inventory	158.33	96.00	152.77	35.99
Manure	37.93	16.22	23.55	17.05
Other	10.14	0.62	0.75	--
Total returns	488.00	324.33	325.76	226.61
Net profit per cow	103.31	101.45	72.15	37.95
Return per hour of labor	2.61	5.07	2.64	2.60

SUMMARY

This study was based on a survey of the beef enterprise on 41 farms in central and western New York State for the year ending December 31, 1951. The survey included 39 farms with a beef-breeding enterprise and 2 farms with feeder operations. No analysis of the feeder enterprises was made because of the small number of records. The economic situation in 1951 was very favorable for profitable beef production with the purchasing power of beef at its highest level in over 40 years.

The farms studied averaged approximately a 2-man business with a total of 610 work units. As a rule, the farms were well-diversified with no single enterprise absorbing the major part of the productive labor, although fruit and cash crops were somewhat more important than other enterprises.

Of the 39 beef-breeding herds, 18 were Hereford, 14 were Aberdeen-Angus and 6 were Shorthorn. One herd consisted of both Shorthorn and Hereford cattle. On the average, there were 20 mature breeding cows, 10 calves, 5 yearlings, 3 steers, and 1 bull kept per farm during the year.

To maintain a herd of this average size required about 9 tons of grain and 104 tons of roughage. This was an average of 620 pounds of grain and 7068 pounds of roughage per animal unit. Approximately 98 per cent of the feed used was homegrown.

Labor required for the beef enterprise averaged about 629 hours per farm and 21 hours per animal unit. Over 80 per cent of the labor was spent in feeding and bedding the animals during the barn-feeding period.

The percentage calf crop for the 39 herds averaged 90.4 per cent and ranged from a low of 50 per cent to a high of 100 per cent.

A total of 467 beef animals were sold, of which nearly 70 per cent were steers and calves. The value per head sold ranged from \$221 for calves to \$686 for bulls and averaged \$313 for the total number. The livestock auction at Caledonia was the most important single market outlet used.

The total costs of the beef-breeding enterprise averaged \$4485 per farm and \$231 per mature breeding cow. On the average, total returns were \$6042 per farm and \$311 per breeding cow. The net profit averaged \$1557 per farm and \$80 per cow.

Return per hour of labor averaged \$3.41--a substantial return for time spent on the beef enterprise. It should be remembered, however, that a total of only 629 hours of labor was spent per farm.

During the 10-year period, 1941-50, the index of the purchasing power of the farm prices of beef cattle in New York State in terms of the prices paid by farmers in the United States for articles they buy was about 118 as compared to 160 in 1951. The returns from the sales of animals and the net increase in inventory value for 1951 were reduced by slightly over 26 per cent to reflect this lower purchasing power of beef. This resulted in an estimated net profit per farm of \$79 and a return for labor of \$1.06 per hour. It is estimated that, on the average, over a considerable period of time, farmers raising beef cattle in New York State may expect to: (1) have a reasonably good market for their roughage and other feeds, (2) get reasonable wages for the time spent on the enterprise, and (3) have the manure for use on their crops.

APPENDIX

Table A. KIND AND AMOUNT OF FEED USED PER FARM
AND PER TYPE OF BEEF ANIMAL
39 New York Farms, 1951

Kind of feed	Average per farm	Average per type of beef animal				
		Cow	Bull	Yearling	Steer	Calf
	Tons	Pounds				
Homegrown:						
Corn	4.5	27.6	227.1	319.2	1158.7	322.0
Oats	2.5	29.2	184.5	200.0	484.0	188.3
Barley	0.5	6.5	2.2	84.9	57.8	39.3
Corn silage	40.2	3321.4	1926.9	1922.2	753.8	202.0
Grass silage	21.0	1814.4	761.3	464.4	431.1	244.9
Hay	41.7	2872.5	3111.8	1921.9	1484.4	1020.2
Total	110.4	8071.6	6213.8	4912.6	4369.8	2016.7
Purchased:						
Protein supplement	1.0	11.4	85.8	52.4	112.0	103.8
Corn	0.3	--	8.2	0.5	103.1	21.2
Oats	0.1	--	28.0	8.5	27.6	13.0
Other grain	0.2	0.9	25.8	19.5	40.4	19.1
Pea silage	0.8	83.2	--	--	--	--
Hay	0.2	18.5	--	--	--	--
Total	2.6	114.0	147.8	80.9	283.1	157.1
Total all feed	113.0	8185.6	6361.6	4993.5	4652.9	2173.8

Table B. KIND AND AMOUNT OF LABOR USED PER FARM
AND PER TYPE OF BEEF ANIMAL
39 New York Farms, 1951

Kind of labor	Average per farm	Average per type of beef animal				
		Cow	Bull	Yearling	Steer	Calf
		Hours				
Operator	383.1	12.3	16.5	7.8	5.7	7.1
Other unpaid labor	201.4	6.7	7.4	3.2	4.3	3.4
Paid labor	44.9	1.3	1.5	0.6	1.6	1.0
Total all labor	629.4	20.3	25.4	11.6	11.6	11.5