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Costs and Returns from Farm Enterprises

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DAILY RECORDS OF WORK DONE AND OF MONEY RECEIVED AND SPENT FURNISH THE BASIS FOR DETERMINING THE PRODUCTION COSTS OF FARMING

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COSTS AND RETURNS FROM FARM ENTERPRISES

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A farmer who keeps a record of farm receipts and farm expenses, and who takes a farm inventory at the beginning and end of the year, may learn some important things about his farm business, such as the income for his own labor. If, however, he wants to know which enterprises returned a profit and which ones lost money, he must keep more-detailed financial records and supplementary records, such as one of the daily work.

Records kept by 75 farmers who cooperated with the New York State College of Agriculture in 1939, together with comparisons for 1937 and 1938, are reported in this bulletin to help other farmers estimate costs and returns on their own farms, as well as to furnish some recent standards of comparison. Although the cooperators' farms are more productive and larger than the average for the state, the relative profits of the enterprises are probably typical.

RETURNS PER HOUR AND SIZE OF ENTERPRISE

The averages reported in this bulletin are representative of good farms which are larger and more productive than many of the farms in their communities.

The "return per hour" is an especially useful measure for comparing enterprises. This measure is not appreciably affected by the estimated value of the operator's time. It comes closest to answering the farmer's question: "What wages did we get for the time spent on different enterprises?" In addition to the return per hour of labor on an enterprise, the number of hours of labor spent on the enterprise is important. For example, alfalfa paid 93 cents per hour but used only 9 hours per acre (table 1). Cabbage paid 92 cents per hour and used 103 hours. Farmers with a limited amount of land can "sell" more labor to intensive crops and livestock enterprises than to the more extensive type.

AUTHOR'S ACKNOWLEDGMENT. The author expresses his indebtedness to the 75 farmers whose daily records during 1939 have made these results available; also to the field workers who spent from one to three days at each farm helping the farmers check the records for completeness and accuracy; and to the office workers who closed the books and tabulated the results.

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Individual factors from accounts kept by the 75 farmers were included in a mimeographed publication, *Individual Factors, Averages by Groups of Farms and Annual Averages from Farm Cost Accounts* (A. E. 326, Dept. Agr. Econ. and Farm Management, New York State Coll. Agr.), Sept. 1940.

TABLE 1. RETURNS PER HOUR AND SIZE OF ENTERPRISE, 1939

Enterprise	Accounts	Average size of enterprise	Labor per animal or acre	Returns per hour of labor
	Number		*Hours*	*Dollars*
Livestock:				
Dairy cows	48	23 cows	138	0.25
Dairy heifers	45	23 heifers	56	−0.41
Incubation	8	13,879 eggs set	3.0*	1.19
Raising chicks	40	1,824 chicks	0.28	0.29
Hens	39	762 birds	1.8	0.27
Sheep	6	75 sheep	5.8	−0.03
Feeder lambs	6	570 lambs bought	1.7	−0.18
Vegetables:				
Potatoes	28	22.3 acres	79	0.74
Cabbage	20	11.9 acres	103	0.92
Canning-factory tomatoes	6	12.6 acres	130	0.41
Canning-factory peas	10	11.0 acres	18	0.06
Beans, dry	9	19.7 acres	24	0.30
Fruit:				
Apples	20	36.9 acres	132	0.09
Cherries	5	7.6 acres	264	0.25
Pears	8	6.2 acres	60	0.46
Peaches	7	5.4 acres	111	0.41
Hay and silage:				
Alfalfa	40	21.5 acres	9	0.93
Hay other than alfalfa	66	32.5 acres	6	0.16
Corn silage	46	13.4 acres	30	....
Grain:				
Barley	14	13.8 acres	12	0.21
Corn	23	8.1 acres	48	0.32
Oats	29	15.6 acres	14	0.14
Mixed spring grains	31	14.7 acres	14	0.34
Wheat	32	17.6 acres	13	0.73

*Per 100 chicks hatched.

THE WEATHER FOR 1939[1]

The outstanding feature of the weather for the year was the prolonged drought period. The average annual precipitation for the State was 34.34 inches, which is 4.81 inches below normal. Only four other times since 1890 has the average precipitation been as low. The drought period began in May and extended through September, and even longer in some areas. While the whole State, except the extreme north portion, was more or less affected by the drought, the central and south-central portions were affected the most.....The drought caused thousands of dollars damage to crops, ruined new seedings over a large area, and caused a water shortage that continued in some places at the close of the year. Pastures were so poor that some farmers began feeding their stock as early as July.

CAPITAL INVESTED

Cost-account farms were valued at almost $30,000 (table 2). Two-thirds of the farm capital was in real estate and one-third in livestock, tools, and supplies. The real estate was valued by the farmers on the basis of normal agricultural value for the farm as a unit. The values of the buildings and land were adjusted so that the sum of the parts would not exceed the total value of the farm.

Crop land was valued at $49 per acre. On 5 farms the value of crop land exceeded $100 per acre, while on 6 other farms the value was lower than $20.

The 20 farmers with commercial orchards valued the land and trees at

[1]From *Climatological Data*, by H. O. Geren, Weather Bur., U. S. Agr. Dept., Ann. rept., 1939.

TABLE 2. FARM BALANCE SHEET
(End of the fiscal year, 1939)

Items	Average per farm	Percentage of total resources
	Dollars	*Per cent*
Fixed farm capital (real estate):		
107.1 acres crop land, $49 per acre	5,220	16.2
11.4 acres commercial orchard, $167 per acre	1,899	5.9
.2 acre home orchard, $90 per acre	18	0.1
4.2 acres non-bearing orchard, $148 per acre	621	1.9
44.3 acres pasture, $14 per acre	639	2.0
31.6 acres woods, $17 per acre	530	1.6
10.8 acres farmstead, lanes, fence rows, waste	0	....
.8 acre miscellaneous	46	0.1
210.4 acres, $43 per acre, land and trees	.....	.....
Buildings and improvements	10,980	34.0
Total fixed farm capital, $95 per acre	*19,953*	*61.8*
Working farm capital:		
Livestock	3,618	11.2
Farm share, automobile and truck	378	1.2
Tractor	593	1.8
Other equipment	2,118	6.6
Feeds and supplies	1,883	5.8
Fall plowing, growing crops, manure	1,047	3.2
Total working farm capital, $46 per acre	*9,637*	*29.8*
Total farm capital, $141 per acre	*29,590*	*91.6*
Non-farm capital:		
Cash on hand	568	1.8
Accounts receivable	1,132	3.5
Non-farm share, automobile and truck	260	0.8
Non-farm investments	735	2.3
Total non-farm capital	*2,695*	*8.4*
Total resources	*32,285*	*100.0*
Liabilities	6,974	21.6
Net worth	25,311	78.4
Total liabilities and net worth	*32,285*	*100.0*

$167 per acre. The highest value was $325 for an orchard of young McIntosh trees. Orchards of non-bearing age were valued at cost, averaging $148 per acre. Permanent pasture was worth $14 per acre, or $3 less than the value of the woods.

The investment in livestock exceeded the investment in all farm equipment by a few hundred dollars.

Cost-account farmers included an average of $2695 in assets not directly connected with their farm businesses. This is probably low; no effort was made to check on the completeness of this part of the inventory. Debts of $6974 left an average net worth of $25,311.

INCOMES FROM THE FARM BUSINESS

Cost-account farmers made an average return for their year's work of $1022 (table 3), or $317 more than the average labor income for the preceding 25 years.[2] The value of the use of the operator's house, and the milk, eggs, wood, and other farm products used by the farmer's family was $566 per farm. With the value of these farm privileges included as

[2]Twenty-five years of farm cost accounts. By Paul Williamson. Cornell ext. bul. 439. 1940.

TABLE 3. FARM OPERATING STATEMENT, 1939

Items	Average per farm	Proportion of total receipts
	Dollars	*Per cent*
Cash receipts:		
Crops	3,885	35.1
Milk	2,178	19.7
Sale of livestock	1,038	9.4
Eggs	1,175	10.6
Poultry	328	3.0
Wood and lumber	27	0.2
Sale of purchased goods, miscellaneous	2,433	22.0
Total receipts	*11,064*	*100.0*
Cash expenses:		
Labor	1,627	14.7
Equipment (gasoline, oil, equipment bought)	1,074	9.7
Real estate (insurance, repairs)	924	8.4
Taxes	278	2.5
Crops (seed, fertilizer, threshing)	820	7.4
Livestock (feed, bedding, supplies, cows bought)	2,231	20.2
Marketing (containers, commission, storage)	424	3.8
Goods bought for resale, miscellaneous	1,671	15.1
Total expenses	*9,049*	*81.8*
Difference (cash available for living, saving, and payment of interest)	*2,015*	*18.2*
Increase in farm capital	*815*	*7.4*
Farm products used by others	*55*	*0.5*
Total (income for family's labor and for use of capital)	*2,885*	*26.1*
Value unpaid labor	232	2.1
Value board furnished hired labor	172	1.6
Total	*404*	*3.7*
Farm income (income for operator's labor and for use of capital)	*2,481*	*22.4*
Interest on farm capital of $29,182 at 5 per cent	*1,459*	*13.2*
Labor income (income for operator's year's work, comparable to wage of farm superintendent)	*1,022*	*9.2*
Value of house rent and privileges of operator	*566*	*5.1*
Labor earnings (income for operator's year's work, comparable to wage of city worker)	*1,588*	*14.3*
Value of operator's time (what he would work for as farm superintendent)	*885*	*8.0*
Return on capital	*1,596*	*14.4*
Per cent return on capital	*5.5*	

part of the earnings of the operator, the labor earnings, which are the measure most nearly comparable to the incomes of industrial workers, were $1588.

The farmers estimated that they would have had to pay an average of $885 to hire a manager to do their work and planning. After allowing $885 as pay for the operator's labor, the farms paid $1596 for the use of capital, or 5.5 per cent on the average capital of $29,182.

REAL ESTATE

If these farmers had rented all their crop land for $3.65 per acre, the rent would have paid the share of the taxes apportioned to the crop land, interest on the average value of $49 at 5 per cent, and other costs the landlord would incur such as removal of stumps, maintaining the drains, and repair of the fences (table 4).

TABLE 4. ANNUAL COST PER ACRE OF OWNED CROP LAND
8036 acres on 74 farms, 1939

	Dollars
Interest on $49 at 5 per cent	2.36
County, town, and school taxes	0.72
Labor	0.29
Fence	0.03
Drains	0.21
Dynamite and all other	0.04
Total	3.65

Interest on the crop land owned by the operators was charged at the rate of 5 per cent per annum.

Taxes paid to the local units of government amounted to $278 per farm, or $1.32 per acre. The taxes charged to crop land were the same proportion of the total tax as was the value of the crop land of the total real estate. Taxes averaged 72 cents per acre of crop land, or at the rate of about $15 per $1000 of inventory value. On many farms the assessed value was lower than the inventory values. Hence the average tax rate is probably higher than $15.

Interest and taxes made up 84 per cent of the total cost. Most of the cost of fencing was considered to be part of the cost of pasturing stock. Line fences which were used to keep the other person's stock out of the field were considered a cost of maintaining crop land, and averaged 3 cents per acre.

Interest, taxes, and replacements of tile drains cost 21 cents per acre. Of course the annual cost of drainage is higher than 21 cents per acre drained.

PASTURE

About three-fourths of the land used for pasture was classified as *permanent;* that is, it had not been cropped in recent years (table 5). This

TABLE 5. ANNUAL COST OF PASTURE LAND
4173 acres on 71 farms, 1939

Items	Permanent pasture	Rotated pasture	All pasture
	Dollars	*Dollars*	*Dollars*
Cost per acre of pasture for the year:			
Maintenance (interest, taxes, etc.)	1.15	2.73	1.53
Seed, fertilizer, lime	0.16	0.90	0.33
Manure	0.24	0.82	0.37
Total	1.55	4.45	2.23
Average cost per acre for fences	0.87	0.87	0.87
Cost per acre for pasture and fences	2.42	5.32	3.10
Per cent of total acreage	77	23	100

land was valued at $14 per acre. Interest and taxes amounted to $1.15, and pasture improvement to 40 cents. The average cost of all fencing charged to animals was 87 cents per acre of pasture. Pasture and fence costs amounted to $2.42 per acre for the permanent pasture, as compared

with a little more than twice this amount for the crop land used for pasture. The average cost of maintaining an acre of owned pasture of all kinds was about $3.

In addition to the land classified as pasture, many of the hay fields provided some pasture after the hay was harvested.

FENCES

More than one-third of the cost of maintaining fences consisted of the labor of repairing old fences and building new ones (table 6). About $12

TABLE 6. COSTS OF MAINTAINING FENCES
68 farms, 1939

Items	Cost per farm	Proportion of total cost
	Dollars	*Per cent*
Labor	23.78	42
Equipment	7.08	12
Interest	9.92	18
Taxes	3.10	6
Posts	4.03	7
Wire	7.55	14
All other	0.37	1
Total	55.83	100

was spent per farm for posts and wire. The annual cost per acre of pasture enclosed was 87 cents.

Many farmers are replacing the conventional type of fence with a single strand of barbed wire charged with electricity. An electric fence can be built for about one-third the cost of a 3-strand barbed wire fence.

WOODLANDS

The annual cost incurred per acre of woods was about $5 (table 7). Since these farmers valued their woods at $17 per acre, the annual costs were almost one-third the value. Interest and taxes amounted to about $1 per acre. The cost of labor, power, and equipment to cut the wood and lumber and to do what improvement work was done, amounted to about $3. Other costs of about $1 included the cost of sawing lumber.

TABLE 7. COSTS AND RETURNS FROM WOODLANDS
2367 acres on 65 farms, 1939

Items	Average per acre
	Dollars
Costs:	
Interest	0.84
Taxes	0.26
Labor, power, and equipment	2.91
Other	0.97
Total costs	4.98
Returns:	
Wood	2.90
Lumber	1.07
Other	0.26
Total returns	4.23

On 10 of the 65 farms, no products were harvested from the wood lots. On 49 farms enough stove wood was cut to make an average credit of about $3 per acre for the total acreage. Lumber was cut from 17 wood lots valued at a total of $2523, or about $1 per acre of woods. Christmas-tree sales accounted for most of the miscellaneous income.

Returns from the wood lots lacked 75 cents per acre of equaling the total costs.

BUILDINGS

Cost-account farmers paid $30 per month "rent" for the houses in which they lived (table 8). Instead of paying the rent to landlords, they paid it

TABLE 8. COSTS OF MAINTAINING BUILDINGS
75 farms, 1939

Items	Operator's house	Tenant house	Other buildings	All buildings
Number of buildings	82	72	...	...
Number of farms	74	47	75	75
	Average per house		Average per farm	
	Dollars	*Dollars*	*Dollars*	*Dollars*
Repairs and improvements	104	53	167	332
Decrease in value	24	8	52	86
Insurance	15	6	30	52
Taxes	42	17	82	144
Interest	150	59	277	497
Farm labor and equipment	20	13	79	114
Other costs	3	1	6	10
Total costs	358	157	693	1,235

to the tax collector, insurance companies, hardware stores, and lending agencies for the use of the money invested. Although some farmers were fortunate enough not to pay interest on borrowed money, the use of their capital was considered a cost and interest was charged to the house account at 5 per cent. The houses in which the farmers lived were valued at $3234. The cost for the year was $11.10 for each $100 capital value.

"Tenant houses", occupied by the hired men, were valued at $1194. The annual cost was $157, or less than one-half as much as for the operator's house.

Barns, silos, and implement sheds, valued at $5522 per farm, cost $693 per year, or 12.5 per cent of their value.

Buildings represented about 37 per cent of the real estate value on cost-account farms. The cost of maintaining the buildings was $106 per month.

WATER SYSTEMS

A separate account was kept to determine the annual cost of the water system on 61 farms. Interest on the cost of the well, pump, motor, and pipe amounted to $12 (table 9). Repairs and depreciation cost $53. If these farmers could have purchased village water for $93 for the year, assuming the water to be piped to the farmstead, it would have cost no more than it did to supply their own water.

TABLE 9. COSTS OF OPERATING WATER SYSTEMS
61 farms, 1939

Items	Cost per farm
	Dollars
Labor	13.10
Equipment	3.53
Interest	11.58
Taxes	3.41
Repairs and depreciation	53.22
Electricity	6.15
Other	2.38
Total	93.37

LABOR

Cost-account farms were 4-man farms. About one-fourth of the total months of work was represented by the operator's labor, one-fourth by the regular hired men who were provided with house and privileges and lived on the farm, one-fourth by men hired by the day or hour, and the other one-fourth was made up of men hired by the month at a straight wage or with board, and of unpaid members of the operator's family.

The farms were divided by number of men into three groups. The largest farms had six men per farm (table 10). On these large farms,

TABLE 10. MONTHS OF WORK BY TYPE OF WORKER, 1939

Items	Large farms	Middle-sized	Small farms
Farms	25	25	25
Man equivalent:			
Range	4.2 to 11.2	2.6 to 4.1	1.0 to 2.6
Average	6.1	3.3	2.0
Months of work performed by:			
Men hired by month or year:			
With privileges	20	9	3
With board	2	5	3
With wage only	9	3	1
Men hired by day or hour	25	6	2
Operator	12	12	11
Other unpaid	5	5	4
Total	73	40	24

more than one-half the labor force was made up of day and hour help and of year men with privileges. The hired man who boarded with the operator's family was the exception rather than the rule, even on large farms.

The middle-sized farms had the equivalent of 3.3 men per farm. The operator and the year man with privileges constituted one-half the labor force on this type of farm.

On the smallest farms the operator himself was one-half of the labor force. Other unpaid members of the family contributed more labor toward the operation of the farm than did any other single type of hired labor.

The cost of an hour of labor was 30 cents, or 1 cent less than in 1938. On 11 farms, labor cost less than 25 cents per hour, compared with 35 cents or more on the 15 farms with the highest labor cost.

Farmers and their hired men worked an average of 2995 hours per year. The time spent per working day would average 9.2 hours if an arbitrary allowance of two hours is made for Sunday chores. The number of hours per man was calculated by dividing the number of men on all farms into the hours of recorded work. One-half the farms were within the range of 2700 to 3300 hours per man. On the group of farms which had the fewest number of hours of labor per man, the cost per hour of labor averaged 34 cents, or 8 cents an hour higher than on the farms where the number of hours per man was highest.

Farm operators valued their own time at $73 per month plus farm privileges (page 12). The value of privileges used by these operators averaged $35 per month, making a total cost for the operator's labor of $108 per month. This estimated value of the operator's labor was included in the cost of farm labor.

In determining the value of the operator's time, the same principle is followed as in determining the value of a feed crop produced on the farm for home use. The question in both cases is: "What is the market value?" It is much easier to estimate the value of a bushel of wheat than of a year's labor and management because there is a well-established price for wheat. Since labor and management vary tremendously in quality and market price, there is a great deal of variation in the estimated value of the operator's time. Five farmers valued their time, including privileges, at less than $70 per month, while the estimates of five other farmers ranged above $150 per month. How much these variations in the estimated value of the operator's time affect the cost of labor on the farm is indicated by the fact that in the group of farms with the lowest value of operator's time, the cost per hour for all farm labor was 27 cents; in the middle group the cost was 31 cents per hour; and in the high group the cost was 34 cents. Farmers who estimated their time at higher-than-average value operated larger-than-average farms; the group with the highest value on their time had 5.2-man farms, as compared with 3.1-man farms for the group with the lowest value on their time.

Hired men working under the supervision of the farm operators were not paid as high a wage as the value set by the operators on their own time. The most common type of labor was the year man who lived on the farm and was provided with a house and such farm products as wood, milk, and eggs. He received an average cash wage of $57 per month and was given $20 a month in privileges, or a total monthly wage equivalent of $77.

Men who boarded with the family were paid $37 a month. Since the board was estimated to be worth an average of $22 a month, the total wage and board of these men who were boarded was $59, or $18 a month less than the cost for men with privileges.

Wages paid to men who lived off the farm and received all their pay in cash amounted to about the same as the total value of wage and board, or about $57 per month.

About one-fourth of the total labor on these farms, including that of the operator, was made up of day and hour help, workers hired for short periods of time during rush seasons, to whom the average wage paid was 26 cents per hour.

The average cost for all types of farm labor, including both wages and privileges, was $913 for one full year of work.

COST OF ONE MONTH OF FARM LABOR, 1939

Hired by month or year:
- Men with privileges:
  - Wage $57
  - Value milk, wood, house, etc $20
  - Total ..... $77 (high third, $95; low third, $57)
- Men boarding with farmer:
  - Wage $37
  - Value of board $22
  - Total ..... $59 (high third, $67; low third, $50)
- Men living off farm:
  - Cash wage ..... $57 (high third, $68; low third, $35)

Hired by day or hour:
- Average of 26 cents per hour or $61 per month (high third, 33 cents or $77; low third, 18 cents or $42)

Farm operator:
- His estimate of what he could get as superintendent of a similar farm, $73 per month in cash and $35 in privileges, or $108 (high third, $136; low third, $78)

Members of family other than operator:
- Average value $63 (high third, $95; low third, $40)

Average cost of all types of farm labor:
- Average of 30 cents per hour or $76 per month (high third, $90; low third, $63)

HORSE AND TRACTOR COSTS

Costs for the year for two horses amounted to a little more than the cost for one tractor. Two horses cost $275, compared with $227 for a tractor. Since horses were used for more hours than were tractors, the cost per hour for a two-horse team, harness, and driver was 68 cents, or 11 cents less than the cost of an hour's work of tractor and driver. On most farms, work is performed more economically with tractors than with horses. However, many of the costs of keeping horses are part of the general cost of maintaining the farm rather than costs incurred specifically because of the horses. For example, interest, taxes, and repairs for the barn, fences, and pasture must be met even if horses are not kept.

Feed, which is one-half the total cost of keeping a horse, was 18 cents per day, or $65 per year (table 11). Labor of feeding and caring for the horse cost $29 per year. Depreciation amounted to almost $20 per horse, or about 3 cents for each hour of use.

Of these farms, 12 per cent were horseless. Tractors were used on 64 of the 75 farms. On 9 of these 64 farms horse power had been entirely replaced by tractor power; on 54 farms both horses and tractors were used, and 11 farms had horses but no tractor.

Tractors were used less than 500 hours per year (table 12). Some farmers got lower tractor costs by finding more work for their tractors. Those who used their tractors for 600 hours or more had an average cost of only 38 cents, although 80 per cent were two-plow tractors or larger.

TABLE 11. HORSES

Items* (average per horse)	1939	1938	1937
	Dollars	*Dollars*	*Dollars*
Costs per horse:			
2,069 pounds of grain, at $1.37 per hundredweight	28.38	25.86	34.24
2.9 tons of hay, at $9.49 per ton	27.51	22.57	28.25
Pasture and fences	4.79	4.80	4.84
Other feed and bedding	4.24	4.20	3.95
Total feed and bedding	*64.92*	*57.43*	*71.28*
101 hours of man labor, at 29 cents per hour	*29.19*	*28.40*	*29.86*
Depreciation	19.78	18.90	14.43
Buildings	9.26	8.75	9.15
Interest on average value of $148 per horse	7.31	7.40	7.22
Shoeing	3.00	2.78	3.56
Veterinarian and medicine	0.77	0.92	1.51
All other	3.43	3.13	3.35
Total other than feed, bedding, and labor	*43.55*	*41.88*	*39.22*
Total cost to keep a horse	*137.66*	*127.71*	*140.36*
Credits per horse			
8.3 tons of manure, at $1.07 per ton	8.91	9.02	9.38
Colts, fair premiums, and the like	0.98	1.05	3.23
Total credits	*9.89*	*10.07*	*12.61*
Net cost of horse work	*127.77*	*117.64*	*127.75*
Harness cost	*5.23*	*4.96*	*5.49*
Cost for the year, horse and harness	*133.00*	*122.60*	*133.24*
Farms	64	65	71
Hours of work per horse	698	699	716
Cost per hour, cents	19	18	19

***In this and in all following tables comparing costs and returns for 1937, 1938, and 1939, quantities are for 1939 only.**

TABLE 12. TRACTORS*

Items (average per tractor)	1939	1938	1937
	Dollars	*Dollars*	*Dollars*
771 gallons of fuel, at 11 cents per gallon	81.83	90.30	83.20
17 gallons of oil, at 62 cents per gallon	10.59	11.56	10.24
Grease and greasing	2.05	1.95	2.40
Farm labor	6.49	8.69	8.14
Insurance	1.05	1.36	0.98
Depreciation	66.66	66.56	58.25
Repairs	20.07	20.00	26.25
Interest on average value of $531	26.48	24.65	22.12
Buildings	2.85	5.92	6.56
All other	6.41	3.60	3.18
Cost for the year	227.48	234.59	221.32
Farms	63	62	64
Hours of work per tractor	469	478	436
Cost per hour, cents	49	49	51

*In 1939, 64 farmers used 83 tractors: 63 kept accounts of cost of the tractors; 1 had 4 tractors; 1 had 3 tractors; 14 had 2 tractors; 48 had 1 tractor; 66 separate accounts were kept to determine the cost of operating tractors.

TRUCK COSTS

Trucks cost $268 per year, or 5.5 cents per mile (table 13). Trucks were driven a little more than 5000 miles. Gasoline and oil accounted for only one-third of the cost of operating the trucks. Depreciation and repairs were about as important as fuel and oil.

TABLE 13. TRUCKS

Items (average per truck)	1939	1938	1937
	Dollars	*Dollars*	*Dollars*
524 gallons of fuel, at 15 cents per gallon	76.16	78.10	74.70
13 gallons of oil, at 65 cents per gallon	8.49	6.83	6.06
Grease and greasing	1.74	2.01	1.76
Farm labor	6.78	6.33	8.69
License	26.90	26.47	25.58
Insurance	19.04	22.08	19.76
Depreciation	54.23	64.89	48.68
Repairs	40.53	33.90	37.12
Tires	8.55	11.94	12.28
Interest on average value of $280	14.30	14.93	13.90
Buildings	9.74	9.33	9.41
All other	1.99	1.70	3.65
Cost for the year	268.45	278.51	261.59
Farms	57	55	61
Distance driven per truck, miles	5,389	5,439	4,724
Cost per mile, cents	5.5	5.5	5.6

Costs vary inversely with use. Since almost two-thirds of the costs of operating a farm truck are about the same regardless of the amount of use, farmers who make full use of their trucks have relatively low costs per mile. Trucks used for 7000 miles or more cost 4.6 cents per mile, compared with 7.3 cents for trucks driven less than 4000 miles.

EQUIPMENT COSTS

"May I borrow your corn binder?" is not an uncommon request. The borrower may not realize that it cost $568, or $1.55 for each day in the year, for cost-account farmers to keep the equipment in repair, replace implements that have worn out, pay interest on the investment, provide space in the barn or implement shed, and pay insurance (table 14). This surprisingly high annual cost does not include the cost of tractors, trucks, or automobiles.

TABLE 14. VALUE AND COST OF FARM EQUIPMENT, 1939

Equipment, with typical examples	Farms	Value per farm	Annual cost		Unit
			per farm	per unit	
	Number	*Dollars*	*Dollars*	*Dollars*	
Dairy (milking machine, cooler)	57	257	68	3.90	Cow
Poultry (incubator, brooders, mash hoppers):	52	295	75	...	
Incubation	..	...	..	0.79	100 eggs set
Brooding and rearing	..	..	..	2.68	100 chicks brooded
Egg production	..	..	..	0.09	Mature hen
Plow	75	67	26	0.45	Acre plowed
Harrow and drag	75	88	26	0.46	Acre fitted
Cultivating	72	57	14	0.42	Acre cultivated
Hay (mower, rake, loader)	75	193	49	1.24	Acre of hay
Grain (drill, binder)	69	126	32	1.24	Acre of small grain harvested
Silage (binder, cutter)	56	146	31	2.63	Acre of silage
Orchard (sprayer, grader)	30	618	217	7.55	Acre of bearing orchard
Potato (planter, digger)	42	280	93	6.21	Acre of potatoes
Harness	66	52	16	5.23	Horse
Wagon	72	100	22	...	
Manure (spreader or wagon)	64	69	24	...	
All equipment	75	2,118	568	0.60	Work unit

The average investment in farm equipment was more than $2000. Annual costs were 27 per cent of the investment. If a farmer has $100 invested in a farm tool, he can expect to incur an annual expense of about $27. The average value is lower than the original cost, because the tool becomes less valuable with the passage of time. A tool which costs $100 may have an average value, after allowance for salvage or trade-in value, of $70. The annual cost, in this illustration, would be about $19, or 27 per cent of $70.

The most expensive special equipment was that used for orchards. Sprayers, graders, and other specialized implements on the 30 farms with orchards were valued at $618. The cost for the year was higher than for most other kinds of equipment, or 35 per cent of its value. The cost for the year was $7.55 for each acre of bearing orchard.

DAIRY COWS

Milk sold for an average of $1.92 per hundredweight (table 15). The milk price was 7 cents per hundredweight more than in 1938. The price was

TABLE 15. DAIRY COWS

Items (average per cow)	1939	1938	1937
	Dollars	*Dollars*	*Dollars*
Costs:			
2,624 pounds of grain, at $30.39 per ton	39.87	41.56	44.39
2.3 tons of hay, at $11.29 per ton	25.96	20.45	25.43
Other dry feed	0.46	0.23	0.29
4.4 tons of silage, at $4.30 per ton	18.92	18.20	19.15
Other succulent feed	0.62	0.72	0.64
Bedding	1.88	2.15	2.25
Pasture	5.81	7.01	7.50
Fences	1.59	1.96	2.02
Total feed and bedding	*95.11*	*92.28*	*101.67*
138 hours of labor, at 29 cents per hour	*40.48*	*41.11*	*42.20*
Horse work, automobile, truck, tractor	2.50	2.77	3.68
Dairy equipment	3.90	3.56	3.87
Depreciation on animal	7.29	6.88	13.01
Interest on $110, value of cow	5.59	5.55	5.37
Buildings	4.92	5.41	5.80
Breeding costs	2.87	2.67	3.19
Veterinarian, medicine, disinfectants	1.37	1.47	1.56
Hired milk-hauling	7.63	7.84	5.64
Cow-testing-association dues	1.21	1.30	1.23
Insurance	0.33	0.35	0.31
Registration and transfer fees	0.24	0.17	0.15
Ice	0.24	0.26	0.34
Light, water, power	2.15	2.21	2.01
Strainer cloths and other supplies	0.51	0.49	0.67
All other	3.26	2.70	2.82
Total other than feed, bedding, and labor	*44.01*	*43.63*	*49.65*
Total cost	*179.60*	*177.02*	*193.52*
Returns:			
7,639 pounds of milk sold at $1.92 per hundredweight	146.32	144.60	156.46
639 pounds of milk used on farm at $1.59 per hundredweight	10.19	11.39	10.48
Calves	8.99	8.79	8.04
8.5 tons of manure at $1.00 per ton	8.48	8.91	8.63
Other returns	0.10	0.11	0.12
Total returns	*174.08*	*173.80*	*183.73*
Gain	*− 5.52*	*− 3.22*	*− 9.79*
Farms	48	46	53
Cost of producing 100 pounds of milk, dollars	1.96	1.86	2.15
Value per 100 pounds of milk, dollars	1.89	1.82	2.03
Return per hour of labor, cents	25	27	23

calculated by dividing the total quantity of milk sold at wholesale into the total amount of money received by farmers for milk delivered at the milk plant. Milk used on the farm was valued at only $1.59 per hundredweight, since it did not have to be delivered, and since some skimmed milk was fed to livestock. The average value of all milk produced was $1.89 per hundredweight. The milk produced averaged 3.7 per cent butterfat.

Prices were highest in the last three months of the year, or $2.40 per hundredweight, and lowest in May and June when milk sold for about one-half the fall price (table 16). Prices on cost-account farms were a few cents higher than the state average price.

TABLE 16. PRICES RECEIVED FOR 100 POUNDS OF MILK SOLD AT WHOLESALE, BY MONTHS

Month	Farms selling	Cost-account milk prices*	State average milk prices†
	Number	*Dollars*	*Dollars*
January, 1939	18	2.19	2.06
February	23	2.07	1.92
March	35	1.70	1.49
April	42	1.40	1.23
May	42	1.28	1.19
June	42	1.29	1.28
July	42	1.58	1.59
August	42	1.97	2.05
September	42	2.19	2.21
October	42	2.40	2.43
November	41	2.43	2.42
December	41	2.37	2.34
Average for 1939		1.92	1.85
January, 1940	24	2.26	2.32
February	19	2.19	2.26
March	7	2.20	2.08

*The monthly average for each farm was given equal weight in the calculation of these averages.
†New York dairy farm report. By R. L. Gillette. New York State Dept. Agr. and Markets.

Production averaged 8278 pounds of milk, or 307 pounds of butterfat per cow. High production was the general rule on cost-account farms; only 15 per cent of the dairies had less than 250 pounds of butterfat per cow. Although production was a little below that of 1938, the increased price resulted in a slightly higher income from milk sold.

Dairy cows cost 50 cents per day. The cost of feeding, caring for the cow, interest on the $110 invested, a proportionate share of the cost of maintaining the buildings, and all other costs, averaged about $180 for the year.

Hay costs were high as a result of the drought. Hence the 7 tons of barn feed required to keep a cow for a year cost more than in 1938 but not so much as in 1937.

Labor, averaging $40 per cow, was a little less than one-fourth of the total cost. Although the time spent on cows has averaged about 140 hours during the past ten years, there is a great variation between farms. On farms with fewer than 17 cows, an average of 169 hours was spent per cow, or 40 hours more than in the larger dairies.

Depreciation cost $7 per cow. Depreciation, as the term is used here, means the decrease in value as the result of increased age, loss of a quarter, or disease, as well as changes in the price level.

Heifers were valued at an average of $95 at the time they first freshened. Most of the cows sold during the year were sold for beef, and brought an average of $64 per head. Death losses amounted to one cow for each 156 cows in the herd.

Cows paid 25 cents per hour, or the same as in the preceding five-year period. Total returns lacked between $5 and $6 of equaling the cost of keeping the cow. Although cows did not pay the full 29-cent cost per hour of labor, this enterprise did provide employment throughout the year at a wage only 4 cents less than the average cost of labor on these farms.

DAIRY HEIFERS

Records of costs of raising heifers were kept for a total of 1027 different animals, for an average of 8.1 months. Since these animals were of all ages, from birth to heifers ready to freshen, the information provides a basis for determining the cost of raising an animal to maturity.

Calves saved for the herd were valued at $15 apiece, as compared with about one-half that value for veal calves (table 17). Other costs of raising the animals to the average age of freshening, or 27½ months of age, amounted to $120, making a total cost of $135 per heifer. Credits for manure and other by-products reduced the cost to $125.

The fact that 17 animals died resulted in an increase of $2 in the cost

TABLE 17. HEIFERS, 1939
(45 farms)

Average per heifer:	*Dollars*
Costs:	
Value of calf at birth	*14.81*
717 pounds of whole milk, at $1.66 per hundredweight	11.90
402 pounds of skimmilk, at 46 cents per hundredweight	1.86
0.7 pound of dry skimmilk, at $5.71 per hundredweight	0.04
1,444 pounds of grain, at $1.59 per hundredweight	22.91
2.2 tons of hay, at $10.47 per ton	23.03
2.6 tons of silage, at $4.14 per ton	10.76
Other feed	0.93
Pasture and fences	8.92
Bedding	2.63
Total feed and bedding	*82.98*
56 hours of labor, at 30 cents per hour	*16.72*
Horse work and equipment	0.82
Buildings	7.20
Breeding fees	2.93
Veterinarian and medicine	0.23
Insurance	0.30
Registration and transfer fees	0.89
Lights, water	1.60
Interest	6.07
All other	0.64
Total other than calf, feed, bedding, and labor	*20.68*
Total cost	*135.19*
By-products:	
9.7 tons of manure, at $1.00 per ton	9.67
Other returns	0.21
Total by-products	*9.88*
Net cost of raising a heifer to 27½ months of age	*125.31*

per animal raised. The net cost of $125.31 per animal raised includes a charge of $2 for the money spent on the 17 animals that died. No similar correction was made in the 1938 report. The net cost of raising a heifer to freshening age in 1938 was $122, and not $120, after correcting for mortality.

DAIRY BULLS

The rapid increase in artificial insemination has created a new interest in the cost of keeping dairy bulls. The average cost was $81 per bull, of which a little more than one-half was for feed and bedding, and one-fourth for labor (table 18). Many of the younger animals increased in value or

TABLE 18. COST OF KEEPING DAIRY BULLS, 1939

Items (46 farms)	Average per bull	Per cent of total
	Dollars	*Per cent*
Costs:		
600 pounds of grain, at $30.16 per ton	9.05	11.2
2.4 tons of hay, at $10.51 per ton	25.23	31.1
1.2 tons of silage, at $3.75 per ton	4.50	5.6
Other feed and bedding	3.11	3.8
Pasture and fences	1.25	1.5
Total feed and bedding	*43.14*	*53.2*
74 hours of labor, at 29 cents per hour	*21.68*	*26.8*
Interest on $136	6.32	7.8
Buildings	7.61	8.8
All else	2.77	3.4
Total other than feed, bedding, and labor	*16.25*	*20.0*
Total cost	*81.07*	*100.0*
Credits per animal:		
8.4 tons of manure, at $1.01 per ton	8.45	10.4
Appreciation	1.73	2.1
Total credits	*10.18*	*12.5*
Service fees from neighbors	1.10	1.4
Service fees charged to cows	53.84	66.4
Service fees charged to heifers	15.95	19.7
Total fees	*70.89*	*87.5*

were sold for more than the inventory value. Hence there was a net increase in value, or appreciation, of $1.73 per animal. Credits for manure reduced the cost of bull service to $71. Service fees from neighbors made a further reduction in the cost to be charged to heifers and cows to about $70, or about $3 per animal bred.

INCUBATION

Chicks cost 10 cents each (table 19). The average percentage hatch was 65, or 100 salable chicks for 153 eggs set. Eggs used for hatching (*including eggs purchased*) were valued at 48 cents per dozen, making a cost for eggs of 6 cents per chick hatched. Two-thirds of the cost of producing day-old chicks is represented by the eggs set.

Chicks sold for 12 cents each. Chicks kept on the farms where they were hatched were valued at a little more than the chicks sold.

TABLE 19. INCUBATION

Items (average per 100 chicks hatched)	1939	1938	1937
	Dollars	*Dollars*	*Dollars*
Costs:			
153 eggs, at 4.0 cents per egg	*6.07*	*5.44*	*5.09*
3.0 hours of labor, at 34 cents per hour	*1.02*	*0.87*	*0.79*
Fuel for incubator	0.52	0.45	0.38
Other cost of incubator	1.21	1.54	0.85
Chick boxes	0.17	0.09	0.18
Buildings	0.25	0.27	0.12
Automobile and truck	0.11	0.19	0.16
All other	0.48	0.24	0.66
Total other than eggs and labor	*2.74*	*2.78*	*2.35*
Total cost	*9.83*	*9.09*	*8.23*
Returns:			
59.3 chicks sold, at 12.2 cents per bird	7.21	6.38	8.63
40.7 chicks for own brooders, at 12.6 cents per bird	5.12	5.77	3.41
Custom hatching	0.07	0.09	0.05
Infertile eggs	0.00	0.01	0.04
Total returns	*12.40*	*12.25*	*12.13*
Gain	*2.57*	*3.16*	*3.90*
Farms	8	8	9
Per cent hatch	65	65	63
Return per hour of labor, dollars	1.19	1.48	1.78

"Sexing" cost one cent per chick handled. On some farms specialists were employed for the highly technical work of distinguishing between the cockerel and pullet chicks as they were taken from the incubator. The cost of this work, which was done for only a small part of the total hatch, was included in the classification *all other*. The male chicks were of little value and in some instances were destroyed. Hence the pullet chicks were sold at double the usual price plus two cents to pay the cost of sexing.

RAISING CHICKS

About 58 cents was spent during the brooding and rearing season for each baby chick put under the hover (table 20). The cost of the chicks, at 13 cents each, was less than one-fourth the total cost. Feed amounted to almost one-half the total. Other important costs included fuel for the brooders and the use of the poultry equipment.

Out of each 100 birds 18 died. Money spent for buying the chicks which died before maturity amounted to an average of 6 cents for each bird put in the laying flock.

Birds raised to maturity for laying or breeding purposes were valued at $1.04 per bird, or 2 cents less than the cost of raising them.

Raising replacements for the poultry flock paid at the rate of 29 cents per hour. The returns were lower than in 1938, owing to higher mortality, lower prices for meat birds, and an increase in the amount of feed used.

Expert "sexers" can distinguish between male and female chicks when they are taken from the incubator. A total of 1970 chicks, or 2.7 per cent of the total, were sexed chicks. Two farmers bought pullets at 7 or 8 weeks of age, amounting to 1.0 per cent of the total.

TABLE 20. RAISING CHICKS

Items (average per 100 chicks started)	1939	1938	1937
	Dollars	*Dollars*	*Dollars*
Costs:			
100 chicks, at 13 cents per chick	*13.21*	*12.84*	*11.96*
859 pounds of mash, at $2.07 per hundredweight	17.76	17.60	18.23
644 pounds of grain, at $1.42 per hundredweight	9.15	7.96	10.65
Other feed	0.16	0.18	0.16
Total feed	*27.07*	*25.74*	*29.04*
28 hours of labor, at 32 cents per hour	*8.99*	*8.30*	*7.77*
Horse, automobile, truck	0.73	0.70	0.72
Poultry equipment	2.68	2.61	2.18
Litter	0.53	0.67	0.48
Interest	0.89	0.88	0.84
Fuel or heat	1.92	1.66	1.57
Medicine and disinfectants	0.07	0.04	0.11
Range and fences	0.39	0.32	0.17
Buildings	0.90	1.03	1.07
All other	0.61	0.40	0.82
Costs other than chicks, feed, and labor	*8.72*	*8.31*	*7.96*
Total cost	*57.99*	*55.19*	*56.73*
Returns:			
42.3 meat birds sold or eaten, at 37 cents per bird	15.65	16.76	15.81
38.5 pullets for laying flock, at 99 cents per bird	37.99	41.35	35.72
0.9 breeding cockerels, at $1.62 per bird	1.46	1.18	1.56
18.3 birds died	.....	.....	....
Total value of birds	*55.10*	*59.29*	*53.09*
332 pounds of manure, at 96 cents per ton	0.16	0.15	0.18
Eggs laid on range	1.74	2.79	0.03
Returns other than birds	*1.90*	*2.94*	*0.21*
Total returns	*57.00*	*62.23*	*53.30*
Gain	*−0.99*	*7.04*	*−3.43*
Farms	40	37	46
Cost of raising a bird to maturity, dollars	1.06	0.86	1.18
Value of mature bird, dollars	1.04	1.03	1.08
Return per hour of labor, cents	29	59	18

HENS

Eggs were valued at 25 cents per dozen (table 21). Market eggs, accounting for 94 per cent of the total production, sold for an average of 25 cents per dozen. Hatching eggs produced on these farms were valued at 46 cents per dozen. Eggs used on the farm were valued at only 20 cents, because many were cracked or small, and these eggs were not cleaned or packaged. About 1 per cent of the total production was lost or broken in gathering or packing.

The cost of production was 25 cents per dozen. The 7 pounds of feed used in producing a dozen eggs cost 12 cents; 8 minutes of labor cost 4 cents; the decrease in the value of the birds amounted to 5 cents; and the other costs, 4 cents.

Egg production averaged 164 eggs per hen, or 45 eggs for each 100 days. Production increased over 1938 by one dozen eggs per hen, but the higher cost of feed and lower egg prices resulted in a loss of 9 cents per bird, as compared with a gain of 13 cents in 1938.

The range in production was from 62 to 203 eggs per hen. The third

TABLE 21. HENS

Items (average per bird)	1939	1938	1937
	Dollars	*Dollars*	*Dollars*
Costs:			
54 pounds of grain, at $1.41 per hundredweight	0.76	0.76	0.89
42 pounds of mash, at $2.17 per hundredweight	0.91	0.83	1.03
Grit and shell	0.03	0.02	0.03
Other feed	0.02	0.03	0.03
Total feed	*1.72*	*1.64*	*1.98*
1.8 hours of labor, at 32 cents per hour	*0.58*	*0.55*	*0.60*
Depreciation	0.63	0.63	0.53
Interest	0.05	0.05	0.05
Power and equipment	0.09	0.08	0.08
Buildings	0.20	0.21	0.21
Litter	0.04	0.04	0.05
Electricity	0.04	0.04	0.04
Containers	0.03	0.03	0.04
All other	0.08	0.08	0.07
Total other than feed and labor	*1.16*	*1.16*	*1.07*
Total cost	*3.46*	*3.35*	*3.65*
Returns:			
164 eggs per hen, at 25 cents per dozen	3.32	3.43	3.32
92 pounds of manure, at $1.09 per ton	0.05	0.05	0.05
Total returns	*3.37*	*3.48*	*3.37*
Gain	*−0.09*	*0.13*	*−0.28*
Farms	39	39	46
Cost of producing a dozen eggs, cents	25	26	29
Value per dozen eggs, cents	25	27	27
Return per hour of labor, cents	27	39	17

of the flocks with the highest production averaged 186 eggs per bird, as compared with 129 eggs per bird for the one-third with the lowest production.

Feed costs varied a great deal. The one-third of the farmers who spent the smallest amount for feed had a feed cost of $1.46 per bird, as compared with $2.10 for the one-third spending the largest amount for feed. The latter group had an average egg production of 174 eggs per hen, or 2½ dozens more than the average for the group spending the smallest amount for feed.

Depreciation of 63 cents per bird was 18 per cent of the total cost. Death losses, which amounted to 29 per cent of the average number, or 25 per cent of the beginning number, accounted for a large part of the depreciation charge. The balance was made up of the decrease in value of the birds. Pullets added to the flock were valued at $1.02. Culls sold for 61 cents per bird.

Fourteen per cent of the average number of birds died on the third of the farms with the lowest mortality. The high third averaged 49 per cent, or almost one-half the flock. The low third produced 2 dozen eggs per hen more than the high third.

Large flocks paid better than did small flocks. The 13 flocks which were largest, averaging 1541 birds, made 33 cents per hour, as compared with 11 cents for the 13 flocks which were smallest and which averaged 223 birds. The large flocks required only about two-thirds as much labor per bird, and produced 5 more eggs per hen than did the small flocks.

SHEEP

The low-lambing percentage and high death losses on these six flocks explain, in large measure, the average loss of $158 per flock.

The six flocks totaled 448 mature ewes and rams, or an average flock of 75 sheep. For each 100 ewes bred in the fall of 1938, eighty-four lambs were weaned in the spring of 1939. The lamb crop ranged from 70 per cent on one farm to 100 per cent on two other farms.

Lambs sold for $6.82 per head. Lamb sales, bringing in a revenue of $6.21 per mature animal, were three times as important as were wool sales. Sales of ewes and rams brought an income of 60 cents per mature animal.

At the beginning of the year the ewes were valued at $9.20, the rams at $16.25, and the lambs at $5.61 each, making an average investment in the flock of $920. At the end of the year the ewes were valued at $8.90, the rams at $19, and the lambs at $3.69, making an average investment in the flock of $737. The decrease in value, amounting to $2.77 (table 22)

TABLE 22. SHEEP

Items (average per head)	1939	1938	1937
	Dollars	*Dollars*	*Dollars*
Costs:			
171 pounds of grain, at $1.13 per hundredweight	1.94	2.10	1.26
446 pounds of dry roughage, at $8.12 per ton	1.81	2.34	2.04
201 pounds of silage, at $2.88 per ton	0.29	0.22	0.30
Pasture and fences	1.41	0.99	0.92
Other feed and bedding	0.19	0.47	0.29
Total feed and bedding	*5.64*	*6.12*	*4.81*
5.8 hours of labor, at 34 cents per hour	*1.97*	*1.83*	*1.33*
Decrease in inventory	2.77	2.27	1.73
Buildings	0.58	0.66	0.83
Equipment	0.06	0.25	0.18
Shearing	0.19	0.12	0.09
Interest	0.56	0.62	0.55
All other	0.37	0.39	0.62
Total other than feed, bedding, and labor	*4.53*	*4.31*	*4.00*
Total cost	*12.14*	*12.26*	*10.14*
Returns:			
Animals sold and used	6.81	6.55	4.33
Wool sold at 27 cents per pound	2.40	1.32	1.89
1,411 pounds of manure, at $1.12 per ton	0.79	1.10	0.99
Other returns	0.03	0.07	0.31
Total returns	*10.03*	*9.04*	*7.52*
Gain	*−2.11*	*−3.22*	*−2.62*
Farms	6	5	6
Return per hour of labor, cents	−3	−23	−32

per mature animal, was due to three factors: (1) death losses, amounting to 13 per cent of the flock; (2) sales, which exceeded births and purchases; and (3) lower inventory values of the ewes and lambs at the end of the year.

The cost of maintaining an acre of pasture was about $3. The pasture charge indicates that sheep were pastured at the rate of about two mature animals and their lambs per acre of pasture.

Barn feed for a mature animal and its lamb cost $4.23, or three times as much as the pasture feed.

The wool clip was higher than in recent years, averaging 8.5 pounds per animal sheared.

The average value of the building, or part of the building, used to house the sheep was $416, or $5.57 per head. Building space used for the sheep feed is not included in this figure. The cost of maintaining these buildings, including depreciation, interest, repairs, taxes, and insurance, amounted to 10.4 per cent of their value, or 58 cents per mature sheep.

Sheep manure, including bedding, contains an average of 15.8 pounds of nitrogen, 6.6 pounds of phosphoric acid, and 18.0 pounds of potash per ton.[3] At the retail prices for fertilizers in 1939, the value of the fertilizing elements in a ton of sheep manure was $2.43 per ton. Fertilizers are usually applied with a drill at the time of seeding; manure is applied as a separate application, which costs about 50 cents per ton. Thus, sheep manure in the barn would be worth 50 cents less than $2.43, or $1.93 per ton.[4] Farmers' estimates of the value of their sheep manure varied between 50 cents and $3 per ton, and averaged $1.12. The lower value given by farmers may be due to the high percentage of potash which the farmers feel is of little value, to variations in chemical analysis or in the percentage of straw, to the fact that some of the nitrogen in manure may be lost, and possibly to the fact that the farmers do not fully recognize the value of sheep manure. If the sheep manure had been valued at $1.93 per ton instead of $1.12, the loss on the sheep enterprise would have been $1.54 per sheep, instead of $2.11, and the return per hour of labor would have been +7 cents, instead of −3 cents.

The income from the sale of animals and wool paid the cost of feed, depreciation of the flock, shearing, and interest. Farmers had the manure as pay for the labor, use of buildings, and miscellaneous costs.

FEEDER LAMBS

Feeder lambs were shipped from Wyoming, New Mexico, and Texas. The weight at point of origin was 57 pounds per lamb. The shrinkage in weight during shipment was 9 pounds. The lambs weighed 48 pounds on delivery. A gain of 36 pounds per lamb was made in a feeding period of 150 days (table 23).

Prices in the fall were high. The cost of the lambs and freight averaged $10.64 per 100 pounds, based on the weight at delivery. In the winter and early spring, when the lambs were sold, prices had declined to $9.87, or 77 cents less than the price paid.

The lambs that were shorn before being sold produced 6.0 pounds of wool per head.

The lamb accounts showed a loss of 84 cents per head, or a negative return for labor of 18 cents per hour.

[3] From *Fertilizer and Crop Production*, p. 225, 228, by L. L. Van Slyke, 1932.

[4] Salter and Schollenberger, after reviewing the literature in this and other countries, report that "The crop increases produced by manure are no larger and are generally less than those from the equivalent amount of nutrients supplied in chemical fertilizers" (from *Farm Manure*, by Robert M. Salter and C. J. Schollenberger, Ohio Agr. Exp. Sta., Bul. 605: 46, 1939).

TABLE 23. FEEDER LAMBS

Items (average per lamb bought)	1939	1938	1937
	Dollars	*Dollars*	*Dollars*
Costs:			
1 lamb weighing 48 pounds, at 10.6 cents per pound	*5.07*	*4.52*	*5.35*
186 pounds of grain, at $24.62 per ton	2.29	1.60	1.88
185 pounds of dry roughage, at $11.14 per ton	1.03	0.59	0.49
90 pounds of succulent feed, at $2.44 per ton	0.11	0.13	0.18
Bedding	0.10	0.08	0.08
Total feed and bedding	*3.53*	*2.40*	*2.63*
1.7 hours of labor, at 31 cents per hour	*0.52*	*0.42*	*0.43*
Equipment	0.11	0.15	0.13
Interest	0.13	0.11	0.13
Buildings	0.20	0.19	0.23
Shearing	0.03	0.02	0.02
All other	0.07	0.19	0.13
Total other than lamb, feed, bedding, and labor	*0.54*	*0.66*	*0.64*
Total cost	*9.66*	*8.00*	*9.05*
Returns:			
0.96 lamb weighing 84 pounds per lamb sold at 9.5 cents per pound	7.98	7.73	6.35
0.04 lamb died	...	...	...
Wool sold at 25 cents per pound	0.39	0.38	0.26
Pelts	0.01	0.01	0.02
527 pounds of manure, at $1.67 per ton	0.44	0.38	0.47
Total returns	*8.82*	*8.50*	*7.10*
Gain	*−0.84*	*0.50*	*−1.95*
Farms	6	6	6
Return per hour of labor, dollars	−0.18	0.65	−1.01
Increase in weight per lamb, pounds	36	25	27

POTATOES

Yields ranged from less than 100 bushels per acre on five farms to 454 bushels on one farm where an irrigation system was in use. The average yield of 207 bushels sold for 63½ cents per bushel (table 24). Although the yield was lower than in 1938, the price was higher, resulting in the same gross income as in 1938, or $131 per acre.

Seed and fertilizer accounted for almost one-half the cost to harvest time, or $31 per acre. Man labor cost $24 per acre, or about one-fourth of the total cost of growing, harvesting, and marketing potatoes.

Potatoes paid at the rate of 74 cents an hour, giving 1939 the rank of eighth place in the past twenty-five years.

CABBAGE

Cabbage prices were relatively high in 1939, averaging $16 per ton (table 25). Yields ranged from one complete crop failure to one crop of 19 tons per acre, averaging 9 tons. The gross income was almost $150 per acre. Costs of $84 per acre left a profit of $66, which helped to make up for losses in fourteen of the preceding twenty-five years.

The cost of growing a ton of unharvested cabbage in the field, was $5.83. Harvesting the crop and hauling it to the storage or to market cost $1.62 per ton. Only one of the 20 farmers put his cabbage in commercial storage. Storing and selling cost $1.69 per ton. A few farmers sold some cabbage plants, bringing in a little income which reduced the cost of producing a ton of cabbage to $9.10 per ton.

TABLE 24. POTATOES

Items	1939	1938	1937
	Dollars	*Dollars*	*Dollars*
Average per acre:			
Growing:			
Land	5.00	4.96	5.02
2.1 tons of manure, at $1.88 per ton	3.94	3.37	4.06
712 pounds of fertilizer, at $41.24 per ton	14.68	16.62	13.07
Cover crop	2.39	1.83	1.31
21.6 bushels of seed, at 76 cents per bushel	16.51	10.52	22.60
Spray and dust materials	4.88	3.59	3.64
24.7 hours of labor, at 30 cents per hour	7.53	8.30	9.22
11.8 hours of horse work, at 19 cents per hour	2.20	2.28	2.68
6.4 hours of tractor work, at 45 cents per hour	2.91	3.27	2.73
Other equipment	5.20	5.93	5.98
Interest	0.63	0.55	1.06
All other	0.82	0.69	0.80
Total growing	*66.69*	*61.91*	*72.17*
Harvesting	17.17	18.70	17.24
Storing and selling	12.78	17.59	11.80
Total cost per acre	*96.64*	*98.20*	*101.21*
Returns per acre	*131.30*	*131.24*	*87.31*
Gain per acre	*34.66*	*33.04*	*−13.90*
	Cents	*Cents*	*Cents*
Average per bushel:			
Growing	*32.2*	*26.7*	*35.6*
Harvesting:			
11.8 minutes of labor	5.8	5.6	5.7
1.2 minutes of horse work	0.4	0.3	0.4
0.7 minute of tractor work	0.4	0.4	0.5
Automobile and truck	0.3	0.4	0.4
Other equipment	1.3	1.2	1.4
All other	0.1	0.1	0.1
Total harvesting	*8.3*	*8.0*	*8.5*
Storing and selling:			
4.1 minutes of labor	2.1	2.6	1.9
Equipment	1.0	1.2	0.6
Buildings	1.7	1.5	2.0
Interest	0.5	0.4	0.3
Containers, cartage, storage, commission	0.2	1.2	0.4
All other	0.7	0.7	0.6
Total storing and selling	*6.2*	*7.6*	*5.8*
Total cost per bushel	*46.7*	*42.3*	*49.9*
Returns per bushel	*63.5*	*56.6*	*43.1*
Gain per bushel	*16.8*	*14.3*	*−6.8*
Farms	28	30	28
Return per hour of labor, cents	74	67	13
Yield per acre, bushels	207	232	203

CANNING-FACTORY TOMATOES

The six farmers who produced canning-factory tomatoes had an average cost of $10 per ton (table 26). Canners paid $15 for No. 1 grade and $7 for No. 2, or an average of $12 per ton for the crop which graded 66 per cent No. 1, 32 per cent No. 2, and 2 per cent culls.

Plants were set about 4 feet apart each way, or at the rate of almost 3000

TABLE 25. CABBAGE

Items	1939	1938	1937
	Dollars	*Dollars*	*Dollars*
Average per acre:			
Growing:			
Land	4.14	3.98	5.11
2.5 tons of manure, at $2.08 per ton	5.19	4.15	3.64
496 pounds of fertilizer, at $39.56 per ton	9.81	9.56	8.54
Cover crop	1.08	0.58	0.72
Seed and plants	5.92	4.07	4.13
Spray and dust materials	1.67	0.70	1.03
46.3 hours of labor, at 28 cents per hour	13.08	12.26	13.21
17.1 hours of horse work, at 20 cents per hour	3.34	3.72	4.17
6.9 hours of tractor work, at 49 cents per hour	3.41	2.77	2.88
Other equipment	3.92	3.08	3.17
Interest	0.47	0.40	0.64
All other	1.74	1.01	0.42
Total growing	*53.77*	*46.28*	*47.66*
Net growing cost (value of plants sold deducted)	*53.36*	*46.08*	*47.57*
Harvesting	14.98	11.96	11.55
Storing and selling	15.62	16.87	10.08
Total cost per acre	*83.96*	*74.91*	*69.20*
Returns per acre	*149.75*	*52.81*	*120.18*
Gain per acre	*65.79*	*−22.10*	*50.98*
Average per ton:			
Growing	*5.83*	*3.66*	*5.32*
Harvesting:			
4.4 hours of labor	1.21	0.78	0.86
0.4 hour of horse work	0.08	0.04	0.05
Automobile, tractor, truck	0.31	0.08	0.03
All other	0.02	0.05	0.35
Total harvesting	*1.62*	*0.95*	*1.29*
Storing and selling:			
1.8 hours of labor	0.52	0.47	0.26
Automobile and truck	0.32	0.18	0.28
Buildings	0.06	0.02	0.02
Storage	0.03	0.18	0.06
Containers	0.32	0.26	0.31
Commission, cartage, and the like	0.11	0.16	0.16
All other	0.33	0.06	0.04
Total storing and selling	*1.69*	*1.33*	*1.13*
Total cost per ton	*9.14*	*5.94*	*7.74*
Net cost per ton (value of other credits deducted)	*9.10*	*5.91*	*7.74*
Returns per ton	*16.23*	*4.16*	*13.44*
Gain per ton	*7.13*	*−1.75*	*5.70*
Farms	20	23	24
Return per hour of labor, cents	92	6	92
Yield per acre, tons	9.2	12.6	8.9

per acre. Plants and fertilizer cost about $30 per acre, or about one-half the cost to harvest time.

Yields varied from 5 to 12 tons per acre, and averaged 9.1.

Tomatoes paid 41 cents per hour for labor, or the same as the average for the five preceding years.

CANNING-FACTORY PEAS

Peas yielded 1406 pounds of shelled peas per acre (table 27). Canners paid an average of $48.54 per ton for the peas, or at the rate of $34 per acre. The value of pea vines increased the returns to $35 per acre.

TABLE 26. CANNING-FACTORY TOMATOES

Items	1939	1938	1937
	Dollars	*Dollars*	*Dollars*
Average per acre:			
Growing:			
Land	3.44	3.94	3.89
3.7 tons of manure, at $2.25 per ton	8.31	8.15	3.52
728 pounds of fertilizer, at $34.30 per ton	12.49	11.02	11.16
Cover crop	1.06	0.43	0.42
2,772 plants, at $6.18 per thousand	17.14	16.85	15.82
29.2 hours of labor, at 27 cents per hour	7.82	9.06	10.92
19.4 hours of horse work, at 15 cents per hour	2.99	3.12	2.90
3.6 hours of tractor work, at 74 cents per hour	2.65	1.78	2.14
Other equipment	2.51	1.85	2.34
Interest	0.71	0.62	0.84
All other	1.25	1.06	0.06
Total growing	*60.37*	*57.88*	*54.01*
Harvesting	29.87	34.10	36.26
Selling	2.61	3.79	2.28
Total cost per acre	*92.85*	*95.77*	*92.55*
Returns per acre	*111.06*	*129.44*	*131.98*
Gain per acre	*18.21*	*33.67*	*39.43*
Average per ton:			
Growing	*6.62*	*5.74*	*5.43*
Harvesting:			
11.0 hours of labor	3.05	3.07	3.24
Automobile and truck	0.19	0.25	0.39
Other equipment	....	0.01	0.02
All other	0.04	0.04	....
Total harvesting	*3.28*	*3.37*	*3.65*
Selling:			
Interest	0.09	0.05	0.12
All other	0.20	0.33	0.11
Total selling	*0.29*	*0.38*	*0.23*
Total cost per ton	*10.19*	*9.49*	*9.31*
Returns per ton	*12.18*	*13.83*	*13.27*
Gain per ton	*1.99*	*3.34*	*3.96*
Farms	6	9	12
Return per hour of labor, cents	41	52	57
Yield per acre, tons	9.1	10.1	9.9

Costs exceeded returns by $4.54 per acre. Seed was the largest cost, or 42 per cent of the total. Only 18 hours of man labor per acre was spent in growing, harvesting, and marketing peas, amounting to only 14 per cent of the total cost. Peas paid 6 cents an hour for labor.

DRY BEANS

Bean yields were lower than in 1938 but prices were better. The average yield of 15 bushels per acre sold for $1.90 per bushel, or $29 per acre (table 28). Bean pods and straw, valued at $1.79 per acre, brought the average returns to a little more than $30 per acre, or 56 cents less than the cost.

Costs per bushel averaged $1.94, or $3.23 per hundred pounds. Beans paid at the rate of 30 cents an hour.

TABLE 27. CANNING-FACTORY PEAS

Items	1939	1938	1937
	Dollars	*Dollars*	*Dollars*
Average per acre:			
Growing:			
Land	3.59	3.70	3.84
4.1 bushels of seed, at $4.06 per bushel	16.66	16.23	16.00
260 pounds of fertilizer, at $23.69 per ton	3.08	1.46	2.32
1.4 tons of manure, at $1.77 per ton	2.48	3.35	2.12
6.6 hours of labor, at 32 cents per hour	2.14	1.95	2.16
5.2 hours of horse work, at 17 cents per hour	0.90	1.62	1.45
3.6 hours of tractor work, at 47 cents per hour	1.70	1.04	1.27
Other equipment	1.50	0.94	1.02
All other	0.75	0.41	0.46
Total growing	*32.80*	*30.70*	*30.64*
Harvesting	6.16	7.42	9.48
Selling	0.64	0.14	0.25
Total cost per acre	*39.60*	*38.26*	*40.37*
Returns per acre	*35.06*	*49.43*	*56.93*
Gain per acre	*−4.54*	*11.17*	*16.56*
Average per ton:			
Growing	*46.62*	*37.07*	*34.10*
Harvesting:			
15.8 hours of labor	4.90	4.42	5.27
5.6 hours of horse work	0.89	1.19	1.04
1.6 hours of tractor work	0.75	0.30	0.14
Automobile and truck	1.86	1.72	3.35
Other equipment	0.24	0.95	0.73
All other	0.12	0.38	0.01
Total harvesting	*8.76*	*8.96*	*10.54*
Selling:			
Interest	....	0.10	0.24
All other	0.91	0.06	0.04
Total selling	*0.91*	*0.16*	*0.28*
Total cost per ton	*56.29*	*46.19*	*44.92*
Net cost per ton (pea silage deducted)	*55.00*	*45.92*	*44.83*
Returns per ton	*48.54*	*59.41*	*63.26*
Gain per ton	*−6.46*	*13.49*	*18.43*
Farms	10	9	11
Return per hour of labor, cents	6	85	99
Yield per acre, tons	0.7	0.8	0.9

FRUIT

Apple growers received only 40 cents per bushel in 1939 (table 29). In only two of the past twenty years have prices for apples on cost-account farms fallen below 40 cents. Costs were high, resulting in the largest loss since these accounts have been tabulated, or an average loss of 19 cents per bushel.

Prices received by farmers who sell in the fall in the buyers' containers are not comparable with prices of fruit sold out of storage. The direct cash costs for commission, hired packing, storing, and carting, averaged 10 cents for each bushel of marketable fruit produced. The net cost is the total cost less these direct cash costs of marketing. The net cost was 59 cents per bushel, and the net price received was 40 cents.

Interest and depreciation on the trees, pruning, spraying, and other costs incurred before harvest time averaged $60 per acre. Most of these items

TABLE 28. DRY BEANS

Items	1939	1938	1937
	Dollars	*Dollars*	*Dollars*
Average per acre:			
Growing:			
Land	3.96	3.88	4.52
1.1 tons of manure, at $1.75 per ton	1.92	1.63	3.35
129 pounds of fertilizer, at $28.22 per ton	1.82	1.78	1.87
1.1 bushels of seed, at $3.09 per bushel	3.40	4.32	5.56
12.7 hours of labor, at 32 cents per hour	4.10	4.48	3.95
7.6 hours of horse work, at 28 cents per hour	2.12	2.15	2.83
5.4 hours of tractor work, at 51 cents per hour	2.73	2.60	2.07
Other equipment	1.19	1.08	1.42
Interest	0.17	0.15	0.32
All other	1.53	1.11	0.24
Total growing	*22.94*	*23.18*	*26.13*
Harvesting	6.49	8.73	8.28
Storing and selling	1.67	0.88	0.98
Total cost per acre	*31.10*	*32.79*	*35.39*
Returns per acre	*30.54*	*31.78*	*36.66*
Gain per acre	*−0.56*	*−1.01*	*1.27*
Average per bushel:			
Growing	*1.52*	*1.20*	*1.62*
Harvesting:			
0.7 hour of labor	0.24	0.28	0.27
0.2 hour of horse work	0.05	0.06	0.11
Equipment	0.08	0.04	0.06
Threshing	0.06	0.07	0.07
Total harvesting	*0.43*	*0.45*	*0.51*
Storing and selling	0.11	0.05	0.06
Total cost per bushel	*2.06*	*1.70*	*2.19*
Net cost per bushel (straw deducted)	*1.94*	*1.61*	*2.12*
Returns per bushel	*1.90*	*1.56*	*2.20*
Gain per bushel	*−0.04*	*−0.05*	*0.08*
Farms	9	9	6
Return per hour of labor, cents	30	29	37
Yield per acre, bushels	15	19	16

are not affected by the size of the crop. Harvesting the 166 bushels of marketable apples cost about one-third as much as raising them to harvest time, or 12 cents per bushel. The average cost of storing and selling was 32 cents per bushel. The cost of producing a bushel of apples and moving it as far along the marketing process as the farmers took it averaged 79 cents per bushel after allowing for the value of by-products, such as income from the 21 bushels of cull apples, and the value of wood or pasture. The average sale price was 60 cents, of which 20 cents was used for buying the baskets, paying for hired packing, cold-storage charges for the part of the crop held in commercial storage, for hired cartage, and for commissions.

Direct labor accounts for $44 per acre, or 33 per cent of the total cost. Apples paid all costs except labor, with 9 cents an hour left as pay for labor.

Peaches sold for 78 cents per bushel, or 9 cents more than cost (table 30). Growing costs were higher than in recent years owing to higher costs of spray and dust materials and to a higher labor cost. Storing and selling costs were also unusually high. Relatively good yields of 129 bushels per

TABLE 29. APPLES

Items	1939	1938	1937
	Dollars	*Dollars*	*Dollars*
Average per acre:			
Growing:			
Orchard overhead	15.24	15.71	14.37
0.7 ton of manure, at $2.17 per ton	1.56	1.47	2.09
119 pounds of nitrogenous fertilizer, at $30.25 per ton	1.80	2.18	2.93
Other fertilizer	0.40	0.17	0.26
Cover crop	0.03	0.12	0.21
Spray and dust materials	12.09	12.07	12.36
44.3 hours of labor, at 33 cents per hour	14.50	14.84	17.89
7.0 hours of horse work, at 16 cents per hour	1.14	1.03	1.68
5.0 hours of tractor work, at 46 cents per hour	2.31	3.01	2.39
Other equipment	5.46	6.07	7.48
Interest	1.11	0.92	1.17
All other	4.37	4.56	4.31
Total growing	*60.01*	*62.15*	*67.14*
Harvesting	20.34	21.94	24.36
Storing and selling	52.94	47.84	47.29
Total cost per acre	*133.29*	*131.93*	*138.79*
Returns per acre	*101.42*	*144.03*	*112.52*
Gain per acre	*−31.87*	*12.10*	*−26.27*
Average per bushel:			
Growing	*0.36*	*0.36*	*0.39*
Harvesting:			
19 minutes of labor	0.11	0.11	0.11
Automobile and truck	0.00	0.01	0.01
Other equipment	0.01	0.01	0.02
Total harvesting	*0.12*	*0.13*	*0.14*
Storing and selling:			
Packages	0.10	0.10	0.09
Commission, hired packing, storage, transportation	0.10	0.08	0.08
Labor	0.07	0.06	0.06
Equipment	0.01	0.01	0.02
Buildings	0.01	0.01	0.01
All other	0.03	0.02	0.02
Total storing and selling	*0.32*	*0.28*	*0.28*
Total cost per bushel	*0.80*	*0.77*	*0.81*
Cost per bushel (ciders, driers, wood, pasture deducted)	*0.79*	*0.75*	*0.78*
Net cost per bushel*	*0.59*	*0.57*	*0.61*
Total returns per bushel	*0.60*	*0.82*	*0.63*
Net returns per bushel*	*0.40*	*0.64*	*0.46*
Gain per bushel	*−0.19*	*0.07*	*−0.15*
Farms	20	22	20
Return per hour of labor, cents	9	44	16
Yield per acre, bushels	166	173	173

*Net cost is the cost per bushel minus the cost of packages, commissions, hired packing, storage, and transportation; net returns are the total returns minus these same items.

acre resulted in an average cost of 69 cents per bushel. The $90 an acre spent by peach growers was only 68 per cent of the cost of apples.

Pear growers spent about $50 an acre and got $60 for the fruit (table 31). Pears paid for the 60 hours of labor spent on an acre at the rate of 46 cents per hour. The pear orchards were not cared for as intensively as were the apples, as indicated by the $2.46 per acre for spray materials as compared with $12.09 for apples. Pears probably would not have paid for intensive care.

TABLE 30. PEACHES

Items	1939	1938	1937
	Dollars	*Dollars*	*Dollars*
Average per acre:			
Growing:			
Orchard overhead	9.60	8.72	9.04
0.7 ton of manure, at $2.56 per ton	1.79	0.67	0.45
181 pounds of fertilizer, at $24.20 per ton	2.19	1.43	1.47
Spray and dust materials	5.89	3.35	3.48
48.2 hours of labor, at 32 cents per hour	15.33	8.55	10.19
5.1 hours of horse work, at 15 cents per hour	0.75	0.52	0.53
5.0 hours of tractor work, at 37 cents per hour	1.87	1.69	1.50
Other equipment	2.72	2.02	1.88
Interest	0.69	0.40	0.47
All other	0.61	1.00	0.21
Total growing	*41.44*	*28.35*	*29.22*
Harvesting	17.31	13.71	10.26
Storing and selling	31.57	17.13	10.88
Total cost per acre	*90.32*	*59.19*	*50.36*
Returns per acre	*101.36*	*130.38*	*50.64*
Gain per acre	*11.04*	*71.19*	*0.28*
Average per bushel:			
Total cost per bushel	*0.69*	*0.38*	*0.95*
Total returns per bushel	*0.78*	*0.85*	*0.95*
Net cost per bushel*	*0.52*	*0.29*	*0.80*
Net returns per bushel*	*0.61*	*0.76*	*0.80*
Gain per bushel	*0.09*	*0.47*	*0.00*
Farms	7	6	9
Return per hour of labor, dollars	0.41	1.26	0.32
Yield per acre, bushels	129	153	53

*Net cost is the total cost per bushel minus the cost of packages, commissions, hired packing, storage, and transportation; net returns are the total returns minus these same items.

TABLE 31. PEARS

Items	1939	1938	1937
	Dollars	*Dollars*	*Dollars*
Average per acre:			
Growing:			
Orchard overhead	10.56	7.95	9.65
184 pounds of fertilizer, at $28.37 per ton	2.61	2.54	2.95
Spray and dust materials	2.46	3.46	3.58
15.8 hours of labor, at 28 cents per hour	4.35	4.51	6.26
3.7 hours of horse work, at 14 cents per hour	0.52	0.49	0.53
1.5 hours of tractor work, at 40 cents per hour	0.60	1.14	0.86
Other equipment	3.17	2.75	2.05
Interest	0.24	0.22	0.40
All other	0.30	0.92	1.77
Total growing	*24.81*	*23.98*	*28.05*
Harvesting	14.85	16.93	8.58
Storing and selling	10.56	13.58	9.88
Total cost per acre	*50.22*	*54.49*	*46.51*
Returns per acre	*60.10*	*56.60*	*55.17*
Gain per acre	*9.88*	*2.11*	*8.66*
Average per bushel:			
Total cost per bushel	*0.60*	*0.55*	*0.89*
Total returns per bushel	*0.72*	*0.57*	*1.05*
Net cost per bushel*	*0.50*	*0.45*	*0.76*
Net returns per bushel*	*0.62*	*0.47*	*0.92*
Gain per bushel	*0.12*	*0.02*	*0.16*
Farms	8	12	11
Return per hour of labor, cents	46	33	50
Yield per acre, bushels	83	100	52

*Net cost is the cost per bushel minus the cost of packages, commissions, hired packing, storage, and transportation; net returns are the total returns minus these same items.

More than one-half the cost of producing cherries was in harvesting the fruit (table 32). The cost of picking and hauling to the processing plant

TABLE 32. CHERRIES

Items	1939	1938	1937
	Dollars	*Dollars*	*Dollars*
Average per acre:			
Growing:			
Orchard overhead	12.61	9.20	12.80
0.3 ton of manure, at $1.93 per ton	0.58	4.78	2.93
314 pounds of fertilizer, at $27.32 per ton	4.29	4.10	4.24
Spray and dust materials	5.37	8.70	6.56
20.6 hours of labor, at 30 cents per hour	6.16	9.10	10.64
2.7 hours of horse work, at 14 cents per hour	0.39	1.45	1.11
4.4 hours of tractor work, at 40 cents per hour	1.74	2.22	3.03
Other equipment	5.95	3.80	6.15
Interest	0.42	0.62	0.76
All other	0.70	1.15	1.46
Total growing	*38.21*	*45.12*	*49.68*
Harvesting	74.40	55.56	77.68
Storing and selling	10.68	10.34	29.36
Total cost per acre	*123.29*	*111.02*	*156.72*
Returns per acre	*108.13*	*168.46*	*343.22*
Gain per acre	*−15.16*	*57.44*	*186.50*
	Cents	*Cents*	*Cents*
Average per pound:			
Total cost per pound	*2.3*	*2.2*	*2.6*
Total returns per pound	*2.0*	*3.3*	*5.7*
Net cost per pound*	*2.2*	*2.0*	*2.5*
Net returns per pound*	*1.9*	*3.1*	*5.6*
Gain per pound	*−0.3*	*1.1*	*3.1*
Farms	5	9	8
Return per hour of labor, cents	25	46	85
Yield per acre, pounds	5,506	5,173	6,037

*Net cost is the total cost per pound minus the cost of packages, commissions, hired packing, storage, and transportation; net returns are the total returns minus these same items.

was 1.4 cents per pound, or $74 per acre. Cherry prices were lower than in recent years, averaging only 1.9 cents per pound. The cost of production averaged 0.3 cent per pound more than the price received, resulting in a loss of $15 per acre.

Sour cherries accounted for about 95 per cent of the production, and sweet cherries about 5 per cent.

HAY, SILAGE, AND GRAIN

Cost records were kept on 1661 acres of small grains. Hay or pasture grass was sown on 1189 acres in 1939. The 996 acres of new seeding on small grain represents 60 per cent of the small-grain acreage on which cost records were kept, and 84 per cent of the acreage seeded to hay or pasture grasses. A total of 97 acres were seeded without a nurse crop, and 96 acres were seeded with peas and other nurse crops. The cost of the new seedings, when seeded with a nurse crop, was considered to be the cost of the seed, inoculant, use of special equipment, lime, about two-thirds of the fertilizer, and any special labor directly connected with the seeding. The preparation of the seedbed, interest and taxes on the land, and all other costs that would have been incurred had the grain been grown alone, were

charged to the grain crop. The allocation of these costs is discussed in detail in a mimeographed report.

The cost of hay to harvest time averaged about $9 per acre (tables 33 and 34). The cost of establishing the seeding chargeable to one year was about $3 per acre on the alfalfa fields, and about $2 on the fields of hay other than alfalfa. Interest and taxes on the land were a little more than $3 per acre. Manure chargeable to the current year accounted for a $2-per-acre charge on the alfalfa fields and about $4 on the other fields.

TABLE 33. ALFALFA

Items	1939	1938	1937
	Dollars	*Dollars*	*Dollars*
Average per acre:			
Growing:			
Land	3.20	3.37	3.59
1.2 tons of manure, at $1.72 per ton	2.06	2.22	2.17
Share of seeding cost	2.97	2.80	2.68
Interest	0.25	0.26	0.27
All other	0.21	0.23	0.79
Total growing	*8.69*	*8.88*	*9.50*
Harvesting	6.08	7.56	7.77
Storing and selling	3.89	3.99	4.14
Total cost per acre	*18.66*	*20.43*	*21.41*
Returns per acre for hay	*23.97*	*19.28*	*22.54*
Value of aftermath	*0.39*	*0.62*	*0.00*
Gain per acre	*5.70*	*−0.53*	*1.13*
Average per ton			
Growing	*4.99*	*3.97*	*4.23*
Harvesting:			
5.0 hours of labor, at 30 cents per hour	1.49	1.59	1.64
3.8 hours of horse work, at 19 cents per hour	0.73	0.67	0.80
0.5 hour of tractor work, at 54 cents per hour	0.27	0.19	0.21
Equipment	0.98	0.91	0.78
All other	0.01	0.01	0.03
Total harvesting	*3.48*	*3.37*	*3.46*
Storing and selling:			
Buildings	1.75	1.41	1.42
Interest	0.29	0.20	0.26
All other	0.19	0.17	0.16
Total storing and selling	*2.23*	*1.78*	*1.84*
Total cost per ton	*10.70*	*9.12*	*9.53*
Cost per ton (value of pasture deducted)	*10.48*	*8.85*	*9.21*
Returns per ton	*13.75*	*8.61*	*9.71*
Gain per ton	*3.27*	*−0.24*	*0.50*
Farms	40	45	47
Return per hour of labor, cents	93	26	38
Yield per acre, tons	1.7	2.2	2.2

Harvesting charges were higher per acre for the alfalfa fields because a large proportion of the acreage was mowed more than once. The total cost per acre of alfalfa in 1939 was $19, or about $2 higher than for hay other than alfalfa. However, since the alfalfa yield was 31 per cent above the average yield of other hay, the cost of alfalfa was $10.48 per ton, or $2.22 less than the cost of other hay. Alfalfa is a low-cost crop when grown under conditions that will result in good yields.

TABLE 34. HAY OTHER THAN ALFALFA

Items	1939	1938	1937
	Dollars	*Dollars*	*Dollars*
Average per acre:			
Growing:			
Land	3.29	3.42	3.40
2.2 tons of manure, at $1.78 per ton	3.92	3.68	3.96
Share of seeding cost	2.12	1.71	1.07
Interest	0.27	0.26	0.26
All other	0.25	0.07	0.24
Total growing	*9.85*	*9.14*	*8.93*
Harvesting	4.28	4.91	5.33
Storing and selling	2.66	2.83	3.34
Total cost per acre	*16.79*	*16.88*	*17.60*
Returns per acre for hay	*15.59*	*12.17*	*14.22*
Value of aftermath	*0.33*	*0.76*	*0.57*
Gain per acre	*−0.87*	*−4.01*	*−2.81*
Average per ton:			
Growing	*7.60*	*5.51*	*5.12*
Harvesting:			
4.8 hours of labor, at 30 cents per hour	1.46	1.45	1.46
3.7 hours of horse work, at 20 cents per hour	0.73	0.57	0.69
0.4 hour of tractor work, at 52 cents per hour	0.21	0.25	0.20
Equipment	0.87	0.68	0.69
All other	0.03	0.01	0.01
Total harvesting	*3.30*	*2.96*	*3.05*
Storing and selling:			
Buildings	1.65	1.43	1.58
Interest	0.28	0.17	0.24
All other	0.12	0.11	0.09
Total storing and selling	*2.05*	*1.71*	*1.91*
Total cost per ton	*12.95*	*10.18*	*10.08*
Cost per ton (value of pasture deducted)	*12.70*	*9.76*	*9.77*
Returns per ton	*12.02*	*7.34*	*8.16*
Gain per ton	*−0.68*	*−2.42*	*−1.61*
Farms	66	57	59
Return per hour of labor, cents	16	−19	−2
Yield per acre, tons	1.3	1.7	1.7

Hay prices were high in the short crop year of 1939. Alfalfa raised on these farms was valued at an average of $13.75 per ton, making a return for the 1.7 tons raised on an acre of about $24.

The cost of raising an acre of corn silage and getting it in the silo was about twice the cost of raising an acre of alfalfa hay and getting it in the barn. The feeding value of the silage from one acre was equivalent to the alfalfa hay produced on about 1.5 acres.

About one-third of the cost of raising silage to harvest time was for manure (table 35). Manure is charged to the four crops following the application. It is assumed that the first crop receives 40 per cent of the benefit of the manure; the second crop, 30 per cent; the third crop, 20 per cent; and the fourth crop, 10 per cent. On this basis, corn silage was charged for 4.8 tons of manure per acre in 1939.

Binding the corn, hauling it to the silo, cutting, and blowing it into the silo cost an average of $1.37 per ton. About one-half the cost of harvesting was for labor and the other half for power and equipment. It required

TABLE 35. CORN SILAGE

Items	1939	1938	1937
	Dollars	*Dollars*	*Dollars*
Average per acre:			
Growing:			
Land	3.19	3.54	3.62
4.8 tons of manure, at $1.73 per ton	8.30	7.87	9.31
85 pounds of fertilizer, at $28.47 per ton	1.21	1.31	1.27
9.9 quarts of seed, at $2.81 per bushel	0.87	0.98	1.04
11.8 hours of labor, at 28 cents per hour	3.33	4.04	3.66
14.2 hours of horse work, at 17 cents per hour	2.44	2.88	2.81
3.7 hours of tractor work, at 54 cents per hour	2.00	2.00	2.05
Other equipment	1.55	1.61	1.90
Interest	0.18	0.18	0.48
All other	0.49	0.39	0.47
Total growing	*23.56*	*24.80*	*26.61*
Harvesting	11.18	14.93	13.15
Storing	3.00	3.32	3.31
Total cost per acre	*37.74*	*43.05*	*43.07*
Average per ton:			
Growing	*2.89*	*2.41*	*3.02*
Harvesting:			
2.2 hours of labor	0.61	0.73	0.69
1.5 hours of horse work	0.28	0.25	0.25
0.2 hour of tractor work	0.13	0.10	0.12
Equipment	0.27	0.34	0.38
All other	0.08	0.03	0.05
Total harvesting	*1.37*	*1.45*	*1.49*
Storing:			
Silo	0.32	0.27	0.36
All other	0.07	0.06	0.02
Total storing	*0.39*	*0.33*	*0.38*
Total cost per ton	*4.65*	*4.19*	*4.89*
Net cost per ton (value of ear corn deducted)	*4.33*	*3.98*	*4.66*
Farms	46	44	52
Yield per acre, tons	8.1	10.2	8.8

2.2 hours of man labor to get a ton of standing corn from the field into the silo.

The average cost of growing, harvesting, and storing a ton of silage was $4.33. Good-quality hay at $13 per ton would have provided digestible nutrients at about the same cost as did the silage at $4.33 a ton.

Five farmers harvested green grass for silage from about 53 acres of meadow. The yield, as estimated from the silage tables, was 6.3 tons per acre. If the grass had been cured for hay the dry weight would have been about 2.1 tons per acre.

The share of the seeding cost, interest and taxes on the land, and other costs incurred before the mowing machine was taken into the field averaged $14 per acre. Labor, power, and equipment costs from standing grass to chopped silage in the silo were $2.18 per ton, or 81 cents more than for corn silage from standing corn to silo. Preservative was used on the grass silage but not on the corn silage, making an additional expense of 63 cents per ton.

The charge for the use of the silo was 48 cents per ton, or 16 cents more than for corn silage. The higher charge for grass silage was not determined by any accurate measurement. Farmers believe that grass silage

exerts more pressure, and causes more depreciation on the silo than does corn silage.

Grass silage cost $5.59 per ton, or $1.26 more than corn silage. Since only five farms produced grass silage, these figures may not be representative. The average cost of an acre of alfalfa, before mowing, was $8.69. The yield was 1.7 tons of dry hay. Assuming a drying ratio of 3 to 1, about 5.1 tons of green grass was produced per acre, at a cost of $1.70 per ton of standing grass. The growing cost on the five farms was $2.24 per ton of grass silage, or 54 cents per ton higher than the average cost on all alfalfa accounts.

Four annual crops—soybeans, oats, millet, and sudan grass—were ensiled on four different farms. The acreage in each case was small, totaling 25.6 acres on the four farms. Costs tended to vary with yield.

Corn which was allowed to mature for grain cost about the same amount per acre as did corn silage. Yields of 42 bushels of shelled corn per acre and prices of 93 cents per bushel, together with the stover, produced an income of almost $42 per acre (table 36). The high value of the corn, compared with market prices of feed corn, is due to the fact that part of the acreage was hybrid corn raised under contract for seed purposes.

The average cost of raising an acre of small grains to harvest time was between $15 and $17 for each of the four grains (tables 37, 38, 39, and 40). Combines were used to harvest part of the acreage, and binders for the

TABLE 36. CORN FOR GRAIN

Items	1939	938	1937
	Dollars	*Dollars*	*Dollars*
Average per acre:			
Growing:			
Land	4.18	4.15	4.45
2.6 tons of manure, at $1.91 per ton	4.96	5.65	5.12
123 pounds of fertilizer, at $27.64 per ton	1.70	1.52	1.21
7 quarts of seed, at $9.46 per bushel	2.07	1.20	0.75
16.2 hours of labor, at 29 cents per hour	4.66	4.50	5.25
12.8 hours of horse work, at 20 cents per hour	2.55	3.55	3.64
3.8 hours of tractor work, at 43 cents per hour	1.63	1.83	1.99
Other equipment	1.81	1.44	1.82
Interest	0.17	0.15	0.25
All other	1.40	0.63	0.80
Total growing	*25.13*	*24.62*	*25.28*
Harvesting	12.56	13.80	15.31
Storing and selling	2.60	1.62	2.23
Total cost per acre	*40.29*	*40.04*	*42.82*
Returns per acre	*41.76*	*36.84*	*38.46*
Gain per acre	*1.47*	*−3.20*	*−4.36*
Average per bushel:			
Growing	0.60	0.60	0.65
Harvesting	0.30	0.34	0.39
Storing and selling	0.06	0.04	0.06
Total cost per bushel	*0.96*	*0.98*	*1.10*
Cost per bushel (stover deducted)	*0.89*	*0.92*	*0.95*
Returns per bushel	*0.93*	*0.84*	*0.84*
Gain per bushel	*0.04*	*−0.08*	*−0.11*
Farms	23	26	20
Return per hour of labor, cents	32	23	25
Yield per acre, bushels	42	41	39

TABLE 37. MIXED SPRING GRAIN

Items	1939	1938	1937
	Dollars	*Dollars*	*Dollars*
Average per acre:			
Growing:			
Land	3.14	3.13	3.68
2.4 tons of manure, at $1.85 per ton	4.45	4.12	3.98
135 pounds of fertilizer, at $22.81 per ton	1.54	1.68	2.06
2.3 bushels of seed, at 70 cents per bushel	1.60	1.50	2.27
6.5 hours of labor, at 30 cents per hour	1.93	2.09	2.02
6.7 hours of horse work, at 19 cents per hour	1.26	1.39	1.38
3.0 hours of tractor work, at 54 cents per hour	1.61	1.72	1.58
Other equipment	1.18	1.12	1.09
Interest	0.17	0.17	0.22
All other	0.10	0.04	0.05
Total growing	*16.98*	*16.96*	*18.33*
Harvesting:			
7.7 hours of labor	2.21	2.49	2.45
3.5 hours of horse work	0.71	0.81	0.76
0.6 hour of tractor work	0.31	0.33	0.31
Threshing and combining	1.42	1.77	1.07
2.1 pounds of twine	0.17	0.19	0.22
All other	0.84	0.86	1.26
Total harvesting	*5.66*	*6.45*	*6.07*
Storing and selling	1.50	1.29	1.44
Total cost per acre	*24.14*	*24.70*	*25.84*
Returns from grain	*20.27*	*16.61*	*14.20*
Returns from straw	*4.58*	*3.37*	*3.05*
Gain per acre	*0.71*	*−4.72*	*−8.59*
Average per bushel:			
Growing	0.47	0.50	0.71
Harvesting	0.16	0.19	0.23
Storing and selling	0.04	0.04	0.06
Total cost per bushel	*0.67*	*0.73*	*1.00*
Cost per bushel (straw deducted)	*0.54*	*0.63*	*0.88*
Returns per bushel	*0.56*	*0.49*	*0.55*
Gain per bushel	*0.02*	*−0.14*	*−0.33*
Farms	31	27	31
Return per hour of labor, cents	34	−1	−28
Yield per acre, bushels	36	34	26

other part. The average cost of getting an acre of standing grain from the field to the granary, and the straw to the straw stack, was between $5 and $6. Storing costs, consisting principally of interest on the market value of the grain, and any commission or cartage in selling, were between $1.50 and $2.50 per acre for the grain from an acre. The total cost of growing, harvesting, and storing an acre of small grain and straw was about $25, or about $6 more than for an acre of alfalfa hay. This includes all the cost of preparing the seedbed on fields of small grain seeded to hay.

Yields of small grains were relatively good in 1939, averaging better than 30 bushels for each of the four grains.

Wheat was the only small grain which showed a substantial profit, averaging 18 cents per bushel. Wheat was produced at a lower cost per pound than were any of the other three small grains.

TABLE 38. OATS

Items	1939	1938	1937
	Dollars	*Dollars*	*Dollars*
Average per acre:			
Growing:			
Land	3.51	3.75	4.17
1.9 tons of manure, at $1.93 per ton	3.67	3.89	2.96
113 pounds of fertilizer, at $22.12 per ton	1.25	1.34	1.99
2.3 bushels of seed, at 53 cents per bushel	1.23	1.46	1.92
5.9 hours of labor, at 28 cents per hour	1.67	1.90	1.85
6.2 hours of horse work, at 19 cents per hour	1.15	1.58	1.65
2.6 hours of tractor work, at 50 cents per hour	1.29	1.17	1.19
Other equipment	0.89	1.09	1.36
Interest	0.15	0.16	0.19
All other	0.25	0.24	0.18
Total growing	*15.06*	*16.58*	*17.46*
Harvesting:			
7.5 hours of labor	2.16	2.64	2.76
2.6 hours of horse work	0.48	0.57	0.71
0.9 hour of tractor work	0.53	0.37	0.68
Threshing and combining	1.60	1.37	1.22
2.3 pounds of twine	0.17	0.20	0.22
All other	0.71	1.03	0.91
Total harvesting	*5.65*	*6.18*	*6.50*
Storing and selling	2.24	1.98	1.84
Total cost per acre	*22.95*	*24.74*	*25.80*
Returns from grain	*18.14*	*14.59*	*13.82*
Returns from straw	*2.83*	*2.61*	*2.90*
Gain per acre	*−1.98*	*−7.54*	*−9.08*
Average per bushel:			
Growing	0.40	0.42	0.61
Harvesting	0.15	0.16	0.22
Storing and selling	0.06	0.05	0.06
Total cost per bushel	*0.61*	*0.63*	*0.89*
Cost per bushel (straw deducted)	*0.53*	*0.56*	*0.80*
Returns per bushel	*0.48*	*0.37*	*0.48*
Gain per bushel	*−0.05*	*−0.19*	*−0.32*
Farms	29	26	26
Return per hour of labor, cents	14	−18	−26
Yield per acre, bushels	38	39	29

TABLE 39. BARLEY

Items	1939	1938	1937
	Dollars	*Dollars*	*Dollars*
Average per acre:			
Growing:			
Land	3.68	3.96	4.22
2.4 tons of manure, at $1.79 per ton	4.30	4.58	4.31
115 pounds of fertilizer, at $21.74 per ton	1.25	1.17	3.76
2.1 bushels of seed, at 79 cents per bushel	1.65	1.96	2.45
5.8 hours of labor, at 30 cents per hour	1.75	1.45	1.44
3.5 hours of horse work, at 23 cents per hour	0.79	0.78	0.87
3.5 hours of tractor work, at 49 cents per hour	1.71	1.32	1.65
Other equipment	1.54	0.99	1.03
Interest	0.18	0.15	0.25
All other	0.05	0.23	0.23
Total growing	*16.90*	*16.59*	*20.21*
Harvesting:			
6.3 hours of labor	1.96	1.90	2.30
1.2 hours of horse work	0.23	0.42	0.44
1.0 hour of tractor work	0.46	0.43	0.62
Threshing and combining	1.28	1.26	0.95
1.1 pounds of twine	0.08	0.15	0.19
All other	1.07	0.54	0.81
Total harvesting	*5.08*	*4.70*	*5.31*
Storing and selling	1.93	1.61	2.07
Total cost per acre	*23.91*	*22.90*	*27.59*
Returns from grain	*20.67*	*16.61*	*21.12*
Returns from straw	*2.09*	*2.11*	*2.43*
Gain per acre	*−1.15*	*−4.18*	*−4.04*
Average per bushel:			
Growing	0.55	0.61	0.76
Harvesting	0.16	0.17	0.20
Storing and selling	0.07	0.06	0.08
Total cost per bushel	*0.78*	*0.84*	*1.04*
Cost per bushel (straw deducted)	*0.71*	*0.76*	*0.95*
Returns per bushel	*0.67*	*0.61*	*0.80*
Gain per bushel	*−0.04*	*−0.15*	*−0.15*
Farms	14	11	9
Return per hour of labor, cents	21	−6	−1
Yield per acre, bushels	31	27	26

TABLE 40. WHEAT

Items	1939	1938	1937
	Dollars	*Dollars*	*Dollars*
Average per acre:			
Growing:			
Land	4.48	4.69	4.69
1.2 tons of manure, at $1.92 per ton	2.31	2.83	3.16
146 pounds of fertilizer, at $27.95 per ton	2.04	2.64	2.67
2.0 bushels of seed, at 87 cents per bushel	1.74	2.68	2.73
5.5 hours of labor, at 32 cents per hour	1.78	1.82	1.87
4.0 hours of horse work, at 16 cents per hour	0.66	1.02	0.96
3.2 hours of tractor work, at 50 cents per hour	1.60	1.38	1.53
Other equipment	1.02	0.94	0.83
Interest	0.45	0.52	0.59
All other	0.27	0.15	0.00
Total growing	*16.35*	*18.67*	*19.03*
Harvesting:			
6.4 hours of labor	1.91	2.33	2.74
2.2 hours of horse work	0.43	0.33	0.80
0.7 hour of tractor work	0.36	0.44	0.32
Threshing and combining	1.49	1.54	1.79
1.5 pounds of twine	0.11	0.15	0.22
All other	1.16	1.33	0.86
Total harvesting	*5.46*	*6.12*	*6.73*
Storing and selling	2.41	2.99	2.87
Total cost per acre	*24.22*	*27.78*	*28.63*
Returns from grain	*26.22*	*23.18*	*30.06*
Returns from straw	*3.38*	*3.02*	*3.55*
Gain per acre	*5.38*	*−1.58*	*4.98*
Average per bushel:			
Growing	0.53	0.57	0.65
Harvesting	0.18	0.19	0.23
Storing and selling	0.07	0.09	0.10
Total cost per bushel	*0.78*	*0.85*	*0.98*
Cost per bushel (straw deducted)	*0.67*	*0.76*	*0.85*
Returns per bushel	*0.85*	*0.71*	*1.02*
Gain per bushel	*0.18*	*−0.05*	*0.17*
Farms	32	27	28
Return per hour of labor, cents	73	21	62
Yield per acre, bushels	31	33	29

RETURNS PER HOUR FOR TWENTY-SIX YEARS

The crop year 1939 is the twenty-sixth consecutive year in which data on costs and returns on a group of New York farms have been tabulated on a comparable basis. Of the 24 income-producing enterprises reported on in this bulletin, 10 have been studied for the full twenty-six-year period, and most of them, except the fruit accounts, have been studied for at least ten years.

Poultry enterprises have paid relatively well during these years. Returns per hour both in raising pullets and in producing eggs were much lower in 1939 than the average of the longer period (table 41). Dairy cows have been the most important outlet for a large amount of family labor at wages which have not been high enough to justify employing help but to enable the farm family to turn time into money and thus make a

TABLE 41. SUMMARY OF RETURNS PER HOUR OF LABOR

Farm enterprises	Averages by five-year periods					
	1914 to 1918	1919 to 1923	1924 to 1928	1929 to 1933	1934 to 1938	1939
	Dollars	*Dollars*	*Dollars*	*Dollars*	*Dollars*	*Dollars*
Livestock:						
Dairy cows	0.30	0.25	0.40	0.14	0.25	0.25
Hens	0.28*	0.84	0.47	0.31	0.29	0.27
Raising chicks	....	....	....	0.46	0.33	0.29
Incubation	....	....	....	....	1.91	1.19
Sheep	....	....	....	−0.73	0.06	−0.03
Feeder lambs	....	....	....	0.04	0.18	−0.18
Hogs	....	....	....	−0.03	0.24	0.00
Fruit:						
Apples	....	0.79	0.79	0.45	0.45	0.09
Cherries	....	....	....	....	0.64	0.25
Peaches	....	....	....	....	0.54	0.41
Pears	....	....	....	....	0.36	0.46
Grain:						
Barley	0.03	−0.28	0.07	−0.34	0.07	0.21
Corn	0.13	−0.01	−0.13	0.03	0.22	0.32
Oats	0.11	−0.31	0.03	−0.34	−0.02	0.14
Mixed spring grains	....	....	....	−0.30	−0.03	0.34
Wheat	0.58	−0.03	0.20	−0.03	0.47	0.73
Hay:						
Alfalfa	0.82	0.94	0.78	0.31	0.53	0.93
All other hay	0.73	0.66	0.08	−0.01	0.18	0.16
Vegetables:						
Beans, dry	0.12	0.23	−0.06	0.05	0.30	0.30
Cabbage	0.46	0.45	0.49	0.34	0.48	0.92
Corn, sweet	....	....	....	....	0.42	0.47
Peas, canning-factory	....	....	....	0.21	0.16	0.06
Potatoes	0.49	0.51	0.89	0.52	0.50	0.74
Tomatoes, canning-factory	....	....	....	0.24*	0.41	0.41

*Less than five years.

living and pay off the mortgage. Potatoes, cabbage, and tomatoes have been among the better-paying annual crops. Alfalfa has paid better than any of the other hay or grain crops. Apples have paid well, although in 1939 apple prices were disastrously low. Sheep, hogs, and grain production have been among the less-profitable enterprises.

In general, the New York producers of such bulky and perishable products as milk, eggs, cabbage, and apples have had an advantage over the producers of staples which can be shipped economically for long distances, such as grains and meats.

This bulletin gives results for 1939 in detail, and some comparisons for 1938 and 1937. Changes and trends over a longer period are given in *Twenty-five Years of Farm Cost Accounts* (Cornell Extension Bulletin 439, 1940).