1968 N.EW YORK POULTRY FARM BUSINESS SUMMARY

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1968 NEW YORK POULTRY FARM BUSINESS SUMMARY INTRODUCTION

Operating statements are common in the accounting programs of business firms. These statements are used by the managers to see how the business is doing. In large firms, the operating statements are usually published in quarterly or annual reports. These reports provide the stockholders with a general summary and analysis of the operation.

In farm account work, we have not as a rule referred to operating statements and annual reports. However, in the Extension farm business management projects, the general summaries that are prepared are essentially in operating statement form and might be considered as an industry annual report.

Thirty-six poultrymen scattered over the State submitted records of their 1968 businesses for summary and analysis. Some were participants in the Cornell electronic farm accounting program while others kept conventional type record books. All were checked by the farmer and the Extension Agent and sent to the College for summarization.

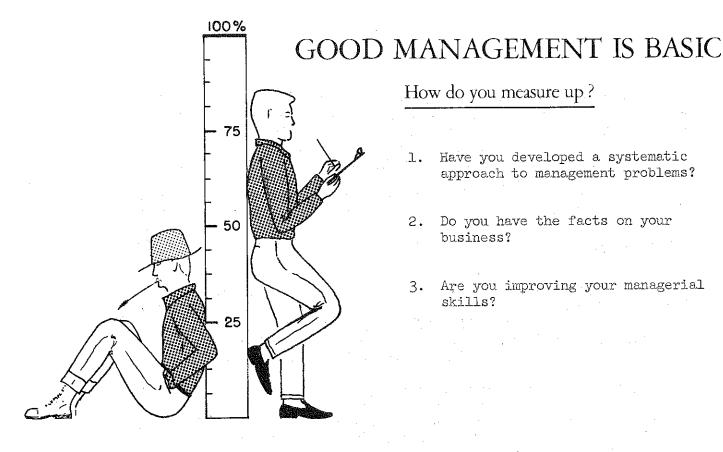
Eighteen of the farms were layer operations with no crops. Eleven farms were layer operations which also grew grain. There were three contract operations and four with one or more major enterprises in addition to the poultry. All 36 are included in a general summary but only the 18 straight layer operations and the 11 layer and grain crop operations are included in the detailed analysis.

The report is prepared in workbook form. Group averages are presented along with space for the figures from an individual business. This makes it convenient to systematically analyze your operation and compare it with the group averages.

A careful summary and analysis is basic to finding ways to improve a business. It is hoped that this workbook will help you and your neighbors analyze your businesses for 1968.

Acknowledgements

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How do you measure up?

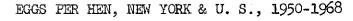
- Have you developed a systematic approach to management problems?
- 2. Do you have the facts on your business?
- 3. Are you improving your managerial

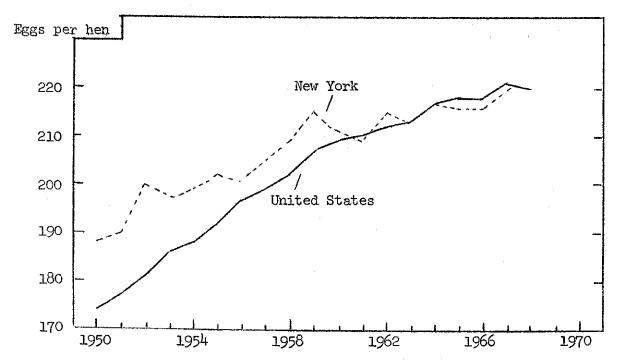
Steps in making a management decision:

- Locate the trouble spot (problem)
- What is your objective? (goal)
- Size up what you have to work with (resources)
- Look for various ways to solve the problem (alternatives)
- 5. Consider probable results of each way (consequences)
- 6. Compare the expected results (evaluate)
- 7. Select way best suited to your situation (decision)
- 8. Put the decision into operation (action)

This workbook can help you!

Changes in the Poultry Industry





The poultry industry is dynamic. It can be characterized as a rapidly changing industry. In recent years, the poultry businesses have shifted in both location and in nature.

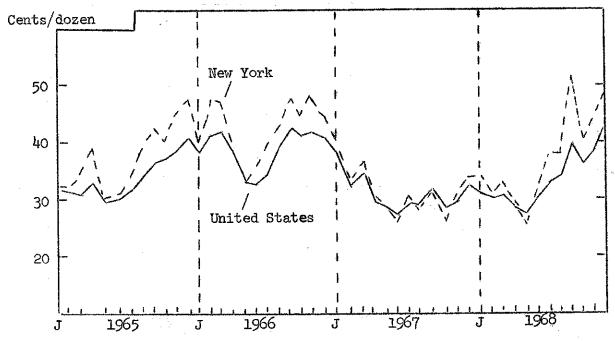
New York poultrymen at one time had some distinct advantages over those of other parts of the United States. An example is in the rate of lay as shown above. In 1950, New York reported 188 eggs per hen compared with a national average of 174 eggs. This spread narrowed gradually during the fifties and during the 1960's there has been no significant difference between New York and the national average. In 1968, both New York and the United States reported a rate of lay of 220 eggs per hen.

Table 1. NUMBER OF LAYERS, RATE OF LAY, AND TOTAL EGG PRODUCTION
New York and United States, 1950-1968

		New York			United Sta	tes
Year	Number of Layers	Eggs per Hen	Egg Production	Number of Layers	Eggs per Hen	Egg Production
	(millions)		(billions)	(millions)		(billions)
1950	11.2	188	2.1	340	174	59.0
1955	10.5	202	2.1	309	192	59.5
1960	8.7	211	1.8	295	209	61.5
1965	10.4	216	2.3	296	218	64.6
1966	10.6	216	2.3	296	218	64.5
1967	10.8	220	2.4	318	221	70.2
1968	10.3	220	2.4	315	220	69.4

Prices

FARM PRICE OF EGGS, NEW YORK & U. S., 1965-1968



SOURCE: Agricultural Prices

Price is a key factor affecting farm incomes. When studying a farm business consideration must be given to the price situation. This applies to both prices received and prices paid. The year 1968 was one of wide fluctuations in egg prices, May being the lowest and September the highest for the 1965-68 period. New York egg prices for 1968 averaged 37.1¢ which was 5.6¢ more than the average for 1967.

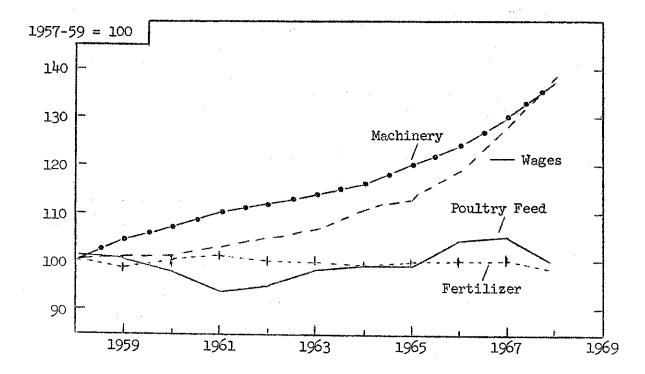
Traditionally, New York egg prices have been higher than those for the United States. When egg prices are rising, the spread seems to be greater, and when egg prices are low, New York prices sometimes fall below the national average (see graph above). The average New York price for 1968 was 3.3¢ more than the United States average while in 1967 it was only 0.3¢ more.

Table 2. AVERAGE YEARLY FARM PRICE OF EGGS, N. Y. & U. S., 1960-1968

Year	N. Y.	U.S.	Year	N. Y.	u.s.
1960 1961 1962 1963 1964	42.0¢ 40.1 38.3 37.6 36.5	36.0¢ 35.5 33.6 34.4 33.8	1965 1966 1967 1968 1969	37.1¢ 42.8 31.5 37.1*	33.7¢ 39.1 31.2 33.8*

^{*} Preliminary

PRICES PAID BY FARMERS FOR SELECTED ITEMS, 1958-1968



The overall U.S.D.A. index of prices paid by farmers in the United States in 1968 was about 20 percent higher than a decade earlier. However, the prices of some inputs have risen much more than others. For example, the index of New York hourly farm wages in 1968 was up 39 percent from 1957-59, while fertilizer prices were down two percent.

Feed is the major expense item on a poultry farm. Poultry ration prices were less in 1968 than in 1967 or in 1958. In contrast, wages and machinery prices in 1968 were at an all time high.

Table 3. PRICES PAID BY NEW YORK POULTRY FARMERS, 1958-68

		Index 1957-59 = 100			Poultry Ration	N. Y. Farm Wages
Year	Feed	Fertilizer	Wages	Machinery	(ewt.)	per Hour
1958 1959 1960 1961 1962	101 101 98 94 95	100 99 100 101 100	100 101 101 103 105	100 104 107 110 112	\$4.13 4.13 4.03 3.85 3.89	\$1.11 1.12 1.12 1.14 1.17
1963 1964 1965 1966 1967	98 99 99 104 105	100 99 100 100 100	107 111 113 119 129 139	114 116 120 124 130	4.02 4.04 4.06 4.25 4.30 4.10	1.19 1.23 1.25 1.32 1.43

General Summary of All Thirty-Six Farms

Thirty-six poultry farm records were submitted for summary. The organization of these farms varied widely. There were three contract operations, four poultry plus one or more other major enterprises, eleven poultry layers with grain production, and eighteen straight poultry layer operations. In this general section, all thirty-six businesses are included. For the more detailed analysis in the sections that follow, only the eighteen layer operations and the eleven layer with grain crops are included.

Table 4. FARM BUSINESS FINANCIAL SUMMARY 36 New York Poultry Farms, 1968

	Average	Rar	Range		
Item	36 farms	Low	High		
Average Capital Investment	\$101,343	\$ 10,994	\$367,758		
Total Farm Receipts Total Farm Expenses	\$117,585 101,691	\$ 5,675 4,930	\$360,372 346,368		
Farm Income Interest @ 5% on Capital	\$ 15,894 5,067	\$- 4,850 550	\$ 55,270 18,388		
Labor Income per Farm	\$ 10,827	\$-23,000	\$ 43,000		
Number of Operators	43	,			
LABOR INCOME PER OPERATOR	\$ 9,064	\$-23,000	\$ 42,000		

Labor income is a measure of the return to the operator for his labor and management. It is the most commonly used measure for comparing the overall results of farm operations. For these thirty-six poultry farms, the average labor income per operator was \$9,064. In addition to the labor income, the operators usually have certain privileges such as a house to live in, eggs and poultry to use, and other miscellaneous items.

labor incomes per operator ranged from a minus \$23,000 to a plus \$42,000. This is a great difference. Both the high and the low were on relatively large operations. There were five farms with minus labor incomes and five with labor incomes per operator of over \$20,000. Twelve, or one-third of the farms, had labor incomes between \$7,500 and \$12,500 (see page 12 for distribution.)

The average capital investment on these thirty-six farms was about \$100,000. The receipts averaged \$117,600 and the expenses \$101,700. Thus, on these farms, the receipts and the expenses were a little greater than the capital investment. "Capital turnover" on these farms, as measured by the number of years for the receipts to equal the capital, would be less than one (.86). This is in contrast to dairy businesses where commonly it takes two to three years for the receipts to equal the capital.

Table 5. GENERAL FARM BUSINESS FACTORS 36 New York Poultry Farms, 1968

	Average	Ra	ange
Business Factor	36 farms	Low	High
Man equivalent	2.7	1.0	5.9
Months unpaid labor Months hired labor Percent of labor hired Average labor cost/month hired	2.4 15.8 48.6% \$430	1.0 1.0 NA NA	18.0 59.0 NA NA
Average number of hens for year	14,800	4,200	45,400
Total work units Work units per man	1,266 469	78 52	3,594 1,544
Eggs sold per hen Pounds feed per dozen eggs Average price per cwt. feed	216 4.8 \$3.58	170 3.8 \$3.02	249 6.4 \$4.91
Average price per dozen	\$.37	\$.30	\$.43

Poultry farm operations differ a great deal in their organization. Contract versus independent operations are one difference. The range in the capital investment is a reflection of this. The low capital investment was \$11,000 while the high was \$368,000. Similarly, the low expense reported was \$4,900 while the high was \$346,000. The wide range indicates that one should recognize certain limitations in the "averages" when they are used.

The labor force on these farms ranged from 1.0 to 5.9 man equivalent with an average of 2.7. The high farm, therefore, was not "large" from the standpoint of work force involved. For all thirty-six farms, about half the labor was hired and half was furnished by the operator and his family. The average labor expense per month of hired labor was \$430.

Number of hens is a common measure of size for a laying operation. The numbers varied from 4,200 to 45,000. These reflect the average number for the year. The number of eggs sold per hen averaged 216 but with a range from 170 to 249. The 216 average for the thirty-six farms compares with a reported New York State average for 1968 of 220 (see page 3).

Marketing arrangements differ with some selling all eggs wholesale while others sell all retail. The average price received per dozen sold during 1968 was 37 cents with the range from 30 cents to 43 cents.

Feed is the major cost item on poultry farms. Efficiency of feed conversion is an important factor affecting incomes. It is not easy to arrive at this figure but efforts were made to calculate this factor. The average was 4.8 pounds per dozen eggs with the range from 3.8 to 6.4. Feed costs per hundredweight ranged from \$3.02 to \$4.91 with an average of \$3.58.

SUMMARY OF THE BUSINESS

This part is to help you systematically summarize your business. It provides for an examination of the physical resources, capital investment, receipts, expenses, and the financial summary for the year.

Labor, Livestock, and Crops Grown

An early step in the management analysis of any business is to look at the resources being used. This includes both the physical and financial resources. Management decisions must be based on the things you have to work with. Below are the averages for the physical resources of 29 New York poultry farms for 1968.

Table 6. LABOR FORCE, LIVESTOCK, AND CROPS GROWN
29 New York Poultry Farms, 1968

		Avera	ge or num	ber reportin	g
		18 farms	with	ll farms	with
Item	My farm	poultry	only	poultry an	d grain
Labor: Months of:				ř	·
Operators		(18 farms)	14.0	(ll farms)	15.3
Family - unpaid		(11 farms)	3.0	(8 farms)	2.1
Hired Total		(16 farms)	$\frac{17.1}{34.1}$	(11 farms)	12.6 30.0
Man equivalent (No. men)			2.8		2.5
Number of operators			21		14
Percent of labor hired	%		50%	•	42%
Livestock: (number) Laying hens			15,960		13,460
Pullets raised		(9 farms)	16,800*	(7 farms)	14,000*
Crops: (acres grown) Hay		· · · · · · · · · · · · · · · · · · ·		(3 farms)	36 *
Corn for grain				(9 farms)	86*
Oats		ı		(4 farms)	26*
Wheat				(4 farms)	29*
Total acres of crops					110

^{*} Average of number reporting

Capital Investment

A modern poultry farm makes use of a sizeable amount of capital. This capital is invested in machinery and equipment, poultry, feed and supplies, and land and buildings. Some of the capital is owned by the operator and some is borrowed. The end-of-year farm inventory is used as the measure of capital investment. The inventory should reflect the "market value."

Table 7. FARM INVENTORY VALUES, JANUARY 1, 1969
29 New York Poultry Farms

·	•		per farm
Item	My farm	18 farms with poultry only	ll farms with poultry & grain
Machinery & equipment	\$	\$ 26,393	\$ 26,796
Poultry		21,651	19,049
Other livestock		749	632
Feed & supplies		3,244	7,262
Land & buildings		48,220	49,213
TOTAL INVESTMENT	\$	\$100,257	\$102,952

Total investment on these farms ranged from \$12,000 to \$376,000. Thirteen of the farms had investments of more than \$100,000. The investment in machinery and equipment was about the same for both groups. The inventory of feed and supplies was larger on the farms growing grain which is logical.

It is important that this capital be used efficiently. Below are figures for analyzing your capital situation.

Table 8. CAPITAL INVESTMENT ANALYSIS

Item	My farm	18 farms with poultry only	ll farms with poultry & grain
Total investment/man	\$	\$35,800	\$41,200
Total investment/hen	\$	\$6.28	\$7.65
Machinery investment/hen	\$	\$1.65	\$1.99
Land & building/hen	\$	\$3.02	\$3.66
% Land & buildings are of total investment		48%	48%

Receipts

Gross receipts are sometimes used as an indication of the size of a business. The U. S. Census does this. In the examination of any business, one needs to look at the receipts to determine the major sources and amounts of income.

Table 9. FARM RECEIPTS
29 New York Poultry Farms, 1968

Item	My farm	18 farms with poultry only	ll farms with poultry & grain
Egg sales	\$	\$130,013	\$ 88,023
Livestock sold		3,100	3,281
Crop sales		₩ ₩	3,614
- Miscellaneous		2,166	<u> 2,655</u>
Total cash farm receipts	\$	\$135,279	\$ 97,573
Increase in inventory		1,809	7,333
TOTAL FARM RECEIPTS	\$	\$137,088	\$104,906

Total cash receipts on these farms averaged \$135,000 per farm for the farms with poultry only and \$98,000 for the farms with poultry and grain. Egg sales accounted for 96 percent and 90 percent respectively of the cash receipts on the two groups of farms.

Increases in inventory are usually due to expansion or improvements in the business. Inventory increases are considered as farm receipts. The major increases for the eleven farms with poultry and grain were machinery and equipment \$2,400, poultry \$3,900, and feed and supplies \$1,400. There were small decreases for other livestock and land and buildings.

Table 10.

INCOME ANALYSIS

Item	My farm	18 farms with poultry only	ll farms with poultry & grain
Av. price/doz. of eggs sold Total cash receipts/man	\$ \$	37.5¢ \$48,000	36.6¢ \$39,000
Total cash receipts per \$1,000 investment	\$	\$1,349	\$948

Expenses

Controlling expenses is an important job of any manager. This is certainly true for poultrymen. The first step in the control of expenditures is to know what the expenses are and how they compare with those of similar businesses.

Table 11. FARM EXPENSES
29 New York Poultry Farms, 1968

Item	My farm	18 farms with poultry only	ll farms with poultry & grain
Hired labor	\$	\$ 7,555	\$ 4,612
Layer feed bought		54,146	41,790
Other feed		3,220	1,393
Machine hire		213	596
Machinery expense		1,732	1,757
Auto expense (farm share)		98	231
Gas and oil		1,289	1,483
Livestock expense		5,572	3,123
Lime & fertilizer	<u> </u>	· 	1,762
Seeds and plants		17	409
Spray & other crop expense		11	494
Building expense		677	1,042
Taxes		1,020	1,117
Insurance		1,105	717
Electricity		1,443	1,115
Telephone		270	286
Livestock purchases		16,421	11,532
Eggs bought for resale		18,217	5,593
Rent		354	45
Miscellaneous		1,409	1,285
TOTAL CASH OPERATING EXPENSE	\$	\$114,769	\$80, 38 2
New machinery		4,748	6,273
Real estate		2,124	694
Unpaid labor		950	627
Decrease in inventory			
TOTAL FARM EXPENSE	\$	\$122,591	\$87,976

Financial Summary

The income from a poultry business can be measured in several ways. There is no one best measure. Each one is designed to emphasize certain aspects of the business.

Farm income measures the return from the business to all capital and the operator's labor and management. Farm income is the difference between total receipts, including increase in inventory, and total expenses, including decrease in inventory but excluding interest payments.

Table 12. LABOR INCOME
29 New York Poultry Farms, 1968

Item	My farm	18 farms with poultry only	11 farms with poultry & grain
Total farm receipts	\$	\$137,088	\$104,906
Total farm expenses		122,591	87,976
FARM INCOME	\$	\$ 14,497	\$ 16,930
Interest on average capital at 5%		4,967	4,964
Labor income per farm	\$	\$ 9,530	\$ 11,966
Number of operators		21	14
LABOR INCOME PER OPERATOR	\$	\$ 8,169	\$ 9,402

Labor income is the return to the farm operator for his labor and management. This is the measure most commonly used when studying or comparing farm businesses. To get the labor income, a five percent interest charge on all capital is subtracted from the farm income. The average labor income per operator for the eighteen farms was about \$8,200, and for the eleven farms \$9,400. The distribution for all thirty-six farms is shown below.

Labor income	Farms		
per operator	Number	Percent	
Minus	5	14	
0 - \$4,999 \$5,000 - \$9,999	6 8	17 22	
\$10,000 - \$14,999	9	25	
\$15,000 - \$19,999	3	8	
\$20,000 or more	_5	<u> 14</u>	
	36	100	

The labor income per hen was \$0.60 for the eighteen farms and \$0.89 for the eleven farms. If the operator's labor is valued at \$5,400 per year, the return to "management" per farm for the two groups would be \$3,230 and \$5,093 respectively. The management return would be 2.4 percent and 4.9 percent respectively of the total farm receipts.

Table 13. RATE OF RETURN ON INVESTMENT 29 New York Poultry Farms, 1968

Item	My farm	18 farms with poultry only	ll farms with poultry & grain
Farm income	\$	\$14,497	\$16,930
Value of operator's labor*		6,300	6,873
Return on investment	\$	\$ 8,197	\$10,057
Average capital investment	\$	\$99,335	\$99,286
RATE OF RETURN ON INVESTMENT	%	8.3%	10.1%

^{* \$5,400} per operator. Some farms had more than one operator. Value of operator's labor excludes privileges.

Rate of return on investment is calculated by deducting a charge for the operator's labor from the "farm income." This is then divided by the average investment for the year to determine the rate of return on investment. In the above calculation, \$5,400 has been used as the value of the operator's labor. The return on investment represents the return to "capital" and "management" combined.

Net farm cash flow reflects the cash available from the year's operation of the farm business for family living, interest and debt payments, and new capital purchases or investments. A family may have had additional cash available if some member of the family had a non-farm income, or if money were inherited or borrowed.

Debt repayment ability is a measure of the amount of cash available for debt payments. It is calculated by deducting family living expenses from the farm cash operating income. It is assumed here that new machinery and real estate are purchased with borrowed capital. This measure is useful in planning debt repayment schedules.

Table 14. FARM CASH FLOW AND DEBT REPAYMENT ABILITY 29 New York Poultry Farms, 1968

Item	My farm	18 farms with poultry only	11 farms with poultry & grain
Total cash receipts	\$	\$135,279	\$97,573
Total cash operating expense	****	<u>114,769</u>	80,382
NET FARM CASH FLOW	\$	\$ 20,510	\$17,191
Family cash living expenses*		6,300	6,873
DEBT REPAYMENT ABILITY	\$	\$ 14,210	\$10,318

^{*} Estimated at \$5,400 per operator per year

ANALYSIS OF THE FARM BUSINESS

Farm business records provide information which can be used in making management decisions. One important phase of management is finding ways to improve the income. A number of measures have been developed to aid in analyzing farm businesses for strong and weak points.

In this section, four business factors are examined. These are: size of business, rates of production, labor efficiency, and cost control. The 1968 averages for selected measures for each of these factors are reported.

When analyzing a farm business, remember that many of the measures are interrelated. This means that all of the factors should be examined before arriving at major conclusions. A complete analysis of the business factors should point up the major strong and weak points of a farm business.

Size of Business

In analyzing a farm business, size is usually the first factor to be examined. Size of farm has an important effect on other factors such as labor efficiency and cost control. The prices received and paid by a farmer are often affected by the volume involved which is a function of the size factor.

In general, larger farm businesses make larger incomes. There are two basic reasons for this. Larger businesses make possible more efficient use of inputs such as equipment, the regular labor force, and other overhead items. Secondly, there are more units of production (eggs) on which to make a profit. However, when a business is unprofitable, these same factors operate and large farms have large losses.

Table 15. MEASURES OF SIZE OF BUSINESS 29 New York Poultry Farms, 1968

My farm	18 farms with poultry only	ll farms with poultry & grain
	15,960	13,460
	343,256	246,068
	2.8	2.5
	1,355	1,230
\$	\$137,088	\$104,906
\$	\$100,257	\$102,952
	My farm \$\$	My farm poultry only 15,960 343,256 2.8 1,355 \$137,088

^{*} Includes eggs bought for resale

Rates of Production

Rates of production for both animals and crops have long been important factors contributing to the success of a farm business. The operator must strive to find the level of inputs, such as feed and fertilizer, which will give the highest net income. Few farmers exceed this level whereas many fall short.

Table 16. MEASURES OF RATES OF PRODUCTION 29 New York Poultry Farms, 1968

Measure	My farm	18 farms with poultry only	ll farms with poultry & grain
Eggs produced/hen		219	209
Bushels corn/acre			81
Bushels oats/acre			102
Bushels wheat/acre	-	·	49

Eggs produced per hen is used in measuring the rate of production on poultry farms. Production per hen is calculated by dividing total eggs reported by the average number of hens for the year. Some farmers bought eggs for resale to supplement their own production. For eggs per hen, the eggs bought have been deducted from the dozens sold to get the eggs produced.

The eggs sold per hen averaged 219 and 209 for the two groups. This compares with an average of 215 for all farms as shown on the Farm Business Chart (page 21). The range for the 29 farms was from 170 to 249 eggs sold per hen.

The effect of eggs sold per hen on labor income is illustrated below.

Table 17. EGGS SOLD PER HEN AND LABOR INCOME 29 New York Poultry Farms, 1968

Eggs sold per hen	Number of farms	Average number hens	Labor income per operator
Less than 210	9	14,100	\$5,885
210 - 230	13	14,300	\$8,436
More than 230	6	18,500	\$8,510

Labor Efficiency

Labor efficiency is sometimes claimed to be the most important single business factor on farms today. This is brought about by the rising wage rates. If a farmer wants top efficiency from his hired man's time as well as his own, he must keep a close watch on the factors which affect labor efficiency.

Table 18. MEASURES OF LABOR EFFICIENCY
29 New York Poultry Farms, 1968

Measure	My farm	18 farms with poultry only	ll farms with poultry & grain
Doz. eggs sold/man*		122,600	98,400
Number hens/man		5,700	5,400
Work units per man		484	492
		2 49	

^{*} Includes eggs bought for resale

The farms with poultry only had about the same labor efficiency as the farms with poultry and grain when measured by work units per man which includes all enterprises. As would be expected, the poultry only showed larger numbers for dozens of eggs sold per man and hens per man.

The relationship of labor efficiency and labor income is shown in the table below:

Table 19. HENS PER MAN AND LABOR INCOME 29 New York Poultry Farms, 1968

Hens per man	No. of farms	Labor income per operator
Less than 4,000	9	\$8,885
4,000 - 6,000	9	\$8,924
More than 6,000	11	\$8,324

Cost Control

These poultry farms spent an average of \$335 and \$240 per day respectively. With expenses of this amount, cost control becomes important on farms. As more "input" items are purchased, cost control has a greater effect on incomes. It is difficult to measure cost control. Nonetheless, good records properly used can give you some useful checks.

Feed, labor, and machinery are major cost items on poultry farms. It is also important to watch the minor costs. Small leaks can build up into sizeable losses. On the next three pages, you can study your costs.

Table 20. COST CONTROL MEASURES
29 New York Poultry Farms, 1968

Item	Му	farm	18 farms with poultry only	11 farms with poultry & grain
Layer feed bought per hen	\$		\$3.39	\$3.10
Feed bought/doz. eggs produced		¢	18.2¢	17.8¢
Lbs. feed/doz. eggs produced			4.8	5.1
Total labor cost per hen*		¢	93¢	90¢
Total labor cost/doz. eggs produced*	-	¢	5.0¢	5.2¢
Building repairs per hen		¢	4¢	8¢
Electricity per hen		¢	9¢	8¢
Taxes per hen		¢	6¢	8¢
Insurance per hen		¢	7¢	5¢
Lime & fertilizer per crop acre	\$			\$16
Total farm production expenses/hen (Total less inventory increase and eggs bought)	\$		\$6.43	\$5.58
Total expenses per \$100 receipts	\$		\$89	\$84

^{*} Includes operator's labor

For the above measures, it must be kept in mind that the "poultry and grain" farms had crop enterprises which affect some cost control measures.

Labor and machinery costs are sizeable on a poultry farm. It is important to keep these under control. Since labor and machinery work as a team, it is well to study them together.

Table 21. POWER AND MACHINERY COSTS
29 New York Poultry Farms, 1968

Item	Му	farm	18 farms with poultry only	ll farms with poultry & grain
Beginning inventory	\$		\$25,857	\$24,346
New machinery bought		-	4,748	6,273
Total		\$	\$30,605	\$30,619
End inventory	\$		\$26,393	\$26,796
Machinery sold		_	<u>258</u>	<u> 115</u>
Total		\$	\$26,651	<u>\$26,911</u>
Depreciation	\$	_	\$ 3,954	\$ 3,708
Int. @ 5% av. inventory		_	1,305	1,277
Gas and oil			1,289	1,483
Machinery repairs		-	1,732	1,757
Machine hire		- -	213	596
Auto expense (f.s.)			98	231
Electricity (f.s.)		····	1,443	1,115
Total power & machinery cost		\$	\$10,034	\$10,167
Less: Gas tax refund	\$	_	\$ 17	\$
Income from machine work			14	299
NET POWER & MACHINERY COST		\$	\$10,003	\$ 9,868
Net power & machinery co	ost: \$	- 	63¢	73¢
per man	\$		\$3,572	\$3,947
per dozen eggs produced*	<u></u>	¢	3.4¢	4.2¢

^{*} Does not include eggs bought and resold

Farmers frequently justify high machinery costs on the basis that the machinery saves labor. The combined machinery and labor cost measure gives a good check.

Table 22. LABOR AND POWER AND MACHINERY COSTS 29 New York Poultry Farms, 1968

Item	My farm	18 farms with poultry only	ll farms with poultry & grain
Value of operator's labor*	\$	\$ 6,300	\$ 6,873
Hired labor		7,555	4,612
Unpaid family labor		950	627
TOTAL LABOR COSTS	\$	\$14,805	\$12,112
Net power & machinery cost	<u></u>	10,003	9,868
TOTAL LABOR & MACHINERY COSTS	\$	\$24,808	\$21,980
Total per hen	\$	\$1.55	\$1.63
Total per doz. eggs sold	¢	7.2¢	8.9¢
Total per work units	\$	\$18	\$1 8

^{*} Valued at \$5,400 per operator

On both groups of farms, labor cost was greater than the power and machinery cost. It is important to watch these costs. They can "eat into" the net returns.

Array of Selected Farm Business Factors

Some of the records included items of chicken arithmetic which had been calculated. Those reported have been arrayed below. You can see how your factors compare with the others reporting.

Eggs sold per layer	Av. price paid for feed	Av. price received for eggs	Lbs. feed per doz. eggs	Hens per man
249	\$60	\$.43	3.9	18,243
245	67	.43	4.3	14,660
238	67	.42	4.3	13,158
235	68	.41	4.3	12,648
233	68	.41	4.3	10,234
231	70	.41	4.4	7,586
227	70	.41	4.4	6,875
227	71	.41	4.4	6,429
224	71	.41	4.4	6,412
220	72	.41	4.6	6,081
220	72	.41	4.6	6,011
218	72	.40	4.7	5,667
217	73	.40	4.7	5,413
212	74	.40	4.8	5,260
212	75	.39	4.8	5,122
211	75	.39	4.9	4,806
510	75	.35	4.9	4,744
510	75	•35	4.9	4,625
510	76	-35	5.0	4,536
206	76	, 34	5.0	4,200
205	78	•33	5.0	3,889
204	78	.32	5.1	3,662
203	80	.32	5.2	3,491
201	81	.30	5.2	3,444
197	83	.30	5.4	3,297
196	83	.30	6.3	3,002
193	84	.30	6.4	2,886
170		.29		2,802
				2,407

FARM BUSINESS CHART

۲M	OF	-	-			YEAR
ſAL	ACRES II	N THE	FARM _	ACRES	OF	TILLABLE LAND

Success in farming is the result of many factors. Farm business studies show that the most important factors under the farmer's control are of business, production rates of crops and animals, labor efficiency and selection of enterprises.

The chart below shows the range of the experience of commercial farmers in New York with respect to size of business, production rates and r efficiency.

The figure at the top of each column is the median of the highest ten per cent of the farms in that factor. For example, the figure 3.8 at top of the column headed "Tons of Hay" is the median of the ten per cent of the farms with the highest yield of hay. The other figures in column are the medians for "the next best 10 per cent," "the 10 per cent below that," and so forth. The figure 1.2 at the bottom of the mn is the median of the ten per cent of the farms with the lowest yield of hay.

Each of the columns is independent of the others. The figure 20 at the top of the column headed "Tons of Corn Silage" is the median of ten per cent of the farms with the highest yield of corn silage.

y, Silage, Grain Yields per Acre				Vegetable Yields per Acre							Fruit Yields per Acre					
ns f ay	Tons of Corn Sil- age	Bu. of Corn	Bu. of Oats	Bu. of Wheat	Lbs. of Dry Beans	Cwt. of Pota- toes	Tons of Cab- bage	Cwt. of Onions	Lbs. of Peas	Tons of Toma- toes	Net Tons of Sweet Corn	Tons of Snap Beans	Bu, of Ap- ples	Bu. of Pears	Tons of Grapes	Tons of Sour Cher- ries
.8	20	110	82	58	2,300	340	32	480	5,500	23	5.0	2.8	540	330	7.0	6.6
0.	17	90	72	52	1,900	305	26	420	4,500	19	4.4	2.5	480	260	5.5	4.6
.7	15	82	65	47	1,700	285	23	380	3,800	17	3.9	2.3	430	230	4.6	3.6
.4	14	75	60	44	1,500	265	20	355	3,300	15	3.7	2.1	390	200	4.2	3.0
.2	13	70	56	41	1,300	250	18	330	2,900	14	3.5	1.9	355	180	3.9	2.6
:																
.1	12	65	52	39	1,100	240	16	310	2,700	13	3.3	1.8	325	160	3.6	2.3
.9	11	60	48	37	1,000	225	14	290	2,400	12	3.1	1.7	295	140	3.2	2.0
.7	10	53	44	34	900	205	12	260	2,000	11	2.8	1.5	260	120	2.8	1.6
.5	9	45	38	30	800	185	10	230	1,600	10	2.3	1.3	220	100	2.4	1.2
.2	6	30	28	25	600	150	8	180	1,200	9	1.5	1.1	180	70	2.0	0.8

:	Dairy Farms				Labor			Poultry Farms				
mber of ows	Pounds of Milk Sold	Pounds Milk Sold per Cow	Cows per Man	Pounds of Milk Sold per Man	Total Work Units	Man Equiv- alent	Work Units per Man	Number of Hens	Eggs Sold per Hen	Hens per Man	Dozens of Eggs Sold per Man	Pounds Feed per Dozen Eggs
34	900,000	14,000	36	425,000	1,000	3.5	420	45,000	250	10,000	190,000	4.0
55	600,000	12,200	30	325,000	720	2.7	340	20,000	235	7,500	135,000	4.4
17	480,000	11,200	26	265,000	590	2.3	310	16,000	225	6,000	100,000	4.7
40	420,000	10,600	24	240,000	520	2.0	290	12,000	220	5,000	85,000	4.8
37	370,000	10,000	22	215,000	460	1.8	270	9,500	217	4,000	70,000	4.9
34	325,000	9,400	20	195,000	430	1.6	250	7,000	214	3,500	65,000	5.0
30	285,000	8,700	19	180,000	390	1.4	230	5,200	210	3,000	60,000	5.1
26	240,000	7,800	18	165,000	350	1.3	210	4,000	205	2,500	50,000	5.3
22	190,000	6,900	16	145,000	310	1.2	190	3,000	200	2,000	40,000	5.5
18	125,000	5,700	13	110,000	250	1.0	160	2,200	185	1,500	30,000	6.0

HOW TO USE THIS CHART

w lines in each column to show the rank of the farm business being studied. For example, if the farm produced 57 bushels of oats per acre v a line in the "oats" column between the 56 and 60.

w heavy lines so that you can see them easily.

not draw lines for factors which are of only minor importance on the farm being studied.

WORK UNITS FOR LIVESTOCK AND CROPS

		1 t-		m l	MAN EQUIVALENT			
LIVESTOCK	Number or acres on this farm	Work units per head or per acre		Total work units	Workers	Full-Time Month		
Dairy Cows	X	8	=		Operator(s)			
Beef Cows	X	$^{\circ}$	=		Family (paid)			
Heifers .	X	$\overline{2}$	=		Family (unpaid)			
Hens (production only)	X	0.04	-		Hired men			
\ -	×	0.002	=		i			
Pullets raised	×	0.006	=		Other			
Broilers raised	×	0.003	_		Total			
Brood sows	×	3	=		Man equivalent			
Hogs raised	×	0.15			(Total ÷ 12)			
Ewes	×	0.5	=					
	×	<u></u>	.=		Yield per acre	Total Crop		
CROPS								
Hay	×	0.7	=			tons		
	×	 .	_=			tons		
Corn Silage	×	1.0	=	,		tons		
Corn for grain	×	0.8	-			bu.		
Oats	×	0.7	===	ALC:		bu.		
Wheat	×	0.7	=			bu.		
	×		_=			-		
	×		_=					
Dry beans	×	1.5	=			lbs.		
Potatoes	×	6	=			cwt.		
Cabbage	×	9	=			tons		
Snap beans-machine harvesto		1	=			tons		
Onions	×	12				cwt.		
	×		_ =	,				
	×		_ ==			**		
	×		_ ==					
. 1	X		_=			bu.		
Apples—growing	X	4 0.02	_					
Apples—harvest—per bushel	×	0.02		-	WORK UNITS	S PER MAN		
OTHER					(Total work units	÷ man equival		
Work off farm, days	×	1	=					
Marketing	×		_=					
	×		_=					
	TOT	AL WORK (JNIT	S				
Total pounds of milk sold		no. of cows			pounds e			
Total pounds of milk sold	•	man equiva			pounds o			
Number of cows		man equiva	lent	<u> </u>	cows per	r man		
Total dorons of ower rold		no. of hens			dozens o	f eggs sold per		
Total dozens of eggs sold			ggs 1		=eggs sol			
Number of hens	÷	man equiva			=hens per			
Total dozens of eggs sold	÷	man equiva	lent			eggs sold per ma		
Total lbs. of feed for laying fl	ock÷	doz. of eggs	s sold	l	=lbs. of f	eed per doz. egg		

MAN EQUIVALENT

Financial Situation

Managing finances is an important part of farming today. Twenty of the thirty-six poultrymen included their financial situation in their records. These have been summarized and are reported below. It is helpful to examine your financial situation when you analyze your business.

Table 23. FARM FAMILY FINANCIAL SITUATION 20 New York Poultry Farms, 1968

Item	My	farm	Average 20 farms
Assets Land & buildings	\$	··	\$56,387
Machinery & equipment		_	24,938
Poultry & livestock			23,269
Feed & supplies	* 25	_	4,901
Non-poultry farm assets*		_	23,236
Total Farm Assets		\$	\$132,731
Non-farm assets			12,490
TOTAL ASSETS		\$	\$145,221
<u>Liabilities</u> Real estate mortgage	\$	_	\$28,759
Equipment mortgage		_	16,841
Secured notes			5,051
Unsecured notes	·	_	1,950
Open accounts		<u></u>	2,126
TOTAL LIABILITIES			54,727
NET WORTH		\$	\$ 90,494
Percent equity			62%
Percent debt on real estate			53%
Number of hens			16,360
Total debt per hen		\$	\$3.35

^{*} Farms with enterprises other than poultry have sizeable inventories in this category

Table 24. NEW YORK POULTRY FARM SUMMARIES 1965, 1966, 1967, and 1968

Factor	1965	1966	1967	1968
Number of farms	28	30	26	36
Man equivalent	2.5	2.7	2.8	2.7
Number of hens	11,250	11,400	13,900	14,800
Investment	11	+ 1.0 aac	d =1. 000	ф г о о г 7
Land & buildings	\$45,225	\$ 48,396	\$ 54,831 26,371	\$ 50,257 27,199
Machinery	22,833	25,114	20,202	20,440
Livestock & poultry	17,141	19,254 5,246	5,653	5,374
Feed & other	2,584			
Total	\$87,783	\$ 98,010	\$107,057	\$103,270
Receipts				
Egg sales	\$76,285	\$ 92,299	\$ 84,852	\$102,249
Livestock sales	2,884	3,571	3,625	3,819
Other	<u> 14,935</u>	21,473	8,090	7,663
Total	\$94,104	\$117,343	\$ 96,567	\$113,731
Expenses				
Feed bought	\$41,861	\$ 48,996	\$ 50,245	\$ 48,117
Hired labor	4,251	5,571	5,943	6,750
Pullets & livestock purchased	9,256	10,711	10,656	12,843
Electricity & telephone	1,031	1,234	1,546	1,554
Other	23,153	27,972	<u> 12,161</u>	25,006
Total	\$79,552	\$ 95,297	\$ 80,551	\$ 94,270
Business Factors				•
Average price per doz.	36.1¢	42.6¢	32.0¢	36.7¢
Eggs per hen	225	216	233	216
Hens per man	4,500	4,200	4,800	5,500
Lbs. feed per doz. eggs	4.8	5.0	4.5	4.8
Labor income per operator	\$ 8,537	\$ 1 4,930	\$ 5,437	\$ 9,064

Progress of the Farm Business

One phase of business analysis is that of comparing your business with that of other poultrymen. Another kind of analysis is that of comparing your current year's business with that of previous years. This shows the progress you are making. In planning ahead, it is helpful to set business targets or goals, which should be related to the progress you have been making.

Your current business analysis will give you the factors for 1968. You will need to refer to earlier summaries for the 1966 and 1967 data.

	1966	1967	1968	1969 target
Size of Business Average number of layers Value of egg sales Man equivalent	\$	\$	\$	\$
Rate of Production Eggs produced per hen Lebor Efficiency	**************************************			
Hens per man Dozen eggs sold per man				
Prices Average price per dozen	\$	\$	\$	\$
Cost Control Layer feed bought per hen Lbs. feed per dozen eggs Labor cost per hen Machinery cost per hen Total expenses/\$100 receipts	\$ \$ \$ \$	\$ \$ \$ \$	\$ \$ \$	\$ \$ \$
Capital Efficiency Total inventory value Total investment/hen Farm receipts/\$100 investment	\$ 6 6	\$ \$	\$ \$	\$ \$
Financial Summary Total Farm Receipts Total Farm Expenses Labor Income/Operator	\$ \$	\$ \$ \$	\$ \$	\$
Total debt outstanding Debt per hen	\$ \$	\$ \$	\$ \$	\$ \$
Net Worth	\$	\$	\$	\$ <u> </u>

Summarizing the Analysis

Each page in this booklet was designed to help you study your farm business. However, study and analysis alone will not make a business more profitable. Action must be taken.

Now take a careful overall look at your business. Summarize the strong and weak points revealed from the detailed analysis. This will help you to locate the trouble spots or problems. In view of what you have to work with, consider the possible ways that these problems might be solved. Next budget the likely effects of the proposed changes. Finally decide on the most promising proposal and then take action to put it into effect.

STRO	VG POI	nts										
	1.								···········		-	
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	4.											
WEAK	POINT	S									1	
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MAJO	R PROE	BLEMS TO	BE SOL	VED				1 1				•
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PROF	- OSED (CHANGES '	ro stri	NGTHEN	THE B	USINESS						
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	2.									· · · · · · · · · · · · · · · · · · ·		· · · · · · · · · · · · · · · · · · ·
	3.									. 1:		
	4.											

BUDGETING PROPOSED CHANGES

When you consider making a change in your business, there are usually two or three alternatives for consideration. The outline below is a guide to help compare these alternatives. If the change is to be a major one, you may wish to consult with your Poultry Extension Agent since he is experienced in the techniques of budgeting and has in his possession reference material that is helpful when comparing alternatives.

		My business in 1968	Proposed Change #1	Proposed Change #2
_		111 1900	Offerige 1/1	Olication II-
I.	Farm Receipts	ę.	¢	\$
	Egg Sales	φ	Ψ	Ψ
	Livestock sold			
	Crop sales			
	Miscellaneous receipts		<u> </u>	φ
	Total Cash Receipts	<u>ა</u>	Φ <u> </u>	Φ
	Increase in inventory	_	A	d .
	Total Farm Receipts	\$	φ	φ
II.	Farm Expenses			
	Hired labor	\$	\$	\$
	Layer feed bought			
	Other feed bought			
	Machine hire			
	Machinery expense			
	Auto expense (farm share)			
	Gas and oil			
	Livestock expenses			
	Lime and fertilizer	·····		
	Seeds and plants		احتاقات مسمور وزائدا بالمستجهون	
	Spray and other crop expense			
	Building expense			
	Taxes			
				
	Insurance			
	Electricity			
	Telephone			
	Livestock purchases			
	Eggs bought			
	Rent			
	Miscellaneous	A	4	¢
	Total Cash Operating Expenses	Ф	Ψ	Ψ
	M			
	New machinery			
	Real estate			
	Unpaid labor			
	Decrease in inventory	ф	¢	\$
. *	Total Farm Expenses	Ψ	· Ψ	Ψ
	$(-1)^{2} = (-1)^{2} + (-1)^{2} = (-1)^{2} + (-1)^{2} = (-1)^{2} $			•
III.	Farm Financial Summary			
	Capital Investment	\$	\$	\$
		\$	\$	\$
	Total Farm Receipts	Ψ	Ψ	τ
	Total Farm Expenses	¢	\$	\$
	Farm Income	Ψ	Ψ	т
	Interest on Capital	¢	4	\$
	LABOR INCOME	Φ	Ψ	Ψ

FAMILY LIVING EXPENDITURES

Family living expenses have first claim on farm income. In any farm business financial planning, it is important that the family living expenses be considered.

The 1967 family living expenditures for 99 Michigan farm families are reported below. These families were cooperators in the Michigan electronic farm accounting program. These data give an indication of the living expenses for some farm families. The total living expenses of individual families varied from \$2,766 to \$16,429. The high family had education expenses of \$4,051.

Table 25. FARM FAMILY LIVING EXPENDITURES 99 Michigan Farm Families, 1967

Expenditure	My family	Average of 99 families	Percent of total
Food	\$	\$1,626	22
Housing		1,449	19
Transportation		793	10
Personal insurance		778	10
Clothing		628	8
Medical care		557	7
Gifts and contributions		488	7
Personal taxes		362	5
Recreation		255	3
Education		255	3
Personal care		84	1
Miscellaneous		277	5
TOTAL LIVING EXPENSES	\$	\$7,552	100

SOURCE: Michigan State University Agricultural Economics Report No. 106

These 99 families had an average of 5.6 persons per family. The average age of the husband was 42 and the wife 39.

The various living expense items are affected considerably by the number of family members, their ages, health, and interests, and the educational requirements of the children. A family must consider these factors when evaluating their expenditures or in making estimates of the amount of money to include for family living.

Table 26.

AVERAGE FARM COST OF PRODUCING EGGS 29 New York Poultry Farms, 1968

Item	My	farm		ms with y only	11 farms poultry &	
Farm expenses \$			\$122,591		\$ 87,976	
Interest at 5%	· · · · · · · · · · · · · · · · · · ·	.	4,967		4,964	
Operator's labor*		_	6,300		6,873	
Total Costs	4	\$		\$133,858	\$	99,813
Total receipts \$	·	_	\$137,088	•	\$104,906	
Less egg sales			13 0,013		88,023	
Other Income		\$		7,075		16,883
Cost of Producing Eggs (total less other income)				\$126,783		82,930
Dozen eggs sold			**************************************	343,256	2	46,068
Cost per doz. eggs sold			¢	36.9¢	ł	33.7¢
Average price received			¢	37.5¢	.	36.6¢

^{*} Figured at \$5,400 per operator but some farms had more than one operator

By adding an estimate of the value of the operator's labor and interest on the capital investment to the total farm expenses, the farm cost of producing eggs can be calculated. The value of the operator's time here was estimated at \$450 per month or \$5,400 per year. Receipts for items other than eggs are credited against the total cost. This assumes that these items were produced at cost.

Farm expenses include costs for eggs purchased for resale. This tends to impose some egg market values in the calculation of production costs.

The cost per dozen of producing eggs was less for the eleven farms that had poultry and grew grain than for the eighteen farms with poultry only. This is only a general method of calculation of the cost of producing eggs but it gives an overall indication of the costs.

FARM BUSINESS SUMMARY Average of 29 New York Poultry Farms, 1968

CAPITAL INVESTMENT	RECEIPTS
1/1/68 1/1/69 1/1/69	Egg sales \$114,086 Livestock sold 3,168 Crop sales 1,465
TOTAL INVESTMENT \$97,375 \$101,279	Total Cash Receipts \$120,976 Increase in Inventory 3,904
EXPENSES	TOTAL FARM RECEIPTS \$124,880
Labor	FINANCIAL SUMMARY
Hired \$ 6,439 Unpaid 827	
Feed Layer feed bought 51,770 Other feed 216	
Power and Machinery Machine hire 358	Town Johan Traoma \$ 10 454
Machinery repair 1,741	Number of operators 35
Auto expense 148 Gas and oil 1,362	TADAD TWALKADUU VUUU S A CAA
Electricity 1,319	
Foultry Livestock purchases 14,567 Eggs bought for resale 13,429 Livestock expense 4,643	Number of hens 15,012
Crop Fertilizer and lime 669	205 075
Seeds and plants 16	
Spray and other 19 Real Estate	Hens per man 5,560
Land, bldg., & fence repairs 819 Taxes 1,05 Insurance 95 Rent 23	This. feed/doz. eggs produced 4.9 Av. price/cwt. feed bought \$3.68
Capital Items New machinery 5,32 New real estate 1,58	6 1
Other27Telephone27Miscellaneous1,36	
TOTAL FARM EXPENSES \$109,46	0 .