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# **Poultry Farm Business Summary 1980**



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1980 NEW YORK  
POULTRY FARM BUSINESS SUMMARY

Large nonfarm businesses usually prepare and publish an annual report in which they review and analyze the business for the year. This provides a basis for evaluating past operations and for making plans for the future. A similar summary and analysis is useful in managing a farm business. The Cooperative Extension business management projects provide farm operators an annual business report which can be used much the same as nonfarm business annual reports.

Poultry farm business management records have been summarized by the College of Agriculture and Life Sciences at Cornell for a number of years. For the 1980 record year, 24 poultrymen submitted records for summary and analysis. Extension field staff working with poultrymen collected the figures for each farm and the College staff summarized them. The summary results are presented in this workbook.

Poultry farm businesses vary in organizational makeup. The farms included in this report were divided into two groups; poultry (egg production) only, and poultry and others which include those with other major enterprises such as crops, dairy or hogs.

The economic climate for poultrymen in 1980 was worse than 1979. Egg prices were lower in 1980. In addition, layer feed prices for 1980 averaged higher than 1979 and the cost of producing eggs was 9.3¢ higher in 1980. Many poultrymen therefore had negative labor incomes for 1980.

This workbook is designed to provide a systematic summarization and analysis of a poultry business. The group averages can be used in making comparisons. Working through this report step by step provides a good checkup for a poultry operation. In addition to the persons whose records are in the summary, this report should be useful to other poultrymen in the State, to teachers of agriculture, college farm management instructors, agency representatives, and to agribusiness persons.

#### Acknowledgements

This summary was prepared by D. L. Cunningham, Department of Poultry & Avian Sciences, New York State College of Agriculture and Life Sciences, in cooperation with Cooperative Extension Specialists S. E. Ackerman, A. Aja and W. J. Toleman. Myrtle Voorheis supervised the summarization of the records and Barbara Smagner typed this report.



## GOOD MANAGEMENT IS BASIC

HOW DO YOU MEASURE UP



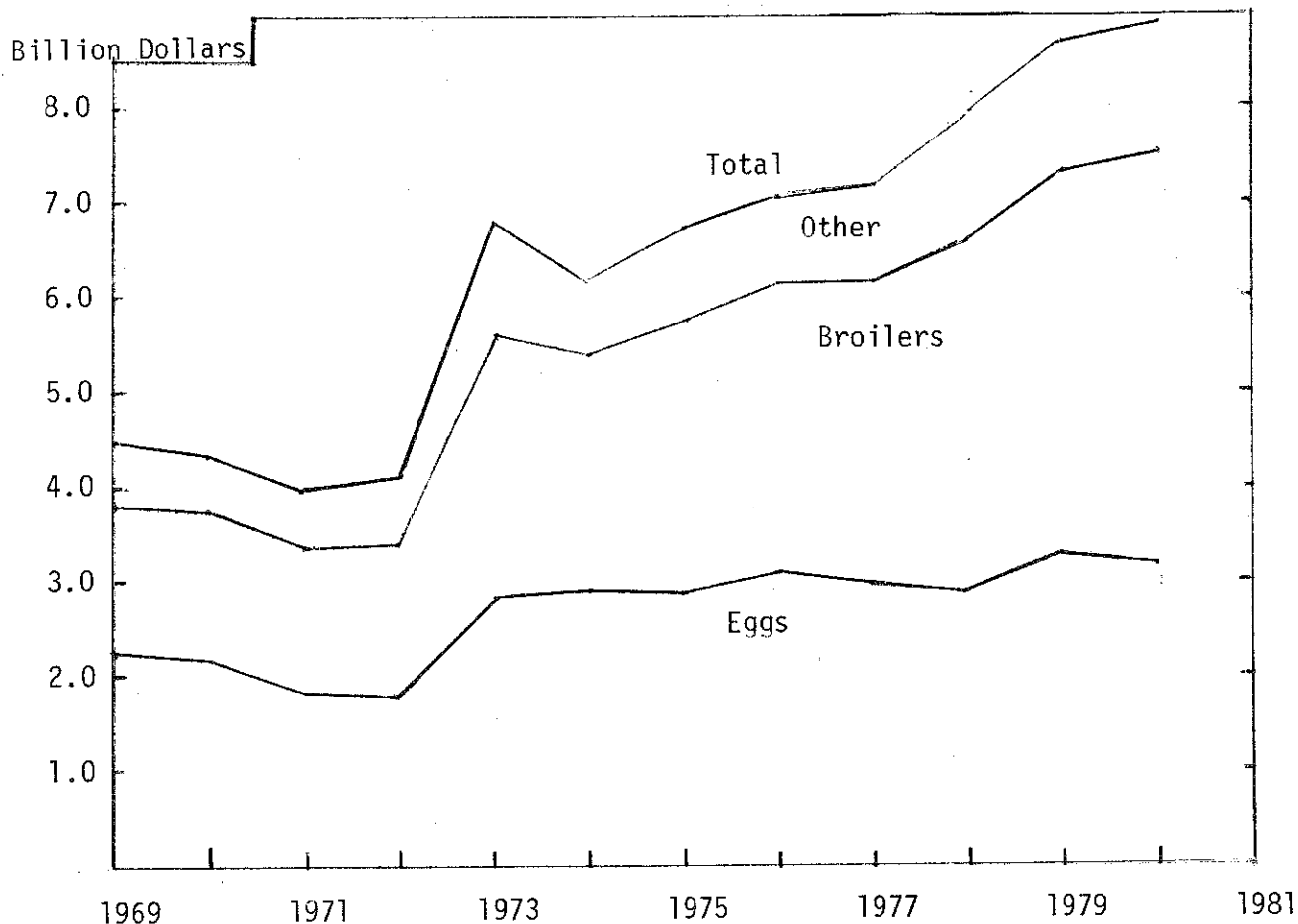
1. **Have you developed a systematic approach to management problems?**
2. **Do you have the facts on your business?**
3. **Are you improving your managerial skills?**

Steps in making a management decision:

1. **Locate the trouble spot (problem)**
2. **What is your objective? (goal)**
3. **Size up what you have to work with (resources)**
4. **Look for various ways to solve the 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!**

GROSS FARM INCOME FROM POULTRY AND EGGS  
United States, 1969-1980



SOURCE: USDA Poultry & Egg Situation

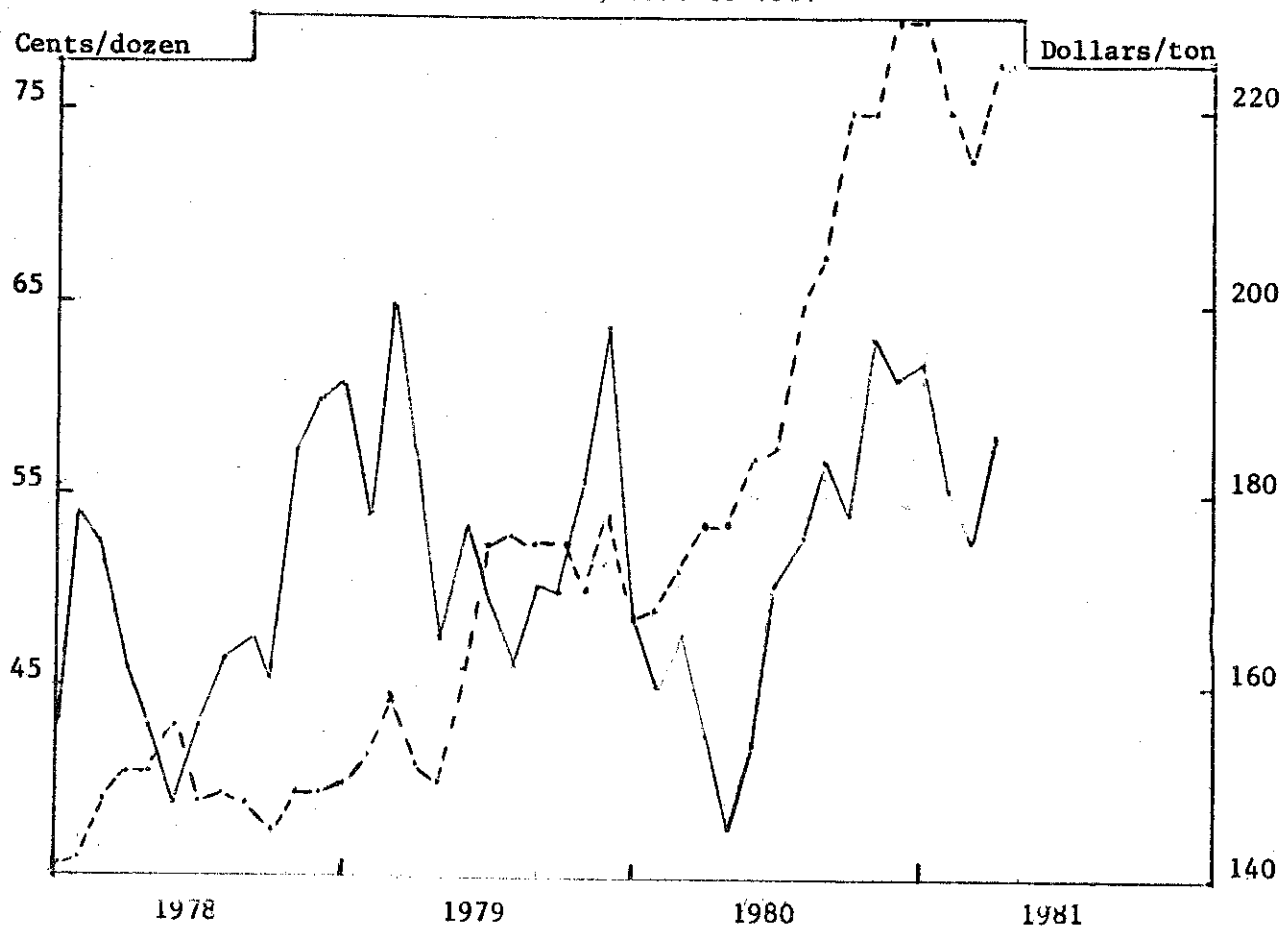
Gross farm income from poultry and eggs in the United States reached a new high in 1980 with a total value of 8.9 billion dollars. This is about double the value in 1969. Eggs accounted for 36 percent of the total gross income, broilers 48 percent, and turkeys 14 percent. In 1980 income from broilers was one billion dollars larger than the total income from egg sales.

Table 1. GROSS FARM INCOME FROM POULTRY AND EGGS, U.S. 1967-1980

Year	Sales				Home Consumption		Gross Income
	Eggs	Broilers	Turkeys	Poultry	Eggs	Other	
	- million dollars -						
1969	2,212	1,531	454	185	38	8	4,428
1970	2,190	1,475	498	102	30	6	4,302
1971	1,801	1,487	500	99	20	5	3,906
1972	1,764	1,623	537	101	17	5	4,046
1973	2,859	2,690	936	169	27	8	6,689
1974	2,884	2,436	683	116	25	5	6,151
1975	2,797	2,915	793	104	22	5	6,637
1976	3,110	2,953	825	135	24	6	7,053
1977	2,973	3,067	910	130	21	6	7,107
1978	2,900	3,682	1,157	129	19	5	7,892
1979	3,339	4,020	1,215	164	21	6	8,760
1980	3,248	4,304	1,253	130	20	5	8,959

SOURCE: USDA Poultry & Egg Situation

FARM PRICE OF EGGS AND LAYING FEED PRICES  
New York, 1978 to 1981



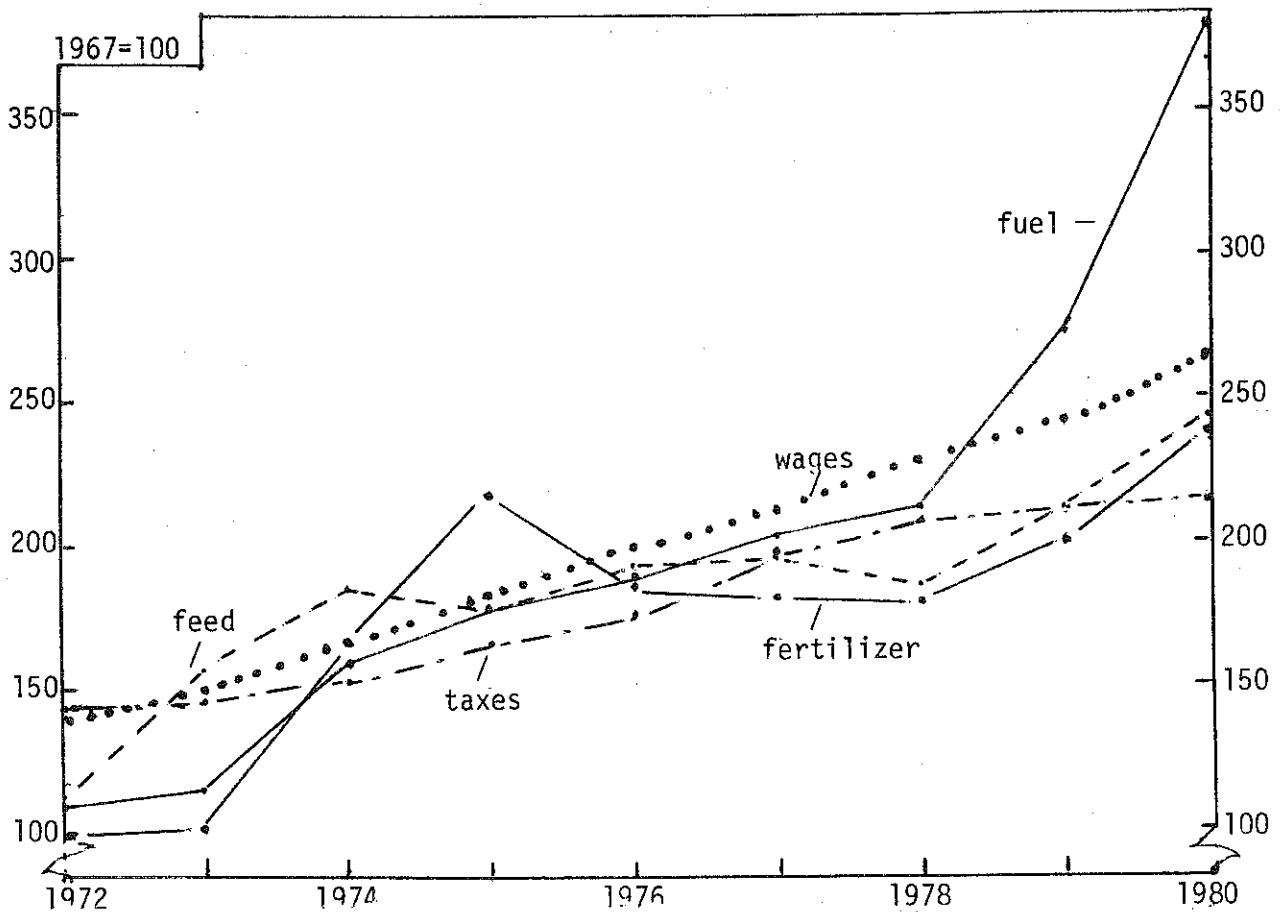
The relationship of feed and egg prices is a major factor affecting poultry incomes. Egg prices in 1980 averaged 4.4¢ less than 1979. Egg prices tend to fluctuate more than feed prices. The egg-feed ratio as expressed in pounds of feed a dozen eggs will buy was 5.2 for 1980 compared with 6.6 for 1979 and 6.5 for 1978.

Table 2. FARM PRICE OF EGGS AND LAYING FEED PRICES

Month	Egg Prices				Laying Feed Prices			
	1978	1979	1980	1981	1978	1979	1980	1981
January	43.3¢	60.9¢	48.5¢	61.8¢	\$141	\$150	\$167	\$218
February	54.1	54.1	45.1	55.3	142	153	168	219
March	52.6	65.0	47.8	52.7	148	159	172	215
April	46.3	57.2	42.5	58.4	151	152	177	225
May	43.0	47.6	37.6	—	151	150	177	—
June	39.4	53.3	42.1	—	156	162	184	—
July	43.2	49.9	50.5	—	148	175	185	—
August	46.5	46.6	53.0	—	149	176	200	—
September	47.4	50.3	56.7	—	148	175	205	—
October	45.8	50.1	54.1	—	145	175	220	—
November	57.5	55.8	63.3	—	149	170	220	—
December	60.2	64.1	61.2	—	149	178	235	—
Annual Avg.	48.3	54.6	50.2	—	148	165	193	—
Egg-Feed ratio (lbs./doz.)	6.5	6.6	5.2	—	—	—	—	—

SOURCE: USDA Agricultural Prices

PRICES PAID BY FARMERS FOR SELECTED ITEMS, 1972-1980



Prices of major farm inputs have all increased since 1972 but only wages paid by farmers have increased at a fairly constant rate. Feed prices rose 15 percent in 1980. Fertilizer prices increased 20 percent in 1980. Fuel prices jumped 29 percent in 1979 following four years of single digit increases and increased by 39 percent in 1980.

Table 3. PRICES PAID BY FARMERS FOR SELECTED ITEMS, 1972-1980

Year	Index 1967=100				
	Feed	Fertilizer	Fuel	Wages	Taxes
1972	112	94	108	140	142
1983	157	102	116	150	146
1974	185	167	159	160	154
1975	177	217	177	180	166
1976	192	185	187	199	176
1977	194	182	203	212	195
1978	186	180	212	229	210
1979	213	202	273	241	213
1980	245	242	380	264	216

Percent increase:

1972 to 1979

(ave./year)      13%      16%      22%      10%      8%

1979 to 1980      15%      20%      39%      9%      1%

SOURCE: USDA Agricultural Prices



General Summary of All Farms

Twenty-four poultry farm records for 1980 were used for this summary. The organization of these farms varies widely. There were eight poultry with other major enterprises, and sixteen straight layer operations. In this general section, all businesses are included. For the more detailed analysis in the sections that follow, the 16 layer operations and the eight layer with other operations are included.

Table 4. FARM BUSINESS FINANCIAL SUMMARY  
24 New York Poultry Farms, 1979-1980

Item	Average 24 Farms	
	1979	1980
Average Capital Investment	\$454,200	\$483,827
Total Farm Receipts	549,879	560,799
Total Farm Expenses	501,097	587,618
Farm Income	\$ 48,782	\$-26,819
Interest @ 9% on Equity Capital	31,711	28,640
Labor and Management Income Per farm	\$ 17,071	\$-55,459
Number of Operators	1.29	1.17
LABOR AND MANAGEMENT INCOME PER OPERATOR	\$ 13,233	\$-47,400

Labor and management 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 24 poultry farms, the average labor and management income per operator was \$-47,400. In addition to the labor and management income, the operator usually has certain privileges such as a house to live in, eggs and poultry to use, and other miscellaneous items.

Labor and management income per operator varied widely. There were 15 farms with minus labor incomes, and 2 with incomes per operator of over \$25,000. Eleven of the farms with minus incomes were in the layer group.

The average capital investment on these 24 farms was \$483,800. The receipts averaged \$561,000, and the expenses \$588,000. On these farms, the receipts were considerably more than the capital investment giving a "capital turnover" (as measured by the number of years for the receipts to equal the capital) of about 0.9. This is in contrast to dairy businesses where commonly it takes two to three years for receipts to equal capital.

Poultrymen in 1980 faced higher production costs and lower than normal egg prices. These factors combined with a 9% interest charge for equity capital produced a very atypical income situation for many poultrymen. Poultry farms in our Poultry Business Summaries for the years 1976-1979 have averaged a labor income per operator of \$18,774 indicating that over the long run, egg producers have had positive incomes in New York.

Table 5.

GENERAL FARM BUSINESS FACTORS  
24 New York Poultry Farms, 1980

Business Factor	Average 24 Farms
Man equivalent	4.2
Months unpaid labor	2.3
Months hired labor	35.3
Total months of labor	51.6
Percent of labor hired	68%
Average labor cost/month hired	\$878
Average number hens for year	40,390
Average number crop acres	346
Total work units	1,812
Eggs sold per hen	240
Pounds feed per dozen eggs	4.1
Average price per cwt. layer feed	\$8.75
Average price per dozen eggs	54.8¢

Poultry farm operations differ a great deal in their organization. Poultry only versus poultry combined with other enterprises is another, while contract versus independent operations is still another. The range in the capital investment is a reflection of these. The low capital investment was \$45,000, while the high was \$2,515,000. Similarly, the low expense reported was \$67,100, while the high was \$3,466,000. The wide range indicates that one should recognize limitations in the "averages" when they are used.

The labor force on these farms ranged from 1.4 to 12.0 man equivalent with an average of 4.2. For all 24 farms, 68% of the labor was hired and the rest was furnished by the operator and his family. The average labor expense per month of hired labor was \$878. Unpaid family labor was valued at \$500 per month.

Number of hens is a common measure of size for a laying operation. The numbers varied from 6,800 to 257,000. These reflect the average number of layers for the year. The number of eggs sold per hen averaged 240 but with a range of 162 to 290.

Marketing arrangements differ with some selling all eggs wholesale, while other sell at retail. The average price received per dozen sold by the 24 farms during 1980 was 54.8 cents. A number of poultrymen in the summary had premium markets.

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 on many farms but efforts were made to calculate this factor. The average for the 24 farms was 4.1 pounds per dozen eggs. Layer feed costs per hundredweight averaged \$8.75.

SUMMARY OF THE EGG PRODUCING BUSINESSES

The first step in examining any business operation is a systematic summary of the business. In this section we will examine the physical resources, business practices, capital investment, receipts, expenses, and the financial summary for the year.

Physical Resources and Business Practices

Below is a summary of the physical resources and business practices used by the 16 farms with poultry only and the 8 farms with poultry and other for the year 1980.

Table 6. LABOR FORCE, LIVESTOCK, CROPS GROWN, AND BUSINESS PRACTICES  
24 New York Poultry Farms, 1980

Item	My Farm	Aver. Per Farm & Numbers Reporting	
		16 Farms with Poultry Only	8 Farms with Poultry & Other
<u>Labor</u>			
Months of:			
Operators		(16 farms) 12.0	(8 farms) 18.0
Family--unpaid		(8 farms) 2.6	(3 farms) 1.9
Hired		(14 farms) 35.4	(8 farms) 34.9
Total		50.0	54.8
Man equivalent (no. men)		4.2	4.6
Number of operators		1.0	1.5
Percent of labor hired	%	71%	64%
<u>Livestock (number)</u>			
Laying hens		48,100	25,500
Pullets raised		(6 farms) 83,500**	(2 farms) 40,500
<u>Crops (acres grown)</u>			
Hay			(4 farms) 35**
Corn for grain			(6 farms) 395**
Oats			(2 farms) 30**
Wheat			(3 farms) 52*
Total acres of crops			346
<u>Business Practices</u>			
Percent of eggs marketed:			
Wholesale	%	35%	47%
Premium outlet	%	48%	37%
Retail	%	17%	16%
Percent of replacement pullets:			
Raised	%	74%	47%
Bought	%	26%	53%
Percent of layer feed:			
Purchased	%	99%	69%
Mixed on farm	%	1%	31%

\*Three farms were partnerships.

\*\*Average of number reporting.

Capital Investment

The capital used to operate a poultry business is invested in machinery and equipment, poultry, feed and supplies, and land and buildings. Some of the capital used is owned by the operator and some is borrowed. The end-of-year farm inventory is used as a measure of the capital investment in the business. It is suggested that the inventory reflect "market value".

Table 7. FARM INVENTORY VALUES, JANUARY 1, 1981  
24 New York Poultry Farms

Item	My Farm	Amount Per Farm	
		16 Farms With Poultry Only	8 Farms With Poultry & Other
Machinery & equipment	\$ _____	\$ 87,975	\$153,129
Poultry	_____	76,843	40,745
Other livestock	_____	584	31,900
Feed & supplies	_____	19,524	80,087
Land & buildings	_____	<u>276,477</u>	<u>248,567</u>
TOTAL INVESTMENT	\$ _____	\$461,403	\$554,428

Total investment on these farms ranged from \$45,000 to \$2,515,000. Seven of the poultry and other farms, and nine of the poultry only farms had investments of more than \$250,000. The inventories of land and buildings, machinery, and feed and supplies were larger on the farms with other enterprises, which is logical.

How the capital is used is more important than the amount. Below are some measures used in analyzing the efficiency of the use of capital. Farms having other enterprises have larger investments because of the added land and machinery used.

Table 8. CAPITAL INVESTMENT ANALYSIS

Item	My Farm	16 Farms With Poultry Only	8 Farms With Poultry & Other
Total investment/man	\$ _____	\$109,860	\$120,530
Total investment/hen	\$ _____	\$9.59	\$22.09
Machinery investment/hen	\$ _____	\$1.83	\$6.10
Land & buildings/hen	\$ _____	\$5.75	\$9.90
%Land & buildings are of total investment	_____ %	60%	45%
Capital turnover (years)	_____	.78	1.1

Receipts

The source and amount of receipts tells us about the nature and size of the business. The size of many nonfarm businesses often is measured in terms of gross sales. However, in poultry businesses, egg price fluctuations from year to year cause total receipts also to fluctuate.

Table 9. FARM RECEIPTS  
24 New York Poultry Farms, 1980

Item	My Farm	16 Farms With Poultry Only	8 Farms With Poultry & Other
Egg sales	\$ _____	\$565,069	\$390,642
Poultry sales	_____	4,980	6,688
Other livestock sales	_____	251	39,348
Crop sales	_____	1,180	26,883
Work off farm	_____	-0-	3,084
Government payments & refunds	_____	6,111	4,237
Miscellaneous	_____	1,805	1,216
Total Cash Farm Receipts	\$ _____	\$579,396	\$472,098
Increase in Inventory	_____	11,190	29,127
TOTAL FARM RECEIPTS	\$ _____	\$590,586	\$501,225

Total cash receipts averaged \$590,586 for the farms with poultry only, and \$501,225 for the farms with poultry and other. Egg sales accounted for 98 percent and 83 percent respectively of the cash receipts on the two groups of farms. Crop sales accounted for 6 percent of the cash receipts on the farms with other enterprises, and the poultry sales accounted for 1 percent of the cash receipts.

Increases in inventory are usually due to expansion or improvements in the business. Inventory increases are considered as farm receipts. The increases could have been sold and converted to cash, therefore, they are considered as receipts in summarizing the year's business. Costs associated with the increases are reported as farm expenses.

Table 10. INCOME ANALYSIS

Item	My Farm	16 Farms With Poultry Only	8 Farms With Poultry & Other
Av. price/doz. of eggs sold	_____¢	55.0¢	54.2¢
Total cash receipts/man	\$ _____	\$137,950	\$102,630
Total cash receipts per \$1,000 investment	\$ _____	\$ 1,256	\$ 852

Expenses

Knowing where the money went is important in any business analysis. The first step in controlling costs on poultry farms is to know what the expenses are and how they compare with those of other businesses. Below is a summary of the average farm expenses for these two groups of poultry farms.

Table 11. FARM EXPENSES  
24 New York Poultry Farms, 1980

Item	My Farm	16 Farms With Poultry Only	8 Farms With Poultry & Other
Chicks purchased	\$ _____ (6 farms)	\$ 16,139	(5 farms) \$ 9,985
Pullets purchased	_____ (12 farms)	36,040	(6 farms) 32,266
Layer feed bought	_____	376,498	115,159
Other feed	_____	16,800	16,192
Hired labor	_____	30,686	31,567
Machine hire	_____	1,508	3,073
Machinery expense	_____	6,486	10,113
Gas and oil	_____	7,338	17,962
Poultry supplies, etc.	_____	26,315	18,530
Crop expense	_____	347	26,008
Building expense	_____	2,902	1,339
Taxes	_____	3,029	5,385
Insurance	_____	7,251	5,251
Utilities	_____	8,983	7,504
Eggs bought for resale	_____ (10 farms)	39,183	(3 farms) 96,259
Interest paid	_____	18,550	11,101
Miscellaneous*	_____	27,446	19,698
TOTAL CASH OPERATING EXPENSE	\$ _____	\$625,501	\$427,395
New machinery	_____	10,521	26,010
Real estate	_____	9,452	14,633
Unpaid labor	_____	1,465	937
Decrease in inventory	_____	-0-	-0-
TOTAL FARM EXPENSES	\$ _____	\$646,939	\$468,975

\*Advertising expense included \$216 with 3 farms reporting.

Interest paid was included as a cash expense in the 1976 summary for the first time. Prior summaries only had an interest charge calculated on the average capital for the year.

Financial Summary

The financial success of a poultry business can be measured in various ways. There is no one best measure so in this summary several are used.

Farm income measures the return from the business to the operator for his labor and management and equity capital. Farm income is the difference between total receipts (including increase in inventory) and total expenses (including decrease in inventory and interest paid on debts).

Table 12. FARM INCOME, AND LABOR AND MANAGEMENT INCOME  
24 New York Poultry Farms, 1980

Item		16 Farms With Poultry Only	8 Farms With Poultry & Other
Total farm receipts	\$ _____	\$590,586	\$501,225
Total farm expenses	_____	646,939	468,975
FARM INCOME	\$ _____	\$-56,353	\$ 32,250
Interest on Equity Capital @ 9%	_____	24,755	36,411
Labor income per farm	\$ _____	\$-81,108	\$ -4,161
Number of operators	_____ (16)	1.0 (13)	1.5
LABOR AND MANAGEMENT INCOME PER OPERATOR	\$ _____	\$-81,108	\$ -2,774

Labor and management income is the return to the farm operator for his time and efforts. This is the measure most commonly used when studying farm businesses. To get labor and management income, a 9% interest charge on the operator's equity capital is subtracted from the farm income. The charge on equity capital represents an "opportunity cost" or what could have been earned had this capital been invested in something such as a certificate of deposit.

The average labor income per operator for the 16 farms was \$-81,108 and for the 8 farms \$-2,774. The 16 poultry only farms had expenses greater than the total farm receipts. This combined with the 9% interest on equity capital resulted in the large negative income for 1980.

The labor and management incomes varied widely as shown below. Sixty-two percent of the farms had a minus income, while 4 percent had incomes of \$20,000 or more.

DISTRIBUTION OF LABOR INCOMES FOR 24 POULTRY OPERATIONS

Labor and Management Income Per Operator	Farms	
	Number	Percent
Minus	15	62
0 - \$ 9,999	4	17
\$10,000 - \$19,999	4	17
\$20,000 - or more	1	4

Table 13.

RATE OR RETURN ON INVESTMENT  
24 New York Poultry Farms, 1980

Item	My Farm	16 Farms With Poultry Only	8 Farms With Poultry & Other
Farm income	\$ _____	\$-56,353	\$ 32,250
Plus interest paid	_____	18,550	11,101
		\$-37,803	\$ 43,351
Minus value of operator's labor and management*	_____	10,000	15,000
Return on investment	\$ _____	\$-47,803	\$ 28,351
Average capital investment	\$ _____	\$455,808	\$539,865
RATE OF RETURN ON INVESTMENT	_____ %	-10.5%	5.2%

\*\$10,000 per operator - some farms had more than one operator.

Rate of return on investment is calculated by adding to the "farm income" the interest paid and then deducting a charge for the operator's labor and management, and then dividing by the average investment for the year. In the above calculation, \$10,000 has been used as the value of the operator's labor and management. This is a modest charge for the operator's labor and management.

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 nonfarm income or if money was 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. Since actual living expenses were not available, they were estimated at \$10,000 per operator. 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.

NET FARM CASH FLOW AND DEBT REPAYMENT ABILITY  
24 New York Poultry Farms, 1980

Item	My Farm	16 Farms With Poultry Only	8 Farms With Poultry & Other
Total cash receipts	\$ _____	\$579,396	\$472,098
Total cash operating expense	_____	625,501	427,395
NET FARM CASH FLOW	\$ _____	\$-46,105	\$ 44,703
Plus Interest Paid	_____	18,550	11,101
Total Available	\$ _____	\$-27,555	\$ 55,804
Family cash living expense*	_____	10,000	15,000
DEBT REPAYMENT ABILITY	\$ _____	\$-37,555	\$ 40,804

\*Estimated at \$10,000 per operator per year.



## ANALYSIS OF THE EGG PRODUCTION BUSINESSES

The "summary" of a business provides an overall look at the operation. It shows what you did. The "analysis" which follows includes a more detailed examination of the different parts of the business. The analysis helps to show WHY you did what you did and to find ways to improve the operation. Measures have been developed to aid in analyzing farm business strengths and weaknesses.

In this section, several business factors are examined. Among these are: size of business, rates of production, labor efficiency, and cost control. Since many of the measures are interrelated, all of the factors should be examined before arriving at major conclusions. A complete analysis of the factors should point up the major strong and weak points of a business.

### Size of Business

Size is usually the first factor examined when analyzing a business. Size affects other factors such as labor efficiency and cost control. Prices received and paid by poultrymen are often affected by volume which is a function of the size factor.

Farm management research has shown that in general large 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 fixed cost items. Secondly, there are more units of production (hens) on which to make a profit. However, when a business is unprofitable, these same factors operate and large farms have larger losses.

Table 15. MEASURES OF SIZE OF BUSINESS  
24 New York Poultry Farms, 1980

Measure	My Farm	16 Farms With Poultry Only	8 Farms With Poultry & Other
Number of hens		48,100	25,500
Dozens of eggs sold*		1,027,500	720,800
Dozens of eggs produced		951,100	520,500
Man equivalent		4.2	4.6
Total work units		1,984	1,466
Total farm receipts	\$	\$590,600	\$501,200
Total investment (end year)	\$	\$461,400	\$554,400

\*Includes eggs bought for resale.

Rates of Production

Rates of production for both poultry and crops are factors contributing to the success of poultry businesses. It is a challenge to find the levels of inputs, such as feed and fertilizer, which will give rates of production that yield the highest net income. This means a consideration of both the physical and economic returns from production.

Table 16. MEASURES OF RATES OF PRODUCTION  
24 New York Poultry Farms, 1980

Measure	My Farm	16 Farms With Poultry Only	8 Farms With Poultry & Other
Eggs sold/hen	_____	238	249
Bushels corn/acre	_____	---	NA
Bushels oats/acre	_____	---	NA
Bushels wheat/acre	_____	---	NA

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

The eggs sold per hen averaged 238 and 249 for the two groups. The range for the 24 farms was from 162 to 290 eggs sold per hen. This is a range of more than 100 eggs per hen from the lowest to the highest.

The relationship of eggs sold per hen and labor and management income is illustrated below.

Table 17. EGGS SOLD PER HEN AND LABOR AND MANAGEMENT INCOME  
24 New York Poultry Farms, 1980

Eggs Sold Per Hen	Number of Farms	Average Number of Hens	Labor & Mgt. Income/Operator
Less than 220	5	12,800	\$-10,412
220 - 240	7	48,900	\$-53,805
More than 240	12	46,900	\$-74,600

Labor Efficiency

Labor efficiency is sometimes claimed to be the most important single business factor affecting incomes on farms today. This is brought about by the fact that the operator's labor and management income is a function of the labor output. Rising farm wage rates over time have meant that generally more output is required to pay those wages. If a poultryman wants top efficiency from his hired worker'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  
24 New York Poultry Farms, 1980

Measure	My Farm	16 Farms With Poultry Only	8 Farms With Poultry & Other
Dozens eggs sold/man*	_____	244,600	156,700
Dozen eggs produced/man	_____	226,500	113,200
Number hens/man	_____	11,450	5,500
Work units per man	_____	472	319

\*Includes eggs bought for resale.

The farms with poultry only as measured above had higher labor efficiency than the farms with poultry and other. In part, the higher dozen eggs sold per man reflects that practice of the poultry only group of buying eggs for resale. Also, on the poultry and other farms, a considerable amount of work is on the crops. This means more total time per hen or per dozen of eggs than on a poultry only operation.

When analyzing your labor efficiency consider:

1. Size of operation - it tends to reduce the overhead time per unit.
2. Extent of work performed - i.e., wholesale vs. retail marketing.
3. Arrangement of buildings and work areas.
4. Work methods - the easy way vs. the hard way.
5. The human factor or how fast persons work.
6. Clarity of directions given to workers.
7. Kind of hired workers employed.

Cost Control

Some poultry farms spend as much as \$1,000 per day. With expenses of this amount, cost control is important. As more "input" items are purchased, cost control has a greater effect on incomes. Cost control is difficult to measure but an analysis of good records can provide some useful checks and point to possible areas of cutting costs.

Feed, labor, and machinery are big cost items on poultry farms, but it is important to watch the other costs too. Small leaks can build up into sizable losses. The next three pages are provided to help study your costs.

Table 19. COST CONTROL MEASURES  
24 New York Poultry Farms, 1980

Item	My Farm	16 Farms With Poultry Only	8 Farms With Poultry & Other
Layer feed bought per hen	\$ _____	\$ 7.83	\$ 4.52
Feed bought/doz. eggs produced	_____¢	40¢	22¢
Lbs. feed/doz. eggs produced	_____	4.1	4.0
Total labor cost per hen*	\$ _____	86¢	\$ 1.80
Total labor cost per dozen eggs produced*	_____¢	4.3¢	8.8¢
Building repairs per hen	_____¢	6.0¢	5.2¢
Utilities per hen	_____¢	18.7¢	29.4¢
Taxes per hen	_____¢	6.3¢	21.1¢
Insurance per hen	_____¢	15.7¢	20.6¢
Total farm production expenses/ hen (total less inventory increase and eggs bought)	\$ _____	\$12.40	\$13.47
Total expenses per \$100 receipts	\$ _____	\$110	\$94

\*Includes operator's labor.

For the above measures, it must be kept in mind that the "poultry and other" farms had other enterprises which affect several cost control measures. The feed bought per hen is an example. Much of the crop expense on the poultry and other farms is an indirect feed cost on these operations. Also, the labor cost per dozen eggs on the poultry and other farms includes labor for the production of feed which on poultry only farms would have been purchased.

Labor and machinery costs are sizable 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 20. POWER AND MACHINERY COSTS  
24 New York Poultry Farms, 1980

Item	My Farm	16 Farms With Poultry Only	8 Farms With Poultry & Other
Beginning inventory	\$ _____	\$ 90,053	\$142,623
New machinery bought	_____	10,521	26,010
Total (1)	\$ _____	\$100,574	\$168,633
End inventory	\$ _____	\$ 87,975	\$153,129
Machinery Sold	_____	63	-0-
Total (2)	\$ _____	\$ 88,638	\$153,129
Depreciation (1 minus 2)	\$ _____	\$ 11,936	\$ 15,504
Int. @ 9% av. inventory	_____	8,011	13,309
Gas and oil	_____	7,338	17,962
Machinery repairs and auto expense	_____	4,199	9,958
Machine hire	_____	1,508	3,073
Electricity (farm share)	_____	7,186	6,003
Total Power and Machinery Cost	\$ _____	\$ 40,178	\$ 65,809
Less: Gas tax refund	\$ _____	\$368	\$266
Income from machine work	_____	-368	-266
<b>NEW POWER AND MACHINERY COST</b>		<b>\$ 39,810</b>	<b>\$ 65,543</b>
New power and machinery costs:			
per hen		83¢	\$2.62
per man		\$9,479	\$14,248
per dozen eggs produced*		4.2¢	12.6¢

\*Does not include eggs bought and resold.

Depreciation is the largest item in the power and machinery cost group. This is an indirect item and along with interest is often overlooked. Usually half or more of the cost is represented by these two "overhead" items.

With the jump in fuel prices in recent years, the gas and electricity items have taken on added importance. Look for ways to save on energy use.

Farmers sometimes justify high machinery costs on the basis that the machinery saves on high cost labor. It is well to examine this justification. The combined machinery and labor cost measure gives a good check.

Table 21. LABOR AND POWER AND MACHINERY COSTS  
24 New York Poultry Farms, 1980

Item	My Farm	16 Farms With Poultry Only	8 Farms With Poultry & Other
Value of labor of operator*	\$ _____	\$ 9,000	\$13,500
Hired labor	_____	30,686	31,567
Unpaid family labor	_____	1,465	937
TOTAL LABOR COSTS	\$ _____	\$41,151	\$46,004
New power & machinery cost	_____	39,810	65,543
TOTAL LABOR & MACHINERY COSTS	\$ _____	\$80,961	\$111,547
-----			
Labor cost per hen	\$ _____	86¢	\$1.84
Labor cost/dozen eggs produced	_____¢	4.3¢	8.8¢
Labor and machinery cost:			
per hen	\$ _____	\$1.68	\$4.45
per dozen eggs sold	_____¢	7.9¢	15.5¢

\*Valued at \$9,000 per operator.

For the 16 poultry only farms, the labor cost was greater than the power and machinery cost. For the poultry and other the machinery and power cost was greater. It is important to watch the combined labor and machinery costs. It is easy to spend for additional machinery but neglect to reduce the labor used. Below are some measures for use in examining labor costs.

Table 22. LABOR USE ANALYSIS

Item	My Farm	16 Farms With Poultry Only	8 Farms With Poultry & Other
Months of hired labor	_____	35.4	34.9
Hired labor expense	\$ _____	30,686	31,569
Labor expense/month hired	\$ _____	\$867	\$905
Total labor cost/month	\$ _____	\$823	\$839
Percent of total labor by:			
Operator	_____%	24%	33%
Unpaid family	_____%	5%	3%
Hired	_____%	71%	64%

Comparison of Recent Summaries

Businessmen must keep abreast of changes that are taking place. The poultry industry has changed more than many types of farm businesses. Below is a comparison of selected factors from the last five New York poultry summaries.

In comparing these factors, keep in mind that the farms included from year to year vary as indicated by the number of farms and there is also some change in individuals each year.

Table 23. NEW YORK POULTRY FARM SUMMARIES, 1976-1980

Factor	1976	1977	1978	1979	1980
Number of farms	26*	28*	25*	24*	24
Man equivalent	4.4	4.4	4.2	4.6	4.3
Number of hens	27,300	30,500	23,115	36,350	40,390
<u>Investment</u>					
Land & buildings	\$134,513	\$158,592	\$175,731	\$255,515	\$267,174
Machinery	67,217	96,113	93,667	109,466	109,693
Livestock & poultry	40,752	52,155	42,189	64,601	75,833
Feed & other	28,695	36,501	36,654	46,562	39,712
Total	\$271,177	\$343,361	\$348,241	\$476,144	\$492,412
<u>Receipts</u>					
Egg sales	\$327,593	\$379,509	\$342,575	\$469,531	\$506,927
Livestock sales	10,960	18,094	18,724	23,762	18,832
Other	63,086	21,080	51,068	56,586	35,040
Total	\$401,639	\$418,683	\$412,367	\$549,879	\$560,799
<u>Expenses</u>					
Feed bought	\$140,142	\$170,457	\$125,147	\$220,121	\$305,982
Hired labor	22,516	24,841	24,026	33,270	30,980
Chicks & pullets	36,625	34,249	29,713	50,660	48,870
Electricity & phone	4,682	5,354	4,822	6,951	8,490
Other	164,040	156,738	200,894	190,095	193,296
Total	\$368,005	\$391,639	\$384,602	\$501,097	\$587,618
<u>Business Factors</u>					
Av. price/doz. eggs	59.6¢	53.8¢	58.8¢	55.6¢	54.8¢
Eggs per hen	221	233	228	240	240
Hens per man	6,200	7,500	5,500	7,900	9,400
Lbs. feed/doz. eggs	4.6	4.5	4.6	4.0	4.0
Labor income/operator	\$ 17,405	\$ 7,779	\$ 8,635	\$ 13,216	\$-47,536

\*Includes only layer operations, omits the contract pullet operations.

Cost of Producing Eggs

Table 24. AVERAGE FARM COST OF PRODUCING EGGS  
16 New York Poultry Farms, 1980

Item	My Farm	16 Farms With Poultry Only
Farm expenses	\$ _____	\$646,939
Interest on equity capital @ 9%	_____	24,755
Operator's labor and Management*	_____	10,000
Total Cost	\$ _____	\$681,694
Total receipts	\$ _____	\$590,586
Less egg sales	_____	565,069
Other Income	_____	25,517
Cost of Producing Eggs (Total Cost Less Other Income)	\$ _____	\$656,177
Dozen eggs sold	_____	1,027,487
Cost per dozen eggs sold	_____¢	63.9¢
Average price received	_____¢	55.0¢

\*Figured at \$10,000 per operator.

By adding to the total farm expenses an estimate of the value of the operator's labor and management, and an interest charge on the equity capital used, the farm cost of producing eggs can be calculated. The value of the operator's labor and management was estimated at \$10,000 per year. This was based on estimates made by dairymen. Receipts for items other than eggs are credited against the total cost on the assumption 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.

This "farm unit" method of calculating the cost of producing eggs has limitations but it does give a general indication of the overall costs. This method was applied to the farms with poultry only.



Table 25. COST ITEMS IN PRODUCING A DOZEN EGGS  
16 New York Poultry Farms, 1980

Item	My Farm	Cost Per Dozen	
		Amount	Percent
Feed for layers	_____¢	40.0¢	62.6%
Replacements:			
Chicks & pullets bought	_____¢	5.1	8.0%
Grower feed	_____	1.6	2.5
Total	_____¢	6.7¢	10.5%
Less sale of birds	_____	.5	.8
Net Replacement Cost	_____	6.2¢	9.7%
Labor	_____	4.1	6.4
Power & machinery (without interest)	_____	3.1	4.8
Interest on capital	_____	4.2	6.6
Poultry supplies, etc.	_____	2.6	4.1
Taxes & insurance	_____	1.0	1.6
All other	_____	2.7	4.2
Total	_____¢	63.9¢	100.0

Another approach to the cost of producing eggs is to examine individual cost items. This has been done above for the 16 poultry only farms. Some items have been calculated in earlier sections and the total cost per dozen was calculated by the "farm unit" method on page 21.

The feed cost of 40.0 is the total layer feed expense divided by the dozen of eggs produced. Feed accounted for a little more than sixty percent of the total cost.

Replacement costs include the expenses for chick and pullets bought and grower feed. Fuel and other direct costs involved in rearing are not included here but are in other items listed. Hence, this replacement cost is on the low size. Receipts from birds sold are subtracted to get a "net" replacement cost. Replacements accounted for about one-eighth of the total cost.

The labor item includes a value for the operator's work but not his management. The interest charge in power and machinery costs shown on page 18 was taken out since it is included in interest on capital. Building repairs and depreciation would be an item in the "all other".

Table 26. COMPARISON OF COSTS OF PRODUCING EGGS IN RECENT YEARS

Year	Av. Price Received	Farm Unit Cost Per Doz.*	Poultry Ration (CWT)	Feed Costs/Doz.		Labor Cost Per Doz.
				Cents	% Total	
1972	32.6¢	34.4¢	\$4.50	17.3¢	50%	4.6¢
1973	54.8	52.5	6.75	30.3	58	5.1
1974	52.4	54.2	7.09	32.0	59	3.9
1975	57.1	57.9	7.02	32.2	56	4.6
1976	59.3	57.6	6.89	31.4	55	5.5
1977	53.7	51.1	6.56	28.5	56	4.7
1978	52.8	53.1	5.67	25.8	49	5.5
1979	56.5	54.6	7.56	28.6	52	4.7
1980	55.0	63.9	8.73	40.0	63	4.3

\*For "Poultry Only" farms in business summaries.

FARM BUSINESS SUMMARY  
16 New York Poultry Farms, 1980

CAPITAL INVESTMENT

	<u>1/1/80</u>	<u>1/1/81</u>
Machinery & equip.	\$ 90,053	\$ 87,975
Livestock	69,019	77,427
Feed & supplies	22,261	19,524
Land & Buildings	268,880	276,477
<b>TOTAL INVESTMENT</b>	<b>\$450,213</b>	<b>\$461,403</b>

EXPENSES

Replacements

Chicks bought	\$ 16,139
Pullets bought	36,040

Feed

Layer feed bought	\$376,498
Other feed	16,800

Labor

Hired	30,686
Unpaid	1,465

Power and Machinery

Machine hire	1,508
Machinery repair	6,486
Gas and oil	7,338
Electricity	7,186

Poultry

Eggs bought for resale	39,183
Livestock expense	14,565
Supplies	26,315
Fuel	-0-

Crop

Crop expense	347
--------------	-----

Real Estate

Land, bldg., & fence repair	2,902
Taxes	3,029
Insurance	7,251

Capital Items

New machinery	10,521
New real estate	9,452

Other

Telephone	1,797
Interest paid	18,550
Advertising & promotion	-0-
Miscellaneous	12,881
Decrease in inventory	-0-

**TOTAL FARM EXPENSES** **\$646,939**

RECEIPTS

Egg sales	\$565,069
Livestock sold	5,231
Crop sales	1,180
Miscellaneous	7,916
<b>Total Cash Receipts</b>	<b>\$579,396</b>
<b>Increase in Inventory</b>	<b>11,190</b>
<b>TOTAL FARM RECEIPTS</b>	<b>\$590,586</b>

FINANCIAL SUMMARY

Total Farm Receipts	\$590,586
Total Farm Expenses	646,939
Farm Income	\$-56,353
Interest on equity capital @ 9%	24,755
Farm Labor Income	\$-81,108
Number of operators	1.0
<b>LABOR INCOME/OPERATOR</b>	<b>\$-81,108</b>

BUSINESS FACTORS

Man equivalent	4.2
Number of hens	48,052
Number of pullets raised (6 farms)	83,600
Dozen of eggs (produced)	951,100
Eggs produced per hen	238
Dozens of eggs produced/man	226,500
Hens per man	11,440
Lbs. feed/doz. eggs produced	4.1
Av. price/cwt. feed bought	\$8.73
Av. price/doz. eggs (all)	55.0¢

FARM BUSINESS SUMMARY - AVERAGES PER HEN  
16 New York Poultry Farms, 1980

<u>CAPITAL INVESTMENT</u>	<u>1/1/80</u>	<u>1/1/81</u>	<u>RECEIPTS</u>	
Machinery & equip.	\$1.87	\$1.83	Egg sales	\$11.76
Livestock	1.44	1.61	Livestock sold	.11
Feed & supplies	.46	.41	Crop sales	.02
Land & buildings	5.60	5.75	Miscellaneous	.17
TOTAL INVESTMENT	\$9.37	\$9.60	Total Cash Receipts	\$12.06
			Increase in Inventory	.23
<u>EXPENSES</u>			TOTAL FARM RECEIPTS	\$12.29
<u>Replacements</u>			<u>FINANCIAL SUMMARY</u>	
Chicks bought		\$ .34	Total Farm Receipts	\$12.29
Pullets bought		.75	Total Farm Expenses	13.46
<u>Feed</u>			Farm Income	\$-1.17
Layer feed bought		7.84	Interest on equity capital @ 9%	.52
Other feed		.35	Farm Labor Income	\$-1.69
<u>Labor</u>			LABOR INCOME/OPERATORS/HEN	\$-1.69
Hired		.64		
Unpaid		.03		
<u>Power and Machinery</u>				
Machine hire		.03		
Machinery repair		.14		
Gas and oil		.15		
Electricity		.15		
<u>Poultry</u>				
Eggs bought for resale		.82		
Livestock expense		.30		
Supplies		.55		
Fuel		---		
<u>Crop</u>				
Crop expense		.01		
<u>Real Estate</u>				
Land, bldg., & fence repair		.06		
Taxes		.06		
Insurance		.15		
<u>Capital Items</u>				
New machinery		.22		
New real estate		.20		
<u>Other</u>				
Telephone		.04		
Interest paid		.39		
Advertising & promotion		---		
Miscellaneous		.27		
Decrease in inventory		-0-		
TOTAL FARM EXPENSES		\$13.46		

FARM BUSINESS SUMMARY  
24 New York Poultry Farms, 1980

CAPITAL INVESTMENT

	<u>1/1/80</u>	<u>1/1/81</u>
Machinery & equip.	\$107,576	\$109,693
Poultry	59,127	64,810
Other livestock	10,902	11,023
Feed & supplies	39,542	39,712
Land & buildings	<u>258,095</u>	<u>267,174</u>
TOTAL INVESTMENT	\$475,242	\$492,412

EXPENSES

<u>Replacements</u>	
Chicks bought	\$ 14,088
Pullets bought	34,782
Other livestock	9,865
<u>Feed</u>	
Layer feed bought	289,385
Other feed	16,597
<u>Labor</u>	
Hired	30,980
Unpaid	1,289
<u>Power and Machinery</u>	
Machine hire	2,030
Machinery repair	7,696
Gas and oil	10,879
Electricity	6,792
<u>Poultry</u>	
Eggs bought for resale	58,209
Livestock expense	2,627
Supplies	23,720
Fuel	---
<u>Crop</u>	
Crop expense	8,901
<u>Real Estate</u>	
Land, bldg., & fence repair	2,381
Taxes	3,814
Insurance	6,584
<u>Capital Items</u>	
New machinery	15,684
New real estate	11,179
<u>Other</u>	
Telephone	1,698
Interest paid	16,067
Advertising & promotion	391
Miscellaneous	<u>11,980</u>
TOTAL FARM EXPENSES	\$587,618

RECEIPTS

Egg sales	\$506,927
Poultry sold	5,549
Other livestock	13,283
Crop sales	9,748
Miscellaneous	<u>8,123</u>
Total Cash Receipts	\$543,630
Increase in Inventory	<u>17,169</u>
TOTAL FARM RECEIPTS	\$560,799

FINANCIAL SUMMARY

Total Farm Receipts	\$560,799
Total Farm Expenses	<u>587,618</u>
Farm Income	\$-27,119
Interest on equity capital @ 9%	<u>28,640</u>
Farm Labor Income	\$-55,459
Number of operators (31)	1.17
LABOR INCOME/OPERATOR	\$-47,401

BUSINESS FACTORS

Man equivalent	4.3
Number of hens	40,390
Number of pullets raised (8 farms)	72,819
Doz. of eggs (produced)	807,600
Eggs produced/hen	240
Doz. of eggs produced/man	187,800
Hens per man	9,390
Lbs. feed/doz. eggs produced	4.1
Av. price/cwt. feed bought	\$8.75
Av. price/doz. eggs (all)	54.8¢

Progress of the Farm Business

There are two kinds of comparisons used in analyzing a farm business. One is that of comparing your business with that of other poultrymen. The other is comparing your current year's business with that of previous years to see the progress you are making. In looking ahead, it is suggested that you set targets for 1981 which are in line with the progress you have been making.

Your business analysis on the preceding pages provide the factors for 1980. You will need to refer to earlier summaries for the 1978 and 1979 factors.

	<u>1978</u>	<u>1979</u>	<u>1980</u>	<u>Target 1981</u>
<u>Size of Business</u>				
Average number of layers				
Value of egg sales	\$ _____	\$ _____	\$ _____	\$ _____
Man equivalent	_____	_____	_____	_____
<u>Rate of Production</u>				
Eggs produced per hen	_____	_____	_____	_____
<u>Labor Efficiency</u>				
Hens per man	_____	_____	_____	_____
Dozen eggs sold per man	_____	_____	_____	_____
<u>Capital Efficiency</u>				
Total inventory value	\$ _____	\$ _____	\$ _____	\$ _____
Total investment/hen	\$ _____	\$ _____	\$ _____	\$ _____
Farm receipts per \$100 investment	\$ _____	\$ _____	\$ _____	\$ _____
<u>Cost Control</u>				
Layer feed bought per hen	\$ _____	\$ _____	\$ _____	\$ _____
Lbs. feed per dozen eggs	_____	_____	_____	_____
Labor cost per hen	\$ _____	\$ _____	\$ _____	\$ _____
Machinery cost per hen	\$ _____	\$ _____	\$ _____	\$ _____
Total expense per \$100 receipts	\$ _____	\$ _____	\$ _____	\$ _____
<u>Prices</u>				
Average price per dozen	\$ _____	\$ _____	\$ _____	\$ _____
<u>Financial Summary</u>				
Total Farm Receipts	\$ _____	\$ _____	\$ _____	\$ _____
Total Farm Expenses	\$ _____	\$ _____	\$ _____	\$ _____
Labor & management income per operator	\$ _____	\$ _____	\$ _____	\$ _____
Total debt outstanding	\$ _____	\$ _____	\$ _____	\$ _____
Debt per hen	\$ _____	\$ _____	\$ _____	\$ _____
Net Worth	\$ _____	\$ _____	\$ _____	\$ _____