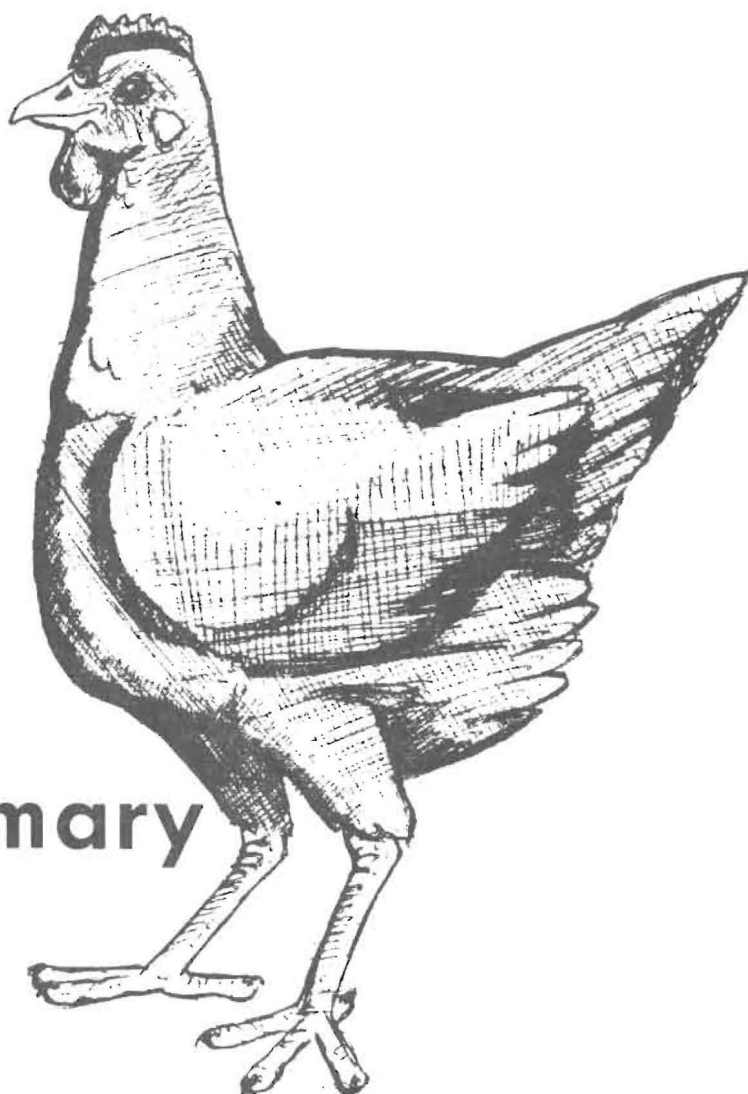


Poultry Farm Business Summary 1981



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1981 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 1981 record year, 26 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 1981 was improved over 1980. Egg prices were higher in 1981. Layer feed prices for 1981 averaged lower than 1980 and the cost of producing eggs was 2.5¢ less in 1981. However, many poultrymen still had negative labor incomes for 1981.

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 check-up 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 and C. A. Bratton, Department of Agricultural Economics, New York State College of Agriculture and Life Sciences, in cooperation with Cooperative Extension Specialists S. E. Ackerman, A. Aja and W. J. Toleman. Barbara Wilcox 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, 1971-1981



SOURCE: USDA Poultry & Egg Situation

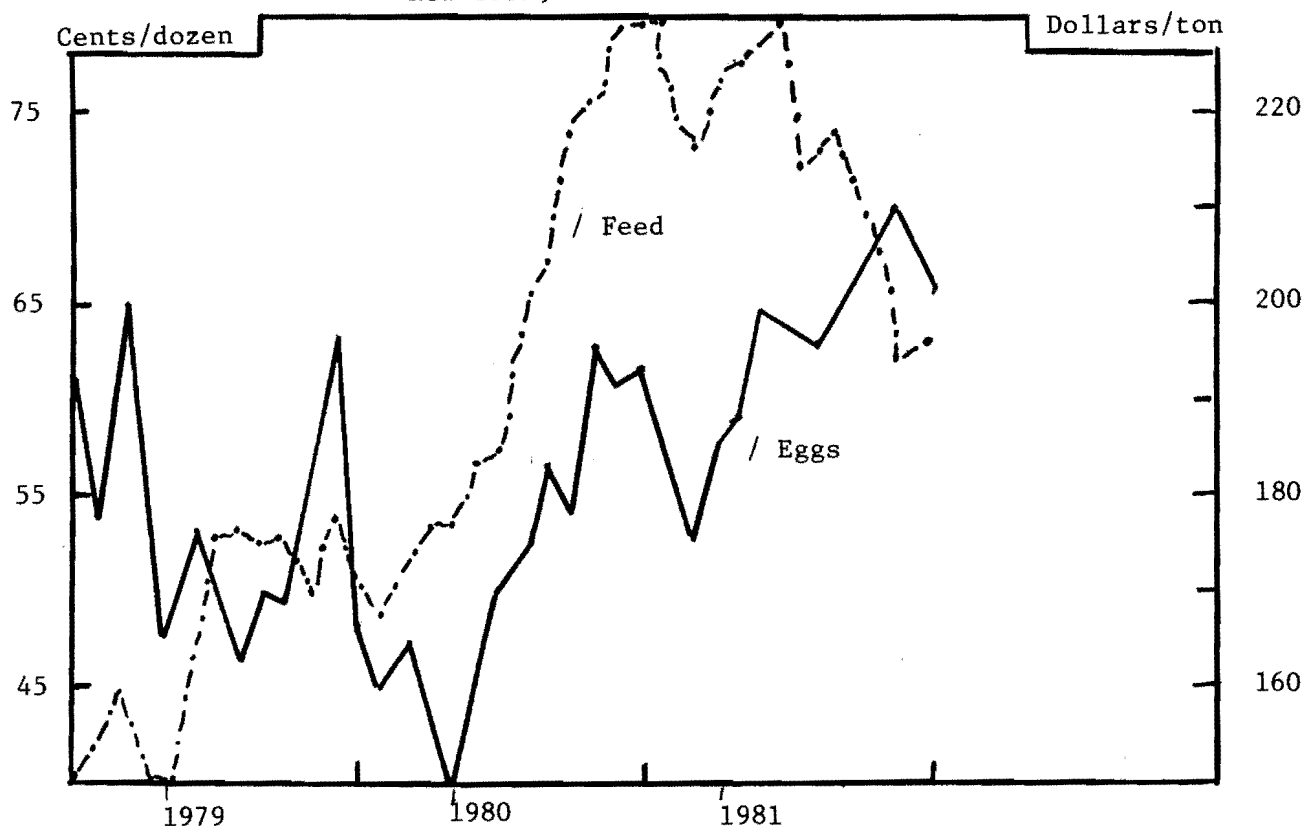
Gross farm income from poultry and eggs in the United States reached a new high in 1981 with a total value of 9.7 billion dollars. This is more than double the value in 1971. Eggs accounted for 37 percent of the total gross income, broilers 48 percent, and turkeys 13 percent. In 1981 income from broilers was one billion dollars larger than the total income from egg sales.

Table 1. GROSS FARM INCOME FROM POULTRY AND EGGS, U.S. 1971-1981

Year	Eggs	Broilers	Turkeys	Poultry	Home Consumption		Gross Income
					Eggs	Other	
			- million dollars -				
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	4,031	1,226	164	21	6	8,760
1980	3,248	4,304	1,268	128	20	5	8,973
1981	3,640	4,698	1,246	132	23	5	9,744

SOURCE: USDA Poultry & Egg Situation

FARM PRICE OF EGGS AND LAYING FEED PRICES
New York, 1979 to 1981



The relationship of feed and egg prices is a major factor affecting poultry incomes. Egg prices in 1981 averaged 10¢ more than 1980. 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 5.7 for 1981 compared with 5.2 for 1980 and 6.6 for 1979.

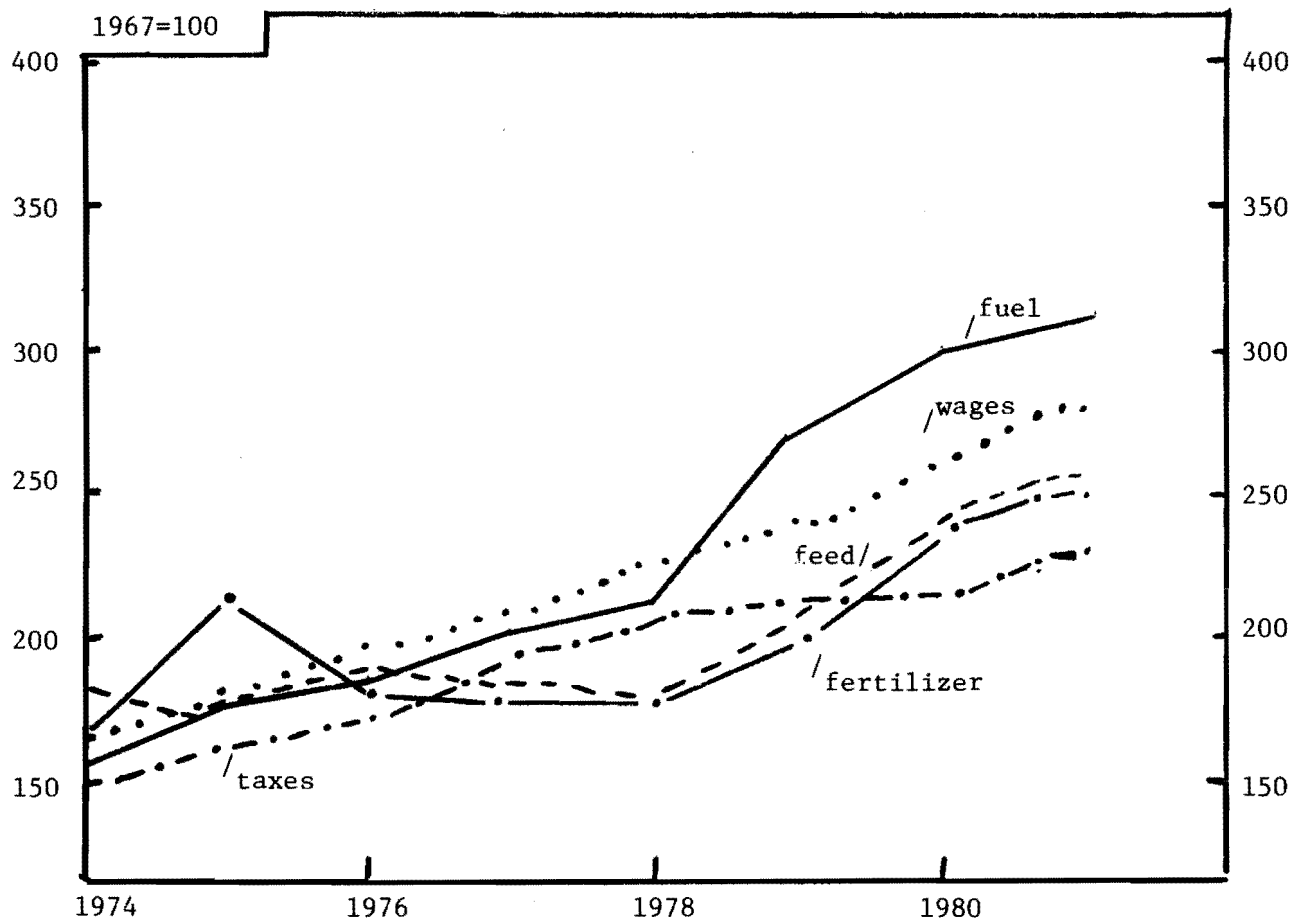
Table 2. FARM PRICE OF EGGS AND LAYING FEED PRICES, New York, 1979 to 1981

Month	Egg Prices				Laying Feed Prices			
	1979	1980	1981	1982	1979	1980	1981	1982
January	60.9¢	48.5¢	61.8¢	63.5	\$150	\$167	\$218	\$193
February	54.1	45.1	55.3	66.3	153	168	219	195
March	65.0	47.8	52.7	68.2	159	172	215	190
April	57.2	42.5	58.4	63.0	152	177	225	191
May	47.6	37.6	56.3	54.8	150	177	217	195
June	53.3	42.1	57.1	51.6	162	184	219	—
July	49.9	50.5	58.4	—	175	185	214	—
August	46.6	53.0	59.3	—	176	200	207	—
September	50.3	56.7	64.6	—	175	205	203	—
October	50.1	54.1	63.8	—	175	220	197	—
November	55.8	63.3	69.5	—	170	220	194	—
December	64.1	61.2	65.6	—	178	235	196	—
Annual Avg.	54.6	50.2	60.2	—	165	193	210	—

Egg-Feed ratio
(lbs./doz.) 6.6 5.2 5.7

SOURCE: USDA Agricultural Prices

PRICES PAID BY FARMERS FOR SELECTED ITEMS, 1974-1981



Prices of major farm inputs have all increased since 1974 but fuel and wages by farmers have increased the most. Feed prices rose 4 percent in 1981. Fertilizer prices increased 3 percent in 1981. Fuel prices increased dramatically in 1979 following four years of rather steady increases and increased by 4 percent in 1981.

Table 3. PRICES PAID BY FARMERS FOR SELECTED ITEMS, 1974-1981

Year	Index 1967=100				
	Feed	Fertilizer	Fuel	Wages	Taxes
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	302	264	216
1981	254	249	315	271	221
Percent increase:					
1974 to 1979					
(ave./year)	3%	4%	14%	10%	8%
1980 to 1981	4%	3%	11%	3%	2%

SOURCE: USDA Agricultural Prices

General Summary of All Farms

Twenty-six poultry farm records for 1981 were used for this summary. The organization of these farms varies widely. There were six poultry with other major enterprises, and twenty straight layer operations. In this general section, all businesses are included. For the more detailed analysis in the sections that follow, the 20 layer operations and the six layer with other operations are included.

Table 4. FARM BUSINESS FINANCIAL SUMMARY
26 New York Poultry Farms, 1981

Item	Average All Farms 1981
Average Capital Investment	\$487,005
Total Farm Receipts	605,521
Total Farm Expenses	571,719
Farm Income	\$ 33,802
Interest @ 9% on Capital	\$ 43,830
Labor and Management Income Per Farm	\$-10,029
Number of Operators	1.21
LABOR AND MANAGEMENT INCOME PER OPERATOR	\$ -8,278

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 26 poultry farms, the average labor and management income per operator was \$-8,278. 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 16 farms with minus labor incomes, and 3 with incomes per operator of over \$40,000. Eleven of the farms with minus incomes were in the layer group.

The average capital investment on these 26 farms was \$487,005. The receipts averaged \$605,521, and the expenses \$571,719. 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 1981 again faced high production costs and low egg prices. These factors combined with a 9% interest charge on average capital produced a negative 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
26 New York Poultry Farms, 1981

Business Factor	Average 26 Farms
Man equivalent	4.3
Months unpaid labor	2.4
Months hired labor	34.9
Total months of labor	51.9
Percent of labor hired	67%
Average labor cost/month hired	\$871
Average number hens for year	40,719
Eggs produced per hen	231
Pounds feed per dozen eggs	4.3
Average price per cwt. layer feed	\$8.38
Average price received per dozen eggs	63.3¢

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 factors. The low capital investment was \$45,000, while the high was over two million. Similarly, the low expense reported was \$70,000, while the high was 2.7 million. The wide range indicates that one should recognize limitations in the "averages" when they are used.

The labor force on these farms ranged from 1.0 to 11.5 man equivalent with an average of 4.3. For all 26 farms, 67% 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 \$871. 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 5,100 to 265,000. These figures reflect the average number of layers for the year. The number of eggs produced per hen averaged 231 but with a range of 190 to 276.

Marketing arrangements differ with some selling all eggs wholesale, while other sell at retail. The average price received per dozen sold by the 26 farms during 1981 was 63.3 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 26 farms was 4.3 pounds per dozen eggs. Layer feed costs per hundredweight averaged \$8.38.

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 20 farms with poultry only and the 6 farms with poultry and other for the year 1981.

Table 6. LABOR FORCE, LIVESTOCK, CROPS GROWN, AND BUSINESS PRACTICES
26 New York Poultry Farms, 1981

Item	My Farm	Aver. Per Farm & Numbers Reporting	
		20 Farms with Poultry Only	6 Farms with Poultry & Other
<u>Labor</u>			
Months of:			
Operators	_____	(20 farms) 12.3	(6 farms) 22.0
Family--unpaid	_____	(8 farms) 2.3	(4 farms) 3.0
Hired	_____	(20 farms) 33.7	(6 farms) 38.8
Total	_____	48.3	63.8
Man equivalent (no. men)	_____	4.0	5.3
Number of operators	_____	1.25	1.833
Percent of labor hired	_____%	70%	61%
<u>Livestock (number)</u>			
Laying hens	_____	45,341	25,315
Pullets raised	_____	(9 farms) 65,416*	(3 farms) 24,166*
<u>Business Practices</u>			
Percent of eggs marketed:			
Wholesale	_____%	39%	59%
Premium outlet	_____%	49%	33%
Retail	_____%	12%	8%
Percent of replacement pullets:			
Raised	_____%	70%	43%
Bought	_____%	30%	57%
Percent of layer feed:			
Purchased	_____%	95%	96%
Homegrown	_____%	5%	4%

*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, 1982
26 New York Poultry Farms

Item	My Farm	Amount Per Farm	
		20 Farms with Poultry Only	6 Farms with Poultry & Other
Machinery & equipment	\$ _____	\$ 97,397	\$187,862
Poultry	_____	73,666	46,227
Other livestock	_____	2,266	40,000
Feed & supplies	_____	22,632	54,964
Land & buildings	_____	262,684	270,333
TOTAL INVESTMENT	\$ _____	\$458,645	\$599,386

Total investment on these farms ranged from \$45,000 to \$2,515,000. Five of the poultry and other farms, and ten 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.

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		20 Farms with Poultry Only	6 Farms with Poultry & Other
Total investment/man	\$ _____	\$114,661	\$113,092
Total investment/hen	\$ _____	\$10.12	\$23.68
Machinery investment/hen	\$ _____	\$2.15	\$7.42
Land & buildings/hen	\$ _____	\$5.79	\$10.68
%Land & buildings are of total investment	_____ %	57%	45%
Capital turnover (years)	_____	.76	.91

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 to fluctuate also.

Table 9. FARM RECEIPTS
26 New York Poultry Farms, 1981

Item	My Farm	20 Farms with Poultry Only	6 Farms with Poultry & Other
Egg sales	\$ _____	\$588,379	\$473,015
Poultry sales	_____	9,148	6,189
Other livestock sales	_____	218	60,099
Crop sales	_____	452	35,214
Work off farm	_____	-0-	3,939
Government payments & refunds	_____	152	22
Miscellaneous	_____	2,894	5,610
Total Cash Farm Receipts	\$ _____	\$601,243	\$584,088
Increase in Inventory	_____	-0-	67,157
TOTAL FARM RECEIPTS	\$ _____	\$601,243	\$651,245

Total farm receipts averaged \$601,243 for the farms with poultry only, and \$651,245 for the farms with poultry and other. Egg sales accounted for 98 percent and 81 percent respectively of the cash receipts on the two groups of farms. Crop sales accounted for 10 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	20 Farms with Poultry Only	6 Farms with Poultry & Other
Av. price/doz. of eggs sold	_____ ¢	63.3¢	63.3¢
Total cash receipts/man	\$ _____	\$150,310	\$110,205
Total cash receipts per \$1,000 investment	\$ _____	\$ 1,298	\$ 1,032

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
26 New York Poultry Farms, 1981

Item	My Farm	20 Farms with Poultry Only	6 Farms with Poultry & Other
Chicks purchased	\$ _____ (9 farms)	\$ 17,589	
Pullets purchased	_____ (13 farms)	33,071	(\$51,290)
Layer feed bought	_____	315,235	139,006
Other feed	_____	23,521	27,682
Hired labor	_____	29,778	32,407
Machine hire	_____	1,258	1,605
Poultry equipment repair	_____	1,375	-0-
Machinery expense	_____	4,458	14,475
Gas and oil	_____	8,887	15,803
Poultry supplies, etc.	_____	26,152	23,236
Crop expense	_____	4,225	32,245
Building expense	_____	2,518	1,476
Taxes	_____	3,890	6,614
Insurance	_____	7,233	6,341
Utilities	_____	9,689	8,856
Eggs bought for resale	_____ (10 farms)	46,379	(2 farms) 155,722
Other livestock	_____	971	8,678
Miscellaneous	_____	9,660	15,718
TOTAL CASH OPERATING EXPENSE	\$ _____	\$545,889	\$541,154
New machinery	_____	7,022	55,920
Real estate	_____	3,596	20,833
Unpaid labor	_____	969	1,289
Decrease in inventory	_____	9,439	-0-
TOTAL FARM EXPENSES	\$ _____	\$566,915	\$619,196

Interest paid averaged \$19,649 for the 20 farms and \$22,517 for the six farms. Sixteen farms did not report equity capital so in the summary a 9% interest charge on all capital was used and interest paid was omitted from the cash expenses.

Financial Summary

The financial success of a poultry business can be measured in varied 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 capital. Farm income is the difference between total receipts (including increase in inventory) and total expenses (including decrease in inventory).

Table 12. FARM INCOME, AND LABOR AND MANAGEMENT INCOME
26 New York Poultry Farms, 1981

Item	My Farm	20 Farms with Poultry Only	6 Farms with Poultry & Other
Total farm receipts	\$ _____	\$601,243	\$651,245
Total farm expenses	\$ _____	566,915	619,196
FARM INCOME	\$ _____	\$ 34,328	\$ 32,049
Interest on Average Capital @ 9%	_____	41,703	50,923
Labor income per farm	\$ _____	\$ -7,375	\$ -18,873
Number of operators	_____	(20.5) 1.02	(11) 1.8
LABOR AND MANAGEMENT INCOME PER OPERATOR	\$ _____	\$ -7,195	\$ -10,295

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 average capital is subtracted from the farm income. The charge on average 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 20 farms was \$-7,195 and for the 6 farms \$-10,295. The 26 poultry farms had farm receipts that exceeded total farm expenses, however, when the 9% interest on average capital was deducted, it resulted in negative returns.

The labor and management incomes varied widely as shown below. Sixty-one percent of the farms had a minus income, while 19 percent had incomes of \$20,000 or more.

DISTRIBUTION OF LABOR INCOMES FOR 26 POULTRY OPERATIONS		
Labor and Management Income Per Operator	Farms	
	Number	Percent
Minus	16	61
0 - \$ 9,999	3	12
\$10,000 - \$19,999	2	8
\$20,000 - or more	5	19

Table 13. RATE OF RETURN ON INVESTMENT
26 New York Poultry Farms, 1981

Item	My Farm	20 Farms with Poultry Only	6 Farms with Poultry & Other
Farm income	\$ _____	\$ 34,328	\$ 32,049
Minus value of operator's labor and management*	_____	10,200	18,000
Return on investment	\$ _____	\$ 24,128	\$ 14,049
Average capital investment	\$ _____	\$463,365	\$565,807
RATE OF RETURN ON INVESTMENT	_____ %	5.2%	2.5%

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

Rate of return on investment is calculated by subtracting from the "farm income" 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
26 New York Poultry Farms, 1981

Item	My Farm	20 Farms with Poultry Only	6 Farms with Poultry & Other
Total cash receipts	\$ _____	\$601,243	\$584,088
Total cash operating expense	_____	545,889	541,154
NET FARM CASH FLOW	\$ _____	\$ 55,354	\$ 42,934
Less family living expense*	_____	10,200	18,000
DEBT REPAYMENT ABILITY	\$ _____	\$ 45,154	\$ 24,934

*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
26 New York Poultry Farms, 1981

Measure	My Farm	20 Farms with Poultry Only	6 Farms with Poultry & Other
Number of hens	_____	45,341	25,315
Dozens of eggs sold*	_____	987,560	756,052
Dozens of eggs produced	_____	912,321	476,847
Man equivalent	_____	4.0	5.3
Total farm receipts	\$ _____	\$601,243	\$651,245
Total investment (end year)	\$ _____	\$458,645	\$599,386

*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
26 New York Poultry Farms, 1981

Measure	My Farm	20 Farms with Poultry Only	6 Farms with Poultry & Other
Eggs produced/hen		233	222
Eggs sold/hen		261	358

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 by the average number of hens for the year. Some farmers bought eggs for resale. For eggs sold per hen, the eggs bought have been added to the dozens produced to get the eggs sold per hen.

The eggs produced per hen averaged 233 and 222 for the two groups. The range for the 26 farms was from 190 to 276 eggs produced per hen. This is a range of 86 eggs per hen from the lowest to the highest.

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

Table 17. EGGS PRODUCED PER HEN AND LABOR AND MANAGEMENT INCOME
20 New York Poultry Farms, 1981

Eggs Produced Per Hen	Number of Farms	Average Number of Hens	Farm Income	Labor & Mgt. Income/Operator
Less than 225	6	16,221	\$ 5,332	\$-13,927
225 - 245	8	57,855	\$ 63,256	\$ 10,387
More than 245	6	57,743	\$ 24,752	\$-23,186

Farms producing less than 225 eggs per hen were smaller and had lower farm incomes than those with higher production rates. The eight farms producing 225 to 245 eggs per hen had the best incomes.

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
26 New York Poultry Farms, 1981

Measure	My Farm	20 Farms with Poultry Only	6 Farms with Poultry & Other
Dozens eggs sold/man*		229,097	142,815
Dozen eggs produced/man		228,080	108,762
Number hens/man		11,335	5,658

*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

The 20 poultry farms expenses average \$1,500 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
26 New York Poultry Farms, 1981

Item	My Farm	20 Farms with Poultry Only	6 Farms with Poultry & Other
Value of layer feed/hen	\$ _____	\$ 7.04	\$ 7.26
Layer feed/doz. eggs produced	_____¢	35¢	37¢
Lbs. feed/doz. eggs produced	_____	4.3	4.4
Total labor cost per hen*	\$ _____	90¢	1.33
Total labor cost per dozen eggs produced*	_____¢	4.5¢	10.8¢
Building repairs per hen	_____¢	5.6¢	5.8¢
Utilities per hen	_____¢	21.4¢	35.0¢
Taxes per hen	_____¢	8.6¢	26.1¢
Insurance per hen	_____¢	16.0¢	25.0¢
Total farm production expenses/ hen (total less inventory increase and eggs bought)	\$ _____	\$11.48	\$15.65
Total expenses per \$100 receipts	\$ _____	\$ 94.29	\$ 95.08

*Includes operator's labor.

For the above measurements, 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 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 20. POWER AND MACHINERY COSTS
26 New York Poultry Farms, 1981

Item	My Farm	20 Farms with Poultry Only	6 Farms with Poultry & Other
Beginning inventory	\$ _____	\$104,017	\$149,093
New machinery bought	_____	7,022	55,920
Total (1)	\$ _____	\$111,039	\$205,013
End inventory	\$ _____	\$ 97,397	\$187,862
Machinery Sold	_____	325	300
Total (2)	\$ _____	\$ 97,722	\$188,162
Depreciation (1 minus 2)	\$ _____	\$ 13,317	\$ 16,851
Int. @ 9% av. inventory	_____	9,063	15,163
Gas and oil	_____	8,887	15,803
Machinery repairs and auto expense	_____	4,458	14,475
Machine hire	_____	1,258	1,605
Electricity (farm share)	_____	9,689	8,856
Total Power and Machinery Cost	\$ _____	\$ 46,672	\$ 72,753
Less: Gas tax refund	\$ _____	\$152	\$22
Income from machine work	_____	-0-	-0-
NET POWER AND MACHINERY COST		\$ 46,520	\$ 72,731

Net power and machinery costs:			
per hen		\$1.03	\$2.87
per man		\$11,630	\$13,727
per dozen eggs produced*		5.1¢	15.2¢

*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. Often nearly half 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
26 New York Poultry Farms, 1981

Item	My Farm	20 Farms with Poultry Only	6 Farms with Poultry & Other
Value of labor of operator*	\$ _____	\$10,200	\$18,000
Hired labor	_____	29,778	32,407
Unpaid family labor	_____	969	1,289
TOTAL LABOR COSTS	\$ _____	\$40,947	\$51,696
Net power & machinery cost	_____	46,520	72,731
TOTAL LABOR & MACHINERY COSTS	\$ _____	\$87,467	\$124,427
<hr/>			
Labor cost per hen	\$ _____	90¢	\$2.04
Labor cost/dozen eggs produced	_____ ¢	4.5¢	10.8¢
Labor and machinery cost:			
per hen	\$ _____	\$1.93	\$4.92
per dozen eggs sold	_____ ¢	8.9¢	16.5¢

*Valued at \$10,000 per operator.

For the 20 poultry only farms, the labor cost was less than the power and machinery cost. For the poultry and other the machinery and power cost was more. 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	20 Farms with Poultry Only	6 Farms with Poultry & Other
Months of hired labor	_____	33.7	38.8
Hired labor expense	\$ _____	\$29,778	\$32,407
Labor expense/month hired	\$ _____	\$884	\$835
Total labor cost/month	\$ _____	\$847	\$810
Percent of total labor by:			
Operator	_____ %	25%	34%
Unpaid family	_____ %	5%	5%
Hired	_____ %	70%	61%

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, 1977-1981

Factor	1977	1978	1979	1980	1981
Number of farms	28*	25*	24*	24*	26*
Man equivalent	4.4	4.2	4.6	4.3	4.3
Number of hens	30,500	23,115	36,350	40,390	40,719
<u>Investment</u>					
Land & buildings	\$158,592	\$175,731	\$255,515	\$267,174	\$264,449
Machinery	96,113	93,667	109,466	109,693	118,274
Livestock & poultry	52,155	42,189	64,601	75,833	76,863
Feed & other	36,501	36,654	46,562	39,712	31,538
Total	\$343,361	\$348,241	\$476,144	\$492,144	\$491,124
<u>Receipts</u>					
Egg sales	\$379,509	\$342,575	\$469,531	\$506,927	\$561,757
Livestock sales	18,094	18,724	23,762	18,832	22,501
Other	21,080	51,068	56,586	35,040	21,263
Total	\$418,683	\$412,367	\$549,879	\$560,799	\$605,521
<u>Expenses</u>					
Feed bought	\$170,457	\$125,147	\$220,121	\$305,982	\$299,047
Hired labor	24,841	24,026	33,270	30,980	30,385
Chicks & pullets	34,249	29,713	50,660	48,870	50,806
Electricity & phone	5,354	4,822	6,951	8,490	9,497
Other	156,738	200,894	190,095	193,296	181,984
Total	\$391,639	\$384,602	\$501,097	\$587,618	\$571,719
<u>Business Factors</u>					
Av. price/doz. eggs	53.8¢	58.8¢	55.6¢	54.8¢	63.3¢
Eggs per hen	233	228	240	240	231
Hens per man	7,500	5,500	7,900	9,400	9,383
Lbs. feed/doz. eggs	4.5	4.6	4.0	4.0	4.3
Labor income/operator	\$ 7,779	\$ 8,635	\$ 13,216	\$-47,536	\$ -8,278

*Includes only layer operations, omits the contract pullet operations

Cost of Producing Eggs

Table 24. AVERAGE FARM COST OF PRODUCING EGGS
20 New York Poultry Farms, 1981

Item	My Farm	20 Farms with Poultry Only
Farm expenses	\$ _____	\$566,915
Interest on capital @ 9%	_____	41,703
Operator's labor and Management*	_____	10,200
Total Cost	\$ _____	\$618,818
Total receipts	\$ _____	\$601,243
Less egg sales	_____	588,379
Other Income	_____	12,864
Cost of Producing Eggs (Total Cost Less Other Income)	\$ _____	\$605,954
Dozen eggs sold	_____	987,560
Cost per dozen eggs sold	_____¢	61.4¢
Average price received	_____¢	63.3¢

*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 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
20 New York Poultry Farms, 1981

Item	My Farm	Cost Per Dozen	
		Amount	Percent
Feed for layers		35.0¢	57.0%
Replacements:			
Chicks & pullets bought	_____¢	5.5	9.0%
Grower feed	_____	2.6	4.2
Total	_____¢	8.1¢	13.2%
Less sale of birds	_____	1.0	1.6
Net Replacement Cost	_____	7.1¢	11.6%
Labor	_____	4.5	7.3
Power & machinery (without interest)	_____	4.1	6.7
Interest on capital	_____	4.6	7.5
Poultry supplies, etc.	_____	2.9	4.7
Taxes & insurance	_____	1.2	1.9
All other	_____	2.0	3.3
Total	_____¢	61.4¢	100.0

Another approach to the cost of producing eggs is to examine individual cost items. This has been done above for the 20 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 35.0 is the total layer feed expense divided by the dozen of eggs produced. Feed for layers accounted for 57 percent of the total cost of producing a dozen eggs.

Replacement costs include the expense 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
1981	63.3	61.4	8.40	35.0	57	4.5

*For "Poultry Only" farms in business summaries.

FARM BUSINESS SUMMARY
20 New York Poultry Farms, 1981

<u>CAPITAL INVESTMENT</u>			<u>RECEIPTS</u>	
	<u>1/1/81</u>	<u>1/1/82</u>		
Machinery & equip.	\$104,017	\$ 97,397	Egg sales	\$588,379
Livestock	74,767	74,054	Livestock sold	9,366
Feed & supplies	25,410	22,632	Crop sales	452
Land & buildings	261,384	262,684	Miscellaneous	3,046
TOTAL INVESTMENT	\$468,084	\$458,645	Total Cash Receipts	\$601,243
			Increase in Inventory	-0-
			TOTAL FARM RECEIPTS	\$601,243
<u>EXPENSES</u>			<u>FINANCIAL SUMMARY</u>	
<u>Replacements</u>			Total Farm Receipts	\$601,243
Chicks bought		\$ 17,589	Total Farm Expenses	566,915
Pullets bought		33,071		
<u>Feed</u>			Farm Income	\$ 34,328
Layer feed bought		\$315,235	Interest on	
Other feed		23,521	capital @ 9%	41,703
<u>Labor</u>			Farm Labor Income	\$ -7,375
Hired		29,778	Number of operators	1.025
Unpaid		969	LABOR INCOME/OPERATOR	\$ -7,195
<u>Power and Machinery</u>			<u>BUSINESS FACTORS</u>	
Machine hire		1,258	Man equivalent	4.0
Machinery repair		4,458	Number of hens	45,341
Gas and oil		8,887	Number of pullets raised	29,438
Electricity		9,689	(9 farms)	
<u>Poultry</u>			Dozen of eggs (produced)	912,321
Eggs bought for resale		46,379	Eggs produced per hen	233
Livestock expense		971	Dozens of eggs produced/man	228,080
Supplies		26,152	Hens per man	11,335
Fuel		-0-	Lbs. feed/doz. eggs produced	4.3
<u>Crop</u>			Av. price/cwt. feed bought	\$ 8.40
Crop expense		4,225	Av. price/doz. eggs (all)	63.3¢
<u>Real Estate</u>				
Land, bldg., & fence repair		2,518		
Taxes		3,890		
Insurance		7,233		
<u>Capital Items</u>				
New machinery		7,022		
New real estate		3,596		
<u>Other</u>				
Advertising & promotion		-0-		
Miscellaneous		11,035		
Decrease in inventory		9,439		
TOTAL FARM EXPENSES		\$566,915		

FARM BUSINESS SUMMARY - AVERAGES PER HEN
20 New York Poultry Farms, 1981

<u>CAPITAL INVESTMENT</u>		<u>1/1/81</u>	<u>1/1/82</u>	<u>RECEIPTS</u>	
Machinery & equip.		\$2.29	\$2.15	Egg sales	\$12.98
Livestock		1.65	1.63	Livestock sold	.20
Feed & supplies		.56	.50	Crop sales	.01
Land & buildings		5.76	5.79	Miscellaneous	.07
TOTAL INVESTMENT		\$10.26	\$10.07	Total Cash Receipts	\$13.26
				Increase in Inventory	-0-
<u>EXPENSES</u>				TOTAL FARM RECEIPTS	\$13.26
<u>Replacements</u>				<u>FINANCIAL SUMMARY</u>	
Chicks bought		\$.39	Total Farm Receipts	\$13.26
Pullets bought			.73	Total Farm Expenses	12.50
<u>Feed</u>				Farm Income	\$.76
Layer feed bought			6.95	Interest on	
Other feed			.52	capital @ 9%	.92
<u>Labor</u>				Farm Labor Income	\$ -.16
Hired			.66	LABOR INCOME/OPERATOR/HEN	\$ -.16
Unpaid			.02		
<u>Power and Machinery</u>					
Machine hire			.03		
Machinery repair			.10		
Gas and oil			.20		
Electricity			.21		
<u>Poultry</u>					
Eggs bought for resale			1.02		
Livestock expense			.02		
Supplies			.58		
Fuel			---		
<u>Crop</u>					
Crop expense			.09		
<u>Real Estate</u>					
Land, bldg., & fence repair			.05		
Taxes			.08		
Insurance			.16		
<u>Capital Items</u>					
New machinery			.15		
New real estate			.08		
<u>Other</u>					
Advertising & promotion			---		
Miscellaneous			.24		
Decrease in inventory			.21		
TOTAL FARM EXPENSES			\$12.50		

FARM BUSINESS SUMMARY
26 New York Poultry Farms, 1981

<u>CAPITAL INVESTMENT</u>			<u>RECEIPTS</u>	
	1/1/81	1/1/82		
Machinery & equip.	\$114,419	\$118,274	Egg sales	\$561,757
Poultry	67,177	69,334	Poultry sold	8,465
Other livestock	9,258	9,529	Other livestock	14,036
Feed & supplies	31,463	30,093	Crop sales	8,474
Land & buildings	258,642	264,449	Miscellaneous	4,552
TOTAL INVESTMENT	\$482,887	\$491,124	Total Cash Receipts	\$597,284
			Increase in Inventory	8,237
<u>EXPENSES</u>			TOTAL FARM RECEIPTS	\$605,521
<u>Replacements</u>			<u>FINANCIAL SUMMARY</u>	
Chicks bought		\$ 13,530	Total Farm Receipts	\$605,521
Pullets bought		37,276	Total Farm Expenses	571,719
Other livestock		1,663	Farm Income	\$ 33,802
<u>Feed</u>			Interest on	
Layer feed bought		274,567	capital @ 9%	43,830
Other feed		24,480	Farm Labor Income	\$-10,029
<u>Labor</u>			Number of operators (31.5)	1.2
Hired		30,385	LABOR INCOME/OPERATOR	\$ -8,276
Unpaid		1,043	<u>BUSINESS FACTORS</u>	
<u>Power and Machinery</u>			Man equivalent	4.3
Machine hire		1,388	Number of hens	40,719
Machinery repair		6,769	Number of pullets raised	
Gas and oil		10,483	(12 farms)	25,433
Electricity		9,497	Doz. of eggs (produced)	811,827
<u>Poultry</u>			Eggs produced/hen	231
Eggs bought for resale		71,612	Doz. of eggs produced/man	185,444
Livestock expense		1,087	Hens per man	9,383
Supplies		25,479	Lbs. feed/doz. eggs produced	4.3
Fuel		---	Av. price/cwt. feed bought	8.38
<u>Crop</u>			Av. price/doz. eggs (all)	63.3¢
Crop expense		10,691		
<u>Real Estate</u>				
Land, bldg., & fence repair		2,277		
Taxes		4,519		
Insurance		7,027		
<u>Capital Items</u>				
New machinery		18,306		
New real estate		7,574		
<u>Other</u>				
Decrease in inventory		-0-		
Miscellaneous		12,066		
TOTAL FARM EXPENSES		\$571,719		

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 1982 which are in line with the progress you have been making.

Your business analysis on the preceding pages provide the factors for 1981. You will need to refer to earlier summaries for the 1979 and 1980 factors.

	<u>1979</u>	<u>1980</u>	<u>1981</u>	<u>Target 1982</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	\$ _____	\$ _____	\$ _____	\$ _____