

1954

Orange County

Poultry
Management
Study



Agricultural Extension Service
University of California
County of Orange



"They're keeping records on me now!"

Poultry 1954
Orange County

INTRODUCTION

This is the first annual report of the current Orange County Poultry Management Study. This study is being conducted by the Agricultural Extension Service in cooperation with a few progressive poultrymen for the purpose of learning more about making a profit under current changed conditions. It is being continued in 1955 with a larger number of cooperators.

An earlier study conducted for sixteen years ended with 1942. Production then was 196 eggs per hen and overall use of feed was 8 pounds per dozen eggs sold. The 6 records for 1954 had a production of 250 eggs per hen and used only 6.9 pounds of feed per dozen eggs. Labor in 1942 was 2.6 hours per hen while in 1954 it was 1.4. This is higher efficiency of production. Prices and costs have also increased to higher levels so a high rate of efficiency is required for a profit today - perhaps more so than in 1942.

The six records for which figures and averages appear, cover only about 20,000 hens for the year 1954. These figures are not represented as typical or average for the poultry business of Orange County. The six records do show a part of the range of efficiency and profit that usually occurs in a year. Their average in production per hen and profit may be above the average for all poultrymen in the county.

No single device will so greatly facilitate improved management practices as a detailed record of production and costs. Watching these items from month to month by means of a careful record, such as the records kept by the cooperators in this study, should prove a most valuable aid to poultrymen.

The poultry industry in Orange County has grown, from one having a small total income in 1927, when the first poultry management efficiency study was completed, to where it now ranks third in agricultural income in the county. One significant feature is the increase in size of flock which has been made possible by improvements in housing, labor saving devices, and pathogenic vaccines.

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EXPLANATION OF TERMS USED IN THIS POULTRY STUDY

TOTAL INCOME - is composed of returns from the sale of eggs, poultry, manure, and other miscellaneous income and the value of eggs eaten in the home, plus an increase in poultry inventory, or less a decrease. The income from sacks sold was deducted from feed cost to make feed prices more comparable to bulk buying costs.

TOTAL EXPENSE - is made up of all costs of feed, chicks or poultry, hired labor, and other cash expenses, the value of farm-grown feeds, the value of the operator's or family labor, depreciation on buildings and equipment, and interest on the average investment.

MANAGEMENT INCOME - is the amount by which the total income exceeds the total expense. If the total expense is larger, a Net Loss occurs, which is designated by a minus sign (-), preceding the figure.

FARM INCOME - is the sum of the management income, the value of the operator's labor, and interest on investment. It is the net income above cash expenses and depreciation. It includes interest for the use of capital, wages for family labor, and profit for management.

AVERAGE NUMBER OF HENS - is the average number of hens in the flock for the year. It is obtained by dividing the total hen days in the year by the number of days for the year.

PERCENT MORTALITY - is the percent of the average number of hens that died during the year. It is obtained by dividing the number died by the average number of hens.

PERCENT CULLED - is the percent of the average number of hens that were sold and eaten in the home during the year. Dividing the number so disposed of by the average number of hens, gives this figure.

PERCENT ADDED - is the percent of the average number of hens which were actually added to the flock during the year. It is obtained by dividing total additions by the average number of hens. Pullets are added at about five to six months of age.

PERCENT PULLETS - is the percent pullets 5 to 18 months of age are of total layers in the flock as counted as beginning and end of the year.

PERCENT INCREASE - is increase in number of layers in the flock between the beginning and end of the year. A decrease is shown by a minus sign.

Poultry 1954
Orange County

TABLE I - GENERAL SUMMARY OF 1954 RECORDS

Serial No.	5	2	4	7	8	6	Average
Average No. hens	3302	4924	4302	1488	1935	4053	3325
Average eggs laid per hen	263	263	241	276	270	209	250
Percent mortality	6.5	11.4	8.9	11.3	9.4	9.0	9.1
Percent hens culled	92	97	92	74	118	103	97
Lbs. feed per hen	149	150	141	135	153	132	144
Lbs. feed per dozen eggs	6.7	6.6	7.1	6.4	6.9	7.7	6.9
Average price feed per cwt.	4.00	4.29	3.86	4.34	4.00	3.89	4.05
Hours labor per hen	1.1	1.0	1.2	1.8	2.3	1.9	1.4
Average price eggs per dozen	41.6	40.1	37.8	36.8	36.9	36.1	38.6
Manag't. Inc. per hen	.68	.49	.25	-.80	-1.37	-2.11	-.33
% Pullets added July to October	39	37	33	38	39	29	35
% Eggs laid Sept. to Dec.	41	39	36	41	41	32	38

The above data was accumulated from monthly record sheets supplied to the cooperators and summarized by members of the Agricultural Extension Service. This summary is of greatest value to the cooperators since it enables them to compare their individual records with others in the study. To help them and others who study this report, better analyze these data, a brief statement about each flocks record is made. These comments are mainly suggestive as to wherein improvement in management practices might be made.

Serial numbers are arranged in order of management income.

No. 5 This flock had excellent egg production per hen and very low mortality. Mortality and culling were below average. The large number of replacements brooded and added resulted in considerable increase in size of flock and high feed use. Feed cost per cwt. was less than average and profit was good for a year of low egg prices.

Poultry 1954
Orange County

No. 2 This flock had excellent egg production per hen, normal mortality and average culling. The high quantity of feed used was probably due to replacements raised which increased the size of flock during the year. Efficiency was high with 6.6 lbs. of feed per dozen eggs, including replacement stock. Labor efficiency was excellent at one hour per hen. It might be well to consider an increase in the replacements raised in the spring for adding in the spring.

No. 4 This flock had excellent egg production, a low mortality and not excessive culling. Birds raised resulted in a considerable increase in size of flock. Both feed and labor efficiency are high. Feed price was the lowest in the study. This flock had the highest net farm income per hen of any in the study despite the fact that production and sales per hen were not as high as in some of the other records.

No. 7 This flock shows a high production per hen. All flocks in the study show an increase in number with this flock having the largest. Raising of replacements may become a critical profit factor since it is possible to over-replace particularly in years of low meat prices. Egg size resulted in a slightly lower egg price. Despite the large number of replacements raised, birds in this flock were the most efficient of any in the study at only 6.4 lbs. of feed per dozen eggs. Feed price, however, was a little higher.

No. 8 This flock has very high egg production per hen. Replacements raised were high in number and resulted in some increase in size of flock. Culling was the highest among the flocks. It might be that valuable layers were sacrificed to make room for replacements. Labor use was the highest per hen but will improve with a larger flock. Most of the labor was family labor so that the farm income was the third highest in the study.

No. 6 This flock was low in egg production per hen. Culling and replacements were high enough to have normally resulted in higher production. Only 29% of the pullets were added during July to October which may account for the rather low percent production during the fall months. An increase in spring hatching will correct this. Quality of stock or disease may account for the low production and earnings.

Poultry 1954
Orange County

TABLE II - MAIN PROFIT FACTORS ON EGG FARMS - ORANGE COUNTY 1954

Serial No.	5	2	4	7	8	6	Average 6 records
Factors on per hen basis							
Dozen eggs sold	21.9	22.5	20.6	20.9	22.8	17.0	20.8
Egg income	9.11	9.03	7.80	7.69	8.44	6.13	8.03
Poultry sales	.47	.51	.49	.35	.45	.48	.48
Miscellaneous income	.05	-	.15	.15	.06	.03	.06
Stock inventory increase	.14	.47	.49	.93	.26	.15	.37
Total income per hen	9.77	10.01	8.93	9.12	9.21	6.79	8.94
Hours of labor per hen	1.1	1.0	1.2	1.8	2.3	1.9	1.4
Pounds feed per hen	151	150	141	135	155	132	144
Av. price feed per cwt.	4.00	4.29	3.86	4.34	4.00	3.89	4.05
Feed cost per hen	6.03	6.41	5.45	5.92	6.18	5.12	5.82
Poultry bought	.69	.57	.53	.84	.61	.55	.60
Miscellaneous costs	.49	.68	.37	.91	.70	.80	.63
Depreciation	.39	.45	.27	.21	.43	.26	.35
Hired labor	.02	.72	.05	.05	.06	1.25	.45
Cash costs & deprec.	7.62	8.83	6.67	7.93	7.98	7.98	7.85
Family labor	1.12	.41	1.78	1.73	2.34	.72	1.16
Interest on investment	.35	.28	.23	.26	.26	.20	.26
Total expense per hen	9.09	9.52	8.68	9.92	10.58	8.90	9.27
Management income	.68	.49	.25	-.80	-1.37	-2.11	-.33
Farm income	2.15	1.18	2.26	1.19	1.23	-1.19	1.09

The main profit factors in the egg production business are the dozen eggs sold per hen, the price per dozen and the total costs per hen. Poultry sales are a minor part of the income in these "egg factories" and with the low prices of cull hens this last year didn't cover the cost of pullet chicks bought. Feed cost is shown above as about 63% of the total cost. Feed cost per hen is pounds used times price per pound. The more young stock raised the greater the feed use and the higher the feed cost since the average hen uses only about 100 lbs. or a little more. The other 44 pounds (av.) was largely for raising replacement pullet chicks costing 38¢ each to cull out and sell after a few months of production at the average cull hen price of 48¢. If one could get the good production shown above without such heavy culling and replacement it would improve profit.

The six records are shown above in order of management income from left to right. Notice the first three had a management income or profit and the next three a loss per hen. Only one had a minus farm income, No. 6. In this flock egg sales and other income were too low by \$1.19 to cover cash costs and depreciation. The average of these six records which appears in the last column shows a sale of 20.8 dozen per hen (250 eggs) at a price of 38.6¢ per dozen. Average management income was a loss of 33 cents per hen although farm income was \$1.09 per hen. That \$1.09 is all the operator received for his management, labor, and invested capital.

Poultry 1954
Orange County

TABLE III - PRODUCTION AND EGG PRICE FACTORS

Serial No.	5	2	4	7	8	6	Average 6 flocks
Eggs laid per hen	266	263	241	276	273	209	250
Fall eggs per fall hen, Sept. to Dec.	88	87	79	89	87	63	81
Percent pullets Laying flock	94	100	95	81	94	87	93
Percent mortality & lost	6	11	9	14	9	9	9
Percent culled	92	97	92	74	118	103	97
Replacement percent	98	108	101	88	127	112	106
Percent added	149	143	132	126	159	131	139
Percent increase	51	35	31	38	32	19	33
Percent young stock lost	21.1	15.5	5.5	26.2	6.7	4.5	12.7
Av. price per cull hen	.51	.50	.51	.48	.36	.47	.48
Kind of floors	wire	wire	wire	wire	wire	wire	-
Hens per cage or pen	2	1-15	80	75	1-2	1-2	-
Percent of pullets added July to Oct.	39	37	33	38	39	29	35
% of all eggs Sept. - Dec.	41	39	36	41	41	32	38
Percent of all eggs							
Large	81	74	64	61	58	64	69
Medium	15	15	28	28	33	24	22
Small & Com'l.	4	11	8	11	9	12	9
Sold wholesale	85	87	100	96	99	100	94
Sold retail	15	13	-	4	1	-	6
Av. price whsle. mkt.	38.1	39.4	37.8	36.2	37.0	36.1	37.8
Av. price retail sales	61.8	45.7	-	46.4	50.0	-	52.3
Av. price all eggs sold	41.6	40.1	37.8	36.8	36.9	36.1	38.6
Net cost per dozen	38.5	37.9	36.6	40.6	42.9	48.5	40.2
Management income	3.1	2.2	1.2	-3.8	-6.0	-12.4	-1.6
Farm income per dozen	9.8	5.2	11.0	5.7	5.4	-7.0	5.3

High production is essential to high egg sales and profit. It is the result of high quality stock and a high proportion of pullets. To get high total production, it is essential to have high fall production which calls for a high proportion of pullets hatched in the spring and added in July to October. Notice that all flocks increased in size during the year.

Egg prices vary with size, quality, and seasonal distribution as well as channel of sale. The first three flocks had better egg prices than the other three and also had a higher percent of large eggs. The first two also had more retail sales.

Poultry 1954
Orange County

OUTLOOK

The year 1954 was a relatively unprofitable one for egg producers. The good profits in 1953 had stimulated expansion, and by midsummer we had too many layers and a surplus of eggs and resulting low prices. For the first time on record, egg prices were lower in the fall than in the spring. These low egg prices have discouraged some producers and resulted in some failures. Hatching of light breed chicks for laying flock replacements was currently below the previous year in December '54 and January '55 in California and in the United States. Some time this year the number of layers in flocks will be below the year before, total egg production will be lower, and egg prices should be better. Mid February egg prices have already shown a larger improvement than was expected.

The maintenance of high fryer production, despite low poultry prices and the large supply of hens culled from laying flocks, have resulted in rather low prices of cull hens, particularly of the light breeds. This situation will not improve much through 1955. It somewhat reduces potential profit, and tends also to make it a little less profitable to maintain such a high percentage of annual replacements.

Feed prices should be lower in 1955, with a large national supply of feed grains and a reduction in government support prices from 85 to 70% of parity. It looks now as though 1955 will be more profitable than 1954, for egg producers, and that 1956 may be even better.

Average consumption of poultry eggs and meat have been increasing which from a long time viewpoint is favorable for the industry. However, California production and demand need to be in fairly close relationship if the poultry industry here is to be in a healthy condition.