

# **Poultry Management Study**

**Monterey and Santa Cruz Counties**

**1954**

**AGRICULTURAL EXTENSION SERVICE  
UNIVERSITY OF CALIFORNIA  
UNITED STATES DEPARTMENT OF AGRICULTURE**

Study Conducted by

Local Poultrymen  
Monterey and Santa  
Counties

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## INTRODUCTION

This is the seventh annual report of the Monterey and Santa Cruz Counties Poultry Management Study. These twelve individual poultry enterprises are all in the same general area and records covered the calendar year, 1954. Averages shown at the bottom of Tables 1 to 4 and in columns in table 5 apply only to the poultry farms covered by these complete and detailed records. They may or may not be truly typical of the area, but are not represented as "average". They provide considerable useful information on what is currently happening in the local poultry business.

These studies are conducted by the Agricultural Extension Service of the University of California, in cooperation with local poultrymen for the purpose of helping them to make as much profit as possible under the constantly changing technical and price conditions. Individual cooperators in these studies receive, in addition to this report, a more detailed complete record and analysis of their business and also a monthly comparison of results and prices obtained. Other poultrymen and those interested in the business may also find in this report much helpful information.

## 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 is currently below the previous year in December 1954 and January 1955 in California and in the United States. Some time this summer or fall the number of layers in flocks will be below the year before, total egg production will be lower, and egg prices should be better.

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 continue through 1955, and somewhat reduce potential profit. It will tend also to make it a little less profitable to cull or maintain 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 a little more profitable than 1954 for egg producers, and that 1956 will be even better.

## 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, if any. 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 actual 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 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 six months of age.

PERCENT PULLETS - is the percent pullets 6 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.

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 hens, gives this figure.

TABLE 1 - HERE IS HOW PROFIT IS DETERMINED

Rank	Eggs Laid Per Hen	Doz. Sold Per Hen	Avg. Price Dozen Eggs	Egg Income	Poultry Sales & Misc.	Incr. Stock Inven.	Total Income	Total Expense	Management Income	Farm Income
1	229	19.0	39.7	7.54	.66	.23	8.43	6.76	1.67	3.09
2	185	15.4	84.6	13.07	1.05	.95	15.07	13.69	1.38	3.76
3	217	17.5	39.2	6.87	.36	.69	7.92	6.77	1.15	2.10
4	266	22.9	38.2	8.76	.50	.36	9.62	8.90	.72	2.64
5	213	18.4	38.8	7.14	.91	-.47	7.58	7.27	.31	1.71
6	243	20.3	42.2	8.55	.69	.69	9.93	9.63	.30	2.74
7	209	18.3	40.4	7.39	.76	.06	8.21	8.05	.16	1.82
8	225	18.7	38.8	7.25	.55	.43	8.23	8.11	.12	1.86
9	231	19.7	41.6	8.17	1.16	1.56	10.89	11.24	-.35	.63
10	207	17.3	38.4	6.62	.69	-.13	7.18	8.58	-1.40	.04
11	194	16.7	37.9	6.34	.71	-.21	6.84	8.46	-1.62	.06
12	220	18.0	44.0	7.90	.88	-1.98	6.80	9.71	-2.91	-.02
Avg. 1954	218	18.4	42.8	7.87	.73	.32	8.92	8.76	.16	1.74
Avg. 1953	204	17.3	56.9	9.85	1.10	.12	11.07	9.92	1.15	2.90

The 12 individual records for 1954 are listed above in order of management income per hen which appears in the next to the last column. Averages for the flocks in this study in 1954 and in 1953 are at the bottom of the table. Despite the fact that the average price of eggs was about 14 cents per dozen lower for 1954, earnings were only about a dollar per hen lower than in 1953. This is because of improved efficiency and management with a reduction in costs of about \$1.00 per hen while income was off about \$2.00 per hen.

Notice above that the first 8 records all had some management income per hen which is a true profit over and above wages for their labor and 5% interest on their investment. All but the last record No. 12 had some net farm income over and above their cash costs and depreciation. The average of \$1.74 per hen was very good considering the poor egg prices. It is no doubt considerably above the "average" for all poultrymen in this area since the majority of these twelve poultrymen have been in this study and improving their management for several years.

No. 1 is highest in earnings because of good production and income at lowest total cost per hen. No. 2 is a flock of heavy breed selling mostly hatching eggs so had an egg price about double the average. This gave him enough higher income to more than cover the high expenses in a heavy flock containing breeding cocks. No. 4 had highest production and sale of eggs per hen, had a very good net farm income with a lower management income because of a slightly higher use of operator labor. Expenses were a bit higher with raising more replacements to increase the size of flock. The last flock, No. 12, shows a serious loss because it is down in size and declined further during the year, since it is in process of going out of business.

TABLE 2 - HIGH PRODUCTION PER HEN IS IMPORTANT

Rank	Eggs Laid Per Hen	Fall Eggs Per Fall Hen	Per- cent Mor- tality	Culled		Per- cent Pul- lets	Percent added July - October	Size of Flock *	Breed (H- heavy) (X-Cross)	Type of housing & hens per pen C- Cage W- Wire
				Per- cent	No. Mo. 1%					
1	229	74	10.9	52.7	11	85	100	M	L	Litter, 100
2	185	50	17.8	79.9	11	89	100	L	H	Litter, 300 up
3	217	71	16.3	40.7	8	55	26	L	L	L. & C 300&2
4	266	82	15.7	73.6	7	100	-0-	L	L	Litter, 200
5	213	64	12.8	119.5	12	100	57	L	L	L
6	243	81	13.6	90.0	12	70	100	M	L	L
7	209	72	28.1	65.7	10	73	87	M	L	L & W, 130
8	225	71	15.6	63.1	12	94	64	L	L	L, 130-230
9	231	78	21.3	140.4	7	60	74	L	L	L, 500
10	207	76	22.9	107.4	12	85	77	L	L	L, C & W 200
11	194	72	11.0	99.4	7	77	85	L	L, X	L, 200
12	220	67	44.7	115.3	2	98	100	S	L	L, 100
Avg. 1954	218	72	17	87	-	83	67	1932	--	Mostly litter floor houses
Avg. 1953	204	68	17	94	-	77	45	1476	--	---

\* Size of flock L-over 1500 hens; M - 750 to 1500; S-under 750 hens.

Records are listed above in the same order as in Table 1 with the more profitable flocks near the top of the table. To make a profit at current prices it is important to obtain high production per hen and at a low cost. Notice that only 2 flocks in the study obtained less than 200 eggs per hen. No. 2, a heavy flock did very well to obtain 185 eggs per hen, and No. 11 with 194 has made a good improvement over the previous year.

High annual production depends on high fall production. Notice the increase in the average fall eggs per fall hen, 72 in 1954 as compared to 68 in 1953 during the 122 days from Sept. to Dec. inclusive. Getting more fall eggs largely depends on adding more of the replacements in July to October from spring hatched birds. For the entire study 67% were so added in 1954 as compared to 45 in 1953. No. 4, an all pullet flock with highest total production per hen just missed these 4 months by adding in June and November.

With good stock and continuous light culling and a good replacement schedule total replacements for both mortality and culling need not exceed 70 to 80% to have a satisfactory egg production and profit. With present low cull hen prices culling over 100% although it may sometimes be necessary can actually reduce profit with higher replacement costs even though higher production per hen is obtained.

Although we do not consider method of housing important we show in the last column the type and number of hens per pen. L. stands for conventional litter houses, W. for wire floored pens and C. for small cages. Nos. 3 and 10 had part litter and part cages.

TABLE 3 - COSTS PER HEN ARE IMPORTANT AND VARY WIDELY

Rank	Mash	Grain	Mash & Grain	Per- cent Mash	Lbs. Feed Per Hen	% Chicks Lost	Hours Labor Per Hen	Total Feed Cost	Chick Cost	Misc. Cost	Dollars Per Average Hen			Total Costs
											Labor	Deprec.	Int.	
1	4.52	2.51	3.62	55	125	9.1	1.3	4.55	.41	.31	1.26	.07	.16	6.76
2	5.72	2.65	4.52	61	210	27.9	2.1	9.57	.69	.65	2.06	.40	.32	13.69
3	4.62	2.95	3.99	61	124	11.9	.8	4.97	.38	.34	.81	.11	.16	6.77
4	4.56	2.91	3.79	54	138	2.0	1.6	5.28	.47	.87	1.64	.36	.28	8.90
5	4.52	2.89	3.75	52	112	17.3	1.0	4.23	.16	.93	1.15	.33	.47	7.27
6	4.62	2.65	3.93	64	144	6.2	2.2	5.72	.55	.62	2.21	.27	.26	9.63
7	4.51	3.25	3.90	52	132	22.5	1.7	5.28	.28	.44	1.66	.16	.23	8.05
8	4.60	2.77	3.83	58	132	4.5	1.5	5.11	.36	.71	1.53	.17	.23	8.11
9	4.60	2.90	3.89	58	203	19.4	1.6	7.94	.27	1.26	1.09	.38	.30	11.24
10	4.72	2.78	4.25	76	129	7.3	1.2	5.53	.51	.71	1.21	.39	.23	8.58
11	4.72	3.01	4.02	60	138	5.6	1.8	5.57	.28	.43	1.77	.18	.23	8.46
12	4.52	3.32	3.93	51	134	5.0	2.4	5.33	.16	.62	2.40	.71	.49	9.71
Avg. 1954	4.76	2.86	3.99	59	143	14.3	1.4	5.73	.38	.69	1.41	.27	.28	8.76
Avg. 1953	4.81	3.49	4.42	70	148	9.3	1.6	6.61	.52	.61	1.56	.32	.30	9.92

Total cost per hen is practically as important to profit as is production and income. However, in this particular study we have no examples of extravagantly high costs. Costs above the average were in all cases accounted for by some special condition. Feed costs in No. 2 are almost double the average because of the high priced mash used and the large quantity that had to be used in the heavy hatching egg flock to raise the heavy hens and cocks and to carry them for hatching egg production. No. 9 which also had cocks and sold hatching eggs shows high feed quantities and costs.

Grain is shown above to have cost almost \$2.00 per hundredweight less than mash so for low feed cost and higher profits should be used to furnish 45 to 50% of the total ration. If No. 10 had used only 55% mash instead of 76% at the prices shown it would have reduced his grain and mash cost from \$ 4.25 to \$3.83 per cwt. and his feed cost per hen by 56 cents and probably have improved his flock condition and certainly his profit.

Some of the low grain prices were attained by the purchase of barley from farmers in the summer and storing for later use instead of buying current requirements from month to month at current prices. With lower barley support prices in 1955 and with storage facilities on grain ranches already well filled with 1954 barley under government support loan, there should be some good buys in barley this year at harvest time. Results in our studies have long shown it pays a poultryman to put up grain storage and buy in quantity.

TABLE 4 - EGG PRICE AND COST AFFECT PROFIT

Rank	Percent Of Eggs Sold						Percent Eggs Sept. - Dec.	Lbs. Feed Per Doz.	Average Price				Net Cost	Mgt. Income	Farm Income
	Large Market & Hatch	Med. Market	Small and Com'l	Whsl. Mkt.	Retail	Hatch-ing			Whsl.	Re-tail	Hatch-ing	All			
									Mkt.	tail	ing	Doz.			
Cents Per Dozen Eggs Sold															
1	64	21	15	95	5	-	41	6.5	39.6	50.0	-	39.7	30.0	8.8	16.3
2	85	10	5	19	1	80	29	13.6	34.5	50.2	96.7	84.6	75.7	8.9	24.4
3	63	22	15	100	-	-	31	7.1	40.0	47.0	-	39.2	32.6	6.6	12.0
4	64	23	13	100	-	-	36	6.0	38.3	-	-	38.2	35.0	3.2	11.5
5	56	30	14	98	-	2	24	6.1	38.4	57.0	-	38.8	37.2	1.6	9.2
6	67	25	8	99	1	-	42	7.1	40.6	55.2	-	42.2	40.7	1.5	13.5
7	67	19	14	91	4	5	39	7.2	38.4	52.8	72.4	40.4	39.5	.9	10.0
8	52	35	13	98	1	1	37	7.1	38.6	52.0	100.1	38.8	38.2	.6	10.0
9	54	34	12	76	3	21	54	10.3	35.1	47.8	64.5	41.6	43.4	-1.8	3.2
10	63	23	14	100	-	-	36	7.5	38.6	-	-	38.4	46.5	-8.1	.2
11	64	25	11	96	4	-	42	8.2	37.5	47.2	-	37.9	47.6	-9.7	.4
12	80	11	9	95	5	-	12	7.5	44.1	49.9	-	44.0	60.1	-16.1	-.1
Avg. 1954	59	27	14	89	2	9	36	7.8	38.3	51.7	88.1	42.8	41.9	.9	9.5
Avg. 1953	62	25	13	85	4	11	36	8.6	52.3	58.8	92.8	56.9	50.3	6.6	16.8

Egg prices are something the poultrymen cannot do much about except as his operations affect size and quality and seasonal distribution of his eggs. This last year with egg prices lower in the fall it would have paid better to have had most of the eggs in the early part of the year. But it now looks like 1955 will be different and it will pay to get more eggs this fall when higher prices per dozen are expected.

There are some interesting price differences above and they can be accounted for by differences in the factors determining prices. No. 9, an all pullet flock had a low market egg price because it sold some hatching eggs, had 54% of its year's eggs in the fall and had 34% of its total year's eggs medium because of it being largely a pullet flock. No. 12 had a high market egg price of 44 cents because it declined so much in size during the year that it got only 12 percent of its eggs in the fall and eggs were worth more in the spring this year.

One good measure of overall efficiency is the pounds of feed per dozen eggs sold. This feed includes that used for raising replacements. Where kept down to around 7 pounds per dozen there should be a profit opportunity. Notice too how much more it takes where there is hatching egg production as in No. 2 and No. 9.



## WHAT DOES THE RECORD SHOW?

### INCOME

Production per hen, price per dozen eggs sold, poultry sales and inventory change represent income factors.

High Production per hen is usually associated with profit. In 1954 this was not necessarily the case. The top income flock produced 229 eggs and two in the bottom four produced 231 and 220.

Price Received Per Dozen eggs was actually higher in two of the lower four than for the top income record.

Poultry Sales and Inventory change were big factors.

Poultry Sales Were Higher which resulted in a reduced inventory in the lower three records. It costs much more to raise a replacement than a cull would bring in 1954.

### EXPENSES

Feed cost, chick cost, labor, depreciation, interest and miscellaneous costs make up the costs. In looking at the record compare your expense with others. Is your feed cost high or low? Do you feed all mash or mash and grain? How about miscellaneous costs? Did you have 35-40 cents cost or over 90 cents.

A careful analysis of your record and a comparison to the others can be of help to you in increasing your management income.

TABLE 5 - COMPARISON WITH OTHER STUDIES AND YEARS

	SANTA CRUZ				ALAMEDA	SAN BERNARDINO
	1951	1952	1953	1954	1954	1954
Number of records	19	14	14	12	22	19
Avg. No. hens per flock	1222	1482	1476	1932	2638	2571
Eggs laid per hen	203	187	204	218	208	229
Hens: % mortality & loss	14	22	18	17	22	12
% culled	83	83	94	87	98	108
% added	112	116	129	103	111	119
% incr. or decr.	15	11	17	-1	-9	-1
Avg. price mash & grain per cwt.	4.17	4.63	4.42	3.99	3.94	3.91
Pounds mash & grain/hen	142	148	148	143	134	142
Percent mash	61	66	70	59	68	91
Hours labor per hen	1.9	1.5	1.6	1.4	1.0	1.2
Avg. price eggs per doz.	56.0	52.3	56.9	42.8	42.0	38.4
Net cost per dozen	43.9	53.5	50.3	41.9	41.6	39.6
Management income/doz.	12.1	-1.2	6.6	.9	.4	-1.2
<u>Income per hen</u>						
Egg sales	9.51	8.17	9.85	7.87	7.52	7.32
Poultry sales	.99	1.14	1.02	.61	.53	.62
Misc. Income	.33	.09	.08	.12	.06	.09
Stock inventory change	.47	.22	.12	.32	-.04	.16
Total	11.30	9.62	11.07	8.92	8.07	8.19
<u>Cash &amp; depreciation costs</u>						
Feed	5.91	6.89	6.61	5.73	5.31	5.61
Stock bought	.52	.48	.52	.38	.46	.62
Miscellaneous	.53	.49	.61	.69	.45	.45
Depreciation	.23	.24	.32	.27	.32	.25
Hired labor	.19	.20	.11	.11	.14	.37
Total cash & deprec. costs	7.38	8.30	8.17	7.18	6.68	7.30
Farm Income	3.92	1.32	2.90	1.74	1.39	.89
Family labor	1.61	1.22	1.45	1.30	1.07	.87
Interest	.27	.28	.30	.28	.25	.25
Management income	2.04	-.18	1.15	.16	.07	-.23

The above comparison of study averages shows our 1954 records were good in earnings as compared to similar ones in Alameda and San Bernardino Counties. Our local 1954 records also show an improvement in efficiency over recent years in the higher egg production per hen and lower feed and labor inputs per hen. Culling and replacement were moderate enough to enable a profit despite the low egg price.