

# POULTRY MANAGEMENT STUDY

MONTEREY & SANTA CRUZ COUNTIES

1956

AGRICULTURAL EXTENSION SERVICE  
UNIVERSITY OF CALIFORNIA  
UNITED STATES DEPARTMENT OF AGRICULTURE

## INTRODUCTION

This is the ninth annual report of the Monterey and Santa Cruz Counties Poultry Management Study. These 8 individual poultry enterprises are all in the same general area and records covered the calendar year 1956. Averages shown at the right 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

This year 1957, with egg prices still below a year ago will at best be a rather poor one for the egg producer. With lower hatching of replacement chicks this past winter and this spring as compared to a year ago, we expect fewer layers in flocks this fall and hence lower total production. With consumer income expected to continue rather good, this lower fall and winter production should be sold at better prices than the year previous. So egg prices this year - lower the first half and better the last half than the previous year, will probably average out about the same as last year. There are more eggs in storage now than a year earlier, and there is still time for people to change their minds and order more chicks for higher egg production next winter and spring. Beyond that, much depends on the survival rate of commercial poultrymen and their reaction to recent profits or lack thereof. Usually after a year or so of low prices, there is enough reduction in layers to bring egg production down to demand at fair prices. Hence 1958 should be a more profitable year. In any event, the commercial poultryman has to keep on brooding the usual number of chicks and keeping his plant up to capacity to make a living which he has to adjust to the income he makes.

## EXPLANATION OF TERMS USED IN THIS POULTRY STUDY

TOTAL INCOME - is composed of returns from the sale of eggs, poultry, manure, the net increase in the inventory value of poultry on hand, and the value of poultry and 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 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 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 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 at 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.

TABLE 1 - HERE IS HOW PROFIT IN THE EGG BUSINESS WAS DETERMINED IN 1956

Rank in Management Inc. per Hen	1	2	3	4	5	6	7	8	AV. 8 Flocks
Eggs laid per hen	234	238	177	240	201	221	180	215	210
Dozens sold per hen	19.3	20.4	15.0	20.8	15.8	18.7	15.1	19.1	17.8
Egg income per hen	7.46	8.16	11.69	7.64	6.30	6.95	6.61	7.27	8.09
Poultry sold	.46	.49	1.06	.48	.39	.48	.74	.46	.63
Miscellaneous income, manure sales	.15	.16	-	.13	.15	.18	-	.11	.10
Increase in poultry stock inventory	.39	.77	.53	.20	-1.45	.07	-.83	.31	.08
Total Income Per Hen	8.46	9.58	13.28	8.45	5.39	7.68	6.52	8.15	8.90
Total costs per hen	6.48	8.88	12.67	8.54	6.19	8.60	7.51	9.63	8.87
Management Income Per Hen	1.98	.70	.61	-.09	-.80	-.92	-.99	-1.48	.03
Add value operator labor @\$1.50 hr.	.95	1.96	2.12	1.86	2.06	2.07	1.47	2.29	1.80
Add interest on investment	.14	.40	.29	.21	.18	.13	.16	.25	.22
Net Farm Income Per Hen	3.07	3.06	3.02	1.98	1.44	1.28	.64	1.06	2.05
Av. price per dozen eggs	38.6¢	39.4	77.8	36.7	39.9	37.1	43.6	38.0	45.4
Net cost of production per doz.	28.3	36.1	73.8	37.1	45.0	42.1	50.2	45.7	45.3
Management Inc. Per Doz.	10.3	3.3	4.0	-.4	-5.1	-5.0	-6.6	-7.7	.1

The 8 individual records are listed above from left to right in order of management income per hen. There is quite a range from \$1.98 to a loss of \$1.48. Average was 3¢ - just about breaking even with only 3¢ to reimburse for management. Operator labor and interest on investment were included in total costs in figuring management income. So when we add these items, every flock showed a net farm income which is total income less cash costs and depreciation. Not bad for a year of low egg prices. The average was \$2.05 net farm income per hen for these 8 flocks.

Study the individual figures in Tables 1 to 4 and see why each flock shows the profit it did. For example, No. 1, the most profitable, had a high production and a good egg price and lowest total cost per hen. So we look to Table 2 and see he must have had good stock with high fall and high total egg production and lower than average culling and mortality. His low costs are outstanding so we look to Table 3 and see he had a low labor input per hen and fed 40% of low cost grain. We note also he had the lowest miscellaneous, depreciation and interest on investment per hen. This indicates a good well managed and planned business throughout.

TABLE 2 - HIGH PRODUCTION PER HEN IS IMPORTANT - HERE ARE THE FACTORS

	1	2	3	4	5	6	7	8	AV 8 Flocks
Eggs laid per hen	234	238	177	240	201	221	180	215	210
Fall eggs per fall hen	79	76	53	78	57	63	58	69	66
Percent mortality (and lost) hens	8.7	12.6	24.5	10.1	8.0	15.1	21.2	11.4	15.4
Percent culled	76.7	84.5	85.1	96.0	83.3	101.0	106.5	84.6	90.3
Percent added	109.0	86.3	122.4	96.8	-	116.1	107.5	106.4	101.5
Percent Increase in Hens	23.6	-10.8	12.8	-9.3	-91.3	- 0 -	-20.2	10.4	-4.2
No. months culled 1% or more	9	10	7	12	12	10	11	2	9
Percent of flock pullets 6-18 mo.	100	75	100	92	56	83	81	95	87
Percent of pullets added Jul.-Oct.	33	49	36	44	- 0 -	33	44	60	41
Size of flock - L - over 1500 M - 750 to 1500, S - under 750	L	L	L	L	M	L	L	L	

Perhaps a very important production and profit factor not shown here is quality of stock. It may be that stock of high quality was used in all cases but differences in results were due to many circumstances. But the high production and low mortality in Flocks 1, 2, and 4 show what can be done with what must have been good stock.

Culling is an important practise to maintain high egg production but can be carried too far with high replacement costs and not enough profitable production obtained to pay the cost of some of the pullets culled early in their lives.

TABLE 3 - INPUTS AND COSTS PER HEN ARE IMPORTANT - SEE HOW THEY VARY

	1	2	3	4	5	6	7	8	AV. 8 Flocks
Average price mash per CWT.	4.49	4.16	5.03	4.17	4.00	3.93	4.33	4.12	4.39
Average price grain per CWT.	2.32	2.78	2.93	2.77	2.65	2.80	2.69	3.03	2.78
Av. Price Mash & Grain	3.64	3.55	4.06	3.72	3.32	3.74	4.00	3.69	3.81
Percent of feed mash	60.9	55.6	53.9	66.3	49.7	82.9	79.9	59.0	63.7
Lbs. mash and grain per hen	127	121	200	131	93	128	121	150	140
Percent of chicks lost or died	3.0	3.4	31.2	5.4	-	6.7	8.5	3.0	12.5
Hours labor per hen	.6	1.6	1.4	1.9	1.5	1.4	1.0	1.9	1.3
Cost of mash per hen	3.48	2.80	5.42	3.63	1.85	4.17	4.19	3.67	3.91
Cost of grain per hen	1.15	1.49	2.70	1.22	1.25	.61	.65	1.86	1.41
Cost of grit, shell & other feeds	.04	.07	.17	.06	.15	-	.06	.04	.08
Total Feed Cost Per Hen	4.67	4.36	8.29	4.91	3.25	4.78	4.90	5.57	5.40
Poultry stock bought	.43	.71	1.05	.40	-	.44	.50	.55	.58
Miscellaneous costs	.21	.76	.66	.38	.40	.50	.38	.45	.48
Depreciation	.08	.37	.26	.16	.18	.44	.10	.18	.22
Hired labor	-	.32	-	.62	.12	-	-	.34	.14
Total Cash & Deprec. Costs	5.39	6.52	10.26	6.47	3.95	6.16	5.88	7.09	6.82
Value operator's labor @\$1.50	.95	1.96	2.12	1.86	2.06	2.07	1.47	2.29	1.80
Interest on investment	.14	.40	.29	.21	.18	.37	.16	.25	.25
Total All Costs	6.48	8.88	12.67	8.54	6.19	8.60	7.51	9.63	8.87

Low costs become more important to profit in a year of low egg prices like 1956 but are also important in producing larger profits in good years. In egg production you try to get as much feed into your hens and replacement chicks as possible for maximum production and growth. Feed has to be adequate in quality too but up to half of it can be as grain, which is lower in price than mash. With adequate grit, the hen can grind the grain cheaper than the mill. With feed over half of the total cost sound economics in feed cost are important to profit. No. 5 above raised no replacements so naturally had the lowest feed quantity and feed costs. No. 3 which sold hatching eggs had the highest mash cost and highest feed quantity and total feed cost. This covered the cockerels and cocks too.

TABLE 4 - EGG PRICES INFLUENCE PROFIT TOO - HERE'S WHAT THEY WERE

	1	2	3	4	5	6	7	8	AV. 8 Flocks
Percent of eggs sold									
Large, market & hatching	62.5	74.9	86.2	54.5	84.6	64.3	74.3	64.1	70.4
Medium	24.0	16.4	9.2	28.0	8.1	26.2	14.6	22.2	18.9
Small & commercial	13.5	8.7	4.6	17.5	7.3	9.5	11.1	13.7	10.7
Percent of dozens sold as									
Wholesale market	97.0	100.1	14.2	95.7	91.5	97.4	88.2	96.3	82.3
Retail	3.0	-	1.9	4.3	3.9	2.6	4.8	3.7	2.8
Hatching	.	-	83.9	-	4.6	-	7.0	-	14.9
Percent of eggs - Sept.-Dec.	36.2	32.5	33.9	35.2	18.6	26.2	35.9	37.8	33.0
Pounds of feed per dozen	6.6	5.9	13.3	6.3	5.9	6.8	8.0	7.8	7.8
Average price per dozen									
Wholesale market	38.2	39.4	32.1	35.6	37.9	37.2	40.2	37.8	37.9
Retail	49.1	-	43.7	61.2	53.6	37.4	45.5	42.9	48.0
Hatching	-	-	87.0	-	69.0	-	86.5	-	86.7
All eggs sold	38.6	39.4	77.8	36.7	39.9	37.1	43.6	38.0	45.4
Net cost per dozen	28.3	36.1	73.8	37.1	45.0	42.1	50.2	45.7	45.3
Management Income Per Doz.	10.3	3.3	4.0	-.4	-5.1	-5.0	-6.6	-7.7	.1
Farm Income Per Dozen	15.9	14.7	20.0	9.5	9.1	6.9	4.2	5.6	11.5

The above table shows egg price factors - size, kind, seasonal distribution, etc. No. 3, a hatching egg flock naturally has a much higher price for all eggs sold. No. 2, selling only market eggs wholesale had excellent production and size grades and a good average egg price for the year.

The pounds of feed used per dozen eggs sold is an important overall efficiency factor. This includes feed for replacement stock as well as the layers themselves. Below 7 pounds per dozen is good efficiency and would indicate little waste of feed or excess raising of replacements. No's 3, 6, 7, and 8 added over 100% replacements so had higher feed use and feed per dozen eggs than the others.

TABLE 5 - COMPARISON WITH OTHER YEARS AND STUDIES

	Santa Cruz					1956	1956
	1952	1953	1954	1955	1956	San Bern- nardino	Sonoma
Number of Records	14	14	12	10	8	17	22
Average No. Hens per Flock	1482	1476	1932	2145	2334	3707	2856
Eggs Laid per Hen	187	204	218	213	210	241	232
Hens: % Mortality & Loss	22	18	17	15	15	8	12
% Culled	83	94	87	82	90	95	101
% Added	116	129	103	115	101	117	115
% Incr. or Decr.	11	17	-1	18	-4	14	2
Average price mash & grain per CWT.	4.63	4.42	3.99	3.69	3.81	3.60	3.58
Pounds mash & grain/hen	148	148	143	151	140	140	127
Percent mash	66	70	59	58	64	91	55
Hours labor per hen	1.5	1.6	1.4	1.1	1.3	0.9	1.0
Average price eggs per doz.	52.3	56.9	42.8	47.1	45.4	39.9	40.1
Net cost per dozen	53.5	50.3	41.9	44.1	45.3	36.0	33.8
Management income/doz.	-1.2	6.6	.9	3.0	.1	3.9	6.3
<u>Income per Hen</u>							
Egg sales	8.17	9.85	7.87	8.41	8.09	8.17	8.11
Poultry sales	1.14	1.02	.61)	.85	.63	.64	.56
Misc. income	.09	.08	.12)	.10	.10	.07	.02
Stock inventory change	.22	.12	.32	.28	.08	.29	.07
Total	9.62	11.07	8.92	9.54	8.90	9.17	8.76
<u>Cash &amp; depreciation costs</u>							
Feed	6.89	6.61	5.73	5.63	5.40	5.13	4.60
Stock bought	.48	.52	.38	.54	.58	.56	.48
Miscellaneous	.49	.61	.69	.70	.48	.34	.49
Depreciation	.24	.32	.27	1.62	.22	.23	.26
Hired labor	.20	.11	.11	.25	.14	.26	.24
Total Cash & Deprec. Costs	8.30	8.17	7.18	8.74	6.82	6.52	6.07
Farm Income	1.32	2.90	1.74	2.15	2.05	2.65	2.69
Family Labor	1.22	1.45	1.30	1.32	1.80	.68	1.16
Interest	.28	.30	.28	.27	.22	.24	.27
Management Income	-.18	1.15	.16	.53	.03	1.73	1.26

Here are your local study averages the last five years along with 1956 averages for the studies in Sonoma County and San Bernardino County. Notice that both of these studies show large flocks and higher egg production and profit per hen.



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