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POULTRY MANAGEMENT STUDY

SAN BERNARDINO COUNTY



AGRICULTURAL EXTENSION SERVICE

566 Lugo Avenue

San Bernardino, California

UC Cooperative Extension

## INTRODUCTION

The Agricultural Extension Service conducted poultry management studies in San Bernardino County yearly, from 1953 through 1960. This was followed by a two-year break, and they were resumed again in 1963. The 1965 study is a pilot program in having the computations done by electronic data processing at the University of California at Riverside.

Five poultry ranches are included in this study, with a total of 137,297 hens, or an average of 27,458 hens per ranch. Cooperating poultrymen have used this study as a means of comparing their operations with similar operations within the county and as a comparison with their own operation through the years. In addition, these studies provide management information and cost data for others in the poultry industry.

### Ranch Size Designation:

A = Lay flock under 14,000

B = Lay flock over 14,000

### Arrangement of Data:

The ranches in all tables are listed in the order of decreasing management income (as shown in Table II).

### Averages:

Averages for each item were based on those ranches having data for that item.

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## EXPLANATION OF TERMS

The laying flock consists of hens 24 weeks of age and older.

Per cent culled, died, added, and eggs per hen are the respective yearly totals divided by the average number of laying hens.

Per cent of eggs sold Large, Medium, Small, and Commercial are based on the wholesale egg sales.

Commercial eggs include cracks, pee-wees, and Grade B eggs.

Other income includes change of inventory, cull-hen sales, and miscellaneous income.

Miscellaneous costs include vaccines, medication, repair of equipment, taxes, utilities, auto, and office expense.

Depreciation is obtained from the Federal Income Tax report.

Family labor is valued at \$1.50 per hour.

Interest on investment: The rancher's value of the land; average value of stock, buildings, and equipment; computed at 6 per cent.

Cost of feed per cwt.: Total cost of all feed, grit, shell, etc., divided by total pounds.

Feed consumption per hen:

a. All Feed - total feed used on ranch divided by average number of laying hens.

b. Layers - total pounds fed after 24 weeks as reported by ranches, divided by average number of hens.

Feed conversion (pounds of feed per dozen eggs):

a. All Feed - total feed divided by dozens sold wholesale plus retail.

b. Layers - total feed fed after 24 weeks divided by dozens sold.

Chick cost: Total cost of chicks divided by number of chicks reported bought.

Cash income: Amount remaining after feed, replacement, hired labor, and miscellaneous cash costs are paid.

Net farm income: Cash income minus depreciation.

Management income: Net farm income minus family labor and interest on investment.

Per cent laying flock change: Ending lay flock inventory minus beginning divided by beginning.

NA: Not available.

TABLE I. EGG PRODUCTION, SIZES, PRICES, AND TYPES OF SALE

Ranch Size and Rank	Eggs per Hen	% Production	% of Eggs Marketed					Price Received (Cents/Dozen)		
			Large	Medium	Small	Commercial	Retail	Wholesale	Retail	All Eggs
1 B	237	65.1	58.6	32.4	4.5	4.6	2.7	26.5	36.0	26.8
2 A	235	64.4	76.6	17.0	3.5	2.9	20.0	32.3	48.1	35.5
3 B	234	64.3	70.4	20.1	3.2	6.3	0.4	27.3	44.5	27.3
4 B	234	64.2	72.1	15.6	2.9	9.5	4.2	26.6	40.0	27.1
5 A	222	61.1	72.2	23.4	2.8	1.6	3.3	26.3	49.0	27.1
1965 Average	232	63.8	70.0	21.7	3.4	5.0	6.1	27.8	43.5	28.7
1964 Average <sup>1/</sup>	227	61.9	68.0	22.6	4.5	4.9	2.8	27.4	35.1	28.2
1963 Average <sup>2/</sup>	233	64.0	71.3	21.4	3.8	4.0	3.3	NA	NA	28.9

<sup>1/</sup> Average of 9 ranches, or a total of 107,561 hens.

<sup>2/</sup> Average of 10 ranches, or a total of 89,090 hens.

The 232 eggs produced per hen in San Bernardino County compares very closely to the 234.2 reported in Riverside and Orange Counties. Per-cent Large, Medium, and Small, on the average, are about what would be expected. Ranch 1 B, on the other hand, shows per cent Large and Medium to be 58.6 and 32.4. This decrease in the number of large and increase in the number of medium are about what can be expected when winter-hatched chicks (October through March) are brought into production, using natural light. Representative figures from the random sample contact are 75% large, 20% medium, and 5% small. In actual practice, about 5% of the eggs sold to a processor go commercial and a good share of these come from the large eggs with weaker shells laid by older hens.

Retailing a small percentage at the ranch can increase income from all eggs one cent per dozen or more. Extra large and jumbo eggs usually do not receive a better price from the processors, but they do sell for a higher price on the ranch. Selling off-grade eggs for more than off-grade prices and less than the average wholesale price will raise the average wholesale price by upgrading the eggs sold wholesale.

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TABLE II. INCOME AND INCOME OVER COSTS IN DOLLARS PER HEN

Ranch Size and Rank	Income			Cash Costs					Cash In- come	Depr.	Net Farm Income	Other Noncash Costs <sup>1/</sup>		Total Costs	Mgmt. Income
	Eggs	Other	Total	Feed	Re- place- ments	Hired Labor	Misc.	Total				Family Labor	Int. on Invest.		
1 B	5.22	.36	5.58	3.55	.32	.00	.41	4.28	1.30	.10	1.20	.51	.16	5.05	.54
2 A	6.52	.15	6.67	4.77	.06	.00	.52	5.35	1.32	.33	.98	.48	.24	6.40	.26
3 B	5.28	.12	5.40	3.35	.31	.51	.46	4.63	.77	.25	.52	.03	.24	5.14	.26
4 B	5.20	-.06	5.14	3.61	.28	.12	.33	4.34	.80	.23	.58	.25	.20	5.01	.13
5 A	4.93	-.27	4.66	4.48	.22	.00	.57	5.27	-.61	.29	-.91	.71	.32	6.60	-1.94
1965 Average	5.43	.06	5.49	3.95	.24	.13	.46	4.77	.72	.24	.47	.40	.23	5.64	-.15
1964 Average	5.30	.27	5.57	3.88	.33	.25	.21	4.68	.89	.20	.69	.35	.18	5.40	.16
1963 Average	5.58	.31	5.89	3.70	.44	.31	.44	4.89	1.00	.24	.75	.70	.25	6.10	-.21

TABLE III. INCOME AND INCOME OVER COSTS IN CENTS PER DOZEN

Ranch Size and Rank	Income			Cash Costs					Cash In- come	Depr.	Net Farm Income	Other Noncash Costs <sup>1/</sup>		Total Costs	Mgmt. Income
	Eggs	Other	Total	Feed	Re- place- ments	Hired Labor	Misc.	Total				Family Labor	Int. on Invest.		
1 B	26.8	1.9	28.7	18.2	1.7	0.0	2.1	22.0	6.7	0.5	6.2	2.6	0.8	25.9	2.7
2 A	35.5	0.8	36.3	25.9	0.3	0.0	2.8	29.0	7.3	1.8	5.4	2.6	1.3	34.8	1.4
3 B	27.3	0.7	27.9	17.3	1.6	2.6	2.4	23.9	4.0	1.3	2.7	0.1	1.2	26.5	1.3
4 B	27.1	-0.3	26.8	18.8	1.5	0.6	1.7	22.6	4.2	1.2	3.0	1.3	1.0	26.1	0.7
5 A	27.1	-1.5	25.6	24.6	1.2	0.0	3.2	29.0	-3.4	1.6	-5.0	3.9	1.7	36.3	-10.7
1965 Average	28.7	0.3	29.1	21.0	1.3	0.6	2.4	25.3	3.8	1.3	2.4	2.1	1.2	29.9	-0.9
1964 Average	28.2	1.5	29.7	20.7	1.8	1.4	1.1	25.1	4.6	1.0	3.6	1.9	0.9	28.9	0.8
1963 Average	28.9	1.6	30.5	19.1	2.3	1.7	2.3	25.4	5.1	1.2	3.8	3.6	1.3	31.7	-1.1

<sup>1/</sup> Depreciation (shown earlier) is the other noncash cost.

TABLE IV. MISCELLANEOUS MANAGEMENT DATA

Ranch Size and Rank	Feed Requirements				% Mortality to 24 Weeks	% of Average Lay Flock			% Change in Lay Flock	Feed Cost Per Cwt.	Labor Requirements			Chick Price (¢)	Price Received Per Cull (¢)
	Pounds Feed Per Hen		Pounds Feed Per Dozen			Died	Culled	Added			Hours Family Labor Per Hen	Hours Hired Labor Per Hen	Total Hours Per Hen		
	All Feed	Layers	All Feed	Layers											
1 B	110.8	96.0	5.7	4.9	12.3	18.6	67.5	105.2	22.6	3.23	.34	.00	.34	28.5	28.5
2 A	129.6	123.5	7.1	6.7	8.6	24.9	19.8	70.1	33.3	3.48	.32	.00	.32	13.3	23.6
3 B	103.1	82.0	5.3	4.2	14.5	28.2	49.4	97.3	22.3	3.26	.02	.31	.33	26.6	20.8
4 B	107.3	95.3	5.6	5.0	3.6	18.1	69.5	81.2	-6.9	3.38	.17	.09	.26	28.8	16.9
5 A	123.4	108.8	6.8	6.0	63.5	17.8	30.5	42.0	-5.7	3.27	.48	.00	.48	18.9	44.1
1965 Average	114.8	101.1	6.1	5.4	20.5	21.5	47.3	79.2	13.1	3.32	.27	.08	.35	23.2	26.8
1964 Average	115.8	93.1	6.2	5.0	10.6	22.9	54.7	90.2	11.0	3.36	.23	.18	.42	28.3	19.6
1963 Average	116.6	93.9	6.0	4.9	8.4	20.4	57.7	90.3	12.2	3.15	NA	NA	.66	32.9	23.4

Per cent mortality to 24 weeks (20.5%) for these ranches was higher than should be expected. Ranches 1, 2, and 3 were not bad, and ranch 4 was exceptionally good. Mareks disease is suspected as the cause of the high mortality on ranch 5.

The per cent change in the lay flocks was up for three ranches and down for two. In the case of ranch 5, it is because of the loss of replacement stock. On the average, for the last three years (1963, 1964, and 1965) the San Bernardino poultry management studies have shown over a 10% increase each year for the ranches in the study.

Hours of labor per hen per year are still going down. In 1957, the San Bernardino poultry study showed one hour per hen per year, and each succeeding study has been lower. Figuring \$1.50 per hour and a decrease of .65 of an hour since 1957, this is a saving of 97.5¢ per hen per year. How much lower can it go?

The price received per cull was quite high for ranch 5. This is because the ranch is not 100% leghorns, and some culls were sold for colored fowl prices.

## ACKNOWLEDGMENTS

Appreciation is given the five cooperative poultrymen that were able to complete the 1965 Poultry Management Study in San Bernardino County.

Sincere thanks are given to Dr. Thomas Little, Extension Biometrician, University of California, Riverside, who, through hard work and many hours, did the actual programming of the Management Study into the electronic data processing machine.

Many thanks are also given to Miss Isabel Reidle, Junior Statistician, University of California, Riverside, whose responsibility was the transferring of data from the monthly reports to punch cards for data processing.

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COOPERATIVE EXTENSION WORK IN AGRICULTURE AND ECONOMICS

U.S. Department of Agriculture, University of California, County of San Bernardino Cooperating