

1975 POULTRY EGG COST STUDY
San Diego County, California

Prepared and compiled by Farm Advisor Robert H. Adolph
Cooperative Extension Service
In cooperation with San Diego County Poultry Egg Industry

This study includes production of 776,592 average laying hens
on 16 ranches in San Diego County

This study in San Diego County is conducted by the Cooperative Extension Service, University of California. The results of this study cannot be considered as representative of this area.

The results are from a group of specialized egg producing ranches with flock sizes varying from 10,000 layers per ranch to 200,000 layers with an average of 48,536 laying hens over six months of age per ranch.

The 16 cooperators in this study supplied monthly reports of their results for the year of 1975 for the purpose of comparing and evaluating their results. The overall results are published so that former cooperators and others in San Diego County may compare and evaluate their own records with that of the study results.

Housing and Equipment - Mostly open type, truss construction, metal roof, with curtains or lath siding. During winter, most houses have an added plastic cover over lath to retain warmth in poultry housing. It is considered that closing the houses during the winter months help to save on feed energy requirements. None of the ranches in this year's study had forced air ventilation. Most ranches have cages 16- to 18-inches deep, with two birds in 8-inch-, three in 12-inch-, four in 16-inch-, and six in 24-inch-wide cages. Feed is located on front of back-to-back cages and water located in center. Layers were fed with electric carts and mechanical feeders.

Replacements - Pullets were added to the laying flock as layers at six months of age. All eggs produced were considered as being produced by the laying flock. Poultry egg farms in study had multi-aged birds and replaced pullets up to four times during the year. Since costs exceeded income during 1975, pullet replacements were cut back and hens were force molted, resulting in a low replacement rate. The average number of pullets (hens 6-18 months old) was 56 percent of total hens.

Management as a cost of production - One cent per dozen eggs was charged as a management cost of production to cover hours of labor required to maintain the operation other than regular chore labor of care, feeding and gathering eggs. Poultrymen growing their own pullets for replacement have a 10 cents per pullet added management charge to cover the management required for producing the replacement pullet.

Total costs per dozen eggs was 43.2 cents per dozen with an average income of 42.0 cents for all eggs sold wholesale "nest run" at the ranch. Feed costs were \$6.10 or 30 cents less per hundred pounds than the \$6.49 of 1974 study year. The improvement in egg and feed price relationship occurred during the latter part of the year but was not sufficient to prevent the average of the study from being another loss year.

TABLE: SUMMARY COSTS OF PRODUCTION

The averages of 1970, 1971, and 1972 may be compared with the 1973, 1974, and 1975 study years. Feed costs were 16.1¢ per dozen during 1970-1972 and during 1971-1975 averaged 28.7¢ per dozen. Cost of feed and replacement averaged 22.5¢ per dozen up ~~19.3¢~~ to an average of ~~35.9¢~~ per dozen during the last three years.

All other costs for the laying flock include labor, miscellaneous cash costs, depreciation (15% of average value) on buildings plus equipment, interest on average value of capital investment at 8% rate, and management at 1¢ per dozen. The total of all other costs averaged 6.1¢ per dozen in the 1970-1972 period and 6.9¢ per dozen in the recent 1973, 1974, and 1975 comparison.

TABLE: FLOCK STATISTICS, MORTALITY, CULL, ADDED AND FEED RATIO

1. Mortality, cull and added rates have been decreasing over the last six year period. The exception was 1973 which was a high income year, when producers increased the replacement of their egg production flocks.
2. Mortality rates have declined due primarily to the use of vaccine for Marek's disease which was the major cause of the high mortality of 1970 and 1971.
3. Cull income prices except for 1973 continue to have a low value.
4. Percent pullets on hand show a general trend toward fewer pullets in the laying flock. The average for 1970-1972 was 72% compared to 60% in 1973-75 period. This is quite a change from the 90 to 100% pullet flocks of the 1960's.
5. Lower replacement rates result in fewer eggs per average 365 hen days. Flocks with only 60% pullets averaged 225 eggs per hen or 63% rate of lay during the last three years.
6. The feed used per average layer has remained fairly constant. The feed conversion ratios have increased due to lower rate of production.

7. Feed prices has affected the egg production costs. Feed price per 100 pounds averaged \$6.12 for 1971-75 compared to a \$3.64 average price for 1970-72 study years.

TABLE: SAN DIEGO EGG COST STUDY 1970 TO 1975 INCLUSIVE

This chart breaks down the actual costs of production on a per dozen and per average hen basis. The costs per average hen are based on 365 hen days after hens attain six months of age. Depreciation or housing costs are considered on the same basis of 50% of \$4.00 original cost per average layer where the farm raised their own replacements; \$2.00 per layer where there were no replacement pullets raised. Interest rate has varied through the the years--8% was used in 1975.

CONCLUSIONS

Force molting has extended average laying life so that the average laying hen housed over the last three years produced 380 eggs at an average rate of production of 63%. The average lay life per hen housed has been 603 days after six months of age. This makes an average age of twenty-six months when the hen is removed from the flock.

Usually the first cycle of lay lasts for 10 to 12 months followed by a 2 month rest and molt period. The second lay cycle usually lasts about 6 months. Hens are then sold or molted depending upon whether a third cycle of lay is used. Generally the cost of producing eggs is about the same for three cycle and two cycle lay programs. The main objection is that total production from the ranch is limited due to lower rate of lay of older hens when three cycles of lay are used.

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SUMMARY COSTS OF PRODUCTION
STUDY AVERAGES

Cents/Per Dozen Results	1970	1971	1972	1973	1974	1975
Feed cost						
Layers only	15.7	15.4	17.1	26.9	29.6	29.5
*Net Replacement Cost to 6 months	6.5	6.9	6.0	5.9	8.6	6.9
Total Feed and Replacement Cost	22.2	22.3	23.1	32.8	38.2	36.4
Labor cost						
Layers only	1.7	1.7	1.9	2.0	2.0	1.9
Misc. cash						
Layers only	1.4	1.1	1.0	1.3	1.3	1.3
Deprec. 15%						
Layers only	1.0	1.1	1.0	1.1	1.3	1.3
Interest 8%						
Layers only	1.1	1.3	1.1	1.3	1.5	1.3
Management 1¢ per dozen	1.0	1.0	1.0	1.0	1.0	1.0
Total Net ¢ Cost per dozen	28.4	28.5	29.1	39.5	45.3	43.2
Wholesale only Income per Dozen eggs	29.7	21.3	24.5	46.7	41.0	42.0
Profit + or - (per dozen eggs)	+1.3	-7.2	-4.6	+7.2	-4.3	-1.2

*Net replacement cost per dozen: Total of chick or started pullet cost, feed, miscellaneous, cash, labor, depreciation, interest, management 10¢ per pullet chick raised, plus or minus difference in stock inventory value, less cull and manure income divided by dozens produced = Net replacement cost per dozen analysis based on replacement cost to 6 months of age.

FLOCK STATISTICS, MORTALITY, CULL, ADDED, FEED AND FEED RATIOS
STUDY AVERAGES *

	1970	1971	1972	1973	1974	1975
% Ave. Flock 6 months and older.						
Mort.	22	20	17	16	15	13
Cull	50	59	34	66	37	43
M & C	72	79	51	82	52	56
Added	79	81	56	78	50	55
% Mort. Loss of chicks to 6 months of age	19	10	9	9	9	7
Cull Income each	\$.25	\$.14	\$.20	\$.51	\$.26	\$.21
Size Flock	46508	46764	63940	58106	64249	48537
% Flock on hand						
Pullets	67	80	68	57	68	56
Egg Production						
Per layer	230	245	234	227	228	233
Dozen per layer	19.2	20.4	19.5	18.9	19.0	19.4
% Production	63	67	64	62	63	64
% Extra Large, Large AA or A	73	75	72	68	70	76
Pounds Feed						
All including replacements	105	106	94	99	96	106
Per layer only	89	90	86	90	87	93
Feed Ratio						
All including replacements	5.5	5.2	4.9	5.2	5.0	5.5
Per layer only	4.6	4.3	4.4	4.8	4.6	4.8
Cost Feed per 100 lbs.	\$3.43	\$3.60	\$3.89	\$5.68	\$6.49	\$6.19
% Started pullets of total added	26	26	49	67	39	5

* Hens added to laying flock six months of age.

SAN DIEGO EGG COST STUDY, 1970 to 1975 Incl.

AVERAGE RESULTS PER DOZEN EGGS PRODUCED

	1970	1971	1972	1973	1974	1975
Feed Layers Only	15.7¢	15.4¢	17.1¢	26.9¢	29.6¢	29.5¢
Feed Cost Replacements	3.0	3.2	1.8	2.7	3.0	4.4
Replacement Chicks & Started Pullets	2.6	2.6	2.4	6.3	2.7	1.2
Supplies, Taxes, Utilities, Misc., Layers & Replacements	1.7	1.4	1.2	1.5	1.5	1.5
All Labor Costs for Layers and Replacements	2.1	1.9	2.1	2.2	2.2	2.2
Stock Inventory Value + Charge - Credit	-.4	-.2	+1.3	-2.2	+2.5	+7
Cull Sales - Credit	-.6	-.4	-.4	-1.8	-.5	-.6
Net Cash Cost	24.1¢	24.1¢	25.5¢	35.6¢	41.0¢	38.9¢
Depreciation 15% Average Value of Buildings & Equipment	1.2	1.2	1.1	1.2	1.4	1.5
Interest 8% on Land, Stock and Average Value of Buildings and Equipment	1.3	1.4	1.2	1.4	1.6	1.5
Management Per Dozen (hens and pullets raised)	1.8	1.8	1.3	1.3	1.3	1.3
Net Cost of Production						
Per Dozen Eggs	28.4¢	28.5¢	29.1¢	39.5¢	45.3¢	43.2¢
Income Per Dozen Eggs	29.7¢	21.3¢	24.5¢	46.7¢	41.0¢	42.0¢
<u>RESULTS PER AVERAGE LAYER (365 hen days)</u>						
Feed Layers Only	\$3.01	\$3.15	\$3.31	\$5.10	\$5.63	\$5.72
Feed for Replacements	.57	.65	.37	.51	.57	.85
Replacement Chicks, Started Pullets	.50	.54	.46	1.20	.51	.23
Supplies, Taxes, Utilities, Misc.	.32	.29	.23	.28	.29	.29
Labor - all	.41	.41	.40	.40	.43	.42
Stock Inventory Value + Charge - Credit	-.07	-.03	+25	-.42	+47	+14
Cull & Manure Sales Credit -	-.12	-.08	-.07	-.34	-.09	-.11
Net Cash Cost	\$4.62	\$4.93	\$4.95	\$6.73	\$7.81	\$7.54
Depreciation 15% Average Value of Buildings & Equipment	.24	.24	.22	.22	.26	.29
Interest 8% on Land, Stock and Average Value of Buildings and Equipment	.26	.28	.24	.26	.31	.30
Management Per Hen (Incl. pullets raised)	.30	.29	.25	.25	.25	.24
Total Cost Per Hen	\$5.42	\$5.74	\$5.66	\$7.47	\$8.63	\$8.37
Egg Income Per Hen	\$5.70	\$4.35	\$4.76	\$8.83	\$7.80	\$8.13
Net Profit + or - Per hen	+\$28	-\$1.39	-\$90	+\$1.36	-\$83	-\$24

TABLE A - POULTRY EGG COST STUDY, SAN DIEGO COUNTY - 27 YEAR SUMMARY 1949 - 1975 INCLUSIVE
Cooperative Extension, University of California - San Diego County

Year	Eggs per Hen	Sold % Lrg.	Percent of Average Laying Flock				Cull Income Each	Lbs. Feed per Layer Only	Feed Ratio Layers* Only*	Feed Cost			Hired Labor Cost per Doz. per Doz.	Pullet Chick Cost Each
			% Died	% Culls	% Added	% Increase				per Cwt.	per Doz. **	Layers only per Doz.		
1975	232	76	13	43	55	- 1	\$.21	93	4.8	\$6.19	33.9¢	29.5¢	2.2¢	\$.36
1974	228	70	15	37	50	- 2	.26	87	4.6	6.49	32.6	29.6	2.2	.34
1973	227	68	16	66	78	- 4	.51	90	4.8	5.68	29.6	26.9	2.1	.31
1972	234	72	17	34	56	+ 5	.20	86	4.4	3.89	18.9	17.1	2.0	.30
1971	245	68	20	59	81	+ 2	.14	88	4.3	3.60	18.6	15.4	1.9	.29
1970	230	69	22	50	70	- 2	.25	89	4.6	3.43	18.7	15.7	2.0	.29
1969	232	69	23	36	66	+ 7	.34	89	4.6	3.15	17.1	14.4	1.8	.30
1968	246	70	20	58	85	+ 7	.20	91	4.5	3.07	16.8	13.2	1.7	.30
1967	243	69	18	65	86	+ 3	.20	87	4.3	3.24	17.7	13.5	1.9	.31
1966	247	70	15	66	96	+15	.31	90	4.4	3.17	17.6	13.4	1.9	.31
1965	246	70	16	68	95	+11	.18	89	4.4	3.12	17.1	13.1	1.7	.31
1964	242	72	15	76	98	+ 7	.21	89	4.4	3.10	17.6	13.5	1.8	.32
1963	243	69	14	63	94	+17	.25	88	4.3	3.12	17.2	13.1	1.8	.33
1962	245	72	13	68	106	+25	.23	90	4.4	3.08	17.4	13.1	2.2	.35
1961	246	71	13	75	105	+17	.29	91	4.4	3.02	16.9	12.9	2.2	.36
1960	241	70	13	71	96	+12	.27	89	4.5	2.90	16.6	12.5	2.1	.39
1959	243	68	14	82	107	+11	.30	90	4.5	3.23	18.5	14.1	2.1	.43
1958	239	68	14	79	105	+12	.46	91	4.6	3.31	19.3	14.8	2.6	.40
1957	235	70	14	68	100	+18	.40	91	4.6	3.45	20.2	16.0	1.9	.40
1956	236	69	14	74	102	+14	.52	93	4.8	3.63	21.8	16.9	2.5	.40
1955	234	66	17	70	103	+16	.56	92	4.8	3.84	24.4	18.0	2.2	.40
1954	235	61	14	86	114	+14	.52	94	4.9	3.95	25.2	18.9	2.1	N.A.
1953	228	60	15	76	107	+16	.75	95	5.1	4.06	26.5	20.2	2.5	N.A.
1952	231	61	14	82	118	+22	.61	96	5.1	4.53	29.7	22.2	2.4	N.A.
1951	222	68	13	74	102	+15	.75	100	5.4	4.06	28.5	21.5	2.3	N.A.
1950	217	65	15	64	108	+29	.70	98	5.4	3.65	26.3	19.2	1.8	N.A.
1949	213	64	15	77	124	+32	.88	100	5.6	4.09	32.7	22.3	2.6	N.A.

* Pounds Feed to One Dozen Eggs; ** Includes Feed Used For Replacement and Layers; N.A. = Not Available

TABLE B - POULTRY EGG COST STUDY, SAN DIEGO COUNTY - 27 YEAR SUMMARY 1949 - 1975 INCLUSIVE
Cooperative Extension, University of California - San Diego County

Year	Av. Flock Size (1000)	Egg Income Per Doz.	Per Doz. Net* Cost Eggs	+Profit -Loss Per Doz.	Egg Income Per Hen	Net Cost Eggs Per Hen*	+Profit -Loss Per Hen	Costs		Per Average Hen			
								Labor Per Hen	Hired Home	Int. on Invest-ment	Deprec. Allow-ance	Misc. Cash Costs	All Feed Cost
1975	48	42.0¢	43.2¢	- 1.2¢	\$8.13	\$8.37	\$- .24	\$.42	\$ --	\$.30	\$.29	\$.29	\$6.57
1974	64	41.0	45.3	- 4.3	7.80	8.63	- .83	.41	.01	.31	.26	.29	6.20
1973	58	46.7	39.5	+ 7.2	8.83	7.47	+1.36	.39	.01	.26	.22	.28	5.61
1972	64	24.5	29.1	- 4.6	4.76	5.66	- .90	.39	.01	.24	.22	.23	3.68
1971	47	21.3	28.5	- 7.2	4.35	5.74	-1.39	.38	.03	.28	.24	.29	3.80
1970	47	29.7	28.4	+ 1.3	5.70	5.42	+ .28	.39	.02	.26	.24	.32	3.58
1969	46	31.7	25.5	+ 6.2	6.13	4.92	+1.21	.36	.03	.22	.14	.32	3.30
1968	43	24.7	24.8	- 0.1	5.07	5.09	- .02	.36	.01	.21	.14	.23	3.45
1967	44	24.5	26.2	- 1.7	5.00	5.29	- .30	.39	.02	.19	.16	.31	3.57
1966	42	33.2	25.4	+ 7.8	6.84	5.22	+1.62	.40	.02	.20	.15	.30	3.62
1965	29	26.9	25.6	+ 1.3	5.52	5.26	+ .26	.34	.06	.20	.20	.33	3.52
1964	25	27.9	26.2	+ 1.7	5.62	5.26	+ .36	.37	.08	.21	.19	.30	3.55
1963	21	28.4	26.4	+ 2.0	5.73	5.33	+ .40	.36	.07	.23	.23	.34	3.47
1962	16	28.9	27.8	+ 1.1	5.90	5.66	+ .24	.35	.23	.23	.23	.44	3.55
1961	13	31.5	27.5	+ 4.0	6.45	5.65	+ .80	.45	.21	.21	.25	.38	3.47
1960	9	33.3	28.7	+ 4.6	6.61	5.72	+ .89	.42	.31	.27	.30	.43	3.30
1959	7	29.8	30.9	- 1.1	5.97	6.20	- .23	.38	.44	.26	.29	.42	3.72
1958	6	37.0	31.1	+ 5.9	7.32	6.15	+1.17	.48	.38	.25	.29	.52	3.80
1957	6	36.3	30.8	+ 5.5	7.00	5.95	+1.05	.47	.60	.26	.34	.45	3.91
1956	5	38.4	32.1	+ 6.3	7.45	6.23	+1.22	.49	.64	.26	.35	.43	4.22
1955	4	41.3	32.1	+ 9.3	8.00	6.15	+1.85	.43	.59	.20	.33	.41	4.52
1954	4	36.8	34.1	+ 2.7	7.12	6.59	+ .53	.40	.54	.20	.34	.40	4.86
1953	4	51.5	36.3	+15.2	9.64	6.80	+2.84	.46	.85	.21	.37	.41	4.96
1952	3	46.0	40.8	+ 5.2	8.74	7.75	+ .99	.47	1.04	.24	.38	.35	5.71
1951	3	55.2	40.3	+14.9	9.90	7.20	+2.70	.42	1.34	.25	.38	.41	5.16
1950	2	43.6	35.6	+ 8.0	7.73	6.32	+1.41	.33	.94	.23	.31	.34	4.65
1949	2	52.0	42.0	+10.0	9.18	7.42	+1.76	.48	1.08	.24	.29	.53	5.77

*Total net cost of eggs per dozen and per hen includes all costs: feed, replacement stock, all labor, miscellaneous cash, interest, depreciation, and management. Cull and manure income is credited to costs for net cost of egg production.

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