

1976 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 873,497 average laying hens over six months of age on 12 ranches in San Diego County

This study is conducted by the Cooperative Extension Service, University of California, in San Diego County.

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 72,791 laying hens over six months of age per ranch.

The 12 cooperators in this study supplied monthly reports of their results for the year of 1976 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 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 helps to save on feed energy requirements. None of the ranches in this year's study had forced air ventilation. Feed is located on front of back-to-back cages and water located in center. Layers were fed with electric carts and mechanical feeders. All ranches had 16 or 18 inch deep cages with varying widths of 12, 16 or 24 inches. Birds were housed usually with four inches feed space frontage per bird. At housing time young pullets are often housed at 10 to 30% over the usual rate.

REPLACEMENTS. For the purpose of record keeping pullets are added to the laying flock at six months of age. Generally they are housed for laying at 20 weeks. All eggs produced were considered as being produced by the laying flock. Egg farms in study had multi-aged hens and replaced pullets up to eight times during the year. The average number of pullets (hens 6-18 months old) was 51% of total hens on hand. Replacements during the year varied from 0 to 95% with the study average of 52% annual rate.

MANAGEMENT AS A COST OF PRODUCTION.

One cent per dozen 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 replacements have a 10¢ per pullet management charge added to their costs of replacement.

COSTS OF PRODUCTION. 1976 net costs per dozen was 41.9¢ for all eggs sold wholesale "nest run" at the ranch. Feed costs for layers was 28.4¢ per dozen, or 68% of total costs. Net cost of replacement laying stock was 6.6¢ per dozen. The balance of costs per dozen included labor 2¢, and miscellaneous cash 1.3¢, depreciation 1.3¢, interest 1.3¢, and management 1.0¢. One cent per dozen income from culls and manure were credited against the total costs.

TABLE: SAN DIEGO EGG COST STUDY  
1971-1976 INCLUSIVE

Results of the study averages for the six year period 1971-76 are presented per average dozen eggs produced and per average layer.

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

Results of the flock averages for the 1971-76 years are presented.

TABLE: SUMMARY COSTS OF PRODUCTION

This table summarizes costs of production by the individual years 1971-76. Data presented shows the individual changes in cost of production as they occurred for the last six years.

TABLES: COMPARISON OF FLOCK STATISTICS  
AND SUMMARY COST AND INCOME

Averages for 1971, '72, and '73 are compared with 1974, '75, and '76 study results emphasizing the major changes in management during the last three year period compared to the previous three year period.

In addition producers in the top  $\frac{1}{2}$  of the study for 1976 are compared to the bottom  $\frac{1}{2}$  indicating the range of differences between operators.

TABLES: A & B - 28 YEAR SUMMARY EGG  
COST STUDY 1949-1976 INCL.

The 28 year summary presents a review of many changes, which have taken place within the industry not only in San Diego County, but also among commercial egg production ranchers in Southern California.

CONCLUSIONS:

1. Cull sale values have increased. Manure income has increased to 5 cents per layer. Manure income and cull sales in this study are credited against costs for net costs of egg production. Total cull and manure credit averaged 1¢ per dozen.

2. The cooperators had different laying programs. The two cycle (18 months in lay house) program for this year with high egg prices was best. The three cycle lay (30 months in lay house) had about the same cost of production, but with older birds in molt 25% of the time egg production potential was reduced about 17% at no savings in cost of production. The single cycle lay program (12-14 months in lay house) was less profitable for wholesale egg sales due to higher percent of medium and smalls in early production cycle and poor egg quality after 10 months of lay. Cost of production was about the same. Lower feed cost per dozen in the single cycle lay program was offset by higher replacement cost.
3. It should not be expected that any one type of replacement will be the best for all. A small ranch with limited housing and retail sales may want the maximum production of the one cycle lay program. The three cycle program will produce fewer eggs, but with no profit margins in low price years the advantage of lower investment in stock may be important. The operator desiring maximum production with medium stock cost may choose the two cycle lay program. The two cycle lay program has the advantage of flexibility to meet changing economic and production situations.
4. During the last three years the average hen housed averaged 698 days after six months of age. Rate of lay was 63% or 440 eggs per pullet housed or 36.65 dozen eggs produced per hen. The 63% rate of lay including force molting periods may be considered an excellent rate of lay for the 23 months laying life average. The 63% rate of lay is however, only 80 to 90% of the production potential which laying flocks are capable of producing under higher annual percent replacement programs.

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SAN DIEGO EGG COST STUDY, 1971 to 1976 Incl.

AVERAGE RESULTS PER DOZEN EGGS PRODUCED

	1971	1972	1973	1974	1975	1976
Feed Layers Only	15.4¢	17.1¢	26.9¢	29.6¢	29.5¢	28.4¢
Feed Cost Replacements	3.2	1.8	2.7	3.0	4.4	3.5
Replacement Chicks & Started Pullets	2.6	2.4	6.3	2.7	1.2	3.1
Supplies, Taxes, Utilities, Misc., Layers & Replacements	1.4	1.2	1.5	1.5	1.5	1.7
All Labor Costs for Layers and Replacements	1.9	2.1	2.2	2.2	2.2	2.2
Stock Inventory Value + Charge - Credit	- .2	+1.3	-2.2	+2.5	+ .7	----
<u>Cull &amp; Manure Sales Credit</u>	<u>- .4</u>	<u>- .4</u>	<u>-1.8</u>	<u>- .5</u>	<u>- .6</u>	<u>-1.0</u>
Net Cash Cost	24.1¢	25.5¢	35.6¢	41.0¢	38.9¢	37.9¢
Depreciation 15% Average Value of Buildings & Equipment	1.2	1.1	1.2	1.4	1.5	1.4
Interest 8% on Land, Stock & Average Value of Buildings and Equipment	1.4	1.2	1.4	1.6	1.5	1.4
Management Per Dozen (hens and pullets raised)	1.8	1.3	1.3	1.3	1.3	1.2
Net Cost of Production Per Dozen Eggs	28.5¢	29.1¢	39.5¢	45.3¢	43.2¢	41.9¢
Income Per Dozen Eggs	21.3¢	24.5¢	46.7¢	41.0¢	42.0¢	49.0¢
<u>RESULTS PER AVERAGE LAYER (365 hen days)</u>						
Feed Layers Only	\$3.15	\$3.31	\$5.10	\$5.63	\$5.72	\$5.45
Feed for Replacements	.65	.37	.51	.57	.85	.68
Replacement Chicks, Started Pullets	.54	.46	1.20	.51	.23	.59
Supplies, Taxes, Utilities, Misc.	.29	.23	.28	.29	.29	.32
Labor - all	.41	.40	.40	.43	.42	.41
Stock Inventory Value + Charge - Credit	-.03	+.25	-.42	+.47	+.14	+.01
Cull & Manure Sales Credit	-.08	-.07	-.34	-.09	-.11	-.19
Net Cash Cost	\$4.93	\$4.95	\$6.73	\$7.81	\$7.54	\$7.27
Depreciation 15% Average Value of Buildings & Equipment	.24	.22	.22	.26	.29	.26
Interest 8% on Land, Stock and Average Value of Buildings and Equipment	.28	.24	.26	.31	.30	.27
Management Per Hen (Incl. pullets raised)	.29	.25	.25	.25	.24	.23
Total Cost per Hen	\$5.74	\$5.66	\$7.47	\$8.63	\$8.37	\$8.03
Egg Income Per Hen	\$4.35	\$4.76	\$8.83	\$7.80	\$8.13	\$9.40
Net Profit + or - Per Hen	-\$1.39	-\$ .90	+\$1.36	-\$ .83	-\$ .24	+\$1.37

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

	1971	1972	1973	1974	1975	1976
<b>% Av. Flock 6 months and older</b>						
Mort.	20	17	16	15	13	13
Cull	59	34	66	37	43	38
M & C	79	51	82	52	56	51
Added	81	56	78	50	55	52
<b>% Mort. Loss of chicks to 6 months of age</b>						
	10	9	9	9	7	8
Cull Income each	\$ .14	\$ .20	\$ .51	\$ .26	\$ .21	\$ .32
Size Flock	46764	63940	58106	64249	48537	72791
<b>% Flock on hand</b>						
Pullets	80	68	57	68	56	51
<b>Egg Production</b>						
Per Layer	245	234	227	228	232	230
Dozen per layer	20.4	19.5	18.9	19.0	19.4	19.2
% Production	67	64	62	63	64	63
<b>% Extra Large</b>						
Large AA or A	75	72	68	70	76	74
<b>Pounds Feed</b>						
All including replacements	106	94	99	96	106	96
Per layer only	90	86	90	87	93	86
<b>Feed Ratio</b>						
All including replacements	5.2	4.9	5.2	5.0	5.5	5.0
Per layer only	4.3	4.4	4.3	4.6	4.8	4.5
<b>Cost Feed</b>						
per 100 lbs.	\$3.60	\$3.89	\$5.68	\$6.49	\$6.19	\$6.37
<b>% Started pullets of total added</b>						
	26	49	67	39	5	42

\* Hens added to laying flock six months of age.

SUMMARY COSTS OF PRODUCTION  
STUDY AVERAGES

Cents/Per Dozen Results	1971	1972	1973	1974	1975	1976
Feed Cost						
Layers only	15.4¢	17.1¢	26.9¢	29.6¢	29.5¢	28.4¢
* Net Replacement Cost to 6 months	6.9	6.0	5.9	8.6	6.9	6.6
Total Feed and Replacement Cost	22.3	23.1	32.8	38.2	36.4	35.0
Labor cost						
Layers only	1.7	1.9	2.0	2.0	1.9	2.0
Misc. cash						
Layers only	1.1	1.0	1.3	1.3	1.3	1.3
Deprec. 15%						
Layers only	1.1	1.0	1.1	1.3	1.3	1.3
Interest 8%						
Layers only	1.3	1.1	1.3	1.5	1.3	1.3
Management 1¢ per dozen	1.0	1.0	1.0	1.0	1.0	1.0
Total Net ¢ Cost per dozen	28.5	29.1	39.5	45.3	43.2	41.9
Wholesale only Income per Dozen eggs	21.3	24.5	46.7	41.0	42.0	49.0
Profit + or - (per dozen eggs)	-7.2	-4.6	+7.2	-4.3	-1.2	+7.1

\* 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.

COMPARISON OF FLOCK STATISTICS INCLUDING  
MORTALITY, CULL, ADDED, PRODUCTION, AND FEED

Study Year Averages	1971-73	1974-76	PRODUCERS **	
			Top $\frac{1}{2}$ 1976	Bottom $\frac{1}{2}$ 1976
Average Laying Hen Flock *				
% Mortality	18	14	13	15
% Cull	53	39	46	49
% Cull & Mortality	71	53	59	64
% Added	72	52	61	63
Hens Days of Egg Prod. per 6 Months old Pullet Added	507	698	600	581
% Mortality to 6 Months of Age	9	8	6	10
% Flock 6 to 18 Months Old On Average	68	58	60	60
Dozen Eggs Produced Per Hen	19.6	19.2	19.9	19.3
Av. Rate Production	65%	63%	65%	63%
Eggs Produced Per Pullet Added	327	440	390	366
Extra Large, Large, AA, or A Sold	72%	73%	75%	73%
Pounds Feed Per Average Layer Only	89	89	88	90
Pounds Feed Per Dozen Eggs Layer Only	4.5	4.6	4.5	4.5
Cost of Feed Per 100 lbs.	\$4.39	\$6.35	\$6.38	\$6.38

\* Hens added to laying flock six months of age.

\*\* Simple average of producers ranked in order of  
least to highest net cost per dozen eggs produced.

## SUMMARY COST AND INCOME

Comparison of 1971-73 versus 1974-76  
and Top  $\frac{1}{2}$  Least Cost versus Bottom  $\frac{1}{2}$  High Cost Producers 1976

Year Averages	Cents Per Dozen 1971-73	Cents Per Dozen 1974-76	Cents Per Dozen PRODUCERS ****	
			Top $\frac{1}{2}$ 1976	Bottom $\frac{1}{2}$ 1976
Feed Costs				
Layers Only	19.8¢	29.1¢	28.2¢	28.7¢
Net Replacement Costs to 6 Months **	6.3	7.4	5.8	8.8
Total Feed and Replacement Cost	26.1¢	36.5¢	34.0¢	37.5¢
Labor Cost *	1.8	2.0	2.0	1.9
Miscellaneous Cash *	1.1	1.3	1.7	1.4
Depreciation 15% *	1.1	1.3	1.2	1.3
and Interest 8%	1.2	1.4	1.2	1.3
Management *	1.0¢	1.0¢	1.0¢	1.0¢
Total Net Cost Cents Per Dozen	32.3¢	43.5¢	41.1¢	44.4¢
Wholesale "nest run" Income Per Dozen	30.8¢	44.0¢	49.1¢	47.9¢
+ Profit or - Loss	- 1.5¢	+ .5¢	+ 8.0¢	+ 3.5¢
Cash Costs Per Dozen ***	29.0¢	39.8¢	37.7¢	40.8¢
Income Over Cash Costs Per Dozen	+ 1.8¢	+ 4.2¢	+11.4¢	+ 7.1¢
Cash Cost Per Hen	\$ 5.54	\$ 7.54	\$ 7.51	\$ 7.87
Income Per Hen	5.98	8.44	9.78	9.22
Income Over Cash/Hen	\$ .44	\$ .90	\$ 2.27	\$ 1.35

\* Layers Only.

\*\* 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.

\*\*\* Cash costs include feed, replacement, labor, and miscellaneous cash costs.

\*\*\*\* Simple average of producers ranked in order of least to highest net cost of egg production.

TABLE A - POULTRY EGG COST STUDY, SAN DIEGO COUNTY - 28 YEAR SUMMARY 1949 - 1976 INCLUSIVE  
Cooperative Extension, University of California - San Diego County

Year	Eggs per Hen	% Eggs Sold A or AA Large or Xtra Lg.	Percent of Average Laying Flock				Cull Income Each	Lbs. Feed per Layer Only	Feed Ratio Layers Only*	Feed Cost			Hired Labor Cost Per Doz.	Pullet Chick Cost Each
			% Died	% Culls	% Added	% Increase				per Cwt.	per Doz. **	Layers only per Doz.		
1976	230	74	13	38	52	+ 1	\$.32	86	4.5	\$6.37	31.9¢	28.4¢	2.2¢	\$.38
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	1.9	.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 - 28 YEAR SUMMARY 1949 - 1976 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 Deprec. Invest-ment	Allow-ance	Misc. Cash Costs	All Feed Cost
1976	73	49.0¢	41.9¢	+ 7.1¢	\$9.40	\$8.03	+\$1.37	\$.41	\$.01	\$.27	\$.26	\$.32	\$6.13
1975	48	42.0	43.2	- 1.2	8.13	8.37	- .24	.42	-.01	.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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