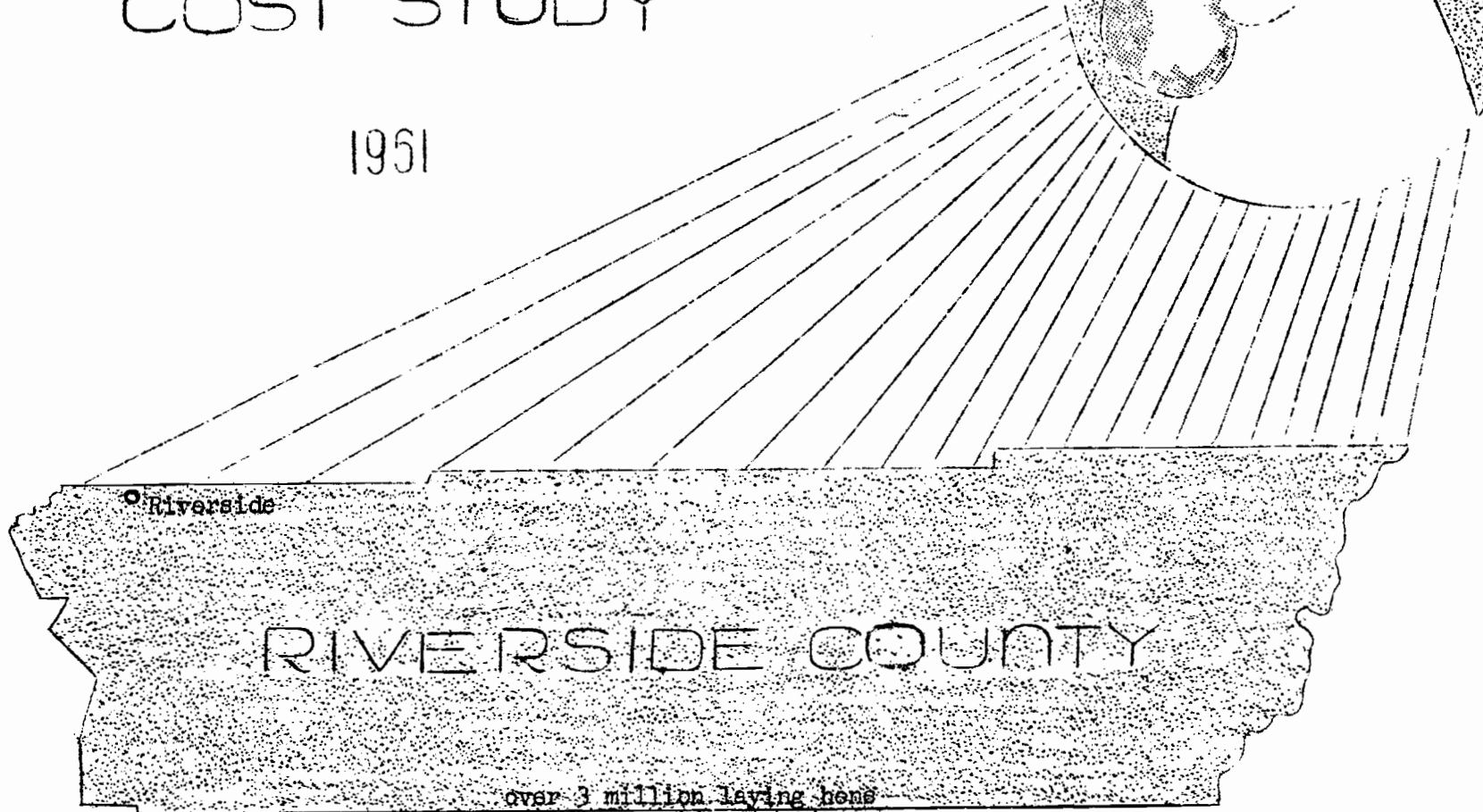
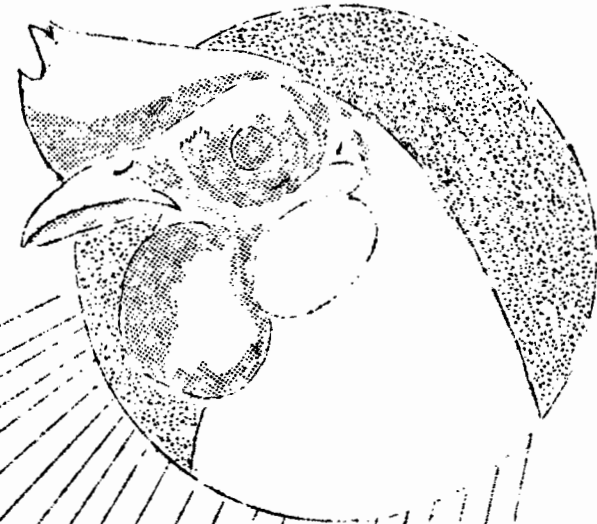


# POULTRY MANAGEMENT

## COST STUDY

1951



○ Riverside

### RIVERSIDE COUNTY

over 3 million laying hens

University of California  
Agricultural Extension Service  
Riverside County

TWENTY-THIRD ANNUAL  
POULTRY MANAGEMENT STUDY  
RIVERSIDE COUNTY

Conducted by:

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Riverside, California

5/62 150 c.

## INTRODUCTION

This is the twenty-third annual summary of the Riverside County Poultry Management Cost Study. The study was conducted by the Agricultural Extension Service of the University of California in cooperation with fifteen Riverside County poultrymen. The records in this study reflect production, costs, and income on commercial poultry operations, although they vary in size and management practices. The records in this study do not represent averages for the poultry industry in the county.

Management studies such as this should be helpful to poultrymen in learning to keep more accurate cost and production records. They are most valuable when used as a tool to help in analyzing the poultry operation to pin-point poor management practices that need to be improved. Comparing costs and management practices with other cooperators in the study can be helpful to everyone.

### The Past Versus Future Outlook

1961 was only a fair year profit-wise for poultrymen in Riverside County as shown in the tables on the following pages. The average price cooperators paid for feed in 1961 averaged 8.0 cents per cwt, higher than in 1960. Prices cooperators received for eggs in 1961 averaged 2.83 cents lower than cooperators received the previous year. Thus, lower egg prices and higher feed costs were largely responsible for the smaller returns received by most cooperators. Egg prices received per dozen in 1961 by poultrymen, in general, were second lowest since 1942.

Outlook reports indicate that 1962 may be less favorable to poultrymen than 1961. United States egg prices through June of this year are expected to be about two to three cents below the same period last year. Egg prices through July, August and September will possibly be one to two cents below a year earlier while egg supplies and prices through October, November and December are expected to be approximately the same level as the last quarter in 1961.

# EXPLANATIONS OF TERMS USED IN A POULTRY ENTERPRISE ANALYSIS

TOTAL INCOME is composed of returns from the sale of eggs, poultry manure, and other miscellaneous incomes; the value of eggs and poultry eaten in the home and the net increase in the poultry stock inventory. A decrease is subtracted in obtaining the total income.

TOTAL EXPENSE is made up of all costs of feed, chicks or poultry bought, hired labor, other cash items, the value of operator and other family labor, depreciation on buildings and equipment and six per cent interest on the average investment as shown by the inventory and capital record.

FARM INCOME is the total income minus cash and depreciation costs. It does not include the value of the operator and family labor and interest on investment or miscellaneous expenses.

MANAGEMENT INCOME is the amount by which the total income exceeds the total expense including the value of the operator and family labor and interest on the investment. If the total expense is larger, a net loss occurs, which is designated by a minus sign (-) preceding the figure.

AVERAGE NUMBER OF HENS is the average number of hens in the flock for the year. It is obtained by dividing the number of hen days for the year by the number of days in the year.

PER CENT MORTALITY is the per cent 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.

PER CENT CULLED is the per cent of the average number of hens that were sold and eaten in the home during the year. The per cent is obtained by dividing the number disposed of in this manner by the average number of hens.

PER CENT ADDED is the per cent 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 twenty-four weeks of age.

STOCK INVENTORY CHANGE is the difference between the value of the poultry stock on hand at the beginning of the year and the end of the year.

TABLE I - INCOME AND EXPENSE PER HEN

Ranch No. Flock Size*	INCOME					CASH AND DEPRECIATION COSTS							Net Farm Inc.	NON-CASH COSTS		Total Cost	Management Income
	Egg Sales	Cull Hens	Misc. Inc.	Stock Inv. Chng.	Total Inc.	Feed	Replacement Stock	Med-ication	Hired Labor	Misc.	Depre-cia-tion	Total		Family Labor	Int. on Invest.		
13 C	6.38	.11	- -	.70	7.19	3.77	.46	.04	.20	.22	.43	5.12	2.07	.34	.33	5.79	1.40
21 D	6.11	.26	.01	.49	6.87	3.56	.52	.03	.41	.34	.33	5.19	1.68	.04	.44	5.67	1.20
8 B	5.91	.14	- -	.16	6.21	3.38	.34	.19	.05	.17	.25	4.38	1.83	.50	.18	5.06	1.15
12 A	6.02	.10	- -	.43	6.55	3.42	.44	.12	- -	.22	.33	4.53	2.02	.61	.35	5.49	1.06
14 C	6.37	.26	- -	.03	6.60	3.68	.51	.29	.01	.11	.46	5.06	1.54	.51	.24	5.81	.79
18 A	6.40	.21	- -	.35	6.96	3.25	1.58	.14	- -	.16	.10	5.23	1.73	.88	.15	6.26	.70
20 D	6.26	.19	- -	.13	6.58	3.49	.40	.02	.78	.33	.57	5.59	.99	- -	.34	5.93	.65
10 B	6.47	.19	.01	.33	7.00	4.55	.42	.05	.26	.12	.25	5.65	1.35	.70	.27	6.62	.38
3 B	6.50	.20	- -	.32	7.02	4.23	.39	.06	- -	.30	.40	5.38	1.64	1.01	.28	6.67	.35
16 D	5.92	.24	.02	.24	6.42	3.24	1.30	.08	.45	.36	.32	5.75	.67	.07	.29	6.11	.31
6 C	6.05	.22	- -	.42	6.69	4.15	.45	.08	.79	.35	.43	6.25	.44	- -	.32	6.57	.12
4 B	5.91	.14	.23	.16	6.44	3.61	1.16	.06	.04	.30	.48	5.65	.79	.91	.28	6.84	-.40
15 B	6.24	.28	.01	.03	6.56	3.99	.51	.17	.08	.35	1.08	6.18	.38	.54	.32	7.04	-.48
11 B	5.89	.19	.01	-.01	6.08	3.75	.55	.06	.61	.51	.40	5.88	.20	.40	.35	6.63	-.55
19 A	6.26	.22	- -	.69	7.17	4.68	.50	.07	- -	.18	.86	6.29	.88	1.21	.38	7.88	-.71
Hl.7	6.23	.19	.01	.30	6.73	3.55	.51	.08	.38	.26	.43	5.21	1.52	.24	.32	5.77	.96
Low8	6.09	.22	.02	.24	6.57	3.84	.75	.08	.40	.34	.49	5.90	.67	.38	.31	6.59	-.02
Avg.	6.18	.20	.01	.28	6.67	3.66	.60	.08	.39	.29	.45	5.47	1.20	.29	.32	6.08	.59

\*A: up to 5,000    B: 5,001 - 10,000    C: 10,001 - 20,000    D: over 20,001

For the cooperator's identification, each flock is assigned a ranch number as noted in the left hand column. Letters of the alphabet indicate flock size. Flock records are listed according to management income per hen from the highest down to the lowest.

Cooperators showed a net farm income of \$1.20 per bird after cash and depreciation costs were deducted.

TABLE II - INCOME AND EXPENSE IN CENTS PER DOZEN EGGS SOLD

Ranch No.	INCOME					CASH AND DEPRECIATION COSTS							Net Farm Inc.	NON-CASH COSTS		Total Cost	Management Income
	Flock Size	Egg Sales	Cull Hens	Misc. Inc.	Stock Inv. Chng.	Total Inc.	Feed	Replacement Stock	Med- ica- tion	Hired Labor	Misc.	Depre- cia- tion		Total	Family Labor		
13 C	31.8	.5	--	3.5	35.8	18.8	2.3	.2	1.0	1.1	2.1	25.5	10.3	1.7	1.6	28.8	7.0
21 D	31.1	1.3	.1	2.4	34.9	18.1	2.6	.2	2.1	1.7	1.7	26.4	8.5	.2	2.2	28.8	6.1
8 B	23.0	.5	--	.6	24.1	13.1	1.3	.7	.2	.7	1.0	17.0	7.1	2.0	.6	19.6	4.5
12 A	32.5	.5	--	2.3	35.3	18.4	2.3	.7	--	1.2	1.8	24.4	10.9	3.3	1.9	29.6	5.7
14 C	32.2	1.3	--	.2	33.3	18.6	2.6	1.4	.1	.6	2.3	25.6	7.7	2.6	1.2	29.4	3.9
18 A	30.4	1.0	--	1.7	33.1	15.4	7.5	.7	--	.8	.5	24.9	8.2	4.2	.7	29.8	3.3
20 D	32.1	1.0	--	.7	33.8	17.9	2.1	.1	4.0	1.7	2.9	28.7	5.1	--	1.7	30.4	3.4
10 B	32.2	.9	.1	1.6	34.8	22.6	2.1	.3	1.3	.6	1.2	28.1	6.7	3.5	1.3	32.9	1.9
3 B	31.1	1.0	--	1.5	33.6	20.3	1.9	.3	--	1.4	1.9	25.8	7.8	4.8	1.4	32.0	1.6
16 D	31.0	1.2	.1	1.3	33.6	17.0	6.8	.4	2.4	1.8	1.7	30.1	3.5	.4	1.5	32.0	1.6
6 C	31.2	1.1	--	2.1	34.4	21.3	2.3	.4	4.1	1.8	2.2	32.1	2.3	--	1.6	33.7	.7
4 B	30.7	.7	1.2	.8	33.4	18.7	6.0	.3	.2	1.6	2.5	29.3	4.1	4.7	1.5	35.5	-2.1
15 B	31.8	1.4	.1	.1	33.4	20.3	2.6	.9	.4	1.8	5.5	31.5	1.9	2.7	1.6	35.8	-2.4
11 B	31.2	1.1	.1	.1	32.3	19.9	2.9	.3	3.2	2.7	2.2	31.2	1.1	2.1	1.9	35.2	-2.9
19 A	30.6	1.1	--	3.4	35.1	23.0	2.4	.3	--	.9	4.2	30.8	4.3	5.9	1.9	38.6	-3.5
Hi.7	30.9	.9	.1	1.5	33.4	17.6	2.6	.4	1.9	1.3	2.1	25.9	7.5	1.2	1.6	28.7	4.7
Low8	31.2	1.1	.1	1.3	33.7	19.7	3.9	.4	2.0	1.8	2.5	30.3	3.4	2.0	1.5	33.8	-.1
Avg.	31.0	1.0	.1	1.4	33.5	18.4	3.1	.4	1.9	1.5	2.2	27.5	6.0	1.5	1.6	30.6	2.9

The average farm income for eggs sold averaged 6.0 cents per dozen while the management income averaged 2.9 cents per dozen.

TABLE III - FLOCK MANAGEMENT AND PRODUCTION COST FACTORS

Ranch No. Flock Size	Per Cent Died to 24 Weeks	Per Cent of Avg. Laying Flock Stock				Price Per Cull Hen	Pounds Feed Per Hen			Hours Labor Per Hen	Feed Con- version	Egg- Feed Ratio	Feed Cost Per Cwt.	Chick Cost
		Died	Culled	Added	Inv. Change		Young birds*	Hens	Total					
13 C	9.3	5.9	41.5	70.2	+22.1	25.9	17.6	98.4	116.0	.4	4.9	9.8	3.25	36.1
21 D	9.4	10.5	81.1	95.6	+ 3.1	31.9	23.9	94.5	118.4	.4	4.6	10.3	3.01	36.7
8 B	16.2	15.5	64.7	87.6	+ 7.4	19.1	21.9	86.5	108.4	.4	4.7	7.4	3.10	33.2
12 A	9.3	11.8	42.1	71.9	+16.0	24.6	18.0	91.7	109.7	.4	4.9	10.4	3.11	40.8
14 C	9.1	8.0	87.4	137.7	+42.3	29.8	34.4	84.1	118.5	.3	4.1	10.3	3.11	37.7
18 A	.6	30.8	68.4	136.7	+37.1	30.2	34.2	72.3	106.5	.6	3.4	10.0	3.05	--
20 D	2.4	6.7	69.4	101.1	+24.3	26.8	25.3	89.8	115.1	.5	4.4	10.6	3.04	38.2
10 B	18.8	13.9	69.0	96.7	+13.9	27.0	24.2	115.9	140.1	.7	5.7	9.9	3.25	32.7
3 B	4.4	9.1	74.2	92.7	+ 9.4	28.0	23.2	101.5	124.7	.7	4.6	9.2	3.39	34.3
16 D	5.0	25.0	73.5	122.2	+24.4	32.3	30.6	80.4	111.0	.4	4.2	10.6	2.92	28.9
6 C	8.5	9.4	79.5	125.9	+37.0	27.9	31.5	95.8	127.3	.6	4.7	9.6	3.25	29.3
4 B	3.3	15.3	80.8	91.7	- 4.3	16.8	22.9	86.6	109.5	.6	4.4	9.4	3.25	35.1
15 B	14.4	9.8	90.7	97.8	- 4.8	31.3	24.5	106.4	130.9	.4	5.2	10.5	3.04	30.7
11 B	19.6	15.7	80.3	84.5	-10.0	25.4	21.1	95.6	116.7	.7	4.8	9.8	3.18	37.7
19 A	9.9	9.1	74.9	125.9	+42.0	28.9	31.5	108.9	140.4	.8	5.3	9.2	3.33	30.3
H1.7	6.9	9.7	68.2	99.6	+21.1	28.0	24.9	90.3	115.2	.4	4.4	10.0	3.08	36.9
Low8	9.7	15.4	78.0	108.8	+15.6	28.5	27.2	67.4	94.6	.6	4.7	9.9	3.14	31.3
Avg.	8.0	11.9	71.9	103.1	+19.0	28.2	25.8	91.9	117.7	.5	4.6	10.0	3.11	34.8

\* Young birds under 24 weeks of age.

Feed Conversion - Pounds of feed to produce a dozen eggs.

Egg-Feed Ratio - Pounds of feed that can be purchased with a dozen eggs.

The number of pullet replacements added to the laying flock averaged 103.1 per cent compared with 90.0 per cent in 1960. This is reflected in the average production of 242.3 eggs per bird last year compared to 240.4 eggs per bird in the 1960 study.

TABLE IV - EGG PRODUCTION AND SALES

Ranch No. Flock Size	Eggs Per Hen	Per Cent Production	Per Cent Eggs Marketed				Value Per Dozen		
			Large	Medium	Small	Commercial	Average Price	Net Cost	Management Income
13 C	242.8	66.5	67.6	25.9	3.5	3.0	31.8	24.8	7.0
21 D	247.3	67.4	71.6	23.1	2.0	3.3	31.1	25.0	6.1
8 B	219.3	60.1	85.5	11.3	1.4	1.8	23.0	18.5	4.5
12 A	226.6	62.1	68.7	22.9	3.7	4.7	32.5	26.8	5.7
14 C	247.7	67.9	69.8	23.7	3.3	3.2	32.2	28.2	4.0
18 A	253.3	69.4	68.8	25.9	4.4	.9	30.4	27.1	3.3
20 D	245.6	67.3	80.2	13.9	2.4	3.5	32.1	28.8	3.3
10 B	244.9	67.1	67.3	19.5	4.1	9.1	32.2	30.3	1.9
3 B	262.3	71.9	68.8	16.9	3.7	12.6	31.1	29.5	1.6
16 D	228.4	62.6	61.5	24.9	4.4	9.2	31.0	29.4	1.6
6 C	246.2	67.4	57.4	26.3	7.2	9.1	31.2	30.5	.7
4 B	238.8	65.4	65.4	21.2	3.6	9.8	30.6	32.7	-2.1
15 B	240.7	66.0	75.0	18.9	2.8	3.3	31.8	34.2	-2.4
11 B	239.1	65.3	73.2	20.4	4.2	2.2	31.2	34.1	-2.9
19 A	248.1	68.0	67.8	21.5	5.9	4.8	30.7	34.2	-3.5
Hi.7	243.6	66.6	74.2	20.0	2.7	3.1	30.9	26.2	4.7
Low8	240.3	65.8	65.3	22.4	4.7	7.6	31.2	31.3	-.1
Avg.	242.3	66.3	70.9	20.9	3.4	4.8	31.0	28.1	2.9

Average price of eggs received by cooperators was 31.0 cents compared with 33.8 cents in 1960. The average net cost of producing eggs was 28.1 cents compared with 27.9 cents in 1960.



TABLE V - SUMMARY OF RIVERSIDE COUNTY POULTRY MANAGEMENT STUDIES SINCE 1954

	1954	1955	1956	1957	1958	1959	1960	1961
Number of Records	23	28	20	17	16	14	13	15
Average number of hens	2805	2765	2693	3068	4444	5536	8152	11839
Eggs per hen	234	234	232	232	230	242	240	242
Per cent hen mortality			10.5	10.1	10.9	11.6	12.4	11.9
Per cent chick mortality			4.5	7.3	7.5	9.6	9.8	8.0
Per cent culled	96	87	94	74	90	80	56	72
Per cent added			121	101	104	108	90	103
Hours labor per hen	1.1	1.1	1.1	.9	1.0	.8	.6	.5
Pounds feed per hen	133	130	130	120	122	122	116	118
Pounds feed per dozen eggs			5.0	4.9	5.0	4.7	4.7	4.6
Feed cost per 100 pounds	3.92	3.77	3.66	3.49	3.47	3.31	3.03	3.11
Feed cost per dozen eggs						20.7	18.0	18.4
Average price of eggs	36.4	42.6	36.2	35.8	36.5	30.0	33.8	31.0
Net cost per dozen	36.4	36.4	34.2	33.2	34.0	32.3	27.9	28.1
Mgt. income per dozen	- -	6.2	2.0	3.1	2.5	-2.3	5.9	2.9
Total income per hen	7.77	9.08	8.03	7.44	7.77	6.28	7.13	6.67
Total expense per hen	7.78	7.90	7.63	5.53	5.81	5.77	5.31	5.47
Farm income per hen	1.01	2.46	1.81	1.91	1.77	.51	1.82	1.20
Management income per hen	-.01	1.18	.40	.59	.44	-.44	1.16	.59
Egg-feed ratio			9.8	10.3	10.5	9.1	11.2	10.0

It is particularly noticeable how the average size of laying flock has been increasing.

Management practices, types of housing and different methods of brooding used in managing the poultry operations represented in this study are listed in the following tables.

Cooperator's Serial Numbers	3	4	6	8	11	12	13	14	15	16	18	19	20	21
<b>LAYING FLOCK</b>														
Average Number Layers*	B	B	C	B	B	A	C	C	B	C	A	A	D	D
<b>Number layers per pen:</b>														
Individual cages - 1 bird			X		X							X		
Multiple cages - 2-6"	X	X	X	X	X	X	X	X	X	X	X		X	X
Wire pens - over 6 birds			X			X								
<b>BROODING</b>														
<b>Source of Brooder Heat:</b>														
Electricity (canopy)		X			X	X			X					
Infra-red bulbs			X											
Gas (canopy)	X	X		X			X	X	X	X		X	X	X
Number of broods	6	2	5	6	5	4	3	5	8	9	6	6	7	4
<b>Type of Brooder Housing:</b>														
Floor			X		X		X	X						X
Wire pens	X	X		X		X			X	X		X	X	
<b>VACCINATION PROGRAM</b>														
Newcastle disease	X	X		X	X				X	X	X	X	X	X
First vaccination, B <sup>1</sup>		X	X	X		X	X	X	X	X	X	X	X	X
Second vaccination (1) wing web, (2) intramus.	2	1		1	1	2	1	1	1	2		1	1	1
Newcastle and Bronchitis	X							X			X	X		
Bronchitis	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Tracheitis	X	X	X	X	X	X	X	X	X	X	X	X	X	
Fowl Pox	X	X	X	X		X	X	X	X	X		X	X	

\* A  
Up to 5,000

B  
5,001 - 10,000

C  
10,001 - 20,000

D  
Over 20,001

Cooperator's Serial Number		3	4	6	8	11	12	13	14	15	16	18	19	20	21
<b>MANURE REMOVAL PLAN</b>															
	Every few weeks											X			
	Every six months	X	X	X	X	X	X	X	X	X	X		X	X	X
<b>EGG HANDLING</b>															
<u>Times Gathered:</u>															
	Three times a day										X				
	Twice a day	X	X	X	X	X	X	X		X			X	X	X
	Once a day								X			X			
<u>Equipment Used in Gathering Eggs:</u>															
	Push carts	X				X	X		X		X		X	X	X
	Power-driven carts	X	X	X	X			X		X		X			X
	Filler flats	X	X	X	X	X	X	X	X	X	X		X	X	X
<u>Egg Processing Done on Ranch:</u>															
	Cleaned and graded			X	X	X				X			X		
	Packed in cartons			X			X								
	Eggs cooled under refrigeration immediately after gathering	X		X		X	X	X			X	X			
	Eggs cleaned and graded before cooling				X	X				X			X	X	X
<b>DISEASE</b>															
	Complex disease present		X		X				X				X		
<u>Treatment Used:</u>															
	Sulfa				X				X	X					
	Antibiotic		X	X	X				X	X	X		X		
	Bacterin (coryza)			X	X				X	X	X				

It is interesting to compare the different management practices used and note the influence of management upon profit or loss as reflected in the results of this study. A careful analysis of the results may be helpful in making management decisions relative to needed changes in your management practices.