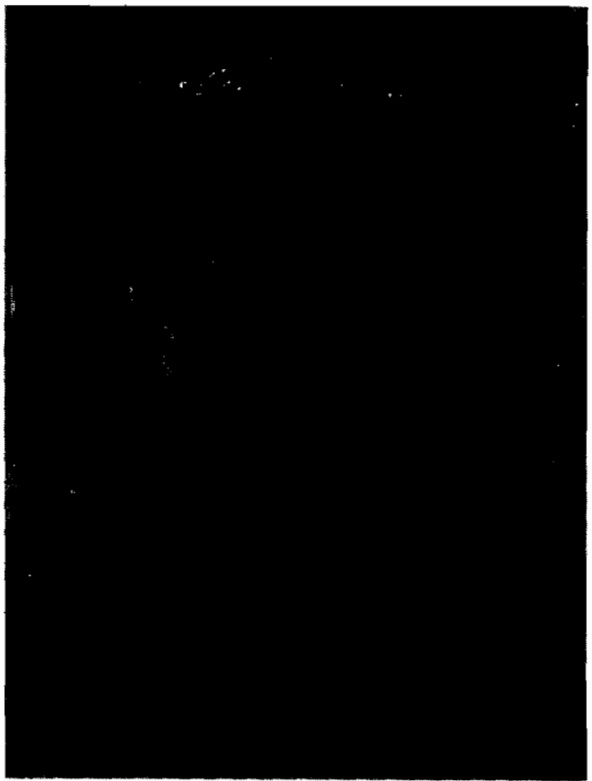
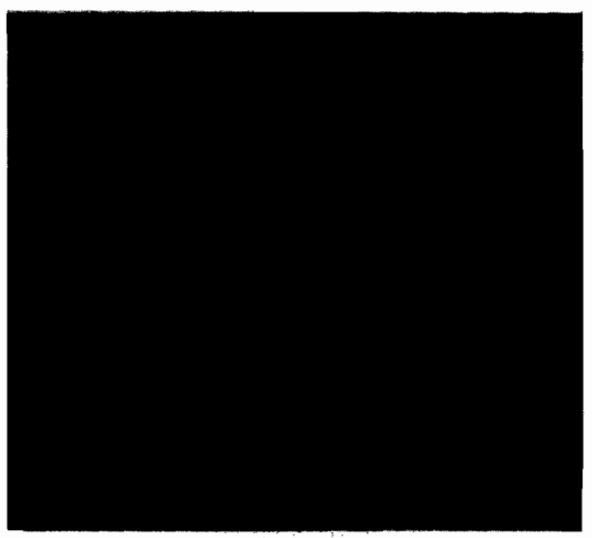


Eggs



**ORANGE COUNTY
POULTRY RANCH
LABOR STUDY
1962**



POULTRY RANCH LABOR

The amount of labor required to operate an egg production ranch is one of the most variable of all cost items. This variability is a reflection of the type of housing and equipment used. It is also due to the method each poultryman uses to accomplish an individual task.

Many manufacturing firms are presently promoting laborsaving items for poultry ranches. These include feeders, egg gatherers, manure handlers as well as various types of egg processing equipment. Whether or not this equipment represents a sound investment would depend upon labor savings as well as possible gains from side benefits.

Purpose

This labor study was conducted to illustrate the labor required for various routine chores as well as the normal distribution of labor on typical cage egg ranches. The results should be applicable in any area which utilizes the cage system of housing. It can serve as a guide for improvement on those ranches participating as well as a type of standard for all cage ranches.

For ranches contemplating the use of mechanical equipment it serves as a starting point from which to analyze the proposed benefits. It will not substitute for a careful analysis of your own labor usage.

Method of Conducting Study

In the spring and summer of 1962, thirty-four Orange County poultry ranch owners were interviewed regarding the labor used on their ranches. All of the ranches selected were of the wire cage or wire pen type. All ranches used electric or gas-powered feed carts. All feed was purchased in bulk except some chick feed. All eggs were gathered by hand.

The owner was questioned carefully about each "routine" chore associated with his ranch. Many had routine chores which others did only periodically. We finally narrowed the routine chores down to eleven and placed the balance of labor into a miscellaneous category.

The owner's estimate of labor used for each chore was based on his own daily, weekly or monthly experience with the particular chore. In cases where the owner was not familiar with the time required to perform a particular chore, a card was left with him to fill out when he performed the chore the next time.

Labor was broken down so that persons not raising their own pullets or processing their own eggs could utilize those records which correspond to their operation. In all cases "pullets" includes only to 16 weeks of age.

The author is Donald Bell, Poultry Farm Advisor, Orange County

12/62/400 copies

GENERAL RANCH INFORMATION

Ranch No.	Size	Type of Housing	% Prod.	Type of Brooders	Brooding Interval	Number of Handlings* Before 24 Weeks			
						Vaccinating	Debeaking	Moving	Total
1	D	Cages	66	Battery & Sunshine	10 wks.	4	1	2	7
2	D	Cages	66	Hot Water	13 wks.	7	1	2	10
3	D	3'x6' pens	69	Hot Water	7 wks.	6	1	2	9
4	C	Cages & 3'x6' pens	68	----	----	-	-	-	-
5	C	Cages & 3'x6' pens	64	Battery & Sunshine	13 wks.	4	2	2	8
6	C	Cages	66	Hot Water	6 wks.	6	1	2	9
7	D	Cages	74	----	----	-	-	-	-
8	C	Cages	69	Hot Water	8 wks.	5	1	2	8
9	C	Cages	72	Sunshine	8 wks.	4	1	1	6
10	B	Cages	70	----	----	-	-	-	-
11	B	Cages	72	Sunshine	8 wks.	5	1	2	8
12	D	Cages	69	Hot Water	10 wks.	6	1	2	9
13	C	Cages	70	Sunshine	7 wks.	5	1	2	8
14	D	Cages & Col. Houses	69	Hot Water & Sunshine	7 wks.	5	2	2	9
15	D	Cages	64	Hot Water & Sunshine	4 wks.	5	1	3	9
16	D	Cages & 8'x10's	60	Battery & Sunshine	4 wks.	4	1	3	8
17	B	Cages	68	Hot Water	7 wks.	6	1	2	9
18	D	Cages	73	Hot Water	7 wks.	5	0	2	7
19	C	3'x6' pens	69	Hot Water	7 wks.	7	1	2	10
20	A	Cages	64	Sunshine	7 wks.	6	1	2	9
21	B	Cages	58	Sunshine	7 wks.	3	1	2	6
22	B	Cages	62	Battery & Sunshine	4 wks.	4	1	2	7
23	B	8'x10's	69	Battery	10 wks.	3	1	2	6
24	B	Cages	70	Sunshine	8 wks.	4	1	3	8
25	D	Cages	66	Hot Water & Sunshine	8 wks.	5	1	2	8
26	A	Cages	73	Sunshine	17 wks.	1	0	2	3
27	C	Cages	64	----	----	-	-	-	-
28	D	Cages	65	Hot Water	10 wks.	3	1	2	6
29	B	3'x6' pens	70	Sunshine	6 wks.	7	1	2	10
30	B	Cages & 3'x6' pens	66	Hot Water	8 wks.	1	1	2	4
31	C	8'x10's	62	Hot Water & Sunshine	12 wks.	4	1	2	7
32	B	Cages	68	----	----	-	-	-	-
33	B	Cages	68	Hot Water	10 wks.	6	1	2	9
34	A	Cages	64	Sunshine	8 wks.	4	1	2	7
Avg.	16,000		67%		8 wks.	5	1	2	8

*not including handling on arrival

A - 0-5,000 laying hens
B - 5-10,000 laying hens

C - 10-20,000 laying hens
D - over 20,000 laying hens

VACCINATION AND DEBEAKING SCHEDULES

Ranch No.	Fowl Pox	Infectious Coryza	Newcastle Disease
1	1 day, ww	<u>3½ wks</u> , i.m.	<u>3½ wks</u> , i.o./12 wks, i.m.
2	2 days, ww	<u>3½ & 11 wks</u> , i.m.	3 & 12 wks, i.m.
3	16 wks, ww	3 wks, i.m.	<u>4 wks</u> , i.o./10 wks, i.m.
4	Started		Pullets
5	1 day, thigh	<u>4 wks</u> , i.m.	<u>4 & 14 wks</u> , i.m.
6	4 days, ww	<u>3 wks</u> , i.m.	<u>4 & 14 wks</u> , i.m.
7	Started		Pullets
8	4 days, ww	----	3 & 12 wks, i.m.
9	1 day, ww	<u>3 wks</u> , i.m.	<u>3 & 12 wks</u> , i.m.
10	Started		Pullets
11	9 wks, ww	----	7 wks, i.o./12 wks, ww
12	16 wks, ww	4 wks, i.m.	3 & 12 wks, i.m.
13	8 days, ww	5 wks, i.m.	4 wks, water/14 wks, i.m.
14	1 day, ww	<u>3½ wks</u> , i.m.	3 & 10 wks, i.m.
15	<u>8½ wks</u> , ww	<u>3½ wks</u> , i.m.	<u>4½ wks</u> , i.m./16 wks, ww
16	1 day, ww	4 wks, i.m.	7 days, water/10 wks, i.m.
17	1 day, ww	3 wks, i.m.	4, 12 & 25 wks, i.m.
18	1 day, ww	3 wks, i.m.	<u>3½ wks</u> , i.o./11½ wks, i.m.
19	4 days, ww	<u>3½ wks</u> , i.m.	11 days, i.o./6 & 12½ wks, i.m.
20	16 wks, ww	<u>4½ wks</u> , i.m.	3 & 12 wks, i.m.
21	3 wks, ww	----	1 & 4 wks, water/19 wks, ww
22	6 days, ww	----	6 & 17 wks, i.m.
23	1 day, ww	<u>2 wks</u> , i.m.	3 wks, water/10 wks, i.m.
24	1 day, ww	<u>4 wks</u> , i.m.	<u>4 & 12 wks</u> , i.m.
25	1 wk, ww	3 wks, i.m.	<u>4 & 14 wks</u> , i.m.
26	<u>6 wks</u> , ww	----	<u>10 days</u> , water/ <u>4 & 14 wks</u> , water
27	Started		Pullets
28	<u>15 wks</u> , ww	----	4 wks, spray/ <u>15 wks</u> , ww
29	6 days, ww	1 wk, i.m.	<u>3½ & 13 wks</u> , i.m.
30	1 day, ww	----	<u>9 wks</u> , i.o.
31	<u>14 wks</u> , ww	<u>3 & 14 wks</u> , i.m.	<u>3 & 20 wks</u> , i.m.
32	Started		Pullets
33	16 wks, ww	4 wks, i.m.	3 & 12 wks, i.m.
34	1 day, ww	5 wks, i.m.	<u>3½ & 12 wks</u> , i.m.

ww (wing-web)

i.m. (intra-muscular)

i.o. (intra-ocular)

combined vaccinations are underlined

The listing of vaccination schedules in this publication is for the purpose of analyzing labor requirements only. Many methods of immunization are available to poultrymen. Most of those currently in use involve handling of the individual bird. Water vaccination and spray vaccination are the only types in use locally which do not require handling the birds.

VACCINATION AND DEBEAKING SCHEDULES

Ranch No.	Infectious Bronchitis	Laryngotracheitis	Debeaking
1	10 wks, i.o.	8 wks, vent br.	11 wks.
2	10 days, water/13 wks, i.o.	7 wks, vent br.	17 wks.
3	4 days, water/14 wks, i.o.	4 wks, vent br./12 wks, i.o.	13 wks.
4		Started	Pullets
5	10 wks, water	5 wks, vent br./16 wks, i.o.	5½ & 16 wks.
6	10 days, water/10 wks, i.o.	7 wks, vent dr.	16 wks.
7		Started	Pullets
8	10 days, water/11 wks, i.o.	7 wks, vent br.	13 wks.
9	10 days, water/14 wks, i.o.	7 wks, vent br.	20 wks.
10		Started	Pullets
11	15 wks, i.o.	18 wks, vent dr.	16 wks.
12	10 days, water/13 wks, i.o.	7 wks, vent br.	20 wks.
13	11 days, water/16 wks, i.o.	8 wks, vent dr.	15 wks.
14	10 days, water/12 wks, i.o.	7 wks, vent br.	9 & 16 wks.
15	11½ wks, i.o.	8½ wks, vent dr.	18 wks.
16	5 wks, water	3 & 8 wks, vent br.	16 wks.
17	10 days, water/17 wks, i.o.	7 wks, vent br.	16 wks.
18	9 wks, i.o.	6½ wks, vent br.	---
19	11 days, i.o./14 wks, water	10 wks, vent dr.	20 wks.
20	10 wks, i.o.	7 wks, vent dr.	1 day/20 wks.
21	2 & 5 wks, water	20 wks, vent dr.	13 wks.
22	----	8 wks, vent br.	18 wks.
23	----	2 wks, vent dr./8 wks, i.o.	12 wks.
24	9 wks, i.n.	7 wks, vent br.	18 wks.
25	2 & 12 wks, water	7 wks, vent br.	1 day/15 wks.
26	10 days, water/4 & 14 wks, water	6 wks, vent dr.	---
27		Started	Pullets
28	2 wks, spray/12 wks, i.n.	6½ wks, vent br.	19 wks.
29	9 wks, i.n.	7 wks, vent br./15 wks, i.o.	1 day/20 wks.
30	10 days, water	9 wks, vent br.	1 day/14 wks.
31	12 days, water/11 wks, i.o.	6 wks, vent br.	11 wks.
32		Started	Pullets
33	8 days, water/13 wks, i.o.	7 wks, vent br.	12 wks.
34	7 days, water	7 wks, vent dr.	1 day/20 wks.

i.n. (intra-nasal)

vent br. (vent brush)

vent dr. (vent drop)

Pages 4&5 should be referred to when studying the following pages. The age of handling and the method are quite important in analyzing the time required for specific vaccinations. Oftentimes poultrymen combine vaccinations or a vaccination with a move or debeaking. Often multiple stresses of this type can seriously harm the pullet.

VACCINATION AND DEBEAKING RATES

PULLETS PER MAN HOUR

Ranch No.	debeaking	ww	i.o. or i.n.	vent drop	vent brush	water	injection
1	223	624	347	---	250	---	390
2	260	578	650	---	260	5200	867
3	185	463	463	---	---	1850	308
4		Started		Pullets			
5	260	---	277	---	260	4160	489
6	146	491	368	368	---	3828	435
7		Started		Pullets			
8	130	676	347	---	116	1931	376
9	139	130	347	---	104	693	208
10		Started		Pullets			
11	138	367	314	183	---	---	---
12	181	805	341	---	360	3380	407
13	100	175	233	175	---	2625	233
14	100	438	292	---	154	6563	279
15	223	485	416	---	---	---	416
16	208	520	---	---	260	3863	466
17	144	575	288	---	144	1078	288
18	---	736	565	---	433	---	736
19	125	433	433	150	---	3750	375
20	123	203	246	203	---	---	246
21	271	416	---	240	---	3120	---
22	277	555	---	---	151	---	263
23	130	347	173	---	---	2080	---
24	188	975	250	---	150	---	165
25	169	211	---	---	113	2197	211
26	---	---	---	---	---	1248	---
27		Started		Pullets			
28	340	378	378	---	283	---	---
29	130	---	295	---	260	---	295
30	260	520	520	---	347	1040	---
31	---	---	---	---	108	867	163
32		Started		Pullets			
33	210	210	210	---	107	1768	316
34	163	325	---	217	---	975	325
Avg.	184	465	349	219	214	2610	356

The vaccination and debeaking rates shown on this page represent many different methods of handling, types of equipment and ages of pullets. Combined operations were not included in this chart. If you wish to compare rates with ranches in this study, you should refer back to the vaccination schedules so that you can be sure you're comparing similar operations.

Speed is important only to a point. Above all, thoroughness is most important. Handling of birds during vaccination should be done by one person while the actual vaccination should be done by another. This avoids spillage of vaccines and errors. Excessive speed in vaccination is seldom profitable.

ROUTINE PULLET CHORES

(To 16 Weeks of Age)

MINUTES PER 100 PULLETS

Ranch No.	Vaccinating	Debeaking	Feeding	Moving	Clean-up	Total
1	81	27	63	35	37	243
2	72	23	106	51	20	272
3	114	32	63	29	19	257
4	Started		Pullets			
5	85	55	346	56	48	590
6	89	41	87	41	28	286
7	Started		Pullets			
8	113	46	113	32	29	333
9	213	43	216	23	46	541
10	Started		Pullets			
11	104	44	177	65	55	445
12	88	33	52	44	56	273
13	179	60	141	51	43	474
14	141	137	96	31	21	426
15	84	27	110	61	54	336
16	87	29	485	61	75	737
17	157	42	167	58	52	476
18	60	--	225	16	14	314
19	113	48	88	27	28	304
20	154	49	212	63	53	531
21	69	22	231	43	8	373
22	130	22	194	58	60	464
23	124	46	183	32	89	474
24	143	32	80	56	32	343
25	172	36	149	57	28	442
26	58	--	303	43	63	467
27	Started		Pullets			
28	56	18	71	24	49	218
29	128	46	323	26	35	558
30	46	23	121	46	55	291
31	192	37	129	55	69	482
32	Started		Pullets			
33	174	29	77	35	18	333
34	111	37	269	55	69	541
Avg.	115	37	168	44	43	407

*The average was obtained by dividing by 29 ranches (no started pullet ranches were included).

For purposes of being able to separate 16-week-old pullets from hens, all vaccinations, debeakings and movings have been charged to the pullets irregardless of when the chore was accomplished.

This page shows slightly over four minutes of time spent in raising a pullet from one day to sixteen weeks of age. This would mean 10¢ per pullet at \$1.50/hour. This, of course, does not allow for any miscellaneous chores associated with raising the pullets other than the routine chores listed.

ROUTINE HEN CHORES *

MINUTES PER 100 HENS PER YEAR

Ranch No.	Feeding**	Gathering Eggs	Culling & Moving	Stirring Feed	Total
1	144	510	42	0	696
2	144	474	42	24	684
3	108	474	30	0	612
4	342	408	30	0	780
5	354	354	78	0	786
6	180	732	54	0	966
7	360	474	72	0	906
8	240	516	108	0	864
9	192	834	162	0	1188
10	510	654	72	144	1380
11	360	510	132	144	1146
12	144	672	96	0	912
13	300	822	240	150	1512
14	276	696	90	24	1086
15	380	530	176	0	1086
16	306	612	235	54	1207
17	258	642	222	84	1206
18	90	684	90	0	864
19	354	624	60	0	1038
20	486	852	54	132	1524
21	312	510	96	0	918
22	300	798	144	102	1344
23	912	1098	6	0	2016
24	354	666	66	0	1086
25	366	474	126	0	966
26	444	1830	210	96	2580
27	498	1590	252	102	2442
28	186	312	12	24	534
29	264	600	90	0	954
30	366	642	180	0	1188
31	432	1218	66	0	1716
32	383	1095	164	0	1642
33	366	1218	78	0	1662
34	486	1218	138	324	2166
Avg.***	329	745	109	41	1224

*Based on average hen inventory over 24 weeks of age

**Includes feeding 16-24 week old pullets

***The average was obtained by dividing by 34

This page illustrates the time required for routine laying flock chores. Twelve and one-quarter minutes would be required to take care of the routine chores listed for one hen for one year. In a 40-hour week one person could handle 10,000 hens at this rate. This would not allow any time for pullet rearing, egg processing or miscellaneous.

Culling on these ranches is mostly once a week sight or age group culling. Hens are moved very little once they get into the laying cages.

HEN FEEDING AND EGG GATHERING RATES

Ranch No.	Feeding		Egg Gathering	
	Number of Feedings	Hens per Hour	Number of Gatherings	Cases Per Hour
1	2	34,600	2	8
2	2	34,000	1	8
3	1	22,500	2	9
4	2	16,000	1	10
5	2	15,200	2	11
6	2	28,400	1	6
7	2	13,200	1	10
8	2	20,600	1	8
9	2	24,800	1	5
10	2	9,800	1	7
11	2	13,800	1	9
12	2	36,600	2	7
13	2	16,600	1	5
14	1	9,100	1	7
15	2	12,800	2	7
16	1	8,500	1	6
17	2	19,200	1	6
18	1	28,500	1	7
19	2	14,200	2	7
20	1	5,100	1	5
21	1	7,800	2	7
22	2	16,800	2	5
23	1	2,700	1	4
24	2	14,400	1	6
25	2	14,600	2	10
26	1	5,700	2	2
27	2	10,800	2	3
28	2	27,800	1	11
29	2	18,600	2	7
30	1	7,000	1	6
31	1	6,200	3	3
32	2	14,000	2	4
33	2	14,200	2	3
34	1	10,200	1	3
Avg.	1.67	16,300	1.5	7.4

All feeding is done once or twice a day by power feed carts. On some ranches feeding is accomplished at speeds of two-three miles per hour. Traveling hoppers are generally used and these are kept full by a hand scoop. One side of the house is fed at a time. Extreme variations occur because of type of housing, accessibility to feed tanks and smoothness of aisles.

Egg gathering is done with the use of push carts with capacities of four-six 30 dozen cases of eggs. Eggs are generally gathered directly into fiber or plastic filler flats and placed in cases later.

EGG PROCESSING

Ranch No.	Type	Cases/Man Hr.
1	none	
2	none	
3	none	
4	none	
5	none	
6	none	
7	none	
8	none	
9	none	
10	none	
11	Packing	19
12	Wash and Pack	15
13	Packing	21
14	Wash, Size and Pack	6
15	Wash, Size and Pack	4
16	none	
17	none	
18	Wash and Pack	12
19	Wash, Size and Pack	7
20	none	
21	Wash, Size and Pack	3
22	none	
23	none	
24	Wash, Size and Pack	4
25	Wash, Size and Pack	5
26	none	
27	none	
28	Wash, Size, Candle and Pack	4
29	Wash, Size and Pack	2
30	Wash, Size and Pack	2
31	Wash, Size and Pack	4
32	Wash, Size and Pack	2
33	Wash, Size and Pack	5
34	none	
Avg.	(Washing, Sizing and Packing)	4

With the advent of in-plant cleaning and sizing of eggs, there has been a shift away from processing eggs on the poultry ranch. Over half of the ranches in this study now send their eggs in uncleaned and unsized.

Those ranches still washing and sizing eggs generally receive slightly more for their eggs. In most cases, though, the extra time spent absorbs the extra income.

RANCH SUMMARY

HOURS PER HEN YEAR

Ranch No.	Routine Pullet Care	Routine Hen Care	Egg Processing	Total	Hired & Family Labor	Difference (Miscellaneous)	% Miscellaneous of Total
1	.04	.12	---	.16	.17	.01	3.8%
2	.02	.11	---	.13	.18	.05	26.9
3	.04	.10	---	.14	.20	.06	27.0
4	---	.13	---	.13	.26	.13	50.0
5	.09	.13	---	.22	.26	.04	15.0
6	.05	.16	---	.21	.27	.06	21.3
7	---	.15	---	.15	.31	.16	50.8
8	.05	.14	---	.19	.31	.12	37.8
9	.08	.20	---	.28	.35	.07	20.6
10	---	.23	---	.23	.35	.12	33.3
11	.07	.19	.04	.30	.39	.09	25.2
12	.05	.14	.05	.24	.41	.17	41.8
13	.07	.25	.03	.35	.45	.10	20.7
14	.07	.18	.04	.29	.46	.17	36.1
15	.07	.18	.14	.39	.46	.07	16.0
16	.15	.20	---	.35	.46	.11	22.9
17	.08	.20	---	.28	.47	.19	40.6
18	.05	.14	.06	.25	.48	.23	47.1
19	.05	.17	.10	.32	.49	.17	31.9
20	.09	.25	---	.34	.49	.15	28.7
21	.05	.15	.19	.39	.50	.11	19.8
22	.07	.22	---	.29	.51	.22	42.6
23	.07	.34	---	.41	.53	.12	23.6
24	.07	.18	.18	.43	.55	.12	22.4
25	.11	.16	.16	.43	.55	.12	23.4
26	.08	.43	---	.51	.56	.05	9.4
27	---	.41	---	.41	.57	.16	28.2
28	.04	.09	.16	.29	.57	.28	49.8
29	.10	.16	.29	.55	.62	.07	13.1
30	.05	.20	.30	.55	.67	.12	17.6
31	.09	.29	.16	.54	.67	.13	20.0
32	---	.27	.35	.62	.67	.05	7.2
33	.05	.28	.14	.47	.73	.26	36.0
34	.08	.36	---	.44	.73	.29	39.7
Avg.*	.06	.20	.07	.33	.46	.13	28.0%

*The average was obtained by dividing by 34

After totaling all of the routine chores under the headings: Routine pullet care, routine hen care and egg processing, we find that there is still a discrepancy between this total and the total hired plus family labor. This difference is given the heading "miscellaneous" and appears in the last two columns. As you can see, this "miscellaneous" item can be quite sizable on some ranches. In fact, on most ranches it surpasses pullet care in hours spent.

Miscellaneous includes: Repairs and maintenance, fly control, retailing, feather burning, visiting, waste time, etc., etc.

LABOR COSTS PER HEN-YEAR*

Ranch No.	Routine Pullet Care	Routine Hen Care	Egg Processing	Miscellaneous	Total
1	\$.06	\$.18	\$ --	\$.02	\$.26
2	.03	.17	--	.07	.27
3	.06	.15	--	.09	.30
4	--	.20	--	.19	.39
5	.14	.20	--	.05	.39
6	.08	.24	--	.09	.41
7	--	.23	--	.24	.47
8	.08	.21	--	.18	.47
9	.12	.30	--	.11	.53
10	--	.35	--	.18	.53
11	.11	.29	.06	.13	.59
12	.08	.21	.08	.25	.62
13	.11	.38	.05	.14	.68
14	.11	.27	.06	.25	.69
15	.11	.27	.21	.10	.69
16	.23	.30	--	.16	.69
17	.12	.30	--	.29	.71
18	.08	.21	.09	.34	.72
19	.08	.26	.15	.25	.74
20	.14	.38	--	.22	.74
21	.08	.23	.29	.15	.75
22	.11	.33	--	.33	.77
23	.11	.51	--	.18	.80
24	.11	.27	.27	.18	.83
25	.17	.24	.24	.18	.83
26	.12	.65	--	.07	.84
27	--	.62	--	.24	.86
28	.06	.14	.24	.42	.86
29	.15	.24	.44	.10	.93
30	.08	.30	.45	.18	1.01
31	.14	.44	.24	.19	1.01
32	--	.41	.53	.07	1.01
33	.08	.42	.21	.39	1.10
34	.12	.54	--	.44	1.10
Avg.	\$.09	\$.30	\$.11	\$.19	\$.69

*\$1.50/hour

At \$1.50 per hour for labor, the 34 ranches in this study averaged 69 cents per hen for labor cost. The labor cost of the highest labor ranch was 400% of that of the lowest. This, in cents per dozen, is almost 4 cents per dozen higher labor costs.

As margins narrow from year to year, poultrymen will have to take a closer look at labor costs. Profit margins of 1-2 cents per dozen might have to be made on labor savings alone.

SUMMARY

RANCHES WITH PULLET REARING AND EGG PROCESSING* (13 ranches)

Item	Hours per Hen Year	Cost per Hen Year	Cost per Dozen Eggs	Percentage of Total Labor
Routine Pullet Care	.07	\$.11	.5¢	12%
Routine Hen Care	.19	.29	1.4	34
Egg Processing	.15	.22	1.1	27
Miscellaneous	.15	.22	1.1	27
Total	.56	\$.84	4.1¢	100%

*includes washing and packing or washing, sizing and packing

The thirteen ranches in this study which washed and packed or washed, sized and packed had an average processing cost of 1.1¢ per dozen eggs. In many of these cases, this labor cost exceeds the additional income they receive for their eggs.

* * * * *

RANCHES WITH PULLET REARING AND NO EGG PROCESSING (16 ranches)

Item	Hours per Hen Year	Cost per Hen Year	Cost per Dozen Eggs	Percentage of Total Labor
Routine Pullet Care	.07	\$.11	.5¢	18%
Routine Hen Care	.21	.32	1.6	54
Miscellaneous	.11	.16	.8	28
Total	.39	\$.59	2.9¢	100%

Ranches purchasing started pullets and not processing eggs should be able to get by with less than 1/3 hour per hen year. The average ranch in this study would require .33 hour per hen year. The more efficient ranches could conceivably maintain their ranches on less than .2 hour per hen year.