

# North Carolina

Supplementary  
Data Booklet

# Layer Performance And Management Test

27th Flock

August 1988



Agricultural Extension Service  
North Carolina State University  
Raleigh, North Carolina

# North Carolina

Supplementary  
Data Booklet

# Layer Performance And Management Test

27th Flock

Piedmont Research Station  
Salisbury, North Carolina

August 1988

**Prepared by:**  
Dr. John B. Carey  
Department of Poultry Science  
North Carolina State University  
Raleigh, NC 27695-7608

**In cooperation with:**  
North Carolina Department of  
Agriculture

Agricultural Extension Service  
North Carolina State University  
Raleigh, North Carolina





AGRICULTURAL  
EXTENSION  
SERVICE

North Carolina State University  
College of Agriculture and Life Sciences

Office of Extension Poultry Science  
Box 7608  
Raleigh, N.C. 27695-7608  
(919) 737-2621

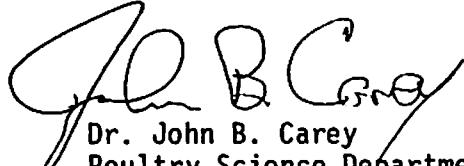
TWENTY-SEVENTH  
NORTH CAROLINA LAYER PERFORMANCE  
AND MANAGEMENT TEST  
Supplemental Booklet

Vol. 1, No. 4  
August 1988

The North Carolina Layer Performance and Management Test is conducted under the auspices of the Agricultural Extension Service at North Carolina State University and the North Carolina Department of Agriculture. The flock is maintained at the Piedmont Research Station, Salisbury, North Carolina. Mr. Billy Ayscue is Piedmont Research Station Superintendent; Mr. Joe Hampton, is Resident Manager of the flock; and Dr. J. B. Carey is Project Leader. The purpose of this program is to assist poultrymen in evaluation of stocks of commercial layers and management systems.

Description of the tabular headings and data are included immediately preceding the tables. Performance is summarized in the booklet by the three-way interactions with strain, strain x cage x house type, strain x birds per cage x house type, etc. (see list of tables).

For further information contact:



Dr. John B. Carey  
Poultry Science Department  
North Carolina State University  
Box 7608  
Raleigh, NC 27695-7608

## PROTOCOL FOR 27th NORTH CAROLINA LAYER PERFORMANCE AND MANAGEMENT TEST

### Entries:

Ten entries were accepted in accordance with the rules and regulations of the test. Seven white egg and 3 brown egg strains were tested.

### Incubation and Hatching:

A minimum of 105 dozen hatching eggs per entry were set November 26, 1985 and hatched December 17, 1985. For details of pullet performance of this flock, refer to Twenty-Seventh North Carolina Layer Performance and Management Test Growing Report (Vol. 1, No. 1), August 1987.

### Layer Housing and Feeding:

Those hens laying in the light and air controlled house were reared in a light and air controlled facility. Those to lay in the curtain-sided houses were reared in a curtain-sided facility. Within each laying house each entry was housed in four replicates of ten cages, deep cages (12" x 18") and shallow cages (18" x 12") crossed with 3 and 4 birds per cage. Resulting in 140 hens per entry per laying house or a total of 420 hens per entry in the test. This report includes production data from 20-104 weeks of age (May 6, 1986 - December 14, 1987) summarized in three sections: (20-62 weeks, 63-104 weeks, and 20-104 weeks).

### Layer Feeding:

All hens were fed ad libitum from a series of eight diets (to provide minimum daily nutrient intakes as outlined below.

#### EGG PRODUCTION RATE

	<u>&gt; 87% and pre peak</u>	<u>87-80%</u>	<u>80-70%</u>	<u>&lt; 70%</u>
<b>White Egg Layers</b>				
Protein (g/day)	19	18	17	16
Calcium (g/day)	3.8	3.8	4.0	4.0
Lysine (mg/day)	820	780	730	690
TSAA (mg/day)	700	670	630	590
<b>Brown Egg Layers</b>				
Protein (g/day)	20	19	18	17
Calcium (g/day)	3.8	3.8	3.8	4.0
Lysine (mg/day)	830	820	780	730
TSAA (mg/day)	710	700	670	630

## 27th NCLPMT SUPPLEMENTAL PERFORMANCE INFORMATION

The contents of this booklet summarize performance over the first, second, and both laying cycles.

Tables 1-32	Performance Days 140-434 (Blue Pages)
Tables 33-64	Performance Days 435-728 (Yellow Pages)
Tables 65-96	Performance Days 140-728 (Green Pages)

The data in Tables 1-96 are presented in four formats which will be referred to as outlined below:

Entry (Strain): The name of the breeder and the strain entered in the evaluation. See information following data tables.

Cage Type: "S" denotes performance in shallow (18" x 12") cages. "D" denotes performance in deep (12" x 18") cages.

Birds per Cage: "3" or "4" denotes performance with 3 or 4 birds per cage.

Housing Type: "FL" denotes performance in a curtain-sided flush waste facility. "HR" denotes performance in a curtain-sided high rise facility. "LC" denotes performance in a light and air controlled facility.

### A. Production Statistics, Group A:

Eggs per Bird Housed: The total number of eggs produced divided by the number of birds housed at 140 days.

Egg Production: Hen Housed - The average daily number of eggs produced per 100 hens housed at 140 days. Hen Day - The average daily number of eggs produced per 100 hen days.

Egg Mass: Hen Housed - The average daily production of egg mass in grams per bird housed at 140 days. Hen Day - The average daily production of egg mass in grams per hen day.

Mortality: The percentage of birds housed at 140 days which have died prior to 434 days of age (Tables 1-32) from 435 to 728 days (Tables 33-64); from 140 to 728 days (Tables 65-96).

### B. Production Statistics, Group B:

Feed Consumption: The pounds of feed consumed daily per 100 hens.

Egg Weight: The average egg weight of biweekly samples in grams per egg.

Specific Gravity Scores: (Tables 1-32 only)

The average specific gravity of eggs expressed as follows:

Score	Value	Specific Gravity Range
0		< 1.068
1		1.068 - 1.072
2		1.072 - 1.076
3		1.076 - 1.080
4		1.080 - 1.084
5		1.084 - 1.088
6		1.088 - 1.092
7		1.092 - 1.092
8		> 1.096

Egg Income: The calculated income per hen housed at 140 days from egg production, using three year regional average egg prices as follows:

<u>Grade</u>	<u>Size</u>	<u>Cents/Dozen</u>	
		<u>140-434 Days</u>	<u>435-728 Days</u>
A	Extra Large	60.98	55.61
A	Large	60.98	55.61
A	Medium	50.23	44.13
A	Small	37.59	31.95
A	Pee Wee	41.04	40.39
B	All	41.04	40.39
Cracks	All	35.03	36.71

Feed Cost: The calculated feed cost per hen housed at 140 days, using three year regional average prices, weighted average price of \$136.83 per ton at 140-434 days and \$111.16 per ton at 435-728 days.

#### C. Egg Size Statistics:

Egg Size Distribution: The proportion of the eggs falling into the following size categories:

<u>Size Category</u>	<u>Ounces/Dozen</u>
Pee Wee	< 18
Small	18 - 21
Medium	21 - 23
Large	23 - 27
Extra Large	< 27

#### D. Egg Quality:

Grade Information: The average grade of eggs according to USDA grading standards.

Blood Spots: The percentage of blood spots in excess of 1/8 inch diameter, detected in broken out eggs.

Meat Spots: The percentage of meat spots in excess of 1/8 inch diameter, detected in broken out eggs.

Tables 92-102 list average hen day egg production of entries by two week periods from 20 to 104 weeks of age (excluding 64-67 weeks, molt period).

## LIST OF TABLES

<u>Table Number</u>	<u>Format</u>	<u>Factors Compared</u>	<u>Time Period</u>
1	A	Cage type, entry, FL housing	(140-434 days)
2	B	Cage type, entry, FL housing	(140-434 days)
3	C	Cage type, entry, FL housing	(140-434 days)
4	D	Cage type, entry, FL housing	(140-434 days)
5	A	Cage type, entry, HR housing	(140-434 days)
6	B	Cage type, entry, HR housing	(140-434 days)
7	C	Cage type, entry, HR housing	(140-434 days)
8	D	Cage type, entry, HR housing	(140-434 days)
9	A	Cage type, entry, LAC housing	(140-434 days)
10	B	Cage type, entry, LAC housing	(140-434 days)
11	C	Cage type, entry, LAC housing	(140-434 days)
12	D	Cage type, entry, LAC housing	(140-434 days)
13	A	Birds per cage, entry, FL housing	(140-434 days)
14	B	Birds per cage, entry, FL housing	(140-434 days)
15	C	Birds per cage, entry, FL housing	(140-434 days)
16	D	Birds per cage, entry, FL housing	(140-434 days)
17	A	Birds per cage, entry, HR housing	(140-434 days)
18	B	Birds per cage, entry, HR housing	(140-434 days)
19	C	Birds per cage, entry, HR housing	(140-434 days)
20	D	Birds per cage, entry, HR housing	(140-434 days)
21	A	Birds per cage, entry, LAC housing	(140-434 days)
22	B	Birds per cage, entry, LAC housing	(140-434 days)
23	C	Birds per cage, entry, LAC housing	(140-434 days)
24	D	Birds per cage, entry, LAC housing	(140-434 days)
25	A	Birds per cage, entry, shallow cages	(140-434 days)
26	B	Birds per cage, entry, shallow cages	(140-434 days)
27	C	Birds per cage, entry, shallow cages	(140-434 days)
28	D	Birds per cage, entry, shallow cages	(140-434 days)
29	A	Birds per cage, entry, deep cages	(140-434 days)
30	B	Birds per cage, entry, deep cages	(140-434 days)
31	C	Birds per cage, entry, deep cages	(140-434 days)
32	D	Birds per cage, entry, deep cages	(140-434 days)
33	A	Cage type, entry, FL housing	(435-728 days)
34	B	Cage type, entry, FL housing	(435-728 days)
35	C	Cage type, entry, FL housing	(435-728 days)
36	D	Cage type, entry, FL housing	(435-728 days)
37	A	Cage type, entry, HR housing	(435-728 days)
38	B	Cage type, entry, HR housing	(435-728 days)
39	C	Cage type, entry, HR housing	(435-728 days)
40	D	Cage type, entry, HR housing	(435-728 days)
41	A	Cage type, entry, LAC housing	(435-728 days)
42	B	Cage type, entry, LAC housing	(435-728 days)
43	C	Cage type, entry, LAC housing	(435-728 days)
44	D	Cage type, entry, LAC housing	(435-728 days)

45	A	Birds per cage, entry, FL housing	(435-728 days)
46	B	Birds per cage, entry, FL housing	(435-728 days)
47	C	Birds per cage, entry, FL housing	(435-728 days)
48	D	Birds per cage, entry, FL housing	(435-728 days)
49	A	Birds per cage, entry, HR housing	(435-728 days)
50	B	Birds per cage, entry, HR housing	(435-728 days)
51	C	Birds per cage, entry, HR housing	(435-728 days)
52	D	Birds per cage, entry, HR housing	(435-728 days)
53	A	Birds per cage, entry, LAC housing	(435-728 days)
54	B	Birds per cage, entry, LAC housing	(435-728 days)
55	C	Birds per cage, entry, LAC housing	(435-728 days)
56	D	Birds per cage, entry, LAC housing	(435-728 days)
57	A	Birds per cage, entry, shallow cages	(435-728 days)
58	B	Birds per cage, entry, shallow cages	(435-728 days)
59	C	Birds per cage, entry, shallow cages	(435-728 days)
60	D	Birds per cage, entry, shallow cages	(435-728 days)
61	A	Birds per cage, entry, deep cages	(435-728 days)
62	B	Birds per cage, entry, deep cages	(435-728 days)
63	C	Birds per cage, entry, deep cages	(435-728 days)
64	D	Birds per cage, entry, deep cages	(435-728 days)
65	A	Cage type, entry, FL housing	(140-728 days)
66	B	Cage type, entry, FL housing	(140-728 days)
67	C	Cage type, entry, FL housing	(140-728 days)
68	D	Cage type, entry, FL housing	(140-728 days)
69	A	Cage type, entry, HR housing	(140-728 days)
70	B	Cage type, entry, HR housing	(140-728 days)
71	C	Cage type, entry, HR housing	(140-728 days)
72	D	Cage type, entry, HR housing	(140-728 days)
73	A	Cage type, entry, LAC housing	(140-728 days)
74	B	Cage type, entry, LAC housing	(140-728 days)
75	C	Cage type, entry, LAC housing	(140-728 days)
76	D	Cage type, entry, LAC housing	(140-728 days)
77	A	Birds per cage, entry, FL housing	(140-728 days)
78	B	Birds per cage, entry, FL housing	(140-728 days)
79	C	Birds per cage, entry, FL housing	(140-728 days)
80	D	Birds per cage, entry, FL housing	(140-728 days)
81	A	Birds per cage, entry, HR housing	(140-728 days)
82	B	Birds per cage, entry, HR housing	(140-728 days)
83	C	Birds per cage, entry, HR housing	(140-728 days)
84	D	Birds per cage, entry, HR housing	(140-728 days)
85	A	Birds per cage, entry, LAC housing	(140-728 days)
86	B	Birds per cage, entry, LAC housing	(140-728 days)
87	C	Birds per cage, entry, LAC housing	(140-728 days)
88	D	Birds per cage, entry, LAC housing	(140-728 days)
89	A	Birds per cage, entry, shallow cages	(140-728 days)
90	B	Birds per cage, entry, shallow cages	(140-728 days)
91	C	Birds per cage, entry, shallow cages	(140-728 days)
92	D	Birds per cage, entry, shallow cages	(140-728 days)

93	A	Birds per cage, entry, deep cages	(140-728 days)
94	B	Birds per cage, entry, deep cages	(140-728 days)
95	C	Birds per cage, entry, deep cages	(140-728 days)
96	D	Birds per cage, entry, deep cages	(140-728 days)
97		Hen day egg production of entries	(22-34 weeks)
98		Hen day egg production of entries	(36-48 weeks)
99		Hen day egg production of entries	(50-62 weeks)
100		Hen day egg production of entries	(68-80 weeks)
101		Hen day egg production of entries	(82-94 weeks)
102		Hen day egg production of entries	(96-104 weeks)

TABLE 1. EFFECTS OF CAGE TYPE ON PERFORMANCE OF ENTRIES IN  
FLUSH WASTE HOUSING, 27TH NCLPMT (140-434 DAYS)

Breeder (Strain)	Cage Type	Eggs Per Bird Housed	Egg Production Hen Housed ---- --- (%) ---	Egg Mass Hen Housed --- --- (g/d) ---	Mortality Hen Day --- --- (%) ---	>140 d Of Age ---- --- (%) ---
<b>White Egg Layers</b>						
Hisex (White)	S	210.3	72.1	75.1	43.7	45.7
	D	215.6	72.9	74.3	44.2	44.7
Colonial (365-S)	S	202.8	69.7	77.3	38.0	43.0
	D	190.9	65.7	71.5	36.2	39.5
ISA-Babcock (B300)	S	235.2	79.7	80.1	47.2	47.3
	D	222.5	75.5	77.2	44.0	45.0
Hyline (W-36)	S	226.5	76.9	79.1	44.7	46.0
	D	214.2	73.1	74.3	42.7	43.4
Shaver (288-A)	S	210.4	72.3	80.1	42.2	47.3
	D	210.7	70.9	76.1	42.4	45.6
Dekalb (XL-Link)	S	237.5	80.7	81.6	47.3	47.8
	D	218.9	74.4	79.5	43.8	47.1
H & N (Nick Chick)	S	231.3	78.6	79.0	46.5	46.8
	D	211.7	72.1	75.6	43.2	45.4
White Egg Average	S	222.0	75.7	78.9	44.2	46.3
	D	212.1	72.1	75.5	42.3	44.4
<b>Brown Egg Layers</b>						
Hubbard (Golden Comet)	S	210.2	71.3	74.5	45.0	46.9
	D	204.3	69.8	72.7	43.6	45.7
Dekalb (Sex-Sal-Link-G)	S	208.5	70.6	74.1	45.2	47.7
	D	191.0	64.9	69.1	41.6	44.5
Hisex (Brown)	S	221.5	74.7	76.5	48.7	49.4
	D	211.6	71.7	73.3	47.6	48.4
Brown Egg Average	S	213.4	72.2	75.0	46.3	48.0
	D	202.3	68.8	71.7	44.3	46.2

TABLE 2. EFFECTS OF CAGE TYPE ON PERFORMANCE OF ENTRIES IN  
FLUSH WASTE HOUSING, 27TH NCLPMT (140-434 DAYS)

Breeder (Strain)	Cage Type	Feed Cons. (1bs/100 hens/d)	Egg Weight (g/egg)	Specific Gravity Score	Egg Income	Feed Cost
<b>White Egg Layers</b>						
Hisex (White)	S	24.2	56.0	3.2	9.87	4.75
	D	23.3	54.8	3.1	10.02	4.63
Colonial (365-S)	S	24.2	50.9	2.8	8.72	4.51
	D	20.9	51.4	3.0	8.17	4.09
ISA-Babcock (B300)	S	24.2	54.4	3.1	10.93	4.88
	D	24.0	53.6	3.2	10.17	4.74
Hyline (W-36)	S	22.9	53.2	2.8	10.34	4.64
	D	22.1	53.7	2.8	9.66	4.49
Shaver (288-A)	S	23.4	54.1	2.9	9.90	4.42
	D	23.5	54.1	3.1	9.93	4.58
Dekalb (XL-Link)	S	24.7	53.5	2.9	11.07	5.08
	D	24.1	54.0	3.1	10.02	4.71
H & N (Nick Chick)	S	25.3	54.4	3.0	10.65	5.01
	D	24.4	55.2	3.1	9.85	4.64
White Egg Average	S	24.1	53.8	3.0	10.21	4.75
	D	23.2	53.8	3.1	9.69	4.56
<b>Brown Egg Layers</b>						
Hubbard (Golden Comet)	S	27.3	57.8	2.9	10.02	5.14
	D	25.4	57.6	2.9	9.82	4.79
Dekalb (Sex-Sal-Link-G)	S	27.3	57.7	2.7	10.16	5.23
	D	25.9	59.2	2.8	9.50	4.92
Hisex (Brown)	S	26.6	59.5	2.9	10.88	5.18
	D	25.5	60.6	2.8	10.30	4.94
Brown Egg Average	S	27.0	58.3	2.8	10.35	5.18
	D	25.6	59.1	2.8	9.87	4.89

TABLE 3. EFFECTS OF CAGE TYPE ON EGG SIZE OF ENTRIES IN  
FLUSH WASTE HOUSING, 27TH NCLPMT (140-434 DAYS)

Breeder (Strain)	Cage Type	Pee Wee (%)	Small (%)	Medium (%)	Large (%)	Extra Large (%)
<b>White Egg Layers</b>						
Hisex (White)	S	1.1	8.0	13.8	39.0	38.2
	D	3.7	7.7	16.6	37.4	34.6
Colonial (365-S)	S	4.1	13.4	28.2	42.7	11.6
	D	3.2	13.7	26.4	39.9	16.6
ISA-Babcock (B300)	S	2.0	8.8	17.2	46.7	25.4
	D	2.7	9.5	17.9	44.4	25.5
Hyline (W-36)	S	1.8	12.8	18.4	43.8	23.1
	D	2.9	11.6	16.6	40.5	28.4
Shaver (288-A)	S	2.2	7.9	16.1	45.3	28.4
	D	1.1	8.4	17.9	44.8	27.7
Dekalb (XL-Link)	S	3.0	8.4	17.6	47.1	23.9
	D	2.8	7.6	17.2	43.0	29.4
H & N (Nick Chick)	S	2.2	8.3	16.8	41.8	31.0
	D	2.2	8.2	11.7	41.3	36.7
White Egg Average	S	2.4	9.7	18.3	43.8	25.9
	D	2.7	9.5	17.8	41.6	28.4
<b>Brown Egg Layers</b>						
Hubbard (Golden Comet)	S	1.7	6.0	11.8	28.8	51.7
	D	1.2	4.8	13.0	28.3	52.6
Dekalb (Sex-Sal-Link-G)	S	1.4	7.0	10.7	28.5	52.4
	D	0.7	4.5	10.6	28.8	55.4
Hisex (Brown)	S	1.1	2.7	7.5	25.6	63.2
	D	0.2	2.5	6.1	23.8	67.4
Brown Egg Average	S	1.4	5.2	10.0	27.6	55.8
	D	0.7	3.9	9.9	27.0	58.5

TABLE 4. EFFECTS OF CAGE TYPE ON EGG QUALITY OF ENTRIES IN  
FLUSH WASTE HOUSING, 27TH NCLPMT (140-434 DAYS)

Breeder (Strain)	Cage Type	Grade A (%)	Grade B (%)	Cracks (%)	Loss (%)	Blood Spots (%)	Meat Spots (%)
<b>White Egg Layers</b>							
Hisex (White)	S	94.3	2.7	2.3	0.6	0.0	0.0
	D	91.7	2.9	5.0	0.3	0.0	1.7
Colonial (365-S)	S	94.6	0.9	4.4	0.0	0.0	0.0
	D	92.7	2.4	3.7	1.1	0.0	2.5
ISA-Babcock (B300)	S	97.0	0.2	2.6	0.2	0.0	0.0
	D	96.2	1.2	2.7	0.0	0.0	8.3
Hyline (W-36)	S	97.2	0.0	2.4	0.5	0.0	0.0
	D	92.8	1.2	5.2	0.8	0.0	0.0
Shaver (288-A)	S	96.8	0.5	2.3	0.4	0.0	0.0
	D	97.4	0.4	2.0	0.3	0.0	0.0
Dekalb (XL-Link)	S	96.2	0.5	3.3	0.0	2.1	0.0
	D	93.8	0.9	4.6	0.7	0.0	0.0
H & N (Nick Chick)	S	94.9	1.9	2.9	0.3	3.1	0.0
	D	94.8	2.2	2.0	1.0	0.0	2.1
White Egg Average	S	95.9	1.0	2.9	0.3	0.7	0.0
	D	94.2	1.6	3.6	0.6	0.0	2.1
<b>Brown Egg Layers</b>							
Hubbard (Golden Comet)	S	96.9	0.2	2.2	0.7	0.0	27.2
	D	96.7	0.6	2.6	0.0	0.0	27.7
Dekalb (Sex-Sal-Link-G)	S	94.5	0.6	4.0	0.9	0.0	15.8
	D	96.5	1.1	2.4	0.0	0.0	25.3
Hisex (Brown)	S	98.2	0.0	1.5	0.3	1.9	26.6
	D	93.8	0.4	4.9	1.0	2.2	16.7
Brown Egg Average	S	96.5	0.3	2.6	0.6	0.6	23.2
	D	95.7	0.7	3.3	0.3	0.7	23.2

TABLE 5. EFFECTS OF CAGE TYPE ON PERFORMANCE OF ENTRIES IN HIGH RISE  
HOUSING, 27TH NCLPMT (140-434 DAYS)

Breeder (Strain)	Cage Type	Eggs Per Bird Housed	Egg Production Hen Housed ---- --- (%) ---	Egg Mass Hen Housed --- (g/d) ---	Mortality Hen Day --- --- (%)	>140 d Of Age --- --- (%)
<b>White Egg Layers</b>						
Hisex (White)	S	235.6	80.1	81.8	48.5	49.7
	D	215.0	72.2	74.5	43.3	44.3
Colonial (365-S)	S	211.1	72.9	76.7	39.3	41.8
	D	193.7	67.7	73.6	36.6	40.3
ISA-Babcock (B300)	S	235.4	79.2	79.3	45.9	47.0
	D	220.8	74.8	76.8	43.7	44.8
Hyline (W-36)	S	210.8	71.6	76.7	42.0	45.2
	D	225.1	75.2	77.2	43.9	44.9
Shaver (288-A)	S	239.3	80.4	81.8	49.2	49.5
	D	212.4	72.4	76.6	43.3	46.2
Dekalb (XL-Link)	S	235.7	80.4	82.8	46.9	48.3
	D	203.7	69.9	74.1	42.0	44.8
H & N (Nick Chick)	S	216.0	74.7	81.7	43.3	48.1
	D	214.4	73.2	78.9	43.1	46.6
White Egg Average	S	226.3	77.0	80.1	45.0	47.1
	D	212.2	72.2	76.0	42.3	44.6
<b>Brown Egg Layers</b>						
Hubbard (Golden Comet)	S	218.3	73.8	74.7	47.3	47.7
	D	208.3	70.6	74.1	43.7	45.9
Dekalb (Sex-Sal-Link-G)	S	208.9	70.2	73.2	46.7	48.2
	D	198.0	67.1	68.0	43.9	44.1
Hisex (Brown)	S	209.6	71.6	76.8	46.8	50.9
	D	214.0	72.7	73.8	47.2	47.9
Brown Egg Average	S	212.2	71.9	74.9	46.9	49.0
	D	206.8	70.1	72.0	44.9	46.0

TABLE 6. EFFECTS OF CAGE TYPE ON PERFORMANCE OF ENTRIES IN HIGH RISE HOUSING, 27TH NCLPMT (140-434 DAYS)

Breeder (Strain)	Cage Type	Feed Cons. (lbs/100 hens/d)	Egg Weight (g/egg)	Specific Gravity Score	Egg Income	Feed Cost
<b>White Egg Layers</b>						
Hisex (White)	S	25.7	55.5	3.0	10.91	5.11
	D	23.9	54.2	3.1	9.83	4.75
Colonial (365-S)	S	22.7	50.5	2.7	8.86	4.53
	D	22.0	51.4	2.7	8.13	4.26
ISA-Babcock (B300)	S	25.0	54.3	3.3	10.67	5.09
	D	24.0	53.6	3.1	10.06	4.72
Hyline (W-36)	S	23.7	53.7	2.9	9.41	4.58
	D	22.7	52.7	2.8	10.00	4.59
Shaver (288-A)	S	24.7	55.4	2.8	11.31	5.10
	D	22.5	54.7	2.9	9.98	4.39
Dekalb (XL-Link)	S	25.6	53.6	2.9	10.70	5.10
	D	23.6	56.2	2.9	9.33	4.57
H & N (Nick Chick)	S	25.4	54.4	2.9	9.75	4.71
	D	24.8	54.3	3.0	9.75	4.70
White Egg Average	S	24.7	53.9	2.9	10.23	4.89
	D	23.4	53.9	2.9	9.58	4.57
<b>Brown Egg Layers</b>						
Hubbard (Golden Comet)	S	26.6	58.2	2.7	10.54	5.16
	D	25.8	56.6	2.7	9.84	4.85
Dekalb (Sex-Sal-Link-G)	S	27.6	59.4	2.6	10.08	5.22
	D	26.7	60.1	2.9	9.79	5.24
Hisex (Brown)	S	27.3	60.3	2.8	10.15	5.01
	D	25.8	59.5	2.8	10.42	5.05
Brown Egg Average	S	27.2	59.3	2.7	10.26	5.13
	D	26.1	58.7	2.8	10.02	5.05

TABLE 7. EFFECTS OF CAGE TYPE ON EGG SIZE IN ENTRIES IN HIGH RISE HOUSING, 27TH NCLPMT (140-434 DAYS)

Breeder (Strain)	Cage Type	Pee Wee (%)	Small (%)	Medium (%)	Large (%)	Extra Large (%)
<b>White Egg Layers</b>						
Hisex (White)	S	2.1	8.0	15.5	40.9	33.4
	D	2.2	9.8	21.4	38.9	27.7
Colonial (365-S)	S	4.0	17.1	32.4	36.0	10.4
	D	3.6	17.3	26.2	39.5	13.4
ISA-Babcock (B300)	S	2.9	9.2	18.7	42.1	27.1
	D	2.4	9.1	21.5	44.9	22.0
Hyline (W-36)	S	3.2	12.2	21.0	43.1	20.3
	D	3.4	13.2	21.9	41.5	19.9
Shaver (288-A)	S	1.8	6.8	13.8	46.1	31.5
	D	2.0	9.3	18.7	44.2	25.8
Dekalb (XL-Link)	S	2.0	9.7	19.2	44.7	24.4
	D	2.3	9.2	22.0	42.2	24.2
H & N (Nick Chick)	S	1.6	9.1	18.0	44.5	26.9
	D	2.3	11.4	17.7	43.1	25.5
White Egg Average	S	2.5	10.3	19.8	42.5	24.9
	D	2.6	11.4	21.4	42.0	22.6
<b>Brown Egg Layers</b>						
Hubbard (Golden Comet)	S	0.5	5.9	11.0	30.5	52.2
	D	0.4	7.8	15.7	36.6	39.5
Dekalb (Sex-Sal-Link-G)	S	0.7	6.9	9.6	27.0	55.8
	D	0.4	4.2	9.9	29.9	55.6
Hisex (Brown)	S	0.1	3.2	6.7	28.0	62.0
	D	0.8	4.2	8.9	28.6	57.6
Brown Egg Average	S	0.5	5.3	9.1	28.5	56.7
	D	0.5	5.4	11.5	31.7	50.9

TABLE 8. EFFECTS OF CAGE TYPE ON EGG QUALITY OF ENTRIES IN HIGH RISE HOUSING, 27TH NCLPMT (140-434 DAYS)

Breeder (Strain)	Cage Type	Grade A (%)	Grade B (%)	Cracks (%)	Loss (%)	Blood Spots (%)	Meat Spots (%)
<b>White Egg Layers</b>							
Hisex (White)	S	93.4	1.9	4.0	0.6	0.0	0.0
	D	94.9	2.1	2.6	0.3	0.0	3.6
Colonial (365-S)	S	94.4	2.0	3.6	0.0	0.0	0.0
	D	91.5	4.5	3.7	0.2	2.3	0.0
ISA-Babcock (B300)	S	94.7	0.6	4.2	0.5	0.0	1.7
	D	97.2	0.4	1.8	0.6	0.0	0.0
Hyline (W-36)	S	96.3	0.5	2.8	0.4	0.0	0.0
	D	97.8	0.9	0.7	0.6	0.0	0.0
Shaver (288-A)	S	94.9	0.6	4.0	0.5	0.0	0.0
	D	97.6	0.7	1.4	0.3	0.0	0.0
Dekalb (XL-Link)	S	93.4	1.1	4.0	1.5	0.0	0.0
	D	95.9	0.5	3.3	0.3	0.0	0.0
H & N (Nick Chick)	S	93.6	1.1	4.2	1.0	0.0	0.0
	D	94.4	2.6	2.5	0.6	3.3	0.0
White Egg Average	S	94.4	1.1	3.8	0.7	0.0	0.2
	D	95.6	1.7	2.3	0.4	0.8	0.5
<b>Brown Egg Layers</b>							
Hubbard (Golden Comet)	S	96.0	0.2	2.9	0.9	10.5	4.3
	D	96.2	1.3	2.5	0.0	5.3	15.8
Dekalb (Sex-Sal-Link-G)	S	92.6	0.6	5.5	1.3	3.7	8.7
	D	94.5	0.6	3.8	1.1	0.0	19.9
Hisex (Brown)	S	94.0	0.3	4.1	1.7	0.0	14.3
	D	96.1	0.8	2.3	0.7	2.6	7.9
Brown Egg Average	S	94.2	0.4	4.1	1.3	4.8	9.1
	D	95.6	0.9	2.9	0.6	2.6	14.5

TABLE 9. EFFECTS OF CAGE TYPE ON PERFORMANCE OF ENTRIES IN  
LIGHT AND AIR CONTROLLED HOUSING, 27TH NCLPMT (140-434 DAYS)

Breeder (Strain)	Cage Type	Eggs Per Bird Housed	Egg Production Hen Housed --- (%) ---	Egg Mass Hen Housed --- (g/d) ---	Mortality >140 d Hen Day Of Age --- (%) ---	
<b>White Egg Layers</b>						
Hisex (White)	S	230.7	78.7	81.8	45.4	47.4
	D	220.5	75.4	77.8	42.3	43.8
Colonial (365-S)	S	198.3	67.7	70.5	36.7	38.3
	D	195.3	67.3	70.6	36.7	38.7
ISA-Babcock (B300)	S	232.4	78.7	79.7	45.2	45.6
	D	237.7	80.6	80.9	46.2	46.2
Hyline (W-36)	S	229.7	77.9	80.1	44.2	45.5
	D	230.8	77.9	79.3	43.7	44.6
Shaver (288-A)	S	237.5	80.5	82.7	46.7	48.0
	D	232.6	79.2	81.6	45.9	47.5
Dekalb (XL-Link)	S	232.4	79.1	83.1	45.0	47.5
	D	232.0	78.8	82.6	44.4	46.7
H & N (Nick Chick)	S	232.6	80.3	85.2	46.3	49.5
	D	228.4	77.4	82.5	45.1	48.3
White Egg Average	S	227.7	77.6	80.4	44.2	46.0
	D	225.3	76.7	79.3	43.5	45.1
<b>Brown Egg Layers</b>						
Hubbard (Golden Comet)	S	221.9	75.5	76.1	47.5	47.8
	D	209.1	70.7	72.5	42.9	43.9
Dekalb (Sex-Sal-Link-G)	S	225.8	77.0	79.5	47.8	49.3
	D	227.7	77.2	79.5	48.0	49.5
Hisex (Brown)	S	226.3	76.8	78.0	49.0	49.8
	D	216.2	74.2	76.1	47.2	48.5
Brown Egg Average	S	224.7	76.4	77.9	48.1	48.9
	D	217.7	74.0	76.0	46.1	47.4

TABLE 10. EFFECTS OF CAGE TYPE ON PERFORMANCE OF ENTRIES IN  
LIGHT AND AIR CONTROLLED HOUSING, 27TH NCLPMT (140-434 DAYS)

Breeder (Strain)	Cage Type	Feed Cons. (1bs/100 hens/d)	Egg Weight (g/egg)	Specific Gravity Score	Egg Income	Feed Cost
<b>White Egg Layers</b>						
Hisex (White)	S	24.9	53.2	3.1	10.43	4.83
	D	24.9	52.2	3.1	9.60	4.83
Colonial (365-S)	S	21.5	50.4	2.7	8.24	4.33
	D	22.5	51.4	2.7	8.27	4.50
ISA-Babcock (B300)	S	24.1	52.9	3.2	10.40	4.85
	D	25.0	52.8	3.0	10.60	5.10
Hyline (W-36)	S	24.9	51.9	2.8	10.20	4.94
	D	23.9	51.3	2.8	10.00	4.76
Shaver (288-A)	S	24.2	53.1	2.9	10.87	4.88
	D	24.8	53.4	2.9	10.58	4.92
Dekalb (XL-Link)	S	24.3	52.4	2.8	10.51	4.76
	D	24.8	51.7	2.8	10.39	4.88
H & N (Nick Chick)	S	25.1	53.6	3.1	10.52	4.84
	D	27.1	53.8	2.9	10.28	5.18
White Egg Average	S	24.2	52.5	2.9	10.17	4.78
	D	24.7	52.4	2.9	9.96	4.88
<b>Brown Egg Layers</b>						
Hubbard (Golden Comet)	S	26.7	57.7	2.7	10.59	5.26
	D	26.5	55.4	2.8	9.59	5.11
Dekalb (Sex-Sal-Link-G)	S	28.9	57.1	2.6	10.78	5.44
	D	28.0	56.7	2.6	10.82	5.33
Hisex (Brown)	S	27.1	58.6	2.7	10.91	5.16
	D	26.7	59.0	2.9	10.46	5.12
Brown Egg Average	S	27.5	57.8	2.7	10.76	5.29
	D	27.1	57.0	2.8	10.29	5.19

TABLE 11. EFFECTS OF CAGE TYPE ON EGG SIZE OF ENTRIES IN  
LIGHT AND AIR CONTROLLED HOUSING, 27TH NCLPMT (140-434 DAYS)

Breeder (Strain)	Cage Type	Pee Wee (%)	Small (%)	Medium (%)	Large (%)	Extra Large (%)
<b>White Egg Layers</b>						
Hisex (White)	S	2.9	10.7	20.4	43.3	22.8
	D	4.1	11.5	25.1	42.2	17.1
Colonial (365-S)	S	4.2	13.6	30.8	38.7	12.7
	D	5.8	12.5	24.9	39.1	17.7
ISA-Babcock (B300)	S	3.5	10.3	19.1	46.2	20.9
	D	3.3	10.8	22.1	43.8	20.0
Hyline (W-36)	S	2.7	13.9	22.5	44.2	16.8
	D	3.6	14.6	26.1	39.5	16.2
Shaver (288-A)	S	2.6	8.6	21.9	45.0	22.0
	D	1.3	9.2	23.4	41.7	24.4
Dekalb (XL-Link)	S	2.5	10.7	22.8	46.1	17.9
	D	3.5	11.2	24.7	47.2	13.3
H & N (Nick Chick) ..	S	2.4	9.3	18.4	43.9	26.0
	D	2.2	8.8	19.6	43.9	25.5
White Egg Average	S	3.0	11.0	22.3	43.9	19.9
	D	3.4	11.2	23.7	42.5	19.2
<b>Brown Egg Layers</b>						
Hubbard (Golden Comet)	S	1.0	5.8	11.4	34.9	46.9
	D	0.8	8.1	14.9	38.1	38.1
Dekalb (Sex-Sal-Link-G)	S	1.2	6.5	10.5	32.8	49.1
	D	2.1	7.5	10.7	33.9	45.8
Hisex (Brown)	S	1.9	5.3	8.6	27.4	56.8
	D	1.2	5.6	9.0	26.6	57.6
Brown Egg Average	S	1.4	5.8	10.2	31.7	50.9
	D	1.4	7.1	11.5	32.9	47.2

TABLE 12. EFFECTS OF CAGE TYPE ON EGG QUALITY OF ENTRIES IN  
LIGHT AND AIR CONTROLLED HOUSING, 27TH NCLPMT (140-434 DAYS)

Breeder (Strain)	Cage Type	Grade A (%)	Grade B (%)	Cracks (%)	Loss (%)	Blood Spots (%)	Meat Spots (%)
<b>White Egg Layers</b>							
Hisex (White)	S	96.2	1.0	2.8	0.0	1.3	0.0
	D	94.9	2.4	2.7	0.0	0.0	0.0
Colonial (365-S)	S	92.0	1.2	4.9	2.0	0.0	0.0
	D	93.7	1.9	3.8	0.6	3.3	0.0
ISA-Babcock (B300)	S	95.6	1.2	2.3	0.9	1.9	0.0
	D	95.8	1.7	2.3	0.2	0.0	0.0
Hyline (W-36)	S	97.5	0.7	0.9	1.0	1.3	0.0
	D	93.6	1.6	4.2	0.6	1.3	0.0
Shaver (288-A)	S	96.3	0.5	2.6	0.7	0.0	0.0
	D	96.0	0.2	3.6	0.2	0.0	0.0
Dekalb (XL-Link)	S	96.0	0.7	2.8	0.4	1.5	0.0
	D	96.5	0.6	2.5	0.4	0.0	0.0
H & N (Nick Chick)	S	94.0	0.6	4.4	1.1	0.0	1.8
	D	95.5	1.6	2.3	0.6	1.7	0.0
White Egg Average	S	95.4	0.8	2.9	0.9	0.8	0.3
	D	95.2	1.4	3.1	0.4	0.9	0.0
<b>Brown Egg Layers</b>							
Hubbard (Golden Comet)	S	95.5	0.5	3.5	0.5	1.7	14.9
	D	95.9	0.7	0.6	2.8	10.6	5.2
Dekalb (Sex-Sal-Link-G)	S	94.0	0.9	4.4	0.6	0.0	11.8
	D	93.5	1.1	4.4	1.0	1.9	14.6
Hisex (Brown)	S	96.7	1.0	1.5	0.9	0.0	11.2
	D	95.8	2.0	2.1	0.1	4.2	9.3
Brown Egg Average	S	95.4	0.8	3.1	0.7	0.6	12.6
	D	95.1	1.3	2.4	1.3	5.5	9.7

TABLE 13. EFFECTS OF NUMBER OF BIRDS PER CAGE ON PERFORMANCE OF ENTRIES IN FLUSH WASTE HOUSING, 27TH NCLPMT (140-434 DAYS)

Breeder (Strain)	Birds/ Cage	Eggs Per Bird Housed	Egg Production Hen Housed ---- --- (%) ---	Egg Mass Hen Housed --- (g/d) ---	Mortality Hen Day --- --- (%) ---
<b>White Egg Layers</b>					
Hisex (White)	3	214.5	73.2	75.4	44.0
	4	211.5	71.8	74.1	43.9
Colonial (365-S)	3	217.8	74.5	79.9	40.4
	4	175.9	61.0	68.9	33.8
ISA-Babcock (B300)	3	230.0	78.0	79.7	46.1
	4	227.6	77.2	77.7	45.1
Hyline (W-36)	3	222.8	76.0	77.0	44.7
	4	217.9	74.1	76.4	42.7
Shaver (288-A)	3	213.1	72.1	79.5	42.8
	4	208.0	71.1	76.8	41.8
Dekalb (XL-Link)	3	232.9	79.2	81.6	46.6
	4	223.6	75.9	79.5	44.4
H & N (Nick Chick)	3	225.0	76.7	78.2	45.8
	4	218.0	74.0	76.4	43.9
White Egg Average	3	222.3	75.7	78.7	44.3
	4	211.8	72.2	75.7	42.2
<b>Brown Egg Layers</b>					
Hubbard (Golden Comet)	3	210.3	71.5	72.6	45.8
	4	204.2	69.6	74.5	42.8
Dekalb (Sex-Sal-Link-G)	3	209.5	71.2	75.8	45.6
	4	190.0	64.3	67.4	41.3
Hisex (Brown)	3	224.9	76.3	77.9	49.7
	4	208.2	70.1	71.9	46.5
Brown Egg Average	3	214.9	73.0	75.4	47.0
	4	200.8	68.0	71.3	43.5
					45.6
					48.6
					6.9
					6.8

TABLE 14. EFFECTS OF NUMBER OF BIRDS PER CAGE ON PERFORMANCE OF ENTRIES IN FLUSH WASTE HOUSING, 27TH NCLPMT (140-434 DAYS)

Breeder (Strain)	Birds/ Cage	Feed Cons. (lbs/100 hens/d)	Egg Weight (g/egg)	Specific Gravity Score	Egg Income	Feed Cost
<b>White Egg Layers</b>						
Hisex (White)	3	24.4	55.1	3.2	10.05	4.78
	4	23.1	55.8	3.1	9.83	4.61
Colonial (365-S)	3	24.1	50.4	2.7	9.24	4.73
	4	21.0	51.9	3.0	7.65	3.87
ISA-Babcock (B300)	3	24.8	54.3	3.1	10.65	4.88
	4	23.3	53.7	3.2	10.45	4.74
Hyline (W-36)	3	23.2	54.1	2.8	10.17	4.77
	4	21.8	52.8	2.8	9.83	4.36
Shaver (288-A)	3	24.0	54.1	3.0	10.06	4.64
	4	22.9	54.1	3.0	9.77	4.37
Dekalb (XL-Link)	3	25.0	53.9	2.9	10.74	5.08
	4	23.9	53.6	3.0	10.35	4.71
H & N (Nick Chick)	3	24.8	55.1	3.1	10.35	4.87
	4	24.8	54.6	3.1	10.14	4.78
White Egg Average	3	24.3	53.8	3.0	10.18	4.82
	4	23.0	53.8	3.0	9.72	4.49
<b>Brown Egg Layers</b>						
Hubbard (Golden Comet)	3	26.8	58.6	3.0	10.24	5.21
	4	25.8	56.8	2.8	9.60	4.72
Dekalb (Sex-Sal-Link-G)	3	27.7	58.0	2.7	10.27	5.31
	4	25.5	58.9	2.9	9.38	4.84
Hisex (Brown)	3	26.5	59.8	2.9	11.03	5.20
	4	25.6	60.4	2.7	10.14	4.93
Brown Egg Average	3	27.0	58.8	2.9	10.52	5.24
	4	25.6	58.7	2.8	9.71	4.83

TABLE 15. EFFECTS OF NUMBER OF BIRDS PER CAGE ON EGG SIZE OF ENTRIES IN FLUSH WASTE HOUSING, 27TH NCLPMT (140-434 DAYS)

Breeder (Strain)	Birds/ Cage	Pee Wee (%)	Small (%)	Medium (%)	Large (%)	Extra Large (%)
<b>White Egg Layers</b>						
Hisex (White)	3	3.2	8.0	15.7	38.4	34.7
	4	1.5	7.7	14.8	38.0	38.1
Colonial (365-S)	3	4.2	15.6	27.6	41.6	11.1
	4	3.1	11.5	27.1	40.9	17.2
ISA-Babcock (B300)	3	2.3	8.4	17.4	45.0	27.0
	4	2.4	9.9	17.7	46.1	23.9
Hyline (W-36)	3	2.5	10.6	16.9	40.7	29.2
	4	2.3	13.8	18.1	43.6	22.3
Shaver (288-A)	3	1.7	8.7	16.2	45.3	28.1
	4	1.6	7.7	17.8	44.9	28.0
Dekalb (XL-Link)	3	2.6	8.1	17.1	44.4	27.8
	4	3.2	7.9	17.8	45.6	25.5
H & N (Nick Chick)	3	2.4	7.6	13.8	40.1	36.0
	4	2.0	8.9	14.6	42.9	31.7
White Egg Average	3	2.7	9.6	17.8	42.2	27.7
	4	2.3	9.6	18.3	43.1	26.6
<b>Brown Egg Layers</b>						
Hubbard (Golden Comet)	3	0.7	5.6	10.6	25.8	57.3
	4	2.3	5.2	14.1	31.4	47.0
Dekalb (Sex-Sal-Link-G)	3	0.8	6.3	10.9	26.3	55.7
	4	1.3	5.2	10.5	31.1	51.9
Hisex (Brown)	3	0.9	2.2	5.9	26.1	64.9
	4	0.5	3.0	7.6	23.2	65.6
Brown Egg Average	3	0.8	4.7	9.1	26.1	59.3
	4	1.4	4.5	10.8	28.5	54.9

TABLE 16. EFFECTS OF NUMBER OF BIRDS PER CAGE ON EGG QUALITY OF ENTRIES IN FLUSH WASTE HOUSING, 27TH NCLPMT (140-434 DAYS)

Breeder (Strain)	Birds/ Cage	Grade A (%)	Grade B (%)	Cracks (%)	Loss (%)	Blood Spots (%)	Meat Spots (%)
<b>White Egg Layers</b>							
Hisex (White)	3	95.5	2.3	1.8	0.4	0.0	0.0
	4	90.6	3.3	5.6	0.5	0.0	1.7
Colonial (365-S)	3	93.7	0.8	4.9	0.6	0.0	0.0
	4	93.6	2.6	3.3	0.5	0.0	2.5
ISA-Babcock (B300)	3	97.6	0.3	1.9	0.2	0.0	5.0
	4	95.5	1.1	3.4	0.0	0.0	3.3
Hyline (W-36)	3	95.2	0.5	3.5	0.8	0.0	0.0
	4	94.8	0.7	4.0	0.4	0.0	0.0
Shaver (288-A)	3	98.0	0.5	1.2	0.3	0.0	0.0
	4	96.2	0.4	3.1	0.4	0.0	0.0
Dekalb (XL-Link)	3	94.2	0.2	5.2	0.5	2.1	0.0
	4	95.8	1.2	2.7	0.2	0.0	0.0
H & N (Nick Chick)	3	93.9	2.2	2.9	1.1	3.1	0.0
	4	95.8	2.0	2.0	0.2	0.0	2.1
White Egg Average	3	95.4	1.0	3.0	0.6	0.7	0.7
	4	94.6	1.6	3.4	0.3	0.0	1.4
<b>Brown Egg Layers</b>							
Hubbard (Golden Comet)	3	97.3	0.2	2.2	0.3	0.0	28.9
	4	96.3	0.6	2.6	0.4	0.0	25.9
Dekalb (Sex-Sal-Link-G)	3	96.7	0.9	1.7	0.7	0.0	23.6
	4	94.2	0.9	4.7	0.2	0.0	17.4
Hisex (Brown)	3	96.6	0.0	2.6	0.8	2.2	22.3
	4	95.3	0.4	3.8	0.5	1.9	21.0
Brown Egg Average	3	96.9	0.4	2.1	0.6	0.7	25.0
	4	95.3	0.6	3.7	0.4	0.6	21.4

TABLE 17. EFFECTS OF NUMBER OF BIRDS PER CAGE ON PERFORMANCE OF ENTRIES IN HIGH RISE HOUSING, 27TH NCLPMT (140-434 DAYS)

Breeder (Strain)	Birds/ Cage	Eggs Per Bird Housed	Egg Production Hen Housed ---- (%) ----	Egg Mass Hen Housed --- (g/d) ---	Mortality Hen Day Of Age --- (%) ---
<b>White Egg Layers</b>					
Hisex (White)	3	228.2	76.0	77.8	46.6
	4	222.3	76.2	78.5	45.1
Colonial (365-S)	3	201.9	70.1	73.8	38.2
	4	203.0	70.5	76.4	37.8
ISA-Babcock (B300)	3	235.2	78.7	79.6	46.8
	4	221.0	75.2	76.5	42.9
Hyline (W-36)	3	214.3	72.9	77.5	41.9
	4	221.6	74.0	76.4	44.0
Shaver (288-A)	3	235.2	79.3	81.2	48.5
	4	216.5	73.6	77.2	44.0
Dekalb (XL-Link)	3	221.5	76.1	78.7	45.9
	4	217.9	74.2	78.2	43.0
H & N (Nick Chick)	3	226.7	77.0	82.0	45.6
	4	203.7	70.9	78.6	40.7
White Egg Average	3	223.3	75.7	78.6	44.8
	4	215.1	73.5	77.4	42.5
<b>Brown Egg Layers</b>					
Hubbard (Golden Comet)	3	221.6	74.4	74.8	47.4
	4	205.0	70.0	73.9	43.5
Dekalb (Sex-Sal-Link-G)	3	222.2	74.7	75.0	49.7
	4	184.6	62.6	66.2	41.0
Hisex (Brown)	3	221.4	75.2	77.5	49.3
	4	202.2	69.1	73.1	44.6
Brown Egg Average	3	221.7	74.8	75.8	48.8
	4	197.2	67.2	71.1	43.1
					49.3
					45.7
					2.8
					11.0

TABLE 18. EFFECTS OF NUMBER OF BIRDS PER CAGE ON PERFORMANCE OF ENTRIES IN HIGH RISE HOUSING, 27TH NCLPMT (140-434 DAYS)

Breeder (Strain)	Birds/ Cage	Feed Cons. (lbs/100 hens/d)	Egg Weight (g/egg)	Specific Gravity Score	Egg Income	Feed Cost
<b>White Egg Layers</b>						
Hisex (White)	3	25.2	55.0	3.1	10.60	5.12
	4	24.4	54.7	3.1	10.14	4.74
Colonial (365-S)	3	22.7	51.2	2.8	8.59	4.52
	4	22.0	50.6	2.6	8.40	4.28
ISA-Babcock (B300)	3	25.0	54.0	3.1	10.72	5.03
	4	24.0	53.9	3.3	10.01	4.79
Hyline (W-36)	3	23.9	52.8	2.9	9.53	4.58
	4	22.6	53.6	2.9	9.88	4.58
Shaver (288-A)	3	24.0	55.5	2.9	11.06	4.93
	4	23.2	54.6	2.8	10.23	4.56
Dekalb (XL-Link)	3	25.1	56.5	2.9	10.04	5.05
	4	24.1	53.3	2.9	9.99	4.62
H & N (Nick Chick)	3	25.4	54.5	3.0	10.27	5.00
	4	24.8	54.2	3.0	9.23	4.41
White Egg Average	3	24.5	54.2	2.9	10.12	4.89
	4	23.6	53.6	2.9	9.70	4.57
<b>Brown Egg Layers</b>						
Hubbard (Golden Comet)	3	26.4	57.5	2.7	10.58	5.20
	4	26.0	57.3	2.7	9.80	4.82
Dekalb (Sex-Sal-Link-G)	3	27.8	60.7	2.9	10.80	5.52
	4	26.4	58.7	2.7	9.06	4.94
Hisex (Brown)	3	27.8	60.0	2.8	10.78	5.33
	4	25.4	59.8	2.9	9.79	4.73
Brown Egg Average	3	27.3	59.4	2.8	10.72	5.35
	4	25.9	58.6	2.8	9.55	4.83

TABLE 19. EFFECTS OF NUMBER OF BIRDS PER CAGE ON EGG SIZE OF ENTRIES IN HIGH RISE HOUSING, 27TH NCLPMT (140-434 DAYS)

Breeder (Strain)	Birds/ Cage	Pee Wee (%)	Small (%)	Medium (%)	Large (%)	Extra Large (%)
<b>White Egg Layers</b>						
Hisex (White)	3	2.2	8.3	18.9	40.5	30.1
	4	2.1	9.5	18.0	39.3	31.0
Colonial (365-S)	3	3.4	17.0	27.8	39.5	12.3
	4	4.3	17.4	30.9	36.0	11.5
ISA-Babcock (B300)	3	2.7	9.2	19.4	43.7	24.9
	4	2.6	9.1	20.8	43.3	24.2
Hyline (W-36)	3	3.4	13.3	20.8	44.4	18.0
	4	3.3	12.0	22.1	40.2	22.1
Shaver (288-A)	3	1.9	7.7	15.7	42.6	32.0
	4	1.8	8.5	16.9	47.6	25.2
Dekalb (XL-Link)	3	1.9	9.5	20.8	41.2	26.6
	4	2.5	9.4	20.4	45.7	22.0
H & N (Nick Chick)	3	1.4	10.8	17.7	45.0	25.1
	4	2.5	9.7	18.0	42.6	27.2
White Egg Average	3	2.4	10.8	20.2	42.4	24.2
	4	2.7	10.8	21.0	42.1	23.3
<b>Brown Egg Layers</b>						
Hubbard (Golden Comet)	3	0.5	7.6	13.5	32.0	46.5
	4	0.4	6.1	13.2	35.1	45.2
Dekalb (Sex-Sal-Link-G)	3	0.6	4.0	9.4	29.4	56.6
	4	0.6	7.1	10.1	27.5	54.8
Hisex (Brown)	3	0.8	3.6	7.1	27.3	61.2
	4	0.1	3.8	8.4	29.3	58.4
Brown Egg Average	3	0.6	5.1	10.0	29.6	54.7
	4	0.3	5.7	10.6	30.6	52.8

TABLE 20. EFFECTS OF NUMBER OF BIRDS PER CAGE ON EGG QUALITY OF ENTRIES IN HIGH RISE HOUSING, 27TH NCLPMT (140-434 DAYS)

Breeder (Strain)	Birds/ Cage	Grade A (%)	Grade B (%)	Cracks (%)	Loss (%)	Blood Spots (%)	Meat Spots (%)
<b>White Egg Layers</b>							
Hisex (White)	3	96.1	0.4	3.3	0.2	0.0	0.0
	4	92.3	3.6	3.3	0.8	0.0	3.6
Colonial (365-S)	3	93.1	3.7	3.0	0.2	0.0	0.0
	4	92.7	2.9	4.4	0.0	2.3	0.0
ISA-Babcock (B300)	3	97.9	0.4	0.8	0.8	0.0	0.0
	4	93.9	0.5	5.2	0.3	0.0	1.7
Hyline (W-36)	3	97.9	0.3	1.2	0.6	0.0	0.0
	4	96.1	1.1	2.4	0.4	0.0	0.0
Shaver (288-A)	3	96.3	0.7	2.6	0.4	0.0	0.0
	4	96.3	0.5	2.8	0.3	0.0	0.0
Dekalb (XL-Link)	3	94.3	0.4	3.7	1.6	0.0	0.0
	4	95.0	1.2	3.6	0.2	0.0	0.0
H & N .. (Nick Chick)	3	94.0	2.3	2.6	1.1	3.3	0.0
	4	94.0	1.5	4.0	0.5	0.0	0.0
White Egg Average	3	95.7	1.2	2.5	0.7	0.5	0.0
	4	94.3	1.6	3.7	0.4	0.3	0.7
<b>Brown Egg Layers</b>							
Hubbard (Golden Comet)	3	96.4	1.0	2.3	0.3	8.3	13.2
	4	95.9	0.5	3.0	0.6	7.4	7.0
Dekalb (Sex-Sal-Link-G)	3	93.7	0.4	4.7	1.2	2.1	12.5
	4	93.5	0.8	4.6	1.2	1.7	16.2
Hisex (Brown)	3	95.7	0.0	2.6	1.7	2.6	14.1
	4	94.5	1.1	3.8	0.6	0.0	8.0
Brown Egg Average	3	95.3	0.5	3.2	1.1	4.3	13.3
	4	94.6	0.8	3.8	0.8	3.0	10.4

TABLE 21. EFFECTS OF NUMBER OF BIRDS PER CAGE ON PERFORMANCE OF ENTRIES IN LIGHT AND AIR CONTROLLED HOUSING, 27TH NCLPMT (140-434 DAYS)

Breeder (Strain)	Birds/ Cage	Eggs Per Bird Housed	Egg Production Hen Housed --- (%) ---	Egg Mass Hen Housed --- (g/d) ---	Mortality Hen Day Of Age --- (%) ---
<b>White Egg Layers</b>					
Hisex (White)	3	232.2	79.1	81.4	45.1
	4	219.0	75.0	78.2	42.5
Colonial (365-S)	3	203.4	69.7	73.7	37.5
	4	190.2	65.4	67.5	35.9
ISA-Babcock (B300)	3	241.0	81.3	82.2	47.2
	4	229.1	78.0	78.4	44.2
Hyline (W-36)	3	237.5	80.5	82.2	45.3
	4	222.9	75.4	77.1	42.7
Shaver (288-A)	3	251.4	85.4	85.5	49.8
	4	218.7	74.2	78.8	42.8
Dekalb (XL-Link)	3	249.1	84.5	85.8	47.6
	4	215.3	73.4	80.0	41.9
H & N (Nick Chick)	3	234.3	79.7	84.0	46.4
	4	226.7	78.0	83.7	45.0
White Egg Average	3	235.6	80.0	82.1	45.6
	4	217.4	74.2	77.7	42.1
<b>Brown Egg Layers</b>					
Hubbard (Golden Comet)	3	223.1	75.5	76.3	47.0
	4	207.9	70.7	72.3	43.4
Dekalb (Sex-Sal-Link-G)	3	235.6	79.9	80.2	49.8
	4	217.9	74.3	78.8	46.0
Hisex (Brown)	3	230.6	78.4	80.3	50.9
	4	211.8	72.6	73.9	45.3
Brown Egg Average	3	229.8	77.9	78.9	49.2
	4	212.6	72.5	75.0	44.9
					46.5
					7.7

TABLE 22. EFFECTS OF NUMBER OF BIRDS PER CAGE ON PERFORMANCE OF ENTRIES IN LIGHT AND AIR CONTROLLED HOUSING, 27TH NCLPMT (140-434 DAYS)

Breeder (Strain)	Birds/ Cage	Feed Cons. (lbs/100 hens/d)	Egg Weight (g/egg)	Specific Gravity Score	Egg Income	Feed Cost
<b>White Egg Layers</b>						
Hisex (White)	3	25.7	52.6	3.1	10.43	5.02
	4	24.1	52.8	3.1	9.60	4.64
Colonial (365-S)	3	23.1	50.3	2.6	8.47	4.53
	4	20.9	51.5	2.8	8.04	4.29
ISA-Babcock (B300)	3	25.8	53.1	3.1	10.80	5.16
	4	23.4	52.6	3.1	10.20	4.79
Hyline (W-36)	3	25.4	51.5	2.9	10.42	5.03
	4	23.4	51.7	2.6	9.78	4.68
Shaver (288-A)	3	24.7	53.6	3.0	11.59	5.16
	4	24.4	52.9	2.9	9.86	4.65
Dekalb (XL-Link)	3	24.1	51.5	2.8	11.17	4.98
	4	25.0	52.6	2.8	9.74	4.65
H & N (Nick Chick)	3	27.5	53.9	3.0	10.61	5.31
	4	24.8	53.5	3.0	10.19	4.71
White Egg Average	3	25.2	52.4	2.9	10.50	5.03
	4	23.7	52.5	2.9	9.63	4.63
<b>Brown Egg Layers</b>						
Hubbard (Golden Comet)	3	28.6	56.8	2.7	10.71	5.57
	4	24.5	56.3	2.8	9.47	4.80
Dekalb (Sex-Sal-Link-G)	3	29.0	56.9	2.9	11.36	5.64
	4	27.8	57.0	2.4	10.25	5.12
Hisex (Brown)	3	28.3	59.7	2.8	11.24	5.46
	4	25.5	57.9	2.8	10.14	4.83
Brown Egg Average	3	28.7	57.8	2.8	11.10	5.56
	4	25.9	57.1	2.7	9.95	4.92

TABLE 23. EFFECTS OF NUMBER OF BIRDS PER CAGE ON EGG SIZE OF ENTRIES IN LIGHT AND AIR CONTROLLED HOUSING, 27TH NCLPMT (140-434 DAYS)

Breeder (Strain)	Birds/ Cage	Pee Wee (%)	Small (%)	Medium (%)	Large (%)	Extra Large (%)
<b>White Egg Layers</b>						
Hisex (White)	3	3.8	10.3	23.0	43.6	19.3
	4	3.2	11.9	22.5	41.8	20.5
Colonial (365-S)	3	5.8	13.6	29.6	37.0	14.1
	4	4.3	12.5	26.1	40.9	16.2
ISA-Babcock (B300)	3	3.1	9.4	21.0	43.9	22.6
	4	3.7	11.6	20.2	46.0	18.4
Hyline (W-36)	3	3.2	14.5	24.8	41.4	16.2
	4	3.1	14.0	23.8	42.3	16.8
Shaver (288-A)	3	1.8	7.7	20.8	45.0	24.7
	4	2.0	10.1	24.5	41.7	21.7
Dekalb (XL-Link)	3	2.9	11.7	25.3	47.8	12.4
	4	3.2	10.2	22.3	45.5	18.8
H & N (Nick Chick)	3	2.3	7.9	17.9	45.2	26.8
	4	2.3	10.2	20.2	42.5	24.8
White Egg Average	3	3.3	10.7	23.2	43.4	19.4
	4	3.1	11.5	22.8	43.0	19.6
<b>Brown Egg Layers</b>						
Hubbard (Golden Comet)	3	0.9	7.2	11.3	36.3	44.3
	4	0.9	6.8	15.1	36.6	40.6
Dekalb (Sex-Sal-Link-G)	3	1.3	6.9	11.4	33.3	47.1
	4	2.0	7.1	9.8	33.4	47.7
Hisex (Brown)	3	1.3	4.8	7.2	22.8	63.9
	4	1.8	6.1	10.4	31.2	50.5
Brown Egg Average	3	1.2	6.3	9.9	30.8	51.8
	4	1.5	6.7	11.8	33.7	46.3

TABLE 24. EFFECTS OF NUMBER OF BIRDS PER CAGE ON EGG QUALITY OF ENTRIES IN LIGHT AND AIR CONTROLLED HOUSING, 27TH NCLPMT (140-434 DAYS)

Breeder (Strain)	Birds/ Cage	Grade A (%)	Grade B (%)	Cracks (%)	Loss (%)	Blood Spots (%)	Meat Spots (%)
<b>White Egg Layers</b>							
Hisex (White)	3	97.2	0.3	2.5	0.0	0.0	0.0
	4	93.9	3.1	3.0	0.0	1.3	0.0
Colonial (365-S)	3	93.8	1.9	2.8	1.6	0.0	0.0
	4	91.9	1.2	5.9	1.0	3.3	0.0
ISA-Babcock (B300)	3	95.3	1.1	2.7	0.9	1.9	0.0
	4	96.1	1.8	1.9	0.2	0.0	0.0
Hyline (W-36)	3	96.5	1.7	1.0	0.8	0.0	0.0
	4	94.6	0.6	4.0	0.8	2.6	0.0
Shaver (288-A)	3	96.4	0.2	2.7	0.7	0.0	0.0
	4	95.9	0.4	3.5	0.1	0.0	0.0
Dekalb (XL-Link)	3	97.4	0.0	2.2	0.4	0.0	0.0
	4	95.2	1.3	3.2	0.4	1.5	0.0
H & N (Nick Chick) ..	3	95.5	0.0	3.3	1.2	0.0	0.0
	4	94.1	2.2	3.4	0.4	1.7	1.8
White Egg Average	3	96.0	0.7	2.4	0.8	0.3	0.0
	4	94.5	1.5	3.6	0.4	1.5	0.3
<b>Brown Egg Layers</b>							
Hubbard (Golden Comet)	3	97.4	0.5	1.6	0.5	0.0	11.7
	4	94.1	0.7	2.5	2.8	12.3	8.4
Dekalb (Sex-Sal-Link-G)	3	95.8	0.7	3.4	0.0	0.0	15.1
	4	91.7	1.3	5.4	1.6	1.9	11.3
Hisex (Brown)	3	97.2	0.5	1.6	0.7	4.2	8.5
	4	95.2	2.5	1.9	0.3	0.0	12.1
Brown Egg Average	3	96.8	0.6	2.2	0.4	1.4	11.8
	4	93.7	1.5	3.2	1.6	4.7	10.6

TABLE 25. EFFECTS OF NUMBER OF BIRDS PER CAGE ON PERFORMANCE OF ENTRIES IN SHALLOW CAGES, 27TH NCLPMT (140-434 DAYS)

Breeder (Strain)	Birds/ Cage	Eggs Per Bird Housed	Egg Production Hen Housed ---- ( % ) ----	Egg Mass Hen Housed --- ( g/d ) ---	Mortality Hen Day --- Of Age --- (%) ---
<b>White Egg Layers</b>					
Hisex (White)	3	229.9	78.3	80.7	46.5
	4	221.1	75.7	78.4	45.2
Colonial (365-S)	3	211.2	72.8	76.0	39.4
	4	197.0	67.4	73.7	36.7
ISA-Babcock (B300)	3	236.8	79.9	80.6	47.2
	4	231.9	78.5	78.8	45.0
Hyline (W-36)	3	219.3	74.7	78.7	42.9
	4	225.4	76.2	78.5	44.4
Shaver (288-A)	3	236.8	80.4	84.0	47.8
	4	221.4	75.1	79.0	44.3
Dekalb (XL-Link)	3	245.9	83.5	84.6	48.7
	4	224.5	76.6	80.3	44.2
H & N (Nick Chick)	3	233.5	79.7	82.5	46.6
	4	219.8	76.0	81.4	44.2
White Egg Average	3	230.5	78.5	81.0	45.6
	4	220.1	75.1	78.6	43.4
<b>Brown Egg Layers</b>					
Hubbard (Golden Comet)	3	219.6	74.4	75.1	47.6
	4	214.0	72.7	75.0	45.5
Dekalb (Sex-Sal-Link-G)	3	228.1	77.3	77.9	49.9
	4	200.7	67.9	73.3	43.3
Hisex (Brown)	3	227.4	77.5	80.0	49.9
	4	210.8	71.2	74.2	46.4
Brown Egg Average	3	225.0	76.4	77.7	49.1
	4	208.5	70.6	74.2	45.1

TABLE 26. EFFECTS OF NUMBER OF BIRDS PER CAGE ON PERFORMANCE OF ENTRIES IN SHALLOW CAGES, 27TH NCLPMT (140-434 DAYS)

Breeder (Strain)	Birds/ Cage	Feed Cons. (1bs/100 hens/d)	Egg Weight (g/egg)	Specific Gravity Score	Egg Income	Feed Cost
<b>White Egg Layers</b>						
Hisex (White)	3	25.4	54.6	3.2	10.70	4.99
	4	24.5	55.3	3.1	10.11	4.80
Colonial (365-S)	3	23.7	50.6	2.7	8.96	4.70
	4	21.9	50.6	2.8	8.25	4.21
ISA-Babcock (B300)	3	25.0	54.0	3.2	10.86	5.01
	4	23.9	53.6	3.2	10.47	4.87
Hyline (W-36)	3	24.4	52.8	2.9	9.82	4.73
	4	23.4	53.1	2.8	10.15	4.71
Shaver (288-A)	3	24.4	54.4	3.0	11.11	4.94
	4	23.8	54.0	2.7	10.28	4.66
Dekalb (XL-Link)	3	25.1	53.3	2.9	11.17	5.16
	4	24.7	53.0	2.9	10.35	4.80
H & N (Nick Chick)	3	25.5	54.1	3.0	10.55	5.03
	4	25.0	54.1	3.0	10.06	4.67
White Egg Average	3	24.8	53.4	3.0	10.45	4.94
	4	23.9	53.4	2.9	9.95	4.68
<b>Brown Egg Layers</b>						
Hubbard (Golden Comet)	3	27.5	58.4	2.7	10.63	5.36
	4	26.2	57.4	2.8	10.13	5.01
Dekalb (Sex-Sal-Link-G)	3	28.0	58.5	2.7	11.00	5.51
	4	27.8	57.6	2.6	9.68	5.08
Hisex (Brown)	3	28.0	59.4	2.8	11.01	5.36
	4	26.0	59.5	2.8	10.29	4.87
Brown Egg Average	3	27.8	58.8	2.7	10.88	5.41
	4	26.7	58.2	2.7	10.03	4.99

TABLE 27. EFFECTS OF NUMBER OF BIRDS PER CAGE ON EGG SIZE OF ENTRIES IN SHALLOW CAGES, 27TH NCLPMT (140-434 DAYS)

Breeder (Strain)	Birds/ Cage	Pee Wee (%)	Small (%)	Medium (%)	Large (%)	Extra Large (%)
<b>White Egg Layers</b>						
Hisex (White)	3	2.5	9.4	16.7	42.2	29.2
	4	1.6	8.4	16.4	39.9	33.7
Colonial (365-S)	3	4.1	15.2	28.7	41.3	10.7
	4	4.2	14.1	32.2	36.9	12.5
ISA-Babcock (B300)	3	2.3	8.8	18.7	45.3	25.0
	4	3.3	10.0	17.9	44.7	24.0
Hyline (W-36)	3	2.9	12.6	20.5	43.7	20.2
	4	2.3	13.3	20.8	43.7	19.8
Shaver (288-A)	3	2.2	7.5	16.2	45.4	28.7
	4	2.1	8.1	18.3	45.5	25.9
Dekalb (XL-Link)	3	2.4	9.9	20.7	44.5	22.5
	4	2.7	9.3	19.1	47.5	21.5
H & N (Nick Chick) -	3	2.0	8.5	17.4	44.6	27.5
	4	2.1	9.2	18.1	42.1	28.5
White Egg Average	3	2.6	10.3	19.8	43.9	23.4
	4	2.6	10.4	20.4	42.9	23.7
<b>Brown Egg Layers</b>						
Hubbard (Golden Comet)	3	0.6	6.1	10.2	27.9	55.2
	4	1.5	5.6	12.6	34.9	45.3
Dekalb (Sex-Sal-Link-G)	3	0.7	6.1	10.4	28.1	54.7
	4	1.5	7.5	10.2	30.8	50.1
Hisex (Brown)	3	1.3	3.3	7.3	26.5	61.7
	4	0.8	4.1	7.9	27.4	59.6
Brown Egg Average	3	0.9	5.1	9.3	27.5	57.2
	4	1.3	5.8	10.2	31.0	51.7

TABLE 28. EFFECTS OF NUMBER OF BIRDS PER CAGE ON EGG QUALITY OF ENTRIES IN SHALLOW CAGES, 27TH NCLPMT (140-434 DAYS)

Breeder (Strain)	Birds/ Cage	Grade A (%)	Grade B (%)	Cracks (%)	Loss (%)	Blood Spots (%)	Meat Spots (%)
<b>White Egg Layers</b>							
Hisex (White)	3	97.0	0.5	2.2	0.3	0.0	0.0
	4	92.3	3.3	3.9	0.5	0.9	0.0
Colonial (365-S)	3	93.8	1.5	4.0	0.8	0.0	0.0
	4	93.5	1.3	4.6	0.5	0.0	0.0
ISA-Babcock (B300)	3	97.4	0.6	1.3	0.7	1.2	0.0
	4	94.1	0.7	4.8	0.4	0.0	1.1
Hyline (W-36)	3	97.1	0.3	1.9	0.7	0.0	0.0
	4	96.8	0.5	2.1	0.5	0.9	0.0
Shaver (288-A)	3	96.7	0.5	2.3	0.5	0.0	0.0
	4	95.3	0.6	3.5	0.6	0.0	0.0
Dekalb (XL-Link)	3	95.4	0.4	3.2	1.0	1.4	0.0
	4	95.0	1.2	3.5	0.2	1.0	0.0
H & N (Nick Chick) ..	3	93.4	1.3	4.0	1.2	2.1	0.0
	4	94.9	1.1	3.6	0.3	0.0	1.2
White Egg Average	3	95.8	0.7	2.7	0.7	0.7	0.0
	4	94.6	1.2	3.7	0.4	0.4	0.3
<b>Brown Egg Layers</b>							
Hubbard (Golden Comet)	3	96.4	0.2	2.9	0.5	5.6	15.9
	4	95.9	0.5	2.8	0.8	2.6	15.1
Dekalb (Sex-Sal-Link-G)	3	94.5	0.9	3.6	0.9	1.4	12.1
	4	92.9	0.5	5.6	0.9	1.1	12.1
Hisex (Brown)	3	96.2	0.0	2.2	1.6	0.0	16.2
	4	96.4	0.9	2.5	0.3	1.2	18.6
Brown Egg Average	3	95.7	0.4	2.9	1.0	2.3	14.7
	4	95.1	0.6	3.6	0.7	1.6	15.3

TABLE 29. EFFECTS OF NUMBER OF BIRDS PER CAGE ON PERFORMANCE OF ENTRIES IN DEEP CAGES, 27TH NCLPMT (140-434 DAYS)

Breeder (Strain)	Birds/ Cage	Eggs Per Bird Housed	Egg Production Hen Housed ---- --- (%) ---	Egg Mass Hen Housed --- --- (g/d) ---	Mortality >140 d Hen Day --- --- (%) ---
<b>White Egg Layers</b>					
Hisex (White)	3	220.0	73.9	75.6	44.0
	4	214.1	73.1	75.4	42.5
Colonial (365-S)	3	204.2	70.0	75.6	38.1
	4	182.4	63.9	68.2	34.9
ISA-Babcock (B300)	3	234.0	78.8	80.4	46.1
	4	220.0	75.1	76.2	43.2
Hyline (W-36)	3	230.4	78.1	79.1	45.1
	4	216.3	72.7	74.8	41.8
Shaver (288-A)	3	229.7	77.5	80.1	46.3
	4	207.5	70.8	76.1	41.4
Dekalb (XL-Link)	3	223.1	76.3	79.4	44.8
	4	213.3	72.4	78.1	42.1
H & N (Nick Chick)	3	223.9	75.9	80.2	45.3
	4	212.5	72.6	77.7	42.3
White Egg Average	3	223.6	75.8	78.6	44.2
	4	209.4	71.5	75.2	41.2
<b>Brown Egg Layers</b>					
Hubbard (Golden Comet)	3	217.0	73.3	74.0	45.8
	4	197.2	67.5	72.2	41.0
Dekalb (Sex-Sal-Link-G)	3	216.8	73.2	76.1	46.9
	4	194.3	66.2	68.3	42.2
Hisex (Brown)	3	223.9	75.8	77.1	50.0
	4	204.0	69.9	71.7	44.6
Brown Egg Average	3	219.2	74.1	75.7	47.6
	4	198.5	67.9	70.7	42.6

TABLE 30. EFFECTS OF NUMBER OF BIRDS PER CAGE ON PERFORMANCE OF ENTRIES IN DEEP CAGES, 27TH NCLPMT (140-434 DAYS)

Breeder (Strain)	Birds/ Cage	Feed Cons. (1bs/100 hens/d)	Egg Weight (g/egg)	Specific Gravity Score	Egg Income	Feed Cost
<b>White Egg Layers</b>						
Hisex (White)	3	24.8	53.9	3.1	10.03	4.96
	4	23.2	53.6	3.1	9.61	4.52
Colonial (365-S)	3	22.8	50.7	2.8	8.58	4.48
	4	20.8	52.1	2.9	7.80	4.09
ISA-Babcock (B300)	3	25.4	53.6	2.9	10.58	5.03
	4	23.3	53.1	3.2	9.97	4.67
Hyline (W-36)	3	24.0	52.9	2.9	10.26	4.86
	4	21.8	52.3	2.7	9.51	4.37
Shaver (288-A)	3	24.0	54.4	2.9	10.70	4.88
	4	23.2	53.8	3.0	9.63	4.39
Dekalb (XL-Link)	3	24.4	54.6	2.9	10.12	4.92
	4	23.9	53.3	3.0	9.71	4.52
H & N (Nick Chick)	3	26.3	54.8	3.0	10.27	5.09
	4	24.5	54.1	3.0	9.65	4.60
White Egg Average	3	24.5	53.5	2.9	10.08	4.89
	4	23.0	53.2	3.0	9.41	4.45
<b>Brown Egg Layers</b>						
Hubbard (Golden Comet)	3	27.1	56.8	2.9	10.38	5.29
	4	24.6	56.2	2.8	9.11	4.55
Dekalb (Sex-Sal-Link-G)	3	28.4	58.6	2.9	10.62	5.47
	4	25.3	58.8	2.7	9.45	4.85
Hisex (Brown)	3	27.1	60.2	2.9	11.03	5.29
	4	24.9	59.2	2.8	9.76	4.78
Brown Egg Average	3	27.5	58.5	2.9	10.68	5.35
	4	25.0	58.1	2.7	9.44	4.73

TABLE 31. EFFECTS OF NUMBER OF BIRDS PER CAGE ON EGG SIZE OF ENTRIES IN DEEP CAGES, 27TH NCLPMT (140-434 DAYS)

Breeder (Strain)	Birds/ Cage	Pee Wee (%)	Small (%)	Medium (%)	Large (%)	Extra Large (%)
<b>White Egg Layers</b>						
Hisex (White)	3	3.6	8.3	21.7	39.4	26.9
	4	3.1	11.0	20.4	39.5	26.0
Colonial (365-S)	3	4.8	15.6	27.9	37.4	14.3
	4	3.6	13.4	23.8	41.6	17.4
ISA-Babcock (B300)	3	3.2	9.2	19.8	43.1	24.7
	4	2.5	10.4	21.2	45.6	20.3
Hyline (W-36)	3	3.2	13.0	21.2	40.6	22.1
	4	3.5	13.3	21.9	40.4	20.9
Shaver (288-A)	3	1.4	8.6	19.0	43.2	27.9
	4	1.5	9.4	21.1	43.9	24.0
Dekalb (XL-Link)	3	2.6	9.6	21.4	44.4	22.0
	4	3.2	9.1	21.2	43.8	22.7
H & N (Nick Chick)	3	2.0	9.1	15.5	42.3	31.1
	4	2.4	9.9	17.2	43.2	27.3
White Egg Average	3	3.0	10.5	20.9	41.5	24.1
	4	2.8	10.9	21.0	42.6	22.7
<b>Brown Egg Layers</b>						
Hubbard (Golden Comet)	3	0.8	7.4	13.4	34.9	43.6
	4	0.8	6.4	15.7	33.8	43.2
Dekalb (Sex-Sal-Link-G)	3	1.0	5.4	10.7	31.3	51.6
	4	1.1	5.4	10.1	30.5	52.9
Hisex (Brown)	3	0.7	3.8	6.2	24.3	65.0
	4	0.7	4.4	9.7	28.4	56.7
Brown Egg Average	3	0.8	5.5	10.1	30.1	53.4
	4	0.9	5.4	11.8	30.9	50.9

TABLE 32. EFFECTS OF NUMBER OF BIRDS PER CAGE ON EGG QUALITY OF ENTRIES IN DEEP CAGES, 27TH NCLPMT (140-434 DAYS)

Breeder (Strain)	Birds/ Cage	Grade A (%)	Grade B (%)	Cracks (%)	Loss (%)	Blood Spots (%)	Meat Spots (%)
<b>White Egg Layers</b>							
Hisex (White)	3	95.5	1.6	2.8	0.1	0.0	0.0
	4	92.2	3.4	4.0	0.3	0.0	3.5
Colonial (365-S)	3	93.3	2.8	3.1	0.8	0.0	0.0
	4	92.0	3.1	4.4	0.5	3.7	1.7
ISA-Babcock (B300)	3	96.5	0.6	2.3	0.6	0.0	3.3
	4	96.2	1.5	2.2	0.0	0.0	2.2
Hyline (W-36)	3	96.0	1.3	1.9	0.8	0.0	0.0
	4	93.5	1.2	4.8	0.5	0.9	0.0
Shaver (288-A)	3	97.1	0.5	2.0	0.5	0.0	0.0
	4	96.9	0.3	2.7	0.0	0.0	0.0
Dekalb (XL-Link)	3	95.2	0.0	4.2	0.6	0.0	0.0
	4	95.6	1.3	2.8	0.3	0.0	0.0
H & N (Nick Chick)	3	95.5	1.6	1.9	1.0	2.2	0.0
	4	94.3	2.6	2.6	0.4	1.1	1.4
White Egg Average	3	95.6	1.2	2.6	0.6	0.3	0.5
	4	94.4	1.9	3.4	0.3	0.8	1.3
<b>Brown Egg Layers</b>							
Hubbard (Golden Comet)	3	97.7	1.0	1.2	0.2	0.0	20.0
	4	95.0	0.7	2.6	1.7	10.6	12.5
Dekalb (Sex-Sal-Link-G)	3	96.3	0.5	2.9	0.3	0.0	22.1
	4	93.3	1.4	4.2	1.0	1.2	17.8
Hisex (Brown)	3	96.8	0.3	2.3	0.5	6.0	13.8
	4	93.6	1.8	3.9	0.7	0.0	8.8
Brown Egg Average	3	96.9	0.6	2.1	0.3	2.0	18.6
	4	94.0	1.3	3.6	1.1	3.9	13.0

TABLE 33. EFFECTS OF CAGE TYPE ON PERFORMANCE OF ENTRIES IN  
FLUSH WASTE HOUSING, 27TH NCLPMT (435-728 DAYS)

Breeder (Strain)	Cage Type	Eggs Per Bird Housed	Egg Production Hen Housed --- (%) ---	Egg Mass Hen Housed --- (g/d) ---	Mortality Hen Day --- >140 d Of Age --- (%) ---		
<b>White Egg Layers</b>							
Hisex (White)	S	166.8	56.7	64.6	40.5	43.8	8.0
	D	179.1	60.9	63.8	42.2	42.1	3.6
Colonial (365-S)	S	98.6	33.6	54.4	21.4	33.1	18.7
	D	113.2	38.5	47.8	25.4	29.8	10.6
ISA-Babcock (B300)	S	185.6	63.1	66.9	43.2	43.5	2.9
	D	170.1	57.9	61.4	38.3	40.0	1.9
Hyline (W-36)	S	171.7	58.4	64.6	39.9	42.6	3.3
	D	170.6	58.1	62.8	39.3	41.8	7.6
Shaver (288-A)	S	152.9	52.0	61.0	35.4	40.0	5.7
	D	150.0	51.0	59.7	34.8	38.9	5.9
Dekalb (XL-Link)	S	178.0	60.6	63.7	40.2	40.3	0.0
	D	137.9	46.9	62.1	31.5	40.1	6.7
H & N (Nick Chick)	S	166.1	56.5	62.1	38.6	40.0	7.4
	D	162.7	55.3	62.1	38.1	40.8	2.9
White Egg Average	S	160.0	54.4	62.5	37.0	40.5	6.6
	D	154.8	52.7	60.0	35.7	39.1	5.6
<b>Brown Egg Layers</b>							
Hubbard (Golden Comet)	S	155.3	52.8	60.8	37.6	41.5	8.9
	D	131.4	44.7	57.4	31.5	39.3	12.6
Dekalb (Sex-Sal-Link-G)	S	159.2	54.2	62.5	38.2	42.1	7.7
	D	135.2	46.0	62.6	32.2	43.4	15.0
Hisex (Brown)	S	148.0	50.3	54.6	36.8	38.9	5.0
	D	155.9	53.0	57.8	39.6	42.5	13.3
Brown Egg Average	S	154.2	52.4	59.3	37.5	40.8	7.2
	D	140.8	47.9	59.3	34.4	41.7	13.6

TABLE 34. EFFECTS OF CAGE TYPE ON PERFORMANCE OF ENTRIES IN  
FLUSH WASTE HOUSING, 27TH NCLPMT (435-728 DAYS)

Breeder (Strain)	Cage Type	Feed Cons. (1bs/100 hens/d)	Egg Weight (g/egg)	Egg Income	Feed Cost
<b>White Egg Layers</b>					
Hisex (White)	S	25.4	68.2	7.37	4.27
	D	24.7	65.9	7.78	4.02
Colonial (365-S)	S	22.9	62.5	4.18	3.08
	D	20.2	64.6	4.81	2.97
ISA-Babcock (B300)	S	25.3	65.2	8.33	4.11
	D	25.0	63.7	7.63	4.03
Hyline (W-36)	S	23.9	64.7	7.67	3.87
	D	22.4	65.0	7.51	3.61
Shaver (288-A)	S	24.2	64.5	6.80	3.86
	D	23.8	64.8	6.59	3.85
Dekalb (XL-Link)	S	24.6	63.2	7.79	3.96
	D	23.9	64.1	6.14	3.75
H & N (Nick Chick)	S	26.3	65.8	7.32	4.31
	D	25.3	65.8	7.26	4.14
White Egg Average	S	24.7	64.9	7.06	3.92
	D	23.6	64.8	6.82	3.77
<b>Brown Egg Layers</b>					
Hubbard (Golden Comet)	S	28.4	67.5	7.05	4.66
	D	26.9	66.9	5.78	4.25
Dekalb (Sex-Sal-Link-G)	S	29.2	67.2	7.04	4.75
	D	27.9	67.2	5.97	4.21
Hisex (Brown)	S	27.9	69.2	6.66	4.33
	D	27.9	71.4	6.65	4.48
Brown Egg Average	S	28.5	68.0	6.91	4.58
	D	27.6	68.5	6.14	4.32

TABLE 35. EFFECTS OF CAGE TYPE ON EGG SIZE OF ENTRIES IN  
FLUSH WASTE HOUSING, 27TH NCLPMT (435-728 DAYS)

Breeder (Strain)	Cage Type	Pee Wee (%)	Small (%)	Medium (%)	Large (%)	Extra Large (%)
<b>White Egg Layers</b>						
Hisex (White)	S	0.2	0.5	2.3	15.7	81.4
	D	0.0	0.3	4.1	23.9	71.7
Colonial (365-S)	S	0.9	2.1	11.1	41.6	44.3
	D	0.0	0.0	10.7	39.2	50.2
ISA-Babcock (B300)	S	0.0	0.1	2.7	28.6	68.6
	D	0.0	0.0	3.8	37.1	59.1
Hyline (W-36)	S	0.0	0.1	5.9	29.1	64.9
	D	0.0	0.0	3.0	29.4	67.6
Shaver (288-A)	S	0.0	0.1	5.6	27.4	66.9
	D	0.0	0.1	2.6	30.8	66.5
Dekalb (XL-Link)	S	0.0	0.5	6.5	37.4	55.6
	D	0.0	0.0	4.7	28.9	66.4
H & N (Nick Chick)	S	0.0	0.0	3.3	24.8	71.9
	D	0.0	0.0	1.5	25.2	73.3
White Egg Average	S	0.1	0.5	5.3	29.2	64.8
	D	0.0	0.1	4.3	30.6	65.0
<b>Brown Egg Layers</b>						
Hubbard (Golden Comet)	S	0.0	0.0	1.2	15.4	83.4
	D	0.0	0.0	1.4	18.6	80.0
Dekalb (Sex-Sal-Link-G)	S	0.0	0.6	2.5	16.7	80.2
	D	0.0	0.0	2.7	13.7	83.7
Hisex (Brown)	S	0.0	0.1	1.2	9.1	89.6
	D	0.0	0.0	1.0	11.0	88.0
Brown Egg Average	S	0.0	0.3	1.6	13.7	84.4
	D	0.0	0.0	1.7	14.4	83.9

TABLE 36. EFFECTS OF CAGE TYPE ON EGG QUALITY OF ENTRIES IN  
FLUSH WASTE HOUSING, 27TH NCLPMT (435-728 DAYS)

Breeder (Strain)	Cage Type	Grade A (%)	Grade B (%)	Cracks (%)	Loss (%)	Blood Spots (%)	Meat Spots (%)
<b>White Egg Layers</b>							
Hisex (White)	S	91.4	2.3	5.5	0.8	0.0	0.0
	D	87.7	5.4	5.4	1.4	1.0	0.0
Colonial (365-S)	S	91.2	1.4	5.5	1.9	12.3	3.6
	D	88.6	3.8	4.4	3.2	0.0	0.0
ISA-Babcock (B300)	S	95.4	1.5	2.7	0.4	0.0	1.5
	D	96.0	1.0	3.1	0.0	0.0	0.0
Hyline (W-36)	S	97.3	0.2	2.1	0.3	2.5	1.6
	D	92.3	0.8	5.8	1.1	0.0	1.1
Shaver (288-A)	S	96.8	1.3	1.4	0.5	0.0	0.0
	D	95.0	1.2	1.8	2.1	0.0	0.0
Dekalb (XL-Link)	S	91.6	2.7	4.5	1.1	0.0	1.3
	D	94.1	1.2	4.3	0.4	0.0	0.0
H & N (Nick Chick)	S	90.2	3.7	5.4	0.7	0.0	0.0
	D	92.9	1.4	5.1	0.5	0.0	0.0
White Egg Average	S	93.4	1.9	3.9	0.8	2.1	1.1
	D	92.4	2.1	4.3	1.2	0.1	0.2
<b>Brown Egg Layers</b>							
Hubbard (Golden Comet)	S	97.1	0.4	2.5	0.0	7.3	15.2
	D	93.1	0.9	4.5	1.5	7.4	7.3
Dekalb (Sex-Sal-Link-G)	S	92.6	1.1	5.8	0.6	1.3	8.4
	D	94.4	0.6	3.8	1.2	19.0	12.4
Hisex (Brown)	S	96.9	0.3	2.0	0.7	8.7	15.4
	D	87.7	2.5	6.9	2.8	5.1	8.9
Brown Egg Average	S	95.5	0.6	3.4	0.4	5.8	13.0
	D	91.7	1.3	5.1	1.9	10.5	9.5

TABLE 37. EFFECTS OF CAGE TYPE ON PERFORMANCE OF ENTRIES IN HIGH RISE HOUSING, 27TH NCLPMT (435-728 DAYS)

Breeder (Strain)	Cage Type	Eggs Per Bird Housed	Egg Production Hen Housed ---- --- (%) ---	Egg Mass Hen Housed ---- --- (g/d) ---	Mortality Hen Day Of Age --- --- (%) ---	
<b>White Egg Layers</b>						
Hisex (White)	S	161.5	54.9	66.1	38.7	44.8
	D	146.0	49.6	61.6	33.6	41.2
Colonial (365-S)	S	113.0	38.4	50.4	23.8	29.5
	D	105.1	35.8	51.0	22.9	31.5
ISA-Babcock (B300)	S	185.1	62.9	65.7	42.7	42.1
	D	154.8	52.6	63.3	35.1	40.6
Hyline (W-36)	S	157.4	53.5	63.7	36.4	42.0
	D	164.1	55.8	60.6	37.0	40.3
Shaver (288-A)	S	174.3	59.3	62.8	40.8	40.9
	D	153.8	52.3	59.7	35.1	38.1
Dekalb (XL-Link)	S	167.3	56.9	63.9	38.5	41.3
	D	146.0	49.6	60.0	33.4	38.4
H & N (Nick Chick)	S	146.0	49.6	65.5	33.8	42.5
	D	142.1	48.3	57.5	32.6	37.2
White Egg Average	S	157.8	53.7	62.6	36.4	40.4
	D	144.6	49.2	59.1	32.8	38.2
<b>Brown Egg Layers</b>						
Hubbard (Golden Comet)	S	165.8	56.4	62.5	40.9	43.5
	D	148.8	50.6	60.6	35.8	41.6
Dekalb (Sex-Sal-Link-G)	S	157.8	53.8	64.7	39.2	45.6
	D	142.3	48.4	61.3	35.4	44.2
Hisex (Brown)	S	130.1	44.3	58.5	32.3	42.5
	D	150.1	51.1	54.1	37.2	38.6
Brown Egg Average	S	151.3	51.5	61.9	37.5	43.9
	D	147.1	50.0	58.7	36.1	41.4

TABLE 38. EFFECTS OF CAGE TYPE ON PERFORMANCE OF ENTRIES IN HIGH RISE HOUSING, 27TH NCLPMT (435-728 DAYS)

Breeder (Strain)	Cage Type	Feed Cons. (lbs/100 hens/d)	Egg Weight (g/egg)	Egg Income	Feed Cost
<hr/>					
White Egg Layers					
Hisex (White)	S	26.7	66.6	7.04	4.23
	D	26.5	64.2	6.24	4.14
Colonial (365-S)	S	24.5	60.9	4.73	3.41
	D	21.9	62.1	4.38	3.28
ISA-Babcock (B300)	S	26.3	64.7	8.12	4.30
	D	24.5	64.1	6.82	4.01
Hyline (W-36)	S	24.4	64.3	7.03	3.64
	D	23.6	64.2	7.20	3.59
Shaver (288-A)	S	25.7	65.5	7.77	4.22
	D	23.4	64.1	6.79	3.78
Dekalb (XL-Link)	S	24.8	64.5	7.36	4.02
	D	23.6	64.1	6.30	3.80
H & N (Nick Chick)	S	26.4	65.9	6.37	4.03
	D	26.3	64.7	5.98	4.08
White Egg Average	S	25.6	64.6	6.92	3.98
	D	24.3	63.9	6.25	3.81
<hr/>					
Brown Egg Layers					
Hubbard (Golden Comet)	S	27.0	68.6	7.43	4.58
	D	26.5	67.1	6.68	4.44
Dekalb (Sex-Sal-Link-G)	S	28.1	69.4	6.98	4.79
	D	30.3	69.6	6.38	5.04
Hisex (Brown)	S	28.3	70.6	5.77	4.47
	D	26.3	69.0	6.65	4.44
Brown Egg Average	S	27.8	69.5	6.73	4.61
	D	27.7	68.6	6.57	4.64

TABLE 39. EFFECTS OF CAGE TYPE ON EGG SIZE OF ENTRIES IN HIGH RISE HOUSING, 27TH NCLPMT (435-728 DAYS)

Breeder (Strain)	Cage Type	Pee Wee (%)	Small (%)	Medium (%)	Large (%)	Extra Large (%)
<b>White Egg Layers</b>						
Hisex (White)	S	0.0	0.1	0.7	22.0	77.1
	D	1.4	1.4	6.2	32.5	58.5
Colonial (365-S)	S	0.0	2.4	20.9	34.7	41.9
	D	0.0	0.8	10.1	39.3	49.7
ISA-Babcock (B300)	S	0.0	0.0	3.8	33.2	63.0
	D	0.0	0.1	3.3	34.8	61.8
Hyline (W-36)	S	0.0	0.0	4.6	32.1	63.3
	D	0.0	0.1	4.3	34.5	61.1
Shaver (288-A)	S	0.0	0.0	3.2	23.3	73.5
	D	0.0	0.0	6.2	34.3	59.5
Dekalb (XL-Link)	S	0.0	0.2	4.4	29.2	66.3
	D	0.0	0.5	5.0	34.8	59.8
H & N (Nick Chick)	S	0.0	0.3	4.6	26.4	68.7
	D	0.0	0.4	8.7	28.7	62.2
White Egg Average	S	0.0	0.4	6.0	28.7	64.8
	D	0.2	0.5	6.3	34.1	58.9
<b>Brown Egg Layers</b>						
Hubbard (Golden Comet)	S	0.0	0.0	0.9	9.6	89.5
	D	0.0	0.0	1.6	18.7	79.7
Dekalb (Sex-Sal-Link-G)	S	0.0	0.1	0.9	11.6	87.4
	D	0.0	0.0	1.4	10.0	88.7
Hisex (Brown)	S	0.0	0.0	0.1	8.3	91.5
	D	0.2	0.0	0.9	11.3	87.7
Brown Egg Average	S	0.0	0.0	0.7	9.8	89.5
	D	0.1	0.0	1.3	13.3	85.4

TABLE 40. EFFECTS OF CAGE TYPE ON EGG QUALITY OF ENTRIES IN HIGH RISE HOUSING, 27TH NCLPMT (435-728 DAYS)

Breeder (Strain)	Cage Type	Grade A (%)	Grade B (%)	Cracks (%)	Loss (%)	Blood Spots (%)	Meat Spots (%)
<b>White Egg Layers</b>							
Hisex (White)	S	87.8	3.5	7.6	1.1	0.0	0.0
	D	89.1	4.6	5.7	0.7	0.0	0.0
Colonial (365-S)	S	94.5	0.8	3.1	1.6	1.1	0.0
	D	86.0	4.6	6.1	3.3	5.7	0.0
ISA-Babcock (B300)	S	92.1	0.3	6.4	1.2	2.0	0.0
	D	93.3	0.5	4.7	1.5	2.8	0.0
Hyline (W-36)	S	96.2	0.3	3.5	0.0	0.0	1.0
	D	94.2	0.4	4.4	1.1	0.0	0.0
Shaver (288-A)	S	94.7	2.1	2.3	1.0	0.0	0.0
	D	93.9	1.8	3.8	0.5	0.0	0.0
Dekalb (XL-Link)	S	92.6	2.5	4.0	0.9	0.0	0.0
	D	91.2	0.7	7.0	1.2	3.3	1.7
H & N (Nick Chick)	S	90.7	1.3	7.1	0.8	3.6	0.0
	D	85.4	1.8	11.0	1.9	4.5	0.0
White Egg Average	S	92.7	1.5	4.9	0.9	1.0	0.1
	D	90.4	2.0	6.1	1.4	2.3	0.2
<b>Brown Egg Layers</b>							
Hubbard (Golden Comet)	S	95.6	0.6	2.5	1.3	3.5	22.6
	D	97.1	0.8	1.4	0.7	2.8	20.1
Dekalb (Sex-Sal-Link-G)	S	92.1	0.7	6.6	0.6	0.0	18.4
	D	95.8	0.7	2.4	1.0	0.0	23.9
Hisex (Brown)	S	92.5	1.8	4.6	1.2	2.4	24.2
	D	92.5	1.2	5.7	0.7	1.3	16.3
Brown Egg Average	S	93.4	1.0	4.6	1.0	1.9	21.7
	D	95.1	0.9	3.2	0.8	1.4	20.1

TABLE 41. EFFECTS OF CAGE TYPE ON PERFORMANCE OF ENTRIES IN  
LIGHT AND AIR CONTROLLED HOUSING, 27TH NCLPMT (435-728 DAYS)

Breeder (Strain)	Cage Type	Eggs Per Bird Housed	Egg Production Hen Housed --- ---- (%)	Egg Mass Hen Housed --- --- (g/d)	Mortality Hen Day --- --- (%)	>140 d Of Age --- --- (%)
<b>White Egg Layers</b>						
Hisex (White)	S	167.3	57.0	64.6	39.1	42.8
	D	141.6	48.2	58.0	32.1	37.4
Colonial (365-S)	S	127.2	43.3	50.8	28.8	32.1
	D	125.6	42.7	48.5	27.7	29.6
ISA-Babcock (B300)	S	170.0	57.9	61.0	38.3	37.9
	D	176.9	60.2	60.7	39.8	37.8
Hyline (W-36)	S	155.4	52.9	60.8	35.6	40.3
	D	164.6	56.0	62.7	36.6	40.5
Shaver (288-A)	S	161.8	55.0	59.3	37.3	38.6
	D	165.0	56.1	61.8	38.0	40.7
Dekalb (XL-Link)	S	151.4	51.5	65.5	33.8	41.2
	D	166.6	56.7	65.8	37.1	41.3
H & N (Nick Chick)	S	161.7	55.0	63.9	37.2	40.9
	D	152.5	51.9	60.7	35.6	39.9
White Egg Average	S	156.4	53.2	60.8	35.7	39.1
	D	156.1	53.1	59.7	35.3	38.2
<b>Brown Egg Layers</b>						
Hubbard (Golden Comet)	S	148.0	50.3	61.4	36.4	42.5
	D	139.2	47.4	59.6	33.6	40.1
Dekalb (Sex-Sal-Link-G)	S	155.2	52.9	58.0	37.6	39.3
	D	162.2	55.2	62.6	39.4	43.2
Hisex (Brown)	S	147.0	50.0	56.1	37.0	39.5
	D	127.5	43.4	59.0	32.4	42.6
Brown Egg Average	S	150.1	51.1	58.5	37.0	40.5
	D	143.0	48.6	60.4	35.1	42.0

TABLE 42. EFFECTS OF CAGE TYPE ON PERFORMANCE OF ENTRIES IN  
LIGHT AND AIR CONTROLLED HOUSING, 27TH NCLPMT (435-728 DAYS)

Breeder (Strain)	Cage Type	Feed Cons. (1bs/100 hens/d)	Egg Weight (g/egg)	Egg Income	Feed Cost
<b>White Egg Layers</b>					
Hisex (White)	S	26.0	65.2	7.30	4.11
	D	26.2	63.6	6.14	4.27
Colonial (365-S)	S	23.8	64.1	5.37	3.78
	D	21.4	63.3	5.38	3.48
ISA-Babcock (B300)	S	24.4	64.0	7.40	4.23
	D	24.2	63.9	7.84	4.22
Hyline (W-36)	S	26.1	64.0	6.83	4.32
	D	24.2	63.0	7.17	3.96
Shaver (288-A)	S	24.5	64.5	7.12	3.97
	D	25.4	64.5	7.25	4.28
Dekalb (XL-Link)	S	26.1	63.6	6.41	4.35
	D	24.7	62.8	7.21	4.19
H & N (Nick Chick)	S	25.5	65.3	6.86	3.94
	D	27.9	64.7	6.57	4.77
White Egg Average	S	25.2	64.4	6.76	4.10
	D	24.9	63.7	6.80	4.17
<b>Brown Egg Layers</b>					
Hubbard (Golden Comet)	S	29.5	69.3	6.48	4.84
	D	32.3	67.7	6.22	5.60
Dekalb (Sex-Sal-Link-G)	S	27.7	67.5	6.89	4.93
	D	30.4	67.9	7.20	5.28
Hisex (Brown)	S	28.1	70.1	6.48	4.75
	D	32.2	71.0	5.75	5.21
Brown Egg Average	S	28.4	69.0	6.62	4.84
	D	31.6	68.9	6.39	5.37

TABLE 43. EFFECTS OF CAGE TYPE ON EGG SIZE OF ENTRIES IN  
LIGHT AND AIR CONTROLLED HOUSING, 27TH NCLPMT (435-728 DAYS)

Breeder (Strain)	Cage Type	Pee Wee (%)	Small (%)	Medium (%)	Large (%)	Extra Large (%)
<b>White Egg Layers</b>						
Hisex (White)	S	0.0	0.1	3.5	24.1	72.2
	D	0.0	0.3	6.6	33.3	59.7
Colonial (365-S)	S	0.0	0.3	15.9	39.1	44.7
	D	0.0	0.8	11.9	32.7	54.7
ISA-Babcock (B300)	S	0.0	0.3	3.4	32.8	63.5
	D	0.0	0.0	5.1	35.5	59.4
Hyline (W-36)	S	0.0	0.1	4.1	32.4	63.4
	D	0.2	0.6	9.0	35.8	54.4
Shaver (288-A)	S	0.0	0.0	5.8	28.0	66.3
	D	0.0	0.3	4.8	30.4	64.5
Dekalb (XL-Link)	S	0.0	0.2	7.9	31.9	60.0
	D	0.3	0.7	8.5	36.2	54.3
H & N (Nick Chick)	S	0.0	0.1	6.8	27.4	65.6
	D	2.7	0.1	3.4	29.1	64.7
White Egg Average	S	0.0	0.2	6.8	30.8	62.3
	D	0.5	0.4	7.0	33.3	58.9
<b>Brown Egg Layers</b>						
Hubbard (Golden Comet)	S	0.0	0.0	0.4	14.7	84.8
	D	0.0	0.0	2.8	19.4	77.8
Dekalb (Sex-Sal-Link-G)	S	0.0	0.0	1.9	15.7	82.4
	D	0.0	0.0	2.6	13.8	83.6
Hisex (Brown)	S	0.0	0.0	1.1	10.9	87.9
	D	0.0	0.0	0.2	6.6	93.2
Brown Egg Average	S	0.0	0.0	1.1	13.8	85.1
	D	0.0	0.0	1.8	13.3	84.9

TABLE 44. EFFECTS OF CAGE TYPE ON EGG QUALITY OF ENTRIES IN  
LIGHT AND AIR CONTROLLED HOUSING, 27TH NCLPMT (435-728 DAYS)

Breeder (Strain)	Cage Type	Grade A (%)	Grade B (%)	Cracks (%)	Loss (%)	Blood Spots (%)	Meat Spots (%)
<b>White Egg Layers</b>							
Hisex (White)	S	91.4	3.3	3.4	1.9	0.9	0.0
	D	88.6	8.4	2.3	0.7	0.0	0.0
Colonial (365-S)	S	89.5	3.6	3.6	3.2	4.2	0.0
	D	90.9	5.1	2.4	1.6	0.0	0.0
ISA-Babcock (B300)	S	89.7	3.1	4.9	2.3	3.4	0.0
	D	93.9	2.5	2.2	1.4	2.4	0.0
Hyline (W-36)	S	93.6	2.0	3.7	0.7	2.2	0.9
	D	92.2	3.3	4.3	0.2	0.0	0.0
Shaver (288-A)	S	92.8	3.3	3.1	0.8	0.9	0.0
	D	92.0	3.0	3.8	1.1	0.0	0.0
Dekalb (XL-Link)	S	84.2	4.0	10.7	1.1	0.0	1.9
	D	90.1	2.2	7.2	0.6	1.0	0.0
H & N (Nick Chick)	S	86.3	2.2	9.5	2.0	5.6	0.0
	D	89.5	2.6	5.9	2.0	2.0	0.0
White Egg Average	S	89.7	3.1	5.6	1.7	2.5	0.4
	D	91.0	3.9	4.0	1.1	0.8	0.0
<b>Brown Egg Layers</b>							
Hubbard (Golden Comet)	S	90.2	1.6	6.5	1.7	4.1	25.3
	D	95.9	1.3	1.9	0.9	11.0	21.5
Dekalb (Sex-Sal-Link-G)	S	93.4	1.7	3.8	1.0	3.0	21.6
	D	94.0	0.4	4.5	1.0	2.3	19.3
Hisex (Brown)	S	93.3	1.2	3.1	2.4	3.6	15.0
	D	95.1	1.5	3.2	0.2	0.0	10.1
Brown Egg Average	S	92.3	1.5	4.5	1.7	3.5	20.6
	D	95.0	1.1	3.2	0.7	4.5	17.0

TABLE 45. EFFECTS OF NUMBER OF BIRDS PER CAGE ON PERFORMANCE OF ENTRIES IN FLUSH WASTE HOUSING, 27TH NCLPMT (435-728 DAYS)

Breeder (Strain)	Birds/ Cage	Eggs Per Bird Housed	Egg Production Hen Housed --- (%) ---	Egg Mass Hen Housed --- (g/d) ---	Mortality Hen Day --- Of Age --- (%) ---	
<b>White Egg Layers</b>						
Hisex (White)	3	176.8	60.1	65.5	42.0	43.5
	4	169.1	57.5	62.9	40.8	42.4
Colonial (365-S)	3	121.6	41.4	54.7	27.1	34.0
	4	90.2	30.7	47.5	19.7	28.9
ISA-Babcock (B300)	3	176.1	59.9	63.9	40.9	41.9
	4	179.5	61.1	64.5	40.6	41.6
Hyline (W-36)	3	171.3	58.3	62.7	39.9	42.4
	4	171.0	58.2	64.7	39.2	42.1
Shaver (288-A)	3	155.1	52.8	61.2	36.3	40.6
	4	147.7	50.2	59.6	33.9	38.3
Dekalb (XL-Link)	3	164.7	56.0	64.4	37.6	41.5
	4	151.3	51.5	61.4	34.1	38.9
H & N (Nick Chick)	3	167.3	56.9	61.8	39.3	40.5
	4	161.5	54.9	62.4	37.5	40.4
White Egg Average	3	161.9	55.1	62.0	37.6	40.6
	4	152.9	52.0	60.4	35.1	38.9
<b>Brown Egg Layers</b>						
Hubbard (Golden Comet)	3	161.2	54.8	59.9	39.2	41.0
	4	125.5	42.7	58.3	29.9	39.8
Dekalb (Sex-Sal-Link-G)	3	152.0	51.7	65.0	36.6	44.5
	4	142.5	48.5	60.1	33.8	41.0
Hisex (Brown)	3	157.0	53.4	58.1	39.9	42.1
	4	146.9	50.0	54.4	36.4	39.3
Brown Egg Average	3	156.7	53.3	61.0	38.6	42.5
	4	138.3	47.0	57.6	33.4	40.0
						12.5

TABLE 46. EFFECTS OF NUMBER OF BIRDS PER CAGE ON PERFORMANCE OF ENTRIES IN FLUSH WASTE HOUSING, 27TH NCLPMT (435-728 DAYS)

Breeder (Strain)	Birds/ Cage	Feed Cons. (1bs/100 hens/d)	Egg Weight (g/egg)	Egg Income	Feed Cost
<b>White Egg Layers</b>					
Hisex (White)	3	26.3	66.6	7.83	4.01
	4	23.9	67.6	7.32	4.28
Colonial (365-S)	3	23.0	64.3	5.21	3.03
	4	20.1	62.7	3.78	3.02
ISA-Babcock (B300)	3	25.5	64.6	7.93	3.84
	4	24.8	64.3	8.04	4.30
Hyline (W-36)	3	24.0	65.7	7.67	3.45
	4	22.2	63.9	7.51	4.04
Shaver (288-A)	3	24.5	65.0	6.80	3.59
	4	23.5	64.2	6.58	4.12
Dekalb (XL-Link)	3	25.2	63.9	7.26	3.78
	4	23.4	63.5	6.68	3.93
H & N (Nick Chick)	3	26.6	66.1	7.48	4.08
	4	25.1	65.5	7.09	4.37
White Egg Average	3	25.0	65.2	7.17	3.68
	4	23.3	64.5	6.71	4.01
<b>Brown Egg Layers</b>					
Hubbard (Golden Comet)	3	28.0	67.6	7.19	4.40
	4	27.4	66.8	5.64	4.50
Dekalb (Sex-Sal-Link-G)	3	30.1	67.2	6.71	4.38
	4	27.1	67.2	6.30	4.59
Hisex (Brown)	3	28.2	70.6	6.79	4.16
	4	27.6	69.9	6.52	4.65
Brown Egg Average	3	28.7	68.5	6.89	4.31
	4	27.3	68.0	6.16	4.58

TABLE 47. EFFECTS OF NUMBER OF BIRDS PER CAGE ON EGG SIZE OF ENTRIES IN FLUSH WASTE HOUSING, 27TH NCLPMT (435-728 DAYS)

Breeder (Strain)	Birds/ Cage	Pee Wee (%)	Small (%)	Medium (%)	Large (%)	Extra Large (%)
<b>White Egg Layers</b>						
Hisex (White)	3	0.2	0.5	2.9	20.5	75.9
	4	0.0	0.3	3.4	19.1	77.2
Colonial (365-S)	3	0.9	2.1	13.1	46.2	37.7
	4	0.0	0.0	8.7	34.6	56.7
ISA-Babcock (B300)	3	0.0	0.0	1.7	33.0	65.3
	4	0.0	0.1	4.8	32.5	62.5
Hyline (W-36)	3	0.0	0.0	3.7	22.0	74.3
	4	0.0	0.1	5.2	36.3	58.4
Shaver (288-A)	3	0.0	0.1	3.3	24.7	71.8
	4	0.0	0.1	4.9	33.5	61.6
Dekalb (XL-Link)	3	0.0	0.3	3.8	29.9	66.0
	4	0.0	0.1	7.3	36.5	56.0
H & N (Nick Chick)	3	0.0	0.0	2.1	22.2	75.7
	4	0.0	0.0	2.8	27.7	69.5
White Egg Average	3	0.1	0.4	4.4	28.4	66.6
	4	0.0	0.1	5.3	31.5	63.1
<b>Brown Egg Layers</b>						
Hubbard (Golden Comet)	3	0.0	0.0	1.4	14.2	84.4
	4	0.0	0.0	1.2	19.8	79.0
Dekalb (Sex-Sal-Link-G)	3	0.0	0.0	2.2	13.0	84.8
	4	0.0	0.6	2.9	17.5	78.9
Hisex (Brown)	3	0.0	0.0	1.7	9.4	89.0
	4	0.0	0.2	0.6	10.7	88.6
Brown Egg Average	3	0.0	0.0	1.8	12.2	86.1
	4	0.0	0.3	1.6	16.0	82.2

TABLE 48. EFFECTS OF NUMBER OF BIRDS PER CAGE ON EGG QUALITY OF ENTRIES IN FLUSH WASTE HOUSING, 27TH NCLPMT (435-728 DAYS)

Breeder (Strain)	Birds/ Cage	Grade A (%)	Grade B (%)	Cracks (%)	Loss (%)	Blood Spots (%)	Meat Spots (%)
<b>White Egg Layers</b>							
Hisex (White)	3	91.9	2.7	4.7	0.8	0.0	0.0
	4	87.2	5.1	6.3	1.4	1.0	0.0
Colonial (365-S)	3	92.1	2.5	5.0	0.4	6.3	0.0
	4	87.6	2.7	5.0	4.7	6.1	3.6
ISA-Babcock (B300)	3	95.8	0.7	3.1	0.4	0.0	1.5
	4	95.5	1.8	2.7	0.0	0.0	0.0
Hyline (W-36)	3	97.1	0.0	2.3	0.6	1.6	1.6
	4	92.6	1.0	5.6	0.8	0.9	1.1
Shaver (288-A)	3	95.1	1.8	1.1	2.0	0.0	0.0
	4	96.6	0.8	2.1	0.5	0.0	0.0
Dekalb (XL-Link)	3	93.2	0.6	5.5	0.6	0.0	1.3
	4	92.5	3.2	3.3	0.9	0.0	0.0
H & N (Nick Chick)	3	92.5	2.9	4.6	0.0	0.0	0.0
	4	90.7	2.3	5.8	1.2	0.0	0.0
White Egg Average	3	94.0	1.6	3.8	0.7	1.1	0.6
	4	91.8	2.4	4.4	1.4	1.1	0.7
<b>Brown Egg Layers</b>							
Hubbard (Golden Comet)	3	94.4	0.4	4.3	0.8	9.4	9.0
	4	95.8	0.8	2.8	0.7	5.2	13.5
Dekalb (Sex-Sal-Link-G)	3	93.4	0.3	5.4	0.9	13.1	10.5
	4	93.6	1.4	4.1	0.9	7.2	10.3
Hisex (Brown)	3	90.9	2.5	3.8	2.8	4.5	10.5
	4	93.7	0.3	5.2	0.8	9.3	13.8
Brown Egg Average	3	92.9	1.1	4.5	1.5	9.0	10.0
	4	94.3	0.9	4.0	0.8	7.2	12.5

TABLE 49. EFFECTS OF NUMBER OF BIRDS PER CAGE ON PERFORMANCE OF ENTRIES IN HIGH RISE HOUSING, 27TH NCLPMT (435-728 DAYS)

Breeder (Strain)	Birds/ Cage	Eggs	Egg Production		Egg Mass	Mortality	
		Per Bird Housed	Hen Housed	Hen Day	Hen Housed	Hen Day	>140 d Of Age
----- White Egg Layers-----							
Hisex (White)	3	156.1	53.1	65.4	36.9	44.4	22.2
	4	151.4	51.5	62.3	35.4	41.6	6.5
Colonial (365-S)	3	113.7	38.7	50.3	24.3	30.0	5.6
	4	104.4	35.5	51.2	22.4	31.0	7.2
ISA-Babcock (B300)	3	170.5	58.0	65.6	39.0	41.9	0.0
	4	169.3	57.6	63.4	38.9	40.8	2.9
Hyline (W-36)	3	155.2	52.8	63.8	35.3	42.3	4.0
	4	166.3	56.5	60.5	38.1	40.0	3.1
Shaver (288-A)	3	172.6	58.7	61.7	39.9	39.7	2.1
	4	155.5	52.9	60.8	36.0	39.2	8.3
Dekalb (XL-Link)	3	164.6	56.0	62.4	37.8	40.0	11.8
	4	148.6	50.6	61.5	34.1	39.7	6.6
H & N (Nick Chick)	3	163.5	55.6	64.2	37.6	41.3	0.0
	4	124.6	42.4	58.8	28.8	38.3	8.3
White Egg Average	3	156.6	53.3	61.9	35.8	39.9	6.5
	4	145.7	49.6	59.8	33.4	38.6	6.1
----- Brown Egg Layers-----							
Hubbard (Golden Comet)	3	172.9	58.8	64.6	42.1	44.7	15.0
	4	141.8	48.3	58.5	34.5	40.4	5.6
Dekalb (Sex-Sal-Link-G)	3	181.4	61.8	64.8	45.4	45.9	4.0
	4	118.7	40.4	61.3	29.2	43.9	42.2
Hisex (Brown)	3	150.9	51.3	56.6	37.4	40.6	6.0
	4	129.4	44.0	56.0	32.2	40.5	10.0
Brown Egg Average	3	168.4	57.3	62.0	41.6	43.7	8.3
	4	130.0	44.2	58.6	32.0	41.6	19.2

TABLE 50. EFFECTS OF NUMBER OF BIRDS PER CAGE ON PERFORMANCE OF ENTRIES IN HIGH RISE HOUSING, 27TH NCLPMT (435-728 DAYS)

Breeder (Strain)	Birds/ Cage	Feed Cons. (lbs/100 hens/d)	Egg Weight (g/egg)	Egg Income	Feed Cost
<b>White Egg Layers</b>					
Hisex (White)	3	28.2	65.7	6.87	4.14
	4	25.1	65.2	6.41	4.23
Colonial (365-S)	3	24.6	61.3	4.70	3.28
	4	21.8	61.8	4.41	3.41
ISA-Babcock (B300)	3	25.9	64.5	7.61	3.94
	4	24.9	64.2	7.33	4.38
Hyline (W-36)	3	24.8	64.0	6.90	3.32
	4	23.1	64.5	7.33	3.92
Shaver (288-A)	3	25.3	64.7	7.71	3.86
	4	23.9	64.9	6.85	4.13
Dekalb (XL-Link)	3	25.0	64.3	7.19	3.65
	4	23.4	64.3	6.47	4.17
H & N (Nick Chick)	3	26.7	65.6	7.04	3.97
	4	26.1	65.0	5.31	4.14
White Egg Average	3	25.8	64.3	6.86	3.74
	4	24.0	64.3	6.30	4.05
<b>Brown Egg Layers</b>					
Hubbard (Golden Comet)	3	27.4	67.8	7.81	4.41
	4	26.1	68.0	6.31	4.61
Dekalb (Sex-Sal-Link-G)	3	28.7	69.6	8.11	4.80
	4	29.7	69.4	5.25	5.02
Hisex (Brown)	3	27.8	70.0	6.73	4.33
	4	26.8	69.5	5.68	4.58
Brown Egg Average	3	27.9	69.1	7.55	4.51
	4	27.5	69.0	5.75	4.74

TABLE 51. EFFECTS OF NUMBER OF BIRDS PER CAGE ON EGG SIZE OF ENTRIES IN HIGH RISE HOUSING, 27TH NCLPMT (435-728 DAYS)

Breeder (Strain)	Birds/ Cage	Pee Wee (%)	Small (%)	Medium (%)	Large (%)	Extra Large (%)
<b>White Egg Layers</b>						
Hisex (White)	3	0.0	0.5	1.7	30.2	67.6
	4	1.4	1.1	5.1	24.3	68.0
Colonial (365-S)	3	0.0	2.2	17.0	34.3	46.5
	4	0.0	1.1	14.1	39.8	45.1
ISA-Babcock (B300)	3	0.0	0.0	2.5	32.4	65.1
	4	0.0	0.1	4.6	35.6	59.6
Hyline (W-36)	3	0.0	0.0	4.8	33.2	62.1
	4	0.0	0.1	4.1	33.4	62.4
Shaver (288-A)	3	0.0	0.0	4.4	27.7	67.8
	4	0.0	0.0	5.0	29.8	65.2
Dekalb (XL-Link)	3	0.0	0.5	5.0	33.1	61.4
	4	0.0	0.2	4.3	30.8	64.6
H & N (Nick Chick)	3	0.0	0.3	5.3	29.6	64.8
	4	0.0	0.4	8.0	25.6	66.1
White Egg Average	3	0.0	0.5	5.8	31.5	62.2
	4	0.2	0.4	6.5	31.3	61.6
<b>Brown Egg Layers</b>						
Hubbard (Golden Comet)	3	0.0	0.0	1.6	15.0	83.4
	4	0.0	0.0	0.9	13.3	85.8
Dekalb (Sex-Sal-Link-G)	3	0.0	0.0	1.1	12.3	86.5
	4	0.0	0.1	1.1	9.2	89.5
Hisex (Brown)	3	0.0	0.0	0.2	7.8	92.0
	4	0.2	0.0	0.8	11.8	87.3
Brown Egg Average	3	0.0	0.0	1.0	11.8	87.3
	4	0.1	0.0	0.9	11.4	87.5

TABLE 52. EFFECTS OF NUMBER OF BIRDS PER CAGE ON EGG QUALITY OF ENTRIES IN HIGH RISE HOUSING, 27TH NCLPMT (435-728 DAYS)

Breeder (Strain)	Birds/ Cage	Grade A (%)	Grade B (%)	Cracks (%)	Loss (%)	Blood Spots (%)	Meat Spots (%)
<b>White Egg Layers</b>							
Hisex (White)	3	92.0	2.4	4.6	0.9	0.0	0.0
	4	84.8	5.6	8.6	0.9	0.0	0.0
Colonial (365-S)	3	89.6	4.7	3.9	1.7	1.6	0.0
	4	90.9	0.6	5.3	3.1	5.3	0.0
ISA-Babcock (B300)	3	95.1	0.0	3.9	1.0	1.2	0.0
	4	90.3	0.8	7.2	1.6	3.6	0.0
Hyline (W-36)	3	96.7	0.4	2.4	0.5	0.0	0.0
	4	93.6	0.3	5.5	0.6	0.0	1.0
Shaver (288-A)	3	95.6	2.1	1.9	0.3	0.0	0.0
	4	93.0	1.7	4.2	1.1	0.0	0.0
Dekalb (XL-Link)	3	93.3	0.7	4.8	1.1	0.0	0.0
	4	90.4	2.5	6.2	0.9	3.3	1.7
H & N (Nick Chick)	3	88.9	1.8	7.6	1.7	3.1	0.0
	4	87.2	1.3	10.5	1.0	5.0	0.0
White Egg Average	3	93.0	1.7	4.2	1.0	0.8	0.0
	4	90.0	1.8	6.8	1.3	2.5	0.4
<b>Brown Egg Layers</b>							
Hubbard (Golden Comet)	3	97.3	0.0	2.4	0.3	3.5	19.6
	4	95.3	1.4	1.6	1.7	2.8	23.0
Dekalb (Sex-Sal-Link-G)	3	95.1	0.0	4.3	0.7	0.0	14.2
	4	92.8	1.4	4.7	1.0	0.0	28.0
Hisex (Brown)	3	94.2	1.9	3.1	0.8	1.3	24.3
	4	90.7	1.1	7.1	1.1	2.4	16.2
Brown Egg Average	3	95.5	0.6	3.3	0.6	1.6	19.4
	4	93.0	1.3	4.5	1.2	1.7	22.4

TABLE 53. EFFECTS OF NUMBER OF BIRDS PER CAGE ON PERFORMANCE OF ENTRIES IN LIGHT AND AIR CONTROLLED HOUSING, 27TH NCLPMT (435-728 DAYS)

Breeder (Strain)	Birds/ Cage	Eggs Per Bird Housed	Egg Production Hen Housed ---- --- (%) ---	Egg Mass Hen Housed --- --- (g/d) ---	Mortality Hen Day --- --- Of Age --- (%) ---
<b>White Egg Layers</b>					
Hisex (White)	3	164.0	55.8 Hen Housed ---- --- (%) ---	38.0 Hen Housed --- --- (g/d) ---	41.5 Hen Day --- --- Of Age --- (%) ---
	4	145.0	49.3 59.6	33.3	38.7 5.7
Colonial (365-S)	3	133.4	45.4 40.6	30.2 45.5	33.9 26.3 7.9 27.8 5.7
ISA-Babcock (B300)	3	179.4	61.0 57.1	41.0 37.0	39.8 35.9 2.1 1.6
	4	167.5	58.9		
Hyline (W-36)	3	166.6	56.7 52.2	37.3 34.9	40.9 39.8 7.7 11.4
	4	153.3	60.8		
Shaver (288-A)	3	171.3	58.3 52.9	40.2 35.1	39.8 39.5 2.1 8.3
	4	155.4	61.7		
Dekalb (XL-Link)	3	173.5	59.0 49.2	38.7 32.3	40.9 41.7 7.8 7.6
	4	144.6	66.0		
H & N (Nick Chick)	3	165.3	56.2 50.6	38.5 34.3	41.1 39.7 0.0 7.9
	4	148.9	61.3		
White Egg Average	3	164.8	56.1 50.3	37.7 33.3	39.7 37.6 5.0 6.9
<b>Brown Egg Layers</b>					
Hubbard (Golden Comet)	3	150.4	51.2 46.5	36.5 33.5	41.8 40.9 8.8 13.9
	4	136.8	59.3		
Dekalb (Sex-Sal-Link-G)	3	169.2	57.6 50.5	40.8 36.1	41.8 40.7 8.0 4.1
	4	148.2	59.5		
Hisex (Brown)	3	154.6	52.6 40.8	39.6 29.8	42.6 39.5 5.6 7.6
	4	119.9	59.3 55.8		
Brown Egg Average	3	158.1	53.8 45.9	39.0 33.1	42.1 40.4 7.5 8.5

TABLE 54. EFFECTS OF NUMBER OF BIRDS PER CAGE ON PERFORMANCE OF ENTRIES IN LIGHT AND AIR CONTROLLED HOUSING, 27TH NCLPMT (435-728 DAYS)

Breeder (Strain)	Birds/ Cage	Feed Cons. (1bs/100 hens/d)	Egg Weight (g/egg)	Egg Income	Feed Cost
<hr/>					
White Egg Layers					
Hisex (White)	3	28.3	64.4	7.12	4.16
	4	23.9	64.4	6.32	4.23
Colonial (365-S)	3	24.4	64.7	5.65	3.74
	4	20.8	62.7	5.10	3.52
ISA-Babcock (B300)	3	25.5	64.3	7.96	4.15
	4	23.1	63.6	7.28	4.31
Hyline (W-36)	3	26.0	63.5	7.31	4.13
	4	24.3	63.6	6.70	4.14
Shaver (288-A)	3	25.3	65.4	7.64	3.84
	4	24.6	63.6	6.72	4.41
Dekalb (XL-Link)	3	24.9	63.1	7.46	3.96
	4	25.9	63.3	6.17	4.58
H & N (Nick Chick)	3	27.8	65.4	6.99	4.49
	4	25.6	64.6	6.45	4.22
White Egg Average	3	26.0	64.4	7.16	4.07
	4	24.0	63.7	6.39	4.20
<hr/>					
Brown Egg Layers					
Hubbard (Golden Comet)	3	31.1	68.6	6.64	5.15
	4	30.6	68.5	6.06	5.30
Dekalb (Sex-Sal-Link-G)	3	30.5	67.4	7.57	5.21
	4	27.5	68.0	6.51	5.00
Hisex (Brown)	3	30.2	71.1	6.91	4.90
	4	30.1	70.0	5.32	5.06
Brown Egg Average	3	30.6	69.0	7.04	5.09
	4	29.4	68.8	5.96	5.12

TABLE 55. EFFECTS OF NUMBER OF BIRDS PER CAGE ON EGG SIZE OF ENTRIES IN LIGHT AND AIR CONTROLLED HOUSING, 27TH NCLPMT (435-728 DAYS)

Breeder (Strain)	Birds/ Cage	Pee Wee (%)	Small (%)	Medium (%)	Large (%)	Extra Large (%)
<b>White Egg Layers</b>						
Hisex (White)	3	0.0	0.3	5.3	28.5	65.9
	4	0.0	0.1	4.8	29.0	66.1
Colonial (365-S)	3	0.0	0.6	15.3	38.7	45.4
	4	0.0	0.5	12.4	33.1	54.0
ISA-Babcock (B300)	3	0.0	0.1	2.3	31.1	66.4
	4	0.0	0.1	6.2	37.3	56.5
Hyline (W-36)	3	0.2	0.5	6.4	34.5	58.4
	4	0.0	0.1	6.7	33.6	59.6
Shaver (288-A)	3	0.0	0.2	4.0	23.2	72.6
	4	0.0	0.1	6.6	35.2	58.2
Dekalb (XL-Link)	3	0.1	0.1	7.8	35.3	56.7
	4	0.2	0.8	8.6	32.8	57.7
H & N (Nick Chick)	3	2.7	0.1	4.1	26.5	66.5
	4	0.0	0.1	6.1	30.1	63.7
White Egg Average	3	0.4	0.3	6.5	31.1	61.7
	4	0.0	0.3	7.3	33.0	59.4
<b>Brown Egg Layers</b>						
Hubbard (Golden Comet)	3	0.0	0.0	2.5	17.8	79.8
	4	0.0	0.0	0.7	16.3	82.9
Dekalb (Sex-Sal-Link-G)	3	0.0	0.0	2.1	15.5	82.4
	4	0.0	0.0	2.3	14.0	83.6
Hisex (Brown)	3	0.0	0.0	0.4	6.8	92.8
	4	0.0	0.0	0.9	10.7	88.4
Brown Egg Average	3	0.0	0.0	1.6	13.4	85.0
	4	0.0	0.0	1.3	13.7	85.0

TABLE 56. EFFECTS OF NUMBER OF BIRDS PER CAGE ON EGG QUALITY OF ENTRIES IN LIGHT AND AIR CONTROLLED HOUSING, 27TH NCLPMT (435-728 DAYS)

Breeder (Strain)	Birds/ Cage	Grade A (%)	Grade B (%)	Cracks (%)	Loss (%)	Blood Spots (%)	Meat Spots (%)
<b>White Egg Layers</b>							
Hisex (White)	3	90.3	5.9	2.5	1.2	0.9	0.0
	4	89.8	5.7	3.1	1.4	0.0	0.0
Colonial (365-S)	3	89.6	4.9	3.0	2.6	3.1	0.0
	4	90.9	3.9	3.1	2.2	1.0	0.0
ISA-Babcock (B300)	3	94.0	1.1	3.5	1.4	2.5	0.0
	4	89.6	4.6	3.6	2.2	3.2	0.0
Hyline (W-36)	3	92.5	3.4	3.8	0.3	0.0	0.0
	4	93.4	1.9	4.2	0.6	2.2	0.9
Shaver (288-A)	3	94.3	3.5	2.3	0.0	0.9	0.0
	4	90.6	2.9	4.7	1.9	0.0	0.0
Dekalb (XL-Link)	3	87.8	3.0	8.3	0.8	1.0	1.1
	4	86.5	3.1	9.5	0.9	0.0	0.8
H & N (Nick Chick)	3	86.1	2.2	8.4	3.2	5.7	0.0
	4	89.7	2.5	7.0	0.8	1.9	0.0
White Egg Average	3	90.6	3.4	4.6	1.4	2.0	0.2
	4	90.0	3.5	5.0	1.4	1.2	0.2
<b>Brown Egg Layers</b>							
Hubbard (Golden Comet)	3	93.8	1.3	2.8	2.1	9.4	26.4
	4	92.3	1.6	5.6	0.5	5.8	20.4
Dekalb (Sex-Sal-Link-G)	3	95.9	0.0	3.0	1.0	1.8	18.8
	4	91.5	2.2	5.3	1.0	3.5	22.1
Hisex (Brown)	3	94.5	2.0	1.7	1.7	3.6	11.7
	4	93.8	0.7	4.6	0.9	0.0	13.4
Brown Egg Average	3	94.8	1.1	2.5	1.6	4.9	19.0
	4	92.5	1.5	5.2	0.8	3.1	18.6

TABLE 57. EFFECTS OF NUMBER OF BIRDS PER CAGE ON PERFORMANCE OF ENTRIES IN SHALLOW CAGES, 27TH NCLPMT (435-728 DAYS)

Breeder (Strain)	Birds/ Cage	Eggs Per Bird Housed		Egg Production Hen Housed ---- (%) ----		Egg Mass Hen Housed --- (g/d) ---		Mortality >140 d Hen Day --- Of Age --- (%)
				Hen	Day			
<b>White Egg Layers</b>								
Hisex (White)	3	172.0	58.5	66.6	40.6	44.4	6.1	
	4	158.5	53.9	63.5	38.3	43.2	8.1	
Colonial (365-S)	3	119.2	40.5	54.9	26.6	34.3	13.9	
	4	106.7	36.3	48.8	22.7	28.9	10.1	
ISA-Babcock (B300)	3	183.2	62.3	64.9	42.3	41.8	0.0	
	4	177.2	60.3	64.2	40.5	40.5	3.0	
Hyline (W-36)	3	154.6	52.6	62.9	35.6	41.6	3.8	
	4	168.4	57.3	63.2	38.9	41.7	7.6	
Shaver (288-A)	3	168.8	57.4	61.6	39.6	40.6	1.4	
	4	157.2	53.5	60.5	36.0	39.0	6.8	
Dekalb (XL-Link)	3	173.2	58.9	64.1	39.2	40.7	7.8	
	4	157.9	53.7	64.6	35.7	41.1	4.3	
H & N (Nick Chick)	3	168.6	57.3	65.4	39.0	42.1	4.0	
	4	147.2	50.1	62.2	34.1	40.1	9.7	
White Egg Average	3	162.8	55.4	62.9	37.6	40.8	5.3	
	4	153.3	52.2	61.0	35.2	39.2	7.1	
<b>Brown Egg Layers</b>								
Hubbard (Golden Comet)	3	164.9	56.1	62.5	40.6	43.4	4.9	
	4	147.8	50.3	60.6	36.0	41.6	11.2	
Dekalb (Sex-Sal-Link-G)	3	177.5	60.4	63.4	43.5	43.9	2.6	
	4	137.4	46.8	60.1	33.1	40.8	12.8	
Hisex (Brown)	3	143.8	48.9	55.2	35.8	39.2	2.5	
	4	139.6	47.5	57.6	35.0	41.3	8.8	
Brown Egg Average	3	162.1	55.1	60.4	40.0	42.2	3.3	
	4	141.6	48.2	59.5	34.7	41.3	10.9	

TABLE 58. EFFECTS OF NUMBER OF BIRDS PER CAGE ON PERFORMANCE OF ENTRIES IN SHALLOW CAGES, 27TH NCLPMT (435-728 DAYS)

Breeder (Strain)	Birds/ Cage	Feed Cons. (lbs/100 hens/d)	Egg Weight (g/egg)	Egg Income	Feed Cost
<b>White Egg Layers</b>					
Hisex (White)	3	27.3	66.0	7.55	4.04
	4	24.8	67.4	6.92	4.37
Colonial (365-S)	3	26.0	63.8	4.98	3.47
	4	21.4	61.2	4.53	3.37
ISA-Babcock (B300)	3	26.0	64.6	8.19	4.02
	4	24.7	64.6	7.71	4.41
Hyline (W-36)	3	25.6	64.2	6.86	3.71
	4	24.0	64.5	7.49	4.18
Shaver (288-A)	3	25.5	65.4	7.53	3.82
	4	24.2	64.2	6.92	4.21
Dekalb (XL-Link)	3	25.5	63.8	7.49	3.86
	4	24.9	63.8	6.89	4.36
H & N (Nick Chick)	3	26.4	65.9	7.30	4.01
	4	25.8	65.4	6.40	4.17
White Egg Average	3	26.0	64.8	7.13	3.85
	4	24.2	64.4	6.70	4.15
<b>Brown Egg Layers</b>					
Hubbard (Golden Comet)	3	29.1	68.9	7.41	4.63
	4	27.5	68.0	6.56	4.76
Dekalb (Sex-Sal-Link-G)	3	28.9	68.3	7.82	4.78
	4	27.8	67.8	6.12	4.87
Hisex (Brown)	3	27.9	69.9	6.39	4.19
	4	28.2	70.0	6.22	4.83
Brown Egg Average	3	28.6	69.0	7.21	4.53
	4	27.8	68.6	6.30	4.82

TABLE 59. EFFECTS OF NUMBER OF BIRDS PER CAGE ON EGG SIZE OF ENTRIES IN SHALLOW CAGES, 27TH NCLPMT (435-728 DAYS)

Breeder (Strain)	Birds/ Cage	Pee Wee (%)	Small (%)	Medium (%)	Large (%)	Extra Large (%)
<b>White Egg Layers</b>						
Hisex (White)	3	0.1	0.4	2.7	21.9	74.9
	4	0.0	0.1	1.6	19.4	78.9
Colonial (365-S)	3	0.6	2.3	16.2	38.6	42.3
	4	0.0	0.9	15.8	38.4	44.9
ISA-Babcock (B300)	3	0.0	0.1	1.8	31.8	66.3
	4	0.0	0.1	4.8	31.3	63.7
Hyline (W-36)	3	0.0	0.0	6.0	29.7	64.3
	4	0.0	0.1	3.7	32.7	63.5
Shaver (288-A)	3	0.0	0.1	3.5	20.8	75.6
	4	0.0	0.0	6.2	31.6	62.2
Dekalb (XL-Link)	3	0.0	0.3	6.0	32.9	60.8
	4	0.0	0.2	6.6	32.8	60.4
H & N (Nick Chick)	3	0.0	0.3	3.9	26.2	69.7
	4	0.0	0.0	5.9	26.2	67.8
White Egg Average	3	0.1	0.5	5.7	28.8	64.9
	4	0.0	0.2	6.4	30.3	63.1
<b>Brown Egg Layers</b>						
Hubbard (Golden Comet)	3	0.0	0.0	0.6	9.5	89.9
	4	0.0	0.0	1.1	16.9	82.0
Dekalb (Sex-Sal-Link-G)	3	0.0	0.0	1.3	14.5	84.1
	4	0.0	0.5	2.2	14.8	82.5
Hisex (Brown)	3	0.0	0.0	0.7	8.2	91.1
	4	0.0	0.1	1.0	10.7	88.2
Brown Egg Average	3	0.0	0.0	0.9	10.8	88.4
	4	0.0	0.2	1.4	14.1	84.3

TABLE 60. EFFECTS OF NUMBER OF BIRDS PER CAGE ON EGG QUALITY OF ENTRIES IN SHALLOW CAGES, 27TH NCLPMT (435-728 DAYS)

Breeder (Strain)	Birds/ Cage	Grade A (%)	Grade B (%)	Cracks (%)	Loss (%)	Blood Spots (%)	Meat Spots (%)
<b>White Egg Layers</b>							
Hisex (White)	3	92.6	1.4	4.2	1.7	0.6	0.0
	4	87.8	4.6	6.8	0.8	0.0	0.0
Colonial (365-S)	3	90.9	2.4	4.5	2.1	6.2	0.0
	4	92.6	1.5	3.6	2.3	5.5	2.4
ISA-Babcock (B300)	3	95.0	0.5	3.6	0.9	2.5	1.0
	4	89.9	2.8	5.7	1.6	1.1	0.0
Hyline (W-36)	3	96.3	0.9	2.4	0.4	1.0	1.0
	4	95.1	0.9	3.8	0.2	2.1	1.3
Shaver (288-A)	3	95.4	3.0	1.0	0.6	0.6	0.0
	4	94.1	1.4	3.5	0.9	0.0	0.0
Dekalb (XL-Link)	3	89.3	1.6	7.9	1.2	0.0	1.6
	4	89.6	4.6	4.9	0.9	0.0	0.6
H & N (Nick Chick)	3	87.3	3.6	7.7	1.3	3.1	0.0
	4	90.9	1.2	6.9	1.0	3.1	0.0
White Egg Average	3	92.4	1.9	4.5	1.2	2.0	0.5
	4	91.4	2.4	5.0	1.1	1.7	0.6
<b>Brown Egg Layers</b>							
Hubbard (Golden Comet)	3	95.6	0.5	2.8	1.1	5.2	19.6
	4	93.0	1.3	5.0	0.8	4.7	22.5
Dekalb (Sex-Sal-Link-G)	3	92.0	0.2	6.5	1.3	1.2	11.3
	4	93.4	2.2	4.3	0.2	1.7	20.9
Hisex (Brown)	3	93.7	1.6	2.9	1.8	3.4	18.8
	4	94.7	0.6	3.6	1.1	6.3	17.6
Brown Egg Average	3	93.8	0.8	4.1	1.4	3.3	16.6
	4	93.7	1.3	4.3	0.7	4.2	20.3

TABLE 61. EFFECTS OF NUMBER OF BIRDS PER CAGE ON PERFORMANCE OF ENTRIES IN DEEP CAGES, 27TH NCLPMT (435-728 DAYS)

Breeder (Strain)	Birds/ Cage	Eggs Per Bird Housed	Egg Production		Egg Mass Hen Housed --- (g/d) ---	Mortality >140 d Hen Day --- ---	Mortality Of Age (%)
			Hen Housed ---	Hen Day --- (%) ---			
<b>White Egg Layers</b>							
Hisex (White)	3	159.3	54.2	62.7	37.3	41.8	17.6
	4	151.9	51.6	59.7	34.7	38.6	3.9
Colonial (365-S)	3	126.7	43.1	50.9	27.7	31.0	7.5
	4	102.6	34.9	47.3	23.0	29.6	5.8
ISA-Babcock (B300)	3	167.5	57.0	63.2	38.3	40.6	2.7
	4	167.1	56.8	60.4	37.2	38.3	1.9
Hyline (W-36)	3	174.2	59.2	63.3	39.4	42.2	9.4
	4	158.7	54.0	60.8	35.9	39.6	3.9
Shaver (288-A)	3	163.9	55.7	59.9	38.0	39.4	2.7
	4	148.6	50.5	60.8	34.0	39.0	10.8
Dekalb (XL-Link)	3	161.9	55.1	63.9	36.8	40.9	6.3
	4	138.4	47.1	61.3	31.2	39.0	8.5
H & N (Nick Chick)	3	162.2	55.2	60.7	37.9	39.8	0.0
	4	142.7	48.5	59.5	33.0	38.8	3.9
White Egg Average	3	159.4	54.2	60.7	36.5	39.4	6.6
	4	144.3	49.1	58.5	32.7	37.5	5.5
<b>Brown Egg Layers</b>							
Hubbard (Golden Comet)	3	158.1	53.8	61.6	37.9	41.6	14.9
	4	121.5	41.3	56.8	29.3	39.0	12.2
Dekalb (Sex-Sal-Link-G)	3	157.6	53.6	63.9	38.3	44.2	10.1
	4	135.6	46.1	60.5	33.0	42.9	28.5
Hisex (Brown)	3	164.5	55.9	60.8	42.1	44.3	13.5
	4	124.5	42.4	53.2	30.6	38.2	7.0
Brown Egg Average	3	160.1	54.5	62.1	39.5	43.4	12.8
	4	127.2	43.3	56.8	31.0	40.1	15.9

TABLE 62. EFFECTS OF NUMBER OF BIRDS PER CAGE ON PERFORMANCE OF ENTRIES IN DEEP CAGES, 27TH NCLPMT (435-728 DAYS)

Breeder (Strain)		Birds/ Cage	Feed Cons. (1bs/100 hens/d)	Egg Weight (g/egg)	Egg Income	Feed Cost
<b>White Egg Layers</b>						
Hisex (White)	3	27.9	65.1	7.00	4.17	
	4	23.7	64.0	6.45	4.12	
Colonial (365-S)	3	22.0	63.1	5.39	3.23	
	4	20.4	63.6	4.33	3.26	
ISA-Babcock (B300)	3	25.3	64.3	7.48	3.94	
	4	23.9	63.4	7.38	4.24	
Hyline (W-36)	3	24.2	64.6	7.73	3.55	
	4	22.5	63.5	6.87	3.89	
Shaver (288-A)	3	24.6	64.6	7.24	3.71	
	4	23.8	64.3	6.51	4.23	
Dekalb (XL-Link)	3	24.6	63.8	7.12	3.73	
	4	23.6	63.6	5.99	4.09	
H & N (Nick Chick)	3	27.7	65.5	7.04	4.35	
	4	25.4	64.6	6.17	4.31	
White Egg Average	3	25.2	64.5	7.00	3.81	
	4	23.3	63.9	6.24	4.02	
<b>Brown Egg Layers</b>						
Hubbard (Golden Comet)	3	28.6	67.0	7.01	4.69	
	4	28.6	67.5	5.45	4.85	
Dekalb (Sex-Sal-Link-G)	3	30.6	67.8	7.10	4.82	
	4	28.4	68.7	5.93	4.87	
Hisex (Brown)	3	29.5	71.2	7.23	4.73	
	4	28.0	69.7	5.47	4.70	
Brown Egg Average	3	29.6	68.7	7.11	4.74	
	4	28.4	68.6	5.61	4.80	

TABLE 63. EFFECTS OF NUMBER OF BIRDS PER CAGE ON EGG SIZE OF ENTRIES IN DEEP CAGES, 27TH NCLPMT (435-728 DAYS)

Breeder (Strain)	Birds/ Cage	Pee Wee (%)	Small (%)	Medium (%)	Large (%)	Extra Large (%)
<b>White Egg Layers</b>						
Hisex (White)	3	0.0	0.4	3.9	30.9	64.7
	4	1.0	0.9	7.3	28.9	61.9
Colonial (365-S)	3	0.0	1.0	14.1	40.8	44.1
	4	0.0	0.1	7.7	33.3	59.0
ISA-Babcock (B300)	3	0.0	0.0	2.6	32.6	64.9
	4	0.0	0.1	5.6	39.1	55.2
Hyline (W-36)	3	0.1	0.3	3.9	30.1	65.6
	4	0.0	0.2	7.0	36.2	56.6
Shaver (288-A)	3	0.0	0.1	4.3	29.6	65.9
	4	0.0	0.1	4.8	34.0	61.1
Dekalb (XL-Link)	3	0.1	0.2	5.1	32.7	61.9
	4	0.1	0.5	6.9	34.0	58.5
H & N (Nick Chick)	3	1.8	0.0	3.8	26.1	68.3
	4	0.0	0.3	5.3	29.3	65.1
White Egg Average	3	0.3	0.3	5.4	31.8	62.2
	4	0.2	0.3	6.4	33.5	59.6
<b>Brown Egg Layers</b>						
Hubbard (Golden Comet)	3	0.0	0.0	3.1	21.8	75.1
	4	0.0	0.0	0.8	16.0	83.2
Dekalb (Sex-Sal-Link-G)	3	0.0	0.0	2.3	12.7	85.0
	4	0.0	0.0	2.1	12.3	85.7
Hisex (Brown)	3	0.0	0.0	0.8	7.8	91.4
	4	0.1	0.0	0.5	11.4	87.9
Brown Egg Average	3	0.0	0.0	2.1	14.1	83.9
	4	0.0	0.0	1.1	13.3	85.6

TABLE 64. EFFECTS OF NUMBER OF BIRDS PER CAGE ON EGG QUALITY OF ENTRIES IN DEEP CAGES, 27TH NCLPMT (435-728 DAYS)

Breeder (Strain)	Birds/ Cage	Grade A (%)	Grade B (%)	Cracks (%)	Loss (%)	Blood Spots (%)	Meat Spots (%)
<b>White Egg Layers</b>							
Hisex (White)	3	90.2	5.9	3.7	0.2	0.0	0.0
	4	86.8	6.3	5.2	1.6	0.7	0.0
Colonial (365-S)	3	90.0	5.6	3.4	1.0	1.0	0.0
	4	87.0	3.3	5.3	4.4	2.8	0.0
ISA-Babcock (B300)	3	95.0	0.7	3.4	0.9	0.0	0.0
	4	93.8	2.0	3.3	1.0	3.4	0.0
Hyline (W-36)	3	94.5	1.6	3.3	0.5	0.0	0.0
	4	91.3	1.3	6.3	1.1	0.0	0.7
Shaver (288-A)	3	94.6	1.9	2.5	1.0	0.0	0.0
	4	92.6	2.1	3.8	1.4	0.0	0.0
Dekalb (XL-Link)	3	93.6	1.4	4.5	0.6	0.6	0.0
	4	90.0	1.3	7.8	0.9	2.2	1.1
H & N (Nick Chick)	3	91.1	1.0	6.1	1.9	2.8	0.0
	4	87.5	2.9	8.6	1.1	1.5	0.0
White Egg Average	3	92.7	2.6	3.8	0.9	0.6	0.0
	4	89.9	2.8	5.8	1.6	1.5	0.3
<b>Brown Egg Layers</b>							
Hubbard (Golden Comet)	3	94.8	0.7	3.5	1.0	9.7	17.2
	4	96.0	1.2	1.7	1.1	4.5	15.4
Dekalb (Sex-Sal-Link-G)	3	97.6	0.0	2.0	0.4	8.7	17.7
	4	91.9	1.2	5.2	1.7	5.5	19.4
Hisex (Brown)	3	92.7	2.6	2.8	1.8	2.8	12.1
	4	90.8	0.8	7.7	0.7	1.4	11.4
Brown Egg Average	3	95.0	1.1	2.8	1.1	7.1	15.7
	4	92.9	1.1	4.8	1.2	3.8	15.4

TABLE 65. EFFECTS OF CAGE TYPE ON PERFORMANCE OF ENTRIES IN  
FLUSH WASTE HOUSING, 27TH NCLPMT (140-728 DAYS)

Breeder (Strain)	Cage Type	Eggs Per Bird Housed	Egg Production Hen Housed ---- --- (%) ---	Egg Mass Hen Housed --- --- (g/d) ---	Mortality Hen Day --- --- (%)	>140 d of Age --- --- (%)
<b>White Egg Layers</b>						
Hisex (White)	S	377.1	64.1	69.7	42.2	44.8
	D	394.8	67.1	69.0	43.2	43.4
Colonial (365-S)	S	301.4	51.3	66.0	30.1	38.3
	D	304.1	51.7	59.2	31.1	34.8
ISA-Babcock (B300)	S	420.7	71.5	73.5	45.3	45.5
	D	392.6	66.8	69.4	41.3	42.6
Hyline (W-36)	S	398.2	67.7	71.9	42.4	44.4
	D	384.8	65.5	68.4	41.1	42.7
Shaver (288-A)	S	363.3	61.8	70.5	39.0	43.8
	D	360.6	61.3	68.4	38.8	42.4
Dekalb (XL-Link)	S	415.6	70.7	72.7	43.9	44.2
	D	356.9	60.7	71.0	38.0	43.8
H & N (Nick Chick)	S	397.5	67.6	70.6	42.8	43.6
	D	374.4	63.7	68.9	40.8	43.2
White Egg Average	S	382.0	65.0	70.7	40.8	43.5
	D	366.9	62.4	67.7	39.2	41.9
<b>Brown Egg Layers</b>						
Hubbard (Golden Comet)	S	365.6	62.2	67.7	41.5	44.4
	D	335.7	57.1	65.0	37.8	42.6
Dekalb (Sex-Sal-Link-G)	S	367.7	62.5	68.6	41.9	45.1
	D	326.3	55.5	65.9	37.2	44.0
Hisex (Brown)	S	369.5	62.8	65.5	43.0	44.4
	D	367.5	62.5	65.5	43.8	45.6
Brown Egg Average	S	367.6	62.5	67.2	42.1	44.6
	D	343.1	58.4	65.5	39.6	44.1

TABLE 66. EFFECTS OF CAGE TYPE ON PERFORMANCE OF ENTRIES IN  
FLUSH WASTE HOUSING, 27TH NCLPMT (140-728 DAYS)

Breeder (Strain)	Cage Type	Feed Cons. (lbs/100 hens/d)	Egg Weight (g/egg)	Egg Income	Feed Cost
<b>White Egg Layers</b>					
Hisex (White)	S	24.8	61.7	17.24	9.02
	D	23.9	59.9	17.80	8.66
Colonial (365-S)	S	23.6	56.2	12.89	7.59
	D	20.6	57.5	12.98	7.06
ISA-Babcock (B300)	S	24.7	59.4	19.27	8.99
	D	24.4	58.2	17.80	8.77
Hyline (W-36)	S	23.3	58.5	18.01	8.51
	D	22.2	58.8	17.17	8.11
Shaver (288-A)	S	23.8	58.9	16.70	8.28
	D	23.6	59.0	16.52	8.43
Dekalb (XL-Link)	S	24.7	58.0	18.86	9.04
	D	24.0	58.7	16.16	8.45
H & N (Nick Chick)	S	25.7	59.7	17.96	9.32
	D	24.8	60.1	17.10	8.78
White Egg Average	S	24.4	58.9	17.27	8.68
	D	23.4	58.9	16.51	8.32
<b>Brown Egg Layers</b>					
Hubbard (Golden Comet)	S	27.8	62.3	17.07	9.79
	D	26.1	61.9	15.59	9.04
Dekalb (Sex-Sal-Link-G)	S	28.2	62.1	17.19	9.99
	D	26.8	62.9	15.47	9.13
Hisex (Brown)	S	27.2	64.0	17.53	9.51
	D	26.5	65.5	16.95	9.43
Brown Egg Average	S	27.7	62.8	17.27	9.76
	D	26.5	63.4	16.01	9.20

TABLE 67. EFFECTS OF CAGE TYPE ON EGG SIZE OF ENTRIES IN  
FLUSH WASTE HOUSING, 27TH NCLPMT (140-728 DAYS)

Breeder (Strain)	Cage Type	Pee Wee (%)	Small (%)	Medium (%)	Large (%)	Extra Large (%)
<b>White Egg Layers</b>						
Hisex (White)	S	0.7	4.5	8.5	28.2	58.1
	D	2.0	4.3	10.8	31.2	51.7
Colonial (365-S)	S	2.6	8.2	20.3	42.2	26.7
	D	1.7	7.4	19.2	39.6	32.1
ISA-Babcock (B300)	S	1.1	4.8	10.5	38.3	45.3
	D	1.5	5.2	11.5	41.1	40.8
Hyline (W-36)	S	1.0	7.0	12.7	37.0	42.4
	D	1.6	6.3	10.4	35.5	46.2
Shaver (288-A)	S	1.2	4.3	11.2	37.0	46.2
	D	0.6	4.6	10.9	38.4	45.6
Dekalb (XL-Link)	S	1.6	4.7	12.5	42.6	38.5
	D	1.6	4.2	11.7	36.8	45.8
H & N (Nick Chick)	S	1.2	4.4	10.5	33.9	49.9
	D	1.2	4.4	7.0	33.8	53.6
White Egg Average	S	1.3	5.4	12.3	37.0	43.9
	D	1.4	5.2	11.6	36.6	45.1
<b>Brown Egg Layers</b>						
Hubbard (Golden Comet)	S	0.9	3.2	6.9	22.6	66.3
	D	0.7	2.6	7.7	23.8	65.3
Dekalb (Sex-Sal-Link-G)	S	0.7	4.1	6.9	23.0	65.2
	D	0.4	2.4	7.0	21.8	68.4
Hisex (Brown)	S	0.6	1.5	4.6	18.0	75.4
	D	0.1	1.4	3.8	18.0	76.8
Brown Egg Average	S	0.8	2.9	6.1	21.2	69.0
	D	0.4	2.1	6.1	21.2	70.1

TABLE 68. EFFECTS OF CAGE TYPE ON EGG QUALITY OF ENTRIES IN  
FLUSH WASTE HOUSING, 27TH NCLPMT (140-728 DAYS)

Breeder (Strain)	Cage Type	Grade A (%)	Grade B (%)	Cracks (%)	Loss (%)	Blood Spots (%)	Meat Spots (%)
<b>White Egg Layers</b>							
Hisex (White)	S	93.0	2.5	3.8	0.7	0.0	0.0
	D	89.8	4.1	5.2	0.8	0.7	0.6
Colonial (365-S)	S	93.0	1.2	4.9	0.9	8.2	2.4
	D	90.8	3.1	4.1	2.1	0.0	0.8
ISA-Babcock (B300)	S	96.2	0.8	2.6	0.3	0.0	1.0
	D	96.1	1.1	2.9	0.0	0.0	2.8
Hyline (W-36)	S	97.3	0.1	2.2	0.4	1.6	1.0
	D	92.6	1.0	5.5	0.9	0.0	0.7
Shaver (288-A)	S	96.8	0.9	1.9	0.4	0.0	0.0
	D	96.2	0.8	1.9	1.1	0.0	0.0
Dekalb (XL-Link)	S	94.0	1.6	3.8	0.5	0.7	0.8
	D	93.9	1.0	4.5	0.6	0.0	0.0
H & N (Nick Chick)	S	92.7	2.8	4.1	0.5	1.0	0.0
	D	93.9	1.8	3.5	0.8	0.0	0.7
White Egg Average	S	94.7	1.4	3.3	0.5	1.7	0.7
	D	93.3	1.8	3.9	0.9	0.1	0.8
<b>Brown Egg Layers</b>							
Hubbard (Golden Comet)	S	97.0	0.3	2.3	0.4	4.8	19.2
	D	95.0	0.7	3.5	0.7	4.9	14.1
Dekalb (Sex-Sal-Link-G)	S	93.6	0.9	4.8	0.8	0.9	10.8
	D	95.5	0.9	3.0	0.6	12.6	16.7
Hisex (Brown)	S	97.6	0.2	1.8	0.5	6.4	19.1
	D	90.9	1.4	5.8	1.8	4.1	11.5
Brown Egg Average	S	96.0	0.4	3.0	0.5	4.0	16.4
	D	93.8	1.0	4.1	1.0	7.2	14.1

TABLE 69. EFFECTS OF CAGE TYPE ON PERFORMANCE OF ENTRIES IN HIGH RISE HOUSING, 27TH NCLPMT (140-728 DAYS)

Breeder (Strain)	Cage Type	Eggs Per Bird Housed	Egg Production Hen Housed --- (%) ---	Egg Mass Hen Housed --- (g/d) ---	Mortality Hen Day --- --- --- (%)
<b>White Egg Layers</b>					
Hisex (White)	S	397.1	67.5	74.1	43.8
	D	360.9	61.4	68.2	38.7
Colonial (365-S)	S	324.1	55.1	63.2	31.9
	D	298.8	50.8	61.6	30.1
ISA-Babcock (B300)	S	420.5	71.5	72.8	44.4
	D	375.6	63.9	70.1	39.6
Hyline (W-36)	S	368.2	62.6	70.3	39.3
	D	389.1	66.2	69.4	40.6
Shaver (288-A)	S	413.6	70.3	72.4	45.2
	D	366.2	62.3	68.3	39.4
Dekalb (XL-Link)	S	403.0	68.5	73.1	42.9
	D	349.7	59.5	66.9	38.0
H & N (Nick Chick)	S	361.9	61.6	73.4	38.8
	D	356.5	60.6	68.1	38.1
White Egg Average	S	384.0	65.3	71.3	40.9
	D	356.7	60.7	67.5	37.8
<b>Brown Egg Layers</b>					
Hubbard (Golden Comet)	S	384.1	65.3	68.7	44.2
	D	357.0	60.7	67.5	39.9
Dekalb (Sex-Sal-Link-G)	S	366.6	62.4	69.0	43.2
	D	340.3	57.9	64.5	39.8
Hisex (Brown)	S	339.7	57.8	67.9	39.9
	D	364.1	61.9	64.0	42.5
Brown Egg Average	S	363.5	61.8	68.5	42.4
	D	353.8	60.2	65.3	40.7

TABLE 70. EFFECTS OF CAGE TYPE ON PERFORMANCE OF ENTRIES IN  
HIGH RISE HOUSING, 27TH NCLPMT (140-728 DAYS)

Breeder (Strain)	Cage Type	Feed Cons. (lbs/100 hens/d)	Egg Weight (g/egg)	Egg Income	Feed Cost
<b>White Egg Layers</b>					
Hisex (White)	S	26.1	60.6	17.94	9.34
	D	25.1	58.8	16.08	8.89
Colonial (365-S)	S	23.5	55.3	13.59	7.95
	D	22.0	56.3	12.51	7.54
ISA-Babcock (B300)	S	25.6	59.1	18.79	9.40
	D	24.2	58.5	16.88	8.73
Hyline (W-36)	S	24.0	58.6	16.43	8.22
	D	23.1	57.9	17.21	8.18
Shaver (288-A)	S	25.2	60.1	19.08	9.31
	D	22.9	59.0	16.77	8.17
Dekalb (XL-Link)	S	25.3	58.6	18.07	9.12
	D	23.6	59.8	15.64	8.37
H & N (Nick Chick)	S	25.9	59.7	16.11	8.74
	D	25.5	59.1	15.73	8.78
White Egg Average	S	25.1	58.9	17.14	8.87
	D	23.8	58.5	15.83	8.38
<b>Brown Egg Layers</b>					
Hubbard (Golden Comet)	S	26.8	63.0	17.97	9.74
	D	26.1	61.4	16.52	9.30
Dekalb (Sex-Sal-Link-G)	S	27.8	64.0	17.06	10.01
	D	28.3	64.5	16.17	10.28
Hisex (Brown)	S	27.8	65.0	15.91	9.48
	D	26.0	63.9	17.07	9.49
Brown Egg Average	S	27.4	64.0	16.98	9.74
	D	26.8	63.3	16.59	9.69

TABLE 71. EFFECTS OF CAGE TYPE ON EGG SIZE OF ENTRIES IN HIGH RISE HOUSING, 27TH NCLPMT (140-728 DAYS)

Breeder (Strain)	Cage Type	Pee Wee (%)	Small (%)	Medium (%)	Large (%)	Extra Large
<hr/>						
White Egg Layers						
Hisex (White)	S	1.1	4.4	8.7	32.2	53.6
	D	1.9	6.0	14.4	35.9	41.9
Colonial (365-S)	S	2.2	10.3	27.1	35.4	25.0
	D	1.9	9.7	18.8	39.4	30.1
ISA-Babcock (B300)	S	1.6	4.9	11.8	38.0	43.7
	D	1.3	5.0	13.1	40.2	40.4
Hyline (W-36)	S	1.7	6.6	13.4	38.1	40.1
	D	1.9	7.3	14.0	38.4	38.3
Shaver (288-A)	S	0.9	3.7	8.9	35.6	50.9
	D	1.1	5.0	13.0	39.6	41.4
Dekalb (XL-Link)	S	1.1	5.3	12.3	37.5	43.7
	D	1.3	5.2	14.2	38.8	40.6
H & N (Nick Chick)	S	0.9	5.0	11.8	36.1	46.2
	D	1.2	6.3	13.6	36.5	42.4
White Egg Average	S	1.4	5.7	13.4	36.1	43.3
	D	1.5	6.4	14.4	38.4	39.3
<hr/>						
Brown Egg Layers						
Hubbard (Golden Comet)	S	0.3	3.2	6.3	20.8	69.4
	D	0.2	4.2	9.2	28.4	58.0
Dekalb (Sex-Sal-Link-G)	S	0.4	3.8	5.6	19.9	70.3
	D	0.2	2.2	5.9	20.6	71.1
Hisex (Brown)	S	0.1	1.7	3.7	19.0	75.5
	D	0.5	2.3	5.2	20.6	71.5
Brown Egg Average	S	0.2	2.9	5.2	19.9	71.7
	D	0.3	2.9	6.8	23.2	66.9

TABLE 72.

EFFECTS OF CAGE TYPE ON EGG QUALITY OF ENTRIES IN  
HIGH RISE HOUSING, 27TH NCLPMT (140-728 DAYS)

Breeder (Strain)	Cage Type	Grade A (%)	Grade B (%)	Cracks (%)	Loss (%)	Blood Spots (%)	Meat Spots (%)
<b>White Egg Layers</b>							
Hisex (White)	S	90.8	2.7	5.7	0.9	0.0	0.0
	D	92.2	3.3	4.0	0.5	0.0	1.2
Colonial (365-S)	S	94.4	1.5	3.4	0.7	0.8	0.0
	D	88.9	4.6	4.9	1.7	4.6	0.0
ISA-Babcock (B300)	S	93.5	0.5	5.3	0.8	1.3	0.6
	D	95.3	0.4	3.2	1.0	1.9	0.0
Hyline (W-36)	S	96.3	0.4	3.1	0.2	0.0	0.7
	D	96.1	0.6	2.5	0.8	0.0	0.0
Shaver (288-A)	S	94.8	1.3	3.2	0.7	0.0	0.0
	D	95.9	1.2	2.6	0.4	0.0	0.0
Dekalb (XL-Link)	S	93.0	1.8	4.0	1.2	0.0	0.0
	D	93.7	0.6	5.0	0.7	2.2	1.1
H & N (Nick Chick)	S	92.3	1.2	5.6	0.9	2.4	0.0
	D	90.1	2.2	6.5	1.2	4.1	0.0
White Egg Average	S	93.6	1.3	4.3	0.8	0.6	0.2
	D	93.2	1.8	4.1	0.9	1.8	0.3
<b>Brown Egg Layers</b>							
Hubbard (Golden Comet)	S	95.8	0.4	2.7	1.1	5.8	16.5
	D	96.6	1.1	2.0	0.3	3.6	18.6
Dekalb (Sex-Sal-Link-G)	S	92.4	0.7	6.0	1.0	1.2	15.2
	D	95.1	0.6	3.2	1.1	0.0	22.6
Hisex (Brown)	S	93.3	1.0	4.3	1.4	1.6	20.9
	D	94.4	1.0	3.9	0.7	1.8	13.5
Brown Egg Average	S	93.8	0.7	4.3	1.2	2.9	17.5
	D	95.4	0.9	3.0	0.7	1.8	18.2

TABLE 73. EFFECTS OF CAGE TYPE ON PERFORMANCE OF ENTRIES IN  
LIGHT AND AIR CONTROLLED HOUSING, 27TH NCLPMT (140-728 DAYS)

Breeder (Strain)	Cage Type	Eggs	Egg Production		Egg Mass	Mortality
		Per Bird Housed	Hen Housed	Hen Day --- (%) ---	Hen Housed --- (g/d) ---	Hen Day --- (%) ---
<b>White Egg Layers</b>						
Hisex (White)	S	398.0	67.7	73.2	42.4	45.2
	D	362.2	61.6	67.8	37.4	40.8
Colonial (365-S)	S	325.6	55.4	60.5	33.0	35.4
	D	320.9	54.6	59.2	32.5	34.3
ISA-Babcock (B300)	S	402.4	68.5	70.4	41.9	42.0
	D	414.6	70.5	70.8	43.2	42.2
Hyline (W-36)	S	385.1	65.5	70.5	40.1	43.0
	D	395.4	67.2	71.3	40.3	42.6
Shaver (288-A)	S	399.3	67.9	71.1	42.2	43.5
	D	397.6	67.6	71.7	42.2	44.2
Dekalb (XL-Link)	S	383.8	65.3	74.3	39.7	44.5
	D	398.6	67.8	74.3	41.0	44.1
H & N (Nick Chick)	S	394.3	67.5	74.5	42.0	45.4
	D	381.0	64.8	71.8	40.6	44.3
White Egg Average	S	384.1	65.4	70.6	40.2	42.7
	D	381.5	64.9	69.6	39.6	41.8
<b>Brown Egg Layers</b>						
Hubbard (Golden Comet)	S	369.9	62.9	68.7	42.2	45.3
	D	347.5	59.2	66.2	38.4	42.1
Dekalb (Sex-Sal-Link-G)	S	381.1	64.9	68.6	42.9	44.6
	D	389.9	66.3	71.2	43.9	46.5
Hisex (Brown)	S	373.3	63.5	67.1	43.3	44.9
	D	343.7	58.5	67.3	40.2	45.7
Brown Egg Average	S	374.7	63.8	68.1	42.8	44.9
	D	360.4	61.3	68.2	40.8	44.8

TABLE 74. EFFECTS OF CAGE TYPE ON PERFORMANCE OF ENTRIES IN  
LIGHT AND AIR CONTROLLED HOUSING, 27TH NCLPMT (140-728 DAYS)

Breeder (Strain)	Cage Type	Feed Cons. (lbs/100 hens/d)	Egg Weight (g/egg)	Egg Income	Feed Cost
<b>White Egg Layers</b>					
Hisex (White)	S	25.4	58.8	17.74	8.94
	D	25.5	57.5	15.74	9.10
Colonial (365-S)	S	22.5	56.7	13.60	8.10
	D	22.0	56.9	13.65	7.98
ISA-Babcock (B300)	S	24.3	58.0	17.79	9.08
	D	24.7	57.9	18.44	9.32
Hyline (W-36)	S	25.5	57.5	17.03	9.26
	D	24.0	56.6	17.17	8.72
Shaver (288-A)	S	24.4	58.4	17.99	8.86
	D	25.1	58.5	17.83	9.20
Dekalb (XL-Link)	S	25.1	57.5	16.93	9.11
	D	24.7	56.8	17.60	9.07
H & N (Nick Chick)	S	25.3	59.0	17.38	8.78
	D	27.5	58.9	16.85	9.95
White Egg Average	S	24.6	58.0	16.92	8.88
	D	24.8	57.6	16.75	9.05
<b>Brown Egg Layers</b>					
Hubbard (Golden Comet)	S	27.9	63.0	17.07	10.10
	D	29.1	61.1	15.81	10.72
Dekalb (Sex-Sal-Link-G)	S	28.3	61.9	17.67	10.37
	D	29.1	61.9	18.02	10.61
Hisex (Brown)	S	27.5	63.9	17.40	9.91
	D	29.2	64.6	16.21	10.34
Brown Egg Average	S	27.9	62.9	17.38	10.13
	D	29.1	62.5	16.68	10.55

TABLE 75. EFFECTS OF CAGE TYPE ON EGG SIZE OF ENTRIES IN  
LIGHT AND AIR CONTROLLED HOUSING, 27TH NCLPMT (140-728 DAYS)

Breeder (Strain)	Cage Type	Pee Wee (%)	Small (%)	Medium (%)	Large (%)	Extra Large (%)
<b>White Egg Layers</b>						
Hisex (White)	S	1.6	5.8	12.6	34.4	45.6
	D	2.2	6.3	16.6	38.1	36.8
Colonial (365-S)	S	2.3	7.5	23.9	38.9	27.4
	D	3.1	7.1	18.9	36.1	34.7
ISA-Babcock (B300)	S	1.9	5.6	11.9	40.0	40.6
	D	1.8	5.8	14.2	40.0	38.2
Hyline (W-36)	S	1.4	7.5	14.0	38.7	38.3
	D	2.1	8.2	18.3	37.8	33.6
Shaver (288-A)	S	1.4	4.6	14.4	37.1	42.4
	D	0.7	5.1	14.8	36.5	42.9
Dekalb (XL-Link)	S	1.4	5.9	15.9	39.5	37.3
	D	2.0	6.4	17.2	42.1	32.2
H & N (Nick Chick)	S	1.3	5.1	13.1	36.3	44.3
	D	2.5	4.8	12.0	36.9	43.8
White Egg Average	S	1.6	6.0	15.1	37.9	39.4
	D	2.0	6.2	16.0	38.2	37.5
<b>Brown Egg Layers</b>						
Hubbard (Golden Comet)	S	0.6	3.1	6.4	25.6	64.4
	D	0.4	4.4	9.3	29.4	56.4
Dekalb (Sex-Sal-Link-G)	S	0.6	3.5	6.5	24.9	64.5
	D	1.1	4.1	6.9	24.6	63.2
Hisex (Brown)	S	1.0	2.8	5.2	19.8	71.2
	D	0.7	3.0	4.9	17.4	74.0
Brown Egg Average	S	0.7	3.1	6.0	23.4	66.7
	D	0.7	3.8	7.1	23.8	64.6

TABLE 76. EFFECTS OF CAGE TYPE ON EGG QUALITY OF ENTRIES IN  
LIGHT AND AIR CONTROLLED HOUSING, 27TH NCLPMT (140-728 DAYS)

Breeder (Strain)	Cage Type	Grade A (%)	Grade B (%)	Cracks (%)	Loss (%)	Blood Spots (%)	Meat Spots (%)
<b>White Egg Layers</b>							
Hisex (White)	S	93.9	2.1	3.1	0.9	1.1	0.0
	D	92.0	5.2	2.5	0.3	0.0	0.0
Colonial (365-S)	S	90.8	2.3	4.3	2.5	2.8	0.0
	D	92.4	3.4	3.2	1.1	1.1	0.0
ISA-Babcock (B300)	S	92.8	2.1	3.5	1.5	2.9	0.0
	D	94.9	2.1	2.3	0.8	1.6	0.0
Hyline (W-36)	S	95.6	1.3	2.2	0.8	1.9	0.6
	D	93.0	2.4	4.2	0.4	0.4	0.0
Shaver (288-A)	S	94.7	1.8	2.8	0.7	0.6	0.0
	D	94.1	1.5	3.7	0.6	0.0	0.0
Dekalb (XL-Link)	S	90.5	2.3	6.5	0.8	0.5	1.3
	D	93.8	1.3	4.3	0.5	0.9	0.0
H & N (Nick Chick)	S	90.4	1.3	6.8	1.5	3.7	0.6
	D	92.7	2.1	4.0	1.2	1.9	0.0
White Egg Average	S	92.7	1.9	4.2	1.3	1.9	0.4
	D	93.3	2.5	3.5	0.7	0.9	0.0
<b>Brown Egg Layers</b>							
Hubbard (Golden Comet)	S	93.0	1.0	4.9	1.0	3.3	21.8
	D	95.9	1.0	1.2	1.9	10.9	16.1
Dekalb (Sex-Sal-Link-G)	S	93.7	1.3	4.1	0.8	2.0	18.3
	D	93.7	0.8	4.5	1.0	2.2	17.8
Hisex (Brown)	S	95.1	1.1	2.2	1.6	2.4	13.8
	D	95.5	1.7	2.6	0.2	1.4	9.8
Brown Egg Average	S	93.9	1.1	3.8	1.2	2.6	18.0
	D	95.1	1.2	2.8	1.0	4.8	14.6

TABLE 77. EFFECTS OF NUMBER OF BIRDS PER CAGE ON PERFORMANCE OF ENTRIES IN  
FLUSH WASTE HOUSING, 27TH NCLPMT (140-728 DAYS)

Breeder (Strain)	Birds/ Cage	Eggs Per Bird Housed	Egg Production Hen Housed --- --- (%))	Hen Day	Egg Mass Hen Housed --- --- (g/d))	Hen Day	Mortality >140 d of Age --- --- (%)
<b>White Egg Layers</b>							
Hisex (White)	3	391.3	66.5	70.3	43.0	44.5	10.9
	4	380.6	64.7	68.4	42.4	43.8	10.7
Colonial (365-S)	3	339.4	57.7	67.3	34.1	39.2	33.3
	4	266.1	45.3	57.8	27.1	34.0	36.7
ISA-Babcock (B300)	3	406.2	69.1	71.9	43.6	44.6	5.3
	4	407.1	69.2	71.0	43.0	43.5	5.4
Hyline (W-36)	3	394.1	67.0	69.7	42.4	43.9	11.5
	4	389.0	66.2	70.6	41.1	43.2	9.0
Shaver (288-A)	3	368.2	62.6	70.6	39.7	44.2	13.6
	4	355.7	60.5	68.2	38.1	42.1	20.9
Dekalb (XL-Link)	3	397.5	67.6	73.0	42.3	45.0	10.1
	4	374.9	63.8	70.6	39.5	43.0	13.8
H & N (Nick Chick)	3	392.3	66.7	69.9	42.7	43.8	9.7
	4	379.5	64.5	69.5	40.9	43.0	11.2
White Egg Average	3	384.2	65.3	70.4	41.1	43.6	13.5
	4	364.7	62.0	68.0	38.9	41.8	15.4
<b>Brown Egg Layers</b>							
Hubbard (Golden Comet)	3	371.5	63.2	66.3	42.7	43.9	11.4
	4	329.8	56.1	66.4	36.7	43.1	24.9
Dekalb (Sex-Sal-Link-G)	3	361.5	61.5	70.6	41.4	46.8	18.7
	4	332.5	56.5	63.9	37.7	42.2	22.7
Hisex (Brown)	3	381.9	64.9	67.8	45.1	46.4	15.7
	4	355.1	60.4	63.2	41.7	43.6	10.1
Brown Egg Average	3	371.6	63.2	68.2	43.0	45.7	15.2
	4	339.1	57.7	64.5	38.7	42.9	19.2

TABLE 78. EFFECTS OF NUMBER OF BIRDS PER CAGE ON PERFORMANCE OF ENTRIES IN FLUSH WASTE HOUSING, 27TH NCLPMT (140-728 DAYS)

Breeder (Strain)	Birds/ Cage	Feed Cons. (lbs/100 hens/d)	Egg Weight (g/egg)	Egg Income	Feed Cost
<b>White Egg Layers</b>					
Hisex (White)	3	25.2	60.4	17.88	8.79
	4	23.5	61.2	17.16	8.89
Colonial (365-S)	3	23.6	56.8	14.45	7.75
	4	20.6	56.9	11.43	6.89
ISA-Babcock (B300)	3	25.1	59.1	18.58	8.72
	4	24.0	58.5	18.48	9.04
Hyline (W-36)	3	23.5	59.4	17.84	8.22
	4	22.0	57.9	17.34	8.40
Shaver (288-A)	3	24.2	59.1	16.87	8.23
	4	23.2	58.8	16.35	8.48
Dekalb (XL-Link)	3	25.1	58.5	17.99	8.86
	4	23.6	58.2	17.03	8.63
H & N (Nick Chick)	3	25.6	60.1	17.83	8.95
	4	24.9	59.6	17.23	9.15
White Egg Average	3	24.6	59.1	17.35	8.50
	4	23.1	58.7	16.43	8.50
<b>Brown Egg Layers</b>					
Hubbard (Golden Comet)	3	27.3	62.7	17.42	9.61
	4	26.5	61.4	15.24	9.23
Dekalb (Sex-Sal-Link-G)	3	28.8	62.2	16.98	9.69
	4	26.2	62.7	15.69	9.43
Hisex (Brown)	3	27.2	64.7	17.82	9.35
	4	26.5	64.7	16.66	9.58
Brown Egg Average	3	27.8	63.2	17.41	9.55
	4	26.4	63.0	15.86	9.41

TABLE 79. EFFECTS OF NUMBER OF BIRDS PER CAGE ON EGG SIZE OF ENTRIES IN FLUSH WASTE HOUSING, 27TH NCLPMT (140-728 DAYS)

Breeder (Strain)	Birds/ Cage	Pee Wee (%)	Small (%)	Medium (%)	Large (%)	Extra Large (%)
<b>White Egg Layers</b>						
Hisex (White)	3	1.8	4.5	9.8	30.1	53.7
	4	0.8	4.3	9.5	29.3	56.1
Colonial (365-S)	3	2.7	9.4	20.9	43.7	23.3
	4	1.7	6.2	18.6	38.0	35.4
ISA-Babcock (B300)	3	1.2	4.5	10.2	39.5	44.7
	4	1.3	5.5	11.9	39.9	41.4
Hyline (W-36)	3	1.4	5.8	10.9	32.2	49.7
	4	1.2	7.5	12.1	40.2	38.9
Shaver (288-A)	3	0.9	4.7	10.3	35.8	48.3
	4	0.9	4.2	11.8	39.6	43.5
Dekalb (XL-Link)	3	1.4	4.5	10.9	37.7	45.4
	4	1.8	4.4	13.2	41.8	38.8
H & N (Nick Chick)	3	1.3	4.1	8.4	31.9	54.3
	4	1.1	4.8	9.2	35.9	49.1
White Egg Average	3	1.5	5.4	11.6	35.8	45.6
	4	1.2	5.3	12.3	37.8	43.3
<b>Brown Egg Layers</b>						
Hubbard (Golden Comet)	3	0.4	3.0	6.4	20.4	69.8
	4	1.2	2.8	8.2	26.0	61.8
Dekalb (Sex-Sal-Link-G)	3	0.4	3.4	6.9	20.1	69.2
	4	0.7	3.1	7.0	24.8	64.4
Hisex (Brown)	3	0.5	1.2	4.0	18.4	76.0
	4	0.2	1.7	4.4	17.5	76.1
Brown Egg Average	3	0.4	2.5	5.7	19.6	71.7
	4	0.7	2.5	6.5	22.8	67.4

TABLE 80. EFFECTS OF NUMBER OF BIRDS PER CAGE ON EGG QUALITY OF ENTRIES IN FLUSH WASTE HOUSING, 27TH NCLPMT (140-728 DAYS)

Breeder (Strain)	Birds/ Cage	Grade A (%)	Grade B (%)	Cracks (%)	Loss (%)	Blood Spots (%)	Meat Spots (%)
<b>White Egg Layers</b>							
Hisex (White)	3	93.8	2.5	3.1	0.6	0.0	0.0
	4	89.0	4.1	5.9	0.9	0.7	0.6
Colonial (365-S)	3	93.0	1.6	4.9	0.5	4.2	0.0
	4	90.8	2.6	4.1	2.5	4.0	3.2
ISA-Babcock (B300)	3	96.8	0.5	2.5	0.3	0.0	2.6
	4	95.5	1.4	3.0	0.0	0.0	1.1
Hyline (W-36)	3	96.1	0.3	2.9	0.7	1.0	1.0
	4	93.8	0.9	4.8	0.6	0.6	0.7
Shaver (288-A)	3	96.7	1.1	1.1	1.1	0.0	0.0
	4	96.4	0.6	2.6	0.5	0.0	0.0
Dekalb (XL-Link)	3	93.7	0.4	5.3	0.5	0.7	0.8
	4	94.3	2.2	3.0	0.6	0.0	0.0
H & N (Nick Chick)	3	93.2	2.5	3.7	0.6	1.0	0.0
	4	93.4	2.1	3.8	0.7	0.0	0.7
White Egg Average	3	94.7	1.3	3.4	0.6	1.0	0.6
	4	93.3	2.0	3.9	0.8	0.8	0.9
<b>Brown Egg Layers</b>							
Hubbard (Golden Comet)	3	96.0	0.3	3.2	0.5	6.3	15.7
	4	96.1	0.7	2.7	0.5	3.5	17.6
Dekalb (Sex-Sal-Link-G)	3	95.2	0.6	3.4	0.8	8.7	14.9
	4	93.9	1.1	4.4	0.5	4.8	12.7
Hisex (Brown)	3	94.0	1.2	3.1	1.7	3.7	14.4
	4	94.6	0.4	4.5	0.6	6.8	16.2
Brown Egg Average	3	95.0	0.7	3.2	1.0	6.3	15.0
	4	94.8	0.7	3.9	0.6	5.0	15.5

TABLE 81. EFFECTS OF NUMBER OF BIRDS PER CAGE ON PERFORMANCE OF ENTRIES IN HIGH RISE HOUSING, 27TH NCLPMT (140-728 DAYS)

Breeder (Strain)	Birds/ Cage	Eggs	Egg Production		Egg Mass		Mortality
		Per Bird Housed	Hen Housed ---- --- (%) ---	Hen Day ---- --- (%) ---	Hen Housed ---- --- (g/d) ---	Hen Day ---- --- (%) ---	>140 d of Age ---- --- (%) ---
<b>White Egg Layers</b>							
Hisex (White)	3	384.3	65.4	71.9	42.0	45.9	25.6
	4	373.7	63.6	70.3	40.5	44.3	15.3
Colonial (365-S)	3	315.5	53.7	61.6	31.6	35.6	20.4
	4	307.4	52.3	63.2	30.5	36.5	30.6
ISA-Babcock (B300)	3	405.7	69.0	72.9	43.1	44.5	3.3
	4	390.3	66.4	70.0	41.0	42.9	5.4
Hyline (W-36)	3	369.5	62.8	71.1	38.8	43.8	19.0
	4	387.9	66.0	68.6	41.2	42.5	6.9
Shaver (288-A)	3	407.8	69.3	71.8	44.4	45.0	5.4
	4	372.0	63.3	68.9	40.2	42.8	17.0
Dekalb (XL-Link)	3	386.1	65.7	70.1	42.1	43.9	16.8
	4	366.5	62.4	70.0	38.8	42.8	17.7
H & N (Nick Chick)	3	390.2	66.4	72.9	41.8	45.0	6.0
	4	328.2	55.8	68.6	35.1	42.5	30.5
White Egg Average	3	379.9	64.6	70.3	40.5	43.4	13.8
	4	360.9	61.4	68.5	38.2	42.1	17.6
<b>Brown Egg Layers</b>							
Hubbard (Golden Comet)	3	394.4	67.1	70.0	44.9	46.1	15.0
	4	346.7	59.0	66.2	39.3	43.4	18.1
Dekalb (Sex-Sal-Link-G)	3	403.6	68.7	70.2	47.6	47.9	5.7
	4	303.3	51.6	63.4	35.4	43.3	48.4
Hisex (Brown)	3	372.3	63.3	67.0	43.6	45.9	12.6
	4	331.6	56.4	64.9	38.7	44.4	24.2
Brown Egg Average	3	390.1	66.4	69.1	45.4	46.6	11.1
	4	327.2	55.7	64.8	37.8	43.7	30.2

TABLE 82. EFFECTS OF NUMBER OF BIRDS PER CAGE ON PERFORMANCE OF ENTRIES IN HIGH RISE HOUSING, 27TH NCLPMT (140-728 DAYS)

Breeder (Strain)		Feed Birds/ Cage	Cons. (lbs/100 hens/d)	Egg Weight (g/egg)	Egg Income	Feed Cost
<b>White Egg Layers</b>						
Hisex (White)	3	26.5	59.9	17.47	9.26	
	4	24.7	59.5	16.55	8.97	
Colonial (365-S)	3	23.6	55.9	13.30	7.80	
	4	21.9	55.8	12.80	7.69	
ISA-Babcock (B300)	3	25.4	58.9	18.33	8.97	
	4	24.4	58.7	17.34	9.16	
Hyline (W-36)	3	24.3	57.9	16.43	7.91	
	4	22.8	58.6	17.21	8.50	
Shaver (288-A)	3	24.6	59.7	18.77	8.80	
	4	23.5	59.3	17.07	8.69	
Dekalb (XL-Link)	3	25.1	60.1	17.23	8.70	
	4	23.8	58.4	16.47	8.79	
H & N (Nick Chick)	3	26.0	59.6	17.30	8.97	
	4	25.3	59.1	14.54	8.55	
White Egg Average	3	25.1	58.9	16.98	8.63	
	4	23.8	58.5	16.00	8.62	
<b>Brown Egg Layers</b>						
Hubbard (Golden Comet)	3	26.8	62.2	18.39	9.61	
	4	26.1	62.2	16.11	9.43	
Dekalb (Sex-Sal-Link-G)	3	28.2	64.9	18.91	10.32	
	4	27.9	63.7	14.32	9.96	
Hisex (Brown)	3	27.8	64.6	17.51	9.65	
	4	26.0	64.3	15.48	9.31	
Brown Egg Average	3	27.6	63.9	18.27	9.86	
	4	26.7	63.4	15.30	9.57	

TABLE 83. EFFECTS OF NUMBER OF BIRDS PER CAGE ON EGG SIZE OF ENTRIES IN HIGH RISE HOUSING, 27TH NCLPMT (140-728 DAYS)

Breeder (Strain)	Birds/ Cage	Pee Wee (%)	Small (%)	Medium (%)	Large (%)	Extra Large (%)
<b>White Egg Layers</b>						
Hisex (White)	3	1.2	4.7	11.0	35.7	47.4
	4	1.8	5.6	12.1	32.4	48.1
Colonial (365-S)	3	1.8	10.2	22.8	37.1	28.1
	4	2.3	9.8	23.1	37.7	27.0
ISA-Babcock (B300)	3	1.5	5.0	11.6	38.5	43.5
	4	1.4	5.0	13.3	39.7	40.6
Hyline (W-36)	3	1.8	7.3	13.5	39.3	38.1
	4	1.8	6.6	13.9	37.1	40.4
Shaver (288-A)	3	1.0	4.1	10.5	35.8	48.6
	4	1.0	4.6	11.4	39.4	43.7
Dekalb (XL-Link)	3	1.0	5.3	13.5	37.5	42.7
	4	1.3	5.2	13.0	38.8	41.7
H & N (Nick Chick)	3	0.7	6.0	12.0	37.9	43.4
	4	1.3	5.4	13.4	34.7	45.2
White Egg Average	3	1.3	6.1	13.6	37.4	41.7
	4	1.6	6.0	14.3	37.1	40.9
<b>Brown Egg Layers</b>						
Hubbard (Golden Comet)	3	0.3	4.1	8.0	24.2	63.5
	4	0.2	3.3	7.5	25.0	63.9
Dekalb (Sex-Sal-Link-G)	3	0.3	2.1	5.6	21.4	70.6
	4	0.3	3.9	6.0	19.0	70.8
Hisex (Brown)	3	0.4	2.0	4.0	18.4	75.2
	4	0.1	2.0	4.9	21.2	71.7
Brown Egg Average	3	0.3	2.7	5.9	21.4	69.7
	4	0.2	3.1	6.1	21.7	68.8

TABLE 84. EFFECTS OF NUMBER OF BIRDS PER CAGE ON EGG QUALITY OF ENTRIES IN HIGH RISE HOUSING, 27TH NCLPMT (140-728 DAYS)

Breeder (Strain)	Birds/ Cage	Grade A (%)	Grade B (%)	Cracks (%)	Loss (%)	Blood Spots (%)	Meat Spots (%)
<b>White Egg Layers</b>							
Hisex (White)	3	94.2	1.4	3.9	0.5	0.0	0.0
	4	88.8	4.6	5.8	0.8	0.0	1.2
Colonial (365-S)	3	91.5	4.2	3.4	0.9	1.0	0.0
	4	91.9	1.8	4.8	1.5	4.3	0.0
ISA-Babcock (B300)	3	96.6	0.2	2.3	0.9	0.8	0.0
	4	92.2	0.7	6.2	0.9	2.4	0.6
Hyline (W-36)	3	97.4	0.3	1.8	0.6	0.0	0.0
	4	95.0	0.7	3.8	0.5	0.0	0.7
Shaver (288-A)	3	96.0	1.4	2.3	0.4	0.0	0.0
	4	94.8	1.1	3.5	0.7	0.0	0.0
Dekalb (XL-Link)	3	93.8	0.6	4.2	1.4	0.0	0.0
	4	92.9	1.8	4.8	0.5	2.2	1.1
H & N (Nick Chick)	3	91.6	2.0	5.0	1.4	3.2	0.0
	4	90.8	1.4	7.1	0.8	3.4	0.0
White Egg Average	3	94.4	1.4	3.3	0.9	0.7	0.0
	4	92.3	1.7	5.1	0.8	1.8	0.5
<b>Brown Egg Layers</b>							
Hubbard (Golden Comet)	3	96.8	0.5	2.3	0.3	5.1	17.5
	4	95.6	0.9	2.3	1.1	4.3	17.7
Dekalb (Sex-Sal-Link-G)	3	94.4	0.2	4.5	0.9	0.7	13.6
	4	93.2	1.1	4.7	1.1	0.6	24.1
Hisex (Brown)	3	95.0	0.9	2.8	1.3	1.8	20.9
	4	92.7	1.1	5.4	0.8	1.6	13.5
Brown Egg Average	3	95.4	0.6	3.2	0.8	2.5	17.3
	4	93.8	1.0	4.1	1.0	2.2	18.4

TABLE 85. EFFECTS OF NUMBER OF BIRDS PER CAGE ON PERFORMANCE OF ENTRIES IN LIGHT AND AIR CONTROLLED HOUSING, 27TH NCLPMT (140-728 DAYS)

Breeder (Strain)	Birds/ Cage	Eggs Per Bird Housed	Egg Production			Egg Mass Hen Housed --- (g/d) ---	Mortality >140 d Hen Day of Age --- (%) ---
			Hen Housed ---- --- (%) ---	Hen Day ---- ---	Hen Housed ---- --- (g/d) ---		
<b>White Egg Layers</b>							
Hisex (White)	3	396.2	67.4	72.2	41.7	44.1	12.4
	4	364.0	61.9	68.8	38.1	41.8	16.6
Colonial (365-S)	3	336.8	57.3	63.5	34.0	37.0	17.3
	4	309.6	52.7	56.2	31.4	32.7	13.2
ISA-Babcock (B300)	3	420.4	71.5	72.6	44.3	43.9	3.7
	4	396.7	67.5	68.5	40.8	40.3	4.1
Hyline (W-36)	3	404.2	68.7	72.6	41.5	43.8	14.4
	4	376.2	64.0	69.2	39.0	41.9	17.6
Shaver (288-A)	3	422.7	71.9	72.5	45.2	45.1	2.1
	4	374.2	63.6	70.4	39.2	42.7	18.3
Dekalb (XL-Link)	3	422.6	71.9	75.6	43.4	44.8	12.8
	4	359.8	61.2	73.0	37.3	43.9	23.8
H & N (Nick Chick)	3	399.6	68.0	73.7	42.7	45.3	11.1
	4	375.6	64.4	72.6	39.9	44.4	20.4
White Egg Average	3	400.4	68.1	71.8	41.8	43.4	10.5
	4	365.2	62.2	68.4	38.0	41.1	16.3
<b>Brown Egg Layers</b>							
Hubbard (Golden Comet)	3	373.5	63.5	69.0	42.0	44.7	12.2
	4	343.8	58.6	65.8	38.6	42.7	22.1
Dekalb (Sex-Sal-Link-G)	3	404.8	68.9	70.7	45.5	46.0	9.7
	4	366.2	62.3	69.1	41.3	45.0	15.3
Hisex (Brown)	3	385.2	65.5	69.8	45.5	47.6	12.3
	4	331.8	56.4	64.6	37.9	43.1	11.4
Brown Egg Average	3	387.9	66.0	69.8	44.4	46.1	11.4
	4	347.3	59.1	66.5	39.3	43.6	16.2

TABLE 86. EFFECTS OF NUMBER OF BIRDS PER CAGE ON PERFORMANCE OF ENTRIES IN LIGHT AND AIR CONTROLLED HOUSING, 27TH NCLPMT (140-728 DAYS)

Breeder (Strain)	Birds/ Cage	Feed Cons. (lbs/100 hens/d)	Egg Weight (g/egg)	Egg Income	Feed Cost
<b>White Egg Layers</b>					
Hisex (White)	3	26.9	58.1	17.56	9.18
	4	24.0	58.2	15.92	8.87
Colonial (365-S)	3	23.7	56.9	14.12	8.28
	4	20.9	56.7	13.14	7.81
ISA-Babcock (B300)	3	25.7	58.3	18.75	9.30
	4	23.3	57.6	17.48	9.10
Hyline (W-36)	3	25.6	56.9	17.73	9.16
	4	23.8	57.2	16.48	8.82
Shaver (288-A)	3	25.0	59.0	19.24	9.00
	4	24.5	57.9	16.58	9.06
Dekalb (XL-Link)	3	24.5	56.9	18.63	8.94
	4	25.4	57.5	15.90	9.24
H & N (Nick Chick)	3	27.6	59.3	17.59	9.80
	4	25.1	58.6	16.64	8.93
White Egg Average	3	25.6	57.9	17.66	9.09
	4	23.9	57.7	16.02	8.83
<b>Brown Egg Layers</b>					
Hubbard (Golden Comet)	3	29.8	62.2	17.35	10.72
	4	27.3	62.0	15.53	10.10
Dekalb (Sex-Sal-Link-G)	3	29.7	61.7	18.93	10.86
	4	27.7	62.1	16.76	10.13
Hisex (Brown)	3	29.2	65.0	18.14	10.36
	4	27.5	63.5	15.46	9.89
Brown Egg Average	3	29.5	63.0	18.14	10.64
	4	27.5	62.5	15.92	10.04

TABLE 87. EFFECTS OF NUMBER OF BIRDS PER CAGE ON EGG SIZE OF ENTRIES IN LIGHT AND AIR CONTROLLED HOUSING, 27TH NCLPMT (140-728 DAYS)

Breeder (Strain)	Birds/ Cage	Pee Wee (%)	Small (%)	Medium (%)	Large (%)	Extra Large (%)
<b>White Egg Layers</b>						
Hisex (White)	3	2.0	5.7	14.8	36.6	40.8
	4	1.7	6.5	14.3	35.9	41.6
Colonial (365-S)	3	3.1	7.6	23.0	37.7	28.5
	4	2.3	6.9	19.8	37.3	33.7
ISA-Babcock (B300)	3	1.7	5.1	12.4	38.0	42.8
	4	2.0	6.3	13.7	42.0	35.9
Hyline (W-36)	3	1.8	8.1	16.4	38.2	35.4
	4	1.7	7.6	15.9	38.3	36.6
Shaver (288-A)	3	1.0	4.2	13.1	34.9	46.8
	4	1.1	5.5	16.2	38.7	38.5
Dekalb (XL-Link)	3	1.6	6.4	17.2	42.0	32.8
	4	1.8	5.8	16.0	39.7	36.8
H & N (Nick Chick)	3	2.5	4.3	11.4	36.5	45.4
	4	1.3	5.6	13.7	36.8	42.7
White Egg Average	3	2.0	5.9	15.5	37.7	38.9
	4	1.7	6.3	15.7	38.4	38.0
<b>Brown Egg Layers</b>						
Hubbard (Golden Comet)	3	0.5	3.9	7.2	27.8	60.7
	4	0.5	3.6	8.5	27.3	60.1
Dekalb (Sex-Sal-Link-G)	3	0.7	3.7	7.1	25.1	63.4
	4	1.1	3.8	6.4	24.4	64.3
Hisex (Brown)	3	0.7	2.6	4.1	15.4	77.3
	4	1.0	3.3	6.0	21.8	68.0
Brown Egg Average	3	0.6	3.4	6.1	22.7	67.1
	4	0.8	3.6	7.0	24.5	64.1

TABLE 88. EFFECTS OF NUMBER OF BIRDS PER CAGE ON EGG QUALITY OF ENTRIES IN LIGHT AND AIR CONTROLLED HOUSING, 27TH NCLPMT (140-728 DAYS)

Breeder (Strain)	Birds/ Cage	Grade A (%)	Grade B (%)	Cracks (%)	Loss (%)	Blood Spots (%)	Meat Spots (%)
<b>White Egg Layers</b>							
Hisex (White)	3	93.9	3.0	2.5	0.6	0.6	0.0
	4	92.0	4.3	3.1	0.7	0.4	0.0
Colonial (365-S)	3	91.8	3.3	2.9	2.1	2.1	0.0
	4	91.4	2.5	4.6	1.6	1.8	0.0
ISA-Babcock (B300)	3	94.7	1.1	3.1	1.2	2.3	0.0
	4	93.0	3.1	2.7	1.2	2.2	0.0
Hyline (W-36)	3	94.6	2.5	2.3	0.6	0.0	0.0
	4	94.0	1.2	4.1	0.7	2.3	0.6
Shaver (288-A)	3	95.4	1.7	2.5	0.4	0.6	0.0
	4	93.4	1.6	4.1	1.0	0.0	0.0
Dekalb (XL-Link)	3	92.9	1.4	5.1	0.6	0.6	0.7
	4	91.9	1.9	5.5	0.6	0.8	0.5
H & N (Nick Chick)	3	91.1	1.0	5.7	2.1	3.8	0.0
	4	92.0	2.3	5.1	0.6	1.8	0.6
White Egg Average	3	93.5	2.0	3.4	1.1	1.4	0.1
	4	92.5	2.4	4.2	0.9	1.3	0.2
<b>Brown Egg Layers</b>							
Hubbard (Golden Comet)	3	95.7	0.9	2.2	1.2	6.2	21.5
	4	93.2	1.1	3.9	1.7	7.9	16.4
Dekalb (Sex-Sal-Link-G)	3	95.9	0.4	3.2	0.5	1.2	17.6
	4	91.6	1.7	5.4	1.3	3.0	18.5
Hisex (Brown)	3	96.0	1.2	1.7	1.2	3.8	10.6
	4	94.6	1.7	3.2	0.6	0.0	13.0
Brown Egg Average	3	95.8	0.8	2.4	1.0	3.7	16.6
	4	93.1	1.5	4.2	1.2	3.6	16.0

TABLE 89. EFFECTS OF NUMBER OF BIRDS PER CAGE ON PERFORMANCE OF ENTRIES IN SHALLOW CAGES, 27TH NCLPMT (140-728 DAYS)

Breeder (Strain)	Birds/ Cage	Eggs	Egg Production		Egg Mass	Mortality	
		Per Bird Housed	Hen Housed	Hen Day --- (%) ---	Hen Housed	Hen Day --- (g/d) ---	>140 d of Age (%)
<b>White Egg Layers</b>							
Hisex (White)	3	401.9	68.3	73.7	43.7	46.4	12.8
	4	379.6	64.6	70.9	41.9	45.2	17.6
Colonial (365-S)	3	330.3	56.2	65.3	33.3	38.2	28.6
	4	303.7	51.7	61.1	30.0	34.9	27.8
ISA-Babcock (B300)	3	420.0	71.4	72.9	44.9	44.8	2.2
	4	409.1	69.6	71.6	42.8	43.3	5.5
Hyline (W-36)	3	374.0	63.6	71.0	39.4	43.7	17.2
	4	393.8	67.0	70.8	41.8	43.7	12.6
Shaver (288-A)	3	405.6	69.0	73.0	43.9	45.6	6.9
	4	378.5	64.4	69.7	40.4	42.9	14.3
Dekalb (XL-Link)	3	419.1	71.3	74.3	44.2	45.2	12.3
	4	382.5	65.1	72.4	40.2	43.9	14.3
H & N (Nick Chick)	3	402.1	68.4	73.8	43.0	45.4	8.8
	4	367.0	62.7	71.8	39.4	44.2	25.0
White Egg Average	3	393.3	66.9	72.0	41.8	44.2	12.7
	4	373.4	63.6	69.8	39.5	42.6	16.7
<b>Brown Egg Layers</b>							
Hubbard (Golden Comet)	3	384.5	65.4	68.8	44.3	45.8	7.3
	4	361.9	61.6	67.8	41.0	44.5	20.5
Dekalb (Sex-Sal-Link-G)	3	405.5	69.0	70.7	46.9	47.2	4.8
	4	338.1	57.5	66.8	38.5	43.9	23.2
Hisex (Brown)	3	371.3	63.1	67.5	43.2	45.7	11.4
	4	350.4	59.6	66.2	41.0	45.1	17.1
Brown Egg Average	3	387.1	65.8	69.0	44.8	46.2	7.8
	4	350.1	59.6	66.9	40.1	44.5	20.3

TABLE 90. EFFECTS OF NUMBER OF BIRDS PER CAGE ON PERFORMANCE OF ENTRIES IN SHALLOW CAGES, 27TH NCLPMT (140-728 DAYS)

Breeder (Strain)	Birds/ Cage	Feed Cons. (lbs/100 hens/d)	Egg Weight (g/egg)	Egg Income	Feed Cost
<b>White Egg Layers</b>					
Hisex (White)	3	26.2	59.8	18.25	9.03
	4	24.6	60.9	17.03	9.18
Colonial (365-S)	3	24.8	56.7	13.94	8.18
	4	21.7	55.5	12.78	7.58
ISA-Babcock (B300)	3	25.4	58.9	19.05	9.02
	4	24.2	58.7	18.18	9.29
Hyline (W-36)	3	24.9	58.0	16.68	8.45
	4	23.6	58.3	17.64	8.88
Shaver (288-A)	3	24.9	59.5	18.64	8.76
	4	24.0	58.7	17.20	8.87
Dekalb (XL-Link)	3	25.3	58.1	18.66	9.01
	4	24.8	58.0	17.24	9.17
H & N (Nick Chick)	3	25.9	59.6	17.85	9.05
	4	25.3	59.3	16.46	8.85
White Egg Average	3	25.3	58.7	17.58	8.78
	4	24.0	58.5	16.65	8.83
<b>Brown Egg Layers</b>					
Hubbard (Golden Comet)	3	28.2	63.2	18.05	9.99
	4	26.8	62.3	16.70	9.77
Dekalb (Sex-Sal-Link-G)	3	28.4	63.0	18.82	10.29
	4	27.8	62.3	15.80	9.96
Hisex (Brown)	3	28.0	64.2	17.39	9.56
	4	27.0	64.3	16.50	9.71
Brown Egg Average	3	28.2	63.5	18.09	9.94
	4	27.2	63.0	16.33	9.81

TABLE 91. EFFECTS OF NUMBER OF BIRDS PER CAGE ON EGG SIZE OF ENTRIES IN SHALLOW CAGES, 27TH NCLPMT (140-728 DAYS)

Breeder (Strain)	Birds/ Cage	Pee Wee (%)	Small (%)	Medium (%)	Large (%)	Extra Large (%)
<b>White Egg Layers</b>						
Hisex (White)	3	1.4	5.2	10.2	32.8	50.3
	4	0.8	4.6	9.6	30.4	54.6
Colonial (365-S)	3	2.5	9.3	22.9	40.1	25.3
	4	2.3	8.0	24.6	37.6	27.5
ISA-Babcock (B300)	3	1.2	4.8	10.9	39.1	44.1
	4	1.8	5.5	11.9	38.5	42.3
Hyline (W-36)	3	1.5	6.8	13.8	37.2	40.6
	4	1.2	7.2	12.9	38.6	40.0
Shaver (288-A)	3	1.2	4.1	10.3	34.0	50.3
	4	1.2	4.4	12.7	39.1	42.6
Dekalb (XL-Link)	3	1.3	5.5	13.9	39.1	40.2
	4	1.4	5.1	13.3	40.7	39.5
H & N (Nick Chick)	3	1.1	4.7	11.2	36.1	47.0
	4	1.1	5.0	12.5	34.8	46.6
White Egg Average	3	1.5	5.8	13.3	36.9	42.5
	4	1.4	5.7	13.9	37.1	41.9
<b>Brown Egg Layers</b>						
Hubbard (Golden Comet)	3	0.3	3.3	5.8	19.4	71.2
	4	0.8	3.0	7.3	26.6	62.2
Dekalb (Sex-Sal-Link-G)	3	0.4	3.3	6.2	21.8	68.3
	4	0.8	4.3	6.5	23.4	65.1
Hisex (Brown)	3	0.7	1.8	4.3	18.1	75.1
	4	0.4	2.3	4.7	19.7	72.8
Brown Egg Average	3	0.5	2.8	5.4	19.8	71.5
	4	0.7	3.2	6.2	23.2	66.7

TABLE 92. EFFECTS OF NUMBER OF BIRDS PER CAGE ON EGG QUALITY OF ENTRIES IN SHALLOW CAGES, 27TH NCLPMT (140-728 DAYS)

Breeder (Strain)	Birds/ Cage	Grade A (%)	Grade B (%)	Cracks (%)	Loss (%)	Blood Spots (%)	Meat Spots (%)
<b>White Egg Layers</b>							
Hisex (White)	3	94.9	0.9	3.2	1.0	0.4	0.0
	4	90.2	3.9	5.3	0.7	0.3	0.0
Colonial (365-S)	3	92.4	1.9	4.2	1.4	4.2	0.0
	4	93.1	1.4	4.1	1.4	3.7	1.6
ISA-Babcock (B300)	3	96.2	0.6	2.4	0.8	2.1	0.7
	4	92.1	1.7	5.2	0.9	0.8	0.4
Hyline (W-36)	3	96.8	0.6	2.1	0.6	0.7	0.7
	4	96.0	0.7	2.9	0.4	1.7	0.9
Shaver (288-A)	3	96.1	1.7	1.7	0.5	0.4	0.0
	4	94.8	1.0	3.5	0.7	0.0	0.0
Dekalb (XL-Link)	3	92.5	1.0	5.4	1.1	0.5	1.0
	4	92.5	2.8	4.2	0.6	0.3	0.4
H & N (Nick Chick)	3	90.5	2.4	5.8	1.3	2.8	0.0
	4	93.0	1.1	5.2	0.6	2.0	0.4
White Egg Average	3	94.2	1.3	3.5	1.0	1.6	0.3
	4	93.1	1.8	4.3	0.8	1.2	0.5
<b>Brown Egg Layers</b>							
Hubbard (Golden Comet)	3	96.0	0.3	2.8	0.8	5.3	18.3
	4	94.5	0.8	3.8	0.8	4.0	20.0
Dekalb (Sex-Sal-Link-G)	3	93.3	0.6	5.0	1.1	1.3	11.5
	4	93.1	1.3	5.0	0.6	1.5	18.0
Hisex (Brown)	3	95.0	0.8	2.5	1.7	2.3	17.9
	4	95.6	0.7	3.0	0.7	4.6	17.9
Brown Egg Average	3	94.8	0.5	3.5	1.2	2.9	15.9
	4	94.4	1.0	3.9	0.7	3.4	18.7

TABLE 93. EFFECTS OF NUMBER OF BIRDS PER CAGE ON PERFORMANCE OF ENTRIES IN DEEP CAGES, 27TH NCLPMT (140-728 DAYS)

Breeder (Strain)	Birds/ Cage	Eggs Per Bird Housed	Egg Production		Egg Mass	Mortality
			Hen Housed	Hen Day	Hen Housed	Hen Day
			---	(%)	---	---
<b>White Egg Layers</b>						
Hisex (White)	3	379.3	64.5	69.2	40.8	43.3
	4	366.0	62.2	67.4	38.8	41.4
Colonial (365-S)	3	330.9	56.3	62.9	33.2	36.3
	4	285.0	48.5	57.1	29.2	33.9
ISA-Babcock (B300)	3	401.6	68.3	72.0	42.4	43.9
	4	387.0	65.8	68.2	40.3	41.2
Hyline (W-36)	3	404.6	68.8	71.3	42.4	44.0
	4	375.0	63.8	68.1	39.0	41.3
Shaver (288-A)	3	393.6	66.9	70.3	42.3	43.9
	4	356.1	60.6	68.6	37.9	42.2
Dekalb (XL-Link)	3	385.0	65.5	71.4	41.0	43.9
	4	351.7	59.8	70.0	36.9	42.5
H & N (Nick Chick)	3	386.0	65.6	70.6	41.8	44.0
	4	355.2	60.4	68.6	37.9	42.4
White Egg Average	3	383.0	65.1	69.7	40.6	42.8
	4	353.7	60.2	66.9	37.1	40.7
<b>Brown Egg Layers</b>						
Hubbard (Golden Comet)	3	375.1	63.8	68.1	42.1	44.1
	4	318.2	54.2	64.4	35.4	41.7
Dekalb (Sex-Sal-Link-G)	3	374.4	63.7	70.2	42.8	46.6
	4	329.9	56.1	64.2	37.8	43.1
Hisex (Brown)	3	388.4	66.0	68.9	46.3	47.6
	4	328.5	55.9	62.3	38.0	42.3
Brown Egg Average	3	379.3	64.5	69.1	43.7	46.1
	4	325.6	55.4	63.6	37.0	42.4

TABLE 94. EFFECTS OF NUMBER OF BIRDS PER CAGE ON PERFORMANCE OF ENTRIES IN DEEP CAGES, 27TH NCLPMT (140-728 DAYS)

Breeder (Strain)	Birds/ Cage	Feed Cons. (1bs/100 hens/d)	Egg Weight (g/egg)	Egg Income	Feed Cost
<b>White Egg Layers</b>					
Hisex (White)	3	26.2	59.1	17.02	9.13
	4	23.4	58.4	16.06	8.64
Colonial (365-S)	3	22.4	56.4	13.97	7.71
	4	20.6	57.4	12.13	7.35
ISA-Babcock (B300)	3	25.4	58.5	18.06	8.97
	4	23.5	57.8	17.36	8.92
Hyline (W-36)	3	24.1	58.1	17.99	8.41
	4	22.1	57.4	16.38	8.26
Shaver (288-A)	3	24.3	59.1	17.94	8.59
	4	23.5	58.6	16.14	8.61
Dekalb (XL-Link)	3	24.5	58.8	17.24	8.65
	4	23.7	58.1	15.69	8.61
H & N (Nick Chick)	3	26.9	59.8	17.30	9.44
	4	24.9	58.9	15.82	8.90
White Egg Average	3	24.8	58.6	17.08	8.70
	4	23.1	58.1	15.65	8.47
<b>Brown Egg Layers</b>					
Hubbard (Golden Comet)	3	27.8	61.5	17.39	9.97
	4	26.4	61.5	14.56	9.40
Dekalb (Sex-Sal-Link-G)	3	29.4	62.9	17.73	10.29
	4	26.7	63.3	15.38	9.72
Hisex (Brown)	3	28.2	65.3	18.26	10.02
	4	26.3	64.0	15.23	9.48
Brown Egg Average	3	28.4	63.2	17.79	10.10
	4	26.5	62.9	15.06	9.53

TABLE 95. EFFECTS OF NUMBER OF BIRDS PER CAGE ON EGG SIZE OF ENTRIES IN DEEP CAGES, 27TH NCLPMT (140-728 DAYS)

Breeder (Strain)	Birds/ Cage	Pee Wee (%)	Small (%)	Medium (%)	Large (%)	Extra Large (%)
<b>White Egg Layers</b>						
Hisex (White)	3	2.0	4.7	13.5	35.5	44.4
	4	2.1	6.4	14.4	34.6	42.6
Colonial (365-S)	3	2.6	8.8	21.5	39.0	28.1
	4	1.9	7.3	16.4	37.8	36.6
ISA-Babcock (B300)	3	1.7	5.0	11.8	38.2	43.2
	4	1.3	5.7	14.1	42.6	36.3
Hyline (W-36)	3	1.8	7.3	13.4	35.9	41.6
	4	1.9	7.3	15.1	38.5	37.3
Shaver (288-A)	3	0.8	4.7	12.2	36.9	45.4
	4	0.8	5.1	13.6	39.4	41.1
Dekalb (XL-Link)	3	1.4	5.3	13.9	39.0	40.4
	4	2.4	5.9	16.1	40.3	35.3
H & N (Nick Chick)	3	1.9	4.8	10.1	34.7	48.4
	4	1.3	5.5	11.7	36.8	44.7
White Egg Average	3	1.7	5.8	13.8	37.0	41.6
	4	1.7	6.2	14.5	38.6	39.0
<b>Brown Egg Layers</b>						
Hubbard (Golden Comet)	3	0.4	4.0	8.6	28.8	58.1
	4	0.5	3.5	8.8	25.6	61.7
Dekalb (Sex-Sal-Link-G)	3	0.5	2.9	6.8	22.6	67.1
	4	0.6	2.9	6.4	22.1	68.0
Hisex (Brown)	3	0.4	2.0	3.7	16.7	77.2
	4	0.4	2.4	5.5	20.6	71.0
Brown Egg Average	3	0.5	3.0	6.4	22.7	67.5
	4	0.5	2.9	6.9	22.8	66.9

TABLE 96. EFFECTS OF NUMBER OF BIRDS PER CAGE ON EGG QUALITY OF ENTRIES IN DEEP CAGES, 27TH NCLPMT (140-728 DAYS)

Breeder (Strain)	Birds/ Cage	Grade A (%)	Grade B (%)	Cracks (%)	Loss (%)	Blood Spots (%)	Meat Spots (%)
<b>White Egg Layers</b>							
Hisex (White)	3	93.0	3.6	3.2	0.2	0.0	0.0
	4	89.7	4.8	4.6	0.9	0.5	1.2
Colonial (365-S)	3	91.7	4.1	3.2	0.9	0.7	0.0
	4	89.6	3.2	4.8	2.3	3.1	0.6
ISA-Babcock (B300)	3	95.8	0.6	2.8	0.7	0.0	1.1
	4	95.1	1.8	2.7	0.5	2.3	0.7
Hyline (W-36)	3	95.3	1.5	2.6	0.7	0.0	0.0
	4	92.5	1.2	5.5	0.8	0.3	0.5
Shaver (288-A)	3	95.9	1.1	2.2	0.7	0.0	0.0
	4	94.9	1.2	3.2	0.7	0.0	0.0
Dekalb (XL-Link)	3	94.4	0.6	4.3	0.6	0.4	0.0
	4	93.3	1.3	4.8	0.6	1.6	0.7
H & N (Nick Chick)	3	93.4	1.3	3.9	1.4	2.6	0.0
	4	91.1	2.8	5.4	0.7	1.4	0.5
White Egg Average	3	94.2	1.8	3.2	0.8	0.5	0.2
	4	92.3	2.3	4.5	0.9	1.3	0.6
<b>Brown Egg Layers</b>							
Hubbard (Golden Comet)	3	96.3	0.9	2.3	0.5	6.4	18.1
	4	95.4	1.0	2.2	1.4	6.5	14.4
Dekalb (Sex-Sal-Link-G)	3	96.9	0.2	2.5	0.4	5.8	19.2
	4	92.7	1.3	4.6	1.4	4.1	18.9
Hisex (Brown)	3	94.9	1.4	2.6	1.1	3.9	12.7
	4	92.3	1.3	5.7	0.7	0.9	10.5
Brown Egg Average	3	96.0	0.8	2.4	0.7	5.4	16.7
	4	93.5	1.2	4.2	1.2	3.8	14.6

TABLE 97. HENDAY PRODUCTION OF ENTRIES FOR  
27TH NCLPMT (22-34 Weeks)

Breeder (Strain)	22 Weeks	24 Weeks	26 Weeks	28 Weeks	30 Weeks	32 Weeks	34 Weeks
<b>White Egg Layers</b>							
Hisex (White)	12.7	57.0	83.2	86.8	90.9	90.4	89.3
Colonial (365-S)	21.4	61.8	82.0	87.0	86.7	86.3	83.3
ISA-Babcock (B300)	35.4	77.7	88.2	88.4	87.2	87.1	84.7
Hyline (W-36)	12.8	56.5	85.6	90.4	88.4	88.2	86.9
Shaver (288-A)	17.3	57.8	84.4	88.4	90.8	90.5	90.0
Dekalb (XL-Link)	18.0	61.7	86.1	90.7	89.8	90.7	88.0
H & N (Nick Chick)	37.3	77.3	88.0	88.0	88.9	87.9	86.6
White Egg Average	22.1	64.2	85.4	88.5	89.0	88.7	86.9
<b>Brown Egg Layers</b>							
Hubbard (Golden Comet)	19.8	60.0	81.5	83.8	84.2	82.9	80.9
Dekalb (Sex-Sal-Link-G)	5.1	29.7	56.0	69.5	79.0	82.2	84.7
Hisex (Brown)	22.5	67.1	82.1	85.9	87.8	85.2	83.5
Brown Egg Average	15.8	52.3	73.2	79.7	83.7	83.4	83.0

TABLE 98. HENDAY PRODUCTION OF ENTRIES FOR  
27TH NCLPMT (36-48 Weeks)

Breeder (Strain)	36 Weeks	38 Weeks	40 Weeks	42 Weeks	44 Weeks	46 Weeks	48 Weeks
<b>White Egg Layers</b>							
Hisex (White)	89.2	88.1	87.6	85.6	82.8	83.2	81.5
Colonial (365-S)	82.6	80.9	79.7	80.7	74.0	74.8	73.1
ISA-Babcock (B300)	85.6	84.2	83.8	83.0	81.5	81.9	79.2
Hyline (W-36)	86.8	85.2	86.3	87.2	83.1	84.1	81.5
Shaver (288-A)	90.7	89.2	87.9	87.5	86.5	86.7	84.5
Dekalb (XL-Link)	90.6	90.4	88.9	88.0	86.4	88.4	86.7
H & N (Nick Chick)	87.7	87.1	85.8	85.3	82.5	84.4	80.7
White Egg Average	87.6	86.4	85.7	85.3	82.4	83.4	81.0
<b>Brown Egg Layers</b>							
Hubbard (Golden Comet)	82.0	80.5	79.8	80.1	77.0	79.2	75.7
Dekalb (Sex-Sal-Link G)	86.3	86.4	86.5	85.1	82.4	83.4	82.9
Hisex (Brown)	83.4	83.9	80.1	81.1	79.4	79.6	77.6
Brown Egg Average	83.9	83.6	82.1	82.1	79.6	80.7	78.7

TABLE 99. HENDAY PRODUCTION OF ENTRIES FOR  
27TH NCLPMT (50-62 Weeks)

Breeder (Strain)	50 Weeks	52 Weeks	54 Weeks	56 Weeks	58 Weeks	60 Weeks	62 Weeks
<b>White Egg Layers</b>							
Hisex (White)	80.5	76.5	75.7	72.4	72.5	71.8	70.2
Colonial (365-S)	72.9	69.3	70.4	67.7	64.7	63.9	63.6
ISA-Babcock (B300)	77.8	77.7	78.1	76.6	74.7	75.0	74.0
Hyline (W-36)	81.5	78.2	77.9	76.0	74.6	74.4	73.8
Shaver (288-A)	84.8	81.6	80.7	78.5	74.5	75.3	73.4
Dekalb (XL-Link)	85.7	82.0	79.3	75.6	74.6	75.6	75.3
H & N (Nick Chick)	82.1	78.1	77.7	77.4	75.2	76.0	75.5
White Egg Average	80.8	77.6	77.1	74.9	73.0	73.2	72.3
<b>Brown Egg Layers</b>							
Hubbard (Golden Comet)	76.8	74.4	73.8	70.9	70.7	73.3	70.3
Dekalb (Sex-Sal-Link-G)	83.5	82.0	80.7	78.4	77.7	76.4	75.7
Hisex (Brown)	77.4	74.1	74.4	72.7	70.8	71.2	70.3
Brown Egg Average	79.2	76.8	76.3	74.0	73.1	73.6	72.1

TABLE 100. HENDAY PRODUCTION OF ENTRIES FOR  
27TH NCLPMT (68-80 Weeks)

Breeder (Strain)	68 Weeks	70 Weeks	72 Weeks	74 Weeks	76 Weeks	78 Weeks	80 Weeks
<b>White Egg Layers</b>							
Hisex (White)	8.4	51.6	71.9	79.5	81.3	80.2	75.3
Colonial (365-S)	28.0	57.2	68.2	71.3	68.7	65.8	60.7
ISA-Babcock (B300)	13.5	62.8	75.1	79.7	78.2	77.8	73.4
Hyline (W-36)	2.2	33.9	63.6	78.7	79.7	80.1	77.0
Shaver (288-A)	6.4	51.8	68.5	77.1	77.7	77.2	71.8
Dekalb (XL-Link)	12.4	57.8	76.5	82.8	81.9	77.6	73.0
H & N (Nick Chick)	18.8	61.9	77.6	79.8	78.5	77.4	72.3
White Egg Average	12.8	53.9	71.6	78.4	78.0	76.6	71.9
<b>Brown Egg Layers</b>							
Hubbard (Golden Comet)	3.4	52.7	72.1	78.3	76.0	73.9	71.0
Dekalb (Sex-Sal-Link-G)	2.1	44.7	74.7	81.8	80.6	77.3	72.7
Hisex (Brown)	0.4	38.0	68.5	75.7	73.3	73.5	69.1
Brown Egg Average	2.0	45.2	71.7	78.6	76.7	74.9	70.9

TABLE 101. HENDAY PRODUCTION OF ENTRIES FOR  
27TH NCLPMT (82-94 Weeks)

Breeder (Strain)	82 Weeks	84 Weeks	86 Weeks	88 Weeks	90 Weeks	92 Weeks	94 Weeks
<b>White Egg Layers</b>							
Hisex (White)	75.8	73.5	73.6	72.2	70.9	71.1	67.6
Colonial (365-S)	59.3	57.0	55.0	53.9	52.6	53.6	50.2
ISA-Babcock (B300)	73.4	70.6	71.4	69.5	69.0	70.7	67.8
Hyline (W-36)	74.3	73.9	73.2	69.6	69.1	72.9	70.3
Shaver (288-A)	71.3	69.1	70.1	67.7	68.2	67.7	65.7
Dekalb (XL-Link)	73.3	71.6	71.4	68.0	69.4	72.6	69.5
H & N (Nick Chick)	74.4	69.7	70.5	69.2	69.8	68.1	65.4
White Egg Average	71.7	69.3	69.3	67.1	67.0	68.1	65.2
<b>Brown Egg Layers</b>							
Hubbard (Golden Comet)	70.5	66.2	66.6	65.7	66.0	68.1	67.3
Dekalb (Sex-Sal-Link-G)	72.1	70.4	68.3	65.5	66.2	70.0	69.4
Hisex (Brown)	68.9	65.1	64.6	63.9	62.0	65.0	62.0
Brown Egg Average	70.5	67.3	66.5	65.0	64.7	67.7	66.2

TABLE 102. HENDAY PRODUCTION OF ENTRIES FOR  
27TH NCLPMT (96-104 Weeks)

Breeder (Strain)	96 Weeks	98 Weeks	100 Weeks	102 Weeks	104 Weeks
<b>White Egg Layers</b>					
Hisex (White)	67.1	64.6	64.0	64.1	61.6
Colonial (365-S)	47.6	44.7	43.4	41.6	39.2
ISA-Babcock (B300)	66.7	63.7	63.8	61.1	61.0
Hyline (W-36)	70.4	69.4	68.4	67.7	63.0
Shaver (288-A)	65.6	61.9	62.4	62.5	57.4
Dekalb (XL-Link)	68.9	64.5	65.5	62.7	57.8
H & N (Nick Chick)	62.3	59.1	60.3	56.3	55.4
White Egg Average	64.1	61.1	61.1	59.4	56.5
<b>Brown Egg Layers</b>					
Hubbard (Golden Comet)	67.0	65.8	63.7	61.5	59.1
Dekalb (Sex-Sal-Link-G)	70.2	65.9	67.0	63.3	61.9
Hisex (Brown)	62.4	59.8	57.8	55.7	54.4
Brown Egg Average	66.6	63.9	62.8	60.2	58.5

## STOCK SUPPLIERS AND CATEGORIES

<u>Breeder</u>	<u>Stock</u>	<u>Category*</u>	<u>Source</u>
Hisex Division Pilch, Inc. Box 438 Troutman, NC 28166	Hisex White	I-A YES	Pilch, Inc. Box 438 Troutman, NC 28166
Colonial Poultry Farms, Inc., Pleasant Hill, MO 64080	Colonial True-Line 365-S	II YES	Colonial Poultry Farms, Inc. Pleasant Hill, MO 64080
ISA-Babcock, Inc. P.O. Box 280 Ithaca, NY 14851	ISA-Babcock B300	I-A YES	Tri-State Hatcheries 229 Main Street N. Brookfield, MA 01535
HyLine International Johnston, IA 50131	HyLine W-36	I-C	Not applicable
Shaver Poultry Breeding Farms, Ltd., Box 400 Ontario, CANADA N1R 5V9	Shaver Starcross 288-A	I-A YES	Merrill Poultry Farms Inc., Route 2, Box 21 Paul, ID 83347
DeKalb AgResearch, Inc. 3100 Sycamore Road DeKalb, IL 60115	DeKalb XL-Link	I-A YES	Clay's Hatchery Route 1 Blackstone, VA 23824
H & N, Inc. 15305 N.E. 40th Street Redmond, WA 98052	H & N "Nick Chick"	I-A YES	Tatum Farms Route 3 Dawsonville, GA 30534
Hubbard Farms Walpole, NH 03608	Hubbard Golden Comet	I-A YES	Bowers Brothers Hatchery Route 4 Albemarle, NC 28001
DeKalb AgResearch, Inc. 3100 Sycamore Road DeKalb, IL 60115	DeKalb Sex-Sal-Link "G"	I-A YES	Pee Dee Hatchery P.O. Box 156 Hartsville, SC 29550
Hisex Division Pilch, Inc. Box 438 Troutman, NC 28166	Hisex Brown	I-A YES	Pilch, Inc. Box 438 Troutman, NC 28166

\*I = Extensive distribution in southeast United States.  
 II = Little or no distribution in southeast United States.  
 A = Entry requested.  
 C = Entry neither requested nor supported.  
 YES = Supporting and fully cooperating with test.