AGRICULTURAL EXTENSION SERVICE
NORTH CAROLINA STATE UNIVERSITY | AT RALEIGH

SCHOOL OF AGRICULTURE AND LIFE SCIENCES

OFFICE OF EXTENSION POULTRY SCIENCE
SCOTT HALL
BOX 5307 ZIP 27607

September, 1970

I am enclosing the final summary of the Eleventh North Carolina Random Sample Laying Test which you have requested. We believe that the information contained herein is a useful guide for evaluating egg production stocks and management systems. Please circulate this report among your associates so that they, too, may study its contents.

This is the fourth test which compared full-slat floor with half litter-half slat floor during the growing phase, and these systems with two-bird cages during the laying phase. Beginning with the next test, half litter-half slat floor management will be compared with eight-bird cages during the growing phase and with two-bird cages and seven-bird cages during the laying phase.

Requests for reports from this test should be sent to Piedmont Research Station, Route 6, Box 420, Salisbury, N. C., 28144.

Very truly yours,

G. A. Martin

Grady A. Martin
Extension Poultry Specialist

FINAL SUMMARY REPORT
ELEVENTH NORTH CAROLINA RANDOM SAMPLE LAYING TEST
March 28, 1969, through August 9, 1970

The North Carolina Random Sample Laying Tests are conducted under the auspices of the Agricultural Extension Service of North Carolina State University and the Division of Research Stations of the North Carolina Department of Agriculture. Mr. T. R. Burleson, Jr., Route 6, Box 420, Salisbury, N. C., 28144, is Resident Manager of the tests and Dr. G. A. Martin, Department of Poultry Science, N. C. State University, Raleigh, N. C., 27607, is Project Leader. The purpose of the project is to assist poultrymen in evaluating stocks and management systems. A committee representing various poultry interests in the State advises the Steering Committee in establishing policies and practices which best serve this purpose.

Data are presented as Tables 11-4A-I, II, III and IV, 11-4B-I, II, III and IV, 11-4C-I, II, III and IV, and 11-4D-I, II, III and IV. Tables carrying the letters A, B, C and D in their numbers contain performance data for birds housed on slats, on combination of litter and slats, in cages and averaged across all three housing

schemes, respectively. Due to the large number of items reported, each of the tables is divided into Parts I, II, etc., for the final report. These data are for one year at one location. The ARS 44-79 series of publications summarizes all laying tests in the United States and Canada over two years and may be obtained from the USDA. It provides an excellent basis for comparing the performance of different stocks.

INFORMATION CONCERNING DATA REPORTED

All items reported are averages of pen or cage block means.

Chicks for each entry were hatched at the test site from a 1080-egg sample which was taken by public employees in Agriculture. The sample was taken as eggs were gathered at a randomly chosen supply flock, with the few exceptions shown on Page 5 when nest sampling was not feasible. A maximum of 352 sexed pullets was divided into four equal lots with two pens reared on slats at one sq. ft. per pullet and two pens reared on half slats-half litter at 1½ sq. ft. per pullet. First week mortality, sexing errors and accidental deaths were not charged against the entry. At 150 days of age, a maximum of 50 randomly chosen pullets were retained in the pens where they were grown on floor space held constant and a maximum of 26 randomly chosen pullets were placed in a block of 10" x 18" laying cages at two birds per cage.

Allmash rations were mixed at the test site. A starting ration was fed for 8 weeks, a growing ration was fed for 13½ weeks, and three laying rations were fed during early, mid and late portions of the laying period. All birds were debeaked and vaccinated for Newcastle, bronchitis, pox and Avian Encephalomyelitis. The birds were permitted access to litter, were inoculated with coccidiosis oocysts and fed a coccidiostat at a low level. Other management was as nearly commercial procedures as practical.

RESULTS

Part I of Tables

Entry No. is assigned at random to the particular entry.

Type Housing. 1 = slats, 2 = slats and litter, 3 = cages, 0 = average of three types.

Breeder is the name used to distinguish entries. Full information about the stock and source is listed elsewhere in this report.

Average bird weight is recorded in pounds at housing and at end of test.

Egg size distribution (%) was obtained by crediting each week's production to size classes in proportion to those observed in the total production of one day. Individual eggs weighing between 23 and 26 oz/doz. are classified as large Other size classes are scaled up or down from large in blocks of 3 oz/doz.

Average egg weight was obtained by crediting all eggs for each week at the average size observed on one day by mass weight.

Age at 50% Production was the age of pullets on the first day of the first two consecutive days on which production reached or exceeded 50%.

Hen-Day Production Percentages represent the daily average number of eggs produced per 100 hens of the entry during the specified periods.

Eggs per Pullet Housed is the total number of eggs produced divided by the number of pullets housed.

Part II of Tables

Entry No. and Type Housing are the same as above.

No. of Birds are the net pullets or hens retained at the specified times. Sexing errors, first week mortality and accidental deaths are excluded.

Mortality is the percentage of birds that died during growing and laying periods and the average days per bird housed that were lost to mortality during the laying period.

Feed Consumed is average feed consumed for the 150 days of growing, per 100 birds per day in laying period, per pound of eggs produced in laying period, and per dozen eggs laid.

Chick Price is the average of prices quoted for this stock in March of 1967, 1968 and 1969.

Values per Pullet Housed are the amounts charged and credited to the entry at 3-year monthly average feed prices quoted by North Carolina Department of Agriculture, at 3-year weekly egg prices quoted for Raleigh market by the Federal-State Market Service, and 3-year average fowl prices at Raleigh for the week in which the test terminated. IOFCC is income over laying feed cost and growing chick and feed cost. This does not represent net return since many other costs are involved in egg production.

Part III of Tables

Entry No. and Type Housing are the same as above.

% Loss (downgrades) was the percentage by which total egg value was reduced below Grade A value due to downgrades detected from candling. We express our appreciation to Mr. Carl Tower of the N. C. Department of Agriculture who provided candling service on one day of production each month. Market values of all eggs was calculated on the basis of these candling reports.

% Inclusion (Breakout): Blood spots and colored meat spots were observed by breaking one day's production from each pen at about 30-day intervals throughout the year. Spots exceeding 1/8 inch were classified as large and those of lesser size as small. Breakout data were not used for egg value calculations.

Candled Quality Percentages: Mr. Carl Tower from the N. C. Department of Agriculture candled the production of one day each month. The percentages reported are a summary of his findings and were used to determine egg value.

Haugh Units were measured one day each quarter of the year. Since this factor undergoes seasonal change, the quarterly averages and the annual average are given.

Shell Score (specific gravity) was secured by using salt solutions to determine the specific gravity of eggs. The eggs with specific gravity below 1.068 were given score of 0; those between 1.068 and 1.072, a score of 1; etc., with those exceeding 1.100 receiving a score of 9. One day's production from each pen was classified in the months indicated.

Part IV of Tables

Entry No. and Type Housing are the same as above.

Causes of Mortality were assigned from autopsy findings. Birds were held in a freezer as mortality occurred and examined at the N. C. Department of Agriculture Poultry Disease Laboratory once each week. We express our appreciation to Dr. W. W. Clemmons for providing this service to the Test. The 10-point classification system recommended by the Council of American Official Poultry Tests was used on autopsy reports. Some categories which caused little mortality were combined under 'Miscellaneous' in the interest of saving space.

Part V of Tables

This section of the tables is presented only for the average performance of the entries in all types of housing and for only the four characteristics listed.

The Range column indicates those entries which are in the most desirable half of the range above the mean by 1, those between this point and the mean by 2, those in the least desirable half of the range below the mean by 4, and those between this point and the mean by 3.

Entry No. indicates which stock from earlier listing in the tables attained the average performance value shown.

The Duncan Test may have little meaning to those who are not accustomed to statistical procedures. Basically, this test indicates that difference greater than those spanned by any one of the vertical lines would not be expected to occur more than five times out of 100 comparisons if all stocks had the same ability to produce. Few of us can insure 19 to 1 odds in our favor on daily business transactions. Observing the stock in more than one test and more than one year can help ascertain the margin of economic feasibility in stock selection.

Table 11-4A-I - Bird Weight, Egg Size, Maturity and Production Data

Entry No.	Type Housing	Breeder	Average Body Wt. 150 Days	Average Body Wt. 500 Days	% Egg Size, Distribution: Pee Wee	Small	Medium	Large	Ex. Large and over	Av. Egg Wt. oz./doz.	Age at 50% Production	Egg Production Rate: 151-240 Days	241-330 Days	331-420 Days	421-500 Days	471-500 Days	After 50% Production	Eggs per Pullet Housed
1	1	Hy-Line (934)	3.0	4.1	0.0	0.8	3.4	17.1	78.8	28.7	190.5	46.8	72.2	65.9	59.5	56.2	66.8	165.2
2	1	Welp's (937)	2.9	3.9	0.3	4.4	16.3	32.3	46.6	25.5	168.5	64.7	69.0	57.9	54.4	53.0	64.1	182.2
3	1	Cashman (Hi-Cash)	3.2	4.3	0.3	1.1	8.0	25.5	65.1	27.1	190.0	45.5	73.1	67.1	59.5	55.8	66.9	195.2
4	1	Garber (GX-291)	3.7	5.1	0.5	3.3	13.3	28.1	54.9	26.2	170.5	64.9	72.1	64.8	56.1	54.6	67.3	206.3
5	1	Kimber (K-155)	3.0	4.7	0.2	2.9	10.7	32.0	54.3	26.2	174.0	63.3	77.0	70.7	65.8	63.4	72.8	199.6
6	1	Tatum (T-100)	3.1	4.3	0.4	4.1	8.5	28.0	59.0	26.7	161.0	70.5	84.1	75.5	67.9	66.9	75.9	199.6
7	1	Ideal (236)	3.1	4.6	0.1	1.8	6.4	25.8	66.0	27.4	185.5	52.2	70.0	63.5	60.5	61.7	66.2	175.1
8	1	Davis (RIR)	4.1	5.6	0.1	0.3	4.2	21.6	73.8	28.1	190.5	46.6	69.9	65.4	57.4	54.1	65.6	200.6
9	1	NCRPB (CxK RB)	3.0	4.5	0.5	3.2	14.5	35.4	46.4	26.2	183.5	51.1	72.6	64.1	61.1	59.3	66.8	169.1
10	1	Anthony	3.1	4.4	0.1	1.6	5.1	21.5	71.7	27.7	180.5	58.0	76.0	66.8	62.5	62.5	70.5	197.5
11	1	Babcock (B-305)	3.0	4.2	0.4	2.7	6.9	23.2	66.8	27.3	162.0	68.1	80.3	76.5	66.6	63.6	74.5	186.9
12	1	NCRPB (CRB)	3.2	5.0	0.4	2.8	16.3	38.0	42.5	26.1	194.0	39.2	68.3	64.7	58.5	57.4	63.8	129.2
13	1	Hubbard (Gld.Com)	3.8	5.0	0.1	1.1	3.5	16.9	78.4	28.6	178.5	54.7	68.8	57.6	49.5	46.6	63.2	153.6
14	1	Shaver (*X-288)	3.2	4.8	0.1	0.8	2.7	20.9	75.4	27.9	179.0	63.2	84.8	76.8	70.8	68.5	78.6	239.1
15	1	Babcock (B-300)	3.0	4.4	0.3	3.6	8.7	26.8	60.6	26.7	162.5	70.8	76.9	76.1	74.5	74.1	76.0	207.5
16	1	Kimber (K-137)	3.1	4.3	0.1	2.1	7.9	28.9	60.9	26.8	176.0	58.2	72.7	66.4	64.9	60.0	69.1	189.4
17	1	Stone's (H-56-E)	3.1	4.7	0.1	2.5	6.4	23.9	67.2	27.3	171.0	63.0	67.0	63.8	59.4	59.4	66.0	195.7
18	1	Ind.Fm.Bu.(P-55)	2.9	4.3	0.1	1.1	5.2	27.9	65.7	27.1	188.5	51.9	75.8	68.7	60.2	59.4	69.6	197.2
19	1	Parks (Key.B-1)	3.2	4.8	0.1	1.5	5.1	23.4	69.8	27.6	173.0	65.6	83.0	72.6	67.4	64.3	76.1	238.4
20	1	Lawton (Buff SL)	4.2	5.9	0.1	1.2	3.7	17.3	77.7	28.4	187.5	48.9	68.7	61.6	58.7	56.0	64.2	193.7
0	1	Average	3.3	4.7	0.2	2.1	7.8	25.7	64.1	27.2	178.3	57.4	74.1	67.3	61.8	59.8	69.2	191.1

Table 11-4A-II - Birds, Mortality, Feed Use and Cost and Income Data

		No. of Birds			Mortality			Feed Consumed					Value per Pullet Housed					
Entry No.	Type Housing	At One Week	Housed	At End of Test	% 8 - 150 Days	% 151-500 Days	Av. Days Lost/Hen Housed	Per Bird 1-150 Da.	Per 100 Birds (1 Day)	Per Lb. of Eggs	Per Doz. Eggs	Chick Price	Growing Feed Cost	Laying Feed Cost	Total Feed and Chick Cost	Value of Eggs	Value of Meat	IOFCC
1	1	112.	97.	71.	13.4	26.9	75.9	15.9	23.7	2.63	4.71	.42	0.74	2.75	3.97	4.98	.18	1.189
2	1	113.	102.	78.	9.0	23.5	57.3	16.0	23.3	2.84	4.53	.36	0.70	2.88	3.98	5.34	.18	1.551
3	1	102.	89.	78.	11.0	12.9	32.8	17.3	25.5	3.00	5.09	.33	0.78	3.42	4.58	5.81	.26	1.479
4	1	106.	100.	81.	3.6	19.0	32.6	18.9	24.6	2.78	4.56	.32	0.80	3.31	4.44	5.99	.29	1.840
5	1	112.	99.	74.	11.7	25.5	61.5	17.0	24.3	2.58	4.22	.34	0.77	2.96	4.12	5.98	.21	2.075
6	1	115.	84.	61.	26.7	27.6	82.2	16.4	24.7	2.40	4.00	.39	0.88	2.80	4.22	5.86	.19	1.828
7	1	113.	101.	72.	7.5	28.7	64.0	16.6	23.6	2.71	4.64	.36	0.73	2.86	3.98	5.23	.20	1.455
8	1	114.	100.	93.	2.9	7.0	14.5	20.3	25.5	2.94	5.15	.34	0.85	3.62	4.82	5.82	.42	1.418
9	1	76.	63.	46.	15.9	27.1	76.4	17.3	23.4	2.78	4.55	.30	0.84	2.71	3.91	4.95	.20	1.241
10	1	107.	98.	75.	6.1	23.7	49.7	17.3	24.5	2.58	4.46	.38	0.73	3.10	4.23	5.77	.20	1.740
11	1	109.	96.	62.	11.3	35.7	93.7	16.8	25.2	2.44	4.16	.32	0.76	2.73	3.86	5.39	.17	1.692
12	1	80.	61.	35.	24.2	42.2	120.5	16.1	24.5	3.21	5.22	.42	0.83	2.39	3.78	3.82	.20	0.245
13	1	116.	100.	50.	1.7	50.0	87.0	20.2	25.0	2.87	5.14	.35	0.84	2.80	3.99	4.56	.19	0.747
14	1	114.	100.	88.	2.9	12.0	26.5	17.5	26.1	2.43	4.25	.34	0.74	3.57	4.65	7.20	.26	2.800
15	1	112.	83.	62.	23.9	27.7	71.3	16.0	25.5	2.47	4.13	.32	0.86	3.01	4.31	6.10	.19	1.982
16	1	109.	93.	68.	14.2	26.8	59.8	17.2	24.9	2.74	4.59	.34	0.81	3.06	4.26	5.68	.19	1.611
17	1	106.	96.	74.	9.9	22.9	41.2	19.0	24.8	2.75	4.70	.30	0.85	3.24	4.42	5.83	.22	1.637
18	1	109.	98.	79.	9.0	19.4	42.2	15.3	23.3	2.58	4.37	.36	0.67	3.03	4.09	5.97	.21	2.095
19	1	93.	90.	81.	3.6	10.0	20.2	17.3	25.9	2.50	4.31	.35	0.74	3.62	4.72	6.93	.26	2.476
20	1	113.	100.	87.	4.7	13.0	23.7	20.5	26.7	3.05	5.41	.34	0.86	3.69	4.91	5.67	.41	1.166
0	1	107.	93.	71.	10.7	24.1	56.6	17.5	24.8	2.71	4.61	.35	0.79	3.08	4.26	5.64	.23	1.613

Table 11-4A-III - Egg Quality Data

			% Inclusion (Break-out)				Candled Quality Percentages					Haugh Units					Shell Score (specific gravity)				
Entry No.	Type Housing	% Loss (down-grades)	Large Bloods	Small Bloods	Large Meats	Small Meats	A or Better	B	C	Chex & Cracks	Loss Eggs	Sept.	Dec.	Mar.	June	Average	October	January	April	July	Average
1	1	4.3	0.4	0.8	0.4	0.9	92.3	1.6	0.2	5.9	0.0	78.7	66.6	67.8	62.6	68.9	3.70	2.84	2.50	1.72	2.69
2	1	4.3	1.5	2.6	0.3	1.4	92.8	2.2	0.1	4.0	0.9	82.1	75.3	72.5	69.9	74.9	3.33	3.31	2.40	2.16	2.80
3	1	4.5	0.9	3.1	0.0	1.4	91.9	1.7	0.0	6.2	0.1	82.2	75.7	72.9	73.2	76.0	3.61	3.41	1.88	1.95	2.71
4	1	5.8	0.2	1.2	0.0	1.0	90.3	1.4	0.0	7.1	1.2	84.6	74.7	73.4	68.9	75.4	2.70	2.94	1.78	1.04	2.11
5	1	3.2	0.7	1.7	0.1	1.4	94.2	0.9	0.2	4.5	0.3	89.3	79.9	76.3	76.8	80.6	3.61	3.51	2.61	1.53	2.81
6	1	4.5	1.1	1.2	0.0	0.6	92.3	1.7	0.0	5.5	0.6	82.0	73.0	72.1	71.1	74.6	3.18	3.23	2.16	1.63	2.55
7	1	4.6	0.9	1.1	0.2	1.2	91.7	2.1	0.0	5.8	0.3	82.5	73.6	70.1	68.9	73.8	3.52	3.29	2.20	1.55	2.64
8	1	7.5	1.8	1.6	8.5	17.4	87.7	2.4	0.0	7.7	2.2	88.9	74.1	76.0	72.4	77.8	2.34	2.04	1.09	0.98	1.61
9	1	4.7	2.3	1.7	0.0	0.9	93.1	1.1	0.3	4.1	1.4	85.8	75.8	71.2	71.5	76.0	3.67	2.79	2.05	1.86	2.59
10	1	6.7	0.9	0.9	0.0	0.5	88.4	1.7	0.0	8.9	1.0	85.0	77.9	75.8	78.3	79.2	2.33	2.53	1.58	1.24	1.92
11	1	7.2	0.7	1.0	0.0	0.8	87.6	1.5	0.0	10.4	0.5	82.9	71.9	71.6	69.6	74.0	3.17	3.01	2.08	1.03	2.32
12	1	3.5	1.4	2.5	0.4	0.7	94.3	1.4	0.0	4.3	0.0	85.4	77.2	73.0	70.9	76.6	3.63	3.74	1.82	1.43	2.65
13	1	7.1	0.6	2.4	7.9	20.0	88.6	3.1	0.2	5.8	2.4	87.5	76.9	73.6	70.7	77.2	2.00	2.09	1.40	0.75	1.56
14	1	4.4	1.1	2.3	0.4	1.9	92.8	1.2	0.0	5.2	0.7	84.6	75.2	74.7	70.7	76.3	3.06	3.45	1.92	1.63	2.52
15	1	4.6	1.9	1.4	0.0	1.5	92.5	0.5	0.1	6.1	0.8	83.1	72.1	70.1	68.2	73.4	2.98	2.60	1.66	0.87	2.03
16	1	3.7	1.0	1.5	0.5	1.0	93.5	1.7	0.0	4.4	0.3	90.5	80.7	80.3	78.8	82.6	3.59	3.70	2.71	2.35	3.09
17	1	4.1	0.9	0.8	0.2	0.9	93.4	2.4	0.3	2.9	0.9	85.6	76.2	76.6	71.1	77.4	3.40	3.57	2.13	1.78	2.72
18	1	3.6	0.5	2.1	0.2	1.1	93.9	0.3	0.0	5.7	0.1	88.7	81.5	77.8	78.5	81.6	2.71	2.42	1.27	1.37	1.94
19	1	7.3	0.8	1.7	0.1	1.6	88.1	1.2	0.0	9.3	1.4	84.1	74.5	73.9	72.6	76.3	2.86	3.03	1.82	1.49	2.30
20	1	6.7	2.2	2.8	9.9	19.9	89.5	2.6	0.0	5.6	2.3	86.7	78.0	72.3	71.5	77.2	3.05	3.03	1.94	1.57	2.40
0	1	5.1	1.1	1.7	1.4	3.8	91.5	1.6	0.1	6.0	0.9	85.0	75.5	73.6	71.8	76.5	3.12	3.03	1.95	1.50	2.40

Table 11-4A-IV - Causes of Mortality

Entry No.	Type Housing	Marek's		Lymphoid Leukosis		Other Neop.		Internal Parasites	Reproductive Disorders	Kidney Disorders		Canni-balism		Misc.		No Visible Lesions		No Necropsy Report		Total	
		Gro.	Lay	Gro.	Lay	Gro.	Lay	Gro.	Lay	Gro.	Lay	Gro.	Lay	Gro.	Lay	Gro.	Lay	Gro.	Lay	Gro.	Lay
1	1	9.9	22.8	-	-	-	-	-	-	-	-	-	-	1.7	4.1	0.6	-	1.2	-	13.4	26.9
2	1	5.5	12.7	-	1.0	-	-	-	6.7	0.6	-	0.6	-	2.3	2.0	-	-	-	1.0	9.0	23.5
3	1	7.1	11.8	-	-	-	-	-	-	-	-	-	-	1.3	-	-	-	2.6	1.0	11.0	12.9
4	1	3.0	13.0	-	1.0	-	-	-	1.0	-	1.0	-	-	0.6	2.0	-	-	-	1.0	3.6	19.0
5	1	7.6	19.1	-	-	-	-	-	5.3	-	-	-	-	2.9	-	-	-	1.2	1.1	11.7	25.5
6	1	21.5	23.9	-	-	-	1.4	-	-	-	1.1	-	-	3.5	-	-	-	1.7	1.4	26.7	27.6
7	1	1.7	15.8	-	-	-	1.0	0.6	1.0	-	1.0	-	-	1.1	6.0	0.6	-	3.5	4.0	7.5	28.7
8	1	1.2	5.0	-	-	-	-	-	-	-	-	-	-	0.6	-	0.6	1.0	0.6	1.0	2.9	7.0
9	1	9.3	18.8	-	-	0.8	-	-	3.3	-	-	-	1.7	1.6	-	1.6	1.7	2.5	1.7	15.9	27.1
10	1	1.2	3.1	-	-	-	-	-	15.5	-	1.0	-	3.1	1.8	1.0	0.6	-	2.4	-	6.1	23.7
11	1	7.8	27.4	-	-	-	-	-	5.3	-	-	0.6	-	1.2	2.0	-	-	1.8	1.1	11.3	35.7
12	1	19.2	38.8	-	-	-	-	-	3.4	-	-	-	-	2.5	-	0.8	-	1.7	-	24.2	42.2
13	1	1.1	10.0	-	-	-	1.0	-	30.0	-	1.0	-	5.0	-	3.0	-	-	0.6	-	1.7	50.0
14	1	2.9	3.0	-	-	-	-	-	7.0	-	-	-	-	-	2.0	-	-	-	-	2.9	12.0
15	1	16.3	21.7	-	-	-	-	-	2.5	-	-	0.6	-	4.7	3.5	1.2	-	1.2	-	23.9	27.7
16	1	11.8	15.0	-	1.1	-	1.1	-	5.3	-	-	0.6	-	1.2	1.1	-	-	0.6	3.2	14.2	26.8
17	1	6.8	10.5	-	2.0	-	-	0.6	4.1	0.6	-	0.6	-	1.2	3.1	-	-	-	3.2	9.9	22.9
18	1	4.8	10.2	-	2.0	-	-	-	2.1	-	2.1	-	-	3.6	1.0	0.6	1.0	-	1.0	9.0	19.4
19	1	3.6	6.8	-	-	-	-	-	1.1	-	-	-	-	-	2.1	-	-	-	-	3.6	10.0
20	1	2.9	7.0	-	-	-	-	-	2.0	-	-	-	-	0.6	2.0	-	-	1.2	2.0	4.7	13.0
Av.	1	7.3	14.8	0.0	0.4	0.0	0.2	0.1	4.8	0.1	0.4	0.2	0.5	1.6	1.7	0.3	0.2	1.1	1.1	10.7	24.1

Table 11-4B-1 - Bird Weight, Egg Size, Maturity and Production Data

Entry No.	Type Housing	Breeder	Average Body Wt. 150 Days	Average Body Wt. 500 Days	% Egg Size, Distribution Pee Wee	Small	Medium	Large	Ex. Large and Over	Avg. Egg Wt. oz./doz.	Egg Production Rate Age at 50% Production	151-240 Days	241-330 Days	331-420 Days	421-500 Days	471-500 Days	After 50% Production	Eggs per Pullet Housed
1	2	Hy-Line (934)	2.8	4.3	0.0	1.5	6.3	23.3	68.9	27.7	179.0	59.0	74.0	63.8	57.0	54.3	67.8	197.9
2	2	Welp's (937)	2.8	4.2	0.3	4.4	17.4	36.8	41.1	25.2	167.5	72.8	78.6	69.6	62.1	59.6	73.1	243.2
3	2	Cashman (Hi-Cash)	3.3	5.2	0.0	2.0	9.2	30.3	58.6	26.4	183.0	62.1	84.6	72.8	65.3	62.7	76.7	226.1
4	2	Garber (BX-291)	3.7	5.2	0.4	4.4	12.5	29.4	53.3	26.0	165.0	70.3	75.8	66.9	59.2	58.3	70.0	228.5
5	2	Kimber (K-155)	3.2	4.6	0.6	4.5	16.0	35.7	43.1	25.5	171.5	68.3	76.2	68.7	64.4	62.9	72.4	205.1
6	2	Tatum (T-100)	2.8	4.3	0.3	4.2	11.1	31.6	52.9	26.0	163.5	76.3	83.9	80.2	74.2	71.7	80.5	230.8
7	2	Ideal (236)	3.2	4.7	0.0	1.5	7.8	28.2	62.4	26.8	175.5	63.9	79.5	71.5	67.7	65.7	74.4	229.3
8	2	Davis (RIR)	4.2	5.7	0.1	1.3	6.4	25.2	67.0	27.3	177.5	64.4	80.6	69.8	62.7	58.0	73.8	232.7
9	2	NCRPB (CxK RB)	3.1	4.6	0.3	3.1	18.2	38.7	39.7	25.5	185.5	52.2	69.7	64.1	58.4	57.0	66.0	183.0
10	2	Anthony	3.2	4.6	0.1	1.7	7.1	27.3	63.8	27.0	179.5	62.1	78.7	67.1	62.9	62.8	72.3	230.3
11	2	Babcock (B-305)	3.0	4.4	0.1	2.5	8.2	25.4	63.8	26.8	169.0	74.4	85.4	78.9	74.2	72.1	80.9	250.7
12	2	NCRPB (CRB)	3.3	4.9	0.9	5.6	27.1	37.6	28.8	24.6	178.5	58.1	74.2	62.6	57.3	57.8	67.2	184.4
13	2	Hubbard (Gld. Com)	3.8	4.9	0.0	1.3	3.1	18.0	77.6	28.4	170.5	68.7	76.9	65.1	57.5	54.7	70.2	224.6
14	2	Shaver (*X-288)	3.3	4.6	0.0	0.7	4.7	30.1	64.4	27.0	175.0	69.2	89.1	79.1	72.9	70.7	82.1	265.6
15	2	Babcock (B-300)	3.1	4.4	0.1	2.4	8.6	28.7	60.3	26.8	165.5	74.6	86.2	76.7	65.8	61.5	78.7	223.0
16	2	Kimber (K-137)	2.9	4.5	0.2	2.2	12.8	36.1	48.6	25.9	176.0	66.5	78.4	70.6	65.9	65.0	74.4	219.4
17	2	Stone's (H-56-E)	2.8	4.8	0.0	2.4	10.5	30.0	57.1	26.6	169.0	69.9	79.4	70.3	65.7	65.6	74.4	218.1
18	2	Ind.Fm.Bu.(P-55)	2.8	4.3	0.0	1.4	8.3	27.6	62.6	26.8	178.0	62.1	81.1	67.1	62.8	61.4	72.8	217.7
19	2	Parks (Key. B-1)	3.3	4.6	0.1	1.2	6.9	27.1	64.7	26.9	173.5	67.6	85.1	79.9	71.7	68.5	80.1	242.3
20	2	Lawton (Buff SL)	4.3	5.7	0.1	1.8	6.8	24.5	66.8	27.5	176.0	63.3	75.7	62.3	56.3	55.2	68.1	206.4
02		AVE.	3.2	4.7	0.2	2.5	10.4	29.6	57.3	26.5	173.9	66.3	79.7	70.4	64.2	62.3	73.8	223.0

Table 11-4B-II - Birds, Mortality, Feed Use and Cost and Income Data

	Number of Birds			Mortality			Feed Consumed				Value per Pullet Housed						
Entry No. Type Housing	At One Week	Housed	At End of Test	% 8-150 Days	% 151-500 Days	Av. Days Lost/ Hens Housed	Per Bird 1-150 Days	Per 100 Birds (1 Day)	Per Lb. of Eggs	Per Doz. Eggs	Chick Price	Growing Feed Cost	Laying Feed Cost	Total Feed and Chick Cost	Value of Eggs	Value of Meat	IOFCC
1 2	114.	100.	82.	2.9	18.0	38.4	15.7	23.3	2.55	4.41	.42	0.66	3.08	4.17	6.00	.21	2.044
2 2	111.	100.	96.	3.6	4.0	7.7	16.3	23.8	2.55	4.03	.36	0.69	3.44	4.51	7.25	.25	2.991
3 2	97.	93.	80.	3.4	14.0	32.9	17.6	26.2	2.67	4.41	.33	0.74	3.52	4.61	6.84	.36	2.588
4 2	108.	100.	92.	3.7	8.0	15.8	17.8	24.6	2.66	4.34	.32	0.75	3.48	4.57	6.71	.38	2.526
5 2	114.	101.	78.	4.6	22.7	55.3	17.1	24.8	2.69	4.29	.34	0.73	3.10	4.18	6.15	.22	2.183
6 2	113.	99.	78.	10.5	21.3	56.8	16.5	24.2	2.28	3.70	.39	0.73	3.01	4.18	6.91	.21	2.944
7 2	110.	100.	88.	3.0	12.0	25.3	17.3	24.4	2.48	4.15	.36	0.72	3.35	4.45	6.94	.25	2.740
8 2	114.	100.	94.	4.0	6.0	15.8	19.6	25.5	2.58	4.41	.34	0.83	3.61	4.80	7.07	.43	2.703
9 2	80.	79.	61.	1.6	22.7	49.9	17.8	23.0	2.84	4.53	.30	0.75	2.93	3.97	5.29	.22	1.538
10 2	108.	100.	90.	0.6	10.0	10.8	16.8	24.5	2.57	4.34	.38	0.69	3.52	4.59	6.97	.26	2.639
11 2	110.	100.	90.	6.0	10.0	29.9	16.2	25.2	2.31	3.88	.32	0.70	3.42	4.46	7.51	.24	3.288
12 2	77.	72.	56.	7.1	22.8	58.1	17.3	24.9	3.08	4.74	.42	0.75	3.08	4.29	5.36	.23	1.302
13 2	116.	100.	90.	0.6	10.0	17.0	19.1	26.1	2.62	4.65	.35	0.79	3.67	4.81	6.83	.31	2.332
14 2	111.	100.	97.	1.8	3.0	8.2	17.4	26.2	2.40	4.05	.34	0.72	3.79	4.85	8.16	.27	3.583
15 2	113.	98.	77.	9.4	21.7	58.7	16.1	25.7	2.42	4.06	.32	0.73	3.17	4.26	6.71	.21	2.661
16 2	116.	101.	85.	6.3	15.8	38.4	16.3	24.2	2.54	4.12	.34	0.71	3.19	4.26	6.65	.23	2.620
17 2	104.	97.	82.	6.3	15.3	44.2	17.5	25.2	2.55	4.24	.30	0.75	3.26	4.33	6.60	.25	2.519
18 2	104.	96.	80.	8.1	16.5	32.0	14.0	23.4	2.44	4.10	.36	0.62	3.14	4.15	6.68	.22	2.748
19 2	95.	87.	77.	8.7	11.9	31.7	16.8	25.3	2.37	4.00	.35	0.75	3.41	4.55	7.35	.25	3.049
20 2	113.	97.	84.	8.9	13.6	31.3	20.8	26.3	2.85	4.88	.34	0.92	3.55	4.85	6.30	.40	1.854
0 2	106.	96.	83.	5.1	14.0	32.9	17.2	24.8	2.57	4.27	.35	0.74	3.34	4.44	6.71	.27	2.543

Table 11-4B-III - Egg Quality Data

Entry No.	Type Housing	% Loss (downgrades)	% Inclusion (Break-out)				Candled Quality Percentages					Haugh Units					Shell Score (specific gravity)				
			Large Bloods	Small Bloods	Large Meats	Small Meats	A or Better	B	C	Chex & Cracks	Loss Eggs	Sept.	Dec.	March	June	Average	Oct.	Jan.	April	July	Average
1	2	3.5	0.8	2.4	0.1	0.4	93.6	3.9	0.3	1.9	0.3	82.7	69.4	65.3	61.8	69.8	3.82	2.85	2.28	2.06	2.75
2	2	2.1	0.2	0.9	0.0	0.6	96.2	2.2	0.1	1.5	0.0	86.7	75.8	72.0	72.2	76.7	3.69	3.22	2.34	1.59	2.71
3	2	3.1	1.6	2.8	0.3	0.9	94.9	2.1	0.4	1.9	0.7	85.4	75.2	71.9	68.8	75.3	3.20	2.93	2.34	2.13	2.65
4	2	4.1	1.0	1.3	0.4	1.0	93.1	1.6	0.3	4.3	0.8	83.7	72.9	70.9	67.6	73.8	3.21	2.67	1.84	1.10	2.20
5	2	1.6	1.1	0.7	0.0	0.3	97.1	1.2	0.1	1.4	0.1	89.7	80.0	74.7	72.5	79.2	3.21	2.97	2.30	1.92	2.60
6	2	2.2	1.1	1.9	0.0	0.3	96.2	0.9	0.0	2.8	0.1	85.0	74.6	70.3	67.1	74.3	3.26	2.74	2.20	1.36	2.39
7	2	3.1	1.3	1.6	0.1	0.3	94.7	2.3	0.1	2.5	0.4	83.6	73.7	68.6	67.1	73.2	3.42	2.96	2.44	1.96	2.70
8	2	2.9	1.2	0.9	11.0	18.2	94.9	2.3	0.1	2.2	0.4	89.4	75.4	73.7	64.6	75.8	1.93	1.55	0.77	0.67	1.23
9	2	5.8	2.4	1.8	1.6	3.0	90.5	4.8	0.2	3.1	1.4	85.3	74.0	72.0	70.2	75.4	3.42	2.95	1.47	1.73	2.39
10	2	3.4	0.9	1.7	0.0	0.2	94.8	0.5	0.0	3.8	0.9	90.4	80.3	75.4	71.2	79.3	2.58	2.25	1.41	0.91	1.79
11	2	3.2	0.7	2.3	0.4	0.6	94.6	1.3	0.0	3.4	0.7	88.6	75.2	70.8	67.2	75.4	3.11	2.70	2.04	1.15	2.25
12	2	3.1	2.1	2.5	1.1	2.4	94.8	1.5	0.2	3.1	0.4	86.6	76.0	74.3	73.3	77.6	3.69	2.82	1.80	1.69	2.50
13	2	3.7	0.7	2.0	8.6	22.0	93.6	2.7	0.3	2.9	0.5	87.3	78.5	72.0	69.1	76.7	2.10	1.81	1.27	1.11	1.57
14	2	2.4	0.8	1.3	0.1	0.5	96.1	1.3	0.0	2.1	0.5	83.7	77.1	72.0	71.7	76.1	3.25	2.83	1.86	1.93	2.47
15	2	3.3	1.1	1.5	2.0	2.6	94.9	0.6	0.1	3.2	1.1	90.2	76.1	70.7	69.5	76.6	2.51	2.44	2.18	1.31	2.11
16	2	2.1	0.1	1.7	0.0	0.5	96.4	1.3	0.0	1.7	0.5	89.5	82.6	79.0	76.8	82.0	4.21	3.43	2.45	1.96	3.01
17	2	2.5	0.1	1.4	0.0	0.6	95.7	1.2	0.0	2.6	0.4	86.4	75.0	70.1	68.8	75.1	3.47	3.03	2.75	1.89	2.79
18	2	2.1	1.0	1.4	0.1	1.0	96.3	1.4	0.0	1.9	0.4	88.8	81.3	74.7	73.2	79.5	2.65	2.22	1.76	1.41	2.01
19	2	2.8	1.0	2.3	0.1	0.5	95.3	1.3	0.1	2.9	0.5	83.7	76.1	70.7	67.1	74.4	2.69	2.33	1.66	1.44	2.03
20	2	2.6	2.3	4.0	10.9	17.1	95.5	3.1	0.3	0.7	0.4	86.4	77.3	71.9	69.8	76.3	3.29	2.52	2.05	1.72	2.39
0	2	3.0	1.1	1.8	1.8	3.7	95.0	1.9	0.1	2.5	0.5	86.7	76.3	72.1	69.5	76.1	3.14	2.66	1.96	1.55	2.3

Table 11-4B-IV - Causes of Mortality

Entry No.	Type Housing	Marek's		Lymphoid Leukosis		Other Neop.		Internal Parasites	Reproductive Disorders	Kidney Disorders		Canni-balism		Misc.		No Visible Lesions		No Necropsy Report		Total	
		Gro.	Lay	Gro.	Lay	Gro.	Lay	Gro.	Lay	Gro.	Lay	Gro.	Lay	Gro.	Lay	Gro.	Lay	Gro.	Lay	Gro.	Lay
1	2	1.7	9.0	-	-			0.6	2.0	-	-			0.6	6.0	-		-	1.0	2.9	18.0
2	2	1.8	2.0	-	-			0.6	1.0		-			-	1.0	0.6		0.6	-	3.6	4.0
3	2	0.7	11.9	-	-				-		-			0.7	2.1	1.4		0.7	-	3.4	14.0
4	2	-	4.0	-	2.0				-		-	0.6		1.8	2.0	1.2		-	-	3.7	8.0
5	2	2.9	13.8	-	1.0				3.0		1.0		1.0	0.6	2.0	0.6	1.0	0.6	-	4.7	22.7
6	2	5.8	16.2	-	-			0.6	1.0		2.0			1.2	1.0	-		2.9	1.0	10.5	21.3
7	2	0.6	7.0	-	-				1.0		1.0			2.4	2.0	-		-	1.0	3.0	12.0
8	2	1.1	5.0	-	-				-		-			1.1	1.0	1.1		0.6	-	4.0	6.0
9	2	1.6	11.4	-	-				2.5		1.2		1.3	-	5.0	-		-	1.3	1.6	22.7
10	2	-	-	-	-	0.6			6.0		-			-	4.0	-		-	-	0.6	10.0
11	2	3.6	9.0	-	-				1.0		-			0.6	-	1.2		0.6	-	6.0	10.0
12	2	1.8	14.9	-	2.8				1.3		-			3.5	3.8	-		1.8	-	7.1	22.8
13	2	-	1.0	-	-		1.0		4.0		-			0.6	3.0	-		-	1.0	0.6	10.0
14	2	-	1.0	-	-				1.0		-			1.2	1.0	0.6		-	-	1.8	3.0
15	2	6.5	14.4	-	1.0				5.2		-			1.8	1.0	-		1.2	-	9.4	21.7
16	2	4.0	9.9	-	-	0.6			1.0		-			1.1	3.0	-	2.0	0.6	-	6.3	5.8
17	2	3.8	13.3	-	-				-		-			0.6	2.1	-		1.9	-	6.3	15.3
18	2	3.1	11.4	-	-	1.8			1.0		-			1.9	3.1	0.6		0.6	1.0	8.1	16.5
19	2	5.0	11.9	-	-				-		-			1.4	-	0.7		1.4	-	8.7	11.9
20	2	4.7	5.2	-	2.1				1.0		1.0			3.0	1.0	-		1.2	3.2	8.9	13.6
Av.	2	2.4	8.4	0.0	0.4	0.2	0.0	0.1	1.6		0.4	0.0	0.1	1.2	2.2	0.4	0.2	0.7	0.5	5.1	13.9

Table 11-4C-I - Bird Weight, Egg Size, Maturity and Production Data

Entry No.	Type Housing	Breeder	Avg. Body Weight 150 Days	Avg. Body Weight 500 Days	% Egg Size, Distribution Pee Wee	Small	Medium	Large	Extra Large and Over	Av. Egg Wt. oz./doz.	Age at 50% Production	Egg Production Rate 151-240 Days	241-330 Days	331-420 Days	421-500 Days	471-500 Days	After 50% Production	Eggs per Pullet Housed
1	3	Hy-Line (934)	2.9	4.0	0.0	1.2	4.7	19.3	74.8	28.3	178.0	54.6	69.5	64.3	57.5	57.4	65.4	191.3
2	3	Welp's (937)	2.8	4.0	0.3	3.8	13.8	36.4	45.6	25.9	169.7	67.3	71.1	62.5	52.9	51.3	66.0	201.0
3	3	Cashman (Hi-Cash)	3.3	5.0	0.1	1.6	7.6	28.6	62.0	26.8	179.5	58.0	74.8	69.7	60.8	61.9	70.6	221.1
4	3	Garber (GX-291)	3.6	5.2	0.3	2.5	8.2	27.2	61.8	27.0	169.7	64.3	73.5	65.8	55.5	56.9	67.7	212.4
5	3	Kimber (K-155)	3.1	4.5	0.3	3.7	12.8	34.5	48.7	26.1	167.7	66.9	72.4	68.6	62.0	63.8	70.2	200.3
6	3	Tatum (T-100)	3.1	4.3	0.3	3.1	6.5	27.1	63.0	27.2	167.7	68.4	77.7	72.2	65.0	65.0	73.2	188.6
7	3	Ideal (236)	3.1	4.8	0.1	1.6	6.1	21.9	70.3	27.7	174.0	61.4	76.3	72.2	64.1	64.4	72.3	217.9
8	3	Davis (RIR)	4.0	5.7	0.1	1.6	6.0	24.3	68.0	27.9	179.7	57.1	67.8	64.1	53.6	52.7	65.1	202.0
9	3	NCRPB (CxK RB)	3.1	4.5	0.1	3.4	12.8	31.4	52.4	26.9	180.2	50.2	64.7	56.3	49.2	47.8	59.6	164.9
10	3	Anthony	3.1	4.5	0.1	1.6	6.4	22.7	69.3	27.6	175.5	61.5	74.1	69.4	61.8	64.8	70.9	220.3
11	3	Babcock (B-305)	3.0	4.2	0.3	2.5	5.5	23.9	67.8	27.4	168.0	70.5	80.0	76.8	72.2	72.6	77.6	208.8
12	3	NCRPB (CRB)	3.2	4.7	0.5	3.3	21.4	37.9	36.9	25.9	181.7	52.1	71.1	63.9	56.6	57.7	65.5	180.3
13	3	Hubbard (Gld.Com)	3.7	5.2	0.1	1.3	3.4	18.4	76.8	28.8	173.2	63.5	67.8	60.1	50.9	50.7	63.9	200.8
14	3	Shaver (*X-288)	3.2	4.7	0.0	1.1	3.5	22.5	72.9	27.9	173.5	67.3	84.1	77.2	61.5	59.7	76.8	250.8
15	3	Babcock (B-300)	2.9	4.3	0.4	2.9	6.7	27.0	63.1	27.0	165.5	69.3	78.8	74.5	71.1	70.3	75.5	203.8
16	3	Kimber (K-137)	2.9	4.5	0.1	2.4	8.1	30.1	59.4	26.9	173.2	62.2	72.4	67.0	61.4	61.3	69.2	197.5
17	3	Stone's (H-56-E)	2.8	4.7	0.1	2.5	6.2	26.4	64.8	27.3	172.2	62.7	70.2	62.5	57.1	58.3	66.6	180.7
18	3	Ind.Fm.Bu.(P-55)	2.9	4.4	0.2	1.6	7.3	28.2	62.7	27.2	177.2	56.3	70.9	62.8	55.8	56.0	65.6	192.2
19	3	Parks (Key. B-1)	3.3	4.6	0.0	1.5	4.8	25.2	68.5	27.6	172.7	65.0	82.5	77.9	65.1	60.9	76.8	238.5
20	3	Lawton (Buff SL)	4.2	6.1	0.1	1.5	4.9	20.4	73.1	28.2	177.7	54.6	63.3	60.0	50.5	51.3	60.6	183.8
0	3	Average	3.2	4.7	0.2	2.2	7.8	26.7	63.1	27.3	173.9	61.7	73.1	67.4	59.2	59.2	69.0	202.8

Table 11-4C-II - Birds, Mortality, Feed Use and Cost and Income Data

		Number of Birds			Mortality			Feed Consumed					Value per Pullet Housed					
Entry No.	Type Housing	At One Week	Housed	At End of Test	% 8-150 Days	% 151-500 Days	Av. Days Lost/Hen Housed	Per Bird 1-150 Days	Per 100 Birds (1 day)	Per Lb. of Eggs	Per Doz. Eggs	Chick Price	Growing Feed Cost	Laying Feed Cost	Total Feed and Chick Cost	Value of Eggs	Value of Meat	IOFCC
1	3	118.	104.	89.	8.1	14.4	39.3	15.8	22.1	2.45	4.32	.42	0.70	2.91	4.07	5.73	.21	1.869
2	3	115.	104.	86.	6.3	17.3	34.8	16.1	22.0	2.57	4.16	.36	0.70	2.94	4.02	6.06	.20	2.243
3	3	102.	96.	89.	7.2	7.3	14.8	17.4	24.8	2.71	4.54	.33	0.76	3.52	4.65	6.62	.35	2.323
4	3	112.	104.	93.	3.6	10.6	23.9	18.4	24.4	2.67	4.51	.32	0.78	3.36	4.47	6.40	.37	2.304
5	3	117.	104.	76.	8.2	26.9	56.1	17.0	23.4	2.57	4.19	.34	0.75	2.92	4.04	5.94	.20	2.110
6	3	116.	92.	63.	18.6	31.7	83.3	16.5	23.0	2.31	3.92	.39	0.81	2.60	3.89	5.74	.18	2.026
7	3	115.	104.	88.	5.2	15.4	32.5	17.0	23.9	2.42	4.19	.36	0.72	3.21	4.32	6.60	.25	2.528
8	3	119.	104.	94.	3.5	9.6	18.5	19.9	23.8	2.70	4.71	.34	0.84	3.35	4.54	6.04	.41	1.911
9	3	80.	72.	57.	8.8	21.0	51.8	17.6	23.3	3.02	5.07	.30	0.79	2.94	4.07	4.90	.21	1.049
10	3	112.	104.	90.	3.3	13.5	20.5	17.1	23.9	2.50	4.30	.38	0.71	3.34	4.44	6.65	.24	2.453
11	3	116.	104.	75.	8.7	27.9	71.9	16.5	24.1	2.26	3.89	.32	0.73	2.84	3.92	6.22	.19	2.480
12	3	79.	66.	49.	15.6	26.2	54.4	16.7	23.4	2.86	4.62	.42	0.79	2.93	4.23	5.32	.21	1.306
13	3	120.	104.	88.	1.1	15.4	21.8	19.7	23.4	2.57	4.63	.35	0.82	3.26	4.43	6.07	.35	1.996
14	3	116.	104.	100.	2.3	3.8	5.8	17.5	23.9	2.26	3.94	.34	0.73	3.48	4.55	7.62	.27	3.343
15	3	117.	94.	70.	16.7	27.5	72.0	16.1	23.5	2.28	3.86	.32	0.79	2.76	3.96	6.17	.19	2.405
16	3	119.	104.	83.	10.3	20.2	51.6	16.8	23.1	2.52	4.23	.34	0.76	2.93	4.06	6.03	.22	2.186
17	3	106.	96.	71.	8.1	26.2	65.7	18.2	23.1	2.58	4.40	.30	0.80	2.79	3.92	5.50	.21	1.795
18	3	113.	104.	85.	8.5	18.3	38.2	14.7	22.3	2.56	4.36	.36	0.64	2.95	3.98	5.84	.22	2.081
19	3	94.	88.	78.	6.1	11.6	22.4	17.1	24.4	2.34	4.03	.35	0.74	3.39	4.50	7.30	.25	3.043
20	3	115.	102.	88.	6.8	14.1	29.8	20.7	24.8	2.96	5.21	.34	0.89	3.36	4.62	5.60	.42	1.401
0	3	110.	98.	81.	7.9	17.9	40.5	17.3	23.5	2.55	4.36	.35	0.76	3.09	4.23	6.12	.26	2.143

Table 11-4C-I - Bird Weight, Egg Size, Maturity and Production Data

Entry No.	Type Housing	Breeder	Avg. Body Weight 150 Days	Avg. Body Weight 500 Days	% Egg Size, Distribution Pee Wee	Small	Medium	Large	Extra Large and Over	Av. Egg Wt. oz./doz.	Age at 50% Production	Egg Production Rate 151-240 Days	241-330 Days	331-420 Days	421-500 Days	471-500 Days	After 50% Production	Eggs per Pullet Housed
1	3	Hy-Line (934)	2.9	4.0	0.0	1.2	4.7	19.3	74.8	28.3	178.0	54.6	69.5	64.3	57.5	57.4	65.4	191.3
2	3	Welp's (937)	2.8	4.0	0.3	3.8	13.8	36.4	45.6	25.9	169.7	67.3	71.1	62.5	52.9	51.3	66.0	201.0
3	3	Cashman (Hi-Cash)	3.3	5.0	0.1	1.6	7.6	28.6	62.0	26.8	179.5	58.0	74.8	69.7	60.8	61.9	70.6	221.1
4	3	Garber (GX-291)	3.6	5.2	0.3	2.5	8.2	27.2	61.8	27.0	169.7	64.3	73.5	65.8	55.5	56.9	67.7	212.4
5	3	Kimber (K-155)	3.1	4.5	0.3	3.7	12.8	34.5	48.7	26.1	167.7	66.9	72.4	68.6	62.0	63.8	70.2	200.3
6	3	Tatum (T-100)	3.1	4.3	0.3	3.1	6.5	27.1	63.0	27.2	167.7	68.4	77.7	72.2	65.0	65.0	73.2	188.6
7	3	Ideal (236)	3.1	4.8	0.1	1.6	6.1	21.9	70.3	27.7	174.0	61.4	76.3	72.2	64.1	64.4	72.3	217.9
8	3	Davis (RIR)	4.0	5.7	0.1	1.6	6.0	24.3	68.0	27.9	179.7	57.1	67.8	64.1	53.6	52.7	65.1	202.0
9	3	NCRPB (CxK RB)	3.1	4.5	0.1	3.4	12.8	31.4	52.4	26.9	180.2	50.2	64.7	56.3	49.2	47.8	59.6	164.9
10	3	Anthony	3.1	4.5	0.1	1.6	6.4	22.7	69.3	27.6	175.5	61.5	74.1	69.4	61.8	64.8	70.9	220.3
11	3	Babcock (B-305)	3.0	4.2	0.3	2.5	5.5	23.9	67.8	27.4	168.0	70.5	80.0	76.8	72.2	72.6	77.6	208.8
12	3	NCRPB (CRB)	3.2	4.7	0.5	3.3	21.4	37.9	36.9	25.9	181.7	52.1	71.1	63.9	56.6	57.7	65.5	180.3
13	3	Hubbard (Gld.Com)	3.7	5.2	0.1	1.3	3.4	18.4	76.8	28.8	173.2	63.5	67.8	60.1	50.9	50.7	63.9	200.8
14	3	Shaver (*X-288)	3.2	4.7	0.0	1.1	3.5	22.5	72.9	27.9	173.5	67.3	84.1	77.2	61.5	59.7	76.8	250.8
15	3	Babcock (B-300)	2.9	4.3	0.4	2.9	6.7	27.0	63.1	27.0	165.5	69.3	78.8	74.5	71.1	70.3	75.5	203.8
16	3	Kimber (K-137)	2.9	4.5	0.1	2.4	8.1	30.1	59.4	26.9	173.2	62.2	72.4	67.0	61.4	61.3	69.2	197.5
17	3	Stone's (H-56-E)	2.8	4.7	0.1	2.5	6.2	26.4	64.8	27.3	172.2	62.7	70.2	62.5	57.1	58.3	66.6	180.7
18	3	Ind.Fm.Bu.(P-55)	2.9	4.4	0.2	1.6	7.3	28.2	62.7	27.2	177.2	56.3	70.9	62.8	55.8	56.0	65.6	192.2
19	3	Parks (Key. B-1)	3.3	4.6	0.0	1.5	4.8	25.2	68.5	27.6	172.7	65.0	82.5	77.9	65.1	60.9	76.8	238.5
20	3	Lawton (Buff SL)	4.2	6.1	0.1	1.5	4.9	20.4	73.1	28.2	177.7	54.6	63.3	60.0	50.5	51.3	60.6	183.8
0	3	Average	3.2	4.7	0.2	2.2	7.8	26.7	63.1	27.3	173.9	61.7	73.1	67.4	59.2	59.2	69.0	202.8

Table 11-4C-II - Birds, Mortality, Feed Use and Cost and Income Data

		Number of Birds			Mortality			Feed Consumed					Value per Pullet Housed					
Entry No.	Type Housing	At One Week	Housed	At End of Test	% 8-150 Days	% 151-500 Days	Av. Days Lost/Hen Housed	Per Bird 1-150 Days	Per 100 Birds (1 day)	Per Lb. of Eggs	Per Doz. Eggs	Chick Price	Growing Feed Cost	Laying Feed Cost	Total Feed and Chick Cost	Value of Eggs	Value of Meat	IOFCC
1	3	118.	104.	89.	8.1	14.4	39.3	15.8	22.1	2.45	4.32	.42	0.70	2.91	4.07	5.73	.21	1.869
2	3	115.	104.	86.	6.3	17.3	34.8	16.1	22.0	2.57	4.16	.36	0.70	2.94	4.02	6.06	.20	2.243
3	3	102.	96.	89.	7.2	7.3	14.8	17.4	24.8	2.71	4.54	.33	0.76	3.52	4.65	6.62	.35	2.323
4	3	112.	104.	93.	3.6	10.6	23.9	18.4	24.4	2.67	4.51	.32	0.78	3.36	4.47	6.40	.37	2.304
5	3	117.	104.	76.	8.2	26.9	56.1	17.0	23.4	2.57	4.19	.34	0.75	2.92	4.04	5.94	.20	2.110
6	3	116.	92.	63.	18.6	31.7	83.3	16.5	23.0	2.31	3.92	.39	0.81	2.60	3.89	5.74	.18	2.026
7	3	115.	104.	88.	5.2	15.4	32.5	17.0	23.9	2.42	4.19	.36	0.72	3.21	4.32	6.60	.25	2.528
8	3	119.	104.	94.	3.5	9.6	18.5	19.9	23.8	2.70	4.71	.34	0.84	3.35	4.54	6.04	.41	1.911
9	3	80.	72.	57.	8.8	21.0	51.8	17.6	23.3	3.02	5.07	.30	0.79	2.94	4.07	4.90	.21	1.049
10	3	112.	104.	90.	3.3	13.5	20.5	17.1	23.9	2.50	4.30	.38	0.71	3.34	4.44	6.65	.24	2.453
11	3	116.	104.	75.	8.7	27.9	71.9	16.5	24.1	2.26	3.89	.32	0.73	2.84	3.92	6.22	.19	2.480
12	3	79.	66.	49.	15.6	26.2	54.4	16.7	23.4	2.86	4.62	.42	0.79	2.93	4.23	5.32	.21	1.306
13	3	120.	104.	88.	1.1	15.4	21.8	19.7	23.4	2.57	4.63	.35	0.82	3.26	4.43	6.07	.35	1.996
14	3	116.	104.	100.	2.3	3.8	5.8	17.5	23.9	2.26	3.94	.34	0.73	3.48	4.55	7.62	.27	3.343
15	3	117.	94.	70.	16.7	27.5	72.0	16.1	23.5	2.28	3.86	.32	0.79	2.76	3.96	6.17	.19	2.405
16	3	119.	104.	83.	10.3	20.2	51.6	16.8	23.1	2.52	4.23	.34	0.76	2.93	4.06	6.03	.22	2.186
17	3	106.	96.	71.	8.1	26.2	65.7	18.2	23.1	2.58	4.40	.30	0.80	2.79	3.92	5.50	.21	1.795
18	3	113.	104.	85.	8.5	18.3	38.2	14.7	22.3	2.56	4.36	.36	0.64	2.95	3.98	5.84	.22	2.081
19	3	94.	88.	78.	6.1	11.6	22.4	17.1	24.4	2.34	4.03	.35	0.74	3.39	4.50	7.30	.25	3.043
20	3	115.	102.	88.	6.8	14.1	29.8	20.7	24.8	2.96	5.21	.34	0.89	3.36	4.62	5.60	.42	1.401
0	3	110.	98.	81.	7.9	17.9	40.5	17.3	23.5	2.55	4.36	.35	0.76	3.09	4.23	6.12	.26	2.143

Table 11-4C-III - Egg Quality Data

Entry No.	Type Housing	% Loss (Downgrades)	% Inclusion (Breakout)				Candled Quality Percentages					Haugh Units					Shell Score (specific gravity)				
			Large Bloods	Small Bloods	Large Meats	Small Meats	A or Better	B	C	Chex & Cracks	Loss Eggs	Sept.	Dec.	Mar.	June	Average	October	January	April	July	Average
1	3	4.5	1.8	1.4	0.0	0.3	92.4	4.0	1.0	1.8	0.9	80.4	71.6	69.9	64.3	71.5	4.33	3.60	2.76	1.71	3.10
2	3	2.1	2.2	1.8	0.1	0.4	96.2	1.9	0.1	1.3	0.5	82.0	81.1	75.7	71.4	77.5	4.34	3.61	2.44	1.57	2.99
3	3	3.9	3.0	2.4	0.3	0.6	94.1	1.5	0.3	2.5	1.6	82.4	79.7	75.9	70.8	77.2	4.11	3.67	2.68	1.40	2.97
4	3	3.1	1.4	1.8	0.4	0.3	95.1	1.1	0.0	2.8	1.0	84.3	78.5	74.8	68.7	76.6	4.26	3.33	2.45	1.13	2.80
5	3	3.3	1.1	0.9	0.2	0.3	94.4	2.5	0.2	2.0	0.8	86.6	82.6	79.3	76.5	81.2	4.50	3.35	2.73	1.54	3.03
6	3	2.2	2.0	1.6	0.0	0.3	96.1	1.1	0.2	2.4	0.2	81.1	77.7	73.8	67.4	75.0	4.74	3.41	2.19	1.10	2.86
7	3	3.2	0.7	1.9	0.0	0.3	94.7	1.5	0.0	3.4	0.4	83.5	76.9	74.0	64.0	74.6	4.29	3.28	2.17	1.29	2.76
8	3	4.3	1.0	2.6	8.3	20.8	92.8	1.7	0.1	4.2	1.1	85.9	79.1	74.0	70.0	77.3	2.99	2.23	1.36	0.76	1.83
9	3	4.1	1.1	2.7	0.5	0.7	92.3	4.9	0.0	2.3	0.5	83.0	78.5	74.9	70.4	76.7	4.22	2.56	2.17	1.61	2.64
10	3	3.7	1.1	1.2	0.1	0.3	94.0	0.6	0.1	4.4	0.8	84.2	81.0	80.0	72.4	79.4	3.68	2.96	2.06	1.23	2.48
11	3	4.1	1.2	2.0	0.5	0.8	93.2	2.4	0.2	3.2	1.1	81.0	74.8	74.0	67.5	74.3	4.00	3.27	2.28	1.16	2.68
12	3	3.3	1.6	3.1	0.2	0.3	95.1	1.0	0.8	2.0	1.2	83.4	78.8	77.1	73.5	78.2	4.32	3.29	2.35	1.22	2.80
13	3	4.4	0.8	3.1	10.8	22.8	92.7	2.5	0.0	3.8	0.9	86.7	80.7	79.9	74.0	80.3	2.88	2.38	1.10	0.57	1.73
14	3	3.4	1.4	2.0	0.2	0.4	94.6	0.8	0.3	3.5	0.8	83.3	79.3	76.4	71.5	77.6	4.16	3.44	2.48	1.51	2.90
15	3	2.1	1.1	1.2	0.2	0.7	96.3	1.0	0.1	2.5	0.1	81.5	76.0	75.7	69.2	75.6	4.44	3.50	2.07	1.10	2.78
16	3	2.0	1.4	1.6	0.4	0.5	96.7	1.5	0.1	1.3	0.4	88.4	86.6	82.8	77.0	83.7	4.99	4.06	3.01	1.42	3.37
17	3	2.8	0.4	1.3	0.2	0.3	95.0	2.4	0.2	2.0	0.4	84.6	79.5	77.1	70.9	78.0	4.19	2.99	2.38	1.53	2.78
18	3	3.0	1.3	2.7	0.3	0.2	95.2	1.5	0.0	2.5	0.8	88.3	85.1	79.0	75.6	82.0	3.80	2.83	1.95	1.07	2.41
19	3	2.1	0.7	1.3	0.0	0.4	96.3	1.3	0.1	1.6	0.6	83.4	79.9	76.0	71.2	77.6	3.93	3.18	2.35	1.45	2.73
20	3	2.9	1.4	3.1	12.2	22.9	94.8	2.5	0.2	1.9	0.6	85.6	79.6	76.2	72.1	78.4	4.11	3.44	2.19	1.34	2.77
0	3	3.2	1.3	2.0	1.7	3.7	94.6	1.9	0.2	2.6	0.7	84.0	79.4	76.3	70.9	77.6	4.11	3.22	2.26	1.29	2.72

Table 11-4C-IV - Causes of Mortality

Entry No.	Type Housing	Marek's	Lymphoid Leukosis	Other Neop.	Reproductive Disorders	Kidney Disorders	Canni-balism	Misc.	No Visible Lesions	No Necropsy Report	Total
		Lay	Lay	Lay	Lay	Lay	Lay	Lay	Lay	Lay	Lay
1	3	13.5	-	-	-	1.0	-	-	-	-	14.4
2	3	8.6	1.9	-	2.9	1.0	-	2.9	-	-	17.3
3	3	6.3	1.0	-	-	-	-	-	-	-	7.3
4	3	6.7	-	-	1.9	-	-	1.0	-	1.0	10.6
5	3	14.4	1.0	-	4.8	-	-	5.8	1.0	-	26.9
6	3	24.3	1.0	-	1.0	-	-	2.0	1.2	2.1	31.7
7	3	12.5	-	-	1.0	-	-	1.9	-	-	15.4
8	3	5.8	1.0	-	-	-	-	1.0	-	1.9	9.6
9	3	11.4	-	-	1.4	1.2	-	5.4	1.6	-	21.0
10	3	4.7	1.0	-	1.9	1.0	-	2.9	1.0	1.0	13.5
11	3	22.1	1.0	-	1.9	-	-	2.9	-	-	27.9
12	3	19.1	-	-	1.2	-	-	4.6	-	1.2	26.2
13	3	6.7	1.0	-	2.9	-	-	2.9	1.0	1.0	15.4
14	3	-	1.0	-	1.0	-	-	1.0	-	1.0	3.8
15	3	25.1	-	-	1.0	-	-	1.4	-	-	27.5
16	3	12.5	-	-	4.8	-	-	2.9	-	-	20.2
17	3	17.9	2.2	-	2.0	-	1.0	2.1	1.0	-	26.2
18	3	13.5	1.9	-	1.0	-	1.0	1.0	-	-	18.3
19	3	5.9	-	-	1.0	1.2	-	2.3	1.1	-	11.6
20	3	10.1	-	-	-	1.0	-	-	1.9	1.0	14.1
Av.	3	12.1	0.8	0.0	1.6	0.3	0.1	2.2	0.5	0.5	17.9

Table 11-4D-I - Bird weight, Egg Size, Maturity and Production Data

Entry No.	Type Housing	Breeder	Avg. Body Weight 150 Days	Avg. Body Weight 500 Days	% Egg Size Distribution Pee Wee	Small	Medium	Large	Extra Large and Over	Av. Egg Wt. oz./doz.	Age at 50% Production	Egg Production Rate 151-240 Days	241-330 Days	331-420 Days	421-500 Days	471-500 Days	After 50% Production	Eggs Per Pullet Housed
1	0	Hy-Line (934)	2.9	4.1	0.0	1.2	4.8	19.9	74.2	28.2	182.5	53.5	71.9	64.7	58.0	56.0	66.7	184.8
2	0	Welp's (937)	2.8	4.1	0.3	4.2	15.8	35.2	44.4	25.5	168.6	68.3	72.9	63.3	56.5	54.6	67.7	208.8
3	0	Cashman (Hi-Cash)	3.3	5.0	0.2	1.6	8.3	28.1	61.9	26.8	184.2	55.2	77.5	69.8	61.9	60.2	71.4	214.2
4	0	Garber (GX-291)	3.7	5.2	0.4	3.4	11.3	28.2	56.7	26.4	168.4	66.5	73.8	65.8	57.0	56.6	68.3	215.7
5	0	Kimber (K-155)	3.1	4.6	0.4	3.7	13.2	34.1	48.7	25.9	171.1	66.2	75.2	69.4	64.1	63.4	71.8	201.6
6	0	Tatum (T-100)	3.0	4.3	0.3	3.8	8.7	28.9	58.3	26.6	164.1	71.7	81.9	76.0	69.0	67.9	76.5	206.3
7	0	Ideal (236)	3.1	4.7	0.1	1.7	6.8	25.3	66.2	27.3	178.3	59.1	75.2	69.0	64.1	63.9	71.0	207.5
8	0	Davis (RIR)	4.1	5.7	0.1	1.1	5.5	23.7	69.6	27.7	182.6	56.0	72.8	66.5	57.9	55.0	68.2	211.7
9	0	NCRPB (CxK RB)	3.1	4.5	0.3	3.2	15.2	35.2	46.2	26.2	183.1	51.2	69.0	61.5	56.2	54.7	64.1	172.3
10	0	Anthony	3.1	4.5	0.1	1.6	6.2	23.8	68.3	27.4	178.5	60.5	76.3	67.8	62.4	63.4	71.2	216.1
11	0	Babcock (B-305)	3.0	4.3	0.3	2.6	6.9	24.2	66.1	27.2	166.3	71.0	81.9	77.4	71.0	69.4	77.7	215.5
12	0	NCRPB (CRB)	3.3	4.9	0.6	3.9	21.6	37.8	36.1	25.5	184.7	49.8	71.2	63.7	57.5	57.7	65.5	164.6
13	0	Hubbard (Gld.Com)	3.8	5.0	0.1	1.2	3.3	17.8	77.6	28.6	174.1	62.3	71.2	60.9	52.6	50.6	65.8	193.0
14	0	Shaver (*X-288)	3.2	4.7	0.1	0.9	3.6	24.5	70.9	27.6	175.8	66.6	86.0	77.7	68.4	66.3	79.1	251.8
15	0	Babcock (B-300)	3.0	4.3	0.3	3.0	8.0	27.5	61.3	26.8	164.5	71.6	80.6	75.8	70.5	68.6	76.7	211.4
16	0	Kimber (K-137)	3.0	4.4	0.1	2.2	9.6	31.7	56.3	26.5	175.1	62.3	74.5	68.0	64.1	62.1	70.9	202.1
17	0	Stone's (H-56-E)	2.9	4.8	0.1	2.5	7.7	26.8	63.0	27.1	170.7	65.2	72.2	65.5	60.7	61.1	69.0	198.1
18	0	Ind.Fm.Bu.(P-55)	2.9	4.3	0.1	1.4	6.9	27.9	63.7	27.1	181.2	56.7	75.9	66.2	59.6	58.9	69.4	202.4
19	0	Parks (Key. B-1)	3.3	4.7	0.1	1.4	5.6	25.3	67.7	27.4	173.1	66.1	83.5	76.8	68.0	64.6	77.7	239.7
20	0	Lawton (Buff SL)	4.2	5.9	0.1	1.5	5.2	20.7	72.5	28.0	180.4	55.6	69.2	61.3	55.2	54.2	64.3	194.6
0	0	Average	3.2	4.7	0.2	2.3	8.7	27.3	61.5	27.0	175.4	61.8	75.6	68.4	61.7	60.5	70.6	205.6

Table 11-4D-II - Birds, Mortality, Feed Use and Cost and Income Data

		Number of Birds			Mortality			Feed Consumed					Value per Pullet Housed					
Entry No.	Type Housing	At One Week	Housed	At End of Test	% 8-150 Days	% 151-500 Days	Av. Days Lost/Hen Housed	Per Bird 1-150 Days	Per 100 Birds (1 day)	Per Lb. of Eggs	Per Doz. Eggs	Chick Price	Growing Feed Cost	Laying Feed Cost	Total Feed and Chick Cost	Value of Eggs	Value of Meat	IOFCC
1	0	344.	301.	242.	8.1	19.8	51.2	15.8	23.0	2.54	4.48	.42	0.70	2.91	4.07	5.57	.20	1.701
2	0	339.	306.	260.	6.3	14.9	33.3	16.1	23.0	2.65	4.24	.36	0.70	3.09	4.17	6.22	.21	2.262
3	0	301.	278.	247.	7.2	11.4	26.9	17.4	25.5	2.79	4.68	.33	0.76	3.49	4.61	6.42	.32	2.130
4	0	326.	304.	266.	3.6	12.5	24.1	18.4	24.5	2.70	4.47	.32	0.78	3.38	4.49	6.36	.35	2.223
5	0	343.	304.	228.	8.2	25.0	57.6	17.0	24.2	2.61	4.23	.34	0.75	2.99	4.11	6.02	.21	2.123
6	0	344.	275.	202.	18.6	26.9	74.1	16.5	24.0	2.33	3.88	.39	0.81	2.80	4.10	6.17	.19	2.266
7	0	338.	305.	248.	5.2	18.7	40.6	17.0	24.0	2.54	4.33	.36	0.72	3.14	4.25	6.25	.23	2.241
8	0	347.	304.	281.	3.5	7.5	16.2	19.9	25.0	2.74	4.76	.34	0.84	3.53	4.72	6.31	.42	2.011
9	0	236.	214.	164.	8.8	23.6	59.4	17.6	23.3	2.88	4.72	.30	0.79	2.86	3.98	5.05	.21	1.276
10	0	327.	302.	255.	3.3	15.7	27.0	17.1	24.3	2.55	4.37	.38	0.71	3.32	4.42	6.46	.23	2.277
11	0	335.	300.	227.	8.7	24.5	65.2	16.5	24.8	2.34	3.97	.32	0.73	3.00	4.08	6.37	.20	2.487
12	0	236.	199.	140.	15.6	30.4	77.7	16.7	24.3	3.05	4.86	.42	0.79	2.80	4.10	4.83	.21	0.951
13	0	352.	304.	228.	1.1	25.1	41.9	19.7	24.8	2.69	4.80	.35	0.82	3.24	4.41	5.82	.28	1.692
14.	0	341.	304.	285.	2.3	6.3	13.5	17.5	25.4	2.36	4.08	.34	0.73	3.61	4.68	7.66	.27	3.242
15	0	342.	275.	209.	16.7	25.6	67.3	16.1	24.9	2.39	4.02	.32	0.79	2.98	4.18	6.33	.20	2.349
16	0	344.	298.	236.	10.3	20.9	49.9	16.8	24.1	2.60	4.32	.34	0.76	3.06	4.19	6.12	.21	2.139
17	0	316.	289.	227.	8.1	21.5	50.4	18.2	24.4	2.63	4.45	.30	0.80	3.09	4.22	5.97	.23	1.984
18	0	326.	298.	244.	8.5	18.1	37.5	14.7	23.0	2.53	4.28	.36	0.64	3.04	4.07	6.17	.22	2.308
19	0	282.	265.	236.	6.1	11.2	24.7	17.1	25.2	2.41	4.11	.35	0.74	3.47	4.59	7.19	.25	2.856
20	0	341.	299.	259.	6.8	13.6	28.3	20.7	26.0	2.95	5.17	.34	0.89	3.54	4.79	5.86	.41	1.474
0	0	323.	286.	234.	7.9	18.7	43.3	17.3	24.4	2.61	4.41	.35	0.76	3.17	4.31	6.16	.25	2.100

Table 11-4D-III - Egg Quality Data

Entry No.	Type Housing	%Loss (down-grades)	% Inclusion (Break-out)				Candled Quality Percentages					Haugh Units					Shell Score (specific gravity)				
			Large Bloods	Small Bloods	Large Meats	Small Meats	A or Better	B	C	Chex & Cracks	Loss Eggs	Sept.	Dec.	Mar.	June	Average	October	January	April	July	Average
1	0	4.1	1.0	1.5	0.2	0.6	92.8	3.1	0.5	3.2	0.4	80.6	69.2	67.7	62.9	70.1	3.95	3.10	2.51	1.83	2.85
2	0	2.8	1.3	1.7	0.1	0.8	95.1	2.1	0.1	2.3	0.4	83.6	77.4	73.4	71.2	76.4	3.79	3.38	2.40	1.77	2.83
3	0	3.8	1.8	2.8	0.2	1.0	93.6	1.8	0.2	3.5	0.8	83.3	76.8	73.6	70.9	76.2	3.64	3.34	2.30	1.83	2.78
4	0	4.3	0.9	1.4	0.3	0.8	92.9	1.4	0.1	4.7	1.0	84.2	75.4	73.0	68.4	75.2	3.39	2.98	2.02	1.09	2.37
5	0	2.7	1.0	1.1	0.1	0.7	95.3	1.5	0.2	2.6	0.4	88.5	80.8	76.8	75.2	80.3	3.77	3.28	2.54	1.66	2.81
6	0	3.0	1.4	1.6	0.0	0.4	94.9	1.2	0.1	3.6	0.3	82.7	75.1	72.1	68.5	74.6	3.72	3.13	2.18	1.37	2.60
7	0	3.6	0.9	1.5	0.1	0.6	93.7	2.0	0.0	3.9	0.4	83.2	74.7	70.9	66.7	73.9	3.74	3.18	2.27	1.60	2.70
8	0	4.9	1.3	1.7	9.3	18.8	91.8	2.2	0.1	4.7	1.2	88.1	76.2	74.6	69.0	77.0	2.42	1.94	1.07	0.80	1.56
9	0	4.9	1.9	2.1	0.7	1.5	92.0	3.6	0.2	3.2	1.1	84.7	76.1	72.7	70.7	76.0	3.77	2.77	1.90	1.73	2.54
10	0	4.6	0.9	1.3	0.0	0.4	92.4	0.9	0.0	5.7	0.9	86.5	79.8	77.1	74.0	79.3	2.86	2.58	1.69	1.13	2.06
11	0	4.8	0.9	1.8	0.3	0.7	91.8	1.7	0.1	5.7	0.7	84.2	74.0	72.1	68.1	74.6	3.43	3.00	2.13	1.11	2.42
12	0	3.3	1.7	2.7	0.6	1.1	94.7	1.3	0.3	3.1	0.5	85.1	77.3	74.8	72.6	77.5	3.88	3.28	1.99	1.45	2.65
13	0	5.1	0.7	2.5	9.1	21.6	91.6	2.8	0.1	4.2	1.3	87.2	78.7	75.2	71.3	78.1	2.33	2.09	1.26	0.81	1.62
14	0	3.4	1.1	1.9	0.2	0.9	94.5	1.1	0.1	3.6	0.7	83.9	77.2	74.4	71.3	76.7	3.49	3.24	2.09	1.69	2.63
15	0	3.3	1.3	1.4	0.8	1.6	94.6	0.7	0.1	3.9	0.7	84.9	74.7	72.2	69.0	75.2	3.31	2.85	1.97	1.09	2.30
16	0	2.6	0.9	1.6	0.3	0.7	95.5	1.5	0.0	2.5	0.4	89.5	83.3	80.7	77.5	82.7	4.27	3.73	2.72	1.91	3.16
17	0	3.1	0.5	1.2	0.1	0.6	94.7	2.0	0.2	2.5	0.6	85.6	76.9	74.6	70.3	76.8	3.69	3.20	2.42	1.73	2.76
18	0	2.9	0.9	2.1	0.2	0.8	95.1	1.1	0.0	3.3	0.5	88.6	82.7	77.2	75.7	81.0	3.05	2.49	1.66	1.28	2.12
19	0	4.1	0.8	1.8	0.1	0.8	93.2	1.3	0.1	4.6	0.8	83.7	76.8	73.5	70.3	76.1	3.16	2.85	1.95	1.46	2.35
20	0	4.1	2.0	3.3	11.0	20.0	93.3	2.7	0.2	2.7	1.1	86.2	78.3	73.5	71.1	77.3	3.48	3.00	2.06	1.54	2.52
0	C	3.8	1.2	1.8	1.7	3.7	93.7	1.8	0.1	3.7	0.7	85.2	77.1	74.0	70.7	76.8	3.46	2.97	2.06	1.45	2.48

Table 11-4D-IV - Causes of Mortality

Entry No.	Type Housing	Marek's		Lymphoid Leukosis		Other Neop.		Internal Parasites	Reproductive Disorders	Kidney Disorders		Canni-balism		Misc.		No Visible Lesions		No Necropsy Report		Total	
		Gro.	Lay	Gro.	Lay	Gro.	Lay	Gro.	Lay	Gro.	Lay	Gro.	Lay	Gro.	Lay	Gro.	Lay	Gro.	Lay	Gro.	Lay
1	0	5.8	15.1	-	-	-	-	0.3	0.7	-	0.3	-	-	1.2	3.4	0.3	-	0.6	0.3	8.1	19.8
2	0	3.7	7.8	-	1.0	-	-	0.3	3.6	0.3	0.3	0.3	-	1.1	1.9	0.3	-	0.3	0.3	6.3	14.9
3	0	3.9	10.0	-	0.3	-	-	-	-	-	-	-	-	1.0	0.7	0.7	-	1.6	0.3	7.2	11.4
4	0	1.5	7.9	-	1.0	-	-	-	1.0	-	0.3	0.3	-	1.2	1.7	0.6	-	-	0.7	3.6	12.5
5	0	5.3	15.8	-	0.6	-	-	-	4.3	-	0.3	-	0.3	1.8	2.6	0.3	0.7	0.9	0.4	8.2	25.0
6	0	13.7	21.5	-	0.3	-	0.4	0.3	0.7	-	1.0	-	-	2.3	1.0	-	0.4	2.3	1.5	18.6	26.9
7	0	1.2	11.8	-	-	-	0.3	0.3	1.0	-	0.7	-	-	1.8	3.3	0.3	-	1.8	1.7	5.2	18.7
8	0	1.2	5.3	-	0.3	-	-	-	-	-	-	-	-	0.9	0.7	0.9	0.3	0.6	1.0	3.5	7.5
9	0	5.4	13.8	-	-	0.4	-	-	2.4	-	0.8	-	1.0	0.8	3.5	0.8	1.1	1.3	1.0	8.8	23.6
10	0	0.6	2.6	-	0.3	0.3	-	-	7.8	-	0.7	-	1.0	0.9	2.6	0.3	0.3	1.2	0.3	3.4	15.7
11	0	5.7	19.5	-	0.3	-	-	-	2.7	-	-	0.3	-	0.9	1.6	0.6	-	1.2	0.4	8.7	24.5
12	0	10.5	24.3	-	0.9	-	-	-	2.0	-	-	-	-	3.0	2.8	0.4	-	1.7	0.4	15.6	30.4
13	0	0.6	5.9	-	0.3	-	0.7	-	12.3	-	0.3	-	1.7	0.3	3.0	-	0.3	0.3	0.7	1.1	25.1
14	0	1.5	1.3	-	0.3	-	-	-	3.0	-	-	-	-	0.6	1.3	0.3	-	-	0.3	2.3	6.3
15	0	11.4	20.4	-	0.3	-	-	-	2.9	-	-	0.3	-	3.2	2.0	0.6	-	1.2	-	16.7	25.6
16	0	7.9	12.5	-	0.4	0.3	0.4	-	3.7	-	-	0.3	-	1.2	2.3	-	0.7	0.6	1.1	10.3	20.9
17	0	5.3	13.9	-	1.4	-	-	0.3	2.0	0.3	-	0.3	0.3	0.9	2.4	-	0.3	1.0	1.1	8.1	21.5
18	0	3.9	11.7	-	1.3	0.9	-	-	1.4	-	0.7	-	0.3	2.8	1.7	0.6	0.3	0.3	0.7	8.5	18.1
19	0	4.3	8.2	-	-	-	-	-	0.7	-	0.4	-	-	0.7	1.5	0.4	0.4	0.7	-	6.1	11.1
20	0	3.8	7.4	-	0.7	-	-	-	1.0	-	0.7	-	-	1.8	1.0	-	0.6	1.2	2.1	6.7	13.6
Av.	0	4.9	11.8	0.0	0.5	0.1	0.1	0.1	2.7	0.0	0.3	0.1	0.2	1.4	2.0	0.4	0.3	0.9	0.7	7.9	18.6

Table 11-4D-V - Duncan Range Test and Range Groups

Range	Entry	Eggs Per Pullet Housed	Duncan Test
1	14	251.8	
1	19	239.7	
2	10	216.1	
2	4	215.7	
2	11	215.5	
2	3	214.2	
2	8	211.7	
2	15	211.4	
2	2	208.8	
2	7	207.5	
2	6	206.3	
3	18	202.4	
3	16	202.1	
3	5	201.6	
3	17	198.1	
3	20	194.6	
3	13	193.0	
4	1	184.8	
4	9	172.3	
4	12	164.6	
Av.		205.6	

Range	Entry	% Prod. After 50%	Duncan Test
1	14	79.1	
1	19	77.7	
1	11	77.7	
1	15	76.7	
1	6	76.5	
2	5	71.8	
2	3	71.4	
2	10	71.2	
2	7	71.0	
2	16	70.9	
3	18	69.4	
3	17	69.0	
3	4	68.3	
3	8	68.2	
3	2	67.7	
4	1	66.7	
4	13	65.8	
4	12	65.5	
4	20	64.3	
4	9	64.1	
		70.6	

Range	Entry	Feed Per Lb. Eggs	Duncan Test
1	6	2.33	
1	11	2.34	
1	14	2.36	
1	15	2.39	
1	19	2.41	
2	18	2.53	
2	7	2.54	
2	1	2.54	
2	10	2.55	
2	16	2.60	
3	5	2.61	
3	17	2.63	
3	2	2.65	
3	13	2.69	
3	4	2.70	
3	8	2.74	
3	3	2.79	
4	9	2.88	
4	20	2.95	
4	12	3.05	
		2.61	

Range	Entry	Days Lost to Mortality	Duncan Test
1	14	13.5	
1	8	16.2	
1	4	24.1	
1	19	24.7	
1	3	26.9	
1	10	27.0	
1	20	28.3	
2	2	33.3	
2	18	37.5	
2	7	40.6	
2	13	41.9	
3	16	49.9	
3	17	50.4	
3	1	51.2	
3	5	57.6	
3	9	59.4	
4	11	65.2	
4	15	67.3	
4	6	74.1	
4	12	77.7	
		43.3	

Breeder	Stock Identification	# Birds & List	Sampling Procedure*	Source of Sample
Geo.M.Anthony & Sons Plty.Fm. Strausstown, Pa. 19559	Anthony W.Leg WL SX	20,000 Yes	B	Geo. M. Anthony & Sons Plty. Fm. Strausstown, Pa. 19559
Babcock Poultry Farm, Inc. P.O.Box 280, Ithaca, N.Y.14850	Babcock B-300 WL 4wIN	8,000 Yes	A	Beamsdale Farm Lawndale, N. C. 28090
Babcock Poultry Farm, Inc. P.O.Box 280,Ithaca,N.Y. 14850	Babcock B-305 WL 4wIN	11,000 Yes	A	Hodges Plty. Fm. & Hatchery Callahan, Fl 32011
Cashman Leghorn Farms Webster, Ky. 40176	Cashman Hi-Cash WL IN	3,200 Yes	A	Cashman Leghorn Farms Webster, Ky. 40176
Joe K. Davis Hatchery Box 27, Earl, N.C. 28038	Davis Reds RIR 3wX	8,000 Yes	A	Joe K. Davis Hatchery Box 27, Earl, N. C. 28038
Garber Plty.Br.Fm., 4255 Hammet Rd., Modesto, Ca. 95351	Garber GX-291 CGxWL BX	10,000 Yes	B	Garber Poultry Breeding Farm Modesto, Ca. 95351
Hubbard Farms, Inc. Walpole, N.H. 03608	Hubbard Golden Comet NHxSyn BX	4,000 Yes	A	Hubbard Farms, Inc. Statesville, N. C. 28677
Hy-Line Plty.Fms., 1206 Mulberry, Des Moines, Io. 50309	Hy-Line 934 4wX INX	15,000 Yes	B	Wallace Hty.,Inc.,Box 20004 St. Petersburg, Fa. 33702
Ideal Plty.Br.Fms.,Inc., Box 591, Cameron, Tx. 76520	Ideal 236 SynxWL 4wBX	12,000 Yes	B	Ideal Poultry Breeding Farm,Inc Box 591, Cameron, Texas 76520
Ind.Fm.Bu.Coop.Assn.,Inc. Indianapolis, In. 46204	Princess 55 WL SX	3,000 Yes	B	Co-op Breeding & Research Farm R#2, Lafayette, In. 47901
Kimber Farms, Inc., Box 2008 Fremont, Ca. 99536	Kimber K-137 WL SX	23,158 Yes	C	Nichols Plty. Fm.,Inc., R#2 Jefferson City, Tn. 37760
Kimber Farms, Inc., Box 2008 Fremont, Ca. 94536	Kimber K-155 WL SX	9,300 Yes	C	Nichols Plty. Fm., Inc., R#2 Jefferson City, Tn. 37760
A. C. Lawton & Sons, 70 N St. Foxboro, Ma. 02035	Lawton's Buff Sx.Lk RIRxWPR BX	3,000 Yes	B	A. C. Lawton & Sons Foxboro, Ma. 02035
North Central Plty. Br. Lab. Lafayette, In. 47900	Cornell RB (CRB) WL RB	-	-	Selected at Lafayette, Indiana
North Central Plty. Br. Lab. Lafayette, In. 47900	Cornell-Kentville WL RBX	- -	-	Selected at Lafayette, Indiana
Parks Poultry Farm, R#4, Box 118, Altoona, Pa. 16601	Keystone B-1 WL 4wX	6,000 No	B	Parks Poultry Farm Altoona, Pa. 16601
Shaver Plty.Br. Fm., Ltd. Box 400, Galt, Ont., CANADA	Starcross 288 WL SX	4,500 Yes	B	Shaver Poultry Breeding Farm,Ltd Galt, Ontario, CANADA
Stone's Plty. Br.,Fm., 4347 Ave. 400, Dinuba, Ca. 93618	Stone's H-56-E WL SX	33,200 Yes	B	Stone's Poultry Breeding Farm Dinuba, California 93618
Tatum Farms Dawsonville, Ga. 30534	Tatum's T-100 WL SX	3,000 No	A	Tatum Farms Dawsonville, Ga. 30534
Welp's Breeding Farm Bancroft Io. 50517	Welp Line 937 WL 3wX	15,000 Yes	B	Welp's Hatchery Bancroft, Iowa, 50517

* A = Nest sample; B = Egg room sample; C = Incubator tray sample