

NORTH CAROLINA STATE UNIVERSITY

SCHOOL OF AGRICULTURE AND LIFE SCIENCES

OFFICE OF EXTENSION POULTRY SCIENCE
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September 11, 1973

I am enclosing the final summary of the Fourteenth 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.

Beginning with this test, North Carolina has established four entry categories. Category I is stocks experiencing major distribution in North Carolina and adjacent states. This category is subdivided into: A. those stocks supported by the breeder or distributor; B. those stocks acquired with approval of the breeder or distributor but without financial participation; and C. those stocks acquired without approval of the breeder or distributor. Category II is commercial stocks whose distributor requested entry. Category III is experimental stocks whose developers requested entry. Category IV is control or test stocks secured by the management. The category of each entry is shown on the stock list and the cooperator column indicates if the breeder entered the stock and provided financial support (Yes), if the distributor made the entry (Dist.), or if the stock was acquired by the test management without breeder or distributor request (No).

Requests for reports from this test should be sent to PIEDMONT RESEARCH STATION,
ROUTE 6, BOX 420, SALISBURY, NORTH CAROLINA, 28144.

Very truly yours,

Grady A. Martin
Grady A. Martin
Extension Poultry Specialist

FINAL SUMMARY REPORT FOURTEENTH NORTH CAROLINA RANDOM SAMPLE LAYING TEST March 24, 1972 through August 5, 1973

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.

COOPERATIVE EXTENSION WORK IN AGRICULTURE AND HOME ECONOMICS, NORTH CAROLINA STATE UNIVERSITY AT RALEIGH, 100 COUNTIES AND U. S. DEPARTMENT OF AGRICULTURE COOPERATING



Data are presented as Tables 14-4A-I, II, III and IV, 14-4B-I, II, III and IV, 14-4C-I, II, III and IV, and 14-4D-I, II, III, IV, V and VI. Tables carrying the letters A, B, C and D in their numbers contain performance data for birds housed in 7-bird cages, on combination of litter and slats, in 2-bird 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 NE-21 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

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 the eggs were gathered at a randomly chosen supply flock, except when nest sampling was not feasible, as shown in the stock list later. A maximum of 360 sexed pullets were divided into six equal lots. Two lots were reared on half slats-half litter over concrete floors at 1.5 sq. ft. per pullet, and the other four lots were reared in randomly assigned blocks of seven 24-inch x 20-inch cages with 8 or 9 pullets per cage. First week mortality, sexing errors and accidental deaths were not charged against the entry.

All birds were vaccinated at day-old for Marek's. Maag and Easterbrooks, Inc., Raleigh, N. C., provided the herpes virus of turkeys grown in duck cells. We express our appreciation to this organization and its personnel. Marek's mortality during the growing period was only one pullet of the 6221 started.

All birds were debeaked at seven days; vaccinated by ocular route for Newcastle and bronchitis at one day, by water at five weeks, and 16 weeks of age with LaSota vaccine; vaccinated for Pox via wing-web at 12 weeks; and vaccinated for Avian encephalomyelitis at 14 weeks. Birds exposed to litter were given 6-species coccidiosis vaccine at five days with a low level of coccidiostat used for eight weeks. Newcastle vaccine was boosted at 90-day intervals during the laying period.

At 150 days of age, a maximum of 50 randomly chosen pullets were retained in the pens where they were grown at about 1.7 sq. ft. per pullet, a maximum of 50 randomly chosen pullets from each of two lots of cage-grown pullets were retained in the cage blocks where they were grown with seven pullets per 24-inch x 20-inch cage, and a maximum of 104 randomly chosen pullets from the other two cage-grown lots were assigned to four blocks of 10-inch x 18-inch cages in another house.

Commercial all-mash rations were purchased on contract. Starting mash (20% protein) was fed for eight weeks and growing mash (16% protein) was fed until housing at 150 days. During the laying period either 20%, 18% or 16% all-mash layer ration was fed, dependent upon average production rate and feed consumption of the white or brown egg birds in the particular house. Other management was as nearly commercial procedures as practical.

Many producers believe that cracks detected by candling eggs at the test site and specific gravity scores do not provide an adequate indicator of how eggs will grade out when shipped to a processing plant. In this test all eggs from each stock were accumulated during the 45th, 56th, and 70th week and shipped to the FCX egg processing plant at Charlotte.

Mr. Allen Ashcraft processed eggs from each stock as a separate flock and gave us the grade-out data. These data are summarized in Table 14-4D-V. We express our gratitude to Mr. Ashcraft and FCX for this service.

RESULTS

Part I of Tables

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

Type Housing 1 = 7-bird cages, 2 = slats and litter, 3 = 2-bird 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 23 but less than 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 the growing period, 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 1970, 1971 and 1972.

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 by candling. We express our appreciation to the personnel of the North Carolina Department of Agriculture who provided candling service on one day of production each month. Market values of all eggs were calculated on the basis of these candling reports, with no discount for stained or dirty eggs.

% 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: Official egg graders from the North Carolina Department of Agriculture candled the production of one day each month. The percentages reported are a summary of their 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 a 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 group of birds 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 North Carolina Department of Agriculture Diagnostic Laboratory once each week. We express our appreciation to Dr. W. W. Clemons 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 accounted for little mortality were combined under "Miscellaneous" in the interest of saving space. Since lesions of Marek's and Lymphoid Leukosis can be distinguished only by histological studies in some individuals, such cases are listed under "Marek's or Lymphoid Leukosis".

Part V of Tables

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

Commercial Egg Gradeout was made by stocks during the weeks indicated at the FCX plant at Charlotte, N. C. % A and % B are consumer grades. % C Quality + Stains and % Crax are eggs of sound and unsound shells for breaker stock. % Farm Loss is the percentage of unsound eggs removed before shipping and % Other Loss includes all other eggs shipped (large spots, addled eggs, leakers, lost in machines, etc.). Seasonal data are not combined.

Part VI 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.

Breeder	Stock Identification	Entry Type & Coop.*	Source of Sample
George M. Anthony & Sons Strausstown, Pa.	Anthony Strain Cr. WL SX	II Yes	Geo. M. Anthony & Sons Poultry Farm, Strausstown, Pa. 19559
Babcock Poultry Farm, Inc. Box 280 Ithaca, N. Y.	Babcock B-300 14850 WL IN	I-A Yes	Harrold's Chicks, Inc. Winterville, Ga. 30683
Babcock Poultry Farm, Inc. Box 280, Ithaca, N.Y.	Babcock B-390 14850 RIRxBPR BX	I-A Yes	Beamsdale Hatchery Lawndale, N. C. 28090
Colonial Poultry Farms, Inc. Pleasant Hill, Mo.	True-Line 365-B 64080 WL IN	II Yes	Colonial Poultry Farms, Inc. Box 89, Pleasant Hill, Mo. 64080
Joe K. Davis Hatchery Box 27, Earl, N. C.	Combiner Sex Link 28038 RIRxBPR BX	I-A Yes	Joe K. Davis Hatchery Box 27, Earl, N. C. 28038
DeKalb AgResearch, Inc. Sycamore Rd., DeKalb, Ill.	DeKalb 171 60115 INX	I-C No	Not applicable
H&N, Inc., 15305 N.E.40th St., Redmond, Wa.	H&N Expl. A 98052 WL SX	III Yes	Shipped by breeder
H&N, Inc. - entry by J. C. Castlebury Poultry Farm	H&N "Nick Chick" WL 4wX	I-A Dist.	J. C. Castlebury Poultry Farm Route #3, Apex, N. C. 27502
Hubbard Farms, Inc. Walpole, N. H.	Hubbard Gld. Com. NHxSYN BX	I-A Yes	Rocky Ford Hatchery Box 26, Lincolnton, N. C. 28092
Hy-Line International 1206 Mulberry, Des Moines,Io.	Hy-Line W-36 INX	I-C No	Not applicable
Ideal Poul. Breed. Fms.,Inc. Box 591, Cameron, Tx.	Ideal 236 76520	II Yes	Ideal Poultry Breeding Farms, Inc.
Ind. Fm. Bu.Coop.Assn.,Inc. Indianapolis, Ind.	Duchess 60 46204 WL SX	II Yes	Co-op. Breeding & Research Farm Rt. #2, W. Lafayette, Ind. 47906
Kimber Farms,Inc., Entry by Nichols Poultry Farm,Inc.	Kimber K-137 WL SX	I-A Dist.	Nichols Poultry Farm, Inc., Rt.#2 Jefferson City, Tn. 37760
Parks Poultry Farm, Rt. #4 Box 118, Altoona, Pa.	Keystones 16601 WL 4wSX	II Yes	Parks Poultry Farm, Rt. #4, Box 1: Altoona, Pa. 16601
Shaver Poul. Breed. Fms.,Ltd. Shaver Expl. Box 400, Galt, Ont., <u>Canada</u>	WL SX	III Yes	Shipped by breeder
Shaver Poul. Breed. Fms.,Ltd. Shaver 288 Box 400, Galt, Ont., <u>Canada</u>	WL SX	I-A Yes	Delta Hatchery, Lake City, Florida 32055
Tatum Farms, Rt.#3 Dawsonville, Ga.	Tatum T-100 30534 WL SX	II Yes	Tatum Farms, Rt. #3 Dawsonville, Ga. 30534
Tatum Farms, Rt.#3 Dawsonville, Ga.	Tatum T-111 RIRxBPR BX	II Yes	Tatum Farms, Rt. #3 Dawsonville, Ga. 30534
Thornber (North America) Wyoming, Ont., <u>Canada</u>	Thornber 808 WL 4wSX	II Yes	Thornber (North America) Wyoming, Ontario, <u>Canada</u>
Welp's Breeding Farm Box 366, Bancroft, Io.	Welp Line 971 50517 WL IN	II Yes	Welp's Breeding Farm, Box 366, Bancroft, Iowa 50517

14th Test * See explanation in text

Table 14-4A-I - Bird Weight, Egg Size, Maturity and Production Rate

Entry No.	Type Housing	Breeder	150 Days	500 Days	Pee Wee Small Medium Large	% Egg Size, Distribution	Egg Production Rate - %										
							Average Body Weight	Average Egg Wt. oz./doz.	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 1 H&N (Expl. A)	3.0	4.1	0.4	1.4	7.5	25.1	65.5	25.5	171.0	66.7	75.1	63.4	62.2	61.3	69.5	231.0	
2 1 Welps (971)	3.1	4.0	0.6	1.3	9.0	21.2	65.6	25.6	170.0	64.0	73.0	63.2	57.4	54.6	67.0	200.8	
3 1 H&N (Nick Chick)	3.0	3.9	0.6	1.4	9.2	26.8	62.0	25.3	172.0	70.3	79.5	67.6	60.3	58.5	72.5	240.1	
4 1 Davis (Combiner)	3.4	5.9	0.1	0.3	2.3	4.0	43.3	27.5	190.0	46.5	62.4	49.3	52.0	52.9	57.5	166.0	
5 1 Shaver (Expl.)	3.1	4.2	0.1	0.5	4.3	17.9	77.2	26.2	176.5	64.4	81.1	73.5	66.9	66.5	76.2	226.8	
6 1 Ideal (236)	3.6	4.6	0.5	1.4	5.1	14.2	78.0	25.4	166.0	63.2	77.5	70.8	68.3	66.3	73.3	241.7	
7 1 Ind.Fm.Bu.(Du.60)	3.1	4.3	0.4	1.4	6.4	17.7	74.0	25.9	176.0	62.6	75.7	64.3	62.1	61.0	70.0	193.7	
8 1 Babcock (B-390)	4.2	5.3	0.2	0.5	3.7	12.6	93.2	26.3	185.0	54.2	66.3	48.8	54.5	56.4	60.2	186.9	
9 1 Kimber (K-137)	3.0	4.2	0.2	1.3	5.2	23.5	72.6	26.0	178.0	58.6	76.7	65.3	53.4	51.4	67.4	197.5	
10 1 Hy-Line (W-36)	3.0	4.0	0.3	0.5	6.5	6.7	16.5	76.0	26.4	178.5	56.5	75.7	69.7	64.6	61.9	71.3	211.5
11 1 Tatum (T-111)	4.1	5.2	0.1	0.5	3.3	15.4	82.7	27.3	192.0	43.1	59.2	45.8	49.7	51.9	54.2	154.5	
12 1 Tatum (T-100)	3.1	4.2	0.4	1.2	6.9	20.2	71.3	25.9	173.0	64.9	77.5	68.7	67.3	66.3	72.9	213.1	
13 1 Shaver (288)	3.1	4.3	0.1	0.5	3.4	11.4	84.6	27.3	179.5	58.9	76.6	69.6	62.3	60.5	71.5	216.7	
14 1 Thornber (808)	3.0	4.2	0.3	1.2	8.6	22.9	66.9	25.5	176.5	62.2	75.8	63.0	61.0	61.7	70.2	181.4	
15 1 Parks (Keystone)	3.4	4.2	0.2	0.7	5.1	14.6	73.4	26.6	171.5	66.3	81.6	69.4	65.6	62.2	74.2	237.0	
16 1 DeKalb (171)	3.2	4.2	0.3	1.1	6.9	19.5	72.1	26.0	179.0	56.4	67.9	61.0	61.3	59.5	65.9	172.4	
17 1 Colonial (365-B)	3.0	4.0	0.5	1.4	6.3	16.3	74.9	26.3	168.0	66.2	66.7	60.9	59.3	58.3	65.8	211.4	
18 1 Hubbard (Gld.C.)	4.0	4.8	0.1	0.6	3.5	2.2	37.6	27.6	169.5	66.0	74.4	62.6	57.6	55.5	67.8	223.5	
19 1 Babcock (B-300)	3.0	4.1	0.4	0.9	4.4	15.4	78.9	26.4	173.5	68.1	80.7	71.5	69.2	64.6	75.9	248.8	
20 1 Anthony (W.Leg.)	2.9	3.7	0.2	0.6	4.5	14.0	74.7	25.9	184.5	55.6	75.0	67.9	63.1	60.3	70.5	197.7	
C 1 Average	3.3	4.4	0.3	0.9	5.7	17.2	75.9	26.3	176.5	60.9	74.1	63.8	61.0	59.6	63.7	207.6	

Table 14-4A-II - Birds, Mortality, Feed Use, and Cost and Income Data

	Number of Birds	Mortality	Feed Consumed	Value per Pullet Housed			
				At One Week	At End of Test	Per Dozen Eggs	Total Feed Cost
1	102.	100.	91.	6.0	9.0	5.3	14.7
2	100.	98.	78.	7.1	20.4	40.2	16.5
3	72.	78.	75.	5.2	3.3	6.0	14.7
4	102.	98.	73.	4.9	25.5	34.2	17.9
5	1	96.	100.	82.	0.0	12.0	33.3
6	1	95.	98.	90.	5.8	8.2	11.3
7	1	111.	100.	70.	5.5	30.0	59.3
8	1	92.	99.	89.	3.3	10.1	16.8
9	1	94.	100.	72.	3.3	28.0	42.6
10	1	115.	100.	84.	3.5	16.0	32.0
11	1	99.	100.	73.	8.0	22.0	37.6
12	1	105.	100.	79.	2.1	21.0	43.8
13	1	107.	100.	86.	5.6	14.0	26.6
14	1	105.	99.	56.	2.9	43.5	75.9
15	1	68.	70.	60.	6.2	14.3	16.5
16	1	91.	98.	61.	7.9	37.8	64.5
17	1	97.	98.	88.	4.1	10.2	20.7
18	1	85.	86.	81.	6.0	5.8	8.5
19	1	107.	100.	93.	1.0	7.0	9.0
20	1	99.	71.	2.3	28.3	45.3	14.9
0	1	97.	96.	78.	4.5	13.6	31.7

At One Week At End of Test Per Dozen Eggs Total Feed Cost
 % 8 - 150 Days % 151 - 500 Days Per 100 Birds 1 - 150 Days
 Housed Housed (One Day) (One Day)
 Entry Number Type Housing Av. Deys Lost/Hen Per Bird
 5.1 1.02 96.0 82.0 0.0 12.0 5.3 14.7
 6.1 1.00 98.0 90.0 5.8 8.2 11.3 17.7
 7.1 1.03 100.0 70.0 5.5 30.0 59.3 15.5
 8.1 1.02 98.0 89.0 3.3 10.1 16.8 19.5
 9.1 1.00 100.0 72.0 3.3 28.0 42.6 16.4
 10.1 1.05 100.0 84.0 3.5 16.0 32.0 14.3
 11.1 1.00 100.0 73.0 8.0 22.0 37.6 18.7
 12.1 1.05 100.0 79.0 2.1 21.0 43.8 23.9
 13.1 1.07 100.0 86.0 5.6 14.0 26.6 25.5
 14.1 1.05 99.0 56.0 2.9 43.5 75.9 24.2
 15.1 1.08 70.0 60.0 6.2 14.3 16.5 17.8
 16.1 1.01 98.0 61.0 7.9 37.8 64.5 16.5
 17.1 1.07 98.0 88.0 4.1 10.2 20.7 16.1
 18.1 1.05 86.0 81.0 6.0 5.8 8.5 18.0
 19.1 1.07 100.0 93.0 1.0 7.0 9.0 15.3
 20.1 1.09 99.0 71.0 2.3 28.3 45.3 14.9
 0.1 1.07 96.0 78.0 4.5 13.6 31.7 23.0
 .32 .37 .38 .39 .39 .40 .41 .42 .43
 .44 .45 .46 .47 .48 .49 .50 .51 .52
 .53 .54 .55 .56 .57 .58 .59 .60 .61
 .62 .63 .64 .65 .66 .67 .68 .69 .70
 .71 .72 .73 .74 .75 .76 .77 .78 .79
 .70 .71 .72 .73 .74 .75 .76 .77 .78
 .79 .80 .81 .82 .83 .84 .85 .86 .87
 .88 .89 .90 .91 .92 .93 .94 .95 .96
 .97 .98 .99 .00 .01 .02 .03 .04 .05
 .06 .07 .08 .09 .00 .01 .02 .03 .04
 .05 .06 .07 .08 .09 .00 .01 .02 .03
 .04 .05 .06 .07 .08 .09 .00 .01 .02
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 .05 .06 .07 .08 .09 .00 .01 .02 .03
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 .03 .04 .05 .06 .07 .08 .09 .00 .01
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 .07 .08 .09 .00 .01 .02 .03 .04 .05
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 .04 .05 .06 .07 .08 .09 .00 .01 .02
 .03 .04 .05 .06 .07 .08 .09 .00 .01
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 .01 .02 .03 .04 .05 .06 .07 .08 .09
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 .09 .00 .01 .02 .03 .04 .05 .06 .07
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 .06 .07 .08 .09 .00 .01 .02 .03 .04
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 .03 .04 .05 .06 .07 .08 .09 .00 .01
 .02 .03 .04 .05 .06 .07 .08 .09 .00
 .01 .02 .03 .04 .05 .06 .07 .08 .09
 .00 .01 .02 .03 .04 .05 .06 .07 .08
 .09 .00 .01 .02 .03 .04 .05 .06 .07
 .08 .09 .00 .01 .02 .03 .04 .05 .06
 .07 .08 .09 .00 .01 .02 .03 .04 .05
 .06 .07 .08 .09 .00 .01 .02 .03 .04
 .05 .06 .07 .08 .09 .00 .01 .02 .03
 .04 .05 .06 .07 .08 .09 .00 .01 .02
 .03 .04 .05 .06 .07 .08 .09 .00 .01
 .02 .03 .04 .05 .06 .07 .08 .09 .00
 .01 .02 .03 .04 .05 .06 .07 .08 .09
 .00 .01 .02 .03 .04 .05 .06 .07 .08
 .09 .00 .01 .02 .03 .04 .05 .06 .07
 .08 .09 .00 .01 .02 .03 .04 .05 .06
 .07 .08 .09 .00 .01 .02 .03 .04 .05
 .06 .07 .08 .09 .00 .01 .02 .03 .04
 .05 .06 .07 .08 .09 .00 .01 .02 .03
 .04 .05 .06 .07 .08 .09 .00 .01 .02
 .03 .04 .05 .06 .07 .08 .09 .00 .01
 .02 .03 .04 .05 .06 .07 .08 .09 .00
 .01 .02 .03 .04 .05 .06 .07 .08 .09
 .00 .01 .02 .03 .04 .05 .06 .07 .08
 .09 .00 .01 .02 .03 .04 .05 .06 .07
 .08 .09 .00 .01 .02 .03 .04 .05 .06
 .07 .08 .09 .00 .01 .02 .03 .04 .05
 .06 .07 .08 .09 .00 .01 .02 .03 .04
 .05 .06 .07 .08 .09 .00 .01 .02 .03
 .04 .05 .06 .07 .08 .09 .00 .01 .02
 .03 .04 .05 .06 .07 .08 .09 .00 .01
 .02 .03 .04 .05 .06 .07 .08 .09 .00
 .01 .02 .03 .04 .05 .06 .07 .08 .09
 .00 .01 .02 .03 .04 .05 .06 .07 .08
 .09 .00 .01 .02 .03 .04 .05 .06 .07
 .08 .09 .00 .01 .02 .03 .04 .05 .06
 .07 .08 .09 .00 .01 .02 .03 .04 .05
 .06 .07 .08 .09 .00 .01 .02 .03 .04
 .05 .06 .07 .08 .09 .00 .01 .02 .03
 .04 .05 .06 .07 .08 .09 .00 .01 .02
 .03 .04 .05 .06 .07 .08 .09 .00 .01
 .02 .03 .04 .05 .06 .07 .08 .09 .00
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 .00 .01 .02 .03 .04 .05 .06 .07 .08
 .09 .00 .01 .02 .03 .04 .05 .06 .07
 .08 .09 .00 .01 .02 .03 .04 .05 .06
 .07 .08 .09 .00 .01 .02 .03 .04 .05
 .06 .07 .08 .09 .00 .01 .02 .03 .04
 .05 .06 .07 .08 .09 .00 .01 .02 .03
 .04 .05 .06 .07 .08 .09 .00 .01 .02
 .03 .04 .05 .06 .07 .08 .09 .00 .01
 .02 .03 .04 .05 .06 .07 .08 .09 .00
 .01 .02 .03 .04 .05 .06 .07 .08 .09
 .00 .01 .02 .03 .04 .05 .06 .07 .08
 .09 .00 .01 .02 .03 .04 .05 .06 .07
 .08 .09 .00 .01 .02 .03 .04 .05 .06
 .07 .08 .09 .00 .01 .02 .03 .04 .05
 .06 .07 .08 .09 .00 .01 .02 .03 .04
 .05 .06 .07 .08 .09 .00 .01 .02 .03
 .04 .05 .06 .07 .08 .09 .00 .01 .02
 .03 .04 .05 .06 .07 .08 .09 .00 .01
 .02 .03 .04 .05 .06 .07 .08 .09 .00
 .01 .02 .03 .04 .05 .06 .07 .08 .09
 .00 .01 .02 .03 .04 .05 .06 .07 .08
 .09 .00 .01 .02 .03 .04 .05 .06 .07
 .08 .09 .00 .01 .02 .03 .04 .05 .06
 .07 .08 .09 .00 .01 .02 .03 .04 .05
 .06 .07 .08 .09 .00 .01 .02 .03 .04
 .05 .06 .07 .08 .09 .00 .01 .02 .03
 .04 .05 .06 .07 .08 .09 .00 .01 .02
 .03 .04 .05 .06 .07 .08 .09 .00 .01
 .02 .03 .04 .05 .06 .07 .08 .09 .00
 .01 .02 .03 .04 .05 .06 .07 .08 .09
 .00 .01 .02 .03 .04 .05 .06 .07 .08
 .09 .00 .01 .02 .03 .04 .05 .06 .07
 .08 .09 .00 .01 .02 .03 .04 .05 .06
 .07 .08 .09 .00 .01 .02 .03 .04 .05
 .06 .07 .08 .09 .00 .01 .02 .03 .04
 .05 .06 .07 .08 .09 .00 .01 .02 .03
 .04 .05 .06 .07 .08 .09 .00 .01 .02
 .03 .04 .05 .06 .07 .08 .09 .00 .01
 .02 .03 .04 .05 .06 .07 .08 .09 .00
 .01 .02 .03 .04 .05 .06 .07 .08 .09
 .00 .01 .02 .03 .04 .05 .06 .07 .08
 .09 .00 .01 .02 .03 .04 .05 .06 .07
 .08 .09 .00 .01 .02 .03 .04 .05 .06
 .07 .08 .09 .00 .01 .02 .03 .04 .05
 .06 .07 .08 .09 .00 .01 .02 .03 .04
 .05 .06 .07 .08 .09 .00 .01 .02 .03
 .04 .05 .06 .07 .08 .09 .00 .01 .02
 .03 .04 .05 .06 .07 .08 .09 .00 .01
 .02 .03 .04 .05 .06 .07 .08 .09 .00
 .01 .02 .03 .04 .05 .06 .07 .08 .09
 .00 .01 .02 .03 .04 .05 .06 .07 .08
 .09 .00 .01 .02 .03 .04 .05 .06 .07
 .08 .09 .00 .01 .02 .03 .04 .05 .06
 .07 .08 .09 .00 .01 .02 .03 .04 .05
 .06 .07 .08 .09 .00 .01 .02 .03 .04
 .05 .06 .07 .08 .09 .00 .01 .02 .03
 .04 .05 .06 .07 .08 .09 .00 .01 .02
 .03 .04 .05 .06 .07 .08 .09 .00 .01
 .02 .03 .04 .05 .06 .07 .08 .09 .00
 .01 .02 .03 .04 .05 .06 .07 .08 .09
 .00 .01 .02 .03 .04 .05 .06 .07 .08
 .09 .00 .01 .02 .03 .04 .05 .06 .07
 .08 .09 .00 .01 .02 .03 .04 .05 .06
 .07 .08 .09 .00 .01 .02 .03 .04 .05
 .06 .07 .08 .09 .00 .01 .02 .03 .04
 .05 .06 .07 .08 .09 .00 .01 .02 .03
 .04 .05 .06 .07 .08 .09 .00 .01 .02
 .03 .04 .05 .06 .07 .08 .09 .00 .01
 .02 .03 .04 .05 .06 .07 .08 .09 .00
 .01 .02 .03 .04 .05 .06 .07 .08 .09
 .00 .01 .02 .03 .04 .05 .06 .07 .08
 .09 .00 .01 .02 .03 .04 .05 .06 .07
 .08 .09 .00 .01 .02 .03 .04 .05 .06
 .07 .08 .09 .00 .01 .02 .03 .04 .05
 .06 .07 .08 .09 .00 .01 .02 .03 .04
 .05 .06 .07 .08 .09 .00 .01 .02 .03
 .04 .05 .06 .07 .08 .09 .00 .01 .02
 .03 .04 .05 .06

Table 14-4A-III - Egg Quality Data

		Entry Number		Type Housing		% Inclusion (Break-Out)		Candled Quality Percentages		Haugh Units		Shell Score (specific gravity)	
		Loss % (Downgrades)											
		Large Bloods		Small Bloods		Large Meats		Small Meats		A or Better		Chex and Cracks	
		B		C						Loss Eggs		October	
										January		April	
										June		Average	
										November		February	
										May		July	
										Average			
1	1	4.5	1.0	1.2	0.1	0.4	92.1	1.5	0.2	5.7	0.5	92.2	71.8
2	1	2.6	1.0	1.2	0.1	0.6	95.6	1.1	0.0	2.9	0.5	82.6	74.0
3	1	3.0	1.0	1.1	0.3	0.3	94.1	2.0	0.8	3.0	0.1	86.4	78.8
4	1	4.1	2.7	4.6	7.7	8.2	92.8	0.6	0.2	5.7	0.7	85.0	76.0
5	1	3.7	4.0	3.0	0.3	0.1	93.3	2.1	0.0	4.5	0.1	78.1	71.3
6	1	3.9	1.1	0.2	0.0	0.1	93.0	1.6	0.3	4.8	0.4	61.6	72.6
7	1	6.2	0.7	2.1	0.0	0.5	89.8	0.8	0.0	8.7	0.7	89.7	83.3
8	1	4.3	2.5	2.2	9.1	7.9	92.5	1.4	0.0	5.6	0.5	84.0	75.3
9	1	3.9	0.5	0.4	0.2	0.0	93.7	0.9	0.2	4.6	0.6	89.6	82.2
10	1	2.6	0.6	0.8	0.1	0.1	95.5	1.0	0.1	3.1	0.3	83.0	74.4
11	1	3.5	5.7	5.1	8.4	6.9	93.6	1.0	0.2	5.0	0.2	83.6	73.2
12	1	4.8	1.5	1.8	0.4	0.0	91.5	1.3	0.3	6.3	0.7	84.5	79.0
13	1	4.4	0.8	1.1	0.1	0.4	91.7	0.7	0.0	6.9	0.7	84.3	76.5
14	1	2.9	0.7	1.1	0.2	0.2	95.4	0.4	0.3	3.7	0.3	83.6	71.2
15	1	3.4	1.2	1.0	0.2	0.2	94.2	0.9	0.0	4.3	0.5	83.4	75.3
16	1	3.0	0.4	1.1	0.5	0.7	94.6	0.4	0.0	4.9	0.2	83.9	76.8
17	1	3.9	2.2	2.0	0.1	0.1	92.9	1.8	0.1	4.8	0.4	82.8	74.4
18	1	5.0	2.4	4.4	10.2	10.1	91.5	1.0	0.3	6.2	1.0	84.6	75.1
19	1	2.9	1.3	1.1	0.4	0.4	95.1	0.8	0.0	3.3	0.7	83.2	75.5
20	1	3.6	4.0	1.8	0.3	0.1	93.7	1.9	0.0	4.1	0.3	84.5	76.9
0	1	3.8	1.8	1.9	1.9	93.3	1.1	0.2	4.9	0.5	84.3	76.0	
1	1	3.0	1.9	1.9	1.9	1.9	93.3	1.1	0.2	4.9	0.5	84.3	76.0
2	1	3.0	1.9	1.9	1.9	1.9	93.3	1.1	0.2	4.9	0.5	84.3	76.0
3	1	3.0	1.9	1.9	1.9	1.9	93.3	1.1	0.2	4.9	0.5	84.3	76.0
4	1	3.0	1.9	1.9	1.9	1.9	93.3	1.1	0.2	4.9	0.5	84.3	76.0
5	1	3.0	1.9	1.9	1.9	1.9	93.3	1.1	0.2	4.9	0.5	84.3	76.0
6	1	3.0	1.9	1.9	1.9	1.9	93.3	1.1	0.2	4.9	0.5	84.3	76.0
7	1	3.0	1.9	1.9	1.9	1.9	93.3	1.1	0.2	4.9	0.5	84.3	76.0
8	1	3.0	1.9	1.9	1.9	1.9	93.3	1.1	0.2	4.9	0.5	84.3	76.0
9	1	3.0	1.9	1.9	1.9	1.9	93.3	1.1	0.2	4.9	0.5	84.3	76.0
10	1	3.0	1.9	1.9	1.9	1.9	93.3	1.1	0.2	4.9	0.5	84.3	76.0
11	1	3.0	1.9	1.9	1.9	1.9	93.3	1.1	0.2	4.9	0.5	84.3	76.0
12	1	3.0	1.9	1.9	1.9	1.9	93.3	1.1	0.2	4.9	0.5	84.3	76.0
13	1	3.0	1.9	1.9	1.9	1.9	93.3	1.1	0.2	4.9	0.5	84.3	76.0
14	1	3.0	1.9	1.9	1.9	1.9	93.3	1.1	0.2	4.9	0.5	84.3	76.0
15	1	3.0	1.9	1.9	1.9	1.9	93.3	1.1	0.2	4.9	0.5	84.3	76.0
16	1	3.0	1.9	1.9	1.9	1.9	93.3	1.1	0.2	4.9	0.5	84.3	76.0
17	1	3.0	1.9	1.9	1.9	1.9	93.3	1.1	0.2	4.9	0.5	84.3	76.0
18	1	3.0	1.9	1.9	1.9	1.9	93.3	1.1	0.2	4.9	0.5	84.3	76.0
19	1	3.0	1.9	1.9	1.9	1.9	93.3	1.1	0.2	4.9	0.5	84.3	76.0
20	1	3.0	1.9	1.9	1.9	1.9	93.3	1.1	0.2	4.9	0.5	84.3	76.0

Table 14-4A-IV - Causes of Mortality

Entry No.	Marek's Disease House	Marek's or Lymphoid Leukosis						Reproductive Disorders			All Other Lesions			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	-	-	-	-	5.1	1.0	2.0	-	1.0	1.0	5.0	5.0	-	-	1.0	2.0	6.0	9.0	-	-		
2	1	-	-	-	-	-	-	2.3	-	1.0	3.1	5.1	9.2	-	-	1.0	-	7.1	20.4	-	-		
3	1	-	-	-	-	-	-	-	-	4.1	1.4	5.2	-	-	-	-	-	-	5.2	3.8	-	-	
4	1	-	-	-	-	-	-	-	-	-	11.2	4.9	9.2	-	1.0	-	-	-	4.9	25.5	-	-	
5	1	-	-	-	-	3.0	-	5.0	-	-	5.0	-	5.0	-	-	-	-	-	0.0	18.0	-	-	
6	1	-	-	-	-	-	-	1.0	-	-	6.1	5.8	-	-	-	-	-	-	1.0	5.8	8.2	-	
7	1	-	-	-	-	2.0	-	7.0	-	-	11.0	5.5	10.0	-	-	-	-	-	5.5	30.0	-	-	
8	1	-	-	-	-	1.0	-	-	-	-	1.0	2.3	5.0	-	2.0	1.0	1.0	1.0	3.3	10.1	-	-	
9	1	-	1.0	-	1.0	-	4.0	-	-	13.0	3.3	8.0	-	-	-	-	-	1.0	3.3	28.0	-	-	
10	1	-	-	2.0	-	8.0	-	-	1.0	-	2.6	2.0	-	-	-	0.9	3.0	3.5	16.0	-	-		
11	1	-	-	1.0	-	2.0	-	-	1.0	-	7.0	5.9	10.0	2.1	2.0	-	-	-	8.0	22.0	-	-	
12	1	-	-	-	-	-	-	1.0	-	-	11.0	2.1	9.0	-	-	-	-	-	-	2.1	21.0	-	-
13	1	-	-	-	1.0	-	6.0	-	-	6.0	5.6	-	-	-	-	-	-	1.0	5.6	14.0	-	-	
14	1	-	-	-	1.0	-	2.0	-	-	34.4	2.9	4.0	-	1.0	-	-	-	1.0	2.9	43.5	-	-	
15	1	-	-	-	1.6	-	-	-	-	12.9	4.6	1.4	-	-	-	-	-	-	6.2	14.3	-	-	
16	1	-	2.0	-	3.1	-	13.3	-	1.0	11.2	7.9	6.1	-	-	-	-	-	1.0	7.9	37.8	-	-	
17	1	-	-	-	-	-	-	2.0	-	-	3.1	4.2	4.1	-	-	-	-	1.0	4.2	10.2	-	-	
18	1	-	-	-	-	-	-	-	-	-	4.7	4.9	1.2	-	-	1.1	-	6.0	5.8	-	-		
19	1	-	-	-	-	-	-	-	-	2.0	-	1.0	3.0	-	-	-	-	-	1.0	7.0	-	-	
20	1	-	-	-	-	2.0	-	-	-	20.2	2.3	6.1	-	-	-	-	-	-	-	2.3	28.3	-	-
AV.	1	0.0	0.2	0.1	1.1	0.1	3.1	0.0	0.2	8.4	4.1	4.9	0.1	0.3	0.2	0.6	4.5	18.6	-	-	-	-	

Table 14-4B-1 - Bird Weight, Egg Size, Maturity and Production Rate

Entry No.	Type Housing	Breeder	150 Days	500 Days	Pee Wee	Small	Medium	Large	Extra Large	And Over	Age at 50% Production	Days 151-240	Days 241-330	Days 331-420	Days 421-500	Days 471-500	Eggs per Gallon housed	Egg Production Rate - %			
																		Egg Production Rate - %			
1 2 H&N (Expl.A)		3.1 4.3	0.4	1.6	14.5	26.3	55.1	24.8	160.0	80.0	83.6	68.3	60.3	57.1	74.3	74.3	255.7				
2 2 Welp's (971)		3.2 4.4	0.4	2.1	12.1	22.3	41.5	25.1	162.5	73.4	67.2	54.1	50.4	46.9	61.1	61.1	189.7				
3 2 H&N (Nick Chick)		3.2 4.3	0.6	1.7	15.6	32.4	45.7	24.5	163.5	79.2	80.8	64.1	57.5	55.2	72.4	72.4	240.6				
4 2 Davis (Combiner)		4.2 6.0	0.2	0.2	4.1	15.7	79.1	26.7	183.0	57.2	81.0	71.9	62.7	58.8	73.6	73.6	231.4				
5 2 Shaver (Expl.)		3.2 4.3	0.1	0.6	7.4	24.5	57.3	25.4	172.5	90.7	85.3	76.4	74.7	85.4	85.4	85.4	264.4				
6 2 Ideal (236)		3.5 4.2	0.5	1.2	18.5	23.1	64.7	25.3	165.0	75.3	81.1	72.4	67.2	63.9	76.2	76.2	255.2				
7 2 Ind.Fm.Bu(Du.60)		3.2 4.3	0.5	1.5	12.7	28.4	56.4	24.7	163.5	78.3	84.3	71.6	63.9	60.4	76.5	76.5	245.9				
8 2 Babcock (B-390)		4.3 5.6	0.2	0.6	18.5	74.1	26.2	169.0	73.8	80.5	77.8	69.3	66.7	79.7	79.7	79.7	263.0				
9 2 Kimber (K-137)		3.3 4.4	0.4	1.2	9.0	22.6	65.9	25.6	169.0	71.6	83.1	69.3	54.6	64.4	75.1	75.1	247.3				
10 2 Hy-Line (W-36)		3.1 4.1	0.5	1.2	11.7	24.6	52.1	25.4	173.0	67.3	83.0	75.2	67.1	65.6	77.4	77.4	239.5				
11 2 Tatum (T-111)		4.3 5.0	0.1	0.3	4.3	15.0	30.2	26.7	194.0	57.3	79.7	70.6	68.6	65.7	74.6	74.6	235.2				
12 2 Tatum (T-100)		3.2 4.4	0.4	1.0	12.5	28.9	57.1	25.1	165.0	74.2	82.7	73.9	72.3	69.1	77.7	77.7	255.0				
13 2 Shaver (288)		3.4 4.4	0.2	0.6	8.7	20.5	70.2	26.0	169.5	75.1	89.0	61.4	75.0	71.4	83.3	83.3	276.0				
14 2 Thornber (808)		3.3 4.3	0.3	1.6	15.5	31.7	51.0	24.6	169.5	70.9	83.0	75.0	71.9	70.9	78.4	78.4	249.8				
15 2 Parks (Keystone)		3.3 4.4	0.2	0.6	8.0	24.2	67.1	25.3	170.3	72.0	64.2	80.2	71.3	69.2	81.8	81.8	273.4				
16 2 DeKalb(171)		3.2 4.2	0.5	1.5	15.9	36.0	56.4	24.7	175.0	66.4	80.9	70.1	63.0	61.9	73.9	73.9	233.1				
17 2 Colonial (365-B)		4.1 4.0	0.5	1.7	11.0	24.6	63.0	25.4	163.0	70.4	80.2	65.8	57.5	55.2	72.6	72.6	244.9				
18 2 Hubbard (Gld.C.)		3.9 4.4	0.1	0.3	5.6	12.1	41.4	27.2	165.5	76.1	73.4	69.2	61.4	56.9	73.1	73.1	246.2				
19 2 Babcock (B-300)		3.2 4.4	0.4	1.4	7.3	20.1	70.3	25.2	163.9	79.5	82.8	78.2	74.7	72.3	81.6	81.6	271.6				
20 2 Anthony (W.Leg)		3.3 4.1	0.4	1.0	9.3	20.9	69.4	25.5	173.5	64.9	76.4	69.1	67.1	64.8	84.2	84.2	272.4	272.4			
Average																					
			3.4 4.0	0.6	1.1	10.3	23.2	65.0	26.5	163.0	72.1	82.2	72.2	63.4	63.4	73.3	73.3	247.3			

Table 14-4B-II - Birds, Mortality, Feed Use, and Cost and Income Data

Entry Number Type Housing	Number of Birds	Mortality		Feed Consumed		Value per Pullet Housed	
		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 (one day)	Per Pound of Eggs Per Dozen Eggs Chick Price
1 2	115.	100.	97.	0.0	3.0	2.9	15.7 22.7 2.41 3.73 .31 0.63 3.83 4.83 7.22 .53 2.916
2 2	107.	94.	75.	5.5	2.0.2	3.0.2	16.2 21.5 2.73 4.29 .29 0.73 3.25 4.29 5.35 .45 1.521
3 2	104.	86.	79.	2.9	8.1	10.7	15.9 22.6 2.50 3.83 .31 0.71 3.70 4.73 6.80 .51 2.581
4 2	116.	98.	91.	0.0	7.2	10.3	18.2 26.1 2.76 4.60 .32 0.80 4.29 5.41 6.76 .37 2.222
5 2	119.	99.	87.	0.9	12.1	24.6	15.7 23.7 2.20 3.50 .35 0.69 3.73 4.78 7.69 .49 3.399
6 2	119.	97.	90.	1.7	7.2	6.7	16.1 23.5 2.40 3.80 .27 0.71 3.91 4.89 7.32 .57 3.002
7 2	111.	100.	88.	2.7	12.0	22.2	16.1 23.2 2.39 3.72 .32 0.72 3.68 4.73 7.04 .49 2.791
8 2	107.	98.	93.	0.0	5.1	7.7	19.1 25.6 2.45 4.00 .30 0.84 4.24 5.38 7.59 .83 3.042
9 2	119.	100.	94.	0.3	6.0	8.9	16.1 23.8 2.46 3.94 .37 0.71 3.94 4.97 7.07 .54 2.634
10 2	115.	100.	88.	0.9	12.0	24.0	15.6 22.0 2.27 3.60 .32 0.68 3.47 4.48 6.89 .47 2.881
11 2	117.	100.	95.	2.6	5.0	9.1	18.4 25.4 2.64 4.41 .32 0.81 4.20 5.34 6.90 .88 2.443
12 2	118.	100.	90.	0.0	10.0	14.3	16.0 23.5 2.38 3.73 .31 0.70 3.82 4.84 7.27 .51 2.938
13 2	110.	100.	95.	4.5	5.0	6.4	16.9 24.2 2.23 3.62 .35 0.75 4.04 5.15 7.91 .54 3.290
14 2	119.	100.	91.	1.7	9.0	18.2	15.8 23.9 2.47 3.30 .35 0.70 3.82 4.88 7.14 .51 2.767
15 2	75.	68.	66.	0.0	2.9	2.1	17.2 24.5 2.32 3.75 .33 0.77 4.12 5.22 7.91 .56 3.244
16 2	119.	99.	89.	4.2	10.2	18.6	15.8 21.9 2.40 3.74 .33 0.70 3.52 4.57 6.65 .49 2.569
17 2	113.	99.	94.	0.8	5.1	6.2	15.9 22.5 2.39 3.80 .29 0.70 3.75 4.75 6.94 .49 2.684
18 2	117.	99.	91.	0.0	8.1	4.8	17.4 23.5 2.36 4.01 .30 0.77 3.99 5.05 7.09 .59 2.613
19 2	118.	100.	92.	1.7	8.0	10.4	16.0 24.3 2.27 3.65 .31 0.70 4.00 5.03 7.69 .52 3.180
20 2	116.	99.	80.	0.8	19.1	20.9	16.0 23.1 2.51 4.01 .32 0.61 3.66 4.67 6.52 .43 2.231
0 2	113.	97.	88.	1.6	9.4	13.3	16.5 23.6 2.43 3.88 .32 0.73 3.85 4.90 7.93 .54 2.150

Table 14-4B-III - Egg Quality Data

Entry Number	Type Housing	Haugh Units												Shell Score (Specific gravity)								
		% Inclusion (Break-Out)	Candled Quality Percentages	Loss % (Downgrades)			Chex and Cracks			Eggs			October	January	April	June	Average	November	February	May	July	Average
1	Large Bloods	1.2	2.2	0.4	1.4	0.2	0.3	95.9	2.3	0.1	1.6	0.1	85.8	76.3	74.2	70.0	76.6	3.91	3.84	2.10	1.76	2.90
2	Small Bloods	2.2	1.5	1.0	1.6	0.3	0.3	97.7	1.3	0.0	0.5	0.5	82.9	73.4	70.2	68.5	73.7	3.46	3.28	1.72	1.29	2.44
3	Large Meats	2.2	1.6	1.6	1.5	0.3	0.1	97.1	2.0	0.1	0.7	0.1	85.6	77.4	73.3	72.4	77.2	3.85	3.40	1.47	1.81	2.63
4	Small Meats	2	1.5	2.6	4.7	6.8	7.9	97.2	1.6	0.1	0.8	0.3	86.1	72.5	70.4	69.7	74.7	3.46	2.75	1.20	0.55	1.99
5	A or Better	2	1.3	1.3	2.3	0.1	0.1	97.3	1.0	0.0	1.7	0.0	79.1	68.8	65.8	64.1	69.5	4.63	3.83	2.05	2.15	3.16
6	Large Bloods	2	1.5	0.6	0.8	0.2	0.6	97.3	0.5	0.1	2.0	0.1	81.8	67.9	64.6	65.1	69.8	3.97	3.30	1.87	1.55	2.67
7	Small Bloods	2	1.1	0.4	1.4	0.3	0.6	97.7	1.0	0.0	1.4	0.0	89.0	79.1	87.9	74.2	82.5	3.96	3.92	2.20	2.03	3.03
8	Large Meats	2	2.0	1.6	2.6	15.8	12.9	96.5	1.7	0.0	1.8	0.0	82.5	71.5	69.4	69.6	73.2	3.23	2.78	1.26	1.19	2.12
9	Small Meats	2	2.6	1.2	1.5	0.2	0.0	95.3	1.9	0.0	2.5	0.2	87.6	79.7	77.3	76.9	80.4	4.80	4.45	2.50	1.55	3.32
10	A or Better	2	1.5	1.0	0.9	0.2	0.6	97.6	0.6	0.3	1.1	0.4	82.6	71.6	69.5	66.9	72.4	3.90	3.68	2.33	2.22	3.03
11	Large Bloods	2	1.2	3.3	2.8	12.7	9.6	98.0	1.3	0.0	0.5	0.3	85.6	73.7	70.0	67.4	74.1	3.31	3.50	1.33	1.55	2.42
12	Small Bloods	2	2.1	2.2	1.9	0.2	0.5	96.3	1.5	0.0	2.1	0.1	83.6	76.8	72.9	69.9	75.8	3.69	3.34	1.59	1.21	2.46
13	Large Meats	2	2.7	0.6	0.8	0.4	0.3	95.1	2.3	0.0	2.4	0.3	84.4	73.2	71.4	67.5	74.1	4.60	3.90	1.99	1.76	3.06
14	Small Meats	2	1.7	0.7	0.9	0.7	1.0	97.1	1.1	0.2	1.4	0.1	80.8	68.1	65.5	68.0	70.6	3.71	3.49	2.14	2.20	2.88
15	A or Better	2	1.8	1.0	1.4	0.3	0.2	96.9	1.8	0.2	1.0	0.2	84.1	73.2	68.8	72.0	74.5	4.71	3.98	1.30	1.79	2.95
16	Large Bloods	2	1.6	1.5	0.9	0.5	0.1	97.1	0.9	0.1	1.6	0.2	89.8	72.7	71.3	65.4	74.8	3.69	3.44	1.83	2.10	2.76
17	Small Bloods	2	2.0	1.1	1.6	0.6	0.0	96.3	1.6	0.2	1.7	0.1	80.4	72.7	66.9	63.7	70.9	3.96	3.90	2.06	1.57	2.87
18	Large Meats	2	2.0	6.7	4.8	12.5	11.7	96.6	0.8	0.1	2.0	0.4	84.1	73.0	68.4	68.5	73.5	2.84	2.59	1.35	1.49	2.07
19	Small Meats	2	3.2	2.2	1.4	0.0	0.2	94.6	2.7	0.1	1.9	0.8	83.4	71.0	71.6	68.2	73.6	4.09	3.43	1.97	1.51	2.76
20	A or Better	2	1.9	1.4	1.9	0.1	0.3	96.2	1.4	0.1	2.1	0.1	83.7	71.3	72.5	66.6	73.5	3.13	2.70	1.25	1.06	2.03
0	Large Bloods	2	1.8	1.6	1.9	2.6	2.4	96.7	1.5	0.1	1.5	0.2	84.2	73.2	71.0	68.7	74.3	3.95	3.44	1.77	1.62	2.68

Table 14-4B-IV - Causes of Mortality

Entry Number	Type Housing	Marek's	Lymphoid Leukosis	Marek's or Lymphoid Leukosis	Other Neopl.	Reproductive Disorders	All Other			No Visible Lesions	No Necropsy Report	Total	
							Gro.	Lay	Gro.	Lay			
1	2	-	-	-	2.1	1.0	5.2	1.9	1.1	-	3.0	-	3.0
2	2	-	-	-	-	-	-	-	1.2	-	7.4	-	5.6
3	2	-	-	-	-	-	-	-	-	-	4.7	-	20.2
4	2	-	-	-	-	-	1.0	-	-	-	2.0	-	8.1
5	2	-	-	-	1.0	-	5.0	-	1.0	0.8	1.0	-	7.2
6	2	-	-	-	-	-	1.0	-	4.1	1.7	1.0	-	0.0
7	2	2.9	-	-	-	-	4.0	-	4.0	1.8	3.0	-	12.1
8	2	-	-	-	-	-	-	-	2.0	-	1.0	-	7.2
9	2	-	-	-	1.0	-	1.0	-	-	0.8	-	-	12.0
10	2	-	-	-	2.0	-	5.0	-	1.0	0.9	3.0	-	5.1
11	2	-	-	-	-	-	3.0	-	-	2.6	2.0	-	6.0
12	2	-	-	-	-	-	-	-	5.0	-	5.0	-	12.0
13	2	-	-	-	0.8	2.0	-	-	-	2.0	4.5	1.0	4.5
14	2	-	-	-	-	-	3.0	-	-	3.0	0.8	-	5.0
15	2	-	-	-	-	-	-	-	1.0	1.5	1.5	-	9.0
16	2	-	-	-	-	-	5.1	-	-	3.4	3.0	-	2.9
17	2	-	-	-	-	-	2.0	-	-	1.0	0.8	-	10.2
18	2	-	-	-	-	-	-	-	-	4.1	3.0	-	5.1
19	2	-	-	-	0.8	1.0	-	-	-	6.0	0.9	-	8.1
20	2	-	-	-	-	-	-	-	2.0	-	15.1	-	8.0
Av.	2	0.0	0.1	0.5	0.1	1.8	0.1	0.2	3.3	1.2	2.3	-	1.6
										0.2	0.1	0.5	8.8

Table 14-4C-I - Bird Weight, Egg Size, Maturity and Production Rate

Entry No.	Type	Housing	Breeder	Average Body Weight						% Egg Size, Distribution						Egg Production Rate - %					
				150 Days	500 Days	Pee	Wee	Small	Medium	Large	Extra Large and Over	Av. Egg Wt. oz./doz.	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 3	H&N (Expl.A)			2.7	4.1	0.2	0.8	9.3	2.1	64.6	25.7	170.7	68.4	76.4	65.2	59.3	57.0	70.4	232.4		
2 3	Welp's (971)			3.0	4.3	0.2	1.7	11.7	22.5	63.4	25.8	168.2	70.5	72.6	62.0	57.7	52.8	68.5	202.6		
3 3	H&N (Nick Chick)			2.7	4.0	0.3	1.1	10.3	26.6	61.6	25.6	173.2	69.3	74.4	61.3	55.3	53.8	68.1	225.1		
4 3	Davis (Combiner)			4.2	6.1	0.1	0.1	4.0	13.2	82.6	27.4	178.2	59.7	70.5	62.1	59.5	55.0	67.5	207.9		
5 3	Shaver (Expl.)			2.9	4.1	0.0	0.2	3.7	16.7	79.5	26.3	176.7	64.3	84.5	78.0	69.4	63.7	79.1	253.6		
6 3	Ideal (236)			3.1	4.9	0.3	0.9	4.1	12.2	82.5	27.3	173.0	61.7	74.6	69.0	62.7	59.5	70.5	219.2		
7 3	Ind.Fm.Bu.(Du.60)			3.0	4.7	0.2	0.8	6.1	18.2	74.8	26.4	174.2	62.0	76.6	67.9	61.1	58.0	70.6	209.0		
9 3	Babcock (B-390)			3.7	5.8	0.0	0.2	2.9	10.0	86.8	27.7	184.5	57.1	78.0	68.9	66.3	62.8	73.1	233.3		
9 3	Kimber (K-137)			2.7	4.3	0.1	0.3	4.3	19.3	75.5	26.6	180.7	57.9	77.2	70.7	65.5	62.9	73.1	215.5		
10 3	Hy-Line (W-36)			3.0	4.2	0.1	0.7	7.5	19.1	72.6	26.6	176.0	61.7	76.0	64.3	61.0	58.7	69.9	210.4		
11 3	Tatum (T-111)			4.0	6.6	0.0	0.1	2.8	10.3	86.8	28.0	190.0	47.8	69.8	60.4	57.2	55.2	64.9	193.5		
12 3	Tatum (T-100)			2.9	4.5	0.2	0.6	6.2	20.8	72.2	26.2	173.2	64.5	79.7	75.7	71.2	71.2	76.7	239.7		
13 3	Shaver (288)			3.0	4.6	0.1	0.4	2.3	11.2	86.0	27.4	179.5	62.7	84.2	75.1	65.8	62.8	77.4	242.3		
14 3	Thornber (808)			2.9	4.5	0.3	0.7	7.8	26.7	64.5	26.0	176.7	63.7	77.3	69.9	63.9	60.5	72.8	231.3		
15 3	Parks (Keystone)			3.2	4.6	0.1	0.5	3.4	14.4	81.6	27.3	174.7	64.8	82.6	73.3	66.6	63.3	76.0	239.9		
16 3	Dekalb (171)			3.0	4.2	0.3	0.9	9.4	24.3	65.2	26.0	180.7	58.8	74.5	67.7	63.1	60.5	70.4	203.0		
17 3	Colonial (365-B)			2.8	4.0	0.3	1.2	7.3	19.1	72.2	26.3	168.7	67.9	73.2	63.8	59.6	57.7	68.7	221.2		
18 3	Hubbard (Gld.C.)			3.8	5.2	0.2	1.0	4.0	9.0	86.0	28.0	167.2	69.8	76.6	66.5	60.4	58.0	70.6	236.3		
19 3	Babcock (B-300)			2.8	4.3	0.1	0.4	4.2	16.9	78.3	26.8	171.5	68.0	79.7	72.7	69.3	66.6	75.9	246.0		
20 3	Anthony (W.Leg)			2.4	4.2	0.2	0.5	5.1	16.8	77.3	26.9	178.0	61.7	75.6	66.0	61.4	59.8	70.4	221.3		
0 3	Average			3.1	4.6	0.2	0.7	5.9	17.6	75.7	26.7	175.8	63.1	76.7	68.0	62.3	60.0	71.7	224.2		

Table 14-4C-II - Birds, Mortality, Feed Use, and Cost and Income Data

Number of Birds	Mortality	Feed Consumed	Value per Pullet Housed													
			Per Bird	Per 100 Birds	Per 1-150 Days	Per 1-500 Days	Per Dozen Eggs	Laying Feed Cost	Total Feed and Chick Cost	Value of Meat						
1 3 109.	104.	.98.	2.7	5.8	6.5	14.7	23.0	2.54	4.08	.31	0.65	3.81	4.77	6.51	.49	2.232
2 3 101.	88.	.70.	15.3	20.8	44.6	15.7	22.6	2.54	4.10	.29	0.72	3.32	4.38	5.71	.44	1.761
3 3 95.	95.	.91.	4.2	4.4	5.7	14.5	21.7	2.49	3.99	.31	0.65	3.62	4.58	6.39	.50	2.309
4 3 82.	92.	.81.	3.3	11.9	20.7	19.7	25.7	2.86	4.89	.32	0.86	4.07	5.26	6.01	.84	1.586
5 3 105.	104.	100.	1.0	3.4	a.2	14.9	23.3	2.26	3.78	.35	0.65	3.86	4.86	7.30	.50	2.940
6 3 109.	102.	.90.	9.2	11.6	22.9	16.0	23.6	2.48	4.23	.27	0.71	3.72	4.73	6.29	.59	2.142
7 3 105.	104.	.85.	11.8	16.3	38.5	15.6	22.6	2.46	4.06	.32	0.72	3.40	4.48	5.95	.52	1.992
8 3 101.	97.	.91.	3.0	6.2	4.8	18.2	25.9	2.65	4.60	.30	0.79	4.31	5.42	6.79	.84	2.209
9 3 116.	104.	.88.	1.7	15.4	30.8	14.3	23.1	2.46	4.09	.32	0.63	3.55	4.50	6.19	.47	2.155
10 3 115.	104.	.90.	5.2	13.5	30.5	14.9	21.5	2.37	3.93	.32	0.66	3.33	4.33	6.00	.47	2.136
11 3 105.	103.	.92.	3.7	10.7	20.5	18.0	26.8	3.13	5.49	.32	0.79	4.25	5.38	5.62	.91	1.157
12 3 114.	104.	.90.	0.0	13.5	20.2	15.2	23.4	2.36	3.87	.31	0.66	3.73	4.71	6.89	.50	2.680
13 3 106.	104.	.96.	1.9	7.7	13.7	15.7	23.7	2.32	3.98	.35	0.68	3.88	4.92	6.96	.55	2.599
14 3 107.	104.	.96.	4.8	7.7	13.8	15.1	22.9	2.45	3.99	.35	0.69	3.71	4.76	6.68	.53	2.458
15 3 72.	72.	.67.	1.3	6.9	15.9	16.7	24.4	2.40	4.09	.33	0.74	3.95	5.02	6.94	.55	2.470
16 3 99.	95.	.77.	5.1	19.0	42.2	16.4	21.7	2.43	3.95	.33	0.73	3.22	4.30	5.84	.44	1.979
17 3 90.	98.	.89.	0.0	9.2	16.9	15.0	22.0	2.43	3.79	.29	0.66	3.54	4.50	6.26	.47	2.225
18 3 88.	100.	.98.	1.1	1.3	5.5	18.3	23.7	2.37	4.15	.30	0.80	3.95	5.05	6.81	.79	2.549
19 3 107.	104.	.98.	4.8	5.8	10.6	15.1	23.6	2.34	3.92	.31	0.67	3.67	4.87	6.94	.52	2.587
20 3 99.	104.	.92.	7.3	11.5	16.7	16.7	22.4	2.46	4.13	.32	0.70	3.64	4.71	6.24	.44	2.044
0 3 101.	99.	89.	4.4	10.3	19.5	16.0	23.4	2.44	4.11	.32	0.71	3.74	4.78	6.41	.57	2.211

Table 14-4C-III - Egg Quality Data

Entry Number	Type Housing	Loss % (Downgrades)	Candled Quality Percentages			Haugh Units			Shell Score (Specific gravity)												
			Large Bloods	Small Bloods	Large Meats	A or Better	B	C	Chex and Cracks	Loss Eggs	October	January	April	June	Average	November	February	May	July	Average	
1	3	4.3	1.3	1.6	0.9	0.3	93.0	1.8	0.7	3.6	0.8	88.1	76.4	72.6	69.8	76.7	3.74	2.67	2.28	1.10	2.45
2	3	2.3	1.2	2.1	0.2	0.1	95.9	1.1	0.0	2.7	0.4	83.6	67.7	65.7	65.9	70.7	3.72	2.20	1.45	0.59	1.99
3	3	2.8	1.9	0.4	0.0	94.8	2.0	0.7	2.1	0.4	87.7	75.7	72.4	68.9	76.2	3.36	3.18	2.33	1.38	2.56	
4	3	2.3	3.2	4.3	10.8	9.0	95.6	0.1	0.0	4.3	0.0	86.8	69.3	69.3	63.2	72.1	2.68	1.03	1.16	0.67	1.38
5	3	3.1	2.4	2.9	0.4	0.2	94.7	1.0	0.1	3.5	0.8	82.1	69.2	63.7	59.8	68.7	4.00	3.19	1.89	0.91	2.50
6	3	2.7	1.7	1.1	0.0	0.1	95.0	1.4	0.8	2.6	0.2	81.9	66.7	62.6	63.7	68.7	3.82	2.40	2.05	1.37	2.41
7	3	3.3	1.8	2.9	0.0	0.5	94.6	0.9	0.4	3.1	1.0	89.1	79.5	76.6	71.2	79.1	3.93	3.20	2.19	1.45	2.69
8	3	2.2	1.9	4.6	8.4	12.3	96.0	0.2	0.1	3.3	0.4	84.1	69.3	66.9	63.9	71.0	2.86	1.50	1.22	0.79	1.59
9	3	3.1	1.1	2.4	0.1	0.1	94.7	1.7	0.3	2.7	0.5	89.5	80.2	76.7	71.5	79.5	4.25	2.78	2.05	1.29	2.59
10	3	2.9	1.2	0.8	0.4	0.4	94.6	1.2	0.4	3.6	0.2	81.2	69.8	65.5	62.7	69.8	3.52	3.06	2.02	1.64	2.56
11	3	2.6	3.7	4.5	8.9	7.2	95.5	0.4	0.0	3.2	0.9	87.1	72.2	68.5	66.6	73.6	2.98	1.41	1.41	0.90	1.68
12	3	2.7	1.8	1.5	0.2	0.3	94.8	0.9	0.2	3.7	0.4	85.5	74.0	71.4	69.3	75.0	3.62	2.57	1.79	1.15	2.28
13	3	3.2	1.7	1.1	0.2	0.1	94.6	1.1	0.4	3.3	0.7	84.8	74.1	70.9	65.5	73.8	3.78	2.65	2.03	0.97	2.36
14	3	1.7	1.7	0.9	0.0	0.3	96.9	0.7	0.0	2.1	0.2	82.2	69.2	65.9	64.7	70.5	3.56	2.87	2.33	1.68	2.61
15	3	2.4	0.3	1.7	0.3	0.3	95.9	0.5	0.8	2.5	0.3	84.3	73.0	70.1	63.9	72.8	4.00	2.76	2.01	1.12	2.47
16	3	1.8	2.9	2.6	0.1	0.3	96.9	0.6	0.3	1.6	0.6	85.3	71.9	68.7	66.5	73.1	3.63	2.50	2.09	1.33	2.39
17	3	3.3	1.0	1.8	0.0	0.1	93.7	2.2	0.6	3.2	0.4	85.7	71.1	69.7	66.3	73.2	3.75	3.00	2.37	1.55	2.67
18	3	2.1	3.6	5.8	12.9	10.7	96.2	0.1	0.0	3.4	0.2	87.3	72.8	70.2	66.4	74.3	2.76	1.23	1.26	0.82	1.52
19	3	4.7	3.2	2.2	0.3	0.2	92.6	1.5	0.5	3.8	1.6	84.7	72.3	69.9	66.9	73.5	3.53	2.57	1.65	0.81	2.16
20	3	3.8	3.0	2.0	0.1	0.1	93.4	0.8	0.0	5.0	0.7	86.3	74.4	70.4	60.4	75.4	2.98	1.95	1.33	0.62	1.72
0	3	2.9	2.0	2.4	2.2	2.1	95.0	1.0	0.3	3.2	0.5	85.4	72.4	69.4	66.4	73.4	3.53	2.44	1.84	1.11	2.23

Table 14-4C-IV - Causes of Mortality

Entry Number	Type Housing	Marek's	Marek's or Lymphoid Leukosis						Reproductive Disorders			All Other			Visible Lesions			Necropsy Report			Total	
			Gro.	Lay	Gro.	Lay	Gro.	Lay	Gro.	Lay	Gro.	Gro.	Lay	Gro.	Lay	Gro.	Lay	Gro.	Lay	Gro.	Lay	
1	3	-	-	-	-	-	1.9	-	1.0	-	1.8	2.9	-	-	0.9	-	2.7	5.8				
2	3	-	-	-	3.2	-	8.2	-	1.1	-	14.4	8.3	-	-	0.9	-	15.3	20.8				
3	3	-	-	-	-	-	2.1	-	-	1.1	4.2	1.1	-	-	-	-	4.2	4.4				
4	3	-	-	-	2.1	-	5.4	-	-	-	3.3	4.5	-	-	-	-	3.3	11.9				
5	3	-	-	-	1.0	-	1.0	-	-	1.9	-	-	-	-	-	-	0.0	3.8				
6	3	-	-	-	-	-	5.9	-	3.8	7.4	2.0	-	-	1.8	-	9.2	11.8					
7	3	-	-	-	1.9	-	7.7	-	-	3.8	11.8	4.8	-	-	-	-	11.8	18.3				
8	3	-	-	-	-	-	-	-	-	3.1	3.0	2.1	-	1.0	-	-	3.0	6.2				
9	3	-	-	1.0	-	1.0	-	3.8	-	-	8.7	1.7	1.0	-	-	-	1.7	15.4				
10	3	-	1.0	-	-	-	6.7	-	-	3.8	5.2	1.9	-	-	-	-	5.2	13.5				
11	3	-	-	-	-	-	3.8	-	-	3.0	3.7	3.9	-	-	-	-	3.7	10.7				
12	3	-	-	-	-	-	2.9	-	-	1.9	-	8.7	-	-	-	-	0.0	13.5				
13	3	-	-	-	1.0	-	1.9	-	-	3.8	0.9	1.0	-	-	0.9	-	1.9	7.7				
14	3	-	-	0.9	1.9	-	1.9	-	-	1.9	2.9	1.9	-	-	1.0	-	4.8	7.7				
15	3	-	-	-	-	-	1.4	-	-	2.8	1.4	1.4	-	-	1.4	-	1.4	6.9				
16	3	-	-	-	-	-	11.5	-	-	3.2	4.0	4.3	-	-	1.0	-	5.1	19.0				
17	3	-	-	-	-	-	5.2	-	-	1.0	-	3.0	-	-	-	-	0.0	9.2				
18	3	-	-	-	-	-	-	-	-	1.9	1.1	-	-	-	-	-	1.1	1.9				
19	3	-	-	-	-	-	1.9	-	-	3.8	1.9	-	-	3.0	-	-	4.9	5.8				
20	3	-	-	-	-	-	1.0	-	-	7.7	7.9	1.0	-	-	-	-	7.9	11.6				
Av.	3	0.0	0.1	0.0	0.7	0.0	3.8	0.0	0.1	2.9	3.8	2.7	0.0	0.1	0.5	0.0	4.4	10.3				

Table 14-4D-I - Bird Weight, Egg Size, Maturity and Production Rate

Entry No.	Type	Housing	Breeder	Average Body Weight	% Egg Size, Distribution					Egg Production Rate - %							
					150 Days	500 Days	Pee	Wee	Small	Medium	Large	Extra Large and Over	Av. Egg Wt. oz./doz.	Age at 50% Production			
5 0	Shaver (Expl.)	3-1	4-2	0-1	0-4	5-1	19-7	74-7	26-1	175-2	67-0	85-6	73-9	70-9	68-3	80-3	248-2
6 0	Ideal (236)	3-4	4-8	0-4	1-2	6-6	16-5	75-3	26-4	168-0	68-4	77-8	70-7	66-0	63-2	73-3	238-7
7 0	Ind.Fm.Bu. (Du. 60)	3-1	4-4	0-4	1-2	8-4	21-6	68-4	25-8	171-2	57-6	78-9	67-9	62-4	59-8	72-3	216-2
8 0	Babcock (B-390)	4-1	5-6	0-1	0-4	4-4	13-7	31-4	26-9	179-5	61-7	76-7	65-1	63-4	61-9	71-0	227-7
9 0	Kimber (K-137)	3-0	4-3	0-2	0-9	6-6	20-9	71-4	26-1	175-9	62-7	79-0	68-7	61-2	59-6	71-9	220-3
10 0	Hy-Line (W-36)	3-0	4-1	0-3	0-8	8-6	20-1	70-2	26-1	175-3	62-0	78-2	69-7	64-2	62-1	72-8	220-5
11 0	Tatum (T-111)	4-1	6-2	0-1	0-3	3-5	12-9	83-2	27-4	188-7	49-4	69-6	58-9	58-5	57-9	64-6	194-4
12 0	Tatum (T-100)	3-1	4-3	0-3	1-0	8-6	23-3	66-9	25-7	170-4	67-9	80-0	72-8	70-3	68-9	75-8	236-0
13 0	Shaver (288)	3-2	4-4	0-1	0-5	4-6	14-4	80-4	26-9	176-2	65-6	83-3	75-4	67-7	64-9	77-4	244-8
14 0	Thornber (808)	3-1	4-3	0-3	1-2	10-6	27-1	60-8	25-4	174-2	65-6	78-7	69-3	65-6	64-4	73-8	220-9
15 0	Parks (Keystone)	3-3	4-4	0-1	0-6	5-5	17-7	76-1	26-5	172-1	68-0	84-1	74-5	67-9	64-9	77-3	250-1
16 0	DeKalb (171)	3-1	4-2	0-4	1-1	10-7	23-3	64-6	25-7	178-2	60-5	74-4	66-3	62-5	60-6	70-0	202-8
17 0	Colonial (365-B)	3-0	4-0	0-5	1-4	8-4	19-6	70-0	26-0	166-6	71-3	74-0	63-5	59-0	57-1	69-0	225-8
18 0	Hubbard (Gld.C.)	3-9	4-9	0-1	0-8	4-4	9-8	85-0	27-6	167-4	70-6	76-5	65-7	59-8	56-8	70-5	235-3
19 0	Babcock (B-300)	3-0	4-2	0-3	0-9	5-5	17-5	75-8	26-3	169-3	71-9	82-3	74-1	71-3	67-8	77-8	255-5
20 0	Anthony (W.Leg)	3-0	4-0	0-3	0-7	6-6	13-3	73-5	26-2	178-7	60-5	76-0	67-9	63-0	61-5	71-1	215-5
0 0	Average	3-3	4-6	0-3	0-9	7-3	19-3	72-2	26-2	173-8	65-4	77-7	68-0	63-2	61-1	72-2	226-4

Table 14-4D-II - Birds, Mortality, Feed Use, and Cost and Income Data

	Number of Birds	Mortality	Feed Consumed	Value per Pullet Housed			
				At End of Test	% 150 Days	% 500 Days	At One Week
1 0	326.	304.	286.	2.9	5.9	4.9	15.1
2 0	308.	280.	223.	9.3	20.5	40.3	16.2
3 0	271.	259.	245.	4.1	5.4	7.5	15.0
4 0	300.	289.	245.	2.7	14.9	21.8	18.6
5 0	320.	303.	269.	0.6	11.3	22.0	15.6
6 0	313.	297.	270.	5.6	9.1	13.6	16.6
7 0	327.	304.	243.	6.7	20.1	39.7	15.7
8 0	300.	294.	273.	2.1	7.2	9.8	18.9
9 0	329.	304.	254.	2.0	16.5	27.5	15.6
10 0	345.	304.	262.	3.2	13.8	28.8	15.1
11 0	321.	303.	265.	4.8	12.6	22.4	18.4
12 0	337.	304.	259.	0.7	14.3	26.1	15.7
13 0	323.	304.	277.	4.0	8.9	15.6	16.3
14 0	331.	303.	243.	3.1	20.1	36.0	15.4
15 0	215.	210.	193.	2.5	3.1	11.5	17.2
16 0	309.	292.	227.	5.7	22.3	43.4	16.2
17 0	300.	295.	271.	1.6	8.2	14.6	15.6
18 0	290.	285.	270.	2.4	5.3	6.3	17.9
19 0	332.	304.	283.	2.5	6.9	10.0	15.5
20 0	314.	302.	243.	3.7	19.7	27.7	15.9
0 0	311.	292.	255.	3.5	12.6	21.5	16.3

	Entry Number	Type Housing	Days Lost/Hen	Chick Price	Growing Feed Cost	Laying Feed Cost	Total Feed and Egg Cost	Value of Eggs	Value of Meat	HOFC
1 0	326.	304.	286.	2.9	5.9	4.9	15.1	15.6	2.29	3.75
2 0	308.	280.	223.	9.3	20.5	40.3	16.2	22.0	2.61	4.17
3 0	271.	259.	245.	4.1	5.4	7.5	15.0	22.2	2.48	3.90
4 0	300.	289.	245.	2.7	14.9	21.8	18.6	26.2	3.05	5.19
5 0	320.	303.	269.	0.6	11.3	22.0	15.6	23.6	2.29	3.55
6 0	313.	297.	270.	5.6	9.1	13.6	16.6	23.5	2.43	4.00
7 0	327.	304.	243.	6.7	20.1	39.7	15.7	23.0	2.48	4.00
8 0	300.	294.	273.	2.1	7.2	9.8	18.9	25.5	2.76	3.65
9 0	329.	304.	254.	2.0	16.5	27.5	15.6	23.4	2.54	3.55
10 0	345.	304.	262.	3.2	13.8	28.8	15.1	22.0	2.36	3.86
11 0	321.	303.	265.	4.8	12.6	22.4	18.4	25.9	2.37	3.32
12 0	337.	304.	259.	0.7	14.3	26.1	15.7	23.6	2.43	3.91
13 0	323.	304.	277.	4.0	8.9	15.6	16.3	24.6	2.42	4.06
14 0	331.	303.	243.	3.1	20.1	36.0	15.4	23.6	2.56	4.06
15 0	215.	210.	193.	2.5	3.1	11.5	17.2	24.6	2.41	4.01
16 0	309.	292.	227.	5.7	22.3	43.4	16.2	22.2	2.53	4.05
17 0	300.	295.	271.	1.6	8.2	14.6	15.6	22.0	2.47	4.05
18 0	290.	285.	270.	2.4	5.3	6.3	17.9	23.9	2.44	4.21
19 0	332.	304.	283.	2.5	6.9	10.0	15.5	23.8	2.32	3.82
20 0	314.	302.	243.	3.7	19.7	27.7	15.9	23.1	2.54	4.15
0 0	311.	292.	255.	3.5	12.6	21.5	16.3	26.6	3.66	4.65

Table 14-4D-IV - Causes of Mortality

Entry Number	Type Housing	Marek's	Marek's or Lymphoid Leukosis			Other Neopl.			Reproductive Disorders			All Other			Visible Lesions			No Necropsy Report			Total			
			Gro.	Lay	Gro.	Lay	Gro.	Lay	Gro.	Lay	Gro.	Gro.	Lay	Gro.	Lay	Gro.	Lay	Gro.	Lay	Gro.	Lay	Gro.	Lay	
1	0	-	-	-	-	0.6	-	0.3	0.7	2.3	3.6	-	-	-	0.6	0.7	2.9	2.9	5.9	5.9	20.5	20.5	20.5	
2	0	-	-	3.5	0.7	4.5	0.6	1.1	2.8	7.4	8.3	-	-	-	0.6	0.4	9.3	9.3	20.5	20.5	20.5	20.5	20.5	
3	0	-	-	-	-	1.5	-	0.4	1.2	4.1	1.9	-	-	-	-	-	0.4	4.1	4.1	4.1	5.4	5.4	5.4	
4	0	-	0.3	-	0.7	-	3.5	-	4.8	2.7	5.2	-	0.3	-	-	-	-	2.7	2.7	2.7	14.9	14.9	14.9	
5	0	-	-	-	1.7	-	3.7	-	0.3	3.7	0.3	2.0	-	-	-	-	-	0.3	0.3	11.3	11.3	11.3	11.3	
6	0	-	-	-	-	2.7	-	-	4.7	5.0	1.0	-	-	-	0.6	0.7	5.6	5.6	9.1	9.1	9.1	9.1	9.1	
7	0	0.3	-	-	1.3	-	6.2	-	-	6.3	6.4	5.9	-	0.3	-	-	-	6.7	6.7	6.7	20.1	20.1	20.1	
8	0	-	-	-	0.3	-	-	-	-	2.1	1.8	2.7	-	1.7	0.3	0.3	0.3	0.3	2.1	2.1	2.1	7.2	7.2	7.2
9	0	-	0.7	-	1.0	-	2.9	-	-	8.2	2.0	3.1	-	-	-	-	-	0.7	0.7	2.0	2.0	16.5	16.5	
10	0	-	0.3	-	1.3	-	6.6	-	-	1.9	2.9	2.3	-	-	-	-	-	0.3	1.3	3.2	3.2	13.8	13.8	
11	0	-	-	0.3	-	0.3	-	2.9	-	-	3.3	4.1	5.3	0.7	0.7	-	-	-	-	4.8	4.8	4.8	12.6	
12	0	-	-	-	-	-	1.3	-	-	6.0	0.7	7.6	-	-	-	-	-	-	-	0.7	0.7	0.7	14.8	
13	0	-	-	0.7	-	2.6	-	-	3.9	3.8	0.7	-	-	-	0.3	1.0	4.0	4.0	8.9	8.9	8.9	8.9		
14	0	-	0.6	1.6	-	2.3	-	-	13.1	2.2	2.0	-	0.3	0.3	0.3	0.3	0.3	0.7	3.1	3.1	3.1	20.1	20.1	
15	0	-	0.5	-	-	0.5	-	-	5.7	2.0	1.4	-	0.5	-	-	-	-	-	-	-	2.5	2.5	8.1	
16	0	-	0.7	-	1.4	-	10.0	-	0.3	5.1	4.4	-	-	-	0.6	0.3	5.7	5.7	22.3	22.3	22.3	22.3		
17	0	-	-	-	-	-	3.1	-	-	1.7	1.7	3.0	-	-	-	-	-	0.3	1.7	8.2	8.2	8.2	8.2	
18	0	-	-	-	-	-	-	-	3.5	2.0	1.4	-	-	-	0.4	0.3	0.3	0.3	2.4	2.4	2.4	5.3		
19	0	-	-	0.3	0.3	-	1.3	-	-	3.9	1.2	1.3	-	-	1.0	-	-	-	2.5	2.5	2.5	6.9		
20	0	-	-	-	1.0	-	1.3	-	-	14.4	3.4	3.0	-	-	0.3	-	-	0.3	-	3.7	3.7	3.7	19.7	
Av.	0	0.0	0.1	0.1	0.8	0.0	2.9	0.0	0.1	4.8	3.1	3.3	0.0	0.2	0.3	0.4	0.4	3.5	3.5	3.5	3.5	12.6	12.6	

Table 14-4D-III - Egg Quality Data

Entry Number	Type	Housing	% Inclusion (Break-out)			Canded Quality Percentages			Haugh Units			Shell Score (Specific gravity)														
			Loss	%	(Downgrades)	Large	Bloods	Small	Bloods	Large	Meats	Small	Meats	A or Better	Chex and Cracks	Loss	Eggs	October	January	April	June	Average	November	February	May	July
T	0	3.6	0.9	1.4	0.4	0.3	93.7	1.9	0.4	3.6	0.5	89.7	76.9	74.1	70.0	77.4	3.59	3.47	2.18	1.62	2.71					
2	0	2.1	1.1	1.6	0.2	0.3	96.4	1.2	0.0	2.0	0.4	83.0	71.7	68.8	66.6	72.5	3.45	2.71	1.54	1.19	2.22					
3	0	2.4	1.5	1.5	0.3	0.2	95.3	2.0	0.6	1.9	0.2	86.6	77.3	74.0	70.5	77.1	3.30	3.33	1.89	1.76	2.57					
4	0	2.6	2.8	4.5	8.4	8.4	95.2	0.8	0.1	3.6	0.3	86.0	72.6	70.0	67.4	74.0	2.88	2.22	1.08	0.97	1.79					
5	0	2.7	2.6	2.7	0.3	0.2	95.1	1.4	0.0	3.2	0.3	79.8	69.8	65.1	61.0	68.9	4.01	3.72	1.83	1.69	2.81					
6	0	2.7	1.1	0.7	0.1	0.3	95.1	1.2	0.4	3.1	0.2	81.8	69.1	64.9	63.4	69.8	3.62	3.04	1.80	1.68	2.54					
7	0	3.6	1.0	2.2	0.1	0.5	94.0	0.9	0.1	4.4	0.6	89.3	80.6	81.1	73.6	81.1	3.85	3.68	2.22	2.01	2.94					
8	0	2.8	2.0	3.1	11.1	11.0	95.0	1.1	0.0	3.5	0.3	83.5	72.0	69.2	65.3	72.5	2.74	2.25	1.12	1.24	1.84					
9	0	3.2	0.9	1.5	0.2	0.0	94.6	1.5	0.2	3.3	0.5	88.6	80.7	77.7	72.5	79.9	4.38	3.78	2.16	1.59	2.98					
10	0	2.3	0.9	0.8	0.3	0.4	95.9	0.9	0.3	2.6	0.3	82.3	71.9	68.8	63.5	71.6	3.51	3.51	2.10	2.07	2.80					
11	0	2.4	4.2	4.1	10.0	7.9	95.7	0.9	0.1	2.9	0.4	85.4	73.0	70.2	67.4	74.0	2.99	2.56	1.29	1.42	2.06					
12	0	3.2	1.8	1.7	0.3	0.3	94.2	1.2	0.2	4.0	0.4	84.5	76.6	73.3	70.3	76.2	3.57	3.07	1.76	1.39	2.45					
13	0	3.4	1.0	1.0	0.3	0.3	93.8	1.3	0.1	4.2	0.6	84.5	74.6	72.0	67.2	74.6	4.18	3.57	1.85	1.59	2.80					
14	0	2.1	1.0	1.0	0.3	0.5	96.5	0.7	0.2	2.4	0.2	81.2	69.5	67.7	66.1	71.1	3.49	3.51	2.17	2.18	2.84					
15	0	2.5	0.8	1.4	0.3	0.2	95.7	1.1	0.3	2.6	0.3	83.9	73.8	70.7	67.0	73.9	4.15	3.68	1.74	1.86	2.86					
16	0	2.1	1.6	0.4	96.2	0.6	0.1	2.7	0.3	86.4	73.8	71.5	65.4	74.3	3.54	3.09	1.90	1.95	2.62							
17	0	3.1	1.4	1.8	0.2	0.1	94.3	1.9	0.3	3.2	0.3	83.0	72.7	68.9	54.8	72.4	3.69	3.52	2.13	1.85	2.80					
18	0	3.0	4.3	5.0	11.9	10.8	94.8	0.6	0.1	3.9	0.5	85.5	73.6	70.1	67.4	74.1	2.58	2.00	1.19	1.20	1.74					
19	0	3.6	2.3	1.5	0.2	0.3	94.1	1.7	0.2	3.0	1.0	83.8	73.0	71.2	57.3	73.3	3.56	3.19	1.75	1.32	2.44					
20	0	3.1	2.8	1.9	0.2	0.2	94.5	1.4	0.0	3.7	0.4	84.9	74.2	71.8	67.8	74.7	2.83	2.45	1.27	0.84	1.85					
21	0	2.8	1.8	2.1	2.3	2.1	95.0	1.2	0.2	3.2	0.4	84.6	73.9	71.1	67.2	74.2	3.49	3.12	1.75	1.57	2.48					

Table 14-4D-V - Commercial Egg Gradeout

Entry Number	Housing Type	45 Wks.Old - February						56 Wks.Old - April						70 Wks.Old					
		% C Qual.			% Farm Other			% C Qual.			% Farm Other			% C Qual.			% Farm		Other
		% A	% B	% Stains	% Crax	% Loss	Loss	% A	% B	% Stains	% Crax	% Loss	Loss	% A	% B	% Stains	% Crax	% Loss	%
1	0	87.8	2.8	5.0	2.5	1.0	1.0	68.9	1.3	22.4	0.7	1.4	5.2	67.2	0.4	13.7	2.5	3.1	13.1
2	0	86.3	1.8	7.0	2.4	0.5	2.0	73.7	4.5	17.5	1.3	1.1	1.9	75.4	0	17.4	2.8	2.3	2.1
3	0	89.2	3.0	4.4	2.2	0.1	1.1	78.2	3.4	14.7	0.9	1.4	1.4	70.3	0	14.4	1.4	0	13.9
4	0	92.4	1.0	2.8	1.2	0.8	1.8	86.1	1.5	5.4	2.0	0	5.0	88.0	0.3	5.7	1.5	1.8	2.7
5	0	88.2	2.2	5.8	2.0	0	1.8	71.0	2.5	9.2	0.6	1.0	15.6	73.9	0.1	18.6	2.1	2.0	3.3
6	0	86.7	1.3	7.5	2.4	0.6	1.4	73.2	1.6	8.8	2.0	0	14.5	72.2	0	20.4	1.7	2.3	3.5
7	0	83.0	2.5	9.4	2.8	1.5	0.9	68.8	2.0	12.4	1.7	3.3	11.9	69.4	0	24.4	1.2	3.7	1.2
8	0	91.8	0.5	4.1	1.2	1.0	1.3	87.6	2.9	4.6	1.4	1.0	2.5	87.7	0.2	4.4	2.0	2.1	3.6
9	0	82.5	1.6	7.0	2.2	0	6.7	71.1	2.1	11.8	1.6	0.5	12.8	70.3	0.4	21.1	2.4	2.5	3.3
10	0	87.0	1.5	7.0	1.9	1.2	1.5	73.7	1.7	10.0	0.6	1.2	12.8	76.8	0.3	16.2	1.2	3.0	2.5
11	0	92.4	1.3	3.0	0.8	1.0	1.5	86.4	2.2	7.2	1.1	0.6	2.6	84.3	0.1	7.2	2.3	2.1	4.1
12	0	86.0	1.5	6.3	4.3	0.5	1.4	74.3	2.5	9.1	1.5	1.0	11.7	69.0	0.4	9.7	3.8	1.8	15.3
13	0	84.4	1.7	8.3	2.1	2.2	1.4	62.1	2.5	14.4	1.2	0	19.8	68.2	0.2	21.1	3.7	3.1	3.8
14	0	85.5	1.8	9.6	1.5	0.2	1.4	85.1	1.8	9.8	0.3	0.6	2.4	66.6	0.3	19.7	2.9	5.3	5.1
15	0	87.9	0.9	7.9	1.2	0.7	1.4	66.9	2.4	13.2	1.2	0	16.4	65.6	0.1	16.5	3.3	0	14.6
16	0	86.3	1.2	6.7	2.5	1.8	1.6	72.6	2.0	9.8	0.5	0.6	14.5	77.2	0.6	18.0	2.2	0.8	1.2
17	0	83.3	1.4	11.0	2.4	0	2.0	68.5	3.0	11.9	1.0	1.7	13.8	64.5	0.8	23.4	3.8	2.5	5.0
18	0	90.0	0.7	7.0	2.2	0	0.1	82.7	1.6	7.5	2.3	0.8	5.1	80.0	0.6	6.5	3.7	3.2	6.1
19	0	86.4	0.8	8.8	2.2	0	1.8	62.5	2.1	15.0	1.0	1.2	18.2	63.3	0.2	27.4	2.5	3.7	2.9
20	0	86.7	1.4	6.6	2.2	2.0	1.2	70.0	1.5	13.6	2.1	0.1	12.7	72.2	0.4	17.2	4.2	3.0	3.0
0	0	87.2	1.5	6.8	2.1	0.8	1.7	74.2	2.3	11.4	1.3	0.9	10.0	73.1	0.3	16.2	2.6	2.4	5.5

Table 14-4D-VI - Duncan Range Test and Range Groups

Range	En- try	Eggs Per Pullet	Duncan Test	Range	En- try	% Pro- duction		Duncan After Test	Range	En- try	Feed		Duncan Lb. of Eggs	Days Lost	Duncan to Mor- tality	
						50%	50%				Duncan Test	Lb. of Test				
1	19	255.5		1	5	80.3			1	5	2.29			1	1	4.9
1	15	250.1		1	19	77.8			1	19	2.32			1	18	6.3
1	5	248.2		1	13	77.4			1	10	2.36			1	3	7.5
1	13	244.8		1	15	77.3			1	15	2.41			1	8	9.8
2	1	239.7		2	12	75.8			2	13	2.42			1	19	10.0
2	6	238.7		2	14	73.8			2	6*	2.43			1	15	11.5
2	12	236.0		2	6	73.3			2	12*	2.43			2	6	13.6
2	18	235.3		2	10	72.8			2	18	2.44			2	17	14.6
2	8	227.7		3	9	71.9			2	3	2.48			2	13	15.6
3	17	225.8		3	1	71.4			2	17	2.49			3	4	21.8
3	14	220.9		3	20	71.1			2	1	2.52			3	5	22.0
3	10	220.5		3	8	71.0			2	16	2.53			3	12	26.1
3	9	220.3		3	3	71.0			2	20	2.54			3	9	27.5
3	7	216.2		3	18	70.5			2	9	2.54			3	20	27.7
3	20	215.5		3	16	70.0			2	14	2.56			3	10	28.8
4	16	202.8		3	17	69.0			2	2	2.61			4	14	36.0
4	4	201.7		4	4	66.2			3	8	2.76			4	7	39.7
4	2	197.4		4	2	65.5			4	4	3.05			4	2	40.3
4	11	194.4		4	11	64.6			4	11	3.14			4	16	43.4
Av.		226.3				72.1					Av.			Av.		21.5