

AGRICULTURAL EXTENSION SERVICE
NORTH CAROLINA STATE UNIVERSITY | AT RALEIGH

SCHOOL OF AGRICULTURE AND LIFE SCIENCES

OFFICE OF EXTENSION POULTRY SCIENCE
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I am enclosing the final summary of the Eighth 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. Please circulate this among your associates so that they too may study its contents.

This test compared all stocks under two growing environments and three laying environments. We experienced some difficulty in completing the remodelling in time for this test and had to temporize on some late arriving equipment. We would suggest that you withhold final judgment on the efficacy of these management systems until the ninth test flock has completed its record. Requests for reports from this test should be sent to Piedmont Research Station, Route #6, Salisbury, N. C. 28144.

Due to the tardiness of this report, the causes of mortality and tests of significance will be shown on supplemental tables with the first progress report of the ninth test.

Very truly yours,

Grady A. Martin
Grady A. Martin
Extension Poultry Specialist

GAM:mc

FINAL SUMMARY REPORT
EIGHTH NORTH CAROLINA RANDOM SAMPLE LAYING TEST
March 25, 1966 through August 6, 1967

The North Carolina Random Sample Laying Tests are conducted under the auspices of the Agricultural Extension Service of North Carolina State University and the North Carolina Department of Agriculture. Mr. S. J. Childs, Jr., Route 6, Salisbury, N. C. 28144, is Resident Manager of the tests and Dr. G. A. Martin, Poultry Department, 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 the 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 8-4A-I, II, and III, 8-4B-I, II, and III, 8-4C-I, II, and III, and 8-4D-I, II, and III. 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, and III 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 U. S. 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

Computing service for this project is provided under the terms of the National Institute of Health Grant No. FR-00011. 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 2 pens reared on slats at 1 sq. ft. per pullet and 2 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 with floor space held constant and a maximum of 26 randomly chosen pullets were placed in a block of 10" x 18" laying cages at 2 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 which were permitted access to litter were innoculated with coccidiosis oocysts and fed a coccidiostat at a low level. Other management was as nearly commercial practices 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 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 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 1964, 1965, and 1966.

Values per Pullet Housed are the amounts charged or credited to the entry at 3-yr. monthly average feed prices quoted by N. C. Department of Agriculture, at 3-yr. weekly egg prices quoted for Raleigh market by the Federal-State Market Service, and 3-yr. 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 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 the N. C. Department of Agriculture, Egg Law Enforcement Section, whose personnel provided candling service on one day of production each month. Market value of all eggs was calculated on the basis of these candling reports.

% Inclusions (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 graders from the N. C. 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 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.

| Breeder | Stock Identification | Sample Proced.* | Source of Sample |
|--|------------------------------------|-----------------|---|
| Babcock Poultry Farm, Inc. Box 280, Ithaca, N. Y. | Babcock B 300 WL 3wX | A | Barrold's Hatchery Winterville, Ga. |
| Cashman Leghorn Farms Webster, Kentucky | Cashman Hi-Cash WL INX | A | Cashman Leghorn Farms, Webster, Ky. |
| Colonial Poultry Farms, Inc. Pleasant Hill, Missouri | True-Line 365-B WL INX | A | Colonial Poultry Farms Inc., Cullman, Ala. |
| Joe K. Davis Hatchery Earl, N. C. | Combiner Sex-Link RIRxBPR BX | A | Joe Davis Hatchery Earl, N. C. |
| Demler Farms, Inc. Box 687, Anaheim, Calif. | Demler D-65 WL SX | C | Demler Farms, Inc. Anaheim, Calif. |
| Garber Poultry Breeding Farm Modesta, Calif. | Garber GX 291 CGxWL | A | Joe Davis Hatchery Earl, N. C. |
| Earl W. Garrison, Inc. Bridgeton, New Jersey | Garrison X300 WL SX | A | Joe Stever's Poultry Farm, Huntingdon, Pa. |
| Heisdorf & Nelson Farms Kirkland, Wash. | H&N "Nick Chick" WL SX | B | Seven Oaks Farm Spartanburg, S. C. |
| Honegger Farms Co., Inc. Forrest, Ill. | Honegger Layers WL 3wX | A | FCX Hatchery Wallace, N. C. |
| Hubbard Farms, Inc. Walpole, N. H. | Hubbard Golden Comet NHxSyn. Bx | A&B | Hubbard Farms, Inc. Lancaster, Pa. |
| Hy-Line Poultry Farms Des Moines, Iowa | Hy-Line 934 IBX | B | Tar Heel Chicks, Inc. Monroe, N. C. |
| Ideal Poultry Breeding Farms, Inc., Box 710, Cameron, Texas | Ideal 236 4wBX | A | Ideal Poultry Breeding Farms, Cameron, Texas |
| Ind. Farm Bureau Cooperative Indianapolis, Ind. | Princess 55 WL SX | A | Cooperative Breeding Re- search Fm., Lafayette, Ind. |
| Kimber Farms, Inc. Fremont, California | Kimber K-137 WL SX | B | Hubbard Farms, Inc. Statesville, N. C. |
| N. Cent. Reg. Poultry Breeding Lab., Lafayette, Ind. | Cornell Control WL Randombred | - | N. Cent. Reg. Poultry Lab., Lafayette, Ind. |
| Parks Poultry Farm Altoona, Pa | Parks Keystones B-1 WL SX | A | Parks Poultry Farm Altoona, Pa. |
| Shaver Poul. Breeding Fms. Ltd., Galt, Ontario, Canada | Shaver Starcross 288 WL 3wX | B | Mid-Valley Hatchery Dayton, Va. |
| Stone's Poultry Breeding Farm Dinuba, California | Stone's H-56 WL SX | A | E. H. Underwood Bogart, Ga. |
| Welp's Breeding Farm Bancroft, Iowa | Welp Line 937 WL SX | A | Ga. Fresh Egg Farm Flowery Branch, Ga. |

*A = nest sample, B = Egg room sample, and C = Incubator tray sample.

TABLE 8-4A-I Bird Weight, Egg Size, Maturity, and Production Data

| a. Entry No. | Type <u>Housing</u> | <u>Breeder</u> | Av. Body Wt. | | Egg Size Distribution (%) | | | | Av. Egg Weight oz./doz. | |
|--------------------|------------------------|----------------|--------------|-------------|---------------------------|-------|--------|-------|-------------------------------|------|
| | | | 150 days | 500 days | Pee Wee | Small | Medium | Large | | |
| 1 | 1 | Stone | 3.4 | 4.4 | 0.1 | 4.1 | 15.9 | 34.3 | 45.5 | 26.0 |
| 2 | 1 | Demler | 3.2 | 4.3 | 0.0 | 2.4 | 13.6 | 29.1 | 54.9 | 26.4 |
| 3 | 1 | Kimber | 3.3 | 4.2 | 0.1 | 3.2 | 13.8 | 32.8 | 50.1 | 26.1 |
| 4 | 1 | Shaver | 3.5 | 4.7 | 0.1 | 4.2 | 12.1 | 22.1 | 61.4 | 26.6 |
| 5 | 1 | Davis | 4.5 | 5.6 | 0.0 | 0.8 | 9.1 | 21.5 | 68.6 | 27.6 |
| 6 | 1 | Colonial | 3.2 | 4.0 | 0.6 | 6.7 | 18.2 | 31.2 | 43.3 | 25.5 |
| 7 | 1 | Welp's | 3.1 | 3.8 | 0.3 | 4.2 | 14.6 | 30.6 | 50.2 | 25.9 |
| 8 | 1 | Hy-Line | 3.2 | 3.9 | 0.1 | 2.7 | 10.6 | 20.4 | 66.2 | 27.3 |
| 9 | 1 | NCRPBL | 3.2 | 4.9 | 0.8 | 5.6 | 19.2 | 35.3 | 39.2 | 25.4 |
| 10 | 1 | Garrison | 3.1 | 4.2 | 0.2 | 4.1 | 16.5 | 37.3 | 41.8 | 25.8 |
| 11 | 1 | Honegger | 3.3 | 4.3 | 0.1 | 4.0 | 15.4 | 34.4 | 46.0 | 26.1 |
| 12 | 1 | Garber | 3.8 | 4.8 | 0.3 | 4.4 | 14.9 | 25.4 | 55.0 | 26.3 |
| 13 | 1 | Ideal | 3.4 | 4.5 | 0.1 | 2.6 | 11.4 | 27.8 | 58.2 | 26.6 |
| 14 | 1 | Hubbard | 4.3 | 5.3 | 0.0 | 2.4 | 10.6 | 19.2 | 67.9 | 27.7 |
| 15 | 1 | Cashman | 3.6 | 4.7 | 0.3 | 3.1 | 13.1 | 33.8 | 49.7 | 26.3 |
| 16 | 1 | Ind. Fm.-Bu. | 3.0 | 4.2 | 0.1 | 2.1 | 12.1 | 25.9 | 59.8 | 26.6 |
| 17 | 1 | Heisdorf & N. | 3.2 | 4.1 | 0.1 | 4.3 | 19.5 | 33.0 | 43.1 | 25.8 |
| 18 | 1 | Babcock | 3.3 | 4.3 | 0.5 | 5.7 | 14.0 | 24.8 | 55.0 | 26.2 |
| 19 | 1 | Parks | 3.6 | 4.6 | 0.4 | 3.2 | 14.0 | 26.2 | 56.2 | 26.4 |
| 20 | 1 | Experimental | 3.4 | 4.5 | 0.1 | 3.7 | 11.8 | 25.9 | 58.5 | 26.7 |
| | | Average | 3.4 | 4.5 | 0.2 | 3.7 | 14.0 | 28.6 | 53.5 | 26.4 |

| b. Entry No. | Type <u>Housing</u> | Age at 50% <u>Prod.</u> | Percentage Production Rate | | | | After 471-500 days | 50% <u>Prod.</u> | Eggs per Pullet Housed | |
|--------------------|------------------------|-------------------------------|----------------------------|-----------------|-----------------|-----------------|--------------------------|---------------------|------------------------------|-------|
| | | | 151-240 days | 241-330 days | 331-420 days | 421-500 days | | | | |
| 1 | 1 | 177.5 | 55.1 | 65.6 | 64.8 | 61.1 | 56.7 | 64.6 | 173.6 | |
| 2 | 1 | 186.0 | 46.7 | 65.9 | 62.6 | 54.5 | 43.0 | 61.8 | 178.5 | |
| 3 | 1 | 182.0 | 52.7 | 74.1 | 69.3 | 64.7 | 61.2 | 69.7 | 188.5 | |
| 4 | 1 | 175.0 | 54.5 | 73.1 | 69.6 | 57.2 | 50.4 | 66.3 | 182.6 | |
| 5 | 1 | 189.0 | 45.6 | 68.3 | 64.1 | 56.0 | 52.2 | 62.8 | 198.8 | |
| 6 | 1 | 174.0 | 63.4 | 71.9 | 67.7 | 62.5 | 55.6 | 69.6 | 186.7 | |
| 7 | 1 | 179.0 | 54.1 | 72.7 | 68.7 | 62.6 | 58.4 | 68.2 | 182.9 | |
| 8 | 1 | 180.0 | 50.0 | 68.7 | 70.7 | 61.7 | 56.3 | 66.5 | 190.5 | |
| 9 | 1 | 200.5 | 36.7 | 62.6 | 61.6 | 57.2 | 53.0 | 60.8 | 123.2 | |
| 10 | 1 | 189.5 | 42.5 | 66.4 | 63.0 | 56.8 | 49.5 | 62.3 | 152.5 | |
| 11 | 1 | 184.5 | 49.0 | 70.6 | 65.4 | 57.4 | 51.5 | 65.0 | 172.1 | |
| 12 | 1 | 169.0 | 56.8 | 68.5 | 69.4 | 62.2 | 56.1 | 66.1 | 194.9 | |
| 13 | 1 | 184.0 | 49.1 | 67.8 | 67.4 | 57.7 | 58.9 | 64.2 | 195.4 | |
| 14 | 1 | 173.5 | 50.7 | 67.3 | 61.0 | 50.6 | 46.3 | 60.0 | 180.9 | |
| 15 | 1 | 191.0 | 45.9 | 74.7 | 74.2 | 68.0 | 63.4 | 71.1 | 199.6 | |
| 16 | 1 | 192.0 | 43.8 | 69.4 | 66.2 | 59.6 | 52.6 | 64.7 | 174.7 | |
| 17 | 1 | 182.0 | 52.3 | 61.3 | 57.6 | 51.7 | 45.7 | 59.4 | 169.6 | |
| 18 | 1 | 170.0 | 56.6 | 67.2 | 64.1 | 61.9 | 60.9 | 64.6 | 161.6 | |
| 19 | 1 | 177.0 | 56.3 | 71.7 | 64.7 | 57.6 | 52.9 | 65.8 | 202.5 | |
| 20 | 1 | 180.5 | 49.5 | 75.7 | 70.1 | 59.9 | 54.2 | 67.6 | 178.4 | |
| | | Average | 181.8 | 50.6 | 69.2 | 66.1 | 59.0 | 54.0 | 65.1 | 179.4 |

Table 8 4-A - II. Birds, mortality, feed use, and cost and income data

| Entry No. | Type | Housing | No. 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 per hen housed | | | | | |
| | Per bird 1-150 days | | | | | |
| | Per 100 bird days (laying) | | | | | |
| | Per lb. of eggs | | | | | |
| | Per dozen eggs | | | | | |
| | Chick Price | | | | | |
| | Growing feed cost | | | | | |
| | Laying feed cost | | | | | |
| | Total feed and chick cost | | | | | |
| | Value of eggs | | | | | |
| | Value of meat | | | | | |
| | LOFCC | | | | | |

Table 8 4-A - III. Egg quality data

| Kinty No. | Type Housing Lodges (down) | % Inclusion (break-out) | | Candled Quality Percentages | | | | Haugh Units | | | | Shell Score (Specific Gravity) | | | | | | | | |
|-----------|-------------------------------|-------------------------|--------------|-----------------------------|-------|-------|------|-------------|-----|------|----------|--------------------------------|------|------|------|-------|------|------|------|------|
| | | LARGE Bloods | SMALL Bloods | BETTER or MEAT | WORSE | CHEAP | GOOD | APRIL | MAY | JUNE | DECEMBER | SEPTEMBER | OCT. | NOV. | DEC. | APRIL | | | | |
| 1 | 1.2.2 | 0.0 | 1.3 | 0.2 | 0.6 | 93.7 | 1.6 | 0.0 | 4.0 | 0.7 | 86.6 | 77.3 | 74.2 | 73.5 | 77.9 | 4.73 | 4.48 | 2.98 | 1.79 | 3.49 |
| 2 | 1.5.1 | 0.3 | 0.0 | 0.0 | 0.0 | 89.9 | 3.0 | 0.0 | 5.9 | 1.2 | 87.8 | 77.9 | 72.6 | 73.1 | 77.9 | 4.83 | 4.18 | 3.55 | 1.94 | 3.63 |
| 3 | 1.4.2 | 0.5 | 1.0 | 0.0 | 0.3 | 90.2 | 3.2 | 0.0 | 6.4 | 0.0 | 90.6 | 79.4 | 77.9 | 81.7 | 82.4 | 5.49 | 4.91 | 3.74 | 1.63 | 3.94 |
| 4 | 1.5.9 | 0.7 | 0.5 | 0.2 | 0.0 | 86.8 | 4.0 | 0.3 | 8.1 | 0.6 | 84.3 | 73.5 | 72.1 | 73.7 | 75.9 | 4.89 | 4.18 | 2.70 | 1.92 | 3.42 |
| 5 | 1.4.1 | 0.4 | 2.5 | 3.0 | 24.1 | 92.0 | 2.3 | 0.3 | 4.2 | 1.3 | 86.3 | 77.9 | 71.3 | 69.8 | 76.3 | 3.58 | 2.67 | 2.24 | 0.40 | 2.23 |
| 6 | 1.2.4 | 0.4 | 1.1 | 0.0 | 0.3 | 95.5 | 1.3 | 0.2 | 2.7 | 0.5 | 88.8 | 76.4 | 74.9 | 74.9 | 76.0 | 5.02 | 4.05 | 3.72 | 1.85 | 3.66 |
| 7 | 1.3.6 | 0.8 | 1.6 | 0.2 | 0.2 | 93.2 | 1.8 | 0.0 | 3.9 | 1.1 | 85.5 | 74.8 | 73.1 | 71.7 | 76.3 | 4.66 | 3.70 | 3.06 | 1.77 | 3.30 |
| 8 | 1.5.7 | 0.4 | 0.6 | 0.0 | 0.3 | 88.1 | 2.4 | 0.0 | 9.2 | 0.3 | 85.4 | 74.7 | 71.8 | 68.9 | 75.2 | 4.91 | 4.41 | 3.35 | 2.40 | 3.77 |
| 9 | 1.4.4 | 0.5 | 2.4 | 0.0 | 0.0 | 90.2 | 4.2 | 0.0 | 4.5 | 1.1 | 85.5 | 75.5 | 73.9 | 73.9 | 77.6 | 4.22 | 3.24 | 2.74 | 1.22 | 2.85 |
| 10 | 1.2.9 | 0.9 | 1.8 | 0.0 | 0.4 | 93.1 | 2.4 | 0.0 | 4.5 | 0.0 | 85.2 | 71.7 | 70.0 | 70.3 | 74.3 | 4.96 | 4.47 | 3.24 | 1.34 | 3.50 |
| 11 | 1.4.2 | 0.7 | 1.0 | 0.2 | 0.2 | 91.0 | 2.5 | 0.2 | 6.1 | 0.2 | 86.1 | 78.7 | 76.7 | 72.6 | 78.6 | 4.81 | 3.96 | 3.37 | 1.80 | 3.48 |
| 12 | 1.5.7 | 0.4 | 0.7 | 0.2 | 0.4 | 88.9 | 2.3 | 0.1 | 7.6 | 1.0 | 88.4 | 77.0 | 70.6 | 70.3 | 76.6 | 4.58 | 3.87 | 2.38 | 1.17 | 3.00 |
| 13 | 1.6.0 | 0.6 | 0.7 | 0.0 | 0.4 | 88.8 | 1.2 | 0.1 | 8.7 | 1.2 | 84.6 | 76.2 | 73.3 | 70.2 | 76.1 | 4.78 | 4.06 | 3.57 | 1.60 | 3.50 |
| 14 | 1.4.2 | 0.8 | 2.0 | 5.5 | 33.0 | 91.6 | 2.5 | 0.2 | 4.8 | 1.0 | 88.6 | 78.4 | 72.6 | 72.0 | 77.9 | 3.74 | 3.01 | 2.17 | 0.87 | 2.45 |
| 15 | 1.5.3 | 2.7 | 1.5 | 0.3 | 0.1 | 89.5 | 2.4 | 0.0 | 7.2 | 0.9 | 84.3 | 76.2 | 73.2 | 71.8 | 76.4 | 4.72 | 4.03 | 3.07 | 1.47 | 3.32 |
| 16 | 1.2.9 | 0.2 | 0.8 | 0.0 | 0.0 | 94.4 | 1.2 | 0.0 | 3.9 | 0.5 | 90.0 | 81.3 | 79.0 | 79.0 | 82.3 | 4.68 | 4.31 | 3.13 | 1.96 | 3.52 |
| 17 | 1.4.1 | 1.2 | 1.0 | 0.0 | 0.0 | 89.8 | 5.4 | 0.0 | 4.2 | 0.6 | 88.4 | 78.7 | 80.2 | 77.4 | 81.2 | 5.01 | 3.62 | 3.25 | 1.94 | 3.45 |
| 18 | 1.4.2 | 0.5 | 1.0 | 0.2 | 0.0 | 91.5 | 3.0 | 0.4 | 3.9 | 1.2 | 83.0 | 70.9 | 72.1 | 71.9 | 74.5 | 4.32 | 3.58 | 2.42 | 0.89 | 2.80 |
| 19 | 1.4.2 | 1.1 | 2.0 | 0.0 | 0.0 | 92.3 | 2.1 | 0.0 | 4.5 | 1.2 | 85.4 | 74.6 | 75.4 | 74.0 | 77.4 | 4.95 | 4.32 | 3.29 | 1.78 | 3.59 |
| 20 | 1.5.1 | 0.0 | 1.0 | 1.8 | 4.7 | 90.4 | 2.7 | 0.2 | 5.1 | 1.5 | 87.2 | 71.7 | 72.9 | 72.0 | 75.9 | 4.51 | 3.64 | 2.06 | 1.21 | 2.86 |
| Av.1 | 4.0.4 | 0.7 | 1.2 | 0.6 | 3.2 | 91.0 | 2.6 | 0.1 | 5.5 | 0.8 | 86.6 | 76.1 | 74.0 | 73.2 | 77.5 | 4.67 | 3.94 | 3.00 | 1.55 | 3.29 |

TABLE 8-4B-I Bird Weight, Egg Size, Maturity, and Production Data

| a. Entry No. | Type <u>Housing</u> | Breeder | Av. Body Wt. | | Egg Size Distribution (%) | | | | Av. Egg Weight oz./doz. | |
|--------------------|------------------------|---------------|--------------|-------------|---------------------------|-------|--------|-------|-------------------------------|------|
| | | | 150 days | 500 days | Pee Wee | Small | Medium | Large | | |
| 1 | 2 | Stone | 3.3 | 4.4 | 0.4 | 6.2 | 22.8 | 31.6 | 39.0 | 25.1 |
| 2 | 2 | Demler | 3.3 | 4.3 | 0.4 | 2.0 | 14.5 | 28.5 | 54.6 | 26.4 |
| 3 | 2 | Kimber | 3.3 | 4.4 | 0.1 | 3.5 | 17.2 | 31.1 | 48.2 | 25.8 |
| 4 | 2 | Shaver | 3.4 | 4.7 | 0.1 | 2.2 | 13.0 | 26.6 | 58.1 | 26.5 |
| 5 | 2 | Davis | 4.7 | 6.2 | 0.0 | 1.7 | 10.6 | 22.4 | 65.3 | 27.3 |
| 6 | 2 | Colonial | 3.4 | 4.4 | 0.8 | 7.2 | 19.8 | 29.3 | 43.0 | 25.6 |
| 7 | 2 | Welp's | 2.9 | 4.0 | 0.2 | 3.9 | 17.0 | 33.7 | 45.2 | 25.8 |
| 8 | 2 | Hy-Line | 3.2 | 4.2 | 0.1 | 1.9 | 11.2 | 22.1 | 64.7 | 27.1 |
| 9 | 2 | NCRPBEL | 3.2 | 4.8 | 0.4 | 5.3 | 24.7 | 35.1 | 34.5 | 25.1 |
| 10 | 2 | Garrison | 3.1 | 4.4 | 0.1 | 3.3 | 20.3 | 36.9 | 39.3 | 25.6 |
| 11 | 2 | Honegger | 3.3 | 4.6 | 0.12 | 3.9 | 18.7 | 33.4 | 43.8 | 25.6 |
| 12 | 2 | Garber | 3.8 | 4.9 | 1.0 | 5.2 | 19.1 | 24.1 | 50.6 | 25.8 |
| 13 | 2 | Ideal | 3.3 | 4.6 | 0.2 | 2.6 | 15.0 | 30.6 | 51.6 | 26.1 |
| 14 | 2 | Hubbard | 4.3 | 5.3 | 0.1 | 2.5 | 12.4 | 19.9 | 65.1 | 27.3 |
| 15 | 2 | Cashman | 3.4 | 4.7 | 0.1 | 2.9 | 16.1 | 31.0 | 49.9 | 26.0 |
| 16 | 2 | Ind. Fm.-Bu. | 3.2 | 4.5 | 0.2 | 2.5 | 13.9 | 28.0 | 55.4 | 26.4 |
| 17 | 2 | Heisdorf & N. | 3.0 | 4.3 | 0.3 | 3.1 | 19.4 | 34.5 | 42.7 | 25.6 |
| 18 | 2 | Babcock | 3.2 | 4.4 | 0.8 | 6.3 | 17.1 | 29.5 | 46.3 | 25.6 |
| 19 | 2 | Parks | 3.5 | 5.1 | 0.1 | 3.8 | 18.4 | 31.7 | 46.0 | 25.8 |
| 20 | 2 | Experimental | 3.4 | 4.4 | 0.3 | 4.3 | 15.4 | 28.0 | 52.0 | 26.3 |
| Average | | | 3.4 | 4.6 | 0.3 | 3.7 | 16.8 | 29.4 | 49.8 | 26.0 |

| b. Entry No. | Type <u>Housing</u> | Age at 50% Prod. | Percentage Production Rate | | | | After 50% Prod. | Eggs per Pullet Housed | |
|--------------------|------------------------|------------------------|----------------------------|-----------------|-----------------|-----------------|-----------------------|------------------------------|-------|
| | | | 151-240 days | 241-330 days | 331-420 days | 421-500 days | | | |
| 1 | 2 | 170.0 | 62.0 | 63.2 | 61.4 | 54.4 | 50.8 | 63.0 | 175.7 |
| 2 | 2 | 182.5 | 57.9 | 72.8 | 63.2 | 56.2 | 46.2 | 67.2 | 208.5 |
| 3 | 2 | 173.5 | 62.9 | 76.7 | 71.0 | 64.6 | 59.7 | 72.0 | 208.1 |
| 4 | 2 | 174.0 | 64.9 | 81.1 | 74.8 | 65.6 | 61.0 | 75.3 | 234.8 |
| 5 | 2 | 174.0 | 63.8 | 79.8 | 71.3 | 59.8 | 53.6 | 72.2 | 229.1 |
| 6 | 2 | 166.0 | 73.7 | 73.4 | 66.4 | 53.7 | 48.4 | 68.3 | 225.6 |
| 7 | 2 | 184.5 | 56.0 | 74.8 | 69.2 | 63.7 | 59.8 | 70.2 | 194.0 |
| 8 | 2 | 174.5 | 64.0 | 75.5 | 64.9 | 60.7 | 55.6 | 69.6 | 220.6 |
| 9 | 2 | 192.0 | 46.3 | 69.2 | 61.1 | 57.2 | 52.2 | 64.3 | 158.7 |
| 10 | 2 | 191.5 | 47.2 | 68.5 | 59.9 | 54.9 | 47.0 | 63.8 | 170.0 |
| 11 | 2 | 176.5 | 61.0 | 76.4 | 69.2 | 63.5 | 54.0 | 71.2 | 210.5 |
| 12 | 2 | 166.5 | 67.5 | 75.7 | 62.8 | 55.0 | 48.8 | 67.4 | 208.2 |
| 13 | 2 | 179.0 | 57.3 | 72.7 | 69.3 | 64.6 | 61.2 | 69.9 | 215.4 |
| 14 | 2 | 166.5 | 67.1 | 75.1 | 64.8 | 53.9 | 49.2 | 67.3 | 208.3 |
| 15 | 2 | 182.5 | 57.5 | 76.1 | 69.9 | 66.7 | 61.0 | 72.7 | 223.3 |
| 16 | 2 | 183.0 | 54.8 | 73.8 | 65.3 | 61.6 | 58.4 | 68.7 | 196.7 |
| 17 | 2 | 181.5 | 61.0 | 66.7 | 62.3 | 53.2 | 47.2 | 67.4 | 211.1 |
| 18 | 2 | 168.5 | 70.2 | 72.0 | 70.8 | 63.8 | 57.6 | 71.1 | 215.8 |
| 19 | 2 | 171.5 | 69.0 | 78.0 | 71.6 | 62.1 | 57.9 | 73.6 | 235.0 |
| 20 | 2 | 168.5 | 63.6 | 73.2 | 69.8 | 59.0 | 53.5 | 68.7 | 214.1 |
| Average | | 176.3 | 61.4 | 73.7 | 66.9 | 59.8 | 54.2 | 69.2 | 208.2 |

Table 8 4-B - II. Birds, mortality, feed use, and cost and income data

| Entry No. | Housing Type | No. of Birds | | Mortality | | Feed Consumed | | Value per Pullet Housed | | Chick Price | Gross Income | Laying Feed Cost | Total Feed and Cost | Value of Eggs | Value of Meat | TOFCC | |
|-----------|--------------|--------------|-----------------------|-----------|----------------|-----------------|-------------------|-------------------------|-----------------|-------------|--------------|------------------|---------------------|---------------|---------------|-----------|-----------|
| | | At one week | Housed At end of test | % 8 | % 151-500 days | Av. lost housed | Per 150 bird days | 100 birds (laying) | 1 lb. feed doz. | | | | | | | | |
| 1 | 2 | 106. | 100. | 69. | 3.2 | 31.0 | 60.9 | 18.0 | 24.9 | 3.15 | 4.94 | .30 | 0.80 | 3.47 | 4.58 | 4.69 | .18 0.285 |
| 2 | 2 | 94. | 94. | 83. | 2.1 | 11.7 | 17.6 | 18.0 | 27.3 | 3.17 | 5.23 | .31 | 0.80 | 4.39 | 5.51 | 5.74 | .22 0.455 |
| 3 | 2 | 85. | 85. | 69. | 0.8 | 18.7 | 47.3 | 17.9 | 26.1 | 2.83 | 4.56 | .40 | 0.79 | 3.83 | 5.02 | 5.65 | .21 0.843 |
| 4 | 2 | 116. | 100. | 88. | 1.1 | 12.0 | 22.6 | 18.2 | 27.2 | 2.75 | 4.56 | .36 | 0.80 | 4.30 | 5.46 | 6.32 | .24 1.099 |
| 5 | 2 | 113. | 100. | 89. | 1.2 | 11.0 | 17.4 | 22.2 | 28.8 | 2.94 | 5.02 | .34 | 0.97 | 4.62 | 5.94 | 6.33 | .38 0.772 |
| 6 | 2 | 69. | 68. | 63. | 1.9 | 7.4 | 14.3 | 18.1 | 27.2 | 3.05 | 4.89 | .42 | 0.80 | 4.42 | 5.64 | 5.95 | .24 0.557 |
| 7 | 2 | 106. | 100. | 80. | 1.9 | 20.0 | 53.4 | 16.9 | 24.8 | 2.82 | 4.55 | .38 | 0.74 | 3.55 | 4.68 | 5.26 | .19 0.766 |
| 8 | 2 | 108. | 100. | 88. | 1.3 | 12.0 | 18.2 | 18.1 | 27.2 | 2.90 | 4.91 | .48 | 0.79 | 4.36 | 5.62 | 6.05 | .21 0.647 |
| 9 | 2 | 101. | 99. | 69. | 2.6 | 30.1 | 75.8 | 17.4 | 24.9 | 3.30 | 5.18 | .42 | 0.76 | 3.32 | 4.52 | 4.22 | .20 0.101 |
| 10 | 2 | 97. | 93. | 70. | 3.4 | 24.7 | 54.6 | 17.0 | 23.8 | 3.13 | 5.00 | .34 | 0.75 | 3.40 | 4.50 | 4.60 | .19 0.294 |
| 11 | 2 | 113. | 100. | 80. | 1.8 | 20.0 | 38.4 | 17.6 | 25.3 | 2.81 | 4.51 | .39 | 0.77 | 3.82 | 4.98 | 5.75 | .21 0.978 |
| 12 | 2 | 115. | 100. | 81. | 0.6 | 19.0 | 34.1 | 19.5 | 26.4 | 2.98 | 4.81 | .31 | 0.86 | 4.02 | 5.19 | 5.53 | .23 0.567 |
| 13 | 2 | 108. | 100. | 85. | 3.7 | 15.0 | 23.1 | 17.7 | 25.2 | 2.82 | 4.60 | .38 | 0.79 | 3.99 | 5.17 | 5.89 | .23 0.947 |
| 14 | 2 | 115. | 100. | 81. | 2.9 | 19.0 | 33.6 | 21.0 | 27.4 | 2.94 | 5.02 | .35 | 0.92 | 4.19 | 5.47 | 5.76 | .34 0.627 |
| 15 | 2 | 100. | 98. | 2.7 | 9.3 | 19.6 | 17.7 | 27.0 | 2.95 | 4.80 | .38 | 0.78 | 4.30 | 5.47 | 6.06 | .25 0.840 | |
| 16 | 2 | 113. | 100. | 78. | 4.7 | 22.0 | 41.8 | 16.5 | 26.1 | 2.98 | 4.91 | .39 | 0.74 | 3.88 | 5.03 | 5.39 | .20 0.567 |
| 17 | 2 | 81. | 79. | 70. | 1.6 | 11.4 | 19.1 | 17.0 | 25.6 | 3.03 | 4.86 | .33 | 0.74 | 4.09 | 5.18 | 5.65 | .22 0.695 |
| 18 | 2 | 114. | 100. | 82. | 1.2 | 18.0 | 39.1 | 17.8 | 25.7 | 2.78 | 4.46 | .38 | 0.78 | 3.86 | 5.01 | 5.75 | .21 0.946 |
| 19 | 2 | 108. | 100. | 88. | 4.4 | 12.0 | 16.2 | 18.2 | 26.2 | 2.77 | 4.47 | .37 | 0.81 | 4.72 | 5.42 | 6.38 | .32 1.275 |
| 20 | 2 | 128. | 111. | 0.9 | 12.5 | 28.1 | 18.4 | 26.0 | 2.85 | 4.69 | .37 | 0.81 | 4.03 | 5.21 | 5.78 | .23 0.797 | |
| AV.2 | 104. | 97. | 81. | 2.2 | 16.9 | 33.8 | 18.2 | 26.2 | 2.95 | 4.80 | .37 | 0.80 | 4.00 | 5.18 | 5.64 | .23 0.693 | |

Table 8 4-B - III. Egg quality data

| Entry No. | Housing Type | % Loss (downgrades) | (break- % Inclusions (out)) | | | | Candled Quality Percentages | | | | Haugh Units | | | | Shell Score (Specific Gravity) | | | | | | | | |
|-----------|--------------|---------------------|--------------------------------|--------------|-------------|-------------|-----------------------------|-----|-----|-----|-------------|------------|-----------|-------|--------------------------------|-------|------|---------|------|------|-------|------|---------|
| | | | Large Bloods | Small Bloods | Large Meats | Small Meats | A or Better | • | ✖ | ✖ | Hex Cracks | End Cracks | Loss Eggs | Sept. | Dec. | April | June | Average | Oct. | Jan. | April | July | Average |
| 1 | 2 | 3.0 | 0.0 | 0.8 | 0.0 | 0.9 | 92.2 | 4.0 | 3 | 0.0 | 3.0 | 0.2 | 79.6 | 78.1 | 71.1 | 67.5 | 74.1 | 4.0 | 11 | 3.96 | 3.48 | 2.32 | 3.47 |
| 2 | 2 | 2.4 | 0.1 | 0.7 | 0.0 | 0.1 | 94.0 | 3.0 | 0 | 0.0 | 2.7 | 0.3 | 78.1 | 75.5 | 65.1 | 64.0 | 70.7 | 4.29 | 3.58 | 3.19 | 1.95 | 1.95 | 3.25 |
| 3 | 2 | 2.7 | 0.3 | 1.0 | 0.0 | 0.0 | 94.4 | 2.0 | 4 | 0.2 | 2.0 | 1.0 | 86.9 | 85.1 | 76.4 | 74.2 | 80.7 | 4.97 | 4.85 | 3.37 | 2.23 | 3.86 | |
| 4 | 2 | 4.8 | 0.6 | 1.1 | 0.0 | 0.3 | 90.1 | 3.0 | 0 | 0.3 | 5.8 | 0.9 | 73.7 | 77.4 | 64.1 | 67.3 | 70.6 | 4.11 | 3.50 | 3.07 | 1.80 | 3.12 | |
| 5 | 2 | 3.0 | 0.9 | 2.5 | 3.5 | 20.7 | 93.0 | 3.1 | 0 | 0.5 | 2.6 | 0.8 | 79.1 | 79.2 | 67.5 | 67.1 | 73.2 | 2.94 | 2.32 | 1.54 | 1.17 | 1.99 | |
| 6 | 2 | 3.3 | 0.8 | 1.0 | 0.0 | 0.2 | 91.0 | 4.0 | 9 | 0.4 | 3.6 | 0.2 | 78.8 | 77.5 | 68.5 | 67.2 | 73.0 | 4.22 | 3.79 | 3.12 | 2.09 | 3.31 | |
| 7 | 2 | 2.5 | 1.5 | 1.6 | 0.0 | 0.3 | 94.3 | 3.0 | 3 | 0.3 | 1.2 | 0.9 | 77.8 | 78.9 | 68.3 | 66.2 | 72.8 | 4.04 | 4.33 | 2.93 | 1.54 | 3.21 | |
| 8 | 2 | 3.7 | 0.7 | 1.3 | 0.0 | 0.1 | 92.2 | 2.0 | 7 | 0.0 | 4.9 | 0.3 | 74.3 | 76.0 | 68.1 | 64.6 | 70.7 | 4.16 | 4.07 | 3.31 | 2.06 | 3.40 | |
| 9 | 2 | 2.9 | 0.7 | 2.4 | 0.0 | 0.2 | 93.0 | 3 | 6 | 0.2 | 2.9 | 0.4 | 81.5 | 80.6 | 71.0 | 70.5 | 75.9 | 4.51 | 3.72 | 2.54 | 1.67 | 3.11 | |
| 10 | 2 | 2.7 | 0.2 | 2.2 | 0.2 | 0.2 | 93.5 | 3 | 3 | 0.3 | 2.5 | 0.4 | 76.5 | 79.4 | 71.6 | 69.0 | 74.1 | 4.55 | 4.41 | 3.49 | 1.51 | 3.49 | |
| 11 | 2 | 1.6 | 1.1 | 2.3 | 0.0 | 0.6 | 95.9 | 2 | 5 | 0.0 | 1.4 | 0.3 | 77.6 | 80.2 | 68.3 | 63.6 | 72.4 | 4.16 | 3.39 | 3.46 | 2.43 | 3.36 | |
| 12 | 2 | 4.0 | 0.7 | 1.7 | 0.1 | 0.1 | 91.6 | 2 | 7 | 0.1 | 4.8 | 0.7 | 77.5 | 79.5 | 67.4 | 66.2 | 72.7 | 4.12 | 4.14 | 2.91 | 1.39 | 3.14 | |
| 13 | 2 | 2.5 | 0.4 | 1.7 | 0.0 | 0.1 | 94.3 | 2 | 0 | 0.1 | 3.3 | 0.3 | 82.5 | 82.6 | 69.2 | 65.3 | 74.9 | 4.51 | 3.62 | 3.51 | 2.06 | 3.43 | |
| 14 | 2 | 3.1 | 0.4 | 1.9 | 3.6 | 28.1 | 93.1 | 3 | 0 | 0.7 | 2.4 | 0.8 | 80.1 | 80.2 | 69.4 | 69.1 | 74.7 | 2.75 | 2.09 | 2.05 | 1.24 | 2.03 | |
| 15 | 2 | 2.7 | 1.6 | 3.1 | 0.0 | 0.3 | 94.2 | 2 | 0 | 0.1 | 3.1 | 0.5 | 79.3 | 84.5 | 69.4 | 66.9 | 75.0 | 4.14 | 3.77 | 3.10 | 1.64 | 3.16 | |
| 16 | 2 | 3.1 | 0.6 | 1.4 | 0.0 | 0.0 | 93.4 | 2 | 4 | 0.0 | 3.5 | 0.7 | 85.2 | 84.7 | 75.6 | 76.0 | 80.4 | 4.63 | 3.88 | 3.23 | 2.19 | 3.48 | |
| 17 | 2 | 4.4 | 1.4 | 0.7 | 0.0 | 0.0 | 89.5 | 5 | 0 | 0.0 | 5.1 | 0.3 | 84.2 | 82.7 | 71.2 | 75.6 | 78.4 | 4.33 | 3.68 | 2.79 | 1.34 | 3.03 | |
| 18 | 2 | 3.2 | 1.1 | 1.9 | 0.1 | 0.1 | 93.3 | 2 | 4 | 0.1 | 3.5 | 0.7 | 79.0 | 77.1 | 72.0 | 67.6 | 73.9 | 4.45 | 3.90 | 2.30 | 1.67 | 3.08 | |
| 19 | 2 | 2.8 | 1.5 | 2.1 | 0.1 | 0.1 | 94.2 | 2 | 4 | 0.2 | 2.4 | 0.7 | 79.8 | 81.8 | 68.1 | 64.3 | 73.5 | 4.60 | 3.81 | 3.04 | 2.42 | 3.47 | |
| 20 | 2 | 3.2 | 0.7 | 1.4 | 0.7 | 3.1 | 93.1 | 2 | 4 | 0.3 | 3.9 | 0.3 | 78.1 | 77.5 | 66.3 | 68.0 | 72.5 | 4.10 | 3.49 | 2.42 | 1.66 | 2.92 | |
| KV.2 | 3.1 | 0.8 | 1.6 | 0.4 | 2.8 | 93.0 | 3 | 0 | 0.2 | 3.2 | 0.5 | 79.5 | 79.9 | 69.4 | 68.0 | 74.2 | 4.18 | 3.72 | 2.94 | 1.82 | 3.17 | | |

TABLE 8-4C-I Bird Weight, Egg Size, Maturity, and Production Data

| a. Entry No. | Type <u>Housing</u> | Breeder | Av. Body Wt. | | Egg Size Distribution (%) | | | | Av. Egg Weight oz./doz. | |
|--------------------|------------------------|---------------|--------------|-------------|---------------------------|-------|--------|-------|-------------------------------|------|
| | | | 150 days | 500 days | Pee Wee | Small | Medium | Large | | |
| 1 | 3 | Stone | 3.3 | 4.5 | 0.2 | 2.4 | 18.4 | 36.6 | 42.5 | 25.8 |
| 2 | 3 | Demler | 3.3 | 4.5 | 0.1 | 2.2 | 14.9 | 31.6 | 51.2 | 26.3 |
| 3 | 3 | Kimber | 3.3 | 4.4 | 0.2 | 3.4 | 17.8 | 33.6 | 45.0 | 25.8 |
| 4 | 3 | Shaver | 3.4 | 4.9 | 0.2 | 2.2 | 11.8 | 24.8 | 61.0 | 26.7 |
| 5 | 3 | Davis | 4.6 | 6.3 | 0.1 | 1.8 | 9.4 | 22.8 | 66.0 | 27.3 |
| 6 | 3 | Colonial | 3.3 | 4.2 | 0.1 | 5.8 | 19.2 | 33.8 | 40.1 | 25.4 |
| 7 | 3 | Welp's | 3.0 | 4.0 | 0.2 | 2.5 | 16.6 | 30.9 | 49.8 | 26.0 |
| 8 | 3 | Hy-Line | 3.1 | 4.1 | 0.1 | 2.0 | 10.5 | 24.5 | 62.9 | 26.9 |
| 9 | 3 | NCRPBL | 3.2 | 4.7 | 0.4 | 5.4 | 22.5 | 36.3 | 35.4 | 25.0 |
| 10 | 3 | Garrison | 3.1 | 4.4 | 0.1 | 3.3 | 18.2 | 36.1 | 42.2 | 25.7 |
| 11 | 3 | Honegger | 3.3 | 4.6 | 0.3 | 4.0 | 15.4 | 29.9 | 50.4 | 25.9 |
| 12 | 3 | Garber | 3.8 | 5.0 | 0.3 | 3.3 | 13.8 | 26.1 | 56.4 | 26.5 |
| 13 | 3 | Ideal | 3.3 | 4.8 | 0.1 | 1.6 | 11.8 | 27.5 | 58.9 | 26.6 |
| 14 | 3 | Hubbard | 4.4 | 5.7 | 0.1 | 2.2 | 11.3 | 21.5 | 64.9 | 27.2 |
| 15 | 3 | Cashman | 3.3 | 4.9 | 0.3 | 2.7 | 16.1 | 32.5 | 48.3 | 25.7 |
| 16 | 3 | Ind. Fm.-Bu. | 3.1 | 4.4 | 0.3 | 1.9 | 13.1 | 29.7 | 55.0 | 26.1 |
| 17 | 3 | Heisdorf & N. | 3.0 | 4.4 | 0.5 | 2.2 | 16.0 | 31.1 | 50.2 | 26.3 |
| 18 | 3 | Babcock | 3.3 | 4.4 | 0.4 | 3.8 | 15.8 | 29.1 | 50.8 | 25.9 |
| 19 | 3 | Parks | 3.6 | 5.0 | 0.2 | 3.6 | 16.3 | 29.2 | 50.7 | 25.8 |
| 20 | 3 | Experimental | 3.2 | 4.3 | 0.2 | 3.0 | 14.6 | 27.4 | 54.8 | 26.4 |
| Average | | | 3.4 | 4.7 | 0.3 | 3.0 | 15.2 | 29.7 | 51.8 | 26.2 |

| b. Entry No. | Type <u>Housing</u> | Age at 50% Prod. | Percentage Production Rate | | | | After 50% Prod. | Eggs Per Pullet Housed | |
|--------------------|------------------------|------------------------|----------------------------|-----------------|-----------------|-----------------|-----------------------|------------------------------|-------|
| | | | 151-240 days | 241-330 days | 331-420 days | 421-500 days | | | |
| 1 | 3 | 172.8 | 63.3 | 73.7 | 61.7 | 58.0 | 55.1 | 67.9 | |
| 2 | 3 | 178.0 | 56.0 | 65.4 | 62.2 | 51.4 | 45.8 | 62.7 | |
| 3 | 3 | 172.0 | 64.6 | 74.8 | 66.6 | 63.2 | 60.7 | 70.4 | |
| 4 | 3 | 171.2 | 64.7 | 79.2 | 73.2 | 64.3 | 58.7 | 73.7 | |
| 5 | 3 | 175.2 | 60.6 | 64.9 | 60.7 | 53.2 | 48.3 | 62.9 | |
| 6 | 3 | 169.5 | 64.6 | 71.1 | 63.7 | 60.2 | 59.0 | 67.3 | |
| 7 | 3 | 176.8 | 56.3 | 72.6 | 61.7 | 56.3 | 52.4 | 66.2 | |
| 8 | 3 | 176.8 | 60.6 | 72.9 | 65.8 | 64.0 | 62.5 | 69.5 | |
| 9 | 3 | 186.5 | 45.8 | 64.4 | 58.2 | 53.5 | 50.9 | 60.4 | |
| 10 | 3 | 185.8 | 50.1 | 68.4 | 60.7 | 51.4 | 47.4 | 62.7 | |
| 11 | 3 | 173.8 | 61.5 | 72.6 | 67.0 | 63.1 | 60.1 | 69.4 | |
| 12 | 3 | 166.5 | 68.6 | 73.7 | 64.8 | 61.2 | 57.9 | 69.1 | |
| 13 | 3 | 177.0 | 61.3 | 74.4 | 66.6 | 61.1 | 57.9 | 69.5 | |
| 14 | 3 | 170.8 | 63.0 | 70.0 | 60.8 | 51.6 | 48.0 | 63.7 | |
| 15 | 3 | 177.2 | 59.8 | 72.4 | 69.5 | 63.9 | 60.0 | 70.4 | |
| 16 | 3 | 179.8 | 53.8 | 69.1 | 69.8 | 64.7 | 63.3 | 69.0 | |
| 17 | 3 | 179.8 | 59.1 | 76.9 | 69.8 | 65.0 | 60.1 | 72.6 | |
| 18 | 3 | 165.8 | 69.4 | 74.8 | 70.4 | 64.7 | 61.4 | 72.0 | |
| 19 | 3 | 168.2 | 66.8 | 74.9 | 70.1 | 59.9 | 52.8 | 70.8 | |
| 20 | 3 | 171.8 | 61.5 | 69.7 | 63.9 | 59.6 | 56.5 | 66.0 | |
| Average | | 174.8 | 60.6 | 71.8 | 65.4 | 59.5 | 55.9 | 67.8 | 196.8 |

Table 8 4-C - II. Birds, mortality, feed use, and cost and income data

| Bird No. | No. of Birds | Mortality | | Feed Consumed | | Value per Pullet Housed | |
|-----------|--------------|------------|--------|---------------|---------------|-------------------------|---------|
| | | Lost/house | % days | Feed fed | Per 150 birds | Chick Price | Feed/kg |
| 1 3 107. | 100. | 78. | 6.2 | 21.9 | 47.7 | .17.7 | .25.0 |
| 2 3 97. | 94. | 78. | 4.1 | 17.1 | 30.2 | .17.7 | .24.2 |
| 3 3 81. | 80. | 67. | 1.6 | 22.5 | 52.1 | .17.7 | .25.2 |
| 4 3 119. | 103. | 77. | 1.4 | 25.4 | 62.0 | .18.2 | .28.2 |
| | | | | | | | |
| 5 3 115. | 104. | 94. | 2.7 | 9.6 | 13.8 | .21.9 | .28.2 |
| 6 3 69. | 66. | 48. | 3.4 | 27.4 | 53.9 | .18.0 | .25.5 |
| 7 3 113. | 104. | 72. | 1.8 | 30.8 | 64.4 | .16.9 | .25.7 |
| 8 3 117. | 104. | 54. | 0.3 | 9.6 | 19.3 | .17.7 | .24.9 |
| | | | | | | | |
| 9 3 98. | 90. | 61. | 7.6 | 30.9 | 71.4 | .17.3 | .24.3 |
| 10 3 99. | 94. | 78. | 5.7 | 17.0 | 40.8 | .16.8 | .24.3 |
| 11 3 114. | 104. | 77. | 2.4 | 26.0 | 61.4 | .17.5 | .25.8 |
| 12 3 118. | 104. | 90. | 1.7 | 13.5 | 24.7 | .19.3 | .25.5 |
| | | | | | | | |
| 13 3 111. | 104. | 85. | 2.1 | 18.3 | 28.2 | .17.8 | .26.1 |
| 14 3 120. | 104. | 84. | 2.3 | 19.2 | 43.2 | .21.0 | .27.1 |
| 15 3 100. | 96. | 83. | 4.9 | 13.6 | 22.9 | .18.1 | .26.7 |
| 16 3 116. | 104. | 69. | 5.0 | 33.7 | 72.3 | .16.3 | .25.2 |
| | | | | | | | |
| 17 3 82. | 80. | 62. | 2.5 | 22.5 | 53.8 | .16.9 | .27.1 |
| 18 3 118. | 104. | 83. | 4.3 | 20.2 | 46.1 | .17.8 | .25.1 |
| 19 3 109. | 98. | 85. | 7.7 | 13.4 | 32.6 | .18.3 | .26.8 |
| 20 3 135. | 130. | 99. | 2.8 | 23.4 | 45.7 | .18.2 | .24.7 |
| | | | | | | | |

| Type Housing | Age end | At week | Avg. days | % days | Per 1 day | Per 150 birds | Per day | Per 100 birds | Feed cost | Total cost | Chick cost | Feed price/kg | Value of eggs | Value of meat | IOPCC |
|--------------|---------|---------|-----------|--------|-----------|---------------|---------|---------------|-----------|------------|------------|---------------|---------------|---------------|-------|
| 1 3 107. | 100. | 78. | 6.2 | 21.9 | 47.7 | .17.7 | .25.0 | .28.2 | .66 | .30 | .81 | .66 | .79 | .43 | .20 |
| 2 3 97. | 94. | 78. | 4.1 | 17.1 | 30.2 | .17.7 | .24.2 | .30.0 | .94 | .31 | .80 | .73 | .86 | .17 | .21 |
| 3 3 81. | 80. | 67. | 1.6 | 22.5 | 52.1 | .17.7 | .25.2 | .27.8 | .49 | .40 | .78 | .63 | .82 | .50 | .20 |
| 4 3 119. | 103. | 77. | 1.4 | 25.4 | 62.0 | .18.2 | .28.2 | .28.9 | .83 | .36 | .80 | .92 | .09 | .56 | .24 |
| | | | | | | | | | | | | | | | |
| 5 3 115. | 104. | 94. | 2.7 | 9.6 | 13.8 | .21.9 | .28.2 | .31 | .64 | .34 | .97 | .58 | .89 | .63 | .44 |
| 6 3 69. | 66. | 48. | 3.4 | 27.4 | 53.9 | .18.0 | .25.5 | .97 | .73 | .42 | .80 | .65 | .88 | .19 | .17 |
| 7 3 113. | 104. | 72. | 1.8 | 30.8 | 64.4 | .16.9 | .25.7 | .10 | .03 | .38 | .75 | .54 | .68 | .96 | .16 |
| 8 3 117. | 104. | 54. | 0.3 | 9.6 | 19.3 | .17.7 | .24.9 | .71 | .54 | .48 | .77 | .98 | .23 | .04 | .22 |
| | | | | | | | | | | | | | | | |
| 9 3 98. | 90. | 61. | 7.6 | 30.9 | 71.4 | .17.3 | .24.3 | .41 | .33 | .42 | .80 | .27 | .53 | .06 | .18 |
| 10 3 99. | 94. | 78. | 5.7 | 17.0 | 40.8 | .16.8 | .24.3 | .16 | .07 | .34 | .76 | .63 | .75 | .88 | .21 |
| 11 3 114. | 104. | 77. | 2.4 | 26.0 | 61.4 | .17.5 | .25.8 | .90 | .70 | .39 | .78 | .61 | .78 | .16 | .20 |
| 12 3 118. | 104. | 90. | 1.7 | 13.5 | 24.7 | .19.3 | .25.5 | .76 | .57 | .31 | .85 | .01 | .18 | .02 | .29 |
| | | | | | | | | | | | | | | | |
| 13 3 111. | 104. | 85. | 2.1 | 18.3 | 28.2 | .17.8 | .26.1 | .86 | .75 | .38 | .78 | .05 | .22 | .89 | .23 |
| 14 3 120. | 104. | 84. | 2.3 | 19.2 | 43.2 | .21.0 | .27.1 | .12 | .30 | .35 | .92 | .01 | .29 | .30 | .35 |
| 15 3 100. | 96. | 83. | 4.9 | 13.6 | 22.9 | .18.1 | .26.7 | .01 | .83 | .38 | .82 | .27 | .44 | .96 | .26 |
| 16 3 116. | 104. | 69. | 5.0 | 33.7 | 72.3 | .16.3 | .25.2 | .92 | .76 | .39 | .73 | .38 | .52 | .88 | .17 |
| | | | | | | | | | | | | | | | |

| | | | | | | | | | | | | | | | |
|-----------|------|-----|-----|------|------|-------|-------|-----|-----|-----|-----|-----|-----|-----|-----|
| 17 3 82. | 80. | 62. | 2.5 | 22.5 | 53.8 | .16.9 | .27.1 | .95 | .85 | .33 | .75 | .89 | .97 | .40 | .20 |
| 18 3 118. | 104. | 83. | 4.3 | 20.2 | 46.1 | .17.8 | .25.1 | .67 | .32 | .38 | .80 | .69 | .88 | .81 | .20 |
| 19 3 109. | 98. | 85. | 7.7 | 13.4 | 32.6 | .18.3 | .26.8 | .94 | .73 | .37 | .83 | .11 | .34 | .90 | .30 |
| 20 3 135. | 130. | 99. | 2.8 | 23.4 | 45.7 | .18.2 | .24.7 | .84 | .69 | .37 | .81 | .64 | .82 | .31 | .19 |
| | | | | | | | | | | | | | | | |

Av. 3 107. 98. 78. 3.5 20.8 44.3 18.1 25.8 2.96 4.84 .37 0.81 3.81 5.00 5.40 .23 0.635

• Table 8 4-C - III. Egg quality data

| Entry No. | Type Housing | % Loss (downgrades) | % Inclusions (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. | April | June | Average | Oct. | Jan. | April | July | Average |
| 1 | 3 | 1.6 | 0.7 | 1.2 | 0.3 | 0.3 | 96.1 | 1.9 | 0.0 | 1.6 | 0.4 | 84.3 | 80.6 | 75.6 | 72.7 | 78.3 | 4.67 | 4.08 | 3.15 | 1.37 | 3.32 |
| 2 | 3 | 3.0 | 0.5 | 1.7 | 0.0 | 0.8 | 94.0 | 2.9 | 1.0 | 0.9 | 1.2 | 85.9 | 79.6 | 75.5 | 71.8 | 78.2 | 4.92 | 4.25 | 3.37 | 2.03 | 3.64 |
| 3 | 3 | 2.4 | 0.9 | 1.1 | 0.0 | 0.2 | 95.5 | 1.9 | 0.2 | 1.4 | 1.0 | 88.3 | 82.9 | 76.5 | 76.5 | 81.0 | 5.53 | 4.85 | 3.50 | 1.73 | 3.90 |
| 4 | 3 | 3.6 | 1.9 | 3.3 | 0.5 | 1.2 | 92.1 | 2.8 | 1.0 | 3.3 | 0.8 | 82.2 | 78.6 | 73.2 | 71.1 | 76.3 | 4.78 | 3.70 | 3.10 | 1.49 | 3.27 |
| 5 | 3 | 2.8 | 1.1 | 2.5 | 4.1 | 22.5 | 94.0 | 2.3 | 0.3 | 3.0 | 0.4 | 85.8 | 80.4 | 73.0 | 70.9 | 77.5 | 3.70 | 2.48 | 2.10 | 0.93 | 2.30 |
| 6 | 3 | 2.5 | 1.1 | 3.6 | 0.0 | 0.0 | 94.5 | 3.3 | 0.0 | 1.3 | 0.9 | 84.7 | 79.7 | 74.1 | 71.3 | 77.4 | 5.14 | 4.11 | 3.46 | 1.83 | 3.63 |
| 7 | 3 | 1.7 | 1.6 | 4.1 | 0.1 | 0.4 | 96.2 | 2.0 | 0.3 | 0.9 | 0.6 | 85.5 | 77.1 | 71.0 | 75.6 | 77.3 | 4.49 | 3.32 | 3.10 | 1.07 | 3.00 |
| 8 | 3 | 2.4 | 0.7 | 1.3 | 0.0 | 0.0 | 94.6 | 2.4 | 0.5 | 2.0 | 0.5 | 82.9 | 77.5 | 69.7 | 69.5 | 74.9 | 4.98 | 3.72 | 3.50 | 1.39 | 3.40 |
| 9 | 3 | 3.2 | 2.3 | 2.5 | 0.0 | 0.5 | 94.8 | 1.7 | 0.2 | 1.7 | 1.7 | 86.0 | 80.9 | 75.2 | 74.3 | 79.1 | 4.76 | 3.82 | 3.37 | 1.47 | 3.36 |
| 10 | 3 | 1.8 | 0.3 | 1.7 | 0.0 | 0.2 | 96.5 | 1.5 | 0.3 | 0.8 | 0.8 | 84.0 | 78.8 | 69.9 | 72.8 | 76.4 | 5.41 | 4.49 | 3.79 | 1.67 | 3.84 |
| 11 | 3 | 3.2 | 1.1 | 2.3 | 0.0 | 0.7 | 94.4 | 2.1 | 0.5 | 1.6 | 1.5 | 84.1 | 80.3 | 72.7 | 73.4 | 77.6 | 4.85 | 3.98 | 3.19 | 1.34 | 3.34 |
| 12 | 3 | 2.6 | 0.8 | 1.5 | 0.1 | 0.7 | 94.0 | 2.1 | 0.1 | 3.6 | 0.3 | 84.7 | 81.2 | 73.0 | 72.1 | 77.7 | 4.63 | 3.11 | 2.90 | 1.21 | 2.96 |
| 13 | 3 | 2.5 | 1.5 | 1.8 | 0.0 | 1.2 | 96.0 | 1.0 | 0.1 | 1.8 | 1.1 | 83.1 | 77.8 | 73.4 | 70.9 | 76.3 | 5.31 | 4.32 | 3.30 | 1.87 | 3.70 |
| 14 | 3 | 2.4 | 0.6 | 1.8 | 8.0 | 30.9 | 94.8 | 2.2 | 0.2 | 2.2 | 0.6 | 88.0 | 84.0 | 76.2 | 71.9 | 80.0 | 3.75 | 2.65 | 2.24 | 0.93 | 2.39 |
| 15 | 3 | 2.0 | 1.6 | 1.3 | 0.0 | 0.7 | 95.6 | 1.5 | 0.5 | 1.7 | 0.6 | 83.8 | 78.2 | 73.2 | 71.8 | 76.8 | 4.66 | 3.96 | 3.28 | 1.36 | 3.31 |
| 16 | 3 | 2.7 | 0.9 | 0.8 | 0.0 | 0.2 | 94.5 | 1.1 | 0.0 | 3.8 | 0.6 | 90.8 | 85.1 | 78.7 | 76.7 | 82.8 | 4.87 | 3.98 | 2.97 | 1.62 | 3.36 |
| 17 | 3 | 4.5 | 1.6 | 1.2 | 0.0 | 1.0 | 90.4 | 4.5 | 0.4 | 3.4 | 1.4 | 86.6 | 84.5 | 76.5 | 78.2 | 81.5 | 4.45 | 3.52 | 3.38 | 1.55 | 3.22 |
| 18 | 3 | 2.6 | 1.8 | 4.0 | 0.1 | 1.2 | 94.4 | 3.3 | 0.1 | 0.9 | 1.3 | 83.3 | 77.4 | 69.8 | 70.5 | 75.2 | 4.88 | 3.77 | 3.04 | 1.40 | 3.27 |
| 19 | 3 | 2.7 | 2.1 | 3.4 | 0.0 | 1.1 | 95.1 | 1.6 | 0.3 | 1.7 | 1.2 | 86.0 | 79.0 | 75.1 | 73.1 | 78.3 | 5.25 | 3.81 | 3.74 | 1.30 | 3.52 |
| 20 | 3 | 2.8 | 0.8 | 1.3 | 0.4 | 3.0 | 93.2 | 3.6 | 0.4 | 2.3 | 0.6 | 82.5 | 77.7 | 73.6 | 70.0 | 75.9 | 4.74 | 3.79 | 2.81 | 1.51 | 3.21 |
| Av. 3 | 2.7 | 1.2 | 2.1 | 0.7 | 3.3 | 94.5 | 2.3 | 0.3 | 2.0 | 0.9 | 85.1 | 80.1 | 73.8 | 72.8 | 77.9 | 4.79 | 3.79 | 3.16 | 1.45 | 3.30 | |

TABLE 8-4D-I Bird Weight, Egg Size, Maturity, and Production Data

| a. Entry No. | Type Housing | Breeder | Av. Body Wt. | | Egg Size Distribution (%) | | | | Av. Egg Weight oz./doz. | |
|--------------------|-----------------|---------------|--------------|-------------|---------------------------|-------|--------|-------|-------------------------------|------|
| | | | 150 days | 500 days | Pee Wee | Small | Medium | Large | | |
| 1 | 0 | Stone | 3.3 | 4.4 | 0.2 | 4.2 | 19.1 | 34.2 | 42.3 | 25.6 |
| 2 | 0 | Demler | 3.2 | 4.3 | 0.2 | 2.2 | 14.3 | 29.7 | 53.5 | 26.4 |
| 3 | 0 | Kimber | 3.3 | 4.3 | 0.1 | 3.4 | 16.3 | 32.5 | 47.7 | 25.9 |
| 4 | 0 | Shaver | 3.4 | 4.8 | 0.2 | 2.9 | 12.3 | 24.5 | 60.2 | 26.6 |
| 5 | 0 | Davis | 4.6 | 6.1 | 0.1 | 1.4 | 9.7 | 22.2 | 66.6 | 27.4 |
| 6 | 0 | Colonial | 3.3 | 4.2 | 0.8 | 6.6 | 19.1 | 31.4 | 42.1 | 25.5 |
| 7 | 0 | Welp's | 3.0 | 3.9 | 0.2 | 3.5 | 16.1 | 31.8 | 48.4 | 25.9 |
| 8 | 0 | Hy-Line | 3.2 | 4.1 | 0.1 | 2.2 | 10.8 | 22.3 | 64.6 | 27.1 |
| 9 | 0 | NCRPBL | 3.2 | 4.8 | 0.5 | 5.4 | 22.1 | 35.6 | 36.3 | 25.2 |
| 10 | 0 | Garrison | 3.1 | 4.3 | 0.2 | 3.6 | 18.4 | 36.8 | 41.1 | 25.7 |
| 11 | 0 | Honegger | 3.3 | 4.5 | 0.2 | 4.0 | 16.5 | 32.6 | 46.8 | 25.9 |
| 12 | 0 | Garber | 3.8 | 4.9 | 0.6 | 4.3 | 15.9 | 25.2 | 54.0 | 26.2 |
| 13 | 0 | Ideal | 3.4 | 4.6 | 0.1 | 2.3 | 12.7 | 28.6 | 56.2 | 26.4 |
| 14 | 0 | Hubbard | 4.3 | 5.4 | 0.1 | 2.4 | 11.4 | 20.2 | 66.0 | 27.4 |
| 15 | 0 | Cashman | 3.4 | 4.8 | 0.2 | 2.9 | 15.1 | 32.4 | 49.3 | 26.0 |
| 16 | 0 | Ind. Fm.-Bu. | 3.1 | 4.4 | 0.2 | 2.2 | 13.0 | 27.9 | 56.7 | 26.4 |
| 17 | 0 | Heisdorf & N. | 3.1 | 4.3 | 0.3 | 3.2 | 18.3 | 32.8 | 45.4 | 25.9 |
| 18 | 0 | Babcock | 3.3 | 4.4 | 0.6 | 5.3 | 15.6 | 27.8 | 50.7 | 25.9 |
| 19 | 0 | Parks | 3.6 | 4.9 | 0.2 | 3.5 | 16.2 | 29.0 | 51.0 | 26.0 |
| 20 | 0 | Experimental | 3.3 | 4.4 | 0.2 | 3.7 | 13.9 | 27.1 | 55.1 | 26.5 |
| Average | | | 3.4 | 4.6 | 0.3 | 3.5 | 15.3 | 29.2 | 51.7 | 26.2 |

| b. Entry No. | Type Housing | Age at 50% Prod. | Hen-day Production Percentages | | | | | After 50% Prod. | Eggs per Pullet Housed |
|--------------------|-----------------|------------------------|--------------------------------|-----------------|-----------------|-----------------|-----------------|-----------------------|------------------------------|
| | | | 151-240 days | 241-330 days | 331-420 days | 421-500 days | 471-500 days | | |
| 1 | 0 | 173.4 | 60.1 | 67.5 | 62.6 | 57.8 | 54.2 | 65.2 | 181.5 |
| 2 | 0 | 182.2 | 53.5 | 68.0 | 62.6 | 54.1 | 45.0 | 63.9 | 191.8 |
| 3 | 0 | 175.8 | 60.1 | 75.2 | 69.0 | 64.2 | 60.5 | 70.7 | 199.2 |
| 4 | 0 | 173.1 | 61.4 | 77.8 | 72.5 | 62.4 | 56.7 | 71.8 | 206.7 |
| 5 | 0 | 179.4 | 56.7 | 71.0 | 65.3 | 56.3 | 51.4 | 66.0 | 210.0 |
| 6 | 0 | 169.8 | 67.2 | 72.1 | 66.0 | 58.8 | 54.3 | 68.4 | 201.8 |
| 7 | 0 | 180.1 | 55.5 | 73.4 | 66.6 | 60.9 | 56.9 | 68.2 | 184.8 |
| 8 | 0 | 177.1 | 58.2 | 72.4 | 67.2 | 62.1 | 58.1 | 68.5 | 209.6 |
| 9 | 0 | 193.0 | 43.0 | 65.4 | 60.3 | 56.0 | 52.0 | 61.9 | 144.7 |
| 10 | 0 | 188.9 | 46.6 | 67.7 | 61.2 | 54.3 | 48.0 | 62.9 | 166.8 |
| 11 | 0 | 178.3 | 57.2 | 73.2 | 67.2 | 61.3 | 55.2 | 68.5 | 191.0 |
| 12 | 0 | 167.3 | 64.3 | 72.6 | 65.7 | 59.5 | 54.3 | 67.6 | 207.4 |
| 13 | 0 | 180.0 | 55.9 | 71.6 | 67.8 | 61.1 | 59.4 | 67.8 | 207.6 |
| 14 | 0 | 170.3 | 60.3 | 70.8 | 62.2 | 52.0 | 47.9 | 63.7 | 192.9 |
| 15 | 0 | 183.6 | 54.4 | 74.4 | 71.2 | 66.2 | 61.4 | 71.4 | 213.4 |
| 16 | 0 | 184.9 | 50.8 | 70.8 | 67.1 | 62.0 | 58.1 | 67.4 | 182.8 |
| 17 | 0 | 180.8 | 57.5 | 68.3 | 63.2 | 56.7 | 51.0 | 66.5 | 193.8 |
| 18 | 0 | 168.1 | 65.4 | 71.3 | 68.5 | 63.5 | 60.0 | 69.2 | 196.7 |
| 19 | 0 | 172.2 | 64.0 | 74.8 | 68.8 | 59.9 | 54.6 | 70.1 | 217.9 |
| 20 | 0 | 173.6 | 58.2 | 72.9 | 67.9 | 59.5 | 54.8 | 67.4 | 195.2 |
| Average | | 177.6 | 57.5 | 71.6 | 66.1 | 59.4 | 54.7 | 67.4 | 194.8 |

Table 8 4-D-II. Birds, mortality, feed use, and cost and income data

| Entry No. | Housing | No. of Birds | | Mortality | | Feed Consumed | | Value per Pullet Housed | | Type | At one week | | | | | | | |
|-----------|---------|----------------|---------------|------------|-------------|---------------|--------------------------|-------------------------|------------------------|-------|---------------|-------------------|------------------|---------------|------------|------|-----|-------|
| | | At end of test | % days housed | 8-150 days | % days lost | 151-500 days | Av. days lost/hen housed | Per bird da. | Per 100 birds (laying) | Price | Growing chick | Laying wing & egg | Total wing & egg | Value of eggs | Value mean | | | |
| 1 | 0 | 318. | 295. | 215. | 6.2 | 27.1 | 58.6 | 17.7 | 25.1 | 3.03 | 4.86 | .30 | 0.81 | 3.54 | 4.67 | 4.94 | .19 | 0.463 |
| 2 | 0 | 288. | 279. | 232. | 4.1 | 17.0 | 28.8 | 17.7 | 25.6 | 3.14 | 5.17 | .31 | 0.80 | 3.98 | 5.10 | 5.23 | .21 | 0.334 |
| 3 | 0 | 253. | 250. | 194. | 1.6 | 22.4 | 52.8 | 17.7 | 25.6 | 2.83 | 4.59 | .40 | 0.78 | 3.68 | 4.86 | 5.40 | .20 | 0.737 |
| 4 | 0 | 348. | 303. | 236. | 1.4 | 22.1 | 49.0 | 18.2 | 27.5 | 2.91 | 4.84 | .36 | 0.80 | 3.99 | 5.15 | 5.57 | .22 | 0.639 |
| 5 | 0 | 338. | 303. | 278. | 2.7 | 8.2 | 13.8 | 21.9 | 28.1 | 3.17 | 5.42 | .34 | 0.97 | 4.56 | 5.88 | 5.80 | .42 | 0.339 |
| 6 | 0 | 208. | 202. | 161. | 3.2 | 20.5 | 45.5 | 18.0 | 26.4 | 3.02 | 4.81 | .42 | 0.80 | 3.90 | 5.12 | 5.38 | .20 | 0.459 |
| 7 | 0 | 328. | 304. | 227. | 1.8 | 25.3 | 60.7 | 16.9 | 25.2 | 2.94 | 4.76 | .38 | 0.75 | 3.52 | 4.66 | 5.05 | .17 | 0.563 |
| 8 | 0 | 340. | 304. | 260. | 0.8 | 14.5 | 27.3 | 17.7 | 25.9 | 2.83 | 4.79 | .48 | 0.77 | 4.03 | 5.28 | 5.72 | .20 | 0.637 |
| 9 | 0 | 295. | 273. | 178. | 7.6 | 34.7 | 88.1 | 17.3 | 25.3 | 3.50 | 5.52 | .42 | 0.80 | 3.19 | 4.45 | 3.83 | .18 | 0.441 |
| 10 | 0 | 295. | 278. | 210. | 5.7 | 24.6 | 58.8 | 16.8 | 23.9 | 3.14 | 5.05 | .34 | 0.76 | 3.36 | 4.49 | 4.53 | .19 | 0.230 |
| 11 | 0 | 336. | 304. | 233. | 2.4 | 23.3 | 54.8 | 17.5 | 25.4 | 2.92 | 4.73 | .39 | 0.78 | 3.62 | 4.79 | 5.17 | .20 | 0.579 |
| 12 | 0 | 347. | 304. | 249. | 1.7 | 18.2 | 34.8 | 19.3 | 25.8 | 2.89 | 4.73 | .31 | 0.85 | 3.93 | 5.10 | 5.55 | .25 | 0.697 |
| 13 | 0 | 323. | 303. | 254. | 2.1 | 16.2 | 25.9 | 17.8 | 25.2 | 2.86 | 4.72 | .38 | 0.78 | 3.94 | 5.11 | 5.65 | .22 | 0.762 |
| 14 | 0 | 351. | 304. | 245. | 2.3 | 19.4 | 37.5 | 21.0 | 26.9 | 3.07 | 5.27 | .35 | 0.92 | 4.06 | 5.34 | 5.33 | .31 | 0.312 |
| 15 | 0 | 302. | 290. | 251. | 4.9 | 13.5 | 28.5 | 18.1 | 26.9 | 3.00 | 4.87 | .38 | 0.82 | 4.17 | 5.39 | 5.76 | .25 | 0.617 |
| 16 | 0 | 333. | 304. | 223. | 4.5 | 26.6 | 56.4 | 16.3 | 25.0 | 2.93 | 4.83 | .39 | 0.73 | 3.55 | 4.69 | 5.01 | .19 | 0.513 |
| 17 | 0 | 245. | 238. | 198. | 2.5 | 17.7 | 39.6 | 16.9 | 25.9 | 3.10 | 5.02 | .33 | 0.75 | 3.88 | 4.96 | 5.19 | .21 | 0.434 |
| 18 | 0 | 347. | 304. | 226. | 4.3 | 25.7 | 58.3 | 17.8 | 25.5 | 2.83 | 4.59 | .38 | 0.80 | 3.59 | 4.79 | 5.29 | .19 | 0.686 |
| 19 | 0 | 325. | 294. | 254. | 7.7 | 13.7 | 25.2 | 18.3 | 26.1 | 2.88 | 4.68 | .37 | 0.83 | 4.09 | 5.32 | 5.90 | .28 | 0.863 |
| 20 | 0 | 386. | 374. | 293. | 2.8 | 21.9 | 47.3 | 18.2 | 26.0 | 2.93 | 4.86 | .37 | 0.81 | 3.80 | 4.99 | 5.28 | .20 | 0.495 |

— AV. 0 315. 291. 231. 3.5 20.6 44.6 18.1 25.9 3.00 4.90 .37 0.81 3.82 5.01 5.28 = 22 0.4965

Table 8 4-D - III. Egg quality data

| Entry No. | Housing Type | % Loss (downgrades) | % Inclusions (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. | April | June | Average | Oct. | Jan. | April | July | Average |
| 1 | 0 | 2.6 | 0.2 | 1.1 | 0.2 | 0.6 | 94.0 | 2.6 | 0.0 | 3.0 | 0.4 | 83.5 | 78.7 | 73.6 | 71.2 | 76.8 | 4.50 | 4.17 | 3.20 | 1.82 | 3.43 |
| 2 | 0 | 3.5 | 0.3 | 0.9 | 0.0 | 0.3 | 92.6 | 3.0 | 0.3 | 3.2 | 0.9 | 83.9 | 77.6 | 71.1 | 69.6 | 75.6 | 4.68 | 4.00 | 3.37 | 1.97 | 3.51 |
| 3 | 0 | 3.1 | 0.6 | 1.0 | 0.0 | 0.2 | 93.4 | 2.5 | 0.1 | 3.3 | 0.7 | 88.6 | 82.5 | 76.9 | 77.5 | 81.4 | 5.33 | 4.87 | 3.54 | 1.86 | 3.90 |
| 4 | 0 | 4.8 | 1.1 | 1.6 | 0.2 | 0.5 | 89.7 | 3.3 | 0.5 | 5.7 | 0.8 | 80.1 | 76.5 | 69.8 | 70.7 | 74.3 | 4.59 | 3.79 | 2.96 | 1.74 | 3.27 |
| 5 | 0 | 3.3 | 0.8 | 2.5 | 3.5 | 22.4 | 93.0 | 2.6 | 0.4 | 3.3 | 0.8 | 83.7 | 79.1 | 70.6 | 69.2 | 75.7 | 3.41 | 2.49 | 1.96 | 0.84 | 2.17 |
| 6 | 0 | 2.7 | 0.8 | 1.9 | 0.0 | 0.2 | 93.7 | 3.2 | 0.2 | 2.5 | 0.5 | 84.1 | 77.9 | 72.5 | 71.5 | 76.5 | 4.79 | 3.98 | 3.44 | 1.92 | 3.53 |
| 7 | 0 | 2.6 | 1.3 | 2.4 | 6.1 | 0.3 | 94.6 | 2.4 | 0.2 | 2.0 | 0.9 | 83.0 | 76.9 | 70.8 | 71.1 | 75.5 | 4.39 | 3.79 | 3.03 | 1.46 | 3.17 |
| 8 | 0 | 3.9 | 0.6 | 1.1 | 0.0 | 0.1 | 91.6 | 2.5 | 0.2 | 5.4 | 0.4 | 80.9 | 76.0 | 69.8 | 67.7 | 73.6 | 4.68 | 4.07 | 3.39 | 1.95 | 3.52 |
| 9 | 0 | 3.5 | 1.2 | 2.4 | 0.0 | 0.2 | 92.7 | 3.2 | 0.1 | 3.0 | 1.0 | 84.3 | 79.0 | 73.9 | 72.9 | 77.5 | 4.49 | 3.60 | 2.88 | 1.45 | 3.11 |
| 10 | 0 | 2.5 | 0.5 | 1.9 | 0.1 | 0.3 | 94.4 | 2.4 | 0.2 | 2.6 | 0.4 | 81.9 | 76.6 | 70.5 | 70.7 | 74.9 | 4.98 | 4.46 | 3.51 | 1.51 | 3.61 |
| 11 | 0 | 3.0 | 0.9 | 1.8 | 0.1 | 0.5 | 93.8 | 2.4 | 0.2 | 3.0 | 0.6 | 82.6 | 79.7 | 72.7 | 69.8 | 76.2 | 4.61 | 3.77 | 3.34 | 1.86 | 3.39 |
| 12 | 0 | 4.1 | 0.7 | 1.3 | 0.1 | 0.4 | 91.5 | 2.4 | 0.1 | 5.3 | 0.7 | 83.5 | 79.2 | 70.3 | 69.5 | 75.7 | 4.44 | 3.70 | 2.73 | 1.26 | 3.03 |
| 13 | 0 | 3.7 | 0.8 | 1.4 | 0.0 | 0.6 | 93.0 | 1.4 | 0.1 | 4.6 | 0.8 | 83.4 | 78.8 | 72.0 | 68.8 | 75.7 | 4.87 | 4.00 | 3.46 | 1.84 | 3.54 |
| 14 | 0 | 3.2 | 0.6 | 1.9 | 5.7 | 30.7 | 93.2 | 2.6 | 0.3 | 3.1 | 0.8 | 85.5 | 80.9 | 72.8 | 71.0 | 77.5 | 3.42 | 2.58 | 2.15 | 1.01 | 2.29 |
| 15 | 0 | 3.3 | 1.9 | 2.0 | 0.1 | 0.4 | 93.1 | 2.0 | 0.2 | 4.0 | 0.7 | 82.5 | 79.6 | 71.9 | 70.2 | 76.1 | 4.51 | 3.92 | 3.15 | 1.49 | 3.27 |
| 16 | 0 | 2.9 | 0.5 | 1.0 | 0.0 | 0.1 | 94.1 | 1.5 | 0.0 | 3.7 | 0.6 | 88.7 | 83.7 | 77.7 | 77.2 | 81.8 | 4.73 | 4.06 | 3.11 | 1.92 | 3.45 |
| 17 | 0 | 4.4 | 1.0 | 0.0 | 0.3 | 89.9 | 5.0 | 0.1 | 4.2 | 0.8 | 86.4 | 81.9 | 76.0 | 77.1 | 80.4 | 4.59 | 3.61 | 3.14 | 1.61 | 3.24 | |
| 18 | 0 | 3.3 | 1.1 | 2.3 | 0.1 | 0.4 | 93.1 | 2.9 | 0.2 | 2.8 | 1.1 | 81.8 | 75.1 | 71.3 | 70.0 | 74.6 | 4.55 | 3.75 | 2.59 | 1.32 | 3.05 |
| 19 | 0 | 3.2 | 1.5 | 2.5 | 0.0 | 0.4 | 93.8 | 2.0 | 0.2 | 2.9 | 1.1 | 83.7 | 78.5 | 72.9 | 70.5 | 76.4 | 4.93 | 3.98 | 3.36 | 1.83 | 3.53 |
| 20 | 0 | 3.7 | 0.5 | 1.2 | 1.0 | 3.6 | 92.2 | 2.9 | 0.3 | 3.8 | 0.8 | 82.6 | 75.6 | 70.9 | 70.0 | 74.8 | 4.45 | 3.64 | 2.43 | 1.46 | 3.00 |