

## NORTH CAROLINA RANDOM SAMPLE EGG LAYING TEST

Piedmont Research Station, Route 6  
Salisbury, North Carolina

Sixth Year-Growing Report  
March 13 through August 9, 1964

The North Carolina Random Sample Poultry Tests are conducted under the auspices of the N. C. Department of Agriculture and the School of Agriculture and Life Sciences of N. C. State. Mr. S. J. Childs, above address, is Resident Manager and Dr. G. A. Martin, Poultry Department, N. C. State of UNC, Raleigh, N. C. is Project Leader. The laying test is designed to assist commercial poultrymen of North Carolina in evaluating the productivity of stocks of layers that are available to them in quantity. A committee representing the various poultry interests of the state advises the Steering Committee in establishing policies and practices which best serve this purpose.

Chicks were incubated at the test site from a 360 egg sample for each entry. The samples were taken from the baskets as they were gathered at a randomly selected supply flock or by random procedure from at least 3600 eggs when nest sampling was not feasible. Public Employees in Agriculture served as sample takers. 120 sexed pullets (when available) were wing banded for growing in replicated pens of 60 pullets with 175 sq. ft. of floor space per pen. First week mortality, sexing errors, and accidental deaths were not charged against the entry.

All mash rations were mixed at the test site by the following formulae:

	Starter	Grower	Layer
Minimum Crude Protein %	20	16	16
Productive energy Cal./lb.	904	870	913
Metabolizable energy Cal./lb.	1249	1238	1234
Ground Yellow Corn	993.5 lbs.	924.5 lbs.	1166.5 lbs*
Stabilized Fat	40	20	40
Wheat Middlings or Shorts	200	300	200
Pulverized Oats	-	300	- *
Fish Meal (60% protein)	100	-	-
Meat and Bone Scraps (50% protein)	-	100	100
Soybean Meal (44% protein) Solvent	450	200	300
Alfalfa Meal (20% protein)	50	50	30
Dried Whey	50	50	25
Distillers Dried Solubles (corn)	50	-	-
Defluorinated Phosphate (Min. 31% Ca. & 18% p.)	30	30	30
Limestone (Min. 38% Ca.)	20	10	90
Iodized Salt	9.5	9.5	9.5
Manganese Sulphate	0.5	0.5	0.5
Zinc Carbonate	0.25	0.25	0.25
Butylated Hydroxytoluene (BHT)	0.25	0.25	0.25
DL Methionine	1	-	0.5
Vitamin Premix	5	5	7.5
TOTAL	2000	2000	2000

\*Substitute 150 pounds of pulverized oats for a similar quantity of ground yellow corn during hot weather in June, July, August and September 15.

## VITAMIN PREMIX ANALYSIS PER POUND

Vitamin A (U.S.P. Units)		400,000
Vitamin D <sub>3</sub> (I.C. Units)		200,000
Vitamin B <sub>12</sub> Activity mg.		1
Vitamin E (I. Units)		200
Riboflavin mgs.		400
Niacin mgs.		3,000
Pantothenic Acid mgs.		552
Choline mgs.		26,037
Trace Elements in Percent:		
	cobalt	0.004
	copper	0.04
	iodine	0.024
	iron	0.4
	manganese	1.2

The starting mash was fed for 8 weeks and the growing mash was fed during the remainder of the growing period. The vaccination program was: Intra-ocular Newcastle-bronchitis at one day old, Newcastle booster in water at 28 days old, and Newcastle-bronchitis booster in water at 109 days old; coccidiosis vaccine at 5 days old; fowl pox via wing web at 91 days old; and encephalomyelitis vaccine in water at 129 days old.

In the data summary, the entry number was drawn at random. The breeder is fully identified with stock and source of sample elsewhere in the report. Net pullets at 1 week excludes first week mortality, sexing errors, and accidental deaths. Mortality, 8 through 150 days is the average of accountable mortality in the two pens of the entry. Average feed per pullet-first 150 days is based upon bird-days and does not charge feed consumed by birds that died against survivors. Average body weight at 150 days is the average weight of all survivors. Feed and chick cost per pullet at 150 days distributes the total cost of net pullets at one week and the feed which they consumed equally among the survivors and, therefore, includes the cost of mortality. Feed costs are based upon 3-year averages of monthly feed prices as reported by the N. C. Department of Agriculture. Chick prices are the average of the current and preceding two years in 1000 lots at hatch date as quoted by the local distributors of the stock. Average eggs per pullet at 150 days indicates the general maturity level of the entry at housing.

No major disease problems were encountered during the growing period. The 1.7% average mortality was widely distributed among causes and the pullets appeared to be in peak condition at housing.

G. A. Martin, Project Leader

## Growing Period - Test 6-G, 1964

Entry No.	Breeder	Net Pullets at 1 wk.	Mortality 8 thru 150 days (%)	Average feed / Pullet first 150 days	Average Body Weight 150 days	Feed & Chick Cost / Pullet Housed	Average Eggs / Pullet at 150 days
1	Honegger	118	3.4	20.3	4.3	1.35	1.28
2	Harco	119	1.7	22.3	5.0	1.43	1.51
3	Hy-Line	118	2.5	18.0	3.3	1.37	0.94
4	Kimber	115	0	18.6	3.6	1.29	1.07
5	Ideal	112	3.6	17.8	3.5	1.22	0.81
6	Fox Den	119	1.7	19.4	4.0	1.24	0.60
7	Shaver	114	0	19.0	3.9	1.26	1.98
8	Hubbard	91	2.2	21.3	4.6	1.35	1.30
9	Heisdorf-Nelson	119	0.8	18.8	3.7	1.27	1.03
10	Ghostley	113	2.6	18.8	3.7	1.27	0.41
11	Cameron	118	0	19.1	3.8	1.19	0.54
12	Beamsdale	113	0.9	18.2	3.5	1.20	0.96
13	Babcock	115	0	19.3	3.9	1.27	3.05
14	Arbor Acres	116	1.7	17.8	3.4	1.13	0.17
15	Pa.-Ind. Farm Bureau	115	4.3	18.2	3.6	1.25	0.41
16	Cashman	114	3.4	18.6	3.6	1.34	0.12
17	Davis	119	1.7	22.4	5.1	1.37	0.45
18	Garrison-Stever	117	0.9	17.8	3.5	1.20	0.06
19	Dekalb	113	0.9	18.6	3.7	1.40	1.31
20	Demler	117	0.9	18.4	3.6	1.20	1.47
	Averages	115	1.7	19.1	3.9	1.28	0.97

LIST OF ENTRANTS IN SIXTH N. C. RANDOM SAMPLE EGG LAYING TEST

<u>BREEDER AND ADDRESS</u>	<u>STOCK DESIGNATION</u>	<u>SOURCE OF SAMPLE</u>
Arbor Acres Farm, Inc. Glastonbury, Conn.	WL StrX Queens	Arbor Acres Farm, Inc. Concord, N. C.
Babcock Poultry Farm, Inc. Ithaca, N. Y.	WL 3wX B-300	Harrold's Chicks, Inc. Winterville, Ga.
Beamsdale Farm Lawndale, N. C.	WL StrX 66	Beamsdale Hatchery Lawndale, N. C.
Cameron Leghorn Research Farm Beaver Springs, Pa.	WL StrX 924	Cameron Leghorn Research Farm, Beaver Springs, Pa.
Cashman Leghorn Farms Webster, Ky.	WL 3wX Hi-Cash	Ridgeway Poultry Farm Knoxville, Tenn.
Joe K. Davis Hatchery Earl, N. C.	XB RIR x BPR Combiner Sex-Link	Joe K. Davis Hatchery Earl, N. C.
DeKalb Agricultural Asso. Sycamore, Ill.	INX 131	All Star Mills, Inc. Albemarle, N. C.
Demler Farms, Inc. Anheim, Calif.	WL 3wX Regal	Raleigh Hatcheries, Inc. Raleigh, N. C.
Fox Den Farms Cary, N. C.	RIR StrX Little Red Hens	Fox Den Farms Cary, N. C.
Earl W. Garrison, Inc. Bridgeton, N. J.	WL StrX Garrison- Stever X 300	Stever Poultry Farm Huntingdon, Pa.
Ghostley's Poultry Farms Anoka, Minn.	WL StrX Pearl 63	Beamsdale Hatchery Lawndale, N. C.
Harco Orch. & Poultry Farms, Inc. South Easton, Mass.	RIR PS Group I	Harco Orchard & Poultry Farms, S. Easton, Mass.
Heisdorf & Nelson Farms, Inc. Kirkland, Wash.	WL StrX "Nick Chick"	J. C. Castlebury Hatchery Apex, N. C.
Honegger Farms Co., Inc. Forrest, Ill.	XB Syn.x WL H-80	FCX Hatchery Wallace, N. C.
Hubbard Farms, Inc. Walpole, N. H.	XB Syn.x NH Comet	Hubbard Farms, Inc. Statesville, N. C.
Hy-Line Poultry Farms Des Moines, Iowa	INX 934-D	Tar Heel Chicks Hatchery Monroe, N. C.
Ideal Poultry Breeding Farms, Inc. Cameron, Tex.	WL StrX H3W-2	Ideal Poul. Breed. Farms Cameron, Tex.
Kimber Farms, Inc. Fremont, Calif.	WL StrX K-137	Hubbard Farms, Inc. Statesville, N. C.
Pa.-Ind. Farm Bureau Grantville, Pa.	WL StrX Princess 55	Pa. Farm Bureau Hatchery Grantville, Pa.
Shaver Poul. Breed. Farms, Ltd. Galt, Ontario, CANADA	WL 3wX Starcross 288	Mid-Valley Hatchery, Inc. Dayton, Va.