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School of Agriculture and Life Sciences*

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April 18, 1985

**M E M O R A N D U M**

**TO:** N. C. Layer Performance and Management Test Report  
Recipients

**FROM:** Dr. John B. Carey, Extension Poultry Specialist *BC*  
Extension Poultry Science

**SUBJECT:** Growing Report for 26th North Carolina Layer  
Performance and Management Test

Enclosed is the Growing Report for the twenty-sixth flock of the North Carolina Layer Performance and Management Test. Details of the conduct of the test are included.

Information herein is of the same nature as that of previous growing reports excepting feed consumption data. Previous reports have contained feed consumption means on a bird day basis. The data in this report are on a bird housed basis. Additionally, the 26th flock was transferred to laying facilities at 20 weeks of age whereas previous flocks have been transferred at 21 weeks.

We hope you will find the enclosed information of benefit to you. Please direct any questions or comments to:

Dr. John B. Carey  
Poultry Science Extension  
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Enclosure

## TWENTY-SIXTH NORTH CAROLINA LAYER PERFORMANCE AND MANAGEMENT TEST

Growing Report  
April 17, 1984 - September 3, 1984

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

### Project Housing

Light and Air Controlled: Thirty-one birds were started per 24" x 20" cage (61 x 51 cm) in the middle tier of the three decks of cages. At or before 6 weeks of age birds were spread to the upper and lower tiers of cages. Birds were reared at 40 in<sup>2</sup>/bird. The pullets were housed in laying facilities at 20 weeks.

Curtain Sided: Forty-eight birds were started per 48" x 40" cage (122 x 102 cm) in a flat deck cage system. Birds were reared at 40 in<sup>2</sup>/bird. The pullets were housed in laying facilities at 20 weeks.

### Stock Acquisition and Number Started

Samples of at least 1,260 fresh hatching eggs were taken at selected flocks under the supervision of public employees in agriculture. All eggs were shipped or delivered to the test site and assigned randomly to incubator trays. At hatching 480, when available, pullet chicks were wing banded and divided between the light and air controlled and the curtain sided facility.

### LIGHTING SCHEDULE

<u>Age</u>	<u>Light and Air Controlled</u>	<u>Curtain Sided</u>
1-2 days	23 hours	23 hours
2 days - 12 weeks	9½ hours	15½ hours
12 - 18 weeks	--	Natural Decreasing Daylength
18 weeks	12½ hours	--
19 weeks	14½ hours	15 hours
20 weeks	15½ hours	15½ hours

# DEBEAKING AND VACCINATION SCHEDULE

Age	
1 day	Marek's vaccination
7 days	Precision beak trimmed
10 days	Newcastle (B1), Bronchitis via water
4 weeks	Newcastle (LaSota) via water
11 weeks	Avian Encephalomyelitis, fowl pox
12 weeks	Beak trimmed
16 weeks	Newcastle (LaSota) via aerosol spray

## DIETS

Diet	ME Kcal/lb	Prot. %	Ca %	Age/Amount Fed
Starter	1290	20.0	1.07	2.5 lbs
Grower	1280	17.0	0.95	6 wks - 18 wks
Pre-Lay	1249	14.0	2.00	18 wks - 20 wks

TABLE 26G-CL. PULLET PERFORMANCE IN LIGHT AND AIR CONTROLLED HOUSING

Entry	Breeder (Strain)	8-140 d Mortality (%)	Feed Usage Per Pullet Housed (lbs)	140 d Body Weight (lbs)	Feed & Chick Cost/Pullet Housed (\$)	Eggs Per Pullet Housed (to 140 d)
1	DeKalb (XL Link)	1.27	12.6	2.60	1.78	0.004
2	ISA-Babcock (B300)	0.83	11.9	2.71	1.70	0.032
3	Hisex (White)	2.54	12.6	2.87	1.81	0.252
4	Hisex (Brown)	2.96	14.3	3.40	2.01	0.000
5	Hubbard (Golden Comet)	2.73	15.3	3.37	2.13	0.203
6	H & N (Nick Chick)	1.80	13.1	2.65	1.94	0.000
7	Hubbard (Leghorn)	4.04	14.2	2.90	2.08	0.058
8	DeKalb (Sex-Sal-Link "G")	1.07	16.0	3.34	2.19	0.038
9	HyLine (W-36)	1.39	13.2	2.58	1.92	0.006
10	Colonial (365-S)	0.00	12.9	2.30	1.85	0.161
11	Shaver (288-A)	5.42	13.7	2.65	1.99	0.000
Avg	(White Egg Strains)	2.16	13.0	2.66	1.88	0.064
Avg	(Brown Egg Strains)	2.25	15.2	3.37	2.11	0.080
Avg	(All Strains)	2.19	13.6	2.85	1.94	0.068

TABLE 26G-CS. PULLET PERFORMANCE IN CURTAIN SIDED HOUSING

Entry	Breeder (Strain)	8-140 d Mortality (%)	Feed Usage Per Pullet Housed (lbs)	140 d Body Weight (lbs)	Feed & Chick Cost/Pullet Housed (\$)	Eggs Per Pullet Housed (to 140 d)
1	DeKalb (XL Link)	1.80	14.2	2.85	2.01	0.022
2	ISA-Babcock (B300)	0.76	13.5	2.79	1.93	0.037
3	Hisex (White)	1.72	13.6	2.81	1.93	0.182
4	Hisex (Brown)	1.06	16.4	3.74	2.22	0.008
5	Hubbard (Golden Comet)	0.61	16.0	3.67	2.18	0.033
6	H & N (Nick Chick)	1.40	14.5	2.78	2.05	0.008
7	Hubbard (Leghorn)	2.14	14.5	2.90	2.03	0.004
8	DeKalb (Sex-Sal-Link "G")	4.49	16.5	3.46	2.26	0.000
9	HyLine (W-36)	0.66	13.6	2.71	1.94	0.000
10	Colonial (365-S)	2.12	12.1	2.23	1.79	0.221
11	Shaver (288-A)	2.40	13.9	2.77	1.96	0.012
Avg	(White Egg Strains)	1.62	13.7	2.73	1.95	0.061
Avg	(Brown Egg Strains)	2.05	16.3	3.62	2.22	0.014
Avg	(All Strains)	1.74	14.4	2.97	2.03	0.048

TABLE 26G-AV. AVERAGE PULLET PERFORMANCE

Entry	Breeder (Strain)	8-140 d Mortality (%)	Feed Usage Per Pullet Housed (lbs)	140 d Body Weight (lbs)	Feed & Chick Cost/Pullet Housed (\$)	Eggs Per Pullet Housed (to 140 d)
1	DeKalb (XL Link)	1.53	13.4	2.72	1.89	0.013
2	ISA-Babcock (B300)	0.79	12.7	2.75	1.81	0.034
3	Hisex (White)	2.13	13.1	2.84	1.87	0.217
4	Hisex (Brown)	2.01	15.3	3.57	2.11	0.004
5	Hubbard (Golden Comet)	1.67	15.6	3.52	2.15	0.118
6	H & N (Nick Chick)	1.60	13.8	2.71	1.99	0.004
7	Hubbard (Leghorn)	3.09	14.3	2.90	2.05	0.031
8	DeKalb (Sex-Sal-Link "G")	2.78	16.2	3.40	2.22	0.019
9	HyLine (W-36)	1.02	13.4	2.64	1.93	0.003
10	Colonial (365-S)	1.06	12.5	2.26	1.82	0.191
11	Shaver (288-A)	3.91	13.8	2.71	1.97	0.006
Avg	(White Egg Strains)	1.89	13.3	2.69	1.91	0.062
Avg	(Brown Egg Strains)	2.15	15.7	3.49	2.16	0.047
Avg	(All Strains)	1.96	14.0	2.91	1.98	0.058

# DATA TABLE STATISTICS

Entry No. - Randomly assigned identification for entry.

Breeder (Strain) - Short identification of breeder and strain, see more complete listing following data tables.

Mortality 8-140 days - Percent mortality 8-140 days. Accidental death, males and 1-7 days mortality excluded.

Feed Usage Per Pullet Housed - Total feed consumed per pullet housed through 20 weeks.

140 Day Body Weight - Average body weight at time of transfer to laying facilities (all birds weighed).

Feed and Chick Cost Per Pullet Housed - Total feed cost (based on three-year average) per pullet housed plus average chick cost of \$0.4344 per net pullet at one week.

Eggs Per Pullet Housed - Eggs produced prior to 20 weeks per pullet housed in laying facilities.

## STOCK SUPPLIERS AND CATEGORIES

<u>Entry</u>	<u>Breeder</u>	<u>Stock</u>	<u>Category*</u>	<u>Source</u>
1	DeKalb AgResearch, Inc. 3100 Sycamore Road DeKalb, IL 60115	DeKalb XL-Link	I-A YES	Clay's Hatchery Route 1 Blackstone, VA 23824
2	ISA-Babcock, Inc. P.O. Box 280 Ithaca, NY 14851	ISA-Babcock B300	I-A YES	Hodges Poultry Farm P.O. Drawer D Callahan, FL 32011
3	Hisex Division Pilch, Inc. Box 438 Troutman, NC 28166	Hisex White	I-A YES	Cleveland Farms Route 4, Box 173-A Shelby, NC 28150
4	Hisex Division Pilch, Inc. Box 438 Troutman, NC 28166	Hisex Brown	I-A YES	Cleveland Farms Route 4, Box 173-A Shelby, NC 28150
5	Hubbard Farms Walpole, NH 03608	Hubbard Golden Comet	I-A YES	Bowers Brothers Hatchery Route 4 Albemarle, NC 28001
6	H & N, Inc. 15305 N.E. 40th Street Redmond, WA 98052	H & N "Nick Chick"	I-A YES	Tatum Farms Route 3 Dawsonville, GA 30534

<u>Entry</u>	<u>Breeder</u>	<u>Stock</u>	<u>Category*</u>	<u>Source</u>
7	Hubbard Farms Walpole, NH 03608	Hubbard Leghorn	II YES	Hubbard Farms Walpole, NH 03608
8	DeKalb AgResearch, Inc. 3100 Sycamore Road DeKalb, IL 60115	DeKalb Sex-Sal-Link "G"	I-A YES	Pee Dee Hatchery P.O. Box 156 Hartsville, SC 29550
9	HyLine International Johnston, IA 50131	HyLine W-36	I-C	Not applicable
10	Colonial Poultry Farms, Inc., Pleasant Hill, MO 64080	Colonial True-Line 365-S	II YES	Colonial Poultry Farms, Inc. Pleasant Hill, MO 64080
11	Shaver Poultry Breeding Farms, Ltd., Box 400 Ontario, CANADA N1R 5V9	Shaver Starcross 288-A	I-A YES	Silver Lake Hatchery, Inc. 209 Grove Street Silver Lake, MN 55381

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



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