

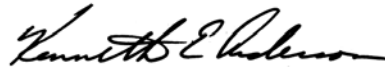
32nd NORTH CAROLINA LAYER PERFORMANCE AND MANAGEMENT TEST

HATCH AND SEROLOGY SUMMARY

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The North Carolina Layer Performance and Management Test is conducted under the auspices of the Cooperative 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. Raymond Coltrain is Piedmont Research Station Superintendent; Mr. Ed Radford is Resident Manager of the flock; and Dr. K. E. Anderson is Project Leader. The purpose of this program is to assist poultrymen in evaluation of commercial layer stocks and management systems.

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32nd North Carolina Layer Performance and Management Test

Hatch and Serology Summary

Entries:

Fourteen entries were accepted or acquired in accordance with the rules and regulations of the test. Eight white egg strains and five brown egg strains are participating in the current test.

32nd North Carolina Layer Performance and Management Test Hatch and Serology Summary

Strain Letter	Computer Code	Strain Name
A	1	Hy-Line (W-36)
B	2	Hy-Line (W-77)
C	3	Bovans (White)
D	4	H & N "Nick Chick"
E	5	Shaver White
F	6	Shaver 2000
G	7	ISA Babcock B300
H	8	ISA Experimental
I	9	Bovans Experimental
J	10	ISA Brown
K	11	Shaver Brown 579
L	12	H & N "Brown Nick"
M	13	Bovans Brown
N	14	Hy-Line Brown

Dates of Importance:

The eggs were set on November 14, 1995 and hatched on December 6, 1995. The chicks were all sexed according to their genetics (feather, color or vent), vaccinated for Marek's disease, and wingbanded for identification before transfer to the brood/grow houses.

Data Collection:

The analysis of fertility and embryonic mortality was conducted on all eggs remaining in the hatch tray and on eggs removed at time of transfer. Tables 1 and 2 indicate the percentage of total eggs set. Table 1 shows the percent usable chicks, cull chicks, and residue of total eggs set. Table 2 shows the distribution of the residue by each embryonic category.

The serology report was obtained by collecting a blood sample from male chicks obtained from each strain. Samples were centrifuged and packaged for shipment to an independent lab. The following table gives the strain identification for the data contained in this report.

32nd North Carolina Layer Performance and Management Test

Hatch and Serology Summary

Hatch Comments:

The eggs arrived at the Research Station in good condition four of the strains were shipped via air freight. There were few broken eggs and the number of dirty eggs was minimal among all the eggs from the represented strains. The eggs from each of the strains were lacking some consistency in their size resulting in small chicks at the time of hatch in some of the strains.

Serology Comments:

We are able to get adequate serum from each of the 14 strains. The IBD titers were present in all the strains and the titer levels for the individual samples appeared to have a normal distribution, indicating a good breeder vaccination program. Those strains with high variation may want to reevaluate breeder vaccination programs. All strains were negative for M. Galisepticum and M. Synoviae.

Table 1. Analysis of hatch by percent usable chicks, and eggs in residue from total eggs set.

Strain	Usable Chicks	Female Chicks ¹	Cull Chicks	Eggs in Residue
	%			
Hy-Line (W-36)	93.39	50.20	.24	6.37
Hy-Line (W-77)	93.95	46.50	.25	5.80
Bovans White	87.22	45.01	.25	12.53
H & N "Nick Chick"	50.00	47.81	.36	49.64
Shaver White	84.75	46.78	.35	14.90
Shaver 2000	86.25	54.83	.25	13.50
ISA (Babcock B300)	91.62	46.80	.29	8.00
ISA Exp.	90.36	48.11	.37	9.27
Bovans Exp.	89.58	44.57	.45	9.97
ISA Brown	85.88	47.25	.32	13.80
Shaver Brown 579	85.20	48.37	.19	14.61
H & N "Brown Nick"	73.25	51.50	.21	26.54
Bovans Brown	79.26	49.09	.21	20.53
Hy-Line Brown	83.62	52.89	.35	16.03

¹Calculated as a percentage of usable chicks.