10-1-1959

Growth and feed standards for broilers -- 1959, Station Bulletin, no.466

Reed, Willis S.

Skoglund, W. C.

New Hampshire Agricultural Experiment Station

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WILLIS S. REED

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W. C. SKOGLUND

on Bulletin 466 October 1959

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Agricultural Experiment Station
University of New Hampshire
Durham, New Hampshire

Growth and Feed Standards for Broilers—1959

By Willis S. Reed and W. C. Skoglund*

THERE is a constant need for up-to-date standard figures for growth, feed consumption, and feed conversion for various ages of broilers. With such figures available, the broiler producer is able to determine how his flock compares with a standard flock. With the highly competitive position of the broiler industry, it is absolutely essential that every effort be made to surpass recognized standards or industry averages in order to survive.

The University of New Hampshire, Department of Poultry Science, published growth and feed standards for New Hampshires in 1952 as Station Bulletin 401. These figures were taken from a composite of five strains of New Hampshires entered in the first New Hampshire Broiler Test. These standards were widely used in the industry as a guide, but with the rapid strides made in breeding, nutrition, and disease control, such standards have long since been outdated.

In 1958-59 growth and feed standards were obtained for four commercially available strains of broilers. The chickens were typical of the stock being sold commercially now, and in all cases were crosses, either of strains or breeds. The chicks were raised at the University of New Hampshire in a building heated by a centrally located hot water heating system. Each pen had a capacity of 250 chicks, allowing 1.1 square feet per chick. Feeder space was increased as the chickens grew and after four weeks of age, 2.9 inches per chick of feeder space was provided. A water trough eight feet long, from which the chicks could drink on each side, was used in each pen. This allowed approximately .8 inch per chick of watering space. Feed consisted of a high energy broiler feed in mash form for the first two weeks, shifting to pelleted feed during the third week. A total of 5,250 chicks were reared in three different lots during all seasons of the year.

The figures presented in the accompanying two tables are averages of the four strains and the three lots reared.

Table 1 presents the weekly average weight and weekly gain for males, females, and mixed sexes.

Table 2 contains the weekly and cumulative feed consumption per broiler, also the feed conversion calculated from mixed sex weight and gain.

It should be pointed out that best use can be made of the figures presented by considering them only as a guide to be surpassed in the broiler grower's own operation.

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* Mr. Reed was formerly Graduate Research Assistant, New Hampshire Agricultural Experiment Station. His present address: Eastern States Farmers Exchange, West Springfield, Massachusetts. Dr. Skoglund is Professor of Poultry Science and Poultry Scientist, New Hampshire Agricultural Experiment Station.

Table 1. Weekly Average Weight and Gain for Commercial Broilers, 1958-59.

Week	Males		Females		Mixed Sexes	
	Avg. Wgt.	Gain/week	Avg. Wgt.	Gain/week	Avg. Wgt.	Gain/week
	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.
1	.19	.19	.18	.18	.19	.19
2	.38	.19	.35	.17	.37	.18
3	.69	.31	.62	.27	.65	.28
4	1.11	.42	.98	.36	1.04	.39
5	1.63	.52	1.39	.41	1.51	.47
6	2.19	.56	1.78	.39	1.99	.48
7	2.78	.59	2.23	.45	2.50	.51
8	3.35	.57	2.66	.43	3.01	.51
9	4.02	.67	3.13	.47	3.57	.56
10	4.57	.55	3.53	.40	4.05	.48

Table 2. Weekly and Cumulative Feed Consumption and Feed Conversion for Mixed Sex Commercial Broilers, 1958-59.

Week	Feed Consumption Per Broiler		Feed Conversion*	
	Weekly	Cumulative	Weekly	Cumulative
	lbs.	lbs.		
1	.14	.14	.74	.74
2	.30	.44	1.67	1.19
3	.49	.93	1.75	1.43
4	.68	1.61	1.74	1.55
5	.92	2.53	1.96	1.68
6	1.06	3.59	2.21	1.80
7	1.25	4.84	2.45	1.94
8	1.44	6.28	2.82	2.09
9	1.56	7.84	2.79	2.20
10	1.55	9.39	3.23	2.32

* Pounds of feed required to produce one pound of live weight.

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