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Neo-Terramycin and Egg Production

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Do modern laying hens need antibiotics for maximum reproductive performance? Although previous reports have shown little or no advantage for their use, there needs to be an occasional check made on this question. Pullets were made available for such a study at the Poultry Research Center this year.

Layer-type pullets at 24 weeks of age were distributed into floor pens with corn-cob litter. Four replicate groups of 40 pullets and 1 cock were fed the corn soybean, 16% protein diet of Carlson and Bonzer (1970, Fact Sheet 502) and four groups the same diet supplemented with Neo-Terramycin at 20 gm per ton (20 gm each of Neomycin and Terramycin). The study was terminated after nine 28-day periods.

The results as shown in Table 1 indicate that there was a slight beneficial effect of the supplement on hen-day production in the early stages of the laying cycle. However, by the sixth period the performance rates were identical and remained nearly so for the rest of the study. There was no difference in overall performance nor was there any significant difference in feed consumption, body weight, egg weight, or hatchability of fertile eggs.

These results showed that the performance of hens laying under these conditions was not improved by antibiotic supplementation of their feed. Although the rate of production was not as high as is sometimes observed in commercial flocks today, it nevertheless was good. Only where performance has been subnormal in previous studies have the antibiotics been shown to have a beneficial effect. Nevertheless, Neo-Terramycin in this work was not in any way detrimental and might be considered an insurance factor to support superior performance under certain stresses of environment or disease.

¹Former Superintendent; Superintendent, Poultry Research Center; and Professor and Leader, Poultry Research and Extension.

Table 1. Performance of Laying Hens¹
as Influenced by Neo-Terramycin

28-day period	Body weight		Hen-day production		Feed per day		Egg weight		Hatch of fertile eggs	
	Control	N-T ²	C	N-T	C	N-T	C	N-T	C	N-T
	kg		%		gm		gm		%	
1	1.52	1.50	40.7	41.5	90	86	---	---	---	---
2	1.56	1.55	77.4	79.1	112	105	---	---	---	---
3	1.64	1.60	74.8	77.6	113	117	57	57	96	92
4	1.67	1.63	72.2	74.5	114	115	58	57	94	92
5	---	---	67.6	72.2	113	116	60	59	97	96
6	---	---	67.7	68.0	118	117	60	59	93	90
7	---	---	66.2	66.1	125	131	61	61	96	94
8	---	---	64.8	64.7	122	133	62	62	95	94
9	1.73	1.69	61.6	60.7	106	113	61	60	---	---
Overall	1.62	1.59	65.9	67.2	113	115	60	59	95	93

¹Forty hens in each of four floor pens on each diet.

²Neo-Terramycin supplementation at 20 gm/ton.