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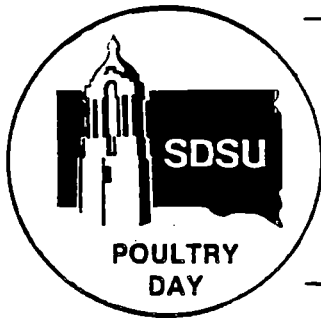
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LACTOBACILLUS CULTURES AND EGG PRODUCTION

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POULTRY 83-3

Lactobacillus types of cultures added to layer diets have shown some beneficial effects on layer performance at this research center (See A.S. Series 76-10, 77-20, 78-7, POULTRY 81-4 and 82-4).

The present experiment was conducted to study further effects of the addition of Lactobacillus types of cultures to layer diets. For this study, 432 Shaver-288 pullets at 28 weeks of age were used. The birds were kept in multiple cages in groups of 12. Nine such groups were assigned to each treatment. Treatment 1 was a regular 16% protein corn-soy type of ration used as the control. Subsequent treatments were the same as 1 plus Lactobacillus acidophilus 1X, Lactobacillus acidophilus 2X and Lactobacillus acidophilus 1X with Lactobacillus plantarum 1X. Egg production, feed consumption and other production parameters were recorded and analyzed for twelve 28-day periods.

Although the differences were not statistically significant, diet 2 with Lactobacillus acidophilus 1X and diet 4 with Lactobacillus acidophilus 1X and Lactobacillus plantarum 1X appeared to show numerical improvements in egg production and feed efficiency. There were no effects on egg weight or quality or on body weights.

With overall performance at such a high rate, it is apparent that Lactobacillus cultures are of little benefit. In instances of suboptimal performances in previous studies, there have been significant and positive responses from Lactobacilli additions to layer feeds. Thus, the history of the flock is important in ascertaining whether or not such additives would be of value.

Table 1. Means of Main Factors for Twelve 28-Day Period

	Hen- day pro- duc- tion %	Hen- day feed con- sump- tion g	Kg feed per doz eggs	Avg egg wt g	Avg body wt g	Avg Haugh units	Hen- day pro- duc- tion g	G egg per g feed
1. Control	77.3	119	1.82	66	1.78	81	51	.43
2. L. acidophilus 1X	78.4	116	1.78	66	1.79	80	52	.44
3. L. acidophilus 2X	78.8	121	1.83	65	1.81	80	51	.42
4. L. acidophilus 1X and L. plantarum 1X	80.1	118	1.74	65	1.83	80	52	.44

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