Vol XI (3-4), 1974

COMPARATIVE STUDY ON THE NUTRITIVE VALUE OF THE COMMERCIALLY AVAILABLE MICROMIXES IN THE BROILER RATION

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The experiment was conducted to study the nutritive value of the different commercially available micromixes on the performance of broiler chicks. Effects of micromixes pertaining o weight gain, feed efficiency, feed consumption and dressing percentage were encountered. The results showed asignificant difference in weight gain of birds and highest gain in weight was observed inbirds on ration supplemented with micropole followed by those supplemented with Nutripol, chicken-tone and control. A significant ($P \leq 0.05$) difference was observed in the feed efficiency in the group on control and those on ration supplemented with micropole but there was no significant difference among the groups on rations supplemented with micropole, nutripole and chickentone. The differences in feed consumption as well as in dressing percentage of different groups of birds were non significant. This study showed the micropol micromix to be the best as far as weight gain and feed efficiency was concerned as compared to the other commercially available micromixes.

INTRODUCTION

Feeding chicken plays a pivotal role in the profitable poultry business. While formulating ration for poultry, energy, protein and fibre are generally considered to be supplied from natural souces. Vitamins and some of the critical mineral substances are required to be added for growth and well being of poultry because natural sources do not ensure the presence of all the essential micro-nutrients. The study under report was, therefore, planned to see the effects of feeding different commercially available mixromixes on the performance of broiler chicks.

MATERIALS AND METHODS

The experiment was conducted from 8th February, 1973 to 12th April, 1973 at the Poultry Experiment Station, University of Agriculture, Lyallpur and spread over a perod of 9 weeks. One hundred and twenty day old white Plymouth Rock chicks were used in the experiment. All the birds were wing banded for identification and protected against Newcastle disease by

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intraocular vaccination at day old, and were randomly divided into 12 groups of 10 chicks each. The experiment was planned to have a completely randomized design. The birds were raised in electrically heated thermostatically controlled brooders. A ration containing 22 per cent crude protein without any addition of micromix was kept as control (Ration A). To this ration micropol, chickentone and Nutripol (Micromixes) at the rate in accordance with the recommended doses (10 lbs. to a ton of feed) were added and named as rations B,C and D respectively. The chicks were weighed individually at start of the experiment and at weekly intervals. Weekly feed consumption records were maintained and 3 chicks from each group were randomly selected, slaughtered and dressing percentage calculated. The data thus collected were subjected to statistical analysis using analysis of variance (Snedecor, 1962) and the comparison of of mean differences were made by Duncan's Multiple Range Test (Duncan, 1955).

TABLE 1. *Average weight gain, feed cousumption, feed efficiency and dressing percentage per bird on different experimental rations.*

	RATIONS			
	A	B	C	D
Average weight gain (gms)	606.06	676 62	626.78	662 49
Average feed consumption (gms)	1849.93	1810.40	1815.38	1870.56
Feed efficiency	3.05	2.67	2.89	2.82
Dressing percentage	62.36	62.90	61.28	61.21

RESULTS AND DISCUSSION

Weight gain :

The chicks fed on ration A (control-without any micromix) B(Micropol added) C(Chickentone micromix added) and D(Nutripol micromix added) showed average gain in body weight of 606.05, 676.62, 626.78 and 662.49 grammes respectively. (Table I). The data on weight gain were subjected to analysis of variadce and there was a significant ($P < 0.01$) influence of different ration in weight gains of birds. The data were further subjected to Duncan's Muliple Range Test and it was observed that chicks fed on ration B and D were significantly ($P < 0.01$) heavier than the cotrol. A significant ($P < 0.01$) difference was also noticed in weight gain between the chicks maintained on rations B and C. The difference between the weight gain of chicks fed rations

C and D was found to be significant. The chicks kept on rationsB, C and D gained 11.64, 3.41 and 9.31 percent more weight as compared to the control group. The results are in agreement with the findings of Mathur and Karnani (1965), Oznacar (1970) and Gondoes *et al.* (1966).

Feed Consumption and Feed Efficiency :

The chicks fed on rations A, B, C and D showed average feed consumption of 1849.95, 1810.40, 1815.38 and 1870 56 grammes per chick respectively. Apparently maximum feed was consumed by the chicks on ration D followed by those on A, C and B. However, the difference in feed consumption among different groups were found to be non significant. The average feed efficiency values in case of birds reared on rations A, B, C and D were 3.05, 2.67, 2.89 and 2.82 respectively. Significant ($P < 0.05$) difference were observed in feed efficiency values among the birds fed on different rations. The results showed a significantly better feed efficiency in the chicks fed on rations with added micromix. The ration B containing Micropol micromix was the best for improving the efficiency of feed utilization and the results, however, did not show significant differences in feed efficiency values among the other groups Feed consumed per unit gain in body weight reduced by 12.45, 7.54 and 5.24 percent in rations B, D and C as compared to the retion A (Control).

Dressing Percentage :

The average values for dressing percentage were 62.36, 62.90, 61 23 and 61.21 in rations A,B,C and D, respectively. These values ranged from 58 87 to 63.55 in all slaughtered birds. Non significant differences were observed in dressing percentage of broiler chicks fed on rations A, B,C and D. The results showed that micromix supplementation did not influence the dressing percentage of broiler chicks.

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