

Original research article

Hematological parameters in Arbor acres

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Abstract

A feeding trial was conducted on 4 months old broiler chicks of Arbor acres breed raised in battery brooders. Hematological parameters were studied on supplementation of phytase in feed and water. The chicks were divided into four groups of 10 chicks in each (Group I control, Group II Phytase 500 IU/L, Group III Phytase 1000 IU of water, and group IV Phytase 125 IU/L of feed). Enzyme increases the palatability of the feed as well as increases the bioavailability of phosphorus and other cations of feed. There were found some significant effect in supplementation groups as compared to control

Key words

Arbor acres, phytase supplementation, hematology

Introduction

In a poultry enterprise more than half of the production cost is due to the feed alone. Various types of feed additives are suggested for increasing the feed efficiency of poultry and decrease expenditure on feed. In poultry production the feed ingredients commonly used are cereals and others plants materials. Phytate, the salt of phytic acid is a main phosphorus storage form of seed plants. A protein enzyme, phytase hydrolyzes the phytate to inositol and

phosphoric acid, making these ions and phosphorus available to the animals. [1,2]

We are here in this present study evaluating the effects of phytase enzyme given as feed additives on hematological parameters in Arbor acres.

Material and Methods

The four months old Arbor acres breed chicks were rose in battery brooders with ad lib. feed and water supply. Hematological parameters were studied on supplementation of phytase in feed. The chicks were divided into four groups of 10 chicks in each (group I control, group II phytase 500 IU/L, group III phytase 1000 IU/L of water, group IV phytase 125 IU/kg of feed). The proper broiler ration and clean water ad lib. provided throughout the course of study. The record of blood parameters were done by automatic blood analyzer (BC-2800 Vet). The statistical analysis of data was carried out to find the mean \pm SE. Two way ANOVA was done to find significant difference between groups and days of experiment and their interaction by using SYSTAT 3.1 (2004) software. The correlations among the various parameters were also calculated [3].

Results and Discussion

Enzymes especially phytase used for increasing growth and production in poultry industry. This increases the palatability of the feed as well as increases the bioavailability of phosphorus and other cations of feed. There were found some significant effect in

supplementation groups as compared to control. Number of workers reported the growth promoting effect of phytase along with the increase in availability of calcium and phosphorus [4].

Table: Blood parameters effected by Phytase in Arbor acres

Group/Parameters	N%	E%	B%	M%	L%	PCV%	Hb%
Group I	25 ^a	7.8	1	7.5 ^a	62 ^a	26 ^a	11 ^a
Group II	26	7	0.5	6.5 ^b	62	25	11.5
Group III	26.48 ^b	8	2	6.5 ^b	60	24	12 ^b
Group IV	28	8.5	2	5 ^b	58 ^b	22 ^b	12 ^b
SE ±	1.5	0.5	0.5	1.5	1.5	1.5	0.5

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