

News & Comments

LW and ACIDAL[®] ML Supplementation in Hens' Drinking Water, Improved Growth Performance*Muneeb Abbasi*

One of the major elements that significantly affects how well laying hens produce is their health the antibiotics, hence employed therapeutically in the raising of livestock. According to their nutritional content, many by-products that the dairy industry rejects, and discards can be salvaged and employed as additions in the production of animals. Whey has a significant amount of lactose, which can be utilized as a prebiotic-like substance because it is not digested by birds but may encourage the development of healthy intestine bacteria.

It is well known that consuming too much lactose can lead to the development of gas, which can cause bloating, intestinal discomfort, and osmotic diarrhoea. The purpose of this study was to investigate how whey and ACIDAL affected laying hens' growth performance, as well as several immunological, haematological, and biochemical parameters from day-old to 36-week-old chickens.

During the age of one week, 750 Isa Brown hens' chicks were obtained from the University of Lomé's Laboratory of Poultry Production Techniques Hatchery. The birds were raised in a poultry house with an open design. Each pen had thirty birds allocated to it, and the experimental methods were given to them at random. Every day, Wagashi, a traditional cheese, was used to make whey. The washed stems were crushed in a mortar to get the extract. The leftover material was then combined with a tiny amount of water and the sieve was filtered. There were two different amounts of whey added to the water: 50 and 25%. For the first experimental group, the water was made by combining 50% water and 50% whey, while for the second experimental group, it was made by combining 75% water and 25% whey.

During feeding and management, all birds received the same standard food, which was created to match their age-appropriate nutritional requirements for calories and protein. Layer food for hens over 20 weeks of age; starter diet for chicks under 8 weeks of age; grower diet for pullets between 9 and 20 weeks of age was given. Each replicate's weekly feed intake and bird body weights were noted. Daily records of the total weight of eggs produced by pen during the laying season were kept.

There were no differences in the birds' ADFI ($p = 0.970$) and ADG ($p = 0.23$) after their first 8 weeks of life. But as compared to the Aci and Lacto 50 groups, birds in the T-group showed greater FCR levels ($p = 0.016$). The T-average group's mortality values were greater ($p < 0.0001$) than those of the other groups. Birds treated with antibiotics, LW, and ACIDAL[®] ML had higher ADG ($p < 0.001$), lower FCR, and mortality



(p 0.001) throughout the experiment than birds in the negative control group. On some haematological parameters of the laying hens at various ages, the impact of various levels of LW and organic acid in drinking water is shown. White Blood Cell (WBC) count and lymphocyte percentage decreased in all treatments from 12-36 weeks of age depending on the age of the hens. The whey and organic acid group's WBC number and lymphocyte percentage were decreased (p 0.05) when compared to the negative control group.

The results of the current study showed that supplementing with Liquid Whey (LW) and ACIDAL®ML through water reduced feed consumption (from weeks 21-36) and mortality (during the experimental period), increasing body weight gains (from weeks 9-36) and improving Feed Conversion Ratio (FCR).

JOURNALS REFERENCE

T. Bouassi, D. Libanio, M.D. Mesa, A. Gil, K. Tona and Y. Ameyapoh, 2020. Effect of whey and ACIDAL®ML mixed in drinking water on hen's growth performance, haematochemical and serum immunological parameters. *Int. J. Poult. Sci.*, 19: 577-585.

KEYWORDS

Antibiotic, growth promoter, liquid whey, ACIDAL®ML, laying hens

