**An investigation in the appropriate addition of chicken blood meal to broiler feed**

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**Abstract**

The aim of this study is to investigate the appropriate addition of chicken blood meal to broiler feed due to its amino acid composition different from that of blood meal originating from livestock. A total of 180 day-old Arbor Acres maternal male broilers were assigned, randomly and equally, to thirty pens and divided into five groups, A, B, C, D and E. Both water and feed were provided *ad libitum* in a 35-day period. During 0-10 days old, birds in the group A received a diet with 5% fish meal while diets for the rest of groups contained 3, 5, 7 or 9% of chicken blood meal, separately. Then, a diet for group A involved 5% bone and meat meal instead of fish meal whereas diets for group B, C, D and E contained 7, 9, 11 or 13% of chicken blood meal, respectively, from 10 to 21 days of age. On day 21, a diet for group A still contained 5% bone and meat meal; however, the addition of chicken blood meal to diets for the rest of groups switched to 10, 12, 14 or 16% of chicken blood meal, separately, till the end of the experiment. Body weight and feed intake were measured for calculating feed conversion rate and European production efficiency index on day 10, 21 and 35.

In the results, there were no significant differences in body weight between groups receiving a diet containing 5% fish meal or 3, 5 or 7% chicken blood meal on day 10. The body weight gain of chickens receiving a diet involving 7 or 9% chicken blood meal was not significantly different from that of the group A from day 10 to 21. Negative effects on the growth performance of chickens ingested a diet with more than 10% chicken blood meal were observed during day 21-35 compared to the group A. The appropriate addition of chicken blood meal to feed for broiler was recommended as 7, 9 and 10 for the three stages, respectively.

**Key words:** Chicken blood meal, Broiler, Appropriate addition