**Effect of Banana Leaf Meal on growth Performance and some Hematobiochemical parameters in Broiler**

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Examination Roll No. 0116/06;

Registration No. 289

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A thesis submitted in partial of the requirements for the fulfillment of the degree of Master of Science in Animal and Poultry Nutrition

**Department of Animal Science and Nutrition**

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 Khulshi, Chittagong-4225, Bangladesh

**June 2018**

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**The Author**

**June 2018**

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This is to certify that we have examined the above Master’s thesis and have found that the thesis is complete and satisfactory in all respects and that all revisions required by the thesis examination committee have been made

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**List of abbreviation**

|  |  |
| --- | --- |
| BBS…………………… | Bangladesh Bureau of Statistics |
| BMD………………….. | Bangladesh Meteorological Department |
| CP…………………….. | Crude protein |
| GDP…………………… | Gross domestic product |
| DOC………………….. | Day Old Chick |
| g……………………… | Gram |
| LW……………………. | Live weight |
| FCR…………………… | Feed conversion ratio |
| Hb…………………….. | Hemoglobin |
| SEM…………………… | Standard error of mean |
| NS……………………… | Non significant |
| ˂………………………. | Less than |
| ˃……………………….. | Greater than |
| e.g………………………. | Example |
| et al…………………… | And his associates |
| etc………………………. | Et cetera |
| % ………………………. | Percentage |
| i.e. ………………...…… | That is |
| Sig. ……………………. | Significance |
| Ref. …………………… | Reference |
| MS ……………………. | Master of Science |

**Abstract**

The aim of this study was to assess the productive performance, carcass characteristics and blood parameters in commercial broiler. Ninety Cobb 500™ unsexed day old commercial broiler chicks were used in a 28 day trial to investigate the effects of different levels of banana leaf supplementation. Birds were randomly distributed into three dietary treatment groups designated as T0, T1, and T2 and supplemented with 0, 1%, 2% for banana leaf T0, T1, and T2, treatment groups, respectively. Each treatment had 30 broiler birds with three replicates of 10 birds per replicate and the experiment lasted 4 weeks. The highest weekly weight gain 585.57g was recorded in T2 group and the lowest weekly weight gain 526.93g was recorded in T0 group at 4th week of age. Unlike to weight gain, feed intake differed significantly (p<0.05) from 2nd to 4th weeks of age at the level of banana leaf supplementation increased. In the same week, the highest weekly feed intake 985.76g was recorded in T0 group and the lowest weekly feed intake 959.99g was recorded at T2 group. Best FCR (1.3) was observed in the T2 group and worst FCR (1.45) was observed in the T0 group at 2nd week of age. Mean values of all hematological parameters evaluated packed cell volume, hemoglobin and red blood cell except white blood cell, did not differ significantly (p>0.05) between the control and the treated group. Birds under T2 group had the highest WBC titre. Reduced glucose level was observed in the treated group. Birds in T2 grouphad significant (p<0.05) decreases of 54.82% serum total cholesterol when compared to the control. There was an increase in the Alanine Transaminase, the concentration 16.70 -21.70 IU /L was within the normal range for broiler chickens. It was concluded that banana leaf could be safely be used as a phyto-additive in broiler chickens, preferably in the feed.

**Keywords:** Blood parameter, carcass characteristics, feed conversion ratio, banana leaf supplementation, weight gain, commercial broiler