

Effect of Probiotic (Biogen) Supplementation on Growth Performance and Internal Organs of Broiler Chicks

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This study was carried out to investigate the effect of probiotic (Biogen) supplementation on broiler growth performance and internal organs. One hundred and sixty, one-day-old, unsexed broiler chicks (cob strain) were used. The experiment was executed in a complete randomize design. All chicks were initially weighed and divided into four groups with equal number of chicks. Each group was divided into four replicates (experimental units), 10 chicks per each. The first group was fed diet not containing the biogen (control). The second; third and fourth groups were fed on diet containing 2g, 4g and 6g biogen per kg ration, respectively. The effect was evaluated in terms of growth performance (feed intake, body weight gain, feed conversion ratio, live body weight gain and weight of hot carcass). The internal organs measured were (liver, spleen, heart, gizzard, bursa of fabrius, abdominal fat and intestine length and weight). At the end of the experiment, 32 birds were slaughtered (8 birds from each group) at the age of 7 weeks. The result revealed that the best improvement in the performance was associated with the addition of 2g/kg, followed by 4g/kg and 0g/kg, and then 6g.kg of biogen powder. Increase in feed intake, feed conversion ratio, body weight gain and weight of internal organs in supplemented groups compared to the control. Feed intake significantly ($p<0.05$) increased between these groups affected by different level of biogen at age 7 weeks. The results for feed intake were as follows; 3521, 2893.9, 2663.3, and 2653.7 gram/bird for group B, C, A (control) and D respectively throughout the experimental period. Feed conversion ratio significantly ($p<0.05$) increased in week one, two and three, but week four, five, six and seven, all experimental groups reflected no significant ($p<0.05$) difference. Live body weights and hot carcasses significantly ($p<0.05$) increased were as follows; live body weights 1382.3g, 1680.0g, 1420.1g, and 1263.1 gram. Hot carcasses 992.45g, 1227.7g, 1004.2g and 902.85gram for group A (control), B, C and D respectively. The group fed (2g/kg) got significantly ($p<0.05$) higher live body weight and hot carcass than other groups. The internal organs measured were (liver, spleen, heart, gizzard, bursa of fabrius, abdominal fat and intestine length and weight) significantly ($p<0.05$) increased in group B compared with other groups. The result of experiment indicated that the biogen level 2g/kg achieved the best performance.

Based on the result this level could be included only at the starter phase.