

Effects of wet feeding on growth performance and gastric transit time of broiler chicken

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Abstract

Wet feeding has been found to improve the growth performance and feed efficiency of broiler chicken. The objective of this study was to determine the effects of wetting a broiler finisher diet without fish meal and sesame meal on growth performance, feed and water intake, gastric transit time (GTT) and some faecal properties. Broiler chicks (n=24) in twelve pens were fed an on farm prepared mash diet either in dry (DF) or wet form (WF) from day 31-41. Wet feed was prepared by mixing dry feed with water at 1:1 ratio. Daily feed and water intakes and live weights on day 37 and 41 were recorded. GTT was determined on day 40 and faecal samples were analyzed for moisture, nitrogen and ash. Six randomly selected birds from each treatment were killed on day 41 and the weights of the visceral organs, and the dressing percentage were determined. Tibias were analyzed for ash. WF had no effect on live weight on day 41, feed intake and weight gain from day 31-41. From day 31-37, feed conversion ratio of the birds given WF (1.8) was significantly ($p<0.05$) better than those given dry feed (DF) (2.1), but the overall FCR from day 31-41 was not significantly different between two groups. During first seven days from 31-37, intake of water from drinkers was significantly low in WF given birds than in DF given birds. However, the total water intake (intake from drinkers + with feed) and water to feed ratio were not significantly different between two groups. Gastric transit time of the birds given WF (199 min) was similar to that of birds given DF (188 min). Faecal qualities such as dry matter, N and ash contents and visceral organ weights were also not affected by wetting the feed. Birds given WF tend ($p=0.09$) to have higher tibia ash content (46%) than those given DF (43%). It was concluded that wetting of rice bran-maize based diet without fish meal and sesame meal did not improve the growth performance but increased the bone qualities marginally.

Keywords: Broiler Chicken, Wet Feeding, Dry Feeding