EFFECT OF THE PELLET SIZE ON PELLET DURABILITY AND FEED CONVERSION RATIO OF BROILER CHICKEN

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ABSTRACT

There are enough information reported, to determine the suitable feed form and its' effect on feed conversion ratio for broilers, not for the pellet sizes. Hence, present study was conducted to determine the effectiveness of three different pellet sizes on feed conversion ratio (FCR) of broilers and pellet durability index (PDI) of broiler finisher feed. Keeping quality of broiler finisher feed was checked for two months under room temperature. A total of two hundred and twenty five 22-day old broiler birds were randomly assigned into three dietary treatments. Each treatment comprised of three replicates and twenty five broiler birds were included in each replicate. Broilers were randomly allocated to one of three experimental diets and fed for 14 days in a completely randomized design. The dietary treatments included two different pellet sizes T1 (1.25 cm) and T2 (0.2 cm) and the existing pellet size T0 (0.5 cm) as control group. Body weight and feed intake were recorded during the experiment period. Three sizes of pellets were stored for two months under the same conditions to check the keeping quality of the pellets. Under the proximate composition evaluation, crude protein, crude fat, crude fiber, moisture and ash content were evaluated. Data were analyzed by one way (weight gain, feed intake and FCR) and two way analysis (proximate composition analysis) of variance of Minitab 17 software. The feed intake, weight gain and the FCR of birds were not affected ($p>0.05$) by dietary treatments. The PDI was not affected ($p>0.05$) by the treatments with time. In keeping quality analysis, there was no significance ($p>0.05$) difference of pellet sizes with time. In conclusion, there were no any effect of the pellet size on PDI and FCR of broiler chicken during the intake of finisher feed.

Keywords: Pellet size, Feed conversion ratio, Pellet durability, Broiler chicken