

SHORT COMMUNICATION

Effect of feed particle size on the performance of guinea fowl (*Numida meleagris*) keets

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Abstract

A total of one hundred and fifty, a day-old keets were used in an experiment arranged in a Completely Randomized design (CRD) with the aim of determining the effect of feed particle size on the performance of the keets. The keets were randomly divided into three treatment groups viz; 1, 2 and 3mm particle sizes having 45 keets each. These were further subdivided into three replications of 15 keets per replicate. The keets were reared for 56 days post 21 days of brooding. They were fed and watered ad libitum. Data collected were subjected to One-Way Analysis of Variance. The proximate composition of the feed particle sizes were statistically similar ($P > 0.05$) in contents. The results obtained revealed significant ($P < 0.05$) differences in all the parameters considered with the exception of the initial weight. The keets on 2mm feed particle size had the highest final weight of $1529.73 \pm 8.74\text{g/bird}$; the highest weight gain of $26.85 \pm 0.16\text{g/bird/day}$; the highest feed intake of $44.50 \pm 0.54\text{g/bird/day}$; the best feed: gain of 1.66 ± 0.03 and the best protein efficiency ratio of 3.10 ± 0.05 . The highest mortality of $33.33 \pm 0.00\%$ ($n = 15$) was recorded in keets fed 3mm feed particle size. The results showed that birds fed 2mm feed particle size depicted potential for efficient utilization of feed which is related to the fine texture of the feed. Hence, it could be concluded that keets up to 11 weeks of age can be managed effectively on feed particle size 2mm.

Keywords: Feed, particle size, performance, guinea fowl, keets

Introduction