

The effects of composite floors on the growth performance and carcass traits of two-way crossbred mule duck ⁽¹⁾

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Received: Apr. 30, 2020; Accepted: Nov.13, 2020

Abstract

The purpose of this study was to investigate the effects of composite floors on mule ducks' growth performances, carcass traits, primarily feather length and foot pad damage condition to evaluate the feasibility of rearing mule ducks in a raised floor duck house. A total of 240 two-way crossbred mule ducklings aged 3 weeks were allocated randomly into 4 treatment groups and fed on four different composite floors; namely half stainless mesh floor with half rice hull, half stainless mesh floor with half plastic floor, half stainless mesh floor with half wooden slats floor, and half stainless mesh floor with half non-slip rubber floor. Each of the treatment group repeats 3 times, with 20 ducks repeated, consisting 50% each of male and female duck, all treatments given the same diets. Ducks individual body weight, feed consumption was determined for calculating feed intake, body weight gain, feed conversion ratio at 3, 7, 10 and 12 weeks of age and the 8th primary feather length and footpad damage scores at 7, 10 and 12 weeks of age. One male and one female duck from each replicate were sacrificed at 12 weeks of age for carcass traits determination. The results showed that average body weight at 12 weeks of age was in the range of 3,105 ~ 3,283 g. The average body weight of ducks raised on the non-slip rubber floor group was 3,105 g and was significantly lighter than the other three groups ($P < 0.05$). The average primarily feather length at 12 weeks of age was in the range of 20.8 ~ 22.6 cm. The primarily feather length of ducks raised on the non-slip rubber floor group was significantly shorter than the other three groups ($P < 0.05$). The foot pad damage score at 12 weeks of age of ducks raised on the rice hull treatment was 0.4, significantly better than the other three groups ($P < 0.05$). According to the results of this experiment, it is recommended to apply the half stainless mesh floor with half rice hull in the duck house when ducks' live body weight, feed conversion ratio, primarily feather length, footpad damage and breast meat weight were taken into consideration concurrently.

Key words: Carcass traits, Composite floors, Growth performance, Mule duck.

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