

Effect of different rearing systems on the production of parvovirus-free Muscovy duck⁽¹⁾

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Abstract

The aim of this study was to compare the production efficiency of Muscovy duck reared on wire mesh floor or in cage. One hundred and twenty female parvovirus-free Muscovy ducks were allocated into two groups at 26 weeks of age and the productive performance, reproductive performance and bumble foot score were detected. The egg number of laying up to 52 weeks age in the group of wire mesh floor and cage was 89.3 and 89.7, the percentage of broken eggs was 9.5% and 3.6% ($P < 0.001$), the fertility rate was 86.8% and 83.8% ($P < 0.05$) and the percentage of embryonic eggs mortality was 15.2% and 16.6%, respectively. Both of these two rearing systems caused high rates of bumble foot (85.7% to 100%). However, the Muscovy ducks raised on the wire mesh floor had more serious bumble foot (score 3) than those in the cage system. Taken together, ducks raised on wire mesh floor had higher rate of broken eggs. However, this system benefits the fertility and reduce labor demand than the cage system. The problem of animal welfare caused by bumble foot still needs to be overcome.

Key words: Muscovy duck, Wire mesh floor, Cage, Bumble foot.

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