

Effects of storage time and age on fertility and mortality of hatching eggs for minimal disease white Muscovy duck ⁽¹⁾

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Abstract

This study aimed to evaluate the effects of egg storage time and age on fertility and mortality rate of hatching eggs for minimal disease white Muscovy duck. These data will be valuable for reproduction management and production estimation. This present study was conducted during the period of the laying season from 2013 to 2014. Egg production was divided into 6 age groups (wk 29 - 32, 33 - 36, 37 - 40, 41 - 44, 45 - 48 and 49 - 52) and a total 14,163 hatching eggs were subjected to 13 storage time groups (day 0 to 12). The data regarding of the fertility and mortality of hatching eggs incubated for 7, 14 and 32 days were collected. The results showed that embryonic mortality rate of storage time for 1 - 3 days was significantly lower than other storage time groups ($P < 0.05$) and the mortality rate increased with storage time increases. The fertility of 41 - 44 wk age group (89.8%) was significantly higher than other groups ($P < 0.05$) and the embryonic mortality rate of this group was significantly lower than these groups of wk 29 - 32, 45 - 48 and 49 - 52 ($P < 0.05$). Although there was no significantly different between the group of wk 41 - 44 and other two groups (wk 33 - 36 and 37 - 40), the group of wk 41 - 44 still got the lowest embryonic mortality rate. As the results, we suggest the best storage time is 1 - 3 days, followed by 4 - 7 days, unless for the demand of the market, the hatching eggs do not store more than eight days.

Key words: Muscovy, Storage, Age, Fertility, Mortality.

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