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Effect of Genotype and Storage Period on Hatchability results in Layer Parents

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Abstract

Breeder factors that affect hatchability include strain, health, nutrition, age of the flock, egg size, weight and quality, egg storage duration and conditions. Hatchability is of considerable economic importance for all hatcheries and therefore must be given appropriate attention in breeding programs for commercial layers. The variability between and within strains will tell us whether reproductive performance can be improved by selection within specific lines. Fertility and hatchability are the most important determinant for producing more chicks from given number of breeding stock within a stipulated period. Fertility and hatchability performance of eggs depend on the number of factors like genetic, physiological, social and environmental. The principal objectives of the commercial hatchery are to secure the maximum number of quality day-old chicks out of the eggs set for hatching. Several researchers reported that genotype of breeder hen had significant effect on hatchability of egg. Fertility and hatchability are 2 major parameters that highly influence the reproductive performance of chicken breeds. In commercial poultry production, storage of hatching eggs is an indispensable part of hatchery operation and long egg storage times are sometimes unavoidable due to flock logistic issues and market availability. It is well known that an increase in the storage duration increases incubation duration and decreases hatchability and chick quality.

Key Words: Breeder, hatchability, reproductive performance, physiological, Fertility

