GENETIC DIFFERENCES IN EMBRYONIC MORTALITY FOR LAYER BREEDER STRAINS

By

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B.Sc. Agric. Sci. (Poultry Production), Cairo University, 2011

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ABSTRACT

Ahmed Mosaad Abd El- Salam. "Genetic Differences In Embryonic Mortality For Layer Breeder Strains". Unpublished M.Sc.Thesis, Department of Poultry Production, Faculty of Agriculture, Ain Shams University, 2017

The aim of this work was to study the influence of genotype, age of layer breeder and production season on some hatching traits, embryonic mortality stages, embryonic malposition, embryo deformities and some physiological traits. In this work, breeder strains were used (Hy-line Brown and Hy-line White 36) with flock age (28, 36, 46, 55 and 66 weeks of age) and breeding season (summer and winter). At each age, 120 unhatched eggs from each genotype were examined. The results showed that the strain had a significant effect on embryo weight, medium embryonic mortality, head over right wing, deformeds head, Omphalitis and unclosed abdomen, unabsorbed yolk sac, piped percentage and lunges weight. The season also influenced significantly in early and late embryonic mortality, all malposition, deformeds (head, neck and odema), omphalitis and unclosed abdomen, unabsorbed yolk sac, piped percentage, yolk pH, residual yolk, liver, heart and lunges weight. The age affected egg weight, embryo weight, all stages of embryonic mortality, deformeds (leg, head, neck, beak and odema), omphalitis and unclosed abdomen, unabsorbed yolk sac, piped percentage, chorioallotoic weight, albumen and yolk pH, residual yolk, hatch muscles weight %, liver, heart and lunges weight and bursa weight. It could be observed that the genetic differences among layer breeder strains and age of breeders can affect the hatchery performance.

Key words: strain, season, breeder's age, embryonic mortality, layer breeder, abnormalities, Hy-line and malpostions

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