

**RELATIONSHIP OF HUMIDITY AND EGG
WEIGHT LOSS ON HATCHABILITY OF LAYER
EGGS**

A dissertation submitted to the
Faculty of Animal Science and Export Agriculture
Uva Wellassa University
In partial fulfillment of the requirement of
The degree of
Bachelor of Animal Science

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2020/2021

ABSTRACT

Egg handling, collection, management, and storage conditions are of prime concerns in layer industry as they effect to egg hatchability. Moisture loss from egg is normal process during incubation. Humidity (RH) is a very important factors affecting embryo development, hatchability, and post hatch performance. So the objective of this research is to determine the relationship of moisture loss on hatchability in an eggs. A total number of 3650 incubating eggs produced by week's age hens of commercial flock of DeKalb White layer strain was used to determine the relationship of egg weight loss and hatchability after 21st day of incubation period. The egg in 50g-60g of weight category were used for experiment. Three replicates were used (3 places in trolley) and nine sample as T1, T2 and T3. These samples were kept for 18 days in the incubator and kept in the hatcher for three days. Weight loss of an eggs were measured in day zero and 18th day in incubator and the hatchability of these eggs were checked in 21st day. Weight loss and hatchability were calculated. Moisture loss from samples from upper, mid, low in incubator shelves were respectively 13.63 ± 0.37 , 12.32 ± 0.57 , 11.72 ± 0.74 . Hatchability of samples from upper, mid, low in incubator shelves were respectively 86.25 ± 7.99 , 74.59 ± 7.81 , 61.89 ± 7.64 . There was not a relationship between hatchability and weight loss on treatments ($P > 0.05$). When the mean values were compared there is a relationship between moisture loss and hatchability.

Key words; Hatchability, Humidity, Incubation, Layers, Weight loss