

ABSTRACT

Zakariya, Ahmad. 2019. *The Effectiveness of Temperature in terms of Weather (Room Humidity) on Hatching Power of Mojosari Duck Eggs as Application of Temperature and Heat Materials in Poultry Cultivation*. Thesis, Department of Mathematics and Natural Sciences Education, Physics Education Study Program, Faculty of Teacher Training and Education, Muhammadiyah Metro University. Advisors (1) Dr. Nyoto Suseno, M.Si. , (2) Dedi Hidayatullah A., M.Pd

Key words: hatchability of eggs, application of temperature and humidity, Mojosari ducks, poultry farming

Hatchability of eggs is the percentage of the number of eggs that hatch from the number of fertile eggs that are hatched. Some people hatch Mojosari's duck eggs but the hatchability is low. Given the low hatchability of duck eggs in the community, it is necessary to research and develop the hatching process in order to obtain maximum results and be able to become a learning process in schools.

The purpose of this study was to determine the effectiveness of temperature and humidity on the hatchability of Mojosari's duck eggs and to develop learning resources from the hatching process of duck eggs in hatching machines. This research was conducted in Tempuran 12B Village, Trimurjo District, Central Lampung on February 15-15 - March 24 2018. The data collection method used experimental methods and data processing methods used one-way ANOVA. The research design carried out was by carrying out 3 treatments, namely F1 using a temperature of 37 ° C - 38 ° C with a humidity of 68% and 73%, F2 using a temperature of 38 ° C - 39 ° C with a humidity of 68% and 73%, and F3 using a temperature of 39 ° C - 40 ° C with a humidity of 68% and 73%. Selection of eggs for 4 times, namely the first selection on the 7th day, the second selection on the 14th day, the third selection on the 21st day and the fourth selection on the 28th day.

The results of the experiments conducted showed that the hatchability of eggs was effective against room humidity. In F1, the egg hatchability was 48% and 50%. In F2 treatment, the resulting egg hatchability was 66% and 70%. In F3 treatment, the resulting egg hatchability was 44% and 46%. The part of research that can be used as a learning resource is the process of hatching duck eggs, measuring room temperature and humidity in the hatching machine, measuring egg hatchability and explaining the application of temperature to the duck egg hatching process

The benefit of this research, especially for educators, is that it can be used as a learning resource for physics and entrepreneurship in the learning process.