

Design of Temperature and Humidity Control Systems in Quail Puppies Cages Using Fuzzy Logic Method

Perancangan Sistem Kendali Suhu dan Kelembaban pada Kandang Anakan Burung Puyuh Menggunakan Metode Logika Fuzzy

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After the quail eggs hatch, quail chicks need a warm place as a substitute for the mother to maintain body temperature. The temperature needed by quail chicks is approximately 37°C in the first week and each following week the temperature is lowered to room temperature of 28°C. This research applies the control of temperature and humidity of quail chicks based on fuzzy logic Tsukamoto method. As a detector of temperature and humidity on drums used DHT11 sensor. This temperature and room control system is designed to reduce mortality in quail chicks. The average temperature and humidity reading error for quail puppages by using the DHT 11 sensor is 1% of the temperature reading and 2% of the humidity reading. The results of the implementation of fuzzy logic control are able to maintain the stability of temperature and humidity in quail chicks cages at 32°C - 38°C with humidity between 40% RH - 70% RH.

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