

## **ABSTRAK**

### **MODEL CLOSED HOUSE BROILER ENCLOSURE SYSTEM USING AUTOMATIC PLC OMRON SYSMAC CPM1A 20-CDR-A-V1**

**by**

**RADITIYA PRIHANDANU**

Enclosure is one part of the management of poultry that is very important to note. Closed cage system ( Closed House) is an enclosure system that should be able to remove excess heat , excess moisture , harmful gases such as CO , CO<sub>2</sub> , and NH<sub>3</sub> is in the cage. Closed system enclosure divided into two systems, namely the system and the system of evaporative tunnel cooling system ( ECS ). The final result in the maintenance of weight chicken coop closed system (closed house) is expected to increase yields compared with the maintenance of an open cage system (open house). In a closed system model designed enclosure, the measurement results obtained with the level of efficiency of the weight at the age of 0—7 days chicken has a weighting of 20.05 % efficiency , at the age of 8—14 days chicken has a weighting of 18.08 % efficiency, at the age of 15—21 days chicken has a weighting of 14.42 % efficiency , at the age of 22—28 days chickens have a weighting of 26.48 % efficiency, and at the age of 29—35 days chickens have a weight of 24.34 % efficiency. The state of temperature and humidity in the enclosure is not closed house system passes a critical threshold that is ideal for growing chickens. The average value obtained from the temperature measurements from the age of 0-7 days to 29-35 days as follows: 32.5 °C, 31.1 °C, 30 °C ; 28.4 °C, and 29.1 °C. As for the state of aged chicken humidity ranging from 0-7 days to 29-35 days as follows : 63.5 % , 65.1 % , 67.5 % , 70.45 % and 70.9 %.

***Key Words : Closed House, Weighting Efficiency, Temperature, Humidity***