

## **ABSTRACT**

### **PENGARUH PERBEDAAN LUAS CAGE AYAM TERHADAP PERFORMA AYAM PETELUR UMUR 7 – 10 MINGGU DI KANDANG CLOSED HOUSE**

Penelitian ini bertujuan untuk mengevaluasi pengaruh perbedaan luas cage (kepadatan kandang) terhadap performa ayam petelur umur 7–10 minggu dalam sistem kandang closed house. Latar belakang penelitian ini berangkat dari pentingnya keseragaman bobot badan (uniformity) dan pertumbuhan optimal ayam pada fase grower sebagai indikator keberhasilan manajemen pemeliharaan. Penelitian dilakukan di PT Jatinom Indah Farm dengan total 136 ekor ayam strain Isa Brown yang dibagi menjadi dua perlakuan: kontrol (378,9 cm<sup>2</sup>/ekor) dan eksperimen (480 cm<sup>2</sup>/ekor), masing-masing dengan 4 ulangan. Variabel yang diamati adalah penambahan bobot badan (PBB) dan uniformity, dianalisis menggunakan uji-t independent sample.

Hasil menunjukkan bahwa penambahan luas cage tidak berpengaruh signifikan terhadap PBB ayam petelur ( $p = 0,99$ ). Namun, terdapat perbedaan signifikan dalam uniformity antara kedua perlakuan ( $p = 0,000257$ ), dengan nilai rata-rata lebih tinggi pada kelompok eksperimen (0,83) dibanding kontrol (0,65).

Disimpulkan bahwa penambahan luas cage tidak secara langsung meningkatkan bobot badan, tetapi berdampak positif terhadap keseragaman ayam. Oleh karena itu, manajemen ruang yang optimal sangat disarankan untuk meningkatkan efisiensi dan performa kelompok ayam petelur pada fase grower.

This study aimed to evaluate the effect of different cage space allocations (stocking density) on the performance of layer chickens aged 7–10 weeks in a closed house system. The background of this research stems from the importance of achieving uniform body weight and optimal growth during the grower phase, which serve as key indicators of successful poultry management. The research was conducted at PT Jatinom Indah Farm using a total of 136 Isa Brown pullets, divided into two treatment groups: control (378.9 cm<sup>2</sup>/bird) and experimental (480 cm<sup>2</sup>/bird), each with four replicates. The observed variables were body weight gain (BWG) and uniformity, analyzed using an independent sample t-test. The results showed that increased cage space did not have a significant effect on BWG ( $p = 0.99$ ). However, there was a significant difference in uniformity between the treatments ( $p = 0.000257$ ), with the experimental group showing a higher average uniformity (0.83) compared to the control group (0.65). In conclusion, increasing cage space does not directly improve weight gain but significantly enhances uniformity. Therefore, optimizing space management is recommended to improve flock uniformity and overall performance of layer chickens during the grower phase