

ABSTRAK

PENGARUH INTENSITAS CAHAYA TERHADAP PERFORMA AYAM PETELUR UMUR 8–11 MINGGU DI KANDANG SISTEM *CLOSED HOUSE*

RIFQI ILHAM RIZKIANTO

Penelitian ini bertujuan untuk mengevaluasi pengaruh intensitas cahaya terhadap performa ayam petelur umur 8–11 minggu dalam sistem kandang tertutup. Parameter yang diamati meliputi Average Daily Gain (ADG), uniformity, dan mortalitas. Penelitian dilakukan menggunakan Rancangan Acak Lengkap (RAL) pola searah, kemudian dilanjutkan dengan uji Beda Nyata Terkecil (BNT) dengan tiga perlakuan intensitas cahaya: 5 ± 10 lux (K0), 13 ± 17 lux (K1), dan 33 ± 37 lux (K2), masing-masing diulang tiga kali. Hasil analisis menunjukkan bahwa intensitas cahaya berpengaruh nyata ($P < 0,05$) terhadap ADG, dengan nilai tertinggi pada perlakuan K2 yaitu $14,75 \pm 0,16$ g/ekor/minggu. Namun, tidak terdapat pengaruh nyata ($P > 0,05$) terhadap uniformity, dan semua kelompok mencatat mortalitas 0% selama periode penelitian. Temuan ini menunjukkan bahwa intensitas cahaya yang lebih tinggi dapat meningkatkan laju pertumbuhan ayam petelur tanpa memengaruhi uniformity maupun mortalitas. Oleh karena itu, intensitas cahaya 33 ± 37 lux direkomendasikan sebagai pengaturan pencahayaan optimal pada fase grower ayam petelur dalam sistem kandang tertutup.

Keywords: Closed House, Laying Hens, Light Intensity, Performance

ABSTRACT

THE EFFECT OF LIGHT INTENSITY ON THE PERFORMANCE OF LAYING HENS AGED 8–11 WEEKS IN A CLOSED HOUSE SYSTEM

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This research aimed to evaluate the effect of light intensity on the performance of laying hens aged 8–11 weeks in a closed house system. The observed parameters included average daily gain (ADG), uniformity, and mortality. The experiment was conducted using a Completely Randomized Design (CRD) with a one-way pattern and further analysis using the Duncan Multiple Range Test (DMRT) test with three light intensity treatments: 5 ± 10 lux (K0), 13 ± 17 lux (K1), and 33 ± 37 lux (K2), each replicated three times. The analysis showed that light intensity had a significant effect ($P < 0.05$) on ADG, with the highest value found in treatment K2 14.75 ± 0.16 g/bird/week. However, there was no significant effect ($P > 0.05$) on uniformity, and all groups recorded 0% mortality during the study period. These findings indicate that higher light intensity can enhance the growth rate of laying hens without affecting uniformity or mortality. Therefore, a light intensity of 33 ± 37 lux is recommended as the optimal lighting setting during the grower phase of laying hens in closed house systems.

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