

INTISARI

PENGARUH BERBAGAI BAHAN *LITTER* DAN ZONA PADA KANDANG *CLOSED HOUSE* TERHADAP PRODUKTIVITAS AYAM *BROILER*

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INTISARI

Penelitian ini bertujuan untuk mengetahui pengaruh berbagai bahan *litter* dan zona pada kandang *closed house* terhadap produktivitas ayam broiler. Penelitian menggunakan rancangan acak lengkap pola faktorial 3x3, yaitu tiga jenis *litter* (sekam, jerami, dan serbuk kayu) serta tiga zona kandang (depan, tengah, dan belakang). Setiap kandang perlakuan digunakan 3 ulangan, masing-masing terdiri dari 30 ekor DOC. Penelitian dilakukan di salah satu *reasearch farm (closed house)* Fakultas Peternakan Universitas Gadjah Mada. Penelitian ini menggunakan ayam broiler jantan sebanyak 810 ekor yang dilaksanakan selama 28 hari. Ayam broiler dibagi menjadi 27 pen dengan masing - masing pen berjumlah 30 ekor ayam. Perlakuan jenis *litter* menggunakan sekam (S), serbuk kayu (K), dan jerami padi (J). Perlakuan zona pada kandang dilakukan dengan membagi zona pada kandang dengan tiga zonasi yakni depan (ZI), tengah (ZII), dan belakang (ZIII). Parameter penelitian yang diamati yaitu konsumsi pakan, bobot badan, *feed conversion ratio*, mortalitas, dan indeks performans. Analisis dilakukan dengan metode *Analysis of Variance* (ANOVA) berdasarkan Rancangan Faktorial. Analisis dibantu dengan *software* personal computer yaitu IBM SPSS. Apabila terjadi perbedaan dilanjut dengan uji DMRT (*Duncan's Multiple Range Test*). Hasil penelitian menunjukkan bahwa perlakuan *litter* berpengaruh meningkatkan secara nyata ($P < 0,05$) terhadap konsumsi pakan, penambahan bobot badan, konversi pakan, mortalitas, dan indeks performa. Perlakuan zona berpengaruh meningkatkan secara nyata ($P < 0,05$) terhadap konsumsi pakan dan penambahan bobot badan tetapi tidak berpengaruh nyata terhadap konversi pakan, mortalitas, dan indeks performa. Interaksi antara perlakuan litter dan zona kandang berpengaruh secara nyata ($P < 0,05$) konsumsi pakan, penambahan bobot badan, dan konversi pakan tetapi tidak berpengaruh secara nyata terhadap mortalitas, dan indeks performa.

Kata kunci: Ayam broiler, *litter*, zona, produktivitas

ABSTRACT

EFFECT OF VARIOUS LITTERS MATERIALS AND ZONES IN CLOSED HOUSE CAGES ON BROILER CHICKEN PRODUCTIVITY

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ABSTRACT

This study aimed to determine the effect of various litter materials and zones in closed house cages on broiler productivity. The study used a complete randomized design with a 3x3 factorial pattern, namely three types of litter (husk, straw, and sawdust) and three cage zones (front, middle, and back). Each treatment cage used 3 replicates, each consisting of 30 DOC. The research was conducted in one of the reasearch farms (closed house) of the Faculty of Animal Science, Gadjah Mada University. This study used 810 male broiler chickens which were carried out for 28 days. Broiler chickens were divided into 27 pen with each pen amounted to 30 chickens. The treatment of litter type used husk (S), sawdust (K), and rice straw (J). The zone treatment in the cage was carried out by dividing the zone in the cage with three zones, namely front (Z1), middle (Z2), and back (Z3). The research parameters observed were feed consumption, body weight, feed conversion ratio, mortality, and performance index. Analysis was conducted using the Analysis of Variance (ANOVA) method based on factorial design. The analysis was assisted by personal computer software, IBM SPSS. If there was a difference, it was followed by DMRT (Duncan's Multiple Range Test) test. The results showed that litter treatment had a significant effect ($P<0.05$) on feed consumption, body weight gain, feed conversion, mortality, and performance index. The zone treatment had a significant effect ($P<0.05$) on body weight gain but no significant effect on feed consumption, feed conversion, mortality, and performance index. The interaction between litter treatment and cage zone had a significant effect ($P<0.05$) on feed consumption and body weight gain but no significant effect on feed conversion, mortality, and performance index.

Keywords: Broiler chickens, litter, zone, productivity