

PENGARUH JARAK PENEMPATAN AYAM BROILER PADA CLOSED HOUSE DENGAN INLET TERHADAP PRODUKTIVITAS DAN KADAR AMONIA KANDANG

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INTISARI

Penelitian ini bertujuan untuk mengetahui pengaruh jarak penempatan ayam broiler dengan *inlet* di dalam *closed house* terhadap produktivitas pada ayam broiler dan kadar amonia kandang. *Day Old Chick* (DOC) sebanyak 1350 ekor dibagi secara acak menjadi 3 kelompok perlakuan dengan pengulangan masing-masing sebanyak 15 kali yang diaplikasikan dalam *flock*. Setiap pengulangan terdiri dari 30 ekor ayam broiler dan dipelihara selama 28 hari. Perlakuan dalam penelitian ini adalah perlakuan jarak penempatan ayam dengan *inlet*. Perlakuan satu, dua, dan tiga berjarak 6, 12, dan 24 m dari *inlet* (J6, J12, dan J24). Data yang diamati dari penelitian ini yaitu suhu dan kelembaban kandang, konsumsi pakan, bobot badan, konversi pakan, mortalitas, indeks performa, dan kadar amonia kandang. Data yang diperoleh dianalisis menggunakan analisis variansi (ANOVA) berdasarkan Rancangan Acak Lengkap Pola Searah dan apabila terdapat perbedaan antar perlakuan dilanjutkan dengan uji *Duncan's Multiple Range Test* (DMRT). Hasil penelitian menunjukkan bahwa jarak penempatan ayam broiler dengan *inlet* pada kandang *closed house* berpengaruh nyata ($P < 0,05$) terhadap suhu dan kelembaban kandang, bobot badan, konversi pakan, indeks performans, dan kadar amonia kandang, namun tidak berpengaruh nyata terhadap konsumsi pakan dan mortalitas. Kesimpulan dari penelitian ini yaitu semakin jauh jarak penempatan ayam dengan *inlet* pada *closed house* (J-24) maka akan menurunkan produktivitas dan meningkatkan kadar amonia kandang.

Kata kunci : *inlet*, *closed house*, ayam broiler, produktivitas, kadar amonia kandang

THE EFFECT OF PLACEMENT ZONATION OF BROILER CHICKEN IN CLOSED HOUSE'S INLET ON PRODUCTIVITY AND AMMONIA LEVEL IN CAGE

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ABSTRACT

The objective of this study was to investigate the effect of the placement distance of broiler chickens in a closed house on broiler's productivity and levels of ammonia in the cage. This study used 1350 Day Old Chick (DOC) were randomly divided into 3 treatment groups with 15 repetitions each applied in flocks. Each repetition consisted of 30 broiler chickens reared for 28 days. The treatment in this study was the treatment of distance between the placement of chickens and the inlet. Three experimental placement were 6, 12, and 24 m from the inlet (J6, J12, and J24). The data observed from this study were temperature and humidity in the cage, feed consumption, body weight, feed conversion, mortality, performance index, and level of ammonia in the cage. The data obtained were analyzed using analysis of variance (ANOVA) based on a Completely Randomized Design of Unidirectional Patterns and if there were differences between treatments, it was continued with Duncan's Multiple Range Test (DMRT). The result showed that the distance between broiler chickens and inlet closed house had a significant effect ($P < 0,05$) on temperature and humidity in cage, body weight, feed conversion, performance index, and cage ammonia level. No significant effect on feed consumption and mortality. The conclusion of this study is that the farther the distance between the placement of chickens and the inlet in the closed house (J-24), the lower the productivity and increase the ammonia level in cage.

Keywords: inlet, closed house, broiler chickens, productivity, level of ammonia in the cage