

PENGARUH PENAMBAHAN ZEOLITE, CHARCOAL, QUICKLIME PADA LITTER TERHADAP KADAR AMONIA KANDANG DAN PERFORMA PRODUKSI AYAM BROILER JANTAN

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INTISARI

Penelitian ini bertujuan untuk mengetahui pengaruh penambahan bahan *zeolite*, *charcoal*, *quicklime* pada *litter* terhadap kadar amonia dan performa produksi ayam broiler jantan. Sebanyak 1080 ekor *Day Old Chick* broiler Lohman Indian River jantan dibagi menjadi 4 kelompok perlakuan dengan pengulangan masing-masing sebanyak 9 kali. Setiap pengulangan terdiri dari 30 ekor ayam broiler dan dipelihara selama 35 hari didalam kandang *closed house*. Perlakuan *litter* yang diterapkan yaitu PS: perlakuan *litter* sekam 100%, PSZ: perlakuan *litter* sekam 90% dengan penambahan *Zeolite* 10%, PSC: perlakuan *litter* sekam 90% dengan penambahan *charcoal* 10%, dan PSQ: perlakuan *litter* sekam 90% dengan penambahan *quicklime* 10%. Pengamatan terhadap performa produksi ayam broiler meliputi konsumsi pakan, konversi pakan, bobot badan akhir, mortalitas dan indeks performa. Semua data yang telah dikumpulkan dianalisis menggunakan metode Analisis Variansi berdasarkan Rancangan Acak Lengkap Pola Searah. Apabila terdapat perbedaan signifikan antara perlakuan, maka akan dilanjutkan dengan uji Duncan's Multiple Range Test. Hasil analisis statistik menunjukkan bahwa penambahan 10% *zeolite*, 10% *charcoal*, maupun 10% *quicklime* pada *litter* sekam tidak mempengaruhi nilai konsumsi pakan, capaian bobot badan akhir, maupun nilai mortalitas ayam broiler umur 35 hari. Namun demikian, penambahan 10% *charcoal* justru tidak bermanfaat karena cenderung menaikkan nilai konversi pakan ($P=0,051$) dan menurunkan indeks performa ($P=0,096$).

Kata kunci: Ayam broiler, Kadar amonia, *Litter*, Performa produksi,

THE EFFECT OF ZEOLITE, CHARCOAL, QUICKLIME ADDITION TO LITTER ON AMMONIA LEVELS AND GROWTH PERFORMANCE OF MALE BROILER CHICKENS

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ABSTRACT

This study was aimed to determine the effect of adding zeolite, charcoal, and quicklime to litter on ammonia levels and production performance of male broiler chickens. A total of 1080 day old chick male Lohman Indian River broiler chickens were divided into 4 treatment groups with 9 replications each. Each replication consisted of 30 broiler chickens and was raised for 35 days in a closed house. The litter treatments applied were PS: 100% rice husk litter treatment, PSZ: 90% rice husk litter treatment with 10% zeolite addition, PSC: 90% rice husk litter treatment with 10% charcoal addition, and PSQ: 90% rice husk litter treatment with 10% quicklime addition. Observations on broiler chicken production performance included feed consumption, feed conversion ratio, final body weight, mortality, and performance index. All collected data were analyzed using Analysis of Variance based on Completely Randomized Design in a unidirectional pattern. All data with significant difference were further tested by Duncan's new Multiple Range Test. Results showed that adding 10% zeolite, 10% charcoal, or 10% quicklime to rice husk litter did not affect feed consumption, final body weight achievement, or broiler chicken mortality at 35 days old. However, the addition of 10% charcoal was tended to increase feed conversion ratio ($P=0.051$) and decrease the performance index ($P=0.096$).

Keywords: Broiler Chickens, Ammonia levels, Litter, Production performance.