

## INTISARI

### PENGARUH BERBAGAI BAHAN *LITTER* DAN ZONA PADA KANDANG AYAM BROILER TERHADAP KUALITAS *LITTER* SELAMA PEMELIHARAAN

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## INTISARI

Salah satu faktor pendukung keberhasilan pemeliharaan ayam broiler yaitu kualitas *litter*. Penelitian ini memiliki tujuan untuk mengetahui pengaruh berbagai bahan *litter* dan zona pada kandang *closed house* terhadap kualitas *litter*. Penelitian dilakukan di salah satu *research farm* (*closed house*) Fakultas Peternakan Universitas Gadjah Mada. Penelitian ini menggunakan ayam broiler sebanyak 810 ekor DOC (*Day Old Chick*). Penelitian dilaksanakan selama 30 hari. 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 perlakuan digunakan 3 ulangan, masing-masing *pen* terdiri dari 30 ekor DOC. Data yang diamati dari penelitian ini yaitu kualitas *litter* meliputi kadar air *litter* (%), kadar amonia *litter*, dan nilai pH *litter* pada tiga zona yang berbeda. Analisis dibantu dengan *software personal computer* yaitu IBM SPSS 27.0. Data dianalisis dengan metode *Analysis of Variance* berdasarkan Rancangan Acak Lengkap (RAL) pola faktorial dilanjutkan dengan uji *Duncan's Multiple Range Test* (DMRT). Hasil penelitian menunjukkan bahwa *litter* serbuk kayu menghasilkan kadar air sebesar 25,75%, kadar amonia 3,88 ppm, dan nilai pH 7,41 terendah dibandingkan jenis *litter* lainnya. Zona depan pada kandang memberikan hasil paling rendah untuk pH *litter* yakni sebesar 7,76. Berdasarkan penelitian ini dapat disimpulkan bahwa penggunaan serbuk kayu dapat memberikan hasil kadar air, kadar amonia, dan pH *litter* yang paling rendah.

Kata kunci: Ayam broiler, kualitas *litter*, zona kandang

## **ABSTRACT**

### **EFFECT OF VARIOUS *LITTER* MATERIALS AND ZONES IN CAGES ON *LITTER* QUALITY DURING REARING *LITTER* QUALITY DURING MAINTENANCE**

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## **ABSTRACT**

One of the factors supporting the successful maintenance of broiler chickens is the quality of litter. This study aimed to determine the effect of various litter materials and zones in closed house cages on litter quality. The research was conducted at one of the research farms (closed house) Faculty of Animal Husbandry, Gadjah Mada University. This study used 810 broiler day old chick (DOC) The research was conducted for 30 days. 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 used 3 replicates, each pen consisted of 30 DOC. Data observed from this study were litter quality including litter moisture content (%), litter ammonia content, and litter pH value in three different zones. The analysis was assisted by personal computer software, IBM SPSS 27.0. Data were analyzed by the Analysis of Variance method based on a completely randomized design (RAL) factorial pattern followed by Duncan's Multiple Range Test (DMRT). The results showed that sawdust litter produced 25.75% moisture content, 3.88 ppm ammonia content, and the lowest pH value of 7.41 compared to other types of litter. The front zone of the cage gave the lowest result for litter pH of 7.76. Based on this research, it can be concluded that the use of sawdust can provide the lowest moisture content, ammonia content, and pH of litter.

**Keywords:** Broiler chicken, litter quality, cage zone