

## **ABSTRACT**

### **EFFECTS OF VARIOUS TYPES OF LITTER MATERIALS ON THE LITTER QUALITY FOR BROILER DURING THE FINISHER PHASE IN CLOSED HOUSE**

by

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Broiler will breed maximally in an environment with the temperature range between 15 - 28°C. Climate change and extreme temperature lead to the difficulty in setting the appropriate temperature and humidity for broiler breeding. To address such issues, the use of closed house plays an important role. Closed house is a postal system cage that requires litter for its maintenance. The use of various types of litter materials can affect the litter quality including litter moisture content, ammonia levels, pH, and temperature that will ultimately stimulate the productivity of the broiler

This study aims to: 1) determine the effect of the use of rice husk, wood shavings, rice straw as litter material on litter quality for broiler during the finisher phase in closed house, 2) determine the best type of litter material on litter quality for broiler during the finisher phase in closed house.

The duration of the study was 26 days. The study was started from 15 April to 10 May 2014 in the closed house owned by PT. Rama Jaya Lampung Krawang Sari Village, the District of Natar, Southern Lampung regency.

The experimental design for the study was completely randomized design (CRD) with three levels of treatment and six replications. The treatment levels were the types of litter material (i.e. rice husk, wood shavings, chopped straw and rice). The samples were 270 broilers which were divided into 18 plots. Therefore, there were 15 broilers in each plot (per square meter). The data were statistically analyzed using ANOVA with 5% significance level. Duncan test with 5% significance level was conducted for further testing should the ANOVA obtained any significant results.

The results showed that (1) the use of rice husk, wood shavings and rice straw as the litter materials in closed house showed a significant effect ( $P < 0.05$ ) on litter moisture content, but not significantly ( $P > 0.05$ ) on ammonia levels, pH, and litter temperature. (2) The litter materials of rice husk and rice straw in a closed house improved the litter quality.