

The effect of litter reuse on the production efficiency of broilers and the quantity of the litter ⁽¹⁾

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Abstract

The aim of this study was to evaluate the effect of litter reuse on the production efficiency of broilers and the quantity of the litter. The recording tables of management, including the date of chicks arrival, chick numbers of each batch, daily death numbers, feed consumption, market date and numbers, total weight of catching, and the reuse times of litter, which were applied to assess the production performance of a broiler farm and to investigate the litter amounts of single batch and reused broiler litter. The results showed the average market days, the average market weight, the average feed conversion rates, average survival rates and production index were 35.3 ~ 36.0 days, 2.08 ~ 2.15 kg, 1.48 ~ 1.50, 95.5 ~ 97.6% and 382 ~ 394, respectively, for the 1st to 5th batches of broiler chickens raised on the reused litter. The results showed no difference among batches. The average death numbers and mortality rates of the first week were significantly higher than those of other week ages ($P < 0.05$), and there was no interaction effect between the batch and week age. The results of investigation on broiler litter yield showed the litter weight per bird sold decreasing as the batch number increased. The average litter weight was cleaned after single batch reached 1.08 kg/bird, while those after two to five batches reached 0.78 ~ 0.63 kg/bird. The results of this study showed that raising 5 batches broiler chickens on reused litter did not affect their performance and could reduce the amount of waste litter. The recycling of litter as bedding material can be applied as a management model for the poultry industry's reference.

Key words: Broiler, Litter, Reuse, Performance.

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