

PERFORMANCE STUDY OF BROILER CHICKEN BY USING RICE STRAW AS LITTER MATERIAL IN POULTRY HOUSE

Dr. Md. Anwarul Haque Beg¹

Extended Summary

Litter conditions significantly influence broiler performance and ultimately, the profits of growers and integrators. Litter is defined as the combination of bedding material, excreta, feathers, wasted feed and water. Broiler rearing in litter floor is a common practice through out the world. Broiler growers in Bangladesh commonly use rice husk or saw duct as litter materials. Rice husk and saw duct is also used as fuel. The market price of these tow materials is increasing day by day. In this situation chopping rice straw may be an alternative of rice husk or saw dust as litter material in broiler house. Rice straw is very cheap and available. Normal rice straw should be converted into usable form by chopping. The physical form and moisture absorbing capacity is not same in case of different litter materials. So, several studies need to use rice straw as litter materials. Keeping above factors in mind the present problem was identified to achieve the following objectives are to study the important performance of broiler chicken rearing under different litter materials, to determine moisture percent of different litter materials used in broiler house, to identify the best cost effective bedding material as litter.

The experiment was conducted with Cobb-500 broiler strain. For this purpose 200 broiler chicks were purchased from Kazi Hatchery, Gazipur, Dhaka. The experiment was conducted in the month of March 2012 for 28 days. There were three treatments, such as T₁ – Chopped rice straw, T₂ – Rice husk and T₃ – Sawdust. The number of replications was five. Data were analyzed in Randomized Completely Block Design (RCBD 1 factor) for ANOVA table. Commercial ready made (Usha Poultry Feed) crumble and pellet feeds were used as starter (0-2 wks.) and grower (3-4 wks.) ration. The chopped rice straw, rice husk and sawduct were distributed randomly in the experimental units as bedding materials. The chopped rice straw was 1.27 cm – 1.9 cm in length. All litters were 5 cm in deth. A total of 180 experimental birds were distributed randomly in the experimental pen containing 12 chicks in each. Final body

¹ Professor, Department of Poultry Science, Sher-e-Bangla Agricultural University, Dhaka-1207

weight, total feed intake, feed conversion ratio (FCR) and mortality data were recorded. Weekly moisture percent of litter materials were analyzed. The major performance parameters such as body weight, feed consumption, FCR and mortality were not affected ($P < 0.05$) significantly by rice straw litter can be used in the broiler house of Bangladesh at dry season up to 4 weeks of age. Based on the results the following conclusions are the production performances of broiler chicken were not affected by the rice straw litter, the moisture percent of rice straw litter was increased day by day without affecting production performances, the economic analysis also supported the use of rice straw as litter in the broiler house.