

A Short Communication

A comparative study of egg production in battery cages and in deep litter houses.

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INTRODUCTION

Recently, Small poultry farmers in the Sudan tend to purchase battery cage units in order to reduce the very high costs of poultry houses, feeders, drinker. This system usually eliminates infestation hazards of floor and litter origin. This work is an endeavour to high light comparative performance of laying hens under a conventional deep litter system and battery cage system.

MATERIAL AND METHODS

This experiment was conducted at Kuku research poultry farm during late Winter 1990. (Maximum Temperature was 35c while the minimum temperature was 23c.) A flock of 640 laying hens (Bovans) was reared in a conventional deep litter open sided houses. At 12 months of age the birds were randomly selected and distributed into eight replicates of 80 birds each, four replicates for each treatment. "Deep litter and battery cage" . All birds were located in the same house. Deep letter system birds were stocked 5

birds/m² Saw-Dust litter was used with 5-10 cm thick Battery cage units were of a simplified design, each with two upper and two lower tiers, with 5 cages in each tier. Each unit was equipped with two water tanks connected to a nipping system at each cage. The dimensions of each cage was 50x40x40cm which can take 4 layers. Food was provided manually for all replicates. Feed and water were provided ad libitum. Feed was purchased from the Central Khartoum feed Mill. The crude protein and ME content of the feed were 19.3% and 11.64 MJ/kg respectively. Daily records of the number of eggs and feed intake were made.

RESULTS AND DISCUSSION

Results obtained are presented in the following table. A better egg production was found for the caged birds but no significant difference was observed in feed intake of the two groups.

"Hen day production"	percentage of egg production	Daily feed intake g/bird
Battery cage unit birds	83.08 ± 2.03	106.95 ± 1.85
Deep litter system birds	75.53 ± 3.45	100.39 ± 3.95

In this work egg production in the battery cages was found to be 10% higher than the deep litter system which was in agreement with the work of Appleby et al, (1988) who have worked in closed houses. Results obtained need to be repeated

during summer which is the longest season in the Sudan to get a more critical economic evaluation, consideration should also be given to mortality and body weight changes in both systems.

REFERENCE

M. c. Appleby, G. S. Hogarth, Jessied. A. Anderson, B. 0. Hughes & x. T. Whitemoe. (1988). Deep litter system for egg • production, British poultry science, 29: 735-751.