

BEHAVIOR, PHYSIOLOGY, PRODUCTIVITY AND PHYSICAL CONDITIONS OF LAYING HENS IN CONVENTIONAL AND LARGE FURNISHED CAGES

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The aim of the present study was to compare the levels of welfare and productivity of laying hens between conventional and large furnished cages in hot condition. At the age of 18 weeks, 104 Boris Brown layers were divided into two groups, which were 12 conventional cages (2 hens/cage) and 4 large furnished cages (20 hens/cage, 240 cm wide x 62 cm deep). Room temperature was set to fluctuate between 25 and 33 C in a day. Behavior, immune response, productivity and physical conditions (body weight and claw length) were measured for 12 weeks. Resting was performed more frequently in conventional cages than in large furnished cages ($P < 0.05$). Aggression, moving and comfort behaviors such as dust-bathing and preening were more frequent in large furnished cages than in conventional cages ($P < 0.05$, all). Egg production ($P < 0.05$), egg mass ($P < 0.05$) and feed conversion ratio ($P < 0.01$) were better in conventional cages than in large furnished cages. Significant differences were not founded in other production measurements, immune response and physical conditions. In conclusion, the level of welfare and productivity of old layers in large furnished cage might be lower than those in a conventional cage in hot condition.

Keywords: furnished cage, laying hen, behavior, productivity

HOOF LESIONS AND LAMENESS CHANGES THROUGHOUT THE SEASON

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Occurrence of lameness and hoof lesions were studied in Ferdowsi University Dairy Farm using the modified locomotion scoring system (LS). LS were visually assessed by observing cows in a walk distance of 10 m long following a.m. milking. Animals were scored from 1 to 5 with observing various behavioural indications. LS=1 represented non-lameness, LS=2 and 3 as cows with sub-clinical lameness and LS=4 and 5 regarded as cows with the clinical lameness. The hoof lesion scoring system was based on the Groom and Vermunt (1991) method. The worst locomotion score was detected in autumn with the incidence of sub clinical lameness in all seasons was high. No significant difference between milk fat depression and locomotion scores was found in this experiment. No relation was found between animal locomotion score and hoof lesions in this herd. The incidence of sub clinical lameness in this study shows that more attention must be given to diet formulation and preparation as well as improving technical management in the farm. Higher prevalence of clinical lameness in autumn could be due to the effect of heat stress in late summer.

Keywords: Lameness, hoof lesions, dairy cow