

Effects of floor housing with two different stocking densities and battery cage on laying hens' leg health and feather damage ⁽¹⁾

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Abstract

The aim of this research was conducted to investigate differences of two welfare indicators of laying hens, including the feather damage and leg health, under floor housing with two different stocking densities and conventional cage system. A total of 150 ISA laying hens were randomly allocated into three groups. Chickens in group A and B were housed in floor pans with the low and high stocking densities (2.8 m²/bird and 1.4 m²/bird). Chickens in group C was kept in single-bird battery cages. The study period was from 28 to 58 weeks of age and egg production was recorded daily. The scores of foot pad dermatitis (FPD), hock burn (HB) and duration of standing (DS) were measured every 10 weeks. The results showed that no chickens displayed the HB at the age of 58 weeks. Moreover, the percentage of FPD were 31%, 17% and 0% in group A, B and C, respectively. All hens from 3 groups can stand over 800 seconds in the test of DS. The percentages of feather damage were 10%, 8% and 41% in group A, B and C, respectively. The percentages of egg production of each group were 85%, 79% and 75% and showed significant differences ($P < 0.05$) among groups. In conclusion, friendly barnyard system, even with plenty of space, without proper litter floor management, could have a welfare problem of foot pad dermatitis.

Key words: Floor rearing, Animal welfare, Foot pad dermatitis, Friendly feeding, Laying hens.

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