

Effects of perch types on the growth performance and welfare of red-feathered chickens ⁽¹⁾

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Abstract

The purpose of this study was to investigate effects of different types of perches on the growth performance and animal behaviors of the typical commercial red-feather chickens in Taiwan. Three hundred and sixty birds at age of 5 weeks were randomly divided into control group (without perch), round tube perch group and square tube perch group, with 3 repetitions in each group and 40 birds per treatment. The stocking density is 5.8 bird/m². The round tube perch is composed of upper and lower layers of metal circular tubes with a diameter of 1.5 cm, while the square perch group is composed of upper and lower layers of metal square tubes with a side length of 2.5 cm. The experiment was conducted on birds aged 5 to 12 weeks. No significant differences of bodyweight gain were observed with the average body weight $3,069 \pm 345$ g, $2,989 \pm 359$ g and $3,087 \pm 412$ g in the control, round, and square perch group respectively. However, the frequency of daily perch usage frequency in the round tube perch group was higher than that of the square perch group (1.3 vs. 0.1%), suggesting that the design of perches affects the preference of perch usage by domestic fowls. In the tonic immobility test measured on birds at the age of 12 weeks, which is commonly used as a reference indicator for assessing the welfare of chickens, the reaction time of the two test groups was shorter than that of the control group. These results manifested that chickens may live fearlessly when they are reared with perches for resting in the surroundings than those growing up without perches. Therefore, as an environment-enriched facility, perch setup can improve animal welfare and maintain the productive efficiency of chickens. The present results would provide some scientific information for the reference of the current poultry production system.

Key words: Perch, Red-feather native chicken, Body weight gain, Behaviors, Animal welfare.

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