

The evaluation of chicory (*Cichorium intybus* L.) effect on growth performance in chickens under heat stress

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Abstract

Heat stress is accounting one of the most important factors of decreasing production and yield of poultry especially broiler chickens in hot areas. Using compounds having antioxidant properties were advised for reducing of the destructive effect of heat stress. Chicory (*Cichorium intybus* L.) is a source of phelanoeid compounds that has antioxidant property. Therefore, in this study, the effect of chicory on growth in chicken under heat stress was studied. For this, after preparation of hydroalcoholic extract, 270 chicks were divided into 6 groups in two distinct houses and chickens were reared until 22 days old in normal condition. From 22 to 42 days old, chickens in group 1, 2 and 3 (in house 1) were reared in normal condition and chickens in group 4, 5 and 6 (in house 2) were reared in 35 °C for 8 hours daily. Chickens in group 1 and 4 received vitamin C (100 mg/lit) and chickens in group 2 and 5 received chicory extract (100 mg/lit) from 22-42 days old. The chickens in group 3 and 6 reared as control. In the final of growing period, the cumulative weight gain, feed intake and feed conversion ratio were determined. The results showed although heat stress had a negative effect on growth indices but chicory extract as well as vitamin C (as standard control), can improve weight gain, feed intake and feed conversion ratio in chickens under heat stress.

Key words: Heat stress, *Cichorium intybus* L., Vitamin C, Broiler Chicken, Growth

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