

The Effects of Production Systems (barn and free-range) on Foot Pad Dermatitis and Body Defects of White Turkeys

M. SARICA and U.S. YAMAK

Ondokuz Mayıs University, Faculty of Agriculture, Department of Animal Science, Samsun, Turkey.

E-mail: msarica@omu.edu.tr

This study was carried out to determine the effects of barn and free-range production systems on some body defaults and food-pad-dermatitis scores in turkeys. 160 male-female mixed white turkey poults were reared under intensive conditions until 8 weeks of age. The birds were allocated to two groups of compartments with 4 replicates; each replicate contained 11 female and 11 male poults. In the first group, poults were reared under intensive conditions and in the second group, poults had access to a free-range area. At the ages of 18 and 20 weeks, 58 turkeys from two groups were slaughtered and live weight, foot and toe defects, claw enlargement, and foot-pad dermatitis (FPD) scores on right and left feet were determined. Data were subjected to analyses of variance for a fully randomised design. Live weight, age and breeding system data were evaluated by factorial variance analysis and the other data by non-parametric Friedman Test. Differences were determined by the Kruskal-Wallis test in the traits which the interactions were found significant. The Duncan Multiple Comparison Test was applied in the comparison of the groups. Also, the correlations between the traits and live weights were determined by Spearman's Rho. The effect of production system on the live weight and FPD scores were found to be significant in this study. The free-range system had lower FPD values. Age and sex only affected claw enlargement and live weight. Claw enlargement and live weight were found to be significant by the effect of age x sex interaction. Also, FPD on the right foot was found to be significant by the effect of production system x age x sex interaction.

Keywords: foot pad dermatitis, free range, barn, turkey