Effects Of Slatted Floor Housing On Breast Meat Myopathies And Meat Quality Of Different Genotype Female Broiler Chickens

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THESIS ABSTRACT

This study was conducted to investigate meat quality and the development of breast muscle myopathies in different genotypes of female broiler chickens reared on slatted flooring. In the study, broiler chickens of the native Anadolu-T genotype and Cobb 500 and Ross 308 chicks/broilers whose parent stocks were imported from abroad were used, and each genotype group was planned with five replicates. Slaughter age significantly affected breast meat moisture and protein contents according to genotype ($P < 0.001$ and $P < 0.002$, respectively), as well as almost all meat color characteristics, except for meat pH, hue angle (h), and total color difference (ΔE). When the data were evaluated as a whole, it was concluded that there were significant differences among genotypes in terms of growth performance, slaughter and carcass traits, meat quality, and the incidence of myopathy in breast muscle samples, and that the Anadolu-T genotype has the potential to compete with imported genotypes.

APPLICATION AREAS OF THE THESIS RESULTS

The high survivability exhibited by the local Anadolu-T genotype, together with its meat quality and flavor profile comparable to those of commercial hybrids (Ross 308 and Cobb 500), demonstrates that this breed can be integrated into commercial production as a strong alternative. This finding represents valuable evidence that can be directly applied in strategies aimed at reducing Türkiye's dependence on imported broiler breeder material and ensuring national food supply security.

ACADEMIC ACTIVITIES

1. Küpeli, E. Ç., Petek, M., & Küpeli, Z. A. (2025). Etlik Piliçlerde Göğüs Eti Kas Miyopatileri ve Kreatin Kinaz Enzim Düzeyi Üzerine Genotip ve Yaşın Etkisi. Journal of Research in Veterinary Medicine, 44(1), 16-24. doi:10.52973/rcfcv-e35555
2. Avci-Kupeli, Z., Kupeli, E. Ç., & Petek, M. (2025). Histopathologic evaluation of wooden breast and white striping myopathy in different broiler genotypes using light microscopy and image analysis. Revista Cientifica de la Facultade de Veterinaria, 35(1). https://doi.org/10.30782/jrvm.1650614

KEY WORDS

- ✓ broiler
- ✓ genotype
- ✓ growth performance
- ✓ meat quality
- ✓ myopathy

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