

Αξιοποίηση Φυσικών Αντιοξειδωτικών στην Εκτροφή των Αγροτικών Ζώων για Παραγωγή Προϊόντων Ποιότητας

Γεωπονικό Πανεπιστήμιο Αθηνών

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THE INFLUENCE OF NARINGIN OR HESPERIDIN DIETARY SUPPLEMENTATION ON BROILER MEAT QUALITY AND OXIDATIVE STABILITY

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ABSTRACT

THE INFLUENCE OF NARINGIN OR HESPERIDIN DIETARY SUPPLEMENTATION ON BROILER MEAT QUALITY AND OXIDATIVE STABILITY

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An experiment was conducted to examine the effects of supplementing broiler feed with hesperidin or naringin, on growth performance, carcass characteristics, breast meat quality and the oxidative stability of breast and thigh meat. Two hundred and forty 1-day-old Ross 308 broiler chickens were randomly assigned to 6 groups. One of the groups served as a control (C) and was given commercial basal diets, whereas the other five groups were given the same diets further supplemented with naringin at 0.75 g/kg (N1), naringin at 1.5 g/kg (N2), hesperidin at 0.75 g/kg (E1), hesperidin at 1.5 g/kg (E2) and a-tocopheryl acetate at 0.2 g/kg (E). At 42 days of age, 10 chickens per treatment group were slaughtered for meat quality and oxidative stability assessment. No significant differences were observed among groups in final body weight, carcass weight and internal organs weights ($P>0.05$) apart from liver that decreased linearly with increased levels of naringin ($P\text{-linear}<0.05$). Regarding the breast meat quality parameters, only redness (a^*) value was higher in E1 and N1 group compared to VE group ($P<0.05$), while all the others i.e. shear values (N/mm²), pH₂₄, cooking loss (%) and L* and b* color parameters were not significantly different among groups ($P>0.05$). Measurement of lipid oxidation values showed that after hesperidin and naringin dietary supplementation, malondialdehyde values decreased in tissue samples in a dose depended manner ($P\text{-linear}<0.05$). In conclusion, hesperidin and naringin, positively influence meat antioxidative properties without negative implications on growth performance and meat quality characteristics in poultry, thus appearing as important additives for both the consumer and the industry.

Η Επιτροπή Πιστοποίησης Παραδοτέων

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