

QUALITY OF *MUSCULUS SEMIMEMBRANOSUS* IN RABBITS SUPPLEMENTED WITH 1% RUMANOL ML

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Abstract

There are no studies on the effect of dietary Rumanol ML supplementation of rabbits on meat quality in Bulgaria, which was the tentative for the present study. The aim of the present study was to evaluate the effect of dietary supplement Rumanol ML on the quality of *Musculus semimembranosus* in rabbits.

A total of 50 New Zealand white rabbits were studied. They were divided into experimental and control groups. Rabbits from the experimental group were fed pelleted feed supplemented with 1% Rumanol ML, whereas controls received only pelleted feed. The experiment continued until the animals reached a minimum live weight of 3 kg, after that from each group were slaughtered 10 male rabbits. The technological properties, chemical composition and fatty acid content of *Musculus semimembranosus* were investigated. The pH values were measured on a Testo 205 meter. Water holding capacity of meat was determined using the classic method by pressing. Water absorption capacity of meat was evaluated by the method of absorption. Muscle colour was determined in the CIE L*a*b system. Cooking loss was determined by roasting a meat sample. Moisture content of meat was determined by drying in a dryer at 105 °C. Protein content of meat was determined by burning in sulphuric acid and distillation. Fat content was determined by extraction. Mineral content was determined by the method of mineralization in a muffle furnace. Fatty acids in meat were determined by gas chromatography. The results were processed statistically using the methods descriptive statistics and t-test for dependent samples.

The analysis of results demonstrated that in the experimental group, pH 24 hours after slaughter (pH₂₄) values were statistically significantly lower than those of control group ($P \leq 0.05$). In the experimental group, meat was lighter than that of control rabbits ($P \leq 0.05$). Furthermore, cooking loss was statistically significantly higher in rabbits with supplement in the feed ($P \leq 0.001$). There were no substantial between-group differences with regard to the chemical and fatty acid content of meat.

In conclusion, we found that in the experimental group the pH 24 hours after slaughter values were statistically significantly lower than in the control group. In the experimental group, meat was lighter than that of control rabbits. Cooking loss was statistically significantly higher in rabbits with supplement in the feed. There were no substantial differences between-group with regard to the chemical and fatty acid content of meat.

Key words: Rabbit, Rumanol, Meat quality.