

CONSTRUINDO SABERES, FORMANDO PESSOAS E TRANSFORMANDO A PRODUÇÃO ANIMAL

AQUEOUS EXTRACT OF PROPOLIS IN THE CONSERVATION OF THE PHYSICAL CHARACTERISTICS OF BOVINE MEAT

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Consumers are becoming more and more demanding about the food quality and they expect it to be maintained through the period between production and final consumption. The use of natural preservatives in the prolongation of meat shelf life, as well as of the products originating from it, is a promising technology, since many substances have antioxidant and antimicrobial properties. It was intended to evaluate the effect of propolis aqueous extract in the conservation of the physical characteristics of beef. A marinade was used, with distilled water and propolis aqueous extract in different concentrations: control – MAD (marinated only with distilled water), 02EP (0.2% of EAP-Aqueous extract of propolis/100g distilled water) and 05EP (0.5% of EAP/100g of water Distilled). The samples were immersed for 20 minutes, drained and stored under refrigeration during the shelf period (days 0, 1, 3, 6 and 9), in which they were subjected to the analyses of: pH, water holding capacity (CRA), cooking loss (PPC) and shear force (FC). The effects of the different treatments on each variable were compared by means of the Tukey test, at a level of 5% probability, conducted in the PROC GLM do SAS (Statistical Analysis System, version 9.2). The pH values suffered significant influence ($P < 0.05$) of the treatments and days of storage. A pH decrease can be observed with the increase in storage time and insertion levels of propolis aqueous extract, resulting in more acidic meat (5,86-4,85).

There was no effect of the addition of propolis aqueous extract on the values of water holding capacity and cooking loss ($P > 0,05$). The shear force (kgf/cm^2) demonstrated a significant difference ($P < 0.05$) between propolis extract concentrations (7.92 kgf/cm^2 , 6.90 kgf/cm^2 and 4.29 kgf/cm^2 on day 0) and between storage days (7.92 kgf/cm^2 on day 0 for 5.52 kgf/cm^2 on day 9), the smallest values were observed in the treatment with 0.5% of the propolis extract in the 6th day of storage (5.08 kgf/cm^2). Thus, the addition of 0.5% of propolis aqueous extract reduces the pH and shear force of the beef.

Keywords: meat quality, natural preservative, shear force

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