

EFFECT OF THE NATURAL PIGMENT OBTAINED FROM JABUTICABA (*Myrciaria cauliflora*) EXTRACT ON MICROORGANISMS PRESENT IN MORTADELLA

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Juices and pulping processing of fruits generates residues (peels and seeds) that are usually discarded even though many of these are rich in bioactive compounds, such as anthocyanins, a phenolic compound present in jabuticaba peel. In this context, this project aimed to evaluate the effect of the addition of 2% of extract obtained from jabuticaba peels and seeds to mortadella, in substitution to the commercially used dye (carmine cochineal) on microorganism growth. Extract production was performed by pulping jabuticaba with the addition of water in 1:3 ratio (residue:water), in the absence of light and under mechanic agitation for six hours. The obtained fluid was then filtered and the crude extract was concentrated to 1/3 of its original volume using a rotary evaporator, following drying in a spray dryer using maltodextrin as a carrier. After these procedures, the dry jabuticaba extract was applied to mortadella. Three treatments were performed as follows: control (mortadella without pigment addition), carmine cochineal and 2% dried jabuticaba extract. Mortadella production ingredients were beef and mechanically separated meat, condiment, sodium chloride, sodium nitrite, phosphate, ice and cassava starch. Mortadella were processed, packaged in plastic casings and stored in an environmental chamber at 4°C. This experiment was repeated three times. Microbiological analyses for mesophile anaerobic, psicrotrophic anaerobic and lactic bacteria were performed in the intervals 1, 14, 28, 42 and 56 storage days and to coliforms at 45°C and *Staphylococcus aureus* only in the intervals 1 and 56 storage days. Regarding coliforms at 45°C and *Staphylococcus aureus*, there was no bacterial growth in any treatment along the experiment. Regarding mesophile aerobic, psicrotrophic aerobic and lactic bacteria, 2% jabuticaba extract treatment presented growth reduction in around 1 log cycle when compared to the commercial dye carmine cochineal, along the storage. The efficiency of jabuticaba extract was pointed out as an antimicrobial agent, as well as a dye, in this study. From these results, it can be concluded that the usage of dried jabuticaba extract reduced counting of microorganisms that cause deterioration during storage, highlighting the efficiency of anthocyanins present in jabuticaba extract.

Keywords: anthocyanins, meat products spoilage, microorganisms