QUANTITATIVE CHARACTERISATION OF CHICKEN BREAST OPTIMISED WITH DIFFERENT AMOUNTS OF BRINE

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Abstract

Chicken meat is considered an affordable source of high-quality protein and a complete provider of essential nutrients required for proper bodily functions. It has gained popularity not only in developed countries but especially in nations with growing economies. While the meat processing industry emphasizes the technological aspects of meat, consumers are keen on its sensory and nutritional attributes. This study aimed to characterize and compare three batches of chicken breast pastrami injected with three different brine percentages (5%, 8%, and 12%) in terms of physicochemical attributes (pH, colour, moisture, protein, lipid, and salt content) as well as sensory characteristics. The study results revealed significant differences between the pastrami batches concerning moisture and protein content ($p<0.05$). The brine percentage had a notable impact on the colour and pH properties of the meat products. In terms of cross-sectional colour, the data analysis indicated that meat samples injected with the higher LBI3 brine percentage exhibited increased lightness (73.13) and a more pronounced yellow hue (9.40) compared to the other two samples injected with 5% brine (70.97, and 8.90, respectively) and 8% brine (71.25, and 8.73, respectively). In terms of sensory evaluation, the samples were assessed for attributes such as colour, texture, juiciness, flavour, and overall acceptability. The batch of chicken breast pastrami injected with 8% brine (LBI2) received favourable scores for overall quality and colour, whereas the LBI3 batch distinguished itself with texture and juiciness, which were highly appreciated by the evaluators.

Key words: meat technology, chicken breast, brine injection