INFLUENCE OF SODIUM TRIPOLYPHOSPHATE AND TUMBLING TIME IN THE PHYSICAL PARAMETERS OF MARINADE GOAT MEAT

Dayana do N. Ferreira; Vanessa P. da Silva, Ricardo T. Moreira. Post Graduation Program of Food Science and Technology, Federal University of Paraíba – UFPB, Cidade Universitária, CEP 58051-900, João Pessoa, Paraíba, Brazil.

The goat meat in nutritional terms, is evidenced by the low-fat, high digestibility, high levels of protein, iron and unsaturated fatty acids. The marination is an alternative to adding value to meat, improving its acceptance in terms of juiciness and tenderness. The objective of the present work was to analyze the influence of sodium tripolyphosphate and tumbling time on physical parameters (pH, texture, color, water holding capacity – WHC and water activity - aw) during the marination process in the goat meat. We used a full factorial design ($2^2 + 3$ central points) totaling seven experiments; the concentration of tripolyphosphate was 0.6; 1.0 and 1.4%, and the tumbling time was 2.0; 2.5 and 3.0 minutes. During the marination was used 15% brine. The results were evaluated by analysis of variance, where the averages of the pH (6.79 to 7.0), texture (3.52 to 5.44 kg), CRA (77.01 to 79.56%), aW (0.96 to 0.97), color L * (40.09 to 42.83), color a * (14.69 to 17.95) and b * (7.39 to 11.17) does not showed statistically significant differences as between the experiments. We conclude that variations in the concentration of sodium tripolyphosphate and tumbling times did not affect the physical parameters studied and thus we could use the lower values of the variables, reducing the cost of additives and processing time, it is noteworthy that the variation made may have influenced the chemical and sensory characteristics, which would require the study of these variables.