EFFECTS OF Na-LACTATE BY K-LACTATE REPLACEMENT ON ACCEPTANCE AND DESCRIPTIVE SENSORIAL PROFILE OF LOW-COST EMULSION-TYPE SAUSAGES FORMULATED WITH REDUCED SALT CONTENT

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Regarding the chronic public-health question related to excessive sodium intake in current human diet, significantly arising from processed meat, this study aimed evaluate the effects of Na-lactate by K-lactate substitution on acceptance and descriptive sensorial profile of low-cost emulsion-type sausages (mechanically deboned poultry meat added - MDPM) reformulated with NaCl replacement (50%) by KCl. Associated with NaCl reduction were evaluated the effects of the substitution seeking a further significant sodium reduction, assuring consumer acceptance. The sausages were manufactured following a traditional formulation and processing, adding lactates at 30g/kg. For acceptance consumer test, one hundred emulsion-type sausages consumers were instructed to evaluate the sausages with respect to the degree of liking for appearance, aroma, taste, texture, acidity, color and overall liking using a 9-point hybrid hedonic scale; Internal Preference Mapping was performed for overall liking scores of the evaluated sausage samples. For descriptive analysis, a innovative quick sensory profiling technique “Flash Profile” (1) was used with 10 semi-trained assessors. Data analyses were performed using XLSTAT® add-in for Microsoft Excel®. Despite slightly variations, significant differences were not detected among the formulations for attributes of acidity, texture, aroma, color and appearance; however, the KCL combined K-lactate use had lead to a decrease (p≤0.05) in taste and overall liking means. Preference map suggests that the consumers are able to distinguish the formulations (distinct clusters) and preferred samples without K-lactate combined with KCL. The panel applied the descriptors bitter and metallic for the formulations containing KCl and K-lactate. The proposed reformulation altered sensorial sausage characteristics.

REFERENCES