DEVELOPMENT OF MORTADELLA BOLOGNA ADDED OF GREEN BANANA BIOMASS AND LINSEED WITH FAT REPLACEMENT BY CARRAGEENAN AND PECTIN

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The family of mortadella bologna, for its excellent cost/benefit, represents a significant proportion of the total sales volume of emulsified meat products. This study aimed to develop mortadella bologna with functional properties, by adding green banana biomass and linseed, and reduced fat by replacing it by carrageenan and pectin. Four formulations were prepared with 10% green banana biomass, being one called pattern (P), without the addition of linseed, pectin and carrageenan and the other three called F1, F2 and F3, with 1% linseed, and concentrations of 0.5; 0.3 and 0.1% pectin and carrageenan, respectively, in partial replacement of fat. The products were analyzed microbiologically (Clostridium sulfite reducer, Salmonella sp., Staphylococcus coagulase positive and Coliforms at 45 º C), physicochemical (lipids, proteins, carbohydrates, color, texture and water activity) and sensory analysis (hedonic scale for: flavor, color, aroma, texture, appearance and global evaluation) with 50 untrained panelists. All results were analyzed by Tukey test (p<0.05). The formulations tested exhibited fat reduction between 55% and 59%, compared to conventional products. All samples showed microbiological values within the standards. The textures of F1, F2 and F3 showed significant differences with respect to P, being P less tender. The formulations had good sensory acceptability (acceptability index above 70%). There were significant differences between the formulations for flavor, aroma and global evaluation, and the sample that presented better in terms of taste and global evaluation was F3. Thus, it was concluded that the formulations developed can be healthier options for the conventional mortadella bologna.