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

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Meat products like mortadella show high popularity. They are being consumed domestically and on the fast food restaurant, representing an important segment of the meat industrialization. However, negative aspects of the nutritional profile are related with the animal-fat content. The aim of this work was to develop mortadella formulations added of green banana biomass and linseed, with partial replacement of fat by carrageenan and pectin. Four formulations were prepared with 10% green banana biomass. One was considered standard formulation (P), without addition of linseed, pectin and carrageenan and the other three (F1, F2 and F3), were added with 1% linseed and 0.1, 0.3 and 0.5% carrageenan and pectin, in partial replacement of pork fat. The samples were analyzed for chemical composition (protein, fat and carbohydrate content), color analysis, tension-shear, water activity, microbiological condition (sulphite-reducing Clostridium, Salmonella sp., coagulase-positive staphylococci and thermo-tolerant coliforms) and sensory analysis. All formulations studied shown to be fit for human consumption, because they meet the chemical and microbiological parameters required by legislation. The fat content of formulations (F1, F2 and F3) was between 11 and 12%, observing a reduction around 55% and 60% compared with the conventional mortadellas, which have about 20% fat. In this way, they can be classified as formulations with "reduced fat content". The sensory analysis showed that addition of green banana biomass and linseed and the replacement of pork fat by carrageenan and pectin in the concentrations studied are feasibility, obtaining a rate of acceptability up to 70% for all the formulations.