

Development and Evaluation of Dehydrated Soups with Frog Meat by Freeze Drying

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Abstract : Frog meat is a highly digestible food and its use is recommended in diets aimed at fighting cholesterol, obesity, and arterial hypertension, as well as for treating gastrointestinal disorders. In this study, the soups were developed with frog meat in addition to other ingredients which did not present allergenic potential. The carcasses of the thawed frogs went through bleaching and deboning, and other ingredients (vegetables and condiments) were then added to the separated meat. After the process of cooking, the soups were cooled and later on frozen at -40° C for 3 hours and then taken to the LS 3000 B lyophilizer for 24 hours. The soups were submitted to microbiological analysis: enumeration of total coliforms and *Bacillus cereus*; identification of coagulase positive *Staphylococcus*; isolation and identification of *Salmonella* spp.; and physical-chemical analysis; application of micro-Kjeldahl method for protein, Soxhlet method for lipids, use of a heating chamber at 105°C for moisture, incineration method (500-550°C) for ash, and Decagon's Pawkit equipment for determining water activity. Acceptance test was performed with 50 elderly people, all between 60 and 85 years of age. The degree of acceptance was demonstrated using a seven points structured hedonic scale in which the taster expressed their impression towards the product. Results of the microbiological analysis showed that all samples met the standards established by the National Health Surveillance Agency of Brazil (ANVISA). Results of the acceptance test indicated that all the soups were accepted considering overall impression and intended consumption. In addition to its excellent nutritional quality, the dehydrated soups made with frog meat are presented as a solution for consumers due to convenience in preparation, consumption and storage.

Keywords : bacteriological quality, *Lithobates catesbeianus*, instant soup, proximate composition, sensory analysis

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