

Development of A Soya-Based Instant Soup Mix using Locally Available Raw Materials

M.A.L.P. Vijayawardana¹, U.L. Abdul Majeed², L.A. Upeka Buddhini³

¹Department of Biosystems Technology, Faculty of Technology, South Eastern University of Sri Lanka

²Jan Rich Foods Ltd Wathupitiwala

¹Lakruvinipamodya@gmail.com, ²ulmajeed@seu.ac.lk, ³info@janrichfoodss.com

Abstract

Instant foods are top-rated in the modern food market due to the busy lifestyles, industrialization and population increase. The study was carried with a view to develop a soy-based instant soup mixture using a combination of soya fine grits, pumpkin powder, and cornstarch. Soya fine grits are a significant by-product of soy nugget processing, and it contains protein, carbohydrate, dietary fiber, total sugar, and total fat (43.3, 38, 15.6, 3.3, and 0.2%, respectively). During this study, both proximate analysis (moisture, ash, and crude fiber) and sensory qualities (taste, aroma, texture, color, and overall acceptability) of the prepared instant soup powder were analyzed. And also, shelf life, water activity, pH value, and the moisture content of the developed soup mixture were analyzed for the 45-days storage period. The sample, which contained fine soya grits (19.56%), pumpkin powder (26.10%), cornstarch (32.60%), spices (black pepper, garlic powder, onion powder, sugar, maltodextrin, salt, yeast extract), dried carrots (3.03%), and leeks (3.03%) was selected as the most preferred instant dried soup powder by the sensory evaluation. According to the proximate analysis, there were 6.42% moisture, 10.56% ash, and 4.003% crude fiber, while its water absorption index was 8.598 g/g, and pH value was 6.76, at 4.25-minute cooking time. Results revealed that soup powder's moisture content increased to 6.89%, pH decreased to 6.57, and water activity increased to 0.598 levels during the 45-day storage period.

Keywords: Ash, Cooking Time, Crude Fiber, Moisture, pH Value, Sensory Qualities, Shelf Life, Water Absorption Index, Water Activity