DEVELOPMENT OF A NEW PROCESSED CHEESE SPREAD FOR THE LOCAL MARKET

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Cheese is a very popular ripened milk product and consists of many different varieties due to worldwide production. Processed cheese is one of the most popular varieties of cheese. Processed cheese spread (PCS) which has high spreadability, high moisture content and higher popularity among many consumers, comes under the category of processed cheese. Due to high demand and limited supply, 80% of milk and milk products, consumed by Sri Lankans are imported from different countries and PCS available in the local market are solely imported products, which are highly priced thus, cannot be afforded as many local consumers. Therefore an attempt was made to produce low cost PCS with similar organoleptic characters as compared with an imported product.

Cheese variety used was cheddar and a typical PCS formula modified (treatment 1) by inclusion of butter replacing 80% cream, full cream milk powder to substitute skim milk powder and gelatin as a stabilizer. The treatment 2 did not contain whey powder while treatment 3 contained vegetable fat and whey powder. The treatment 4 included vegetable fat without whey powder. The treatment 5 developed earlier by a local manufacture had butter in the absence of whey powder. These were subjected to an inexperienced tasting panel 1 to evaluate organoleptic characters and additionally an acceptance test was carried out. Then the selected best treatment was compared with an imported product as a control using a tasting panel 2. The results of tasting panels were statistically analyzed by Friedman Rank Sum Test at a 0.05 level of significance. Five treatments and the control were subjected to chemical analysis and the microbiological analysis was carried out only for the selected treatment. Cost analysis for materials was carried out for five treatments.

According to the tasting panel 1, 1st treatment was selected as the best. There were no significant differences (at p=0.05) among the first four treatments, while there were significant differences (at p=0.05) among 5th treatment and other four treatments according to the acceptance test. In tasting panel 2, there were no significant differences between the selected treatment and the control for the organoleptic characters except the spreadability. Results of the chemical and microbiological analysis of 1st treatment agreed with the SLS standards. Cost of materials was Rs.184/Kg which is relatively low compared to other treatments while the price of the imported product was Rs.933/Kg.

It can be concluded that, a new PCS can be produced locally at a low cost, possessing similar organoleptic characters as the imported product currently available in the market.