

DEVELOPMENT OF A COCONUT WATER AND COCONUT MILK BASED PROBIOTIC BEVERAGE

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ABSTRACT

The study was conducted to produce coconut water and coconut milk based functional beverage in order to convey the nutrition and health benefits of ingredients to the consumer. The collected coconut water was pre heated after adding coconut milk, sugar, skim milk and poured into 200 ml glass bottles. Developed beverage was incorporated with *Lactobacillus casei* probiotic culture. Several trials were conducted to formulate the composition of the beverage by changing the incorporation levels of coconut water and coconut milk. The best combination was selected by a sensory evaluation using thirty untrained panelists. The sensory data were analyzed according to the Friedman test using MINITAB 16 software package. According to the sensory evaluation, treatment consisted with 80% Coconut water and 20% Coconut milk was selected as the best combination. Final product was subjected for proximate analysis to find its chemical composition. The developed product had a shelf life of 14 days under refrigerated conditions (4 °C). Microbiological evaluations were existed within the Sri Lankan Standards Institute requirement. According to the results, average viable probiotic count was 5.5×10^4 . Recommended minimum limit is 10^6 cfu/ml. Finally the probiotic count was not reaching the minimum level to consider as probiotic food. But the consumer will get an opportunity to have benefits of probiotics by consuming probiotics incorporated coconut water and coconut milk based beverage.

Key words: Beverage, Coconut milk, Coconut water, Probiotic