

**THE DEVELOPMENT OF VALUE ADDED
YOGHURT BY INCORPORATED RICE FLOUR
AND SESAME**

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ABSTRACT

Yoghurt is a dairy product that produced by bacterial fermentation of milk. It is a probiotic product that improves the gastro intestinal immunity against harmful microorganisms and it is a most popular dessert among the children and many people in Sri Lanka. Therefore yoghurt can use to balance the diet of people in Sri Lanka, especially children which refuse to consume brown rice. In that intension, present study were to investigate the potential of development of set type yoghurt by incorporating brown rice flour and sesame seeds and to determine the effect of varying concentrations of brown rice flour, cow milk and sesame seeds on the physicochemical properties and sensory characteristics of yoghurt.

Preliminary studies were carried out to determine the best stage to incorporating rice flour in to the milk. Thereafter to determine five variant cow milk volumes and brown rice flour amounts were prepared to select most acceptable three brown rice flour amount for yoghurt. And also four variant recipes were formulated to select the most acceptable gelatin amount for yoghurt. Sensory evaluation was carried out to find out the best formulation and organoleptic properties of the product. Brown rice flour with dried white sesame seeds incorporated yoghurts were evaluated by using 30 untrained panelists with 5 point hedonic scale to assess sensory attributes. Based on that, analysis of sensory evaluation it can be concluded that set yoghurt made with 90 %, cow milk 0.4 % gelatin, 4 % brown rice flour and 2% dried white sesame seeds concentration (treatment B) selected as best treatment. It represents the highest sensory attributes. Shelf life determination was done by analyzing coliform, yeast and mould counts, titratable acidity and pH for 15 days. *E.coli* and Coliform were not detected during the storage thus showing hygienic production process. Yeast count (2×10^2 CFU/g) and mould count (5×10 CFU/g) did not exceed the SLS limitation (1×10^3 CFU/g). Yeast and mould counts were compliance with specifications in Sri Lankan Standards for the set yoghurt during 11th day. Therefore it can be concluded that the product can be kept for 11 days without any change in its quality. Proximate analysis was carried out to determine the composition of selected product. Composition of total solid, moisture, ash, fat, milk solid non fat, crude protein, crude fiber & carbohydrate of this yoghurt were 26.68 %, 73.32 %, 1.42 %, 3.95 %, 12.47%, 3.75 %, 0.33% and 17.23 % respectively. Therefore it can be concluded that brown rice flour and sesame seeds incorporated yoghurt can be successfully used to produce healthy yoghurt with excellent sensory and nutritional properties.