

## **Development of a Gelatin Free Set Yoghurt Incorporating Kithul Flour**

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Gelatin is a commonly used stabilizer in the processed food industry. Due to the current economic crisis in the country, importation of number of food additives have been restricted and there is a timely requirement to identify locally available alternative ingredients to replace them. Based on the properties of Kithul flour, it can be considered as a local alternative for gelatin. Therefore, this study was carried out to determine the potential of kithul flour as a substitute for gelatin in processing set yoghurt. Initially, kithul flour was modified in order to enhance its gelatinization properties. After modification, set yoghurts were prepared by incorporating modified kithul flour at varying percentages. Sensory evaluation was carried out with 21 trained panelists to compare the formulated yoghurts with 5 competitive products available in the market processed with gelatin. The sensory evaluation revealed that kithul flour incorporation had a significant ( $P < 0.05$ ) effect on the preference for aroma, appearance, color, taste, texture and overall acceptability. The appearance and the texture of kithul flour incorporated set yoghurt were not preferred. However, aroma, color and taste were highly preferred. Shelf-life of the yoghurt samples were evaluated by recording the pH for thirty days of refrigerated storage at seven-day intervals. Recorded pH revealed that it has an acceptable shelf-life. A sensory evaluation results revealed that there was no significant ( $P > 0.05$ ) difference for aroma and color of the yoghurt samples tested during the storage period.

**Keywords:** Set yoghurt, Kithul flour, Gelatin, Stabilizer, Alternative

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