

**DEVELOPMENT OF BANANA PUREE (*Musa* spp.)
INCORPORATED SYNBIOTIC STIRRED
YOGHURT**

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by

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Abstract

Yoghurt is one of the popular fermented milk products that obtained by introducing specific bacterial strains such as *Streptococcus thermophilus*, *Lactobacillus bulgaricus* and *Lactobacillus acidophilus*. Now a days most of the people are health conscious. So they move to buy food with therapeutic value. The yoghurt with fruit additives may confer more health benefits than plain yoghurt. Therefore this study was carried out to develop value added banana puree incorporated synbiotic stirred yoghurt and to investigate the prebiotic effect of banana on survival of probiotic lactobacilli. Three treatments were used to develop banana puree incorporated stirred yoghurt. There were 14% 15% and 16% of fruit puree incorporation levels. The best incorporation level of fruit puree was determined using five point hedonic scale with 30 trained and untrained panelists. For the selected sample, physicochemical and microbiological properties were observed. In chemical analysis, proximate composition was determined for moisture content, crude protein, crude fat, crude fibre and ash content. Titratable acidity and pH were evaluated for 14 days period and microbiological analysis was done for *E. coli*/Coliform and Yeast & mould content. Probiotic lactobacilli count was determined by using Man Rogosa Sharp Media. The sensory data were analyzed using non-parametric procedure, according to the Friedman test using Minitab 15 software programme. The data obtained from physicochemical and microbiological tests were analyzed using analysis of variance (ANOVA) using SAS 9.0 software programme. Through the sensory evaluation with Friedman test, all sensory parameters were significantly different except color. 15% incorporation level of banana puree was selected as the best percentage for stirred yoghurt. Viable probiotic lactobacilli count was higher ($p < 0.05$) in banana puree incorporated stirred yoghurt compared to plain stirred yoghurt. It can be concluded banana contain prebiotic source that enhance the survival of probiotic lactobacilli.