

Development of a Molded Sherbet Bar on a Stick with Frozen Yoghurt Core and lime (*Citrus aurantifolia*) Shell

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Aim of this study was to add value to conventional ice cream by developing molded sherbet bar on a stick with frozen yoghurt core and lime (*Citrus aurantifolia*) shell with higher sensory attributes and higher keeping quality. Best percentages of lime juice and gelatin for lime pulp was selected by changing the lime juice and gelatin levels as 10%, 15%, 20% and 0.5%, 1%, 1.5% respectively. The best percentages of sugar and overrun for frozen yoghurt was selected by changing sugar and overrun level as 10%, 12% and 60%, 70% respectively. Sensory evaluations were done by 15 trained panelists using five point hedonic scale. The final product was analyzed for titratable acidity, pH, fat, protein, ash, total solids and compared with commercial faluda magic ice cream (reference sample). Shelf life determination was done by analyzing aerobic plate count, *E. coil* & coliform, yeast & mould, pH and titratable acidity analysis. Sensory data were analyzed by Friedman non parametric statistical method. Overall acceptability was highest ($P < 0.05$) in 15% (w/w) lime juice and 1.5% (w/w) gelatin added lime pulp and 12% (w/w) sugar and 60% (v/v) overrun added frozen yoghurt. Titratable acidity and pH was not significant between final product and reference sample. According to the results, best lime juice and gelatin percentages for lime pulp were found as 15% (w/w) and 1.5% (w/w) respectively, while best percentage of sugar and overrun for frozen yoghurt were selected as 12% (w/w) and 60% (v/v) respectively. The shelf life of final product was equivalent to the reference product under frozen condition (-18 °C). The physicochemical analysis showed that final product consist of 0.21 titratable acidity, 4.01 pH, 3.5% fat, 3.47% protein, 1.41% ash and 36.23% total solids. According to the results, final product complies with the SLS specification for ice cream.

Key words: Molded, Sherbet, Frozen, Yoghurt, Lime, Gelatin