

## Development of a Sugar Free Two Bar Ice Popsicle by Incorporating 'Kothala Himbutu' (*Salacia reticulata*) Stem Extract

D.N. Surige<sup>1\*</sup>, A.M.N.L. Abesinghe<sup>1</sup> and K.I.U. De Silva<sup>2</sup>

This study was an attempt to produce a sugar free two bar ice popsicles which consist with *S. reticulata* (Kothala Himbutu) incorporated water ice and vanilla flavoured 'Lite' (no added sugar) ice cream as the 'shell' and the 'core' of the product respectively. Fresh *S. reticulata* stems were used to the product development process. The appropriate dosage of *S. reticulata* stem extract was decided according to the Ayurvedic (Ayurvedic Research Institute, Dept. of Ayurveda, Sri Lanka) and Industrial Technology Institute's recommendations. Conventional decoction method was followed to get the extract. Three sensory evaluations were performed to develop the shell of the product. Results revealed composition included with the final mix of *S. reticulata* extract, Polydextrose (Litesse<sup>TM</sup>), Erythritol (Cargill<sup>TM</sup>), Sucralose (Splenda<sup>TM</sup>), Stabilizer (Cremodan 201), potable water and citric acid. Flavour was upgraded with pomegranates flavor (0.04 ml/L). Finally, the mix was pasteurized at 80°C for 5min and cooled (4°C). GSL machine (GSL wrapper/GSL 12) was used to produce two-bar popsicles with vanilla flavoured diet ice cream 'core' (1.09 kg/L) at -32°C. Assembled products were packed in Biaxially Oriented Poly Propylene (BO-PP) and stored at -18°C. Data obtained from the sensory evaluations were analyzed by non-parametric Friedman test with 95% confidence level, by MINITAB 15 package. Moisture, ash and fat contents of the product were 76.8%, 0.5% and 3.3% respectively. According to the organoleptic and microbiological results, the product was acceptable for minimum four weeks of period stored at -18°C.

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<sup>1</sup> Department of Animal Science, Uva Wellassa University, Badulla, Sri Lanka.  
dasuni\_surige@yahoo.com

<sup>2</sup> Ceylon Cold Stores PLC, Kaduwela, Sri Lanka.