

Ginger Extract Supplemented Cow's Milk Ice Cream Development

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Ice cream is a globally popular frozen dairy product. It's usually prepared from cow's milk. Antioxidant and phenolic components are often lacking in commercially marketed ice cream. In order to increase the usage of ginger extract and thus add value to cow's milk ice cream, a study was conducted to look into the production and quality analysis of cow's milk ice cream with ginger extract. The cow milk ice cream was formulated with varied concentrations of ginger extract, according to preliminary study. The treatments were: cow's milk ice cream without ginger extract (T0), cow's milk (l)with 20 g ginger extract (T1), cow's milk (l)with 30 g ginger extract (T2), and cow's milk (l) with 40 g ginger extract (T3). All treatments were subjected to chemical and sensory evaluations. The treatments differed considerably in pH, total solids, total soluble solids, fat content, titratable acidity, and ash content ($p < 0.05$). As the concentration of ginger extract increased, the pH (6.67-6.47), total solids (36.9-35.55%), total soluble solids (28.87-27.65 Brix), fat content (9.25-8.82%), and ash content (0.75-0.51%) reduced, while acidity (0.18-0.29%) increased. In terms of color, taste, texture, aroma, and overall acceptability, the panelists preferred T2 with 30 g/l ginger extract, followed by T1. Based on the findings of an experimental investigation of freshly prepared cow's milk ice cream flavored with ginger extract, T2 was chosen to be the superior ice cream formulation.

Keywords: Cow's milk, Flavor, Ginger extract, Ice cream, Sensory properties