DEVELOPMENT OF COW MILK ICE CREAM INCORPORATING GINGER EXTRACT

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ABSTRACT

Research study was conducted to investigate the production and quality evaluation of cow milk ice cream with ginger extract for improving utilization efficiency of ginger extract thereby adding value to the cow milk ice cream . Ginger is an herbal supplement which can be used as a natural remedy for different ailments hence ginger contains several nutrition and medicinal properties. Therefore, the cow milk ice cream was prepared using different percentage of ginger extract. The treatments are as follows -T0-cow milk ice cream without ginger extract, T1-cow milk ice cream formulated with 2% of ginger extract, T2-cow milk ice cream formulated with 3% of ginger extract, T3-cow milk ice cream formulated with 4% for ginger extract

Physico-chemical analysis vz – pH, Total solid, Total Soluble Solid, Fat content, Titratable Acidity, Ash content was conducted using standard AOAC Methods and Sensory Analysis evaluation was conducted using seven-point hedonic scale to all treatments . The pH, Total solid, Total Soluble Solid, Fat content, Titratable Acidity, Ash content were significantly different ($p<0.05$) among the treatments. The pH, Total Solids, Total Soluble Solid,Fat content and Ash content significantly decreased with the increasing of ginger extract.

The acidity was significantly increased with the increasing of ginger extract.Ice cream made without ginger extract showded lowest value of acidity (0.18±0.017) and 4% ginger extract ice cream showed the highest acidity but amount (0.29±0.11) not suitable for good quality ice cream. Ice cream made without ginger extract showed highest value of pH (6.66 ±0.017) and ice crea made with 4% ginger extract showed lowest value of

pH(6.47 ±0.011). Ice cream made without ginger extract showded highest value of Total Solids content (36.90 ±0.054) and 4 % ginger extract ice cream showed lowest value of Total Solids content (35.55 ± 0.028). Ice cream made without ginger extract showed highest value of Fat content (9.25 ±0.014) and 4% ginger extract added ice cream showed lowest value of fat content (8.82 ± 0.017). Ice cream made without ginger extract showded highest value of Total Soluble Solids content (28.87±0.08) and 4 % ginger extract ice cream showed lowest value of Total Soluble Solids content (27.65 ± 0.02). Ice cream made without ginger extract showded highest value Ash content (0.75±0.014) and 4 % ginger extract ice cream showed lowest value of Ash content (0.51 ± 0.011) .

Sensory evaluation was conducted using a sensory panel consisting of 20 panelists. The colour, taste, texture, aroma and overall acceptability were evaluated using a seven-point hedonic scale. In the sensory analysis. Most of panelist liked to T2 and T3 aroma but T2 had the highest colour, taste, texture, Aroma and overall acceptability.

The result of this study revealed that T2 treatment has suitable amount of Total Solids content , TSS, Fat, Titratable acidity and the highest colour, taste, texture, aroma and overall acceptability, it can be concluded that cow milk ice cream formulated with 3% of ginger extract is having good potential for the commercial production

TABLE OF CONTENT

Title No: Page No:

LIST OF TABLE

LIST OF FIGURES