

# Preparation of Low Fat-Sugar Free Softy Ice-Cream

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## Introduction

The Present investigation entitled preparation of low fat sugar-free softy ice-cream was carried out in Department of Animal Husbandry and Dairy Science, Dr. PDKV, Akola during the year 2012-2014.

## Objective

1. To assess the possibilities for preparation of low fat sugar free softy ice-cream.
2. To evaluate the sensory quality, chemical composition, melting period.
3. To calculate the cost structure.

## Methodology

Ice-cream is prepared as per BIS procedure. Sensory quality was judged by 100 points numeric score card of ice-cream. The cost structure (Rs/kg) of product was worked out by considering the prevailing retail rates of the ingredients. Data obtained from all 5 treatments with 5 replications was statistically analyzed with completely randomized design.

## Result and Discussion

During present investigation 3% Artificial Sweetener (Natura) and different levels of fat i.e. 12%(T<sub>1</sub>), 10%(T<sub>2</sub>), 8%(T<sub>3</sub>), 6%(T<sub>4</sub>), and 4%(T<sub>5</sub>) was used for preparation of ice-cream to evaluate acceptable level of Artificial Sweetener (Natura) and Fat by sensory evaluation, melting time and the chemical quality of Softy Ice cream. Hence, sugar and acidity content was numerically decreased with decrease in the fat level of ice-cream, However, total solids content was increased numerically as decrease in the fat level of ice-cream. The score obtained during sensory evaluation was recorded as 97.36, 95.29, 90.87, 85.98, and 80.62 in treatments T<sub>1</sub>, T<sub>2</sub>, T<sub>3</sub>, T<sub>4</sub>, and T<sub>5</sub> respectively. For overall acceptability which revealed that up to 6% fat, softy ice-cream can be prepared and good acceptable quality. But overall the score was decreased with decrease in fat level. Time required for melting of softy ice-cream was recorded as 29.70, 30.28, 32.07, 33.60, 34.05 (min) in treatments T<sub>1</sub>, T<sub>2</sub>, T<sub>3</sub>, T<sub>4</sub>, and T<sub>5</sub> respectively which is revealed that decrease in fat level then increase in melting period. Cost of production was calculated and it was found that, cost per kg was decreased with decrease in fat levels in the softy ice-cream. On the basis of acceptability and economics, 3% sugar free Natura (Sucralose) and 6% fat, sugar free ice-cream can be prepared with good quality and which is beneficial for people suffering from diabetic, obesity and vascular cardiac disease.

## Conclusion

Fat plays and important role in richness of colour, flavor, smoothness, chemical composition, melting period and cost of production of ice-cream. Good acceptable quality of ice-cream can be prepared by using 3% artificial sweetener (Natura) with 6% fat and become alternative for conventional ice-cream as best low fat-sugar free ice-cream for enjoyment of diabetic and heart patients.

