International Journal of Multidisciplinary Research in Arts, Science & Commerce (IJMRASC) ISSN Online : 2583-018X

Vol. 1(2), July 2021, pp. 59-66

Formulation and Proximate Evaluation of Barnyard Millet based Ice cream

Amirtha G[1], Vijaya Vahini R[2], Sarah Priscilla S [3]

[1] Student, Department of Home science - Food Science, Nutrition and Dietetics
Shrimathi Devkunvar Nanalal Bhatt Vaishnav College for Women, Chromepet

[2&3]Assistant Professor, Department of Home Science - Food Science, Nutrition and Dietetics,
Shrimathi Devkunvar Nanalal Bhatt Vaishnav College for Women, Chromepet

[1]amirtakrish@gmail.com, [2]bavi2vahi@gmail.com, [3]sarah.priscy@gmail.com

ABSTRACT

Ice cream is a delicious, nourishing frozen dairy product and a popular dessert which is preferred by all age groups. Cow's milk is the primary ingredient of dairy based ice creams which are not suitable for the population with cow's milk allergy, lactose intolerant patients and people who are following a vegan lifestyle. In the present work, we aimed to formulate a novel nutritious non-dairy ice cream with low fat and high protein content from plant based sources (barnyard millet extract, sesame extract, soy extract and coconut cream) which can be well- tolerated for consumption in lactose intolerant, obese and CVD individuals. Two different variations were prepared, variation I had barnyard, soy bean and coconut extracts (sample A,B, C) and variation II had barnyard, sesame, coconut extracts (sample D,E,F) in different proportions. All the six ice cream samples were subjected to standardization and sensory evaluation using nine points hedonic scale. According to the results of sensory attributes the samples b (7.19±1.154) and e (6.59±1.833) found to be highly acceptable on the basis of the overall acceptability score and evaluated for nutrient analysis. The control group was a standard soymilk-based ice cream which was used to compare with the samples A and B in triplicates. The findings of the nutrient analysis of ice cream samples conclude that the formulated ice cream in terms of content of carbohydrate, protein and fat was absolutely appropriate. The total energy value for the control sample was found to be 184.7±0.05 kcal; samples A and B scored 188±0.05 kcal and 168±0.05 kcal respectively. The protein content of the control group was 5.09±0.03g, samples A and B were found to be 25.13±0.03g and 21.04±0.03g respectively. The fat content of the control group 10.11±0.01g was higher when compared to formulated ice cream samples. The lowest fat content of ice cream was found in sample B with 5.17±0.01g when compared to sample A of 6.05±0.01g. It can be concluded from the study that non-dairy milk alternatives have a positive influence in the host's wellbeing as it is an important source of nutrients such as proteins, vitamins, unsaturated fatty acid, antioxidant, phytochemicals, and dietary fiber and trace minerals.

KEYWORDS: *Plant Extracts, Barnyard Millet, Millet Ice Cream, Lactose Intolerance*

