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Product Development, Organoleptic Evaluation and Nutritional Assessment of Pearl Millet and Guava-based Product for Anaemic Population

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ABSTRACT

Introduction: Anaemia is a common nutritional deficiency disorder that has increased from 58.66% (NFHS-4) to 67.10% according to NFHS (2024). Pearl Millet, with many nutritional factors, has a good amount of iron. Guava has a good amount of Vitamin C, which increases the bioavailability of iron.

Aim: Therefore, the present study aimed to develop a products from pearl millet and guava for the anaemic population to increase the absorption of iron.

Materials and Methods: The chocolate pops were developed in different concentrations i.e. T1 30 g, 20 g; T2 25 g, 25 g; T3 20 g, 30 g from pearl millet and guava pulp, respectively, without using any heat and a standard was developed with only incorporation of 50 g of pearl millet.

Results: The sensory evaluation revealed that both the products T2 and T3 were highly acceptable with a score of 9 (46.7%) whereas (T3) with the incorporation of 20 g of pearl millet and 30 g of guava pulp was most acceptable with a score of 8 (36.7%). The product T3 had 66.6 mg of Vitamin C, 381 kcal of energy, 74 g of protein, 61 g of total carbohydrates and 4.45 mg of iron.

Conclusion: However, 8-15 mg of iron is recommended per day for children and 28-30 mg per day for women. Studies have shown that ascorbic acid is required for the absorption of iron.

Keywords: Chocolate pops, Iron bioavailability, Vitamin C

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