FORMULATION AND DEVELOPMENT OF SHELF STABLE COMPOSITE NUTRIENT BAR WITH NO ADDED PRESERVATIVES

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2015

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ABSTRACT

The change in the lifestyle of consumers and their health awareness have made that scientists and food industries change formulations and ingredients for increasing food nutritional value and safety. Cereal-bars are very versatile product, made of processed cereals mixed with a variety of ingredients, which selection depends on the targeted population group. The major function played by diet in hindering and treating illnesses is extensively accepted. At the same time there has been increase in the consumption of fast-foods and snacks which are defined as small meals, light or substantial, and may be related to the attributes of healthy.

Therefore, a study was conducted to develop a protein and fiber rich composite shelf stable nutrient bar with no added preservatives by using constant amount of Maize, Green gram flour, Puffed rice, Dates, Roasted ground nut and Tutti fruitti and changing the binding agents(xanthun gum, liquid glucose and lecithin) along with sugar syrup to identify the suitable combination of binding agent and consumer acceptability for the commercial preparation of Composite nutrient bar with longer shelf life. Then suitable sample(binding agent as liquid glucose) was undergo three different packing materials and also to identify the shelf stability of product with different packing materials. The physiochemical properties (p^H,Hardness, moisture) were analyzed during storage with different packing materials. Other physiochemical (ash, protein, fat, fiber, iron, Ca content, Phosphorous content) qualities of final product was analyzed. Organoleptic (Stickiness, Odour, Chewiness, Taste and Overall acceptability) characteristics and total plate count, Coliform tests were analyzed after formulation and during storage.

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