



RESEARCH PAPER

Preparation of value-added food products by the incorporation of chia seeds and sunflower seeds

Priyanka Gupta*, Alka Gupta and Ranu Prasad¹

Department of Food Nutrition and Public Health, Sam Higginbottom University of Agriculture, Technology and Sciences, Prayagraj (U.P.) India

Abstract : Super foods are foods that have a very high nutritional density. This means that they provide a substantial amount of nutrients and very few calories, which provides a clinically proven and documented health benefit and thus, an important source of in the prevention, management and treatment of chronic diseases of the modern age. The present study was undertaken with the objectives to develop a nutritious *Laddu* and *Gajak* by the incorporation of Chia and Sunflower seeds and to assess their organoleptic quality as well as nutritive value. Two value added products “*Laddu*” and “*Gajak*” were prepared by incorporation of chia and sunflower seeds at different levels, 5, 10 and 15 per cent, respectively. Sensory evaluation with respect to colour and appearance, body and texture, taste and flavour and overall acceptability was done by five panel members using the nine-point Hedonic scale. Chemical analysis of the developed food products for moisture, total ash, protein, crude fibre and fat were determined by AOAC (2005) method. Calcium and iron was estimated by colorimeter. The value of carbohydrate and energy was calculated by difference method. On the basis of results, it is concluded that Chia seeds and sunflower seeds was successfully incorporated in preparation of the products like *Laddu* and *Gajak*. The sensory attributes of the prepared products with different treatments T₂ (Ragi flour (40%), Chia seeds (10%), sunflower seeds (10%), *Ghee* (10%) and Jaggery (30%)) of *Laddu* and T₂ (Gingelly seeds, Chia seeds, Sunflower seeds and Jaggery) of *Gajak*, were highly accepted by the panel members, when compared to control *i.e.* T₀. Chemical analysis of this study concludes that the preserved products *Laddu* and *Gajak* made by the incorporation of Chia seeds and sunflower seeds were good sources of energy, calcium, fibre, protein and fat content. It is reveals that nutritive composition of the prepared products were significantly increased as the incorporation level increased. Cost of *Laddu* is slightly increased from control to treatments. T₃ has the highest cost and T₀ has the lowest cost. Cost of *Gajak* is also increased from control to treatments. T₃ has the highest cost and T₀ has the lowest cost.

Key Words : Chia seeds, Sunflower seeds, *Laddu*, *Gajak*, Nutritional composition, Value addition

View Point Article : Gupta, Priyanka, Gupta, Alka and Prasad, Ranu (2023). Preparation of value-added food products by the incorporation of chia seeds and sunflower seeds. *Internat. J. agric. Sci.*, **19** (1) : 200-205, DOI:10.15740/HAS/IJAS/19.1/200-205. Copyright@2023: Hind Agri-Horticultural Society.

Article History : Received : 03.08.2022; Revised : 07.11.2022; Accepted : 08.12.2022

*Author for correspondence:

¹Ethelind College of Home Science, Sam Higginbottom University of Agriculture, Technology and Sciences, Prayagraj (U.P.) India