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Nutritional quality evaluation of soyaflakes chiwada

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ABSTRACT

Soyaflakes Chiwada was formulated in three different combinations with soyaflakes and riceflakes like 40:50, 50:40 and 40:40, respectively. All these three combinations were evaluated organoleptically. Among these combinations high scored product was selected for the nutritional quality assessment along with its storage stability. Due to attractive colour, flavour, taste appearance and over all acceptability of soyaflakes chiwada prepared with combination III i.e. rice flakes 40 g. and soyaflakes 40g. scored highest. The nutritional qualities like moisture (4.1 per cent), ash (2.4 per cent), crude fiber (0.8 per cent), crude protein (21.4 per cent), iron (5.3 mg), calcium (74.0mg), zinc (2.7mg), α carotene (235. ug) and B complex vitamins like B₁ (0.2mg), B₂ (0.1mg) and B₃ (2.01mg) were found in soyaflakes chiwada. No significant changes were observed in nutritional qualities of soyaflakes chiwada when it was stored in tetra package for 1 to 2 months.

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Key words : Soyaflakes chiwada, Nutritional quality, Storage stability

INTRODUCTION

Soyabean (*Glycine max* L Merrill) is an important source of quality legume protein. It is one of the nature's wonderful nutritional gifts, which provides a complete proteins with quality of essential amino acids, carbohydrates, unsaturated fat, vitamins and minerals including folic acid, calcium, potassium and iron. Soyabean also contains nutraceutical properties like isoflavones, phytoestrogen, soluble phosphate and potassium sulphate. These properties mostly play vital role to prevent the risk of dreaded diseases like breast cancer, osteoporosis, cardiovascular diseases, kidney stones and help in beating 'menopausal blue' (Messina 1997).

Soyabean is less expensive and highly nutritious. Hence, most of the studies (Chandrashekhar and Rani 2004, Deshpande *et al.*, 2004 Sahay and Kacharu 1988) recommended the use of soyabean in the preparation of snack, weaning and supplementary foods after necessary processings on it. Soyaflakes chiwada can be the best option for the traditional chiwada after enhancing the nutritional qualities with its addition.

MATERIALS AND METHODS

Local varieties of soyabean i.e. MH-CH-58 and readymade riceflakes were procured from local market. The processing techniques like cleaning, washing, soaking, germination, degermination, dehulling, boiling, pressing under controlled condition by use of flaking machine and drying were carried out on soyabean for the preparation of soyaflakes.

Formulation and preparation of soyaflakes chiwada: *Flakes composition:*

Soyaflakes chiwada was formulated on the basis of per cent combination with rice flakes and soyaflakes 40:50, 50:40 and 40:40, respectively and prepared by using standard methods.

Type of oil used:

Soya oil was used for the shallow frying of flakes with different oil quantities 5 g, 10 g, and 15 g, respectively. Soyaflakes and rice flakes were also deep fried in soya oil separately at medium flame. Oil consumption during frying of flakes was calculated by measuring remaining