

Accepted : September, 2010

Sensory and nutritional assessment of soya value added traditional products from Rajasthan

BHARTI JAIN AND ALPANA KHANGAROT

ABSTRACT

Soybean (*Glycine max*) is one of the nature's best nutritional gifts, as it is the most highly proteinaceous vegetable source. Incorporation of soybeans in popular traditional Indian foods is likely to help in acceptability of soy blended foods. Therefore the present study was under taken to find out the acceptability of different traditional recipes of Rajasthan namely Kadhi, Raabri, and Dhokla developed by incorporating soy flour in different proportions as it suits the regional taste and preferences. These traditional products were developed by replacing 25%, 50% and 75% of soy flour with the main ingredient of the recipe. Acceptability was judged by panel members. A composite scoring test was used to determine the degree of acceptance in soy fortified traditional products. Kadhi in which Bengal flour was replaced by 75% of soy flour was 88.6% preferred in consistency with mean scores of 26.4 ± 6.4 and standard recipe of Kadhi was 80% acceptable and scored 24 ± 5.6 . Acceptability score of Dhokla where maize flour replaced with 75% soy flour had scored 88.6% in texture which was comparable to 90% of standard recipe of Dhokla. Mean scores of Dhokla fortified with 75% soy flour scored 26.6 ± 4.4 and standard recipe scored 27 ± 4.2 . Overall acceptability evaluation showed that 25% replacement with Soy flour in Kadhi and Dhokla were as good as standard traditional recipe whereas only in Raabri with 75% replacement (87.6 ± 11) of bajra flour with Soy flour was more acceptable than standard recipe (83.4 ± 9.8). The value added traditional products from Soy flour act as a good source of protein and minerals, and the cost of formulations were also affordable. Thus formulation of traditional products serves the dual purpose of convenience and ensuring nutritional security.

Key words : Traditional products, Soy fortification, Full fat soy flour (FFSF), Organoleptic evaluation, Composite scoring

INTRODUCTION

Soybean (*glycine max*) is one of the nature's best nutritional gifts, as it is the most highly proteineious vegetable source. Therefore it has been used in various food formulations because of its high nutritional values. As a source of protein, soybean is inexpensive when compared to meat, milk, fish, egg, cowpea and nuts. Soybean contains 33% carbohydrate, 18% fat and 40% protein. The amino acid content is well balanced to meet body's requirement (Singh *et al.*, 2001).

Soybean cultivation in India started long ago but its successful cultivation was increased over last two decades (SOPA report, 2003). Incorporation of soy flour in various

traditional recipes would not only increases the nutritional value of the food product but to some extent its palatability as well as functional properties also increases. Therefore Soya flour was incorporated in different Rajasthani dishes. In Rajasthan Dhokla, Kadhi and Rabri is traditionally prepared using maize flour, bengal gram flour and bajra flour. Soybean contains higher amount of protein and fat than maize flour, bengal gram flour and bajra flour therefore could be partially substituted to enrich the traditional products of Rajasthan. The intake of these foods is more popular in villages of Rajasthan. By incorporating soy flour in traditional recipes problem of malnutrition can be cured to some extent. The study was carried out to