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## Studies on sensory quality of cookies enriched with mushroom powder

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### ABSTRACT

The cookies were enriched with mushroom powder by replacing refined wheat flour (*maida*) at 0, 5, 10 and 15% and evaluated for sensory quality characteristics. It was observed that the cookies enriched with 10% of mushroom powder scored highest for all sensory quality attributes as compared to other enrichment levels. It can be concluded that the addition of mushroom powder in cookies up to 10% improved the sensory quality attributes.

**Key words :** Cookies, Mushroom powder, Sensory quality attributes

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### INTRODUCTION

Baking technique is probably the earliest and oldest of all other techniques and is still going steady over food processing field. Bakery products have played a key role in the development of mankind, being a principal source of convenience, variety and a healthy nutrition component to modern lifestyles. Biscuits, cookies and crackers represent the largest category of snack items among the baked foods in India.

Cookies, the high end version of biscuits have been a popular product the world over with its rich eating qualities and it has made its presence in the Indian market as an organized industry product. While the Indian biscuit market is dominated by low cost variants like glucose biscuits, substantial demand does exist for specialty biscuits like cookies. Cookies are generally circular in outline and flat in profile (flat cakes). Unlike the crackers and biscuits, cookies are very sweet and high in fat content and delicate among baked goods. Cookies have a much longer shelf-life than bread and cake or rather the rest of the processed foods.

Mushrooms are highly palatable and excellent source of several essential amino acids, water soluble vitamins and minerals (Manzi *et al.*, 2001) and contain considerable amount of dietary fibre and are low in calories (less than

30 cal per 100g) and have traces of sugar and no cholesterol (Oei, 1992).

Cookies, pasta, whole wheat bread among other bakery items can be easily enriched with other food sources (Giuntini *et al.*, 2003). Cookies being a delicacy, yet a greatly consumed snack food have been the lowest to be utilized for new product developments. Enrichment of foods with supplements like protein and vitamins is of current interest because of nutritional awareness of consumers. The incorporation of mushrooms into existing food items is as yet an untouched area of research. Therefore, the present study was undertaken to develop a novel variety of cookies enriched with addition of mushroom powder.

### MATERIALS AND METHODS

The dried white button mushrooms (*Agaricus bisporus*) and good quality raw materials like refined soft wheat flour (*maida*), hydrogenated fat, sugar, fresh eggs, baking powder etc. were purchased from local market and cookies were prepared by taking suitable ingredients levels as detailed in Table 1.

The mixing of the ingredients was done in three steps for preparation of the dough in order to prepare typical, full calorie crispy cookies with enrichment of mushroom