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Nutritional evaluation of sweet and salty biscuits prepared by dried oyster mushroom powder

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The study was conducted on sweet and salty biscuit prepared by oyster mushroom powder obtained from different drying method. The most acceptable sweet and salty biscuits prepared by using mushroom powder prepared from mushroom grown on wheat straw analyzed for different nutritional parameters. The moisture, crude protein, ash, crude fibre, crude fat, and energy content of moisture content of control sweet and salty biscuits ranged from 2.53 to 2.61 per cent, 5.99 to 7.10 per cent, 0.68 to 1.01 per cent, 0.78 to 1.38 per cent, 31.62 to 31.76 per cent, 528.28 to 542.57 (kcal/day), respectively. Total sugar, reducing sugar, and non reducing sugar of control and supplemented sweet and salty biscuits were found in the range of 27.12 to 27.38 per cent, 0.31 to 0.34 per cent, 26.78 to 27.10 per cent. ADF, NDF and pectin content were found in the range of 18.78 to 21.16, 46.26 to 51.01 and 2.98 to 3.12 per cent, respectively. B–carotene content of control and supplemented sweet and salty biscuits ranged from 54.96 to 58.25, 6.15 to 8.30, 2.84 to 3.98 mg/100 g, respectively. *In vitro*, availability of calcium ,Iron and zinc were varied from 51.25 to 54.98 , 51.03 to 52.63, 53.81 to 56.21 per cent, respectively. Polyphenols and Phytic acid of control and mushroom powder supplemented sweet and salty biscuits varied from 290.00 to 293.06, 294.01 to 294.53 mg/100 g, respectively.

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INTRODUCTION

Mushroom is one of the most important sources of vegetable protein combating the growing shortage of protein in India especially in vegetarian population, FAO has recommended it as a supplementary food item in context of world protein shortage for the growing populations of the developing countries. It is a low calorie food which contains high content of mineral, protein (rich in all essential amino acids) and vitamins, due to low cholesterol, high fibre content, low fat and carbohydrates (Bano *et al.*, 1992). These are highly suitable for the people suffering from atherosclerosis, hyperacidity, cancer, constipation and diabetes. Mushroom also known as 'wonder vegetables' have a unique growth pattern and are as such a synonym for quick growth and multiplication.

Oyster mushroom is the third largest cultivated mushroom in the world and contributes approximately 16 per cent to the total world mushroom production (Upadhayay and Verma, 2000). They are highly perishable because of high moisture content (85-95%) delicate in nature and cannot be stored for more than 24-28 hr. at ambient temperature. In the peak period of harvesting due to gluts in the market, their preservation into more stable product is essential. This technology of the dehydration will not only be a good source of income generation but will also strengthen food and nutritional security. Such dried mushroom powders are good source of energy, good quality protein, minerals and vitamins which can be incorporated in various day to day food items meant for vulnerable groups like pregnant and lactating women and growing children especially in rural areas where people do not consume fresh mushroom.

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METHODOLOGY

On the basis of acceptability and physico-chemical