

# Effects of germination on nutritional and organoleptic quality of soybean biscuits incorporated with refined wheat flour

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Soybean (*Glycine max* L.) is one of the nature's wonderful nutritional gifts. It is considered as "Gold" obtained from soil and is thus rightly called today the "Gold Nugget of Nutrition" owing to its nutritional composition. Soybean is rich in protein, calcium, iron, phosphorus, lecithin and most of the vitamins. Protein content of soybean is about 2 times of other pulses, 4 times of wheat, 6 times of rice grain and 4 times of milk. In this study, efforts have been made to supplement refined wheat flour with germinated soybean flour to develop nutritionally protein-enriched biscuits which can be easily consumed by all people and its sensory evaluation. A systematic approach was followed to develop and standardize the process for the preparation of soya biscuits. Soybean was germinated for two and three days. Six samples were prepared by mixing soybean flour in percentage 0 per cent, 10 per cent, 20 per cent, 30 per cent, 40 per cent and 50 per cent with refined wheat flour 100 per cent, 90 per cent, 80 per cent, 70 per cent, 60 per cent and 50 per cent. The samples were evaluated for sensory characteristics using nine point hedonic scale and numerical scoring method. Organoleptic evaluation indicated that there were significant differences between the control treatment and soy flour supplemented biscuits of two day and three day germination in the organoleptic attributes of colour, flavour, texture, crunchiness, mouthfeel and overall acceptability. From the overall acceptance rating, 40 per cent and 50 per cent soy flour incorporated biscuits of two day germination and 50 per cent of three day germination obtained the highest preference compared to other combinations. The protein content of both 50 per cent soy incorporated biscuits was high which indicates improvement of protein quality with increase in protein concentration.

**Key Words :** Soy flour, Germination, Sensory evaluation, Protein enrichment

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