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Development of protein enriched biscuit fortified with green gram flour

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Supplementation of food is of current interest because of increasing nutritional awareness among consumers. Supplementation with legumes is one way to meet the protein needs particularly with the help of baked foods. Supplementation of wheat flour with green gram flour was tried at 30, 40, 50, 60 per cent levels along with sugar, skimmed milk powder, fat and baking powder to improve the nutritional and sensory quality of biscuits. Results of baked biscuits revealed that the thickness (cm) was increased and diameter (cm) was decreased up to 60 per cent level of incorporation of green gram flour. Therefore spread ratio was decreased with increased the incorporation of green gram flour in formulation. However green gram dhal flour 30-60 per cent incorporation improved protein, fat and ash content of biscuits. The value of protein and fat content was decreased during storage but value of ash content was almost constant during storage. Moisture content of fortified biscuits was more than controlled biscuits and it was increased during storage. The sensory analysis of 50 per cent green gram dhal flour incorporated biscuit up to 30 days was accepted by panel judges on the basis of nine point hedonic scale. Thus supplementation of refined wheat flour with green gram flour 30- 60 per cent level, not only improve protein quality but also improved overall acceptability and sensory parameter in final product. Two types of packaging materials, high density polyethylene and low density polyethylene was used for packaging of biscuits in which high density polyethylene was more accepted because it was less permeable to gas and moisture as well as increased the storage period of biscuits.

Key Words : Green gram, Fortified biscuit, Packaging material, Protein, Moisture content

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