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**Subhajit Ray**

Central Institute of Technology, India

**Formulation of carrot powder fortified value added biscuit for nutritional and health benefits**

In recent years, the consumption of carrot and carrot powder as well has increased steadily due to the recognition of anti-oxidative and anticancer activities of  $\beta$ -carotene. The aim of this research project was to develop carrot powder fortified value added biscuits. First of all carrot purchased from local market of Kolkata was blanched in cube form, dried and finally grinded to powder form. Prepared carrot powder was evaluated for physicochemical properties viz. sensory and chemical qualities. In the present study, the moisture, ash, fat, carbohydrate and protein of raw carrot were estimated as 91.25%, 0.39%, 0.59%, 3.84% and 3.93%, respectively. The nutritional quality parameters viz. ascorbic acid, moisture, fat, ash, carbohydrate and protein content of carrot powder were analyzed as  $2.6 \times 10^{-4}$  mole/l, 16.5%, 2.24%, 1.48%, 3.52 g and 7.71%, respectively. Now carrot powder fortified biscuits were formulated by incorporating 5%, 7.5% and 10% carrot powder with ordinary flour. The experimental result revealed that carbohydrate content of 10% carrot powder fortified biscuit and protein content of 5% carrot powder fortified biscuits were enhanced as 72% and 64.49%, respectively. The  $\beta$ -carotene content in the different carrot powder formulated biscuits viz. 5%, 7.5% and 10% were also estimated as 0.092 mg/gm, 0.192 mg/gm and 0.187 mg/gm, respectively. So 7.5% carrot powder fortified flour blend was found to be maximum  $\beta$ -carotene content and overall acceptability score, respectively. Therefore in this study, 7.5% carrot powder flour blend for biscuit preparation was found to be optimum in terms of nutritional quality, sensory acceptable in context to nutritional importance.

**Biography**

Subhajit Ray has completed his PhD degree from Jadavpur University in India. He has more than 20 years of experiences including 21 years of teaching and one year of industrial experiences. Currently he is an Associate Professor, Department of Food Engineering and Technology, Central Institute of Technology in India. He has published more than 30 papers in reputed journals and participated and presented in numerous national and international conferences. He has been serving as a Member of Reviewer Panel and an Editorial Board Member in many reputed national and international journals.

[subhajit@cit.ac.in](mailto:subhajit@cit.ac.in)

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