

# **DEVELOPMENT OF GREEN TEA ENRICHED CRACKERS**

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## ABSTRACT

The present study was undertaken to study the development of green tea incorporated cracker at different forms (powder, brew and powder: brew in 1:1 ratio) at three different levels (1, 2 and 3%) and were evaluated. Best product was selected by sensory analysis. Sensory data were analyzed by Friedman nonparametric statistical method using MINITAB 15. Green tea powder at 2% was selected as the best for the product development. The selected green tea cracker contained 9.73g protein, 3.60g ash, 11.003g fat, 0.8g crude fiber, 71.52g carbohydrate, 424.027 kcal energy and 191.2mg polyphenol per 100g dry weight basis. The comparison of proximate analysis and polyphenol content with commercially available cracker was done by two-sample t test in MINITAB 15. There is a significant different ( $p < 0.05$ ) in total energy, fat, ash and polyphenol content in green tea incorporated cracker than the commercially available cracker. Shelf life was determined by microbial analysis (TCC, yeast & mould count, *E-coli* and *Staphylococcus aureus*) and objective measurements (Moisture content and pH) were done at once in twice a week. *E-coli* and *Staphylococcus aureus* were not detected during storage period. Total colony counts, Yeast and mould counts were not exceeded the SLSI standards during the storage. Moisture and pH values were compatible with the standards. 50% of inhibition takes place at lower concentration in green tea cracker than the commercially available cracker. It reveals the higher antioxidant activity in green tea enriched cracker. Thus, the results indicated by incorporating green tea powder at 2% is possible to enhance the nutritional and sensory qualities and improved antioxidant properties of crackers.

Key words: Polyphenol, Antioxidant activity, proximate analysis, Aroma, Texture