

Development and characterization of marine fibre enriched biscuits

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A biscuit is a flour-based baked food product which is accepted by all age groups. Carrageenan is a natural polysaccharide obtained from red seaweeds and is a rich source of fibre. The diets rich in fibre have a positive effect on health, thus, carrageenan was incorporated into biscuits to enhance the fibre content. Different percentages (2 to 6%) of carrageenan were incorporated in biscuits among which 6 per cent was found to be the best. Fibre rich biscuits were subjected to physicochemical analysis. The antioxidant activity and total polyphenol contents were estimated. Snap test to determine the crispiness and textural characterization of biscuit was performed and Scanning Electron Microscopy (SEM) was done to compare the morphological changes in the products due to addition of carrageenan. The stability of the product at room temperature was analysed by monitoring the textural and colour changes and development of rancidity in the product. The storage studies have revealed a shelf-life of 63 days for the product at room temperature when packed in polypropylene trays.

Key Words : Biscuits, Carrageenan, Fibre, Antioxidant, Total polyphenols, SEM, Shelf-life

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