Chemical Evaluation of a Nori-Like Product (Geluring) Made from the Mixture of Gelidium Sp. and Ulva Lactuca Seaweeds

ABSTRACT

Dry sheet food products or nori-like products can be produced from the mixture of Gelidium sp. and Ulva lactuca seaweeds, which is called geluring. Making geluring involves heat application that may influence the chemical composition of the product. The goal of this study was to evaluate the chemical characteristics of geluring by measuring proximate composition; dietary fiber, total phenolic, and flavonoid contents; and antioxidant activity (by DPPH analysis) of geluring and compare the values to those of the raw materials. Three types of geluring were prepared following commercial nori preparation procedures with some modifications: P1 (unseasoned), P2 (seasoned), and P3 (seasoned and roasted). The proximate composition of geluring products and raw materials differed significantly (P < 0.05). Geluring fiber contents were not significantly different (P > 0.05) among P1 (29.19 ± 0.26%), P2 (29.42 ± 0.66%), and P3 (29.83 ± 0.11%), but these values differed significantly (P < 0.05) higher than those of P1 and P3 but lower than those of the raw materials. These results suggest that geluring processing might negatively impact the chemical composition of the products, but they still have high antioxidant activity and dietary fiber content and thus have potential for utilization as a functional food product.