

Development of a Seaweed Based Snack Appealing to the Sri Lankan Taste Using *Ulva fasciata*

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Abstract

Sri Lanka is rich with an abundant growth of seaweeds. Due to the unawareness of health benefits of seaweed consumption, it is an underutilised marine resource in Sri Lanka. Thus the research aims to develop a seaweed based snack using *Ulva fasciata* to popularise seaweed consumption in the country. *Ulva fasciata* samples for the study were collected from Matara, Sri Lanka (Latitude: 5° 56' 53.74" (5.948262) north and Longitude: 80° 28' 17.71" (80.471588) east). The snack was developed by enhancing the flavor of *Ulva fasciata* sheet which was developed by traditional nori making technique with ginger oleoresin which is appealing to the Sri Lankan taste. The study resulted a processed snack with L* a* b* values 29.28±1.14, -6.16±0.25, 12.52±0.81 respectively and a hardness of (g) 17.50±6.45. The moisture content (%), total fat content (%), protein content (%) and ash content (%) of the snack was determined according to the AOAC procedures and resulted 12.52±0.48, 0.26±0.042, 19.18±0.53 and 13.91±0.46 respectively. Total carbohydrate content (%) was analysed according to the Dubois method and recorded as 9.48±0.14. The arithmetic difference was taken to determine the total fibre content (%) which was recorded as 44.64±0.23. The elemental composition of the processed snack was determined by X-ray fluorescence elemental analysis. The results recorded a significantly high content (ppm) of Calcium 13,700±707 in the processed snack. As the final outcome a nutritious seaweed snack was developed.

Keywords: *Ulva fasciata*, Seaweed snack, Composition