

PP 120: A value-added nutribar made from underutilized green seaweed *Ulva lactuca* from Sri Lanka

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Edible seaweeds have been consumed and used in Traditional Medicine for centuries by East Asian people. However, in Sri Lanka, these seaweeds are underutilized and they have potential to develop novel nutraceutical food products. Four species of edible green seaweeds (*Ulvalactuca*,

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Ulvacompressa, *Caulerparacemosa*, and *Chaetomorphaantennina*) were manually collected from the Southern Coast, Matara, Sri Lanka. The crude protein contents of the above powdered seaweeds and proximate composition of *U. lactuca* were determined by *Kjeldhal* and AOAC methods, respectively. Furthermore, cereal-based nutribars incorporated with 0, 5, and 10% of dried *U. lactuca* (w/w) were developed. In addition, their textural properties, crude protein contents and antioxidant activities were investigated. Results showed that *U. lactuca* showed significantly (at $p \leq 0.05$) the highest crude protein content ($20.16 \pm 1.07\%$) followed by *Caulerparacemosa* ($16.90 \pm 0.35\%$), *Chaetomorphaantennina* ($16.25 \pm 0.13\%$), and *Ulvacompressa* ($7.69 \pm 1.08\%$). The mineral and crude lipid contents of *U. lactuca* were $17.17 \pm 0.62\%$ and $1.37 \pm 0.05\%$, respectively. Interestingly, the *U. lactuca* 5% enriched nutribar was shown almost similar in sensory and textural profiles, except for colour, compared to the control (0%). Under-utilized *U. lactuca* in Sri Lanka can be processed to develop novel healthy and nutritious foods. Moreover, promoting seaweeds utilization will improve the life style of coastal families by generating an additional income.

Keywords: seaweeds, traditional medicine, *Ulvalactuca*, proteins, Nutribar