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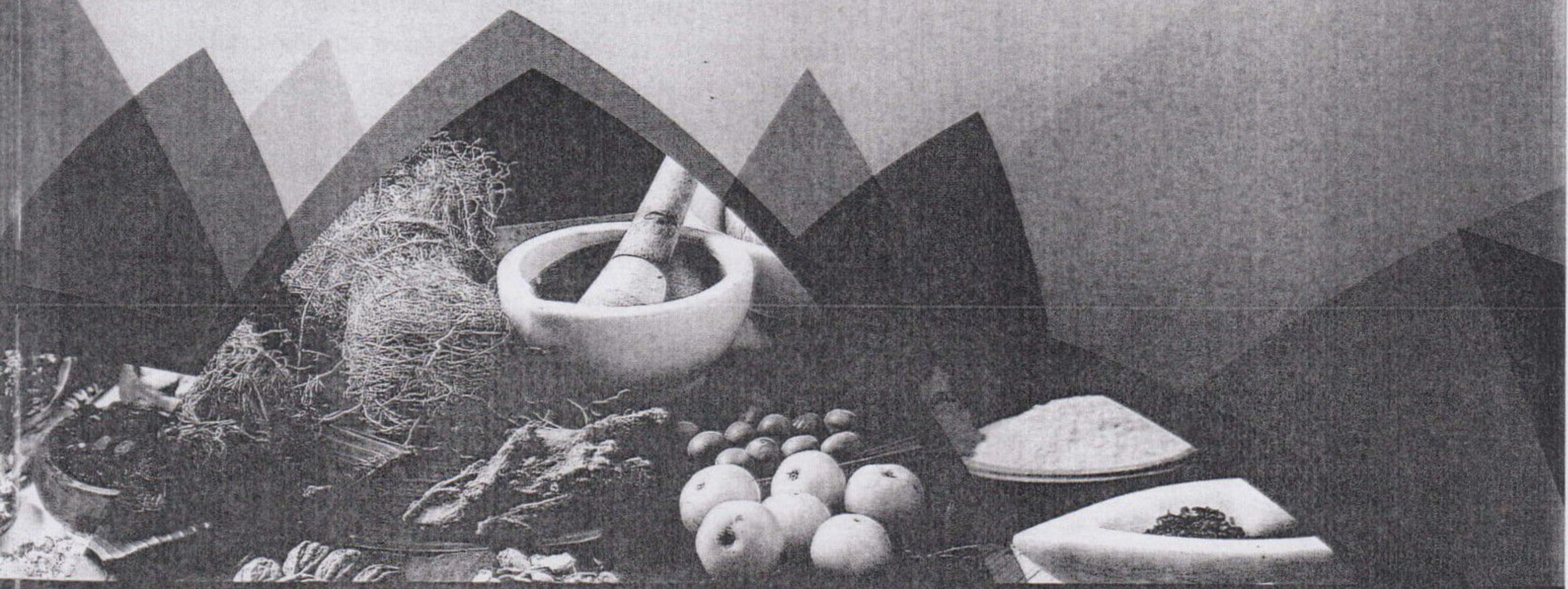
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PROCEEDINGS



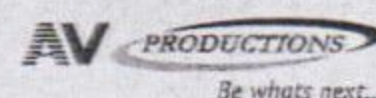
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Ulvacompressa, *Caulerparacemosa*, and *Chaetomorpha antennina*) were manually collected from the Southern Coast, Matara, Sri Lanka. The crude protein contents of the above powdered seaweeds and proximate composition of *U. lactuca* were determined by *Kjeldhal* and AOAC methods, respectively. Furthermore, cereal-based nutri-bars 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* ($16.90 \pm 0.35\%$), *Chaetomorpha antennina* ($16.25 \pm 0.13\%$), 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 nutri-bar 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, Nutri-bar

PP 121: Physicochemical and phytochemical analysis of *Aponogeton crispus*

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Aponogeton crispus is a fresh water monocotyledon belonging to genus *Aponogeton* and shows various medicinal properties. Our previous studies show the hypoglycaemic activity of the flower and the stalks of *A. crispus*. Use of the flower and the stalk as a functional food is limited due to a lack of information regarding standardization. Hence this study aims on pharmacognostical standardization of the flower and the stalk of *A. crispus* using preliminary phytochemical screening and physicochemical analysis. Preliminary phytochemical screening and physicochemical analysis for the aqueous extracts of *A. crispus* were carried out as per WHO guidelines of quality control methods for medicinal plant materials. The total phenolic content of hot and cold aqueous extracts were also determined according to the method of *Folin-Ciocalteu* and calculated as gallic acid equivalents (GAE). Results show reducing sugar, amino acids, alkaloids, flavanones, flavonoids and polyphenols were found as phytoconstituents in both hot and cold extracts. Physicochemical investigation of *A. crispus* reveals the presence of 18.8% of total ash and 92.9% of water soluble ash in the powder. Dry matter and the moisture content of *A. crispus* was 4.2% and 13.6% respectively. Hot and cold aqueous extracts of *A. crispus* yielded 21.6% and 21.3% of extractive values respectively. Further, the total phenolic content of cold and hot aqueous extracts of *A. crispus* were found to be 75.9 mg GAE/g and 69.2 mg GAE/g respectively. Standardized flowers and stalks of *A. crispus* have many phytoconstituents. The parts of *A. crispus* which were standardized in the present study will be useful for the correct identification and authentication of this medicinal plant and to prevent this plant from adulteration.

Keywords: *Aponogeton crispus*, physicochemical, phytochemical