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A Study on Nutritional Properties of Some Selected Underutilized Vegetables in Harispattuwa Divisional Secretariat of Kandy District Sri Lanka

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Abstract

Even though Sri Lanka is blessed with a wide variety of nutritionally invaluable vegetables, most of them remain underutilized mainly due to lack of awareness on their nutritional richness. In Sri Lanka, the cultivation of underutilized vegetables (UUVs) is mainly restricted to rural areas, as the knowledge repositories about them are solely hosted by the local communities. The failure of UUVs to compete with the commercial crops is one of the major reasons for them to become underutilized. The present study addresses the importance of their nutritional content and disseminating the findings to enhance the consumption of UUVs among the general public. The objective of this study was to identify UUVs and to explore nutritional properties of some selected UUVs in Harispattuwa Divisional Secretariat, Kandy District. A survey was conducted representing randomly selected fifty families of different income levels as sample population, in Harispattuwa Divisional Secretariat, *via* a questionnaire to collect information mainly about knowledge and consumption frequency of UUVs and awareness on nutritional properties. Five vegetables; 'Maila' [*Bauhinia racemosa* (L.)], 'Kalu ala kola' [*Colocasia esculenta* (L.)], 'Karan koku' [*Acrostichum aureum* (L.)], 'Kara' [*Canthium coromandelicum* (Burm.f.)] and 'Malla' [*Olox zeylanica* (L.)] were reported as the rarely consumed vegetables indicated by 2-6% of lower responses. Total protein, carbohydrate and crude fiber contents were determined using Bradford assay, Phenol-sulphuric acid and Weende methods respectively. Mineral analysis was done using atomic absorption spectroscopy. The protein and carbohydrate contents were significantly high in 'Kalu ala kola' (8%) and 'Karan koku' (19%) compared to the commonly consuming vegetables like pumpkin (1%), leeks (2%) and green beans (2%) according to the literature. Higher crude fiber and vitamin C contents were recorded for 'Malla' (69%) and 'Kalu ala kola' (66 mg/100 g) relative to those nutrient contents in some common vegetables like carrot (3%) and drumstick (3%). 'Maila' (488 mg/100 g), 'Kalu ala kola' (295 mg/100 g) and 'Karan koku' (192 mg/100 g) are rich sources of Ca, Fe, K respectively. The present study concludes that these UUVs are valuable sources of food with essential nutrients and encouraging the people to grow them is suggested as important future perspectives to popularize UUVs consumption.

Keywords: Nutritional properties, Harispattuwa divisional secretariat, Underutilised vegetables