O106

Comparative evaluation of proximate composition of fruits of bitter gourd (*Momordica*) and eggplant (*Solanum*) species grown in Sri Lanka

Kulasinghe, A.[1], Nadeeshai, H.[1], Samarasinghe, G.[2], Silva, R.[3], S. Wimalasiri, S.[4] and Madhujith, T.[4]

[1]Postgraduate Institute of Agriculture, University of Peradeniya, Sri Lanka,

[2]Plant Genetic Resources Centre, Gannoruwa, Sri Lanka,

[3]Department of Applied Nutrition, Wayamba University of Sri Lanka and Department of Food Science and Technology, University of Peradeniya, Sri Lanka.

[4]Department of Food Science and Technology, Faculty of Agriculture, University of Peradeniya, Peradeniya 20400, Sri Lanka.

tmadujith@gmail.com

The composition of fruits of bitter gourd (*Momordica*) and eggplant (*Solanum*) species was studied. Samples of each vegetable species were collected assuring representativeness to the whole country. Fruit samples were collected from different geographical locations of the country representing agro-climatic regions. The samples were sorted, cleaned and air dried at 45°C and stored at 4°C for further analysis. The proximate composition of each sample was analyzed and presented on fresh weight basis. Moisture, ash, crude fat, crude protein and total carbohydrate contents were analyzed using AOAC standard methods of air oven, direct gravimetric, soxhlet, kjeldahl and phenol sulfuric methods, respectively. Moisture content ranged between 79.99±5.41% and 90.48±2.14%. Three *Solanum* species showed higher crude protein contents than two *Momordica* species tested. The crude fat content ranged between 0.06 and 0.82%. The highest total carbohydrate content was observed with *S. torvum* (8.68±0.08%) followed in decreased order by *S. melongena* (7.49±0.72%) and *S. macrocarpon* (6.17±0.03%). *M. dioica* (7.28±0.05%) was comprised of higher total carbohydrate content than *M. charantia* (5.07±0.07%). The results of this study indicated that fruits of *Solanum* species contained higher crude protein, crude fat, ash and total carbohydrate contents than *Momordica* species, except for *M. dioica* which contained the highest ash content.

Keywords: *Momordica*, *Solanum*, proximate composition, crude fat, crude protein, ash