PRELIMINARY STUDIES ON THE NUTRITIONAL CONTENT OF SOME SRI LANKAN FRUIT VARIETIES

Kanchana T Mudalige, S.A. Deraniyagala
Dept. of Chemistry, University of Colombo.

The food tables[1] used today in Sri Lanka contain only about 10% of data on Sri Lankan food varieties. The rest of the data are mostly from Indian publications. Hence, the food composition data users are dependent on a food table which is inadequate.

In an attempt to compile data on the Macronutrient and Micronutrient content of Sri Lanka food, the total carbohydrate, moisture and fibre contetnt as well as the concentrations of certain nutritionally important metal ions of some Sri Lankan fruits [Musa (Banana - Kolikuttu, Anamalu, Ambul, Suwadhel), Persea gratissima (Avocado), Citrus nobilis (Naran), Psidium guava (guava), Carica papaya (Papaw), mangifera indica (Mango)] have been determined.

All varieties of banana contained a significantly greater amount of total carbohydrate as compared to the other fruits investigated.

K was found to be the most abundant mineral in fruits, but the Na content of the same fruits were comparatively very small. Fruits were also found to be rich sources of Mg. Ca and Fe were found to a lesser extent and Mn, Zn, and Cu were found only in very small quantities.

The moisture content of these fruits did not show a significant variation; the fibre content of guava was considerably higher than that of other fruits.

The total carbohydrate content was determined by the Manual Clegg Anthrone method[2]. Determination of the metal ion contents were carried out after digestion[2] by atomic absorption spectroscopy, flame photometry and spectrosphotometry. the fibre content was determined by digesting a fat free sample with acid and alkali followed by burning in a muffle furnace.[3].

References: 1. Tables of Food Composition - For use in Sri Lanka compiled by W.A.D. Perera, P.M. Jayasekera and S.Z. Thaha, with the assistance of WHF of Ceylon.
2. The analysis of Nutrient in Food
D.R. Osborne and P. Voog
Academic Press INC (London) LTD 1978
3. Official Methods of Anlaysis of the Association of Official Agricultural Chemists 10th Edition, 1965,332. Published by the Association of Official Agricultural Chemist.