STUDIES ON SRI LANKAN RICE VARIETIES PART III - SOME MINERAL CONSTITUENTS IN FIFTEEN VARIETIES

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In an effort to acquire data on the mineral composition of rice grown in Sri Lanka, fifteen varieties developed at Bathalagoda and Bombuwela Rice Breeding Stations were analysed.

The macroelements Calcium, Magnesium and Potassium and microelements Copper, Iron, Sodium and Zinc were determined in samples from two harvests by dry ashing followed by Flame Atomic Absorption Spectroscopy.

Results indicate that 25 - 55% of the total minerals was lost on milling.

In varieties grown locally the content of Magnesium (0.3-1.1mg/g) and Potassium (1.3-2.3mg/g) were higher and Calcium (0.04-0.10mg/g) lower than values recorded in literature.[1]

With respect to the microelements the content of Sodium (8.0-23.8µg/g) was lower, however contents of Copper (0.8-2.8µg.g), Iron (6.7-26.0µg/g) and Zinc (10.2-25.5µg/g) were comparable with recorded values.[1]

A variation in the mineral composition was observed with harvest, probably due to changes in fertilizer application and environmental conditions.

Reference:

Juliano,B.D. (1985) "Rice Chemistry and Technology" Am.Assoc. of Cereal Chemists, P44.