

INVESTIGATION OF SOME MACRO MINERAL NUTRIENTS IN CASHEW NUTS GROWN IN SRI LANKA (*Anacardium occidentale* L.).

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ABSTRACT

Some mineral (P, K, Ca and Na) contents of the cashew nuts, grown in four districts of Sri Lanka (Anuradhapura, Puttlum, Batticaloa and Badulla) and their variation with respect to geographical location and nut size were investigated. On average, cashew kernel contains 0.83% Phosphorous, 0.68% Potassium, 0.14% Calcium and 0.017% Sodium.

In terms of the mineral nutritional aspects, the big size group (2.7 - 3.1 cm GMD) cashew nuts may be the best as they contained the highest amount of Phosphorous (0.874%), Potassium (0.861%) and Calcium (0.149%). The medium (2.4 - 2.7 cm GMD) and small (2.1 - 2.4 cm GMD) size groups showed similar but lower mineral contents. All the minerals except calcium showed a significant district wise variation ($P < 0.0001$), Batticaloa and Badulla district cashew nuts having the highest phosphorous contents (0.915% and 0.929%, respectively). Because of the lowest moisture content (5.52%), Anuradhapura district cashew nuts may have a superior storage life over the others.

KEYWORDS: Cashew kernel, Minerals, Na, K, Ca, P, Kernel sizes, Distribution.

INTRODUCTION

Cashew, *Anacardium occidentale*, is a very important "cash crop" cultivated locally as well as internationally. The cashew nut, the final yield from the plantation, is the most economically important component. The nut production would be influenced by many factors such as soil condition, climatic condition, variety, planting material and the other management practices of the plantation. Hence, the composition of the kernel can be varied due to above-mentioned factors. The protein content (Mohapatra *et al.*, 1972) and the oil content (Murthy and Yadava, 1972) of the cashew kernel showed a wide variability with the variety. The Indian cashew kernel contains 22 percent carbohydrates, 21 percent protein and 47.1 percent fat (Mandal, 1997).

It has been reported that the cashew kernel contains calcium (0.028%), phosphorous (0.462%) and iron (0.0036%) (Perera *et al.*, 1989). However, no