

FATE OF IODINE DURING COOKING OF  
SOME SRI LANKAN LEAFY VEGETABLES

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Iodine is an important trace element whose deficiency in food and water leads to iodine deficiency disorders in human beings including goitre<sup>1</sup>. Hence, the need to determine the fate of iodine content in different items of food especially during cooking. Here, we report some preliminary data obtained in our effort to understand the effect of cooking on the iodine content.

The sample was subjected to wet digestion and the iodine content was determined colorimetrically<sup>2</sup> based on the iodide catalysed reaction of the  $Ce^{4+}$  by  $As^{3+}$ .

The iodine content was determined in *Basella alba* (Niviti) leaves collected from three different areas, namely Horana ( $3.921 \pm 0.1 \mu\text{g}/100 \text{ g wet wt.}$ ), Boralasgamuwa ( $4.004 \pm 0.1 \mu\text{g}/100 \text{ wet wt.}$ ) and Nugegoda ( $4.053 \pm 0.1 \mu\text{g}/100 \text{ g wet wt.}$ ). This study reveals that there is no significant difference in the iodine content of *Basella alba* obtained from the aforesaid areas.

A tender branch of *Basella alba* was analysed to assess the iodine content, commencing from the most tender leaf to the most mature leaf. The iodine content did not vary significantly with the maturity of the leaf. The iodine content of the stem was lower than that of the leaves.

The fate of iodine during cooking, was studied by boiling *Basella alba* in water for 10 minutes and determining the iodine content at two minutes intervals. The iodine content in the leaves was found to decrease with increase in the period of boiling, whereas the cooking liquor became progressively richer in its iodine content. Preparation of a traditional niviti curry also exhibited similar behaviour.

Similar studies carried out on *Ipomoea aquatica* (Kankun), *Trianthema monogyna* (Hin-sarana), *Alternanthera sessilis* (Mukunuwenna) and *Amaranthus viridis* (Kurathampala) showed that the iodine content in the leaves decreased with increase in cooking time.

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