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The Determination of Sodium/Potassium Ion Ratio in Selected Edible Leafy Vegetables in North-Eastern Nigeria

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Abstract : Selected edible leafy vegetables from North-eastern Nigeria were analysed for their sodium and potassium content in mg/100 g and the ratio Na+/K+ worked out. From experimental results, Venonia amydalina (bitter leaf) contained 150 mg (0.15 g) of sodium and 20500 mg (20.5 g) potassium with a ratio of 0.007, Brassica oleracea var capitata (cabbage) contained 300 mg (0.3 g) of sodium and 19000 mg (19 g) of potassium with a ration of 0.012. Others are Telfairia occidentalis (fluted pumpkin) with 400 mg (0.45 g) of sodium and 19500 mg (19.5 g) of potassium with a ratio of 0.020; Hibiscus sabdriffa (sorrel) has 200 mg (0.2 g) of sodium and 600 mg (0.6 g) of potassium with a ratio of 0.300; and Amarantus caudatus (spinach) contained 450 mg (0.45 g) of sodium and 23000 mg (23 g) of potassium with a ratio of 0.020. The presence of sodium and potassium in foods has become increasingly important as recent studies and dietary information gathered in this research has shown that sodium intake is not the sole consideration in elevated blood pressure but its considered as a ratio Na+/K+ fixed at 0.6. This ratio has been found to be a more important factor, suggesting that our diet should contain 67 % more potassium than sodium.

Keywords : vegetables, sodium, potassium, blood pressure, diet, foods
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