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# Micronutrient analysis of pumpkins leaves (*C. maxima, C. moschata, C. pepo* and a gourd *Lageneria*) for food security and disease eradication

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## Abstract

**Background and Objectives:** The percentage daily allowance values indicate that pumpkins are useful sources of micronutrients. Consumption of fruits, seeds and leaves can evidently address micronutrient deficiencies arising from poverty. In order to promote health and food security, the study was set out to determine the Micronutrient levels in pumpkin leaves grown in East Africa Lake basin.

**Methodology:** Fresh leaves were collected from each growing variety, washed with distilled water, cut and before crushed in a motor and pestle to obtain samples used in the extraction. Standards were run at the same time as extracts. Calibration curves were drawn and used to determine concentrations in each case.

**Results:** Three species of pumpkins were found to be grown by households within the lake Victoria Basin. A HPLC and AAS analysis of the leaves for micronutrients showed that the levels of B- complex, vitamin C and iron differed significantly. The banana variety leaves were superior as compared to others in most of the micronutrients analyzed.

**Conclusions:** There is need to promote growth of some varieties like banana squash while targeting their leaves and carnival squash, valenciano and green kabacha for fruit production based on high yielding ability under the conditions in the study area.

## Biography

Ondigi Alice N is a senior lecturer at Kenyatta University, Nairobi, Kenya. She pursued her Ph.D. in Human Development in the year 2003 from Kenyatta University, a Masters degree in 1993 and Bachelor of Science degree in 1991 both from the University of Minnesota, USA. Besides being a lecturer and administrator, she is also a researcher. She has completed many research projects individually, with colleagues and also with Ph.D. and masters students. Her area of research interest include; community involvement, Human Development, responsible tourism, capacity building, Destination Branding, Food Security, Hotel Facilities, competitive development strategies, tourism planning and sustainable tourism development. She has also published widely in refereed journals and books. In her academic career, she has mentored many individuals who are now successful academically, socially and spiritually. She is also the patron of the great Kenyatta University seventh Adventist group. Most of her milestones has engaged herself in many community outreach programmes as part of her personal growth and service to others.