

Socio-economic changes that have taken place in Africa have influenced people's eating habits in both rural and urban set-ups. Most people prefer introduced foods to traditional foods, including plant foods whose consumption is widely regarded as a primitive culture manifesting poor lifestyles. However, recent studies on traditional plant foods have shown that some are highly nutritious; containing high levels of both vitamins and minerals. They also have potential as a remedy to counter food insecurity since most are well adapted to the local environment, enabling them to resist pests, drought and diseases. This paper describes the mineral (calcium, iron and zinc) contents in some 54 traditional vegetable species collected from Nyang'oma area of Bondo district, western Kenya. Atomic absorption spectroscopy was used to determine the mineral content. We found that most traditional leafy vegetables, domesticated and wild, generally contain higher levels of calcium, iron and zinc compared with the introduced varieties such as spinach (*Spinacia oleracea*), kale (*Brassica oleracea* var. *acephala*) and cabbage (*Brassica oleracea* var. *capitata*). The results of this study could contribute towards identification, propagation and subsequent domestication and cultivation promotion of nutrient-rich and safe species within the farming systems of the local communities in Kenya, sub-Saharan Africa or elsewhere.