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UTILIZATION AND MINERAL NUTRITIVE VALUE OF
INDIGENOUS FRUITS IN WANALE
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ABSTRACT

The harvesting, utilization and marketing of indigenous fruits have been central to the livelihoods of majority of rural communities throughout Africa and can make a difference during period of famine and food scarcity. Indigenous fruits offer not only easily available energy, but also micronutrients such as vitamins and minerals necessary to sustain and support human healthy growth. This study was conducted in Wanale Sub-county of Mbale district with the aim of generating information on the current utilization status and mineral nutritive values of indigenous fruits. Ethnobotanical survey was conducted on selected households. Ethnobotanical data was collected through employing open and closed ended interview guide. Analysis of mineral elements (P, Ca, K, Mg, Mn and Fe) on six IFs was conducted using standard laboratory procedures using an atomic absorption spectrometer (AAS). The results of this study revealed that 99.1% of the respondents experience food insecurity and constantly experience a hunger period most especially in the dry season. Ninety eight percent (98%) of the respondents indicated that their households collect more than one type of fruit among them includes *Tamarindus indica* and *Ximenia americana* followed by *Vangueria apiculata*, *Annona muricata*, *Borassus aethopium* and *Carissa edulis*. Result of this study reveals that fruit collection responsibilities were predominantly conducted by women (23%) and children (47.7%) and also revealed that the majority of the household (71.4%) sell fruits. Collection of fruits was influenced by distance, season and rainfall. While main factor that affect utilisation of IFs was season (43.1%) followed by age (23.7%), tradition (13.2%), wealth (6.8%), religious norms (6.2%) and gender (4.6%). Others such as pests and diseases in fruits, availability of exotic fruits accounts 8(2.25%) as reported by the respondents. The availability of IFs is on decline in Wanale Sub-county due to their over utilization for firewood and charcoal production. The selected fruit trees were rich in P, K, Ca, Mg and Mn. The calcium content ranged between 1.63 and 3.89mg/g with the lowest content recorded in *Elaeis gumeensis* Jacq. and the highest in *Canarium schweinfurtii* Engl. Potassium composition was higher in *Annona muricata* L. (19.05mg/g). The calcium content ranged between 1.63 and 3.89mg/g with the lowest content recorded in *Elaeis gumeensis* Jacq. and the highest in *Canarium schweinfurtii* Engl. Magnesium content was in *Tamarindus indica* L. (5.10mg/g). Manganese was also highest *Tamarindus indica* L. (0.16mg/g). However their iron (Fe) content was below detectable levels. The results of this study revealed that IFs plays an important role in the livelihoods of people of Wanale Sub-county. There is a need especially by local governments and local councils to formulate clear strategies on conservation and management of IFs by establishing a community nursery and propagation centre for IFs.