

ORIGINAL RESEARCH

**Knowledge and Perceptions: Concept of Maturity and Post harvesting Technologies of African Leafy Vegetables in the Lake Region"**

*M. A. O Ogubi<sup>1</sup>, F. O. Wayua<sup>2</sup>, U. K. Mbae-Mugambi<sup>3</sup>, D.O. Okeyo<sup>4</sup>*

<sup>1</sup>Kenya Agriculture & Livestock Research Organization, Kisumu, Kenya

<sup>2</sup>Kenya Agriculture & Livestock Research Organization, Kakamega, Kenya

<sup>3,4</sup>Kenya Nutritionists and Dieticians Institute, Kenya

<sup>1</sup>Corresponding author email: [oyungam@gmail.com](mailto:oyungam@gmail.com)

**Abstract**

Increasing awareness of the role of African Leafy Vegetables (ALVs) in human health, climate smart attributes and their economic value has led to efforts to understand community's knowledge levels and perceptions on the importance of quality post-harvest and value addition. The ALVs have high nutritional value, forming a potent defense against the pressing hidden hunger problem in Kenya, but they are not sufficiently adopted as cash crops by Kenyan small-scale farmers to meet the rising demand in the rural and urban areas. A purposive sampling technique and a community-based cross-sectional survey was adopted for this study. Knowledge levels and perceptions on the importance of quality post-harvest and value addition for three ALVs (spider plant, cowpea and African nightshade), were examined so as to identify knowledge gaps among these value chain actors. The study site was Kisumu, Siaya, Homabay and Busia Counties of Western Kenya. Eight (8) Focus Group Discussions (FGDs) and eight (8) Key Informant Interviews (KIIs) were conducted with ALVs farmer groups and those in charge of Agricultural Extension. Data was audio recorded, transcribed, coded and thematically analyzed using NVIVO 12 PRO software. The value chain actors were poor in maintaining hygiene and the vegetables were contaminated during transportation and at the market. The Vegetables were commonly packed and stored in gunny bags/sacks, which also contained dirt from the remains of what was packed earlier, soil or dust. The gunny bags and vegetables are washed with water whose quality were questionable. The vegetables are aerated to remove the field heat and controlling the temperatures. Despite the community members in the study area receiving training and information from media platforms and extension officers they did not adopt the technologies given them. This study therefore, investigated practices and factors that influenced adoption and non-adoption and practices of postharvest technologies in ALVs value chain.

**Keywords:** African leafy vegetables, Postharvest, Value chain, Western Kenya