



Tropentag, September 9-11, 2020, virtual conference

“Food and nutrition security and its resilience  
to global crises”

## Post-Harvest Handling Knowledge and Hygiene Practices of Cowpea Leaves in Kitui and Taita Taveta Counties

ANN MIANO<sup>1</sup>, GEORGE ABONG<sup>1</sup>, LUCY NJUE<sup>1</sup>, AGNES MWANG'OMBE<sup>2</sup>

<sup>1</sup>*University of Nairobi, Food Science, Nutrition and Technology, Kenya*

<sup>2</sup>*University of Nairobi, Plant Science and Crop Protection, Kenya*

### Abstract

Post-harvest losses contribute to about 50 % of total losses in cowpea value chain. Losses could be as high as 50–70 %. The study aimed at assessing the post-harvest handling and storage practices of cowpea leaves by farmers and traders in Kitui and Taita Taveta counties. About 405 respondents of equal distribution in both counties, were interviewed using a semi-structured questionnaire recorded on digital open data kit. Most of the respondents 65.9 % lacked basic handling and hygiene knowledge besides believing that harvesting of cowpea leaves during hot periods does not lead to any form of deterioration. In both regions low levels of education were observed with one out of every 20 persons having university and tertiary education while the highest percentage, having completed primary education (36.0 %). About 62.2 % of the respondents consumed cowpea leaves sourced from their farms while during scarcity, they obtain the vegetable from the local vendors. Cowpea leaves were packaged in sacks (54.6 %) as the primary and only packaging material then stored in granaries or transported to the market. Most farmers (95.8 %) incurred up to 10 % post-harvest losses while the rest incurred up to 30 % loss during transportation of the cowpea leaves to the markets. Post-harvest losses are majorly attributed by poor storage facilities, 58 % of the farmers lacking these facilities. About 45 % of the farmers do nothing to prevent these losses while some adopt different methods with the majority using sun drying (37.8 %) to extend the vegetables shelf-life. Farmers post-harvest handling and storage practices of cowpea leaves are poor leading to high losses. Improvement of good post-harvest practices to reduce losses is recommended. New and several other post-harvest handling and storage technologies should be developed and disseminated to the farmers in order to ensure quality and safety of cowpea leaves.

**Keywords:** Cowpea leaves, post-harvest, post-harvest handling, post-harvest losses