

Tropentag, September 18-20, 2019, Kassel

"Filling gaps and removing traps for sustainable resource management"

Utilisation of Traditional Processed and Preserved Cowpea Leaves in the Coastal Region of Kenya

Joshua Owade¹, George Abong'¹, Michael Okoth¹, Agnes Mwang'ombe²

¹University of Nairobi, Dept. of Food Science, Nutrition and Technology, Kenya

² University of Nairobi, Dept. of Plant Science and Crop Protection, Kenya

Abstract

Cowpea leaf is one of the African indigenous vegetables utilised as food in sub-Saharan Africa. Whereas the seasons of glut have massive spoilage and postharvest losses of the vegetable, seasons of drought experience scarcity and less utilisation of cowpea leaf. Through customized techniques, traditional communities have sought to improve its availability and utilisation. However, the efficiency of these techniques in improving the utilisation of this vegetable in and out of season is yet to be established. The current study sought to establish the traditional food preservation and processing techniques and their efficiency in improving utilisation of the vegetable. The study used a cross-sectional design with random sampling of 205 households in Taita Taveta County which ranks among the top producers of the vegetable in Kenya. Results showed that of the households that produced cowpea leaves, about three quarters (73.7%) utilised cowpea leaves as a priority vegetable compared to 34.6% and 19.0% who favoured kales and cabbages. Boiled, sun-dried and blanched cowpea leaves were the most utilised forms of the vegetable by 81.5%, 44.9% and 16.5% of the households. The traditional preservation methods practised in the households were sundrying (77.5%), blanching (27.3%) and a combination of the two (54.1%). Drought and low production quantities constrained the utilisation of the vegetable in 83.4% and 51.2%of the households. During drought, 42.9% of the households utilised dried vegetables which would keep for up to one year. Source of the vegetable and the person who determines the food to be bought in the household were significantly (p < 0.05) associated with the utilisation of dehydrated vegetables during scarcity periods. Households whose production of the vegetable was severely challenged by access to seed, weeds, massive postharvest losses and seed scarcity had odds ratio of 7.2, 0.3, 0.3 and 0.2, respectively, of drying cowpea leaves for later use. In conclusion, drying of cowpea leaves enhances the utilisation of the vegetable in the area. The up-scaling of the technique can be used to increase availability of the vegetable to improve its utilisation.

Keywords: Cowpea leaves, preservation, processing, indigenous vegetable, utilisation

Contact Address: Joshua Owade, University of Nairobi, Dept. of Food Science, Nutrition and Technology, Nairobi, Kenya, e-mail: owadehjm@gmail.com