



Tropentag, September 15-17, 2021, hybrid conference

“Towards shifting paradigms in agriculture
for a healthy and sustainable future”

Improving Storage, Processing and Marketing of African Indigenous Vegetables (AIVs) in Western Kenya

JOSEPH ALULU

University of Nairobi, Agricultural Economics, Kenya

Abstract

In Kenya, horticulture as a subsector contributes about 40 % to the agricultural GDP thus its relevance to the economy. Vegetables contribute on average 36 % of the total horticultural value. This study project focused on AIVs with a particular interest in Black nightshade, Cowpeas, Spider plant and Amaranth being produced on a small-scale enterprise in Western Kenya. It is estimate that about 60 % of rural households rely on AIVs for food and income as well. The AIVs provide unique opportunities for smallholder producers to diversify farming systems for improved livelihoods. There has been an increasing nutritional and health awareness of AIVs in Kenya, hence increasing demand with urban consumption per capita being 140 kg per annum and 70 kg per annum for rural dwellers. AIVs are rich in vitamins and minerals, hence important components for a nutritionally diversified diet. Extant evidence shows that AIVs provide smallholder farmers with higher returns per unit area as compared to other main crops, e.g. maize. Despite the relevance of vegetables to the economy, smallholder producers encounter several challenges, key among them being post-harvest losses where farmers lose up to 50 % of their produce. This can be attributed to poor storage and inadequate processing activities to increase the shelf life of the vegetables. In addition, due to poor quality and low value addition activities, smallholder farmers fetch low prices at the market. There have been inconsistencies in supply of AIVs to the High value markets. Thus, there is a need for an innovative strategy to profitably meet consumers' needs. Hence, relevance of this Study Project to improve storage, processing and marketing It aims at providing solution to these problems through three interventions; first, improving storage of AIVs through application of a solar powered cooling chamber, secondly, application of solar drying technology for drying the vegetables to increase their shelf life and thirdly through innovative marketing strategy develop an application for enhancing convenience among the busy urban consumers. The enterprise aims at becoming a model farm where other farmers within the community can come, learn and apply the knowledge for improved livelihoods in the long run.

Keywords: AIVs, Marketing, Processing, storage