



Tropentag, September 15-17, 2021, hybrid conference

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

Sun-drying Vegetables Amongst Smallholder Farmers in Western Kenya – a Matter for Food Insecure Households Only?

IRMGARD JORDAN¹, ELEONORE C. KRETZ², ANNET ITARU³, M. GRACIA GLAS⁴, LYDIAH MARUTI WASWA⁵

¹*Justus-Liebig University Giessen, Center for International Development and Environmental Research, Germany*

²*Justus-Liebig University Giessen, Inst. of Nutritional Sciences, Germany*

³*Egerton University, Dept. of Human Nutrition, Kenya*

⁴*Justus-Liebig University Giessen, Center for International Development and Environmental Research, Germany*

⁵*Egerton University, Dept. of Human Nutrition, Kenya*

Abstract

Background: A year-round availability of food is a challenge in many sub-Saharan African countries. Vegetable preservation methods can play a role in contributing to food security and is considered to be an easy option to enhance vegetable intake. This study aimed at investigating predictors of vegetable preservation by sun drying and possible associations with food security.

Methods: Cross-sectional household surveys were conducted in December 2018 (baseline) and January 2021 (endline) targeting 190 households in Teso-South Sub-County, Kenya. Among others, data on socio-economic status and the Food Insecurity Experience Scale (FIES) were captured. The endline survey followed up on experiences gained during Trials of Improved Practices (TIPs) which were carried out among a subgroup of 53 households in 2019, testing among others recommendations on home-scale sun-drying of vegetables. Analysis of the survey data included estimation of food insecurity, and predictors for sun-drying of vegetables.

Results: The majority of the respondents who sun-dried vegetables in 2020 had been part of the TIPs-group (78%). There was no significant but positive correlation between sun-drying and education level of the respondent or spouse. The prevalence of households who remained food insecure (FI) from 12/2018 to 1/2020 was 4% compare to 16.5% among control households, while about 12% of the households were no/mild FI in both groups stayed to be no/mild FI. The increase in FI level was generally higher in the control group compare to TIPs households. Drying of vegetables was more likely practised in households who were food insecure at endline.

Conclusion: The preservation of vegetables by home-scale sun-drying is not commonly practised in Teso-South. Although sun-drying was more likely to be implemented with increasing wealth and education level, it remains associated with food insecurity only. A promotion campaign is needed to enhance the (cultural) acceptability and utilisation of dried vegetables as easy option to improve vegetable intake.

Funding: The study was conducted within the EaTSANE-project financially supported by BMEL/ptble (Germany) and MOEST (Kenya) within the LEAP-Agri initiative.

Keywords: Dried vegetables, food intake, food security, sun-drying, vegetable