

Tropentag, September 15-17, 2021, hybrid conference

"Towards shifting paradigms in agriculture for a healthy and sustainable future"

Drying Vegetables - a Sustainable Solution to Enhance Vegetable Intake and Culturally Acceptable for Everyone?

Irmgard Jordan¹, Annet Itaru², Eleonore C. Kretz³, Paulina M. Kossmann¹, Daisy Alum⁴, M. Gracia Glas¹, Lydiah Maruti Waswa²

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

²Egerton University, Dept. of Human Nutrition, Kenya

³Justus-Liebig University Giessen, Inst. of Nutritional Sciences, Germany

⁴Makerere University, Dept. of Food Technology and Nutrition, Uganda

Abstract

Background: A year-round availability of vegetable is a challenge globally. Vegetable preservation methods can play an important role in contributing to food security and is considered to be an easy option to enhance vegetable intake and thus dietary diversity. This study aimed at investigating on how best to promote vegetable drying and to introduce them into diets in two regions in East Africa.

Methods: Women from about 100 farming households with children below eight years of age in Kapchorwa District, Uganda, and Teso-South, Kenya took part in trials of improved practices (TIPs) to test locally adapted nutrition education messages in 2019. Qualitative data collection was carried out through private counselling with the primary caregiver at their homes. Part of the programme was a solar-dryer construction session together with the women and their husbands participating in the TIPs. Group discussions and tastings with and without dried vegetables were held with women and men separately. No incentives were provided for joining the solar-dryer construction sessions, while a travel allowance was paid to all participants for joining the group discussions. An evaluation survey was conducted in January 2021.

Results: Not all TIPs households joined the solar-dryer session which was positioned at a central place in the villages. Those who used the dryer did this despite unfavourable weather conditions, and were positive surprised about the opportunity to preserve vegetables even in times of rains. Challenges occurred in offering solutions how best to store home-scaled dried vegetables at the homesteads. Participatory cooking trials to process dried vegetables for consumption confirmed that they are an innovative and palatable option to enhance vegetable intake for all family members. A year later, drying of vegetables was associated with being a "TIPs-household" but not commonly practised.

Conclusion: Innovative packaging is needed to store home-scale dried vegetables in an appropriate and sustainable manner. Dried vegetables are tasty if prepared in an appropriate manner which needs adaptation of existing recipes and promotion in participatory cooking trials to make them culturally acceptable for everyone.

The study was conducted within the EaTSANE-project funded by BMEL/ptble within the joint AU/EU-LEAP-Agri initiative.

Contact Address: Irmgard Jordan, Justus-Liebig University Giessen, Center for International Development and Environmental Research, Senckenbergstr. 3, 35390 Gießen, Germany, e-mail: Irmgard.Jordan@ernaehrung.uni-giessen. de

Keywords: Dietary diversity, food packaging, food security, social behaviour change communication, solar drying, vegetables