

# FruVaSe Publications

## Papers in peer reviewed journals

### 2019

Omayio DG, Abong' GO, Okoth MW, Gachuri CK, Mwang'ombe AW. **Current Status of Guava (*Psidium Guajava L*) Production , Utilization , Processing and Preservation in Kenya : A Review.** Curr Agric Res J [Internet]. 2019;7(3). Available from: <https://bit.ly/36ob1BZ>

Owade, J.O., Abong, G.O., Okoth, M.W., and Mwang'ombe, A.W., (2019). **A review of the contribution of cowpea leaves to food and nutrition security in East Africa.** Food Sci Nutr. 2020; 8:36–47. <https://doi.org/10.1002/fsn3.1337>

### 2020

Noel Dimoso, Angela Aluko, Edna Makule and Neema Kassim (2020). **Challenges and Opportunities towards Sustainable Consumption and Value Addition of Cashew Apples in Tanzania.** Outlook on Agriculture, <https://doi.org/10.1177/0030727020941164>

Noel Dimoso, Edna Makule, Neema Kassim (2020). **Quality Assessment of Formulated Osmotically Dehydrated Cashew Apple (*Anacardium occidentale L.*) Slices Dried using Hot air and Solar Driers.** International Journal of Biosciences, Vol. 17, No. 6, p. 421-432, <https://innpub.net/ijb/quality-assessment-formulated-osmotically-dehydrated-cashew-apple-anacardium-occidentale-l-slices-dried-using-hot-air-solar-driers/>

Nsubuga, D., Banadda, N., Kabenge, I., Wydra, K. 2020. **Potential of jackfruit waste for biogas, briquettes and as a Carbondioxide sink - a review.** Journal of Sustainable Development 13: 60-75 <https://doi.org/10.5539/jsd.v13n4p60>

Nsubuga D., Kabenge I., Banadda N., and Kerstin D. W. (2020). **Potential of jackfruit waste as anaerobic digestion and slow pyrolysis feed stock.** Journal of Biosystems Engineering, 46, 163-172. <https://doi.org/10.1007/s42853-021-00096-9>

Omayio, D., Abong', G., Okoth, M., Gachuri, C., & Mwang'ombe, A. (2020). **Trends and Constraints in Guava (*Psidium guajava L.*) production, utilization, processing and preservation in Kenya.** International Journal of Fruit Science. <https://doi.org/10.1080/15538362.2020.1791304>

Owade, J.O., Abong, G.O., Okoth, M.W., and Mwang'ombe, A.W., (2020). **Trends and constraints in the production and utilization of cowpea leaves in the arid and semi-arid lands of Kenya.** Open Agric. 5, 325–334. <https://doi.org/10.1515/opag-2020-0038>

### 2021

Chaoqun Chen, George O Abong, Sebastian Hartwig & Gudrun Keding (2021) **Sustainable packaging materials for processed fruits and vegetables in East Africa: a case study of Nairobi, Kenya.** Journal of Consumer Sciences, 49, 2021. <https://www.ajol.info/index.php/jfecscs/article/view/219125>

Katumbi, J.N., Imungi, J.K., Abong, G.O., Gachuri, C.K., Agnes, W., Omayio, D.G., Owade, J.O., (2021). **Harvesting, postharvest handling, hygiene knowledge and practices of guava fruit farmers: A comparative study of two counties of Kenya.** African J. Food Sci. 15, 177–189.

<https://doi.org/10.5897/AJFS2021.2079>

Ndoro L, Omami E, Chiveu J (2021) **Assessment on Guava Diversity, Production and Utilization in Taita Taveta County, Kenya.** African Journal of Education, Science and Technology 6 (4):154-163. <https://ajest.info/index.php/ajest/article/view/725>

Nansereko, S., Muyonga, J., & Byaruhanga, Y. B. (2021). **Optimization of drying conditions for Jackfruit pulp using Refractance Window Drying technology.** Food Science & Nutrition, 1–11. <https://doi.org/10.1002/fsn3.2694>

Nansereko, S., & Muyonga, J. H. (2021). **Exploring the Potential of Jackfruit (*Artocarpus heterophyllus* Lam).** Asian Food Science Journal, 20(9), 97–117. <https://doi.org/10.9734/afsj/2021/v20i930346>

Owade, J.O., Abong', G.O., Okoth, M.W., Mwang'ombe, A.W., Jobor, J.O., (2021). **Comparative profiling of lactic acid bacteria isolates in optimized and spontaneous fermentation of cowpea leaves.** Food Sci. Nutr. 9, 1651–1664. <https://doi.org/10.1002/fsn3.2140>

Owade, J.O., Abong, G.O., Okoth, M.W., Mwang'ombe, A.W. (2021). **Trends and constraints of utilization of preserved cowpea leaves among households in arid and semi arid lands in Kenya: a convergent mixed method study.** CABI Agric. Biosci. 2, 1–11. <https://doi.org/10.1186/s43170-021-00064-5>

Frank Sangija, Haikael Martin, Athanasia Matemu (2021). **African nightshades (*Solanum nigrum* complex): The potential contribution to human nutrition and livelihoods in sub-Saharan Africa.** Comprehensive Reviews in Food Science and Food Safety, pages 1-35. <https://doi.org/10.1111/1541-4337.12756>

Sarfo J, Pawelzik E, Keding GB (2021) **Dietary patterns as characterized by food processing levels and their association with the health outcomes of rural women in East Africa.** Nutrients 13(8): 2866. <https://doi.org/10.3390/nu13082866>

Tepe J, Benali M and Lemken D (2021) **Consumer demand for novel fruit and vegetable products with extended shelf lives in East Africa: a multinational multi-product analysis.** Public Health Nutrition, Dec 10, 1-11. Online ahead of print. <https://doi.org/10.1017/S136898002100478X>

Wasswa, M.S, Fungo, R, Kaaya, A. N, Byarugaba, R and Muyonga J.H. 2021. **Influence of sun drying and a combination of boiling and sun drying on the retention of nutrients and bioactive compounds in cowpea (*Vigna unguiculata* (L). Walp) leaves.** African Journal of Biological Sciences, 3(3) (2021) 48-58. <https://doi.org/10.33472/AFJBS.3.3.2021.48-58>

Wasswa M., Fungo R., Kaaya A., and Muyonga J.H. **Proximate composition and sensory characteristics of refractance window dried cowpea composite porridges.** African Journal of Food Agriculture Nutrition and Development. 2021; 21(10): 18965-18979. <https://doi.org/10.18697/ajfand.105.21395>

Sirui Xing, Gudrun B. Keding and Elke Pawelzik (2021) **Effects of processing on nutrient composition in guava- and jackfruit-based snacks.** African Journal of Food Science, 15(6):236-253, <https://doi.org/10.5897/AJFS2021.2104>

## 2022

Tepe J, Lemken D (2022) **Improving the nutritional value of conventional food with underutilized leafy vegetables - Consumers' acceptance of combining porridge with cowpea leaf powder.** African Journal of Food Science, 16(2), 45-57. <https://doi.org/10.5897/AJFS2021.2153>

Omayio DG, Abong GO, Okoth MW, Gachui CK, Mwang'ombe AW. **Effect of pulping methods on the physicochemical properties of the Kenyan red and white-fleshed guava pulp.** JSFA Reports [Internet]; Available from: <https://onlinelibrary.wiley.com/doi/full/10.1002/jsf2.35>

Omayio D, Abong' G, Okoth M, Gachui C, Mwangombe AW. **Physicochemical and Processing Qualities of Guava varieties in Kenyan Guava.** Int J Fruit Sci. 2022; <https://doi.org/10.1080/15538362.2022.2039342>

## Conference contributions

### 2019

Miano A.W., Abong' G.O., Njue L.G and Mwang'ombe M.W. **Postharvest handling knowledge and hygiene practices of cowpea leaves In Kitui and Taita Taveta Counties, Kenya.** An oral presentation at the Agro-Conference 2019, University of Nairobi, Kenya on the 22nd to 24th October, 2019.

Omayio D.G., Abong' G. O., Okoth M. W., Gachui C.K. and Mwang'ombe M.W (2019). **Guava (Psidium guajava L.) Production, Utilization and Processing in Kenya.** Presented on 24th October at the University of Nairobi AGRO2019 Conference and Exhibition.

Owade J.O., Abong' G.O., Okoth M.W. and Mwang'ombe A.W. **Contribution of preserved cowpea leaves to food security in Kitui and Taita Taveta Counties, Kenya.** An oral presentation at the Agro-Conference 2019, University of Nairobi, Kenya on the 22nd to 24th October, 2019.

Owade J.O., Abong' G.O., Okoth M.W. and Mwang'ombe A.W. **Utilization of Traditional Processed and Preserved Cowpea Leaves in the Coastal Region of Kenya.** A poster presentation at the Tropentag 2019 Conference at Kassel, Germany on the 18-20th September, 2019.

### 2020

Amina Ahmed, Gudrun B. Keding and Elke Pawelzik (2020) **Analysis of Leafy Vegetables for Antioxidant Activity, Ascorbic Acid and Nitrate in Morogoro, Tanzania.** Oral presentation at Tropentag, September 9-11, 2020, virtual conference.

Amina Ahmed, Gudrun B. Keding and Elke Pawelzik (2020) **Effect of Cooking Time on Quality Traits of Tanzanian Vegetable Sauces.** Oral presentation at Tropentag, September 9-11, 2020, virtual conference.

Katumbi JN, Imungi JK, Abong GO, Gachui CK. **Postharvest handling , hygiene knowledge and practices of guava fruit handlers in Kitui and Taita Taveta.** Poster presentation on September 9 – 11, 2020 the at the Virtual Tropentag 2020 conference, Germany.

Marynurce Kazosi, Haikael Martin, and Athanasia Matemu (2020). **Effect of Drying Methods on the Nutrients and Anti-nutrients Composition of African Nightshade.** Power on Your Plate Summit, 25th – 28th Jan, 2021. Gran Melia Hotel, Arusha-Tanzania.

Owade J.O., Abong' G.O., Okoth M.W. and Mwang'ombe A.W. **Nutritional Characterization of Traditional Preserved Cowpea leaves Consumed in Coastal Drylands of Kenya.** A poster presentation at the Tropentag Virtual Conference 2020, on the 9 - 11 September, 2020.

Owade J.O., Abong' G.O., Okoth M.W. and Mwang'ombe A.W. **Response Surface Methodology Models for Optimization of Fermentation of Cowpea leaves.** A poster presentation at the Tropentag

Virtual Conference 2020, on the 9 - 11 September, 2020

Omayio, D., Abong', G., Okoth, M., Gachui, C., & Mwang'ombe, A. **Processing of Neglected Crops for Promotion of Food and Nutrition Security: the Case of Natural Guava Fruits in Kenya.** Poster presentation on September 9 – 11, 2020 the at the Virtual Tropentag 2020 conference, Germany.

Jacob Sarfo, Elke Pawelzik and Gudrun B. Keding (2020) **Dietary Patterns and their Association with Overweight and Obesity among Rural Populations in East Africa.** Oral presentation at Tropentag, September 9-11, 2020, virtual conference.

Sirui Xing, Gudrun B. Keding and Elke Pawelzik (2020) **Developing and Testing Guava- and Jackfruit-nut-bars to Bridge Seasonal Food Gaps in East Africa.** Poster presentation at Tropentag, September 9-11, 2020, virtual conference.

## 2021

Amina Ahmed, Gudrun B. Keding and Elke Pawelzik (2021) **Effect of pH and cooking time on shelf life of African nightshade leafy-based sauces.** Poster presentation at Power on Your Plate: All-Africa Summit on Diversifying Food Systems with African Traditional Vegetables to Increase Health, Nutrition and Wealth, 25-28 January 2021, Arusha, Tanzania.

Amina Ahmed, Gudrun B. Keding and Elke Pawelzik (2021) **Effect of Formulation on Physicochemical and Sensory Properties of African Nightshade Leafy Sauces.** Oral presentation at Tropentag, September 15-17, 2021, hybrid conference.

Luisa Alves, Jacob Sarfo and Gudrun B. Keding (2021) **Fruit and Vegetable Intake: Knowledge, Attitude and Practices among Rural School-aged Children in East Africa.** Poster presentation at Tropentag, September 15-17, 2021, hybrid conference.

Ndoro L, Omami E, Chiveu J (2021) **Guava Fruits Coated with Pre-Cooked Maize Meal have Longer Shelf Life.** Oral presentation at the HAK conference held at Karatina University Kenya on 29 November – 3 December 2021

Noel Dimoso, Edna Makule and Neema Kassim (2021). **Challenges and Opportunities Toward Sustainable Consumption and Value addition of Cashew Apples in Tanzania.** Tropentag Virtual Conference 2021. University of Hohenheim, Germany, September 15-17, 2021 (Poster presentation).

Marynurce Kazosi, Frank Sangija, Haikael Martin, and Athanasia Matemu (2021). **Effect of drying methods on the nutritional quality of African nightshade (Solanum sp.).** Tropentag, Virtual Conference University of Hohenheim, Germany 15th – 17th September 2021 (Poster presentation)

Omayio, D., Abong', G., Okoth, M., Gachui, C., & Mwang'ombe, A. (2021). **Effect of different pulping methods on the physicochemical properties of the Kenyan red and white-fleshed guava pulp.** Presented during the virtual 3rd All Africa Postharvest Congress and Exhibition hosted by the African Union. 13 - 16th September, Addis Ababa, Ethiopia.

Omayio, D., Abong', G., Okoth, M., Gachui, C., & Mwang'ombe, A. (2021). **Guava value addition.** Presented during the Michigan State University (MSU) Professional Fellows Program (online). 2nd February 2021, Michigan USA.

Frank Sangija, Haikael Martin, and Athanasia Matemu (2021). **Effect of lactic acid fermentation on nutritional and antinutritional compounds in African nightshade.** Tropentag Virtual Conference 2021. University of Hohenheim, Germany, September 15-17, 2021 (Oral presentation).

Frank Sangija, Haikael Martin, and Athanasia Matemu (2021). **Effect of lactic acid fermentation on nutritional and antinutritional compounds in African nightshade.** 3rd All Africa Postharvest Virtual Conference, 13th – 17th September 2021 (Poster presentation)

Frank Sangija, Marynurce Kazosi, Haikael Martin, and Athanasia Matemu (2021). **Trends and constraints in the utilization of African nightshade (Solanum nigrum complex) in Tanzania.** Tropentag, Virtual Conference University of Hohenheim, Germany 15th – 17th September 2021

Frank Sangija, Marynurce Kazosi, Haikael Martin, and Athanasia Matemu (2021). **Trends and constraints in the utilization of African nightshade (Solanum nigrum complex) in Tanzania: A case study of Kilimanjaro and Morogoro regions.** 3rd All Africa Postharvest Conference, Virtual Conference 13th – 16th September 2021 (Poster presentation)

Frank Sangija, Marynurce Kazosi, Haikael Martin, and Athanasia Matemu (2021). **Consumers' sensory perception of fermented African nightshades in Tanzania.** Tropentag, Virtual Conference University of Hohenheim, Germany 15th – 17th September 2021 (Poster presentation)

Jacob Sarfo, Elke Pawelzik and Gudrun B. Keding (2021) **Processing and Consumption of Fruits and Vegetables: Knowledge, Attitude, and Practices of Rural Households in East Africa.** Oral presentation at Tropentag, September 15-17, 2021, hybrid conference.

Tepe J, Byarugaba R, Dimoso N, Kazosi M, Kyamanywa S, Omayio D, Owade J, Sangija F, Lemken D **Product, pricing and placement strategies for novel processed fruits and vegetables in East Africa,** online presentation at IFAMA June 21-25, 2021

Tepe J, Lemken D **Jackfruit-Nut-Bars - A promising product to enhance jackfruit utilization in Uganda?** Poster presentation at Tropentag, September 15-17,2021, hybrid conference

## **Policy Briefs**

Owade, J.O., Abong, G.O., Okoth, M.W., Mwang'ombe, A.W. (2021). **Cowpea leaves: Feasible solutions to overcome seasonal availability.** Kenya Policy Briefs 2, 71–72. Available at: <https://academia-ke.org/journal/index.php/kpb/article/view/36/35>