



Fruits and vegetables  
for all seasons in Sub-  
Saharan Africa

## Announcement for a PhD scholarship on

### “Preservation and processing of guava fruits”

At Department of Food Science, Nutrition and Technology, University of Nairobi in collaboration with the Department of Crop Sciences, University of Göttingen, Germany.

#### **Background**

The FruVaSe project will start in September 2018 to work on “Fruits and vegetables for all seasons: Improved resource-efficient processing techniques and new market solutions for surplus fruits and vegetables for rural development in Sub-Saharan Africa”. The three-year project will be led by University of Göttingen (UGOE) in collaboration with Erfurt University of Applied Sciences (EUAS) in Germany, University of Nairobi (UoN), Nelson-Mandela African Institution for Science and Technology (NM-AIST) in Tanzania, Makerere University (MUG) in Uganda and University of Eldoret (UoE) in Kenya. FruVaSe will (i) select the nutritionally most promising varieties of guava fruits, (ii) develop new and evaluate traditional technologies for processing and prolonged shelf-life without degrading the nutritive value, taste and presentational characteristics, and (iii) possibly commercialize the products. Once harvested, guava are highly perishable and lose value after a few days. In rural areas of Kenya guava is so far not processed into juices but people consume the fruits directly from the trees. However, most of the fruits are left to rot under the trees during periods of surplus production. The need to preserve the fruits and value add through processing into products such as juices that can supply adequate carotenoids and other major beneficial antioxidants cannot be overemphasized.

For the work package on “*processing and preservation of selected fruits and their by-products, nutrient retention and shelf-life period*” we are looking for one PhD student who is highly motivated to work on the above area in a multi-disciplinary and international team.

#### **Responsibilities/re search tasks**

In consultation with the supervisors at *University of Nairobi* and partner universities, the PhD student will

- Write and submit and defend quality proposal at department and faculty levels.
- Design and execute the project through field work, sample collection and analysis
- Write quarterly progress reports as per university requirements.
- Present seminars and participate in academic, professional and social activities of the department and the university.
- Commit adequate (full) time and effort to the research project.
- Attend and present papers at conferences and publish at least two papers in reputable peer reviewed journals.
- Analyse the trend of utilization of guava fruits, traditional preservation and processing techniques and determine the nutritional value fruits.
- Determine the most appropriate processing technologies on different levels of processing
- Determine the retention of important vitamins and minerals in the processed foods

#### **Educational qualifications, skills and experience**

- MSc with distinction/ honours in Food Science and Technology, Food safety and quality, agricultural sciences or related fields from recognized institutions
- Very good command of English is required
- Field experience in rural areas of SSA is preferred
- Team player; willingness to assume responsibility and work on own initiative
- High interest in other disciplines and willingness to work in a multi-disciplinary team
- Highly motivated and visionary young scientist with a clear focus on addressing food and nutrition challenges in Sub Saharan Africa
- Proficiency in relevant statistics is essential
- Willingness to travel and spend several months alternately in East Africa and Germany

#### **What we offer**

- Scholarship according to the German Academic Exchange Service (DAAD) regulations in Germany or in the relevant country
- International and interdisciplinary project to work in together with several other PhD and MSc students from different disciplines in all participating countries.

**Duration and preferred dates**

1<sup>st</sup> September 2018 – 31<sup>st</sup> August 2021

**Contact:**

Please send your CV, two academic reference letters, masters and bachelors certificate copies, a one-page motivation statement and a synopsis of your proposed research (maximum four pages) to Dr. G.O. Abong ([georkoyo@yahoo.com](mailto:georkoyo@yahoo.com)) with copy to Prof. A. W. Mwang'ombe ([wakesho123@gmail.com](mailto:wakesho123@gmail.com)) and Prof. C. G. Gachiri ([gachukidaniel15@gmail.com](mailto:gachukidaniel15@gmail.com)). Your submission should reach the contact person on or before 13<sup>th</sup> July 2018. Please note that only successful candidates will be contacted for interview by 3<sup>rd</sup> August 2018.