#### **CURRICULUM VITAE**

### **BITUTU NYAMBANE**

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#### PERSONAL DETAILS

NATIONALITY: Kenyan

LANGUAGES: English, Kiswahili

#### RESEARCH INTERESTS

Product development, the microbiology of fermented foods and beverages, quality of animal products, environmental impact of food processing, packaging technology of food products, food security and climate change, food safety, food safety management systems, HACCP, risk analysis, microbiological and chemical risk assessment, the development of food standards, the role of food standards in promoting food safety and trade, trade, markets and globalization

#### PROFESSIONAL EXPERIENCE

# Research Scientist, Kenya Industrial Research and Development Institute (KIRDI), July 2008 to date. Duties include

- Formulation and implementation of research proposals
- Undertaking technology needs assessment and situation analysis
- Development and transfer of appropriate food processing technologies to SMEs
- Undertaking collaborative research with industry and other relevant institutions
- Participating in the development of Food Standards through Technical committees at the Kenya Bureau of Standards (KeBS)
  - Conducting field work surveys and baseline studies
- Resource budgeting, utilization and management; monitoring and evaluation of projects
  - Participating in and preparing exhibits for trade fairs and exhibitions

# Internship: Quality control and quality assurance, Kenya Horticultural Exporters (1977) Ltd (KHE), July-September 2006

- Key role was quality control and quality assurance
- Other duties included inspection of raw materials, production process and dispatch to ensure that the raw materials, packaging materials and the packaged goods conformed to the required standards

#### MAJOR PROJECTS/RESEARCH ACTIVITIES UNDERTAKEN

- 1. Processed camel meat (*nyirinyiri*) project
- I took part in an inception workshop hosted by our client, WASDA at their training hall from 14-15th April 2014 to sensitize Wajir and Habaswein Meat Traders (24 participants) on packaging and marketing of fast moving consumer goods, with a focus on processed camel meat products (*nyirinyiri*)
- I undertook survey on the most suitable and locally available low-cost packaging equipment and materials suppliers for the processed camel meat (*nyirinyiri*) for our client WASDA from 13th-17th July 2014
- I took part in the demonstration of the packaging technology to two meat processors and other stakeholders including the County Government of Wajir, Ministry of Health, Kenya Bureau of Standards, Veterinary Department, Agricultural Sector Development Support Program and representatives from meat co-opertatives in Wajir County from 3rd-6th February 2015
- I spearheaded the documentation of the production process of *nyirinyiri*, a processed camel meat product, in Garissa County, December 2014
- I was part of the team that carried out an assessment of the risk factors in the processing of *nyirinyiri*, 24th-28th March 2015
- I organized and took part in a stakeholders forum to address the challenges faced by *nyirinyiri* meat processors and proposed interventions, held at Almond Hotel, Garissa, on 2nd December 2015
- I took part in the organization of a conference on key technological challenges and possible interventions in the commercialization of *nyirinyiri*, held at Boma Hotel, 30th March 2016
- 2 Improvement of the processing operations and adoption of appropriate packaging technologies for dried fish from Lake Turkana
- I took part in the documentation of the fish handling procedures and identification of food safety issues on behalf of our client, OXFAM. We captured the current status of fish processing operations and identified gaps and prepared a report for the client, August 2015
- I took part in the identification of suitable and low-cost packaging equipment and materials for packaging the processed fish products, September 2015

- I took part in the demonstration of the packaging technology to the fish processors and other key stakeholders from Turkana County and conducted a hands-on training on appropriate fish processing and preservation technologies, November 2015
- **3.** Studies on *marwa*, a traditionally fermented alcoholic beverage from the Meru community
- I took part in the documentation of *marwa* brewing process, February 2010
- I took part in the characterization of the microbiological changes that occur during the *marwa* brewing process, 2010
- I was part of the team that standardized the *marwa* brewing process, 2010

#### PROFESSIONAL ACTIVITIES

**Acting Chairperson, Meat and meat products Technical Committee**, Kenya Bureau of Standards, 2013 to 2017

I participated the development of the following standards:

- 1. KS 317-1 Specification for meat grades and meat cuts-part 1: Beef grades and cuts, veal grades
- 2. KS 317-2 Specification for meat grades and meat cuts-part 2: Lamb, mutton and goat meat
- 3. KS 59-1 Sausages-Specifications Part 1: Raw or cooked red meat sausages
- 4. KS 59-2 Sausages-Specifications Part 2: Raw or cooked poultry sausages
- 5. KS 1398 Dressed poultry

**Member, Food Hygiene Sub-committee,** Kenya Bureau of Standards, 2011 to 2014 I participated in the development of the following standard:

1. KS 2455 Food Safety general standard

### Member, Food Packaging and Labelling Technical Committee, 2011 to 2014

I participated in the development, harmonization and editing of the following standards for food packaging and labelling at a meeting held in Bujumbura, Burundi:

- 1. EAS 38:2013 Labelling of prepackage foods, General requirements
- 2. EAS 803:2013 Nutrition labelling-Requirements
- 3. EAS 804:2013 Claims on Foods-Requirements

4. EAS 805:2013 Use of nutrition and health claims-Requirements

#### WORK AND PROFESSIONAL TRAINING ATTENDED:

Enhancement of the ability to support SMEs for improvement of their product quality and productivity training, held at JICA Chubu, Japan, 21st January-19th February 2016

Project Monitoring and Evaluation Course, offered by Kenya School of Government. 20th-24th May, 2013

Biotechnology Application on Food Industries for Developing Countries, sponsored by the Ministry of Commerce of the People's Republic of China. Organized by China National Research Institute Of Food And Fermentation Industries (CNRIFFI). 27th April 2011 to 23rd June 2011

#### **PUBLICATIONS**

#### THESIS:

Nyambane, B. 2014. Enumeration, identification and characterization of microflora and fermentation process of *amabere amaruranu*, a Kisii traditionally fermented milk product. MSc. University of Nairobi

#### **JOURNAL PAPERS:**

Nyambane, B., Thari, W. M., Wangoh, J., Njage, P.M.K. 2014. A diverse mixed yeast and lactic acid bacteria is involved in the fermentation process of the traditional *amabere amaruranu* independent of container type. Food Science and Nutrition, vol 2: 692-699

#### **CONFERENCE PROCEEDINGS:**

Abagusii community, Kenya. 1st annual international conference on: Africa and the New World Order, organized by Kisii University, Main Campus, Kisii, Kenya. 30th July-2nd August 2014

#### BOOKS:

Musieba, F and Nyambane, B. 2013. Mushroom recipes. Kenya Literature Bureau

#### **EDUCATION**

Master of Science in Food Science and Technology, University of Nairobi, October 2011-August 2014. Thesis title 'Enumeration, identification and characterization of microflora and fermentation process of *amabere amaruranu*, a Kisii traditionally fermented milk product'

Bachelor of Science in Food Science and Technology, 2nd Class Honours, Upper Division, October 2003- September 2007

## **HOBBIES**

Reading, traveling, diving, running marathons, hiking and camping

## REFEREES

Prof. Michael Okoth Associate Professor, University of Nairobi, Department of Food Science, Nutrition and Technology, P.O Box 29053-00525, Nairobi +254722870653 mwokoth@uonbi.ac.ke

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