

Academic Staff Profile

1.1 Personal Profile

1.1.1 Personal Details

Name: Muchemi Kariuki Peterson
Title/Qualification: Msc, PhD Up to date....

Department: Plant Sciences

Designation/Position: Tutorial Fellow

Email: muchemi.kariuki@ku.ac.ke

Contact Address: 0726450393

Area of Specialization:

-Genetics

-Plant Breeding

Research Interests:

-Genetics

-Plant breeding and Molecular Biology



Google Scholar:

ORCID ID: <https://orcid.org/0000-0001-6452-4792>

1.1.2 Academic & Professional Qualifications

- Kenyatta University (KU), Nairobi , Kenya
PhD Genetics to Date..
- Kenyatta University (KU), Nairobi , Kenya
Master of Science Biotechnology
- Jomo Kenyatta University of Agriculture and Technology (JKUAT), Nairobi
Bachelor of Science Botany and Biotechnology,

1.1.3 Employment History

- 2020-To Date Tutorila Fellow-Kenyatta University
- 2019 –Senior Technician- Kenyatta University
- 2014-2019- Technician –Kenyatta University
- 2015-2018- Part-Time Lecturer Tangaza University CTIE Institute of Saint Mary University of Minnona Minesota United State of America (USA)
- 2013-2-2014-Sasumua High School Nyandarua
- 2012-2013- Part-Time Lecturer and Researcher, Technical University of Mombasa, Plant Biosystematic and Genetics Laboratory
- 2010-2012- Kirima High School

1.2.3 Conference/Seminar Papers/Publications

1. **Muchemi, PK.**, Kamau, J.W., **Nchore, S. B**, Mathew P. N, Kimaru, S.K.Mwangi. JW, Joyce.W, Florence. M. 2019. Genetic Response of Selected Maize Germplasm Screening for MLND Resistance in Kenya. Kenyatta University Biennial research and innovation Conference, Kenyatta University, Nairobi, Kenya, 23-25 October 2019.
2. **Muchemi, PK**, Kamau, J.W., **Nchore, S. B**, Mathew P. N, Kimaru, S.K., Mwangi, JW., Waithira, J.,Munguti, F. 2019. The relationship between level of education, Farmers varietal prevalence, control and distribution of Maize Lethal Necrosis in Bomet County. Kenyatta University Biennial research and innovation Conference, Kenyatta University, Nairobi, Kenya, 23-25 October 2019.
3. **Muchemi, PK.**, Kamau,JW., **Nchore, S. B**, Omwoyo, RO., Kimaru, SK., Mathew, PN. 2019. The use of low Tissue Culture Technology towards food sustainability in Kenya. Kenyatta University Biennial research and innovation Conference, Kenyatta University, Nairobi, Kenya, 23-25 October 2019.
4. **Muchemi PK**, Kamau, JW., **Shem, B.N.**, Mathew. PN. Omwoyo, RO., Kimaru, SK., 2018. The use of low Tissue Culture Technology towards food sustainability in Kenya. RUFORUM Biennial Conference.
5. **Muchemi Peterson**, Joseph Kamau, Emily Wabuyele (2018). The Effects of Invasive Plants in East Africa and its Wild Beauty Beast. RUFORUM Biennial
6. Morris Muthini, Mercy Muindi, **Muchemi Peterson (2018)**. Symbiotic Efficiency of Native Rhizobia Nodulating Common Bean (*Phaseolus vulgaris* L.) in soils of Eastern Regions of Kenya. **RUFORUM Biennial**
7. **Muchemi Peterson**, Joseph Kamau, Mathew Piero, Shem Nchore and J. Mwangi (2018) The currents status of Maize Lethal Necrosis Disease in Nyandarua County, Kenya, Horticultural Association of Kenya
8. Jiveri Bonface¹, Adhiambo Brendah¹, Kahindo John², Dianah Kwanyi¹, Malala Bonface³ and **Muchemi Peterson² (2015)**. Bio-alkanol gel as a form of renewable energy. National Science Council
9. **Muchemi Peterson (2015)**. Somatic embryogenesis and regeneration of DHO4 and SC DUMA 43 maize genotypes at coastal region of Kenya. Master of Science Thesis submitted to Kenyatta University,
10. Jiveri B, **Muchemi P**, Mwadime L, Malala B. Potential of Lubricating Oil (MGALO) and organic bio-fertilizer production from Marine Green Algae (**patent No.KE/UM/2012/00295**). Applied Research &Innovation for Development.
11. Jiveri B, **Muchemi P**, Mwadime L, Malala B. Bio-alkanol gel as a form of renewable energy. Kabianga University 2nd Annual Postgraduate Conference, 17 – 18 December, 2013, Main Campus, Kabianga. Theme:”Crossing Boundaries: Critical Debates in Quality Postgraduate Research”

12. Jiveri B, **Muchemi P**, Mwadime L, Malala B. Potential of Lubricating Oil (MGALO) and organic bio-fertilizer production from Marine Green Algae (patent No.KE/UM/2012/00295). Sustainable Dev.
13. Jiveri B, **Muchemi P**, Mwadime L, Malala B. Potential of Lubricating Oil (MGALO) and organic bio-fertilizer production from Marine Green Algae (patent No.KE/UM/2012/00295). Global Development.
14. Jiveri B, **Muchemi P**, Mwadime L, Malala B. Potential of Lubricating Oil (MGALO) and organic bio-fertilizer production from Marine Green Algae (patent No.KE/UM/2012/00295). African Green Rev.
15. Jiveri B, **Muchemi P**, Mwadime L, Malala B. International Conference on Integrated Ecosystem and Water Management in the Lake Victoria Basin: “From Science To Integrated Socio-Economic Development” held at Maseno University, Kisumu Hotel from 3rd -6th February 2015
16. **Muchemi P**, Mwadime L, A Jalemba Mgtu, S Anami, J Mwangi, Malala B and Jiveri B. (2014). *Somatic Embryogenesis and Regeneration of SC DUMA 43 and DHO4 Maize: Genotypes Adapted to Arid, Semi Arid and Coastal Ecosystems of Kenya* in “Bridging the gap between society, science and industry” 1st African Green Revolution Students Conference & 14th workshop on sustainable horticulture in the tropics: 1st - 5th December, Kenyatta University, Nairobi- Kenya. Abstract pp 71
17. Mwadime L, **Muchemi P**, A Jalemba Mgtu, S Anami. (2013). Independent somatic embryogenesis and regeneration of PHO4 and DK831 Coastal genotypes.”The JKUAT Scientific Technological and industrialization Conference and Exhibition.”
18. Mwadime L, **Muchemi P**, A Jalemba Mgtu, S Anami. (2013). Independent somatic embryogenesis and regeneration of PHO4 and DK831 Coastal genotypes. “2nd The Biosafety Annual Conference at KICC”

1.2.3 Workshops/Short Courses Training

1. The scientific methods of Certified Potatoes seeds Production in Kenya- KEPHIS POTATOES RESEARCHERS AND STAKEHOLDERS WORKSHOP-2019
2. The Role of Tissue Culture, Aeroponic, Hydroponic and Apical grafting toward mass production of Certified Irish Potato seeds in Kenya- **KEPHIS 2019 Oct**
3. Training and Networking on Dissemination Strategies and Statistical Data Analysis- Hortilinea Diversifying Agricultural Food Systems, DAAD, and Jomo Kenyatta University of Agriculture and Technology (JKUAT)
4. Molecular Biology Tools for Research in Plant Agriculture-Inqaba Biotec
5. Scientific Communication and Publishing-DAAD and Training Centre in Communication

6. Leadership Coaching a Tool for effective communication and Community Training- Tangaza University and DePaul University
7. Leading Community Change: The Challenge- Tangaza University and DePaul University
8. Workplace and Community Coaching for Organizational Performance- Tangaza University and DePaul University
9. Training Workshop at Tangaza University and DePaul University on Proposal and Grant writing
10. Training on modern molecular tools toward striga elimination in Africa-Kenyatta University
11. Kenya Standing Technical Committee on Imports and Export (KSTCIE) Stakeholders Conference-Kenya Plant Health Inspectorate Services (KEPHIS)
12. Kenya Standing Technical Committee on Imports and Export (KSTCIE)- Ministry of Agriculture-Nov 2017
13. Kenya Standing Technical Committee on Imports and Export (KSTCIE)- KEPHIS Sept 2017
14. Kenya Standing Technical Committee on Imports and Export (KSTCIE)- KEPHIS Feb 2017
15. Sensitization seminar on funding opportunity with IFS Kenyatta University - 2015
16. National Debate on effect of banning GMO, s Food production and Consumptions in Kenya at Kenyatta University.
17. Work Ethics, Setting, Marking examinations, Teaching methodology, Innovation, Research in modern teaching environments, E-Learning and use of ICT in teaching Sciences (SMASSE)-Magomano Girls High School
18. Conference on Ecological Biodiversity at National Museum Kenya-2010

1.3 Research

- Somatic Embryogenesis of Maize Germplasms in Coastal Region, Kenya
- Molecular Characterization of Kenyan Maize Germplasms
- Maize Breeding for MLND Resistant

1.4 Funded Projects

| Organization | Academic/Research | Year |
|---------------------|---|------------------|
| DAAD-Germany | Research Grant Maize Breeding | 2018-Date |
| Kenyatta University | Academic Award for RUFORUM Exhibition | 2018 |
| DAAD-Germany | Research Maize | 2016-2017 |
| DAAD-Germany | Research Maize | 2017-2018 |
| DAAD-Germany | Academic Maize | 2016-2018 |
| Kenyatta | Training KEMRI | 2017 |

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|------------|--|--|
| University | | |
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1.7 Professional/Consultancy (Editor/Peer review in journals, Networks/Collaborations, External Examiner, Patents)

- Biofertilizer and Plant Breeding

1.8 Community Service and Other Engagements

- BOM Member Kahindu Primary

-Academic motivator to High Schools and Young People

-Board Member Health- Shalom PCEA-Tumaini Parish

2.1.2 Other administrative positions Held

1. Committee member, Board of Undergraduate Studies (BUS)
2. Committee member, Departmental Botanical Gardens Committee-Secretary
3. Committee member, Departmental Time-Tabling Team
4. Committee member, Departmental Undergraduate and Postgraduate Seminars Organiser
5. Committee member, Research and Linkages committee- Secretary
6. Committee member, Library, Archive & Herbarium
7. Committee member, Staff Welfare Committee
8. Committee member, Website committee

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