



DR. JOHN MAINGI MUTHINI

**DEPARTMENT OF MICROBIOLOGY
KENYATTA UNIVERSITY**

CURRICULUM VITAE

MAY 2018

1.0 PERSONAL INFORMATION

NAME: Dr. John Maingi Muthini
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NATIONALITY: Kenyan
GENDER: Male

2.0 QUALIFICATIONS

2.1 Academic Qualifications

2009: PhD (Microbiology), Kenyatta University
1999: M.Sc. (Microbiology), Kenyatta University.
1990: Bachelor of Education degree (Science-Botany and Zoology),
Kenyatta University

3.0 EMPLOYMENT HISTORY

September 2013 to date: Lecturer, Department of Microbiology, Kenyatta University.
August 2009 to Sept. 2013: Lecturer, Microbiology Section, Department of Plant and Microbial Sciences, Kenyatta University.
May 2004 – August 2009: Tutorial Fellow, Microbiology Section Department of Plant and Microbial Sciences, Kenyatta University.

4.0 ADMINISTRATIVE RESPONSIBILITIES

4.1 At Kenyatta University

- 17th September 2013 to 1st October 2017: Chairman, Department of Microbiology
- 1st September 2009 to 2nd September 2013: Examinations Coordinator, Department of Plant and Microbial Sciences
- 2nd May 2011 to 13th June 2011 : Acting Chairman, Department of Plant and Microbial Sciences
- Coordinator, Microbiology Section, Department of Plant and Microbial Sciences
- Student Academic advisor, Department of Plant and Microbial Sciences
- Secretary, Board of Undergraduate studies, Department of Plant and Microbial Sciences
- Assistant Examinations Coordinator, Department of Plant and Microbial Sciences
- Acting Dean, School of Pure and Applied Sciences

4.2 At other Institutions

- 2002 to 2004: Coordinator, Higher Diploma in Applied Biology, Kenya Polytechnic.
- 1998 to 2000: Head of Department, Co-curriculum activities, Matuu Memorial Girls' High School.
- August 1995 to November 1995: Deputy Headmaster, Thomeandu Boys' Secondary School
- 1993 to 1995: Dean of Studies, Mutonguni Secondary School.

5.0 POSTGRADUATE SUPERVISION

5.1 PhD Supervision

5.1.1 ONGOING

1. Elizabeth K. Kago, I84/24801/2012. *“Molecular diversity of *Ralstonia solanacearum* isolated from Kenyan highlands and lowlands and effects of selected organic and inorganic amendments”*
2. Annacarol W. Karanja, I84/27640/2014. *“Rapid Bioconversion of Rice Straw Using Cellulolytic Cultures for Sustainable Crop productivity and Soil Fertility in Mwea, Kenya”*
3. Kyule N. Domitila, I84/27759/2014. *“Effectiveness of different preservation methods on the quality and safety of farmed fish and products developed in Kirinyaga County, Kenya”*
4. Nicholas Mawira Gitonga, I84/29010/2014. *“Enhancing Tripartite Symbiosis Between Soybean, Bradyrhizobia and Arbuscular Mycorrhizal fungi under Contrasting Land Management Practices”*
5. Chengo Katana, I84/32248/2015. *“Synthesis, characterisation, bioassay and DFT studies of Iron half sandwich complexes of selected antitubercular amines ligands”*
6. Moto Jedidah Ndunge, I84/32437/2015. *Isolation, characterization and antifungal susceptibility patterns of isolates from selected barber shops in Korogocho informal settlement, Nairobi, Kenya*
7. Wahome Caroline Nyawira, I84/37752/2016. *“The effect of probiotics, prebiotics and poultry enzyme feed additives on production performance of laying hens in Kajiado County, Kenya”*
8. Esther Waithira Kamau, AG501/3005/16. *Use of *Trichoderma asperellum* foliar spray on foliar and postharvest pathogens of tomatoes and analysis of the interaction.*

5.2 Masters Supervision

5.2.1 COMPLETED

1. Wanjiru Kennedy Mburu, I56/CE/22223/2010. *Synthesis, characterization and screening of selected amine complexes of the organometallic moiety [(5-C₅H₅)(CO)(PPh₃)Fe] for antibacterial activity*
2. Peter Omwanza Nyauncho, I56/CE/23447/2010. *“Impact of Hospital Wastewater to the Spread of Antibiotic Resistance in Kisii Level 5 Hospital ó Kisii, Kenya”*
3. John Kibet Kirui, I56/CE/23960/2011. *“Evaluation of Multidrug Resistant Tuberculosis (MDRTB) Prevalence among Previously Treated Cases in Nairobi County Kenya”*
4. Kinankau Kiunga Virginiah, I56/CE/27132/2011. *“Phenotypic and genotypic characterization of diarrhoeagenic *Escherichia coli* isolated from children in Mukuru*

informal settlement, Nairobi County, Kenya

5. Koskey Gilbert, I56/26830/2013. Assessment of symbiotic efficiency and diversity of native rhizobia isolated from climbing beans (*Phaseolus vulgaris* L.) in Eastern Kenya
6. Ephraim Motaroki Menge, I56/CE/25333/2014. Improving biological nitrogen fixation in common bean varieties grown within Eastern Kenya
7. Thurairara Silas G., I56/CE/10414/07. Low cost materials and techniques for production of Oyster (*Pleurotus ostreatus*) mushroom spawn by farmers
8. James Magundu Githinji, I56/CE/10966/2006. *In vitro* antibacterial activity of selected honeys on clinical isolates of *Staphylococcus aureus*
9. Elizabeth K. Kago, I56/10407/07. Effect of cabbage plant residues and chemical soil fumigation on bacterial wilt caused by soil-borne *Ralstonia solanacearum*
10. Jacinta Karambu Muthuri, I56/15618/2005. Effect of different soil fertility amendments on the nodulation and yield of two soybean varieties
11. Ronoh Kipkurui Bernard, I56/23798/2011. Determination of bacteriological quality of fresh beef post- harvesting in Nyagacho slum, Kericho County, Kenya
12. Osoro Newton Ombese, I56/20575/2010. Composting and effects of water hyacinth (*Eichhornia crassipes*) compost on growth and yield of *Phaseolus vulgaris* and *Zea mays*.
13. Victor G. Ngunjiri, I56/10405/2007. A comparative study of the physico-chemical properties and bacterial load of greywater in estates in Homabay town and Githurai estate.
14. Moto Jedidah Ndunge, I56/21427/2010. Prevalence of *Trichophyton*, *Microsporum* and *Epidermophyton* species causing *Tinea capitis* in children aged 3-14 years in Mathare informal settlement, Nairobi, Kenya.
15. Nyamwaka Irene Seila, I56/12085/2009. Determination of fungi and factors associated with their growth on sun dried *Rastrineobola argentea* in Gucha South, Kisii County, Kenya.
16. Maureen K. Luvanda, P150/21570/2010. Validation of di-electric heating as a potential food safety intervention
17. Esther Waithira Kamau, I56/CE/23132/2010. Effect of using *Trichoderma asperellum*, a biocontrol agent against root knot nematodes on nodulation, galling and growth of French beans in Kenya
18. Nkoroi Beatrice Nkirote, P150/21568/2010. Bacterial flora as determinants of ventilator associated pneumonia in intubated patients in an intensive care unit
19. Waithaka Paul Njenga, I56/CE/22417/2010. Predisposing factors, isolation, sensitivity to antibiotics and control methods of salmonellosis in Nakuru North Sub-county, Kenya

20. Mutinda Josphat, I56/CE/22251/2010. Prevalence and antimicrobial susceptibility profiles of bacterial pathogens isolated from outpatients with upper respiratory tract infections in Kitui District hospital, Kenya
21. Nyambane Clive Ontita, I56/CE/23495/2011. Prevalence and susceptibility profiles of bacterial pathogens associated with urinary tract infections in children presenting at Kisii level 5 hospital, Kisii County, Kenya
22. Towett K. Gideon, I56/25490/2011. Assessment of total and mobile heavy metals in amended compost of water hyacinth obtained from Lake Victoria, Kisumu County
23. Peter Kabiro Laibu, I56/CE/22770/2010. Determination of microbial composition, heavy metal contamination and physico-chemical parameters of fish pond water in Abothuguchi Central, Meru County, Kenya
24. Chepkorir Soy Linner, I56/CE/11367/2007. *In vitro* response of *Phomopsis theae* to the products of *Azadirachta indica* and extracts of *Warburgia ugandensis*
25. India Jacqueline, I56/15621/2005. Efficacy of some medicinal plants used in various parts of Kenya in treating selected bacterial and fungal pathogens
26. Omwoyo Hesbon Nyang'au, I56/CE/14600/09. The efficacy of some medicinal plants used locally within Transmara West, Narok County, Kenya against selected enterobacteria and *Candida*
27. Ithinji Jane Kithira, I56/CE/11174/06. Effect of soil amendment with manure on nodulation, biomass and yield of soybeans and climbing beans in Meru County, Kenya.
28. Gitari Judith Murugi, I56/CE/22248/2010. Management of crown gall disease of roses caused using *Agrobacterium radiobacter*, corn oil and copper hydroxide and oxychloride in Kenya.
29. Elijah Mativo Mung'ang'a, I56/CE/22433/2010. Amoebiasis levels in relation to sanitation and personal hygiene among patients attending Kauwi and Muthale Hospitals in Kitui County, Kenya.
30. Daniel Mumo Musyoka, I56/CE/23810/2013. Effect of arbuscular mycorrhizal fungi and *Bradyrhizobium* co-inoculation on nitrogen fixation and growth of green grams under water stress.
31. Usagi Betsy Maryanne, I56/CE/23959/2011. Identification and Determination of Antimicrobial Resistance profiles of Mycobacterium tuberculosis Complex Isolates from HIV positive Patients in Kisumu County, Kenya.
32. Maina Lukas Mwaura, I56/CE/26637/2011. Isolation, Identification and antimicrobial Testing of *Salmonella typhi* from Water and Food Samples in Mwea Region, Kirinyaga County, Kenya.
33. Hezekiah Njogu Muhia, I56/CE/11474/2007. Antifungal activity of honey and crude extracts from selected plants against *alternaria solani* (tomato early blight pathogen).
34. George Tibi Gachuhi, I56/CE/20963/2010. Antibiotic susceptibility pattern of bacterial

uropathogens isolated from urinary tract infections among patients visiting Nakuru level 5 hospital, Kenya.

5.2.2 ONGOING

1. Mboga Lydia Nyabate, I567/CE/22360/2010. A statistical investigation of the prevalence of active tuberculosis and its prediction in North Pokot District, West Pokot County, Kenya.
2. Bundi Mokana Justine, I56/CE/23493/2011. Identification and determination of antimicrobial susceptibility profiles of *Salmonella serotypes* isolated from patients at Kisii Level 5 Hospital in Kisii County.
3. Kananu Cecilia Itirithia, I56/CE/23494/2011. The predominant rotavirus electropherotype common in Meru County, Kenya.
4. Isayi Linda Shilwatso, I56/23796/2011. Bacteriological Quality and Safety of Ready-To-Eat Street Foods in Manyatta Informal Settlement of Kisumu, Kenya.
5. Stephen Mugambi Maithulia, I56/CE/25999/2011. An Vitro antimicrobial Activity and Safety of Medicinal Plants used to Manage *Samonella typhi*, *Campylobacter jejuni* and *Shigella dysenteriae* in Meru country, Kenya.
6. Omog Linus Owino, I56/CE/26146/2011. Determination of mineral nutrients levels and growth rate in vegetables grown using organic water hyacinth compost and inorganic fertilizer.
7. Mokuva Evans Chakua, I56/CE/26014/2011. Bacterial Profile of Bacteremia and Septicemia among Children under Five Years Visiting Kisii Level 5 Hospital in Kisii County, Kenya.
8. Onyancha David Orina, I56/CE/26138/2011. Screening of Polythene Degrading Bacteria from Dumped Soil in Giotto Dumpsite within Nakuru Municipality. Kenya.
9. Peris Wangari Cheche, I56/CE/21446/2012. Prevalence of Catheter Associated urinary Tract Infections among Patients Hospitalised at the Nyeri County Referral Hospital.
10. Dinah Muthoni Miriti, I56/CE/21651/2012. Prevalence of Bacterial pathogens Associated with Respiratory Tract Infections among Patients Visiting Meru Level 5 Hospital in Meru County.
11. Makatiani Emmanuel, I56/CE/22389/2012. Nodulation and nitrogen fixation efficiency of *Sesbania* spp. rhizobia on *Sesbania sesban* (L.) Merr. and common bean (*Phaseolus vulgaris* L.).
12. Eric Ogaro Ogechi, I56/22677/2012. Antibiotic Resistance Profiling of Pathogenic Bacteria and Fungi in Toilets in Kenyatta University and Thika Level Five Hospital Kenya.
13. Liza Muthoni Mundia, I56/CE/23731/2013. Use of Oyster Mushroom (*Pleurotus ostreatus*) for the Degradation of Diapers and Sanitary Pads.
14. Silas Githenji Muguongo, I56/CE/24951/2012. Antibigram Patterns and Resistance Genes Associated with Bacterial Contaminants in Circulating Kenyan Bank Notes in Nyeri Town, Nyeri County, Kenya.
15. Maina Beth Njeri, I56/CE/28135/2013. Identification and Prevalence of Nosocomial Infections and Antimicrobial Resistance During Hospitalization in Nyeri Level 5 and Muranga Level 4 Hospitals, Kenya.
16. Ochola Celestine Anyango, I56/28567/2013. Antibacterial effects of methanolic leaf extracts of *Acacia ataxacantha* and *Piliostigma thonningii*.

6.0 EXAMINATION OF PHD AND M.SC. THESES

I have been internal Examiner of 6 PhD and 40 M.Sc. Theses. I have been an external

examiner of 1 PhD and 1 M.Sc. Theses.

7.0 PARTICIPATION IN CONFERENCES/SEMINARS/WORKSHOPS

- **17th to 21st February 2012:** Participation in a VicRes research team stakeholders workshop held in Kigali, Rwanda.
- **14th April 2011 to 15th April 2011:** Participated in a Symposium on Farm Management Handbook (FMHB) of Kenya at KARI Headquarters-Nairobi
- **19th April 2011 to 22nd April 2011:** Attended VicRes Project inception workshop held at Imperial Beach Hotel, Entebbe, Uganda.
- **9th October 2011 to 13 October 2011:** Participation in the VicRes Biennial forum at Munyonyo Resort, Uganda
- **21st February 2011 to 25th February 2011:** Attended Global Biological Resources Network Workshop at Methodist Guest House, Lavington, Nairobi.
- Lake Victoria Research Initiative (VicRes) workshop held at Imperial Beach Hotel, Entebbe, Uganda between 19th to 22nd April 2011.
- **5th September 2010 to 10th September 2010:** Participated in value links training workshop at Green Hills Hotel in Nyeri.
- **2nd May to 8th May 2010:** SUCAPRI (Strengthening University Capacity for Promoting, facilitating and teaching Rural Innovation Processes) workshop on Moodle and Wiki held at AVU, Kenyatta University.
- **10th August 2010 to 14th August 2010:** Proceedings of the 1st East African Regional Scientific Conference of Pure and Applied Sciences held at Kenyatta University, Nairobi, Kenya. Sponsored by Kenyatta University.
- **14th March 2010 to 20th March 2010:** Participated in a SUCAPRI (Strengthening University Capacity for Promoting, facilitating and teaching Rural Innovation Processes) Activity 3 University-based learning cycle workshop at Jomo Kenyatta University of Agriculture and Technology.
- **26th January 2009 to 31st January 2009:** Participated in a SUCAPRI (Strengthening University Capacity for Promoting, facilitating and teaching Rural Innovation Processes) Activity 2 University-based learning cycle workshop at Egerton University, Njoro.
- **4th - 8th October, 2004:** Attended a workshop on use of molecular techniques in identification and quantification of non-culturable bacteria.

8.0 RESEARCH AND PUBLICATIONS

8.1 Articles in Refereed Journals

Koskey G., Mburu, SW, Kimiti, J.M., Ombori, O., **Maingi, J.M.** and Njeru, E.M. (2018) Genetic Characterization and Diversity of Rhizobium Isolated From Root Nodules of Mid-Altitude Climbing Bean (*Phaseolus vulgaris* L.) Varieties. *Frontiers in Microbiology*, 9:968. doi: 10.3389/fmicb.2018.00968

Kawaka, F, Dida, M., Opala, P., Ombori, O., **Maingi, J.**, Amoding, A. and Muoma, J. (2018). Effect of nitrogen sources on the yield of common bean (*Phaseolus vulgaris*) in Western Kenya. *Journal of Plant Nutrition*, <https://doi.org/10.1080/01904167.2018.1458870>.

Koskey G., Mburu S.W., Njeru E.M., Kimiti J.M., Ombori M., **Maingi J.M.**, (2017). Potential of Native Rhizobia in Enhancing Nitrogen Fixation and Yields of Climbing Beans (*Phaseolus vulgaris* L.) in Contrasting Environments of Eastern Kenya. *Frontiers in Plant Science* **8**, 1-12.

Kago E.K, Kinyua Z.M., **Maingi J.M.** and Okemo P.O. (2017): Diversity of *Ralstonia solanaceum* Strains in Solanaceous Crops Production Regions of Central Kenya. *Journal of Experimental Agriculture International* **16**(1): 1-12.

Wekesa C., Muoma J., Ombori O., **Maingi J.**, Okun D., Juma K., Okoth P., Wamalwa E., Kollenberg M. and Mauti E. (2017): Genetic Characterization of Rhizosphere Bacteria that Inhabit Common Bean Nodules in Western Kenya Soils. *Applied Microbiology: Open Access*, **3**: 128. doi:10.4172/2471-9315.1000128.

Nyamwaka I.S., Nyamache A.K. and **Maingi J.M.** (2017): Microfungi Associated with Sun Dried *Rastrineobola argentea* Sold in Gucha South District in Kenya. *Microbiology Research Journal International* **19**(3): 1-8.

Mburu S.W., Koskey G, Kimiti J.M., Ombori M., **Maingi J.M.** and Njeru E.M. (2016), Agrobiodiversity conservation enhances food security in subsistence-based farming systems of Eastern Kenya; *Agriculture and Food Security Journal* **5** (19): 1-10.

E.W. Ouma, AM Asango, **J Maingi**, EM Njeru (2016): Elucidating the Potential of Native Rhizobial Isolates to Improve Biological Nitrogen Fixation and Growth of Common Bean and Soybean in Smallholder Farming Systems of Kenya. *International Journal of Agronomy*.

Naluyange V., Ochieno D.M.W, Wandahwa P., Odendo M., **Maingi J.M.**, Amoding A., Ombori O., Mukaminega D. and Muoma J (2016): Belowground Influence of *Rhizobium* Inoculant and Water Hyacinth Composts on Yellow Bean Infested by *Aphis fabae* and *Colletotrichum lindemuthianum* under Field Conditions. *Journal of Plant Studies* **5** (2), 32-46.

Kamau E.W., Kariuki G. M and **Maingi J.** (2016): Effect of *Trichoderma asperellum* on growth of *Rhizobium leguminosarum* *in vitro*. *Global Journal of Biology, Agriculture and Health Sciences*, **5**(1):43-48.

Moto J. N., **Maingi J.M.** and Nyamache A. K. (2015). Prevalence of *Tinea capitis* in school going children from Mathare, informal settlement in Nairobi, Kenya. *BMC Research Notes* **8**: 274-279

P.N. Waithaka, **J.M. Maingi**, A.K. Nyamache (2014): Isolation of microorganisms and screening of heavy metals from Municipal Council's treated sewage from Nakuru sewage treatment plant in Nakuru County, Kenya. *Scientific Journal of Microbiology* **3**(12), 118-125.

7. Paul Njenga Waithaka, **J. Maingi**, A. K Nyamache (2014): Microbial contamination of environmental, food and treated water samples in Nakuru North Sub-county, Kenya *International Journal of Microbiology and Allied Sciences*, **1**(2):78-9

Paul Njenga Waithaka, **John Muthini Maingi**, A. K. Nyamache (2014): Physico-chemical and Salmonella isolates in community taps and river Kandutura in Nakuru North Sub-county, Kenya.

International Journal of Microbiology and Epidemiological Research, 2(4), 29-37,

Kago E.K, Kinyua Z.M., Okemo P.O. and **Maingi J.M. (2014)**: Effects of Cabbage Tissue and Calcium Hypochlorite on Soil Fertility and Yields of Selected Solanaceous Crops. *Annual Research and Review in Biology*, 4(3) 547-559.

Muthini M., **Maingi J.M.**, Muoma J.O., Amoding A., Mukaminega D., Osoro N., Mgtutu A. And Ombori O. (2014): Morphological Assessment and Effectiveness of Indigenous Rhizobia Isolates that Nodulate *P. vulgaris* in Water Hyacinth Compost Testing Field in Lake Victoria Basin. *British Journal of Applied Science & Technology*, 4(5) 718-738.

Osoro N., Muoma J.O, Amoding A., Mukaminega D., Muthini M., Ombori O. and **Maingi J.M. (2014)**: Effects of Water Hyacinth (*Eichhornia crassipes* [mart.] solms) Compost on Growth and Yield Parameters of Maize (*Zea mays*). *British Journal of Applied Science and Technology*, 4(4): 617-633.

Naluyange V., Ochieno D.M.W, **Maingi J.M.**, Ombori O., Mukaminega D., Amoding A., Odendo M., Okoth S.A, Shivoga W.A. and Muoma J.V.O (2014). Compatibility of *Rhizobium* inoculant and water hyacinth compost formulations in Rosé coco bean and consequences on *Aphis fabae* and *Colletotrichum lindemuthianum* infestations. *Applied Soil Ecology* 76, 686 77

Musyoki A.M, Suleiman M.A, Mbithi J.N., and **Maingi J.M. (2013)**. Diurnal and seasonal variations of pathogenic bacteria in Dandora Sewage Treatment Plant wastewater, Nairobi, Kenya. *Journal of Research in Environmental Science and Toxicology* 2(2), 36-41.

Musyoki A.M, Suleiman M.A, Mbithi J.N., and **Maingi J.M. (2013)**. Water-borne bacterial pathogens in surface waters of Nairobi River and health implication to communities downstream Athi River. *International Journal of Life Science and Pharma Research* 3(1), 4-9.

Kago E.K, Kinyua Z.M, Okemo P.O and **Maingi J.M. (2013)**. Efficacy of *Brassica* Tissue and ChalimTM on Control of Plant Parasitic Nematodes. *Journal of Biology* , 01, (01) 25-32.

Njeru E.M, **Maingi J.M**, Cheruiyot R., Gitonga N.M (2013). Managing Soybean for Enhanced Food Production and Soil Bio-Fertility in Smallholder Systems through Maximized Fertilizer Use Efficiency. *International Journal of Agriculture and Forestry*, 3(5) 191-197.

Gicharu G. K., Gitonga N.M., Boga H., Cheruiyot R.C. and **Maingi J.M (2013)**: Variation in Nitrogen Fixation among Three Bush Bean Cultivars Grown in Kenya when Inoculated with Three Rhizobia Strains. *Greener Journal of Agricultural Sciences*, 3 (11) 748-754.

Gicharu, G.K., Gitonga, N.M, Boga H, Cheruiyot R.C., and **Maingi (2013)**: Effect of inoculating selected climbing bean cultivars with different rhizobia strains on nitrogen fixation. *Online International Journal of Microbiology Research* 1(2), 25-31.

Luvanda M.K., **Maingi J.**, Okemo P., and Yang E (2013). Analysis of the effects of di-electric heating on common food bacterial pathogens: Evaluation based on antibiotic susceptibility and infective doses. *Greener Journal of Biological Sciences* 3(6), 220-228.

Njeru, E.M., **Maingi, J.M.**, Gitonga, N.M. and Cheruiyot, R. Symbiotic N₂ Fixation in Promiscuous Soybeans (*Glycine max* L. Merr.) as Influenced by Phosphorus, Potassium and Sulphur Nutrition. Conference proceedings on 1st East African Regional Scientific Conference of Pure and Applied Sciences 10th-14th August, 2010 Kenyatta University, Nairobi Kenya.

Gitonga, M. N., Gatheri, G. W., Cheruiyot, R., Gitonga, N. M. and **Maingi, J.M (2010)**: Nodulation and nitrogen fixation in promiscuous and non promiscuous soybean (*Glycine max* (L.) Merrill) varieties in Eastern Kenya. *Journal of Tropical Microbiology and Biotechnology* **6**: 3-8.

Mugendi, E., Gitonga, N., Cheruiyot, R. and **Maingi, J. (2010)**: Biological Nitrogen Fixation by Promiscuous Soybean (*Glycine max* L. Merrill) in the Central Highlands of Kenya: Response to Inorganic Fertilizer Soil Amendments. *World Journal of Agricultural Sciences* **6** (4): 381-387.

Njeru, E.M., Gitonga, N.M., Cheruiyot, R. and **Maingi, J.M.** (2010) Response of promiscuous soybean varieties to phosphorus, potassium and sulphur applications in Eastern Kenya (Book chapter - manuscript reviewed and accepted).

Muli, E.M., **Maingi, J.M.** and Macharia, J. (2008): Antimicrobial properties of propolis and honey from the Kenyan stingless bee, *Dactylutina schimidti*. *Apiacta* **43**: 49-61.

Muli, E.M. and **Maingi, J.M.** (2007): Antimicrobial activity of *Apis mellifera* L. propolis collected in three regions of Kenya. *J. Venom. Anim. Toxins incl. Trop. Dis.*, **13**: 655-663.

Hornetz, B., Shisanya, C.A, Gitonga, N.M. and **Maingi, J.M. (2006)**: Studies on the possibility of expanding soybean (*Glycine max* (L.) Merrill) cultivation by smallholders in different agro-ecological zones of Kenya (with special reference to varieties with the ability of promiscuous nodulation and tempo-spatial patterns of chances and risks for cultivation). *Materialien zur Ostafrika-Forschung*, Heft **30**.

Maingi, J.M., Gitonga, N.M., Shisanya, C.A., Hornetz, B. and Muluvi, G.M. (2006): Population Levels of Indigenous Bradyrhizobia Nodulating Promiscuous Soybean in two Kenyan Soils of the Semi-arid and Semi-humid Agroecological Zones. *Journal of Agriculture and Rural Development in the Tropics and Subtropics*, **107**: 149-159.

Maingi, J.M., Shisanya, C.A., Gitonga, N.M. and Hornetz, B. (2001): Nitrogen fixation by common bean (*Phaseolus vulgaris* L.) in pure and mixed stands in semi ó arid ó East Kenya. *European Journal of Agronomy*, **14**:1 612

Maingi, J.M., Shisanya, C.A., Gitonga, N.M. and Hornetz, B. (2001): Population level of bean rhizobia in the soil of Semi ó arid Southeast Kenya and assessment of symbiotic behavior. *East African Journal of Science* **3(1)**: 13 ó 18.

Maingi, J.M., Shisanya, C.A., Gitonga, N.M. and Hornetz, B. (1999): Biological Nitrogen Fixation in selected Legumes of the Semi ó Arid Makueni District of South East Kenya. *Der Tropen – Landwirt (Journal of Agriculture in the Tropics and Sub – tropics)*. **100**:205-213.

Gitonga N.M, Shisanya C.A, Hornetz B., and **Maingi J.M. (1999)**: Nitrogen Fixation by *Vigna radiata* L. Wilczek in pure and Mixed stands in SE- Kenya *Symbiosis*, **27**:239-250.

8.2 Articles in Conference Proceedings

1. Muthini, M., **Maingi J.M.**, Muoma, J.O., Amoding, A.M., Mukaminega, D., Newton Osoro, N. and Ombori, O. (2013). Morphological assessment and effectiveness of indigenous rhizobia isolates that nodulate *P. vulgaris* in water hyacinth compost testing field in Lake Victoria basin. *Proceedings of the Natural Resource Management and Ethnobotany and Health Cluster Workshop held from 7th – 12th April 2013, at Mukono, Uganda.*
2. Osoro, N., Ombori, O., Muoma, J.O., Amoding, A.M., Mukaminega, D., Muthini, M. and **Maingi, J.M.** (2013). Effects of water hyacinth (*Eichhorniacrassipes* [mart.] solms) compost on growth and yield of common beans (*Phaseolus vulgaris*) in Lake Victoria Basin. *Proceedings of the Natural Resource Management and Ethnobotany and Health Cluster Workshop held from 7th – 12th April 2013, at Mukono, Uganda.*
3. Muoma, J.O., Ombori, O., Amoding, A.M., Mukaminega, D., Muthini, M., **Maingi, J.M.** and Osoro, N. (2013). Production of organic fertilizer from water hyacinth (*Eichhorniacrassipes* [Mart.] Solms) for sustainable organic farming and conservation of ecosystem in Lake Victoria basin. *Proceedings of the Natural Resource Management and Ethnobotany and Health Cluster Workshop held from 7th – 12th April 2013, at Mukono, Uganda.*
4. Muoma, J.V.O., **Maingi, J.**, Ombori, O., Amoding, A. and Mukaminega, D. (2012). Production of organic fertilizer from water hyacinth (*Eichhornia crassipes* [Mart.] Solms) for organic farming and conservation of ecosystem in Lake Victoria basin. *Proceeding of the Workshop for the VicRes projects held in Kigali-Rwanda between 14th–16th June 2012.*
5. Kago E.K, Kinyua Z.M., Okemo P.O. and **Maingi J.M.**: Effects of Brassica tissue, ChalimTM and Metham sodium on soil chemical properties and yields of selected solanaceous crops. PACN Congress on Agricultural Productivity, Water and Waste. United Nations Conference Centre, Addis Ababa, Ethiopia, 26th November ó 27th November 2012.
6. Kago E.K., Kinyua Z.M., Okemo P.O. and Maingi J.M.: Management of bacterial wilt (*Ralstonia salnacearum*) of selected solanaceous crop species using organic and inorganic pesticides. 13th Biennial KARI Scientific Conference. KARI Headquarters, Kaptagat Road, Loresho, Nairobi, 22nd October - 26th October 2012.

8.3 Chapter in a Book

Osoro N., **Maingi J.M.**, Ombori O., Muoma J.O., Amoding A., Mukaminega D., Kawaka F. and Muthini M., Effect of water hyacinth (*Eichhornia crassipes* [mart.] solms) compost on growth and yield parameters of maize (*Zea mays*). In: Trends and opportunities in the production, processing and consumption of staple foods crops in Kenya, Edited by Onyango C., Unbehend G. and Lindhauer M. ISBN: 978-3-944331-17-1.

8.4 Research Grants

Year	Source	Collabolators	Project title
2011-2012	VICRES Grant NO: 7/NR-3-2010/015	Dr. Alice Amoding, Makerere University Dr. John Muoma, Masinde Muliro University Ms. Dative Mukaminega, Kigali Institute of Science & Technology Dr. Omwoyo Ombori, Department of Plant Sciences, Kenyatta University	Production of organic fertilizer from water hyacinth (<i>Eichhornia crassipes</i> [Mart.] Solms) for organic farming and conservation of ecosystem in Lake Victoria basin
2012-2013	VICRES Grant NO: 7/NR-3-2010/015	Dr. Alice Amoding, Makerere University Dr. John Muoma, Masinde Muliro University Ms. Dative Mukaminega, Kigali Institute of Science & Technology Dr. Omwoyo Ombori, Department of Plant Sciences, Kenyatta University	Production of organic fertilizer from water hyacinth (<i>Eichhornia crassipes</i> [Mart.] Solms) for organic farming and conservation of ecosystem in Lake Victoria basin
2013	NACOSTI	Dr. Evans Changamu, Chemistry Department, Kenyatta University	Synthesis, Characterization, DFT and Antitubercular studies on Organometallic complexes of Pyrazine-2- carboxamide and Isonicotinohydrazide
2014	RUFORUM Grant No. RU 2014 GRG-102)	Dr. Omwoyo Ombori, Department of Plant Sciences, Kenyatta University, Dr. Ezekiel Mugendi, Department of Microbiology, Kenyatta University and Dr. Jacinta Malia Kimiti, School of Environment and Natural Resource	Increasing Soybeans and Climbing Beans production in smallholders` farms in Eastern Kenya”

		Management, South Eastern Kenya University	
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