

Academic Staff Profile

Personal Profile

Personal Details

<p>Name: Prof. Omwoyo Ombori Title/Qualification: PhD Department: Plant Sciences Designation/Position: Associate Professor Email: omwoyo.ombori@ku.ac.ke Contact Address: Box 43844-00100 Nairobi Area of Specialization: Plant Biotechnology & Physiology</p> <p>- -</p> <p>Research Interests:</p> <ul style="list-style-type: none">- Biotechnology and use of molecular markers in genomic characterization, improvement of crop production, food production, induction/selection of stress tolerant crops against drought, salinity, diseases and pests. <p>Increase in crop production using organic fertilizer.</p> <ul style="list-style-type: none">-Improvement of crop production using indigenous rhizobia, Bradyrhizobia, Arbuscular mycorrhiza fungi and low cost tissue culture technology.-Micropropagation and characterization of crops, ornamentals, medicinal plants and indigenous trees using low cost technology.- Conservation of genetic resource through the application of biotechnological techniques. <p>-</p> <p>Google Scholar: Omwoyo ORCID ID: 0000-0001-5353-467X</p>	
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Academic & Professional Qualifications

- Ph.D, Kenyatta University, Doctor of Philosophy (Plant Biotechnology).
- MSc, Kenyatta University.
- B.ED (Science), Kenyatta University, Second Class (Hons) Upper
- KACE, Chianda Boys High School,
- KCE, Gesusu High School,
- CPE, Kahawa Primary school,

Employment History

May 2020 – Present	: Associate Professor, Kenyatta University
March 2015 – May 2020	: Senior Lecturer, Kenyatta University
2006- March 2015	: Lecturer, Kenyatta University
2002-2006	: Tutorial Fellow, Kenyatta University
1999-2002	: Biology and Chemistry Teacher, Nyansabakwa High School
1995-1998	: Part-timer A-Level Biology Teacher, CGCU Girls School Biology
Jan-May 1991-1993	: Biology and Chemistry Teacher, Nyanturago High School
1994	: Biology and Chemistry Teacher, Chibwobi Secondary School

Achievements

- Participated in conferences, seminars, training and workshops
- I have presented papers in scientific conferences, workshops and seminars.
- Worn research grants
- Awarded Kenyatta University Vice-Chancellor Research Incentive for Publishing in Reputable referred Scientific Journals.
- I have mentored several MSc. and PhD students to write proposals which have been awarded research grants from NRF and NACOST.
- I have examined several PhD and Masters theses both internal and external.
- I have published 64 papers in scientific reputable journals.
- I have published 4 book chapters
- I have Research Reports.
- I have reviewed conference papers.
- I have supervised 4 PhD and 16 Masters Students to completions.
- I have 4 PhD and 7 Masters Students who are on-going with their thesis work.
- I have served as a Director Community Services, Elder and Patron Kenyatta University Seventy Day Adventist (KUSDA) church.
- I have served as the Departmental and School exam co-ordinator.
- I have served as a Chairman of Department.
- I have served in several University Taskforces/appointments.
- I have served as an Editor for the African Journal of Pure and Applied Sciences.
- I initiated Memorandum of Understanding & Memorandum of Agreement between Kenyatta University and University of Oslo, Norway.
- I have established External Links in Scientific Research.
- I exhibited in the Nairobi Agricultural show, representing the School of Pure and Applied Sciences, Kenyatta University.

Publications

Referred Journals

1. Wahome, C.N.; Maingi, J.M. Ombori, O.; Njeru, E.M. Muthini, M. and Kimiti, J.M. (2023). Diversity and abundance of bacterial and fungal communities in rhizospheric soil from smallholder banana producing agroecosystems in Kenya. *Frontiers in Horticulture*, 2. <https://doi.org/10.3389/fhort.2023.1061456>
2. Simon W. Mburu, S.W. Koskey, G., Njeru, E.M, Omwoyo Ombori, O, Maingi, J. and. Kimiti, J.M. (2022). Genetic and phenotypic diversity of microsymbionts nodulating promiscuous soybeans from different agro-climatic conditions. *Journal of Genetic Engineering and Biotechnology*, 20:109. <https://doi.org/10.1186/s43141-022->

3. Opere, W.M., John M., Ombori, O. and Kiulia, N.M. (2022). Identification of enteroviruses along Lake Victoria shoreline-a potential indicator of sewage Pollution. *Access Microbiology* 2022;4:000334
4. Wahome, C.N., Maingi,J.M., Ombori, O, Kimiti J.M..and Njeru, E.M. (2021) Banana production trends, cultivar diversity and tissue culture technologies uptake in Kenya. *International Journal of Agronomy*, 2021. <https://doi.org/10.1155/2021/6634046>
5. Ngai, D.G., Nyamache, A.K. and Ombori, O. (2021). Prevalence and antimicrobial resistance profiles of Salmonella species and Escherichia coli isolates from poultry feeds in Ruiru Sub-County. *BMC Research Notes*, 14: 41. <https://doi.org/10.1186/s13104-021-05456-4>
6. Wasonga, M.O., Maingi, J. and Omwoyo, O. (2021). Effects of contamination of freshwater habitat with common heavy metals and anions on the prevalence of human adenoviruses and enteroviruses. *Frontiers in Public Health*, 8: 603217. DOI: 10.3389/fpubh.2020.603217. | www.frontiersin.org
7. Nyamwaka, I.S., Monda, E., Ombori, R.O. and Kwach, J. (2020). Sources of Fungal Contamination of Fresh and Dried Fish in Kisii County, Kenya. *Microbiology Research Journal International* 30(10): 50-62. ISSN: 2456-7043
8. Opere, W.M., John, M. & Ombori, O. (2020). Molecular Detection of Human Enteric Adenoviruses in Water Samples Collected from Lake Victoria Waters Along Homa Bay Town, Homa Bay County, Kenya. *Food and Environmental Virology* (2020). <https://doi.org/10.1007/s12560-020-09444-y>
9. [Mburu, S.W.](#), [Koskey, G.](#), [Njeru, E.N.](#), [Ombori, O.](#), [Maingi, J.M.](#) & [Kimiti, J.M.](#) (2020). Differential Response of Promiscuous Soybean to Local Diversity of Indigenous and Commercial *Bradyrhizobium* Inoculation Under Contrasting Agroclimatic Zones. *International Journal of Plant Production*
10. Asande, L.K., Omwoyo, O., Oduor, R.O and Nyaboga, E.N. (2020). A simple and fast *Agrobacterium*-mediated transformation system for passion fruit KPF4(*Passiflora edulis* f. *edulis* × *Passiflora edulis* f. *flavicarpa*) , *Plant Methods*, 16:141. <https://doi.org/10.1186/s13007-020-00684-4>
11. Asande, L.K., Omwoyo, R.O., Nyaboga, E.N. and Oduor, R.O. (2020). Efficient Shoot Organogenesis Using Leaf Disc and Nodal Explants of Passion Fruit (*Passiflora edulis* Sims) and Genetic Fidelity Assessment Using Sequence-Related Amplified Polymorphism (SRAP) Markers. *International Journal of Agronomy*, 2020, Article ID 3205710. <https://doi.org/10.1155/2020/3205710>
12. Opere, W.M., John, M. Ombori, O. (2020). Occurrence of Enteric Viruses in Surface Water and the Relationship with Changes in Season and Physical Water Quality Dynamics. *Advances in Virology*, 2020, Article ID 9062041. <https://doi.org/10.1155/2020/9062041>
13. Nyamwaka, I.S., Monda, E., Ombori, R.O. and Kwach, J. (2020). Prevalence and Characterization of Moulds Associated with Fish Feeds Sold in Kisii County, Kenya. *Journal of Advances in Microbiology*, 20(8): 31-41, Article no.JAMB.60520. ISSN: 2456-7116
14. Towett, G., Maingi, J, Omwoyo Ombori, O. and Mbuvi, H. (2020). Reduction of mobile heavy metals during composting of water hyacinth weed. *International Journal of Biological, Physical and Chemical Studies (IJBPCS)*. www.ijbpcs.one
15. Mwaura, A. ., Kamau, J., omwoyo, O. (2020). An ethnobotanical study of medicinal plants commonly traded in Kajiado, Narok and Nairobi counties, Kenya . *East African Journal of Science, Technology and Innovation*, 1(3): 2020.

16. Alaro, L., Monda, E., Ombori, O., & Okun, D. (2020). Mr. Fumonisin B1 (FB1) and fumonisin B2 (FB2) levels in maize genotypes grown in Nakuru County-Kenya. *Current Educational Research*, 3(02). Retrieved from <http://educationalresearch.in/index.php/cer/article/view/50>
17. Langat ,C., Ombori, O., Leley, P., Karanja, D., Cheruiyot, R., Gathaara, M., and Masila, B. (2020). Mapping of Quantitative Trait Loci (QTL) Related to Drought Tolerance in Common Bean (*Phaseolus vulgaris* L.) Using F2 Population from (KATB1 X GLP2). *International Annals of Science*, 8(1): 75-86,. DOI: <https://doi.org/10.21467/ias.8.1.75-86>.
18. Kanyange, L. Kamau, J. Ombori, O., Ndayiragije, A., and Muthini, M. (2019). Genotyping for Blast (*Pyricularia oryzae*) Resistance Genes in F2 Population of Supa Aromatic Rice (*Oryza sativa* L.). *International journal of Genomics*, 2019: 1-10. <https://doi.org/10.1155/2019/5246820>
19. Langat, C., Ombori, O., Leley, P., Karanja, D., Cheruiyot, R., Gathaara, M., and Masila, B. (2019). Genetic variability of Agronomic Traits as Potential Indicators of Drought Tolerance in Common Beans (*Phaseolus vulgaris* L.). *International Journal of Agronomy*, 2019: 1-8. ID 2360848, <https://doi.org/10.1155/2019/2360848>
20. Kawaka, F, Ombori, O., Maingi, J., Amoding, A., Mukaminega, D. and Muoma, J. (2018). Response of common bean (*Phaseolus vulgaris* L.) cultivars to water hyacinth (*Eichhornia crassipes* [Mart.] Solms) compost in Kisumu, Kenya along the Lake Victoria Basin. *Journal of Experimental Agriculture International* 28(1): 1-9, 2018; Article no.JEAI.8260. ISSN: 2457-0591.
21. Kawaka,F. Makonde, H., Dida, M., Opala, P., Ombori, O., Maingi, J. and Muoma, J. (2018). Genetic diversity of symbiotic bacteria nodulating common bean (*Phaseolus vulgaris*) in Western Kenya. *PLoS One* 13 (11), e0207403.
22. Beesigamukama, D., Tumuhairwe, J.B., Muoma, J., Maingi, J.M., Ombori, O, Mukaminega, D., Nakanwagi, J. and Amoding, A. (2018). Agronomic effectiveness of water hyacinth-based composts. *African Journal of Agricultural Research*, 13(39): 2055-2062. DOI: 10.5897/AJAR2018.13440. ISSN: 1991-637X. <http://www.academicjournals.org/AJAR>
23. Beesigamukama, D., Tumuhairwe, J.B., Muoma, J., Maingi, J.M., Ombori, O, Mukaminega, D., Nakanwagi, J. and Amoding, A. (2018). Improving Water Hyacinth-Based Compost for Crop Production. *Journal of Agricultural Science and Food Technology*, 4 (3): 52-63. ISSN: 2465-7522. <http://pearlresearchjournals.org/journals/jasft/index.html>
24. 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
25. Mose, DN., Ombori. O. Allan, M.J. and Okemo, P. (2018). Sources of microbial contaminants in biosafety laboratories in Kenya. *Journal of Advances in Biology & Biotechnology* 17(2): 1-11. Article no.JABB.38583. ISSN: 2394-1081.
26. 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*, 41(13): 1652–1661. <https://doi.org/10.1080/01904167.2018.1458870>
27. Jackline, T.E., Njoka, F.M., Ombori, O. and Peter N. Njau, P.N. (2018). Introgression of stem rust resistance into popular Kenyan wheat varieties to improve production. *Journal of Advances in Biology & Biotechnology*, 17(1): 1-11. Article

no.JABB.38609. ISSN: 2394-1081. DOI : [10.9734/JABB/2018/38609](https://doi.org/10.9734/JABB/2018/38609)

28. Mbinda, W., Ombori, O., Dixelius, C. and Oduor, R. (2018). *Xerophyta viscosa* Aldose Reductase, *XvAld1*, enhances drought tolerance in transgenic sweetpotato. *Molecular Biotechnology*, 60(3): 203-214. DOI <https://doi.org/10.1007/s12033-018-0063-x>
29. Jackline, T.E., Ombori, O., Njau, P.N. and Njoka, F.M. (2017). Determination of Stem Rust Ug99Disease Severity in Selected Wheat Backcrosses in Kenya. *IOSR Journal of Agriculture and Veterinary Science (IOSR JAVS)*, 10(5): 66-71. e-ISSN: 2319-2380, p-ISSN: 2319-2372. www.iosrjournals.org
30. Koskey, G.; Mburu, S.W.; Njeru, E.M.; Malia, J.K.; Ombori, O. and 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*, 8:443. doi: 10.3389/fpls.2017.00443
31. Wekesa, C.S.; 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*, 3(1): 128. DOI: 10.4172/2471-9315.100012. ISSN:2471-9315
32. Mbinda, W., Anami, S., Ombori, O., Dixelius, C. and Oduor, O. (2016). Efficient Plant Regeneration of Selected Kenyan Sweetpotato (*Ipomoea batatas* (L.) Lam.) Cultivars through Somatic Embryogenesis. *Journal of Tissue Science & Engineering*, 7(2). DOI: 10.4172/2157-7552.1000176
33. Mburu, S.W., Koskey, G., Kimiti, J.M., Ombori, O., Maingi, J.M. and Njeru, E.M. (2016). Agrobiodiversity conservation enhances food security in subsistence-based farming systems of Eastern Kenya. *Agriculture & Food Security*, 5(19). DOI 10.1186/s40066-016-0068-2
34. Naluyange, V., Ochieno, D.M.W., Wandahwa, P., Odendo, M., Maingi, J.M., Amoding, A., Ombori, O., Dative 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): 32-36. ISSN 1927-0461 E-ISSN 1927-047X
35. Piero, N.M., Murugi N.J., Okoth, O.R., Ombori, O.R., Jalemba, M.A. and Chelule, C.R. (2015). RNAi-mediated down regulation of cyano-Glycoside biosynthesis in Kenyan cassava (*Manihot esculenta* Crantz) genotypes. *Plant Biochemistry and Physiology*, 3 (3):148-153. doi:10.4172/2329-9029.1000148
36. Ngugi, M.P., Murugi, N.J., Oduor, O.R., Mgtutu, A.J., Ombori, R.O. and Cheruiyot, R.C. (2015). Determination of cyanogenic compounds content in transgenic acyanogenic Kenyan cassava (*Manihot esculenta* Crantz) genotypes: Linking molecular analysis to biochemical analysis. *Analytical and Bioanalytical Techniques*, 6(5):264-271.
37. Ngugi M.P., Oduor, R.O. Omwoyo, R.O., Njagi, J.M., Mgtutu, A.J. and Cheruiyot R.C. (2015). Regeneration of Kenyan cassava (*Manihot Esculenta* Crantz) genotypes. *Plant Biochemistry and Physiology*, 3: 147. doi:10.4172/2329-9029.1000147.
38. Gacheri, P., Machuka, J., Ombori, O. and Bukachi, B. (2015). *Agrobacterium* Mediated Transformation of selected maize inbred lines with pPZP200 towards enhancement of lysine and methionine content. *Journal of Biology, Agriculture and Healthcare*, 5(2): www.iiste.org. ISSN 2224-3208 (Paper) ISSN 2225-093X (Online)
39. Ngetich, A., Runo, Ombori, O, Ngugi, M, Kawaka, F., Perpetua, A. and Nkanata, G. (2015). Low cost micropropagation of local varieties of Taro (*Colocasia esculenta*

- spp.). *British Biotechnology Journal* 6(4): 136-145, Article no.BBJ.2015.036. ISSN: 2231–2927. www.sciencedomain.org
40. Ombori, O., Muoma, J.O. and Machuka, J. (2014). Effect of the medium used in the growth of *Agrobacterium* strain on subsequent *gus* expression of the infected immature zygotic embryos of the tropical maize line. *Maize Genetics Cooperation Newsletter* 87: 17-18. ISSN 1090-4573.
 41. Ombori, O., Muoma, J.O. and Machuka, J. (2014). *Agrobacterium* mediated Transformation of leaf derived callus of tropical maize (*Zea mays* L.) inbred lines. *Maize Genetics Cooperation Newsletter* 87: 18-19. ISSN 1090-4573.
 42. Kawaka, F, Dida, M.M., Opala, P.A., Ombori, O., Maingi, J., Osoro, N. Muthini, M. Amoding, A., Mukaminega, D. and Muoma, J. (2014). Symbiotic Efficiency of Native Rhizobia Nodulating Common Bean (*Phaseolus vulgaris* L.) in Soils of Western Kenya. *International Scholarly Research Notices*, 2014, Article ID 258497. <http://dx.doi.org/10.1155/2014/258497>
 43. Osoro, N.O., Kawaka, F., Naluyange, V., Ombori, O., Muoma, J.O., Amoding, A., Mukaminega, D., Muthini, M. and Maingi, J.M. (2014). Effects of water hyacinth (*Eichhornia crassipes* 1 [Mart.] solms) compost on growth and yield of common beans (*Phaseolus vulgaris*) in Lake Victoria Basin. *European International Journal of Science and Technology*, 3 (7): ISSN: 2304-9693. www.eijst.org.uk
 44. Mvuria, J.M. and Ombori, O. (2014). Low Cost Macronutrients in the Micropropagation of Selected Sweet Potato [*Ipomoea batatas* (L.) Lam] Varieties. *Journal of Agriculture and Environmental Sciences*, 3(1): 89-101. ISSN: 2334-2404. www.aripd.org/jaes
 45. Muoma, J.V.O. and Ombori, O. (2014). *Agrobacterium*-mediated transformation of selected Kenyan maize (*Zea mays* L.) genotypes by introgression of *Nicotiana* Protein Kinase (*npk1*) to enhance drought tolerance. *American Journal of Plant Sciences*, 5: 863-883 <http://www.scirp.org/journal/ajps>
 46. Mutua B.M., Muriithi J.K. and Ombori, O. (2014). Farmers' awareness level on the effect of partheniumweed (*Parthenium hysterophorus* L.) on agricultural production and its control in Nyando division, Kenya. *International Journal of Agriculture. Photon* 125: 305-310.
 47. Naluyangea, 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* inoculants and water hyacinth compost formulations in rosecoco bean and consequences on *Aphis fabae* and *Colletotrichum lindemuthianum* infestations. *Applied Soil Ecology* 76(2014): 68– 77. www.elsevier.com/locate/apsoil
 48. 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. www.sciencedomain.org.
 49. Osoro, N., Ombori, O., M., Muoma, J.O., Amoding, A., Mukaminega, D., Muthini, M. 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 & Technology*, 4(4): 616-633. www.sciencedomain.org.
 50. Piero, M.N., Cheruiyot, R.C., Omwoyo, R.O., Mgtutu, A.J. and Machuka, J.S. (2013). Plant Regeneration of Kenyan Cassava (*Manihot esculenta*, Crantz) Genotypes. *American Journal of Biotechnology and Molecular Sciences*, 3(1): 1-7.
 51. Atieno, R.N., Owour, O.P. and Omwoyo, O. (2013). Antibiotic Resistance of Fecal

- Bacteria indicators and Pathogens Isolated from Sludge and Wastewaters of Abattoirs in Nairobi, Kenya. *Journal of Biology*, 1(5): 106-11. ISSN 2052-0751.
52. Atieno, N. A., Owour, O.P. and Omwoyo, O. (2013). Isolation of high antibiotic resistant fecal bacteria indicators, *Salmonella* and *Vibrio* species from raw abattoirs sewage in Peri-Urban locations of Nairobi, Kenya. *Greener Journal of Biological Sciences* 3(5): 172-178. ISSN: 2276-7762.
 53. Atieno, N. A., Owour, O.P. and Omwoyo, O. (2013). Heavy metal and associated antibiotic resistance of fecal coliforms, fecal streptococci and pathogens isolated from wastewaters of abattoirs in Nairobi, Kenya. *Journal of Applied Biosciences* 64:4858 – 4866. ISSN 1997–5902.
 54. Ombori, O., Muoma, J.V.O. and Machuka, J. (2013). *Agrobacterium*-mediated genetic transformation of selected tropical inbred and hybrid maize (*Zea mays* L.) lines. *Plant Cell, Tissue and Organ Culture* 113(1): 11-23.
 55. Ogero, K., Gitonga N.M, Maina, M., Ombori, O. and Ngugi, M. (2012). Cost-effective nutrient sources for tissue culture of Cassava (*Manihot esculenta* Crantz). *African Journal of Biotechnology* 11(66): 12964-12973.
 56. Ogero, K., Gitonga N.M., Maina, M., Ngugi, M. and Ombori, O (2012). Low Cost Tissue Culture Technology in the Regeneration of Sweet Potato (*Ipomoea batatas* (L.) Lam). *Research Journal of Biology* 2(2): 71-78.
 57. Ogero, K., Gitonga N.M, Maina, M., Ombori, O. and Ngugi, M. (2012). Response of two sweet potatoes (*Ipomoea batatas* (L.) Lam) varieties regenerated on low cost tissue culture medium. *Journal of Agricultural Science and Technology A & Journal of Agricultural Science and Technology B* 2(5B): 534-1250.
 58. Muoma, J.; Ombori, O. and Machuka, J. (2012). Improvement in Inheritance of somatic embryogenesis and plantlet regeneration in tropical maize lines from friable callus. *Maize Genetics Cooperation Newsletter* 85: 60-61.
 59. Ogero, K., Gitonga N.M, Maina, M., Ombori, O. and Ngugi, M. (2012). *In vitro* micropropagation of cassava through low cost tissue culture. *Asian Journal of Agricultural Sciences* 4(3): 205-209.
 60. Ogero, K., Gitonga N.M, Maina, M., Ombori, O. and Ngugi, M. (2011). Response of two sweet potato varieties regenerated on low cost tissue. *African Crop Science Conference Proceedings* 10: 411 – 415.
 61. Gitonga, N.M.; Ombori, O.; Murithi, K.S.D. & Ngugi, M. (2010). Low cost technology tissue culture materials for initiation and multiplication of banana plants. *African Crop Science Journal*, 18(4): 243 – 251.
 62. Muoma, J., Ombori, O. and Jesse, M. (2010). Signal transduction one of the current molecular approaches in the management of drought stress in the sub-Saharan region. *Biotechnology* 9(4): 469-476.
 63. Omwoyo, O.; Gitonga, N.M. and Machuka, J. (2008). Plant regeneration via somatic embryogenesis of commercial maize (*Zea mays* L.) hybrid lines. *Journal of Microbiology and Biotechnology* 4(1): 24-31.
 64. Ombori O., Gitonga N.M. and Machuka J. (2008). Somatic embryogenesis and plant regeneration of some maize (*Zea mays* L.) inbred lines. *Biotechnology* 7(2): 232-242.

Books and Books Chapters

1. Naluyange V., Ochieno, D.M.W., Wandahwa, P., Maingi, J.M., Ombori, O., Mukaminega, M., Amoding, A., Odendo, M. and Muoma, J.V.O (2020).

Performance of Mwitmania Bean Under the Influence of Nitrogen-Fixing *Rhizobium* Inoculant, Water Hyacinth Composts and DAP Fertilizer in a Field Infested with *Aphis fabae* and *Colletotrichum lindemuthianum*. In: Sutton M.A. et al. (eds) Just Enough Nitrogen. Springer, Cham, pp 125-138. https://doi.org/10.1007/978-3-030-58065-0_9

2. Njeru, E. M., Muthini, M., Muindi, M.M., Ombori, O., Nchore, S.B. Runo, S. and Maingi, J.M. (2020). Exploiting Arbuscular Mycorrhizal Fungi-Rhizobia-Legume Symbiosis to Increase Smallholder Farmers' Crop Production and Resilience Under a Changing Climate. In: Singh B., Safalaoh A., Amuri N., Eik L., Sitaula B., Lal R. (eds) Climate Impacts on Agricultural and Natural Resource Sustainability in Africa. Springer, Cham, Pp 471-488. https://doi.org/10.1007/978-3-030-37537-9_27
3. Osoro, N., Maingi, J.M., Ombori, O., Muoma, J.O., Amoding, A., Mukaminega, D. and Muthini, M. (2013). Effects of water hyacinth (*Eichhornia crassipes* [Mart.] solms) compost on growth and yield parameters of maize (*Zea mays*). In C. Onyango, G. Unbehend and M. Lindhauer (eds.), Trends and opportunities in the production, processing and consumption of staple food crops in Kenya. TUD press, Verlag der Wissenschaften GmbH, pp 130-138.
4. Ogero, K., Gitonga N.M, Ombori, O. and Ngugi, M (2010) Cassava production and limitation of propagation through tissue culture In: Mwangi, M. (Ed.). Contributions of agricultural sciences towards achieving the Millennium Development Goals. Pp 148 – 155. FaCT Publishing, Nairobi, Kenya. ISSN: 978 9966 7415 2 6. FaCT: Publishing online at <http://www.m.elewa.org>

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Conference/Workshops/Seminar Papers

Conference Papers

1. Improvement of survival and growth of tissue culture banana (*Musa* spp.) seedlings for smallholder farmers through acclimatization using arbuscular mycorrhiza fungi. SPAS Conference, 15th - 17th Nov 2022 held Kenyatta University, Nairobi, Kenya
2. Wahome, C. N., Maingi, J., Ombori, O and. Mugendi, E.M (2019). Banana cultivar diversity, smallholder production practices and awareness of tissue culture technologies in Kisii, Nyamira and Embu Counties, Kenya. Biennial Conference, 22-26 October, 2019 held Kenyatta University, Nairobi, Kenya
3. Symbiotic effectiveness of indigenous bradyrhizobia nodulating soybean varieties grown in Eastern Kenya. The 5th African Higher Education Week and RUFORUM Biennial Conference 2016 from 17th to 21st October 2016 held at. Century City Conference Centre, Cape Town, South Africa.
4. Unlocking climbing bean (*Phaseolus vulgaris* L.) yield potential using elite native rhizobia Conference held from 17th to 21st October 2016 at. Century City Conference Centre, Cape Town, South Africa.
5. Increasing Soybeans and Climbing Beans Production in Smallholders' Farms in Eastern Kenya. The 5th African Higher Education Week and RUFORUM Biennial Conference 2016 from 17th to 21st October 2016 held at. Century City Conference Centre, Cape Town, South Africa.
6. Ogero, K.O; Gitonga, N. M. Mwangi, M. Ombori O. and Ngugi, M. (2016). In vitro micropropagation of cassava through low cost tissue culture. The 5th National Science week organized by National Commission for Science, Technology and Innovation, KICC from 16th – 20th May 2016.
7. Nchore, S.B., Waceke, J.W., Buttner, C., Omwoyo, O. and Ulrichs, C. (2016). Efficacy of soil solarization and selected organic amendments for the control of root-knot nematodes in African nightshades. RUFORUM Working Document Series

- (ISSN 1607-9345) No. 14 (1): 771-777. <http://repository.ruforum.org>
8. Kimani J.W., Ombori O., Njoka F.M. and Maina M. (2014). Increasing regeneration rate of two sweet potato (*Ipomoea batatas* L.) cultivars on low cost tissue culture media. International conference on “Building a new generation of agricultural scientists”. “Bridging the gap between society, science and industry” Kenyatta University, Nairobi- Kenya. 1st - 5th December, 2014.
 9. Ogero, K.; Mwangi, M.; Gitonga, N.M.; Ombori, O.; Ngugi, M. (2014). Enhancing farmers’ access to disease-free sweetpotato planting materials through low cost tissue culture for food security and poverty alleviation in Eastern Africa. Agricultural Biosciences International Conference (ABIC): Global Leadership in a Changing World. Saskatoon, Saskatchewan (Canada). 5-8 Oct 2014. <http://www.agwest.sk.ca/ABIC2014files/ABIC2014posterWEB.compressed.pdf>
 10. Ogero, K.O., Gitonga, N.M., Ombori, O. and Mwangi, M. (2012). Micropropagation of Cassava (*Manihot esculenta* Crantz) and Sweet Potato (*Ipomea batatas* (L.) Lam) through Low Cost Tissue Culture. 13th Biannual Scientific Conference held at KARI Headquarters Kiptagat Road, Nairobi Kenya 21st – 28th October 2012.
 11. 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.*
 12. Ogero, K.O; Gitonga, N.M. Mwangi, M., Ombori, O. and Ngugi, M. (2011). Evaluating the feasibility of using locally available fertilizers as low cost nutrients in Sweet potato (*Ipomoea batatas* (L.) Lam) tissue culture. 10th African Crop Science Society Conference —From Soil to Soul: Crop Production for Improved African Livelihoods and a Better Environment for Future Generations. Centro Internacional de Conferências Joaquim Chissano Maputo – Mozambique, 10th – 13th October 2011.
 13. Ogero, K.O; Gitonga, N. M. Mwangi, M. Ombori O. and Ngugi, M. (2011). Response of two Sweet potato (*Ipomoea batatas* (l) lam) varieties regenerated on low cost tissue culture medium. 10th African Crop Science Society Conference —From Soil to Soul: Crop Production for Improved African Livelihoods and a Better Environment for Future Generations. Centro Internacional de Conferências Joaquim Chissano Maputo – Mozambique, 10th – 13th October 2011.
 14. Ogero K.O., Gitonga N.M. and Ombori O. (2010). Micropropagation of Cassava (*Manihot esculenta* Crantz) and Sweet Potato (*Ipomea batatas* (L.) Lam) through Low Cost Tissue Culture. 10th workshop on sustainable Horticultural Production in the Tropics. Value chains of ornamentals for local and export market 8th – 11th December 2010.
 15. Ombori O. (2010). Networking, Partnerships & Trust Building *Proceedings of Mult-stakeholders workshop on Strengthening University Capacity for Promoting, facilitating and teaching Rural Innovation processes held at Egerton University 3rd-8th October 2010.*
 16. Ombori O., Gitonga M.N., Muoma J., Kiogora D. and Ngugi M. (2010). Cost effective approaches for *in vitro* mass production of banana (*Musa sapientum* L.) plantlets in Kenya. *Proceedings of East African Regional Scientific Conference of Pure and Applied Sciences held at Kenyatta University, Kenya, between 10th-14th august 2010.*
 17. Ombori, O, Gitonga, N.M. and Machuka, J. (2008) *Agrobacterium*-mediated transient gene expression of tropical maize (*Zea may* L.) genotypes in Kenya. *Proceedings of the 1st Ever all Africa congress on Biotechnology, between 22nd – 26th September 2008, Nairobi, Kenya-*
 18. Ombori O., Gitonga N.M. and Machuka J. (2006). *In vitro* regeneration of some Kenyan highland maize hybrids and open pollinated variety from immature embryos by somatic embryogenesis. *Proceedings of National Biological Conference held on*

25th August 2005, Kenyatta University, Kenya. Sponsored by German Exchange Service (DAAD).

Workshops Papers

1. Ombori, O. and Maingi J. M. (2010). Integration of the elements of IAR4D in low cost tissue culture technology for the micropropagation of bananas. *Proceedings of the workshop on Strengthening University Capacity for Promoting, facilitating and teaching Rural Innovation processes held at Jomo Kenyatta University of Agriculture & Technology, Kenya from 14th - 20th March 2010.*

Seminar Papers

1. Ombori O. (2009). Somatic embryogenesis and *Agrobacterium*-mediated transformation of selected maize (*Zea mays* L.) genotypes in Kenya. Ph.D thesis, Kenyatta University, Nairobi, Kenya.
2. Ombori O. (1999). Plant regeneration and selection for salt and drought tolerance on the Africa finger millet (*Eleusine coracana* (L) Gaertn.). MSc. Kenyatta University, Kenya.

Other Publications

Research Report

1. Exploiting arbuscular mycorrhizal fungi-rhizobia-legume tripartite symbiosis to increase crop production and resilience in semi-arid tropics of Kenya. Funded by Vice-chancellor grant.
2. Participatory Approach in the Production and Acclimatization of Planting Materials and Management of Postharvest Losses of Bananas in Kisii, Nyamiira and Embu Counties, Kenya. Report on the Research Project May 2019. Funded by NRF grant.
3. Participatory Approach in the Production and Acclimatization of Planting Materials and Management of Postharvest Losses of Bananas in Kisii, Nyamira and Embu Counties, Kenya. Report on the Research Project inception workshop held on 2nd and 3rd August 2018 at the Rainbow Ruiru Resort, Kenya. Funded by NRF grant.
4. Nchore, S.B., Waceke, J.W., Buttner, C., **Omwoyo, O.** and Ulrichs, C. (2016). Efficacy of soil solarization and selected organic amendments for the control of root-knot nematodes in African nightshades. RUFORUM Working Document Series (ISSN 1607-9345) No. 14 (1): 771-777. <http://repository.ruforum.org>

Research

Funded Projects

YEAR	SOURCE	COLLABOLATORS	STUDY TOPIC/ PURPOSE
2018-2021	NRF	Dr. John Maingi, Kenyatta University Dr. Ezekiel Mugendi Njeru, Kenyatta University Dr. Jacinta Kimiti, South Eastern Kenya University Bosibori Bwari Bett, KALRO	Participatory approach in the production and acclimatization of planting materials and management of postharvest losses of bananas in Kisii, Nyamira and Embu Counties, Kenya
2016-18	Kenyatta University, VC Research grant	Dr. Ezekiel Mugendi Njeru, Kenyatta University Dr. Shem B, Nchore, Kenyatta University	Exploiting arbuscular mycorrhizal fungi-rhizobia-legume tripartite symbiosis to increase crop production and resilience in semi-arid tropics of Kenya
2014-2016	RUFORUM	Dr. John Maingi, Kenyatta University Dr. Ezekiel Mugendi Njeru, Kenyatta University Dr. Jacinta Kimiti, South Eastern Kenya University	Increasing Soybeans and Climbing Beans production in smallholders` farms in Eastern Kenya
2012-2013	VICRES Grant NO: 7/NR-3-2010/015	Dr. Alice Amoding, Makerere University Dr. John Muoma, Masinde Muliro University Dr. John Maingi, Kenyatta University Ms. Dative Mukaminega, Kigali Institute of Science & Technology	Production of organic fertilizer from water hyacinth (<i>Eichhornia crassipes</i> [Mart.] Solms) for organic farming and conservation of ecosystem in Lake Victoria basin
2010-2012	The Lake Victoria Research Initiative (VICRES) Grant NO: 7/NR-3-2010/015 sz	Dr. Alice Amoding, Makerere University Dr. John Muoma, Masinde Muliro University Dr. John Maingi, Kenyatta University Ms. Dative Mukaminega Kigali Institute of Science & Technology	Production of organic fertilizer from water hyacinth (<i>Eichhornia crassipes</i> [Mart.] Solms) for organic farming and conservation of ecosystem in Lake Victoria basin
2010	ASERECA Grant NO: AB/2009/05	Prof. Gitonga N. Mburugu,	Applying Tissue culture to improve access to cassava and sweet potatoes clean planting materials for farmers in Eastern and Central Africa.
2006-2009	Rockfeller Grant No: FS 048	Prof. Gitonga N. Mburugu,	Use of low cost tissue culture techniques to boost preservation and production of cassava and bananas in Kenya
2006-2007	German exchange Service (DAAD) Lab bench fee + substance allowance	None	Molecular Analysis of Transgenic Maize Plants in the Institute of Plant and Crop Research (IPK), Gatersleben,
2003-2006:	German exchange Service (DAAD) Rockefeller Foundation	None	Somatic Embryogenesis and <i>Agrobacterium</i> -mediated Transformation of selected Maize (<i>Zea mays</i> L.) genotypes in Kenya

Conferences/Workshops/Seminars Attended

Conferences Attended

1. The potential of low-cost tissue culture technology application in sustainable micro-propagation of banana seedlings in Kenya. SPAS Conference, 15th - 17th Nov 2022 held Kenyatta University, Nairobi, Kenya
2. Molecular Characterization of Root-Knot Nematodes Obtained from African Nightshades in Western Kenya. In: Proceedings of Tropentag 2015, Management of land use systems for enhanced food security—conflicts, controversies and resolutions“, 16th -18th September 2015 at Humboldt-Universität zu Berlin, Germany.
3. International Conference on ``Building a new generation of Agricultural Scientists``. Bridging the gap between the society, science and industry, held at Kenyatta University, Kenya from 1st to 5th December 2014.
4. Proceedings of the 1st East African Regional Scientific Conference of Pure and Applied Sciences between 10th-14th August, 2010 held at Kenyatta University, Nairobi, Kenya. Sponsored by Kenyatta University.
5. Proceedings of the 1st Ever all Africa congress on Biotechnology, between 22nd – 26th September 2008, Nairobi, Kenya). Sponsored by Kenyatta University.
6. 25th FAO Regional Conference for Africa, between 16-20th June 2008, Gigiri, Nairobi Kenya, Sponsored by Kenyatta University.

Workshops/Training Attended

1. Workshop on the new research information system (KENRIS) and science, Technology and Innovation (STI) mainstreaming by the National Commission for Science Technology and Innovation. Improving efficiency and integrating Kenyatta University teaching staff into national and global research tracking systems. Held virtually on 19th May 2022. <https://forms.gle/dKWrxUfgtY4edw8q6>
2. SPAS Staff Training on Development and Implementation of the Competency Based Curriculum held at Kenyatta University from 5th to 6th May, 2021.
3. Workshop on commercialization of Research `` Crating innovation with impact`` held at Business & Student Service Centre, Kenyatta University 26th November 2019.
4. Cambridge core platform and authorship training workshop held at Business & Student Service Centre, Kenyatta University 24th September 2019.
5. Training workshop on entrepreneurship held at Chandaria BIIC Centre, Kenyatta University from 6th to 10nd May 2019.
6. Training workshop on Patent drafting held at Chandaria BIIC Centre, Kenyatta University from 18th to 22nd March 2019.
7. Workshop on “Sustainable utilization and conservation of wild sorghum genetic resources for Striga resistance” held at the Kenyatta University Conference Centre (KUCC) on 1st September 2017.
8. Participation in a VicRes research team stakeholders’ workshop held from 17th to 21st February 2012 in Kigali, Rwanda.
9. Participation in a VicRes research team workshop and establishment of a decomposition pilot facility and water hyacinth harvesting activity from 13th January to 2nd February 2012, at Kisumu, Kenya.
10. Participation in a VicRes research team workshop and reconnaissance study between 13th - 18th November 2011 at Kabanyolo, Uganda.
11. Participation in the VicRes biennial forum 9-13 October 2011 at Munyonyo, Uganda
12. Lake Victoria Research Initiative (VicRes) workshop held at Imperial Beach Hotel, Entebbe, Uganda between 19th – 22nd April 2011.

13. 10th workshop on sustainable Horticultural Production in the Tropics. Value chains of ornamentals for local and export market 8th – 11th December 2010.
14. Research Methodology e-course Workshop held at Kenyatta University, Kenya between 14th – 15th July 2011.
15. Workshops for Strengthening University Capacity for Promoting, facilitating and teaching Rural Innovation processes ENDULINK project Sponsored by European Union, Nairobi Kenya, 28-29th Jun 2010. Sponsored by European Development Fund.
16. Proceedings of the third workshop of the University Based Learning cycle of the EDULINK SUCAPRI (Strengthening University Capacity for Promoting, facilitating and teaching Rural Innovation processes) held at Jomo Kenyatta University between 14th-20th March 2010. Sponsored by European Development Fund.
17. Training of Trainers workshop on Content development Open Distance e-learning held at Kenyatta University, Kenya November 2009. Sponsored by Kenyatta University.
18. Proceedings of the fourth workshop of the University Based Learning cycle of the EDULINK SUCAPRI (Strengthening University Capacity for Promoting, facilitating and teaching Rural Innovation processes) workshop at Egerton University between 25th - 31st January 2009. Sponsored by European Development Fund.
19. Implementation of an Environmental Management System Awareness & Implementation according to ISO 14001:2004; Kenyatta University, Kenya, 2nd – 6th Jun 2009. Sponsored by Kenyatta University.
20. Implementation of an Environmental Management System Awareness & Implementation according to ISO 14001:2004; Kenyatta university, Kenya, 30th Jun – 1st July 2008. Sponsored by Kenyatta University.
21. SUCAPRI (Strengthening University Capacity for Promoting, facilitating and teaching Rural Innovation processes) workshop on Moodle and wiki held at Avu, Kenyatta University, Kenya June 2008. Sponsored by European Development Fund.
22. ARESA Redscreen/Red-detect Technology, a new tool in agro-biotechnology at Kenyatta University, Biochemistry Lab 3rd June 2008.

Papers and Exhibitions Presented In Conferences

1. Wahome, C. N., Maingi, J., Ombori, O and. Mugendi , E.M (2019). Banana cultivar diversity, smallholder production practices and awareness of tissue culture technologies in Kisii, Nyamira and Embu Counties, Kenya. Biennial Conference, 22-26 October, 2019 held Kenyatta University, Nairobi, Kenya
2. The Sixth African Higher Education Week and RUFORUM Biennial Conference, 22-26 October, 2018 held at KICC, Nairobi, Kenya.
3. Symbiotic effectiveness of indigenous bradyrhizobia nodulating soybean varieties grown in Eastern Kenya. The 5th African Higher Education Week and RUFORUM Biennial Conference 2016 from 17th to 21st October 2016 held at. Century City Conference Centre, Cape Town, South Africa.
4. Unlocking climbing bean (*Phaseolus vulgaris* L.) yield potential using elite native rhizobia. The 5th African Higher Education Week and RUFORUM Biennial Conference 2016 from 17th to 21st October 2016 held at. Century City Conference Centre, Cape Town, South Africa.
5. Increasing Soybeans and Climbing Beans Production in Smallholders' Farms in Eastern Kenya. The 5th African Higher Education Week and RUFORUM Biennial Conference 2016 from 17th to 21st October 2016 held at. Century City Conference Centre, Cape Town, South Africa.
6. Ogero, K.O; Gitonga, N. M. Mwangi, M. Ombori O. and Ngugi, M. (2016). In vitro micropropagation of cassava through low cost tissue culture. The 5th National Science week organized by National Commission for Science, Technology and Innovation, KICC from 16th – 20th May 2016.
7. Kimani J.W., Ombori O., Njoka F.M. and Maina M. (2014). Increasing regeneration rate of two sweet potato (*Ipomoea batatas* L.) cultivars on low cost tissue culture media.

- International conference on “Building a new generation of agricultural scientists”. “Bridging the gap between society, science and industry” Kenyatta University, Nairobi- Kenya. 1st - 5th December, 2014.
8. 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.*
 9. 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.*
 10. 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.*
 11. Kimani, J.W., Mwangi, M., Ombori, O. and Njoka, F.M. (2012). Increasing the regeneration rate in the three sweet potatoes (*Ipomea batatas* L.) cultivars under low cost tissue culture conditions. *Proceedings of the 12th Workshop on Sustainable Horticultural Production in the Tropics held at Bondo University College, Bondo, Kenya from 4th to 7th December 2012.*
 12. Ogero, K.O., Gitonga, N.M., Ombori, O. and Mwangi, M. (2012). Micropropagation of Cassava (*Manihot esculenta* Crantz) and Sweet Potato (*Ipomea batatas* (L.) Lam) through Low Cost Tissue Culture. *13th Biannual Scientific Conference held at KARI Headquarters Kiptagat Road, Nairobi Kenya 21st – 28th October 2012.*
 13. 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.*
 14. Ogero, K.O; Gitonga, N.M. Mwangi, M., Ombori, O. and Ngugi, M. (2011). Evaluating the feasibility of using locally available fertilizers as low cost nutrients in Sweet potato (*Ipomoea batatas* (L.) Lam) tissue culture. *10th African Crop Science Society Conference —From Soil to Soul: Crop Production for Improved African Livelihoods and a Better Environment for Future Generations.* Centro Internacional de Conferências Joaquim Chissano Maputo – Mozambique, 10th – 13th October 2011.
 15. Ogero, K.O; Gitonga, N. M. Mwangi, M. Ombori O. and Ngugi, M. (2011). Response of two Sweet potato (*Ipomoea batatas* (L.) lam) varieties regenerated on low cost tissue culture medium. *10th African Crop Science Society Conference —From Soil to Soul: Crop Production for Improved African Livelihoods and a Better Environment for Future Generations.* Centro Internacional de Conferências Joaquim Chissano Maputo – Mozambique, 10th – 13th October 2011.
 16. Ogero K.O., Gitonga N.M. and Ombori O. (2010). Micropropagation of Cassava (*Manihot esculenta* Crantz) and Sweet Potato (*Ipomea batatas* (L.) Lam) through Low Cost Tissue Culture. *10th workshop on sustainable Horticultural Production in the Tropics. Value chains of ornamentals for local and export market 8th – 11th December 2010.*
 17. Ombori O. (2010). Networking, Partnerships & Trust Building *Proceedings of Multi-stakeholders workshop on Strengthening University Capacity for Promoting, facilitating and teaching Rural Innovation processes held at Egerton University*

3rd-8th October 2010. Sponsored by European Development Fund.

18. Ombori, O., Gitonga N.M., Muoma, O. Kiogora, D. and Ngugi, M. (2010). Cost effective approaches for *in vitro* mass production of banana (*Musa sapientum* L.) plantlets in Kenya. *Proceedings of the 1st East African regional scientific conference of Pure and Applied Sciences held at Kenyatta University, Nairobi, Kenya between 10th -14th August, 2010. Sponsored by School of Pure and Applied Sciences, Kenyatta University.*
19. Gitonga N. M., Ombori, O., Kiogora S.D.M. and Ngugi, M. (2008). Use of Low Cost Tissue Culture Materials for the Initiation and multiplication of Bananas. The Bio-ARN/VICRES Scientific conference, Kampala, Uganda, 24th – 26th November 2008.
20. Ombori, O. Gitonga.N. M., Murithi, K.S.D (2008) Comparison of the *in vitro* culture conditions of banana genotypes in Kenya. Conference on Banana and plantain in Africa: Harnessing international partnerships to increase research impact at Leisure Lodge Resort Mombasa, Kenya, 5–9 October 2008.
21. Ombori, O., Gitonga, N.M. and Machuka, J. (2008). *Agrobacterium*-mediated transient gene expression of tropical maize (*Zea may* L.) genotypes in Kenya. *Proceedings of the 1st Ever all Africa congress on Biotechnology, between 2nd – 6th September 2008, Nairobi, Kenya. Sponsored by Rockefeller Foundation.*
22. Ombori, O. (2008). Biotechnological techniques in enhancing food security. 25th FAO Regional Conference for Africa, between 16-20th June 2008, Gigiri, Nairobi Kenya. Sponsored by Kenyatta University.
23. Ombori, O. (2008). Somatic embryogenesis and *Agrobacterium*-mediated transformation of some maize (*Zea mays* L.) genotypes in Kenya. Ph.D thesis end of the research presentation, 26th March 2008.
24. Ombori O., Gitonga N.M. and Machuka J. (2006). *In vitro* regeneration of some Kenyan highland maize hybrids and open pollinated variety from immature embryos by somatic embryogenesis. Proceedings of National Biological Conference held on 25th August 2005. Sponsored by German Exchange service (DAAD).
25. Ombori O. (1999). Plant regeneration and selection for salt and drought tolerance on the Africa finger millet (*Eleusine coracana* (L) Gaertn.). MSc. Kenyatta University, Kenya.

Seminars Attended

1. Post graduate seminars for postgraduates of granduands 2021-2023.
2. 38th Postgraduate seminar for postgraduate held at Business & Student Service Centre, Kenyatta University 12th July 2019. Co-chair.
3. Departmental seminars

Supervision of Postgraduate Students

Ph. D

1) Completed

S.NO.	Student	Degree	Research Title
1	Shem Bonuke Nchore A99/23682/2013	Ph.D. (Plant Pathology)	Characterization and non-chemical management of root-knot nematodes (<i>Meloidogyne</i> spp.) on African nightshades in selected parts of Kenya
2.	Lydia Kwamboka Asande I84/31985/2015	Ph.D. (Genetics)	Passion fruit woodiness disease in coastal lowlands of Kenya and genetic transformation system of farmer preferred passion fruit (<i>Passiflora edulis</i> SIMS)
3.	Charles Langat I84/27538/2013	Ph.D. (Plant Physiology &	Phenotypic, physiological characters and quantitative trait loci In F2 generation of <i>Phaseolus vulgaris</i> L.

		Biochemistry)	under drought stress In Katumani, Kenya
4.	Mwaura Ann I84/31985/2015	Ph.D. (Genetics)	Identification of commonly used medicinal plant species in Kenya using DNA barcoding

2) *On going*

S.NO.	Student	Degree	Research Title
1.	Wahome Caroline Nyawira (Msc.) I84/37752/2016	Ph.D. (Microbiology)	Banana rhizosphere microbial diversity, tissue culture bananas (<i>Musa</i> spp.) contamination susceptibility and growth response to arbuscular mycorrhizal fungi inoculation
2.	Nyamwaka Irene Seila 184/33287/2014	Ph.D. (Microbiology)	Prevalence and characterization of moulds, moisture content and aflatoxin levels in fish and fish feeds in Kisii County, Kenya
3.	Morris Muthini Reg No: I84/39041/2016	Ph.D. (Biotechnology)	Biodiversity, effectiveness and anastomotic interactions of indigenous arbuscula mycorrhizal fungi associated with maize genotypes grown in Eastern Kenya
4.	Giathi Gitehi I702/MAI/30114/ 2016	PhD Climate Change and Agroforestry	Propagation of the parasitic <i>Osyris lanceolata</i> : factors influencing haustoria formation and the early seedling growth

Masters

1) *Completed*

S.NO.	Student	Degree	Research Title
1.	Dennis Nyachae Mose I56/ 11628/ 08	MSc.(Biotechno logy)	Risk assessment and management of microbial contamination in biosafety & conventional laboratories
2.	Kimeu J. Mbaluka I56/24409/2011	MSc. (Plant Ecology)	Ecological factors influencing the distribution patterns of annual and perennial species in the Genus <i>Aristida</i> L., at Kifuku Ranch, Lakipia County, Kenya
3.	Towett Kiprono Gideon I56/25490/2011	MSc. (Microbiology)	Assessment of contaminants in water hyacinth's compost and in the waters of Lake Victoria, Kisumu, Kenya
4.	Morris Muthini I56/24336/2011	MSc.(Biotechno logy)	Genetic and morphological assessment of rhizobia that nodulate <i>Phaseolus vulgaris</i> in water hyacinth compost testing fields in Lake Victoria Basin
5.	Koskey Gilbert I56/26830/2013	MSc. (Microbiology)	Symbiotic efficiency and diversity of native rhizobia isolated from climbing beans (<i>Phaseolus vulgaris</i> L.) in Eastern Kenya
6.	Tubei Jackline I56/CE/14597/2009	MSc. (Genetics)	Improving wheat production in Kenya through introgression of stem rust resistance into popular Kenyan varieties
7.	Makatiani Emmanuel Tendwa I56/CE/22389/2012	MSc. (Microbiology)	Nodulation and nitrogen fixation efficiency of <i>Sesbania</i> ssp rhizobia on <i>Sesbania sesban</i> (L.) Merr. and common bean (<i>Phaseolus Vulgaris</i> L.)

8.	Lydia Kanyange I56EA/37692/2016	MSc. Genetics	Screening of Supa aromatic rice (<i>Oryza sativa</i> L.) Population for blast (<i>Magnaporthe Oryzae</i>) resistance at IRRI-ESA Burundi
9.	Wasonga Michael Opere I56/15083/2008	MSc. (Microbiology)	Detection of pathogenic human and animal viruses in lake Victoria waters around Homa Bay town Homa-Bay County of Kenya
10.	Purity Limbua Mukami	MSc. (Biotechnology)	Enhancement of nutritional content in selected maize (<i>Zea mays</i> L.) inbred lines using lysine and methionine genes
11.	Ogero Kwame Okinyi A103/13872/2009	MSc. (Agronomy)	Micropropagation of cassava (<i>Manihot esculenta</i> Crantz) and sweet potato (<i>Ipomoea batatas</i> (L) Lam) through low cost and conventional tissue culture.
12.	Rosemary Nyamboya I56/21428/2010	MSc. (Microbiology)	Prevalence of Fecal bacteria contamination and antimicrobial resistance of bacterial isolates from waste waters of slaughterhouse in Nairobi Country, Kenya.
13.	Osoro Newton Ombese, I56/20575/2010	MSc. (Microbiology)	Composting and effects of water hyacinth (<i>Eichhornia crassipes</i> [Mart] solms) compost on growth and yield parameters of <i>Phaseolus vulgaris</i> and <i>Zea mays</i>
14.	Mutua Boniface Muli	Master of Environmental Studies (Community Development)	Socio-economic and Ecological impacts of <i>Parthenium</i> weed (<i>Parthenium hysterophorus</i> L.) on local livelihoods in Kisumu County, Kenya
15.	Dorica Gaki Ngai I56/CTY/PT/3735 1/ 2016	MSc. (Microbiology)	Profiling of microbial contaminants in chicken feeds in Ruiru, Kiambu County, Kenya
16.	Lawrence Odhiambo Alaro	MSc. (Biotechnology)	Genetic diversity of postharvest fungi and mycotoxin levels in farmers' preferred maize genotypes in six agro ecological zones in Kenya

2) ***On-going***

1.	Jane W. Kimani I56/CE/44324 /2008	MSc. (Genetics)	Increasing the production of sweet potato (<i>Ipomea batatas</i> L.) under low cost tissue culture conditions
2.	Okumu Fredrick Oduor I56/CE/15087/2008	MSc. (Microbiology)	Study of nosocomial infections among the patients in paediatric ward at Siaya district hospital in Siaya County, Kenya
3.	Gregory Juma Wanjala I56/CE/14157/2009	MSc. (Genetics)	Occurrence, Distribution and Severity of maize Necrotic disease in Bungoma County, Kenya
4.	Mwalimu John Ithau I56/CE/25295/2014	MSc. (Genetics)	Morphological and molecular characterization of <i>Graviola</i> in selected agro-ecological regions in Kenya
5.	Omondi David Odhiambo I56/13041/2005	MSc. (Genetics)	Morphological and genetic characterisation of <i>Dolichos (Lablab purpureus</i> (L.) Sweet) diversity in Kenya
6.	Allan Ochola Onyango	MSc. (Microbiology)	Seroprofile of hepatitis B and genotypes among HIV infected individuals visiting Homabay hospital

	I56/CTY/PT/33083 / 2014		comprehensive clinic, Kenya
7.	Quinter ivy Murono I56/CTY/38013/ 2016	MSc. (Microbiology)	

Completed Undergraduate projects

S.NO.	Student	Degree	Research Title	Status
1.	Shalvine Atieno I90/5803/2017	BSc. (Biology)	Biocontrol of root knot nematodes (<i>Meloidogyne spp</i>) using arbuscular mycorrhizal fungi in african night shade (<i>solanum scabrum</i>)	Completed
2.	Irene O. Odera	BSc.	Establishment of low cost tissue culture technology for micropropagation of selected local Banana landraces in Kenya	Completed

Ongoing Undergraduate projects

S.NO.	Student	Degree	Research Title	Status
1.	Derrick Mulei M. I90S/21970/2016	BSc. (Biology)	Use of <i>Trichoderma harzianum</i> as a biological control agent of root knot nematode, <i>Meloidogyne javanica</i> in tomatoes	ongoing

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

Editor

Subject Editor, African Journal of Pure and Applied Sciences

Member of Reviewer of Journals

Research in Agriculture

Manuscript reviewer for International Organization of Scientific Research Journals

Manuscript reviewer for African Journal of Biotechnology

Networking and collaboration

Networking and collaboration with scientists in the following institutions and smallholder farmers:

- South Eastern Kenya University (SEKU)
- Kenya Agricultural and Livestock Research Organization (KALRO) - Kigali Institute of Science and Technology
- Makerere University
- Masinde Muliro University
- Smallholder farmers in Lake Victoria Basin
- University of Oslo, Norway
- Smallholder farmers Embu and Tharaka-Nithi Counties

External Examiner

1. External examiner for Postgraduate thesis – Masinde Muliro University of Science and Technology - 2019 & 2022
2. External examiner for Postgraduate thesis – University of Nairobi - 2019
3. Member of examiners of Kenya National Examination Council for the KCSE Biology Practical paper 3.

Community Service and Other Engagements

1. Research Grant Award/Won
2. 2022/2023: Patron, Kenyatta University Seventy Day Adventist (KUSDA) church, Kenyatta University.
3. 2021/2022: Patron, Kenyatta University Seventy Day Adventist (KUSDA) church, Kenyatta University.
4. 2020/2021: Church Elder, Kenyatta University Seventy Day Adventist (KUSDA) church, Kenyatta University.
5. 2019/2020: Church Elder, Kenyatta University Seventy Day Adventist (KUSDA) church, Kenyatta University.
6. 2018/2019: Director, Community Services, Kenyatta University Seventy Day Adventist (KUSDA) church, Kenyatta University.

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Affiliation of Professional Bodies

-East African Natural History

Administrative Positions Held

Recognized university administrative positions

1 st August 2022 – present	: Exam Co-ordinator, School of Pure and Applied Sciences
Sept. 2022 – present	: Committee member, Research and Innovation Committee, Department of Plant Sciences
Sept. 2022 - present	: Chairman, Exhibition Committee, Department of Plant Sciences
Jan. 2021 – present	: Committee member, School of Pure and Applied Sciences Curriculum Development Committee
Jan. 2021 – present	: Committee member, Exam Moderation Committee, Department of Plant Sciences
Sept. 2020 - present	: Chairman, Curriculum Development Committee, Department of Plant Sciences
Sept. 2020 – Sept. 2022	: Committee member, Staff Dispute and Resolution Committee, Department of Plant Sciences
14 th Aug. 2015 -13 th August 2019	: Chairman, Department of Plant Sciences
28 th Feb. - 4 th Mar. 2014	: Acting Chairman, Department of Plant Sciences
Sept. 2013- 14 th Aug. 2015	: Exam Coordinator, Department of Plant Sciences
	: Student Academic advisor
Aug. 2011- Sept. 2013	: Chairman Board of Undergraduate studies, Department of Plant and Microbial Sciences, Kenyatta University
Sept. 2008- Sept 2013	: Departmental timetabler, Department of Plant and Microbial Sciences, Kenyatta University
9 th Aug. 2007 – Sept. 2008	: Assistant Examination Co-ordinator, Department of Plant and Microbial Sciences
Nov. 2009 – 2015	: Departmental website contact person, Department of Plant and

Microbial Sciences, Kenyatta University
: Student academic advisor, Department of Plant and Microbial
Sciences, Kenyatta University
1th Nov. 2007 – 2015 : E-learning Co-ordinator, Department of Plant and Microbial
Sciences

Other administrative positions Held

2002 – 8th Aug. 2007 : Departmental Assistant timetabler, Kenyatta University.
31st May 2002 – Sept. 2002 : HOD Examinations, Curriculum Co-ordinator, Nyansabakwa High
School
Jan. 2000 –Sept. 2002 : Timetabler, Boarding Master, Preps Master, Library Master
Nyabasabakwa High School, Nyamira County
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