



DR. OMWOYO OMBORI

PART 1. PERSONAL INFORMATION

CITIZEN : Kenyan
GENDER : Male
CURRENT ADDRESS : Kenyatta University, Plant Sciences,
P.O Box 43844 (00100) NAIROBI
EMAIL ADDRESS : omwoyo.ombori@ku.ac.ke

PART 2. EDUCATIONAL BACKGROUND

2003- 2009 : Ph.D Kenyatta University, Doctor of Philosophy (Plant
Biotechnology)
1995-1999 : Kenyatta University, M.Sc. Research Project
1994-1995 : Kenyatta University M.Sc. course work
1990-1994 : Kenyatta University, B.ED (Science), Second Class (Hons) Upper

PART 3. EMPLOYMENT HISTORY

2015 – Present : Senior Lecturer, Kenyatta University
2006- 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

PART 4. ADMINISTRATIVE RESPONSIBILITIES

14th Aug. 2015 - Present : Chairman, Department of Plant Sciences
17th Dec. 2014 : Member of the School Board of Undergraduate Studies
28th Feb. - 4th Mar. 2014 : Acting Chairman, Department of Plant Sciences
Sept. 2013- present : 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

- 9th Aug. 2007 – Sept. 2008 : Assistant Examination Co-ordinator, Department of Plant and Microbial Sciences
- Nov. 2009 – Present : 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 – Present : E-learning Co-ordinator, Department of Plant and Microbial Sciences
- 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

PART 5. PARTICIPATION IN LOCAL / REGIONAL/ INTERNATIONAL WORKSHOPS/ SEMINARS/CONFERENCES/ TRAINING

1. Nchore, S., Waceke, W. Kube, M. omwoyo, O. Holz, S. Büttner, C. and Ulrichs, C. (2015). Molecular Characterisation 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“, 16-18 September 2015 at Humboldt-Universität zu Berlin, Germany.
2. 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.
3. Participation in a VicRes research team stakeholders’ workshop held from 17th to 21st February 2012 in Kigali, Rwanda.
4. 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.
5. Participation in a VicRes research team workshop and reconnaissance study between 13th - 18th November 2011 at Kabanyolo, Uganda.
6. Participation in the VicRes biennial forum 9-13 October 2011 at Munyonyo, Uganda
7. Research Methodology e-course Workshop held at Kenyatta University, Kenya between 14th – 15th July 2011.
8. Lake Victoria Research Initiative (VicRes) workshop held at Imperial Beach Hotel, Entebbe, Uganda between 19th – 22nd April 2011.
9. 10th workshop on sustainable Horticultural Production in the Tropics. Value chains of ornamentals for local and export market 8th – 11th December 2010.
10. Proceedings of Multi-stakeholders workshop on Strengthening University Capacity for Promoting, facilitating and teaching Rural Innovation processes (SUCCAPRI) held at Egerton University between 3rd-8th October 2010. Sponsored by European Development Fund.
11. 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.
12. 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.
13. Workshops for Strengthening University Capacity for Promoting, facilitating and teaching Rural Innovation processes ENDULINK project Sponsored by European Union, Nairobi Kenya, Kenyatta University, 28th Jun 2010. Sponsored by Sponsored by European Development Fund.
 14. 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.
 15. Training of Trainers workshop on Content development Open Distance e-learning held at Kenyatta University, Kenya November 2009. Sponsored by Kenyatta University.
 16. Implementation of an Environmental Management System Awareness & Implementation according to ISO 14001:2004; Kenyatta University, Kenya, 2nd – 6th Jun 2009. Sponsored by Kenyatta University.
 17. 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.
 18. Proceedings of the 1st Ever all Africa congress on Biotechnology, between 22nd – 26th September 2008, Nairobi, Kenya). Sponsored by Kenyatta University.
 19. 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.
 20. 25th FAO Regional Conference for Africa, between 16-20th June 2008, Gigiri, Nairobi Kenya, Sponsored by Kenyatta University.
 21. Training on genetic transformation and low cost Tissue Culturing technique in the International Centre for Tropical Agriculture (CIAT) Colombia between 5th-12th March 2008 Sponsored by Rockefeller Foundation. Sponsored by Rockefeller Foundation.
 22. 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.
 23. ARESA Redscreen/Red-detect Technology, a new tool in agro-biotechnology at Kenyatta University, Biochemistry Lab 3rd June 2008.
 24. Training of Trainers on Content development workshop for ODeL held at Kenyatta University, Kenya between 5th – 16 Nov. 2007. Sponsored by Kenyatta University.
 25. Training on Molecular analysis of transgenic maize plants in Institute of Plant and Crop Research (IPK), Gatersleben, Germany Sept 2006-Feb 2007 Sponsored by German Exchange Programme (DAAD). Sponsored by German Exchange Programme (DAAD).
 26. Training by Kenya Examination Council as an examiner for KCSE Biology Practical between 13th -17th August 2002 at Moi Forces Academy, Nairobi. Sponsored by Kenya National Examination Council.

PART 6. PAPERS PRESENTED IN LOCAL/REGIONAL/INTERNATIONAL WORKSHOPS/SEMINARS/CONFERENCES

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. 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.*
5. 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.*
6. 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.*
7. 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.
8. 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.

9. 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.*
10. **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.*
11. **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.*
12. 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.
13. **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.
14. **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.*
15. **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.*
16. **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.
17. **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).
18. **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.

PART 7. RESEARCH GRANT AWARDS

YEAR	SOURCE	COLLABOLATORS	STUDY TOPIC/ PURPOSE
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	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	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

PART 8. RESEARCH GRANTS AND AWARD GIVEN TO STUDENTS` RESEARCH SUPERVISED

1. Morris Muthini M.Sc. student

- ❖ 2014: Council of Science and technology grant on ``Genetic and morphological assessment of rhizobia that nodulate *Phaseolus vulgaris* in water hyacinth compost testing fields in Lake Victoria Basin`` (Kshs 200,000).

2. Ogero Kwame Okinyi M.Sc student

- ❖ 2012: First prize award in the TEEAL graduate student research paper competition 2011 (US \$ 500) for the paper entitled “*In vitro* micropropagation of cassava through low cost tissue culture.” <http://www.teeal.org>
- ❖ ASERECA research grant on ``Low Cost Tissue Culture of Cassava and Sweet Potatoes`` (US \$ 24000).
- ❖ 2011: National Council of Science and technology grant on `` Low Cost Tissue Culture of Cassava and Sweet Potatoes`` (Kshs 200,000).

3. Boniface Muli M.Sc Student

- ❖ 2012: National Council of Science and technology grant on `` Socio-economic and Ecological impacts of Parthenium weed (*Parthenium hysterophorus* L.) on local livelihoods in Kisumu County, Kenya (Kshs 200,000).

PART 9. PUBLICATIONS

1. Piero, N.M., Murugi N.J., Okoth, O.R., **Ombori, O.R.**, Jalemba, M.A. and Chelule, C.R. (2015). RNAi-Mediated Downregulation 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](https://doi.org/10.4172/2329-9029.1000148)
2. 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.
3. 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](https://doi.org/10.4172/2329-9029.1000147).
4. 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)
5. 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
6. **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.

7. **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.
8. 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*, Vol. 2014, Article ID 258497. <http://dx.doi.org/10.1155/2014/258497>
9. 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
10. 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
11. 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>
12. 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.
13. 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
14. Muthini, M., Maingi, J.M., Muoma, J.O., Amoding, A., Mukaminega, D., Osoro, N. Mgutuu, 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.
15. 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.
16. Piero, M.N., Cheruiyot, R.C., Omwoyo, **R.O.**, Mgutuu, 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.
17. 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.
18. 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.

19. 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.
20. **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.
21. 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.
22. 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.
23. 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.
24. 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.
25. 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.
26. 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.
27. 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.
28. 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>
29. 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.
30. 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.
31. **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.*

32. **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.*
33. **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.*
34. **Ombori O.** (2009). Somatic embryogenesis and *Agrobacterium*-mediated transformation of selected maize (*Zea mays* L.) genotypes in Kenya. Ph.D thesis, Nairobi, Kenya.
35. **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.
36. **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.
37. **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.*
38. **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.*

PART 10. SUPERVISION

Post graduate students

S.NO.	Student	Degree	Research Title	From	Status
1	Purity Limbua Mukami	MSc. (Biotechnology)	Enhancement of nutritional content in selected maize (<i>Zea mays</i> L.) inbred lines using lysine gene	2010	Completed
2	Ogero Kwame Okinyi	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.	2011	Completed
3	Rosemary Nyamboya	MSc. (Microbiology)	Prevalence of Fecal bacteria contamination and antimicrobial resistance of bacterial isolates from waste waters of slaughterhouse in Nairobi in Nairobi Country, Kenya.	2012	Completed
4	Osoro Newton Ombese,	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>	2012	Completed
5	Mutua Boniface Muli	Master of Environmental Studies (Community Development)	Socio-economic and Ecological impacts of Parthenium weed (<i>Parthenium hysterophorus</i> L.) on local livelihoods in Kisumu County, Kenya	2012	Completed
6	Dennis Nyachae Mose	MSc.(Biotechnology)	Risk assessment and management of microbial contamination in biosafety & conventional laboratories	2012	Completed
7	Kimeu J. Mbaluka	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	2013	Completed
8	Towett Kiprono Gideon	MSc. (Microbiology)	Assessment of contaminants in water hyacinth's compost and in the waters of Lake Victoria, Kisumu, Kenya	2014	Completed

9	Morisi Muthini	MSc.(Biotechnology)	Genetic and morphological assessment of rhizobia that nodulate <i>Phaseolus vulgaris</i> in water hyacinth compost testing fields in Lake Victoria Basin	2013	Defended thesis
10	Tubei Jackline	MSc. (Genetics)	Improving wheat production in Kenya through introgression of stem rust resistance into popular Kenyan varieties	2014	Thesis writing
11	Shem Bonuke Nchore	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	2014	Thesis writing
12	Makatiani Emmanuel Tendwa	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.)	2014	Data collection
13	Okumu Fredrick Oduor	MSc. (Microbiology)	Study of nosocomial infections among the patients in paediatric ward at Siaya district hospital in Siaya County, Kenya	2014	Data collection
14	Gilbert Koskey	M.Sc. (Environmental Microbiology)	Assessment of symbiotic efficiency and diversity of native rhizobia isolated from climbing beans (<i>Phaseolus vulgaris</i> L.) in Eastern Kenya	2015	Data collection

Undergraduate projects

S.NO.	Student	Degree	Research Title	From	Status
1	Irene O. Odera	BSc.	Establishment of low cost tissue culture technology for micropropagation of selected local Banana landraces in Kenya	2011	Completed
2	Mvura J. Mugendi	BSc. (Biology)	Low cost macronutrients in the micropropagation of selected sweet potato (<i>Ipomoea batatas</i> (L.) Lam) varieties	2011	Completed

PART 11. THESIS EXAMINED

PHD THESIS

2013: Rasha Adam Omer Abdalla entitled “Cloning drought associated genes and *Agrobacterium* mediated transformation of tropical maize”. Kenyatta University.

2015: Mburu Kenneth Njuguna entitled “An integrated approach for the control and management of banana *Xanthomonas* wilt disease”. Kenyatta University

MSC THESIS

1. 2015: Emmah N. Marigi entitled “Regenerability and transformability of selected Kenyan farmer preferred cassava (*Manihot esculenta* Cranz) ecotypes”. Kenyatta University.
2. 2015: Jane Chemeli entitled “Heterotic groupings of twelve inbred lines of maize (*Zea mays* L.) using line tester in Kiambu and Embu Counties, Kenya”. Kenyatta University.
3. 2015: Macharia Sarah Wanjiku entitled “Genetic transformation of banana with extracellular secreted plant ferredoxin-like protein (es-pflp) gene”. Kenyatta University
4. 2014: Mutinda Josphat entitled “Prevalence and antimicrobial susceptibility profiles of bacterial pathogens isolated from outpatients with upper respiratory tract infections in Kitui district hospital, Kenya, Kenyatta University.
5. 2014: Diana Wanjala N. Manene entitled “Screening selected sorghum (*Sorghum bicolor* (L.) Moench) lines for post attachment resistance levels against ecotypes of witch weed (*Striga hermonthica* (Del.) Benth)”. Kenyatta University.
6. 2014. Ithinji Jane Kithira. Entitled “effect of soil amendment with manure on nodulation and nitrogen fixation in soybeans and climbing beans in Meru County, Kenya”. Kenyatta University.
7. 2014: Gachara Grace Wanjiku entitled “Post-harvest fungi diversity and level of aflatoxin contamination in stored maize: Cases of Kitui and Nakuru Counties and Kitale Districts in Trans-Nzoia County, Kenya”. Kenyatta University, Kenya.
8. 2014: Joel Atanda Kataka entitled “Genetic diversity and Virulence study of *Striga hermonthica* Ecotypes from Kenya and Uganda on selected sorghum varieties”. Kenyatta University, Kenya.
9. 2014: Esther Waithaka entitled “Effects of the use of *Trichoderma asperellum* as control agent of root knot nematodes on nodulation of French beans in Kenya”. Kenyatta University, Kenya.
10. 2014: Mr. Peter Kabiro Laibu entitled “Determination of microbial composition, heavy metal contamination and physico-chemical parameters of fish pond water in Central Imenti, Meru, Kenya”. Kenyatta University, Kenya.
11. 2014: Dikko Jeff Gafna entitled “an investigation of medicinal plants species diversity and access to traditional herbal medicine among the Samburu people, Samburu County, Kenya. Kenyatta University, Kenya.
12. 2014: Nyamwaka Irene Seila entitled “Determination of fungi associated with deterioration of sun-dried *Rastrineobola argentea* sold in Gucha South District, Kisii County, Kenya”. Kenyatta University, Kenya.
13. 2013: Waithaka Paul Njenga entitled “Isolation, sensitivity to antibiotics and control methods of salmonellosis in Nakuru North Sub-County, Kenya, Kenyatta University, Kenya. Kenyatta University, Kenya.

14. 2013: Anthony Njagi Kiranga entitled `` Morpho-Physio-Karyotypic Characterization of Wild Cotton (*Gossypium* spp.) Germplasm in Kenya. Kenyatta University.
15. 2013: Kithure Robert Kariba entitled ``Genetic diversity of *Faidherbia albida* (Del.) A. Chev Kenyatta University, Kenya.collections held at the world Agroforestry Centre (ICRAF) as revealed by AFLP markers. Kenyatta University, Kenya.
16. 2013: Sande Frida Olive entitled “Screening for water deficit tolerance and *Agrobacterium*-infectivity among tropical maize (*Zea mays* l.) lines in Kenya, Kenyatta University, Kenya. 2012: Jacinta Karambu Muthuri entitled ``Effect of different soil fertility amendments on the nodulation and yield of soyabean``. Kenyatta University, Kenya.
17. 2012: Ms Owaka Margaret entitled “Characterization of the genetic diversity and pathogenecity of *Colletotrichum kahwae*, using Random Amplified Polymorphic DNA (RAPD) analysis”. Kenyatta University, Kenya.
18. 2011: Mr. Melil Charles Kiplagat entitled “Agronomic performance of maize (*Zea mays* L.) top cross and double cross hybrids in varying environments of Western Kenya”. Kenyatta University, Kenya.
19. 2010: Ms Maina Susan Muthoni entitled “Evaluation of regeneration response in tissue culture of Groundnut (*Arachis hyogaea* L.) varieties adapted to Eastern and Southern Africa”. Kenyatta University, Kenya.

PART 12. EXTERNAL LINK IN SCIENTIFIC RESEARCH

Kigali Institute of Science and Technology

Makerere University

Masinde Muliro University

Smallholder farmers in Lake Victoria Basin

Smallholder farmers in Embu and Tharaka Nthi Counties