CURRICULUM VITAE



Associate Professor

Department of Agriculture and Land Use Management
School of Agriculture, Veterinary Science and Technology
Masinde Muliro University of Science and Technology

P.O. Box 190 – 50100Kakamega, Kenya

Mobile Tel: 0714-467347

E-Mail: fmuyekho@mmust.ac.ke ORfnmuyekho57@gmail.com

Personal Details and Employment Record

Personal Details	
Name	Prof Francis Namasake Muyekho (PhD)
Date of birth/Nationality	January 1957/Kenya
Language	English, Kiswahili and Luhya
Employment	
Current position	Associate Professor
Department	Department of Agriculture and Land Use Management
School	School of Agriculture, Veterinary Science and Technology (SAVET

Current Employer	Masinde Muliro University of Science and Technology (MMUST) – 2013 to Date
Tel. No.	0714-467347
E-mail Address	fnmuyekho57@gmail.com or fmuyekho@mmust.ac.ke
Previous Employer	Kenya Agricultural Research Institute (KARI) – (Sept 1981 to July 2013) Box 57811 City Square, Nairobi Tel. 020-4183720

3. EDUCATION

- 1994 Doctor of Philosophy in Forage Agronomy, Adelaide University, Australia
 - Thesis title "Environmental and agronomic factors affecting seed production in annual medics (Medicago spp)". digital.library.adelaide.edu.au > dspace > bitstream
 - The PhD was by Research only at Waite Institute, Adelaide University, South Australia.
- **1981** Bachelor of science, University of Nairobi, Kenya.
 - Graduated with Second Class Honors degree (Upper division) in Botany and Zoology
- 1977 Kenya Advanced Certificate of Education (A-Level), Friends School Kamusinga, Kenya
- **1975** Kenya Certificate of Education, Chesamisi High School, Kenya.
- **1971** Certificate of Primary Education, Yabeko Salvation Army Primary School, Kenya.

4. WORK EXPERIENCE

September 2021 to Present	Associate Professor, Department of Agriculture and Land Use Management, School of Agriculture, Veterinary Science and Technology – MMUST
November 2012 to 2017	Senior Lecturer – Department of Biological Sciences, Faculty of Science – MMUST.
June 2017 to November 2020	Senior Lecture, Department of Agriculture and Land Use Management, School of Agriculture, Veterinary Science and Technology – MMUST.
2007 to 2012	Centre Director and Principal Research Scientists at Kenya

Agricultural research Institute (KARI) – Currently renamed

Kenya Agriculture and Livestock Research Organization

(KARLO).

2005 to 2007 - Senior Research Scientist and National Coordinator of Pasture and Fodder Research

2002 to 2005 Visiting scientist/Consultant at theInternational Centre for

Insect Physiology and Ecology (icipe) where I was the

regional coordinated of a GEF-Regional Grammineae project

that covered Kenya, Ethiopia and Mali.

1996 to 2001 Senior Research Scientist and National Coordinator of Pasture and Fodder Research.

Kenya Agricultural Research Institute (KARI)

1989 to 1994 PhD student at Adelaide University, Australia

October 1981 to 1988 Assistant Research scientist at Kenya Agricultural Research Institute (KARI).

CONTRIBUTION TO DEPARTMENTAL, FACULTY AND UNIVERSITY ADMIN-ISTRATION BOARDS

1. 1st June, 2018 to Date Chairperson of the board for the Directorate of Research

and Post Graduate Support.

2. 1st August 2017 to Date Member of the board of Technical, Vocation Education and

Training (TVET) board.

3. 30th October 2017 to Date Senate representative for School of Agriculture, Veterinary

Science and Technology.

4. April 2020 to Date Examination Coordinator, School of Agriculture, Veterinary

Science and Technology.

5. April 2018 to August 2020 Chairman of Graduate studies committee, School of

Agriculture, Veterinary Science and

6. May 2015 to March 2017 Chairman of Graduate Studies committe, Faculty of Science.

COMMUNITY AND OUTREACH SERVICES

1. June 2019 to Date Chairperson of Board of Management Yuya secondary

school.

2. November 2015 to Date Chairperson of the Board of Management of Nabunga

Secondary School

3. November 2019 to Date Chairperson of the Board of Management of Nabunga

Secondary School

4. October 2009 to October 2019 Chairperson of the Board of Management of of Karibuni

Secondary School

5. 13th November, 2008 Member of Board of Governors Namwela Secondary School

6. 2005 to 2012	Member of the First Board of Interchristian Fellowship's Evangelical Mission (IcFEM)
7. 2002 to Date	Founder Chairman and member of Community Research in Environment and Development (CREADIS)
8. 2012 – 2015	Member of the Board of Governors ST. Vincent Secondary School

KEY RESEARCH PROJECTS AND THEIR CONTRIBUTIONS TO AGRICULTURE IN KENYA

Year	Project
2022 to 2024	Enhancing the nutritive value of sugarcane tops and bagasse for increased feed availability – MMU/COR: 40005) (520)
2020 to 2022	Development of competitive and sustainable forage seed systems for dairy. <i>Collaborator</i>
2020 to 2022	KCSAP CGS/CRGS-AD 2019/LWA/04-8/ INTEGRATED SOIL FERTILITY MANAGEMENT
	Title: Aligning Integrated Soil Fertility Management Technologies to Biophysical and Socio-Economic Conditions for Improved Soil and Fertilizer Management in Western Kenya. <i>Collaborator</i>
November 2020 to November 2021	Title: Research Capacity among Academic Staff of Masinde Muliro University of Science and Technology, Kenya. Funded by University Research Fund (URF). Principal Investigator - Ksh 991,440. • Report on research capacity among different cadres of academic staff, factors constraining the effective participation in research and suggested solutions is available.
2017 to 2020	Title: Scaling up sustainable land management and agro-biodiversity conservation to reduce environmental degradation in small scale agriculture in Western Kenya. A collaborative project Funded by Global Environmental Facility (GEF) through AGRA and lead by KARLO. Ksh 21,000,000. I was the lead collaborator from MMUST mandated to document below and above ground agro-biodiversity. • The project supported 2 PhD and 5 MSc students PhD Students and technical report on below ground and above ground agro-biodiversity is available.
2020 to 2022	Exploiting Napier Grass Stunt Host-Plant Resistance and Integrated Pest Management Practices to Increase Feed Availability in Smallholder Dairy Systems. Funded by National Research Fund (NRF). KSh 19,000,000. Principa investigato. Awaiting release of Funds. [See attached list of NRF AWARDED 2nd CALL

	MULTIDISCIPLINARY RESEARCH PROJECTS - 2019/2020 FY Number 33]
2014 to 2017	AGRA/KALRO Project: "2013 SHP 013: Scaling up Integrated soil fertility management in Western Kenya through an innovative publicprivate partnership. Principal Investigator/Project Manager Dr. Martins Odendo and Co-Principal Investigator Dr. Francis N. Muyekho - an agronomist MMUST.
	 Project completed with two refereed journal papers and technical report.
2010 to 2014	Title: Exploiting Napier stunt and smut disease resistance to increase feed availability in smallholder dairy systems. An East African Regional Project Funded by world Bank through KARI. Ksh 10,000,000. <i>Principal investigator</i> • The project sponsored two Masters to graduationand identified and catalysed the dissemination of two Napier grass accession tolerant to stunt disease and three to Napier headsmut disease.
2009-2013	Alliance for a Green Revolution (AGRA)/KARI Project "2009 SHP 030: Title: Improving Small Holder Maize Productivity in Western Kenya through Integrated Soil Fertility Management. Principle Investigator/Project manager. KSh 13,000,000. <i>Collaborator</i> .

POST GRADUATE STUDENTS SUPERVISED

PhD supervision

- Faith Milkah Wakonyo Muniale (PhD 2021). Harnessing Ecosystem Services and Climate Change
 Adaptation by Vulnerable Rural Communities of Western Kenya
 through Conservation Agriculture in the Department of Biological
 Sciences, Masinde Muliro University of Science and Technology
 (MMUST). Co-Supervisedby Francis Muyekho (MMUST) and Prof
 Peter Mtakwa, Sokoine University, Tanzania.
- 2. Charles Kipsang Kigen (PhD 2019). Modelingthe impacts of climate change on spatial and temporal distribution of rangelandvegetation in Kenya. Department of Biological Sciences, Co-supervised by Francis Muyekho, Edward Masibayi and Stanely Makindi of Masinde Muliro Universityof Science and Technology (MMUST).
- 3. Nakhumicha Emily Wamalwa (PhD, 2018). Molecular characterization of cowpea accessions and their response to Fusarium wilt pathogen in Kakamega County, Kenya. Graduated December 2018. Co-supervised by JohnMuoma,

Francis Muyekho and Sammy Ajanga. Masinde Muliro University of Science and Technology.

- 4. Dennis Ondieki Omayio (PhD 2018). Molecular characterization of *Ustilago kamerunensis* P. & H.S.Y.D. of Napier grassand Evaluation of its interaction with 'Candidatus phytoplasma oryzae' under nutrient and moisture stress. Maseon University. Supervised by Dr. David Musyimi of Maseno University, Francis Muyekho of Masinde Muliro University of Science and Technology and Sammy Ajanga of Kenya Agriculture and Livestock Research Organization (KARLO).
- Joseph W. Munyasi. (PhD 2017). Evaluation of alternative foddergrasses to Napier (*Pennisetum purpureum* (Schumac) in western Kenya. Cosupervised by E.O. Auma,
 L. Ngode of University of Eldoret and F.N. Muyekho of Masinde Muliro University of Science and Technology (MMUST).
- 6. Henry A. Ogola. (PhD 2013). Effect of phosphorus and desmodiumon *Striga hermonthica* (del) Benth incidence in maize (Zea mays L.) based croppingsystem in western Kenya. Co-supervised by Odhiambo G.D. (Maseno University, Okalebo J.R. (Moi University) and **Muyekho F.N**. of Masinde Muliro University of Science and Technology (MMUST).

MSc supervision

- 1. *Matindu I. Christine (MSc 2020)*. Microbial Profiles of Soils Under Different Cropping Systems in Western Kenya. Co-supervised by **Francis. N. Muyekho** and Anthony W. Sifina. MSc. Department of Biological Sciences.
- 2. *Chrisostim Mang'oli Wafubwa* (MSc, 2020). Impact of anthropogenic activities on insect pollinator diversity and abundance in Kakamega forest fragments, Kenya. Co-supervised by Millicent Ndong'a and **Francis N. Muyekho**. Department of Biological Sciences.
- 3. *Lyani Andrew* (MSc 2020). Cropping systems on biodiversity of soil invertebrates and soil organic matter around Kakamega forest. Department of Biological Sciences. Co-supervised by Millicent Ngong"a and Muyekho F.N.
- 4. *Celestine N.Manyasi* (MSc 2018). Integrated Striga hermonthica management in maize using water hyacinth composts combined with carotenoid expression and Imazapyr seed treatment. Cosupervised by **Francis N. Muyekho** and Dennis Ochieno. Department of Biological Sciences, MMUST.
- 5. *Elisheba Amolo Imbaya* (MSc 2018). Efficacy of leave extracts of Artemisia annua and Thevetis peruviana against Aphis fabae and non-target organisms on Solanum scabrum. Department of Biological Sciences, MMUST. Co-supervised by Millicent Ndonga and **Francis N. Muyekho**
- 6. *Kennedy Odhiambo Ogonda* (MSc 2018). Pesticidal effects of Artemesia annuaL. crude leaf extract on Aphis fabae Scop., on non-target honey bee and lady-birdbettle in bean-based cropping systems. Department of Biological Sciences, MMUST. Co-supervised by Millicent Ndonga and **Francis N. Muyekho.**

7. *Inviolata Nanyuli* (MSc 2018). Evaluation of effective composting techniquesfor sustainable soil fertility improvement on smallholder farms in Lurambi Subcounty, Kenya. Department of Disaster Management and Sustainable DevelopmentMasinde Muliro University of Science and Technology. Co-supervised by **Francis N Muyekho** and Omuterema

- 8. Adhiambo Teresa Rael (MSc 2018). Determination of Carbon Stocks of the Invasive Tree, Psidium Guajava L. Within Kakamega Tropical Rainforest. Department of Biological Sciences, MMUST. Cosupervised by **Francis N. Muyekho** and John Obiri.
- 9. Rashid Calvince Kawawa (MSC 2017). Invasive success of psidium guajava L., inKakamega Tropical Rainforest, Western, Kenya. Co-supervised by **Francis .N. Muyekho** and John Obiri. Department of Biological Sciences, (MMUST).
- 10. Leornard Obieti (MSC 2013). Forage availability and quality for the grazers of Impala Sanctuary, Kisumu. Masinde Muliro University of Science and Technology(MMUST). Co-supervised by K Martha and **Francis .N. Muyekho**. Department of Biological Sciences MMUST. Graduated 2013

THESIS EXAMINATION

- 1. David Wanyonyi Nanyende Re-emergence of Leptorosis and its impact on public health programmes in Kimilili Mt. Elgon sub-counties, Bungoma County, Kenya. PhD thesis 2022. Masinde Muliro University of Science and Technology.
- 2. Mafuta Nangila Janepher Genetic diversity of Africa Nightshade accessions and its resistance to bacterial wilt (*Rolstonia soanacearum*) in western Kenya. PhD thesis 2022.
- 3. George M. Mbakahya Application of social network analysis on information flow for the adoption of sustainable innovations in western Kenya. (PhD thesis 2021)
- Bonphase Collins Mangeni Distribution, molecular diversity and biological characterization of bean common mosaic necrosis virus (BCMNV) Kenya. PhD thesis 2019. Masinde Muliro University of Science and Technology (MMUST).
- 5. Anthony Simuyu Mabele Occurance and distribution and diversity of groundnut rosette assistor virus causing groundnut rosette disease in western Kenya. MSc thesis 2019. Masinde Muliro University of Science and Technology (MMUST).
- 6. Lubao Wanyonyi Murere Effect of seed quality and legume diversification on management of bean common mosaic and bean common mosaic necrosis viruses in western Kenya. MSc thesis 2018. Masinde Muliro University of Science and Technology (MMUST).
- 7. Bernard Kaditi Sunday Common bean insect pest & disease identification techniques & management practices by farmers. MSc thesis 2018. Masinde Muliro University of Science and Technology (MMUST).
- 8. Isabella Kanaga Ememwa Evaluation of engineered cassava for resistance against and effect of planting technologies on cassava brown streak disease prevalence in Kenya. MSc thesis 2017.

 Masinde Muliro University of Science and Technology (MMUST).
- 9. Koros Kimutai Hillary Population status and spatial distribution of Prunus Africana in north and South Nandi Forest. MSc thesis 2016. Masinde Muliro University of Science and Technology (MMUST).
- 10. Eliudi Bwambok Impact pf human activities on tree species in Kisere Forest within Kakamega County. MSc thesis 2016. Masinde Muliro University of Science and Technology (MMUST).

- 11. Asiema Onesmus Ayuya Adoption on on-farm water soil erosion control structures in Vihiga County Kenya. MSc thesis 2015. Masinde Muliro University of Science and Technology (MMUST).
- 12. Sandra Khatiebi Biodegradability of dumped municipal solid wastes in Eldoret town. MSc thesis 2015. Masinde Muliro University of Science and Technology (MMUST).
- 13. Mbakaya George Micheals' Vulnerability to climate change and effects of information to farming households in Namabale Sub-County. MSc thesis 2017. SAVET.
- 14. Truphena C. Bett Rhodes grass (Chloris gayana Kunth.) seed quality in response to fertilizer application and harvesting regimes. MSC thesis 2016. University of Eldoret.
- 15. Edith K. Avedi Effecacy and safet of Fusarium oxysporum in the biological control of the witchweed Striga hermonthica parasitizing maize in Western Kenya. MSc thesis 2013. Masinde Muliro University of Science and Technology (MMUST).

PUBLICATIONS

Books with ISBN numbers

- 1. Kabirizi, J.; **Muyekho, F**.; Mulaa, M; Kawube, G.; Msangi, R.; Pallangyo, B.; Zziwa, E.; Mugerwa, S.; Ajanga, S.; Lukwago, G.; Wamalwa N.I. E; Kariuki, I.; Atuhairwe, A.; Awalla, J.; Namazzi, C.; Nampijja, Z. (2015). Napier grass feed resource: production, constraints and implications for smallholder farmers in Eastern and Central Africa. ISBN: 978-9970-9269-1-6
- 2. **Francis Muyekho**, Lukuyu Ben, Duncan A.J. Editors (2014). Characterization of the livestock production systems and potential to enhance dairy productivity through improved feeding in sub-humid western Kenya. Editors: Francis Muyekho, Lukuyu Ben, Duncan A.J. Edition: 1, Publisher: ILRI
- 3. Khan, Z.R.; **F.N. Muyekho**; E. Njuguna; J.A. Pickett; L.J. Wadhams; N. Dibogo; A. Ndiege; G. Genga and C. Lusweti (2005). A primer on planting and managing 'Push-Pull' fields for stemborer and Striga control in maize. A step-by-step guide for farmers. Published and printed by: ICIPE Science Press. ISBN: 9290641703. 48p.
- 4. **F.N. Muyekho**; A.T. Barrion and Z.R. Khan (2004). A primer on grass identification and their uses in Kenya. Development Communication Ltd. ISBN 9966-9856-0-3. 84p.

Book Chapters

- 1. Asudi G.O., **Muyekho F.N**., Midega C.A.O., Khan Z.R. (2019). Integrated Management of Napier Grass Stunt Disease in East Africa. In: Olivier C., Dumonceaux T., Pérez-López E. (eds). Sustainable Management of Phytoplasma Diseases in Crops Grown in the Tropical Belt. Sustainability in Plant and Crop Protection, Vol 12. Springer, Cham
- Muyekho, F.N. and Odongo, J.A. (2000). Promotion of forage legume seed production and processing on smallholder farms in Western Kenya. Rijk de Jong and E.A. Mukisira (Eds.). Testing of livestock technologies on smallholder mixed farms in Kenya 1995-1999. Kenya Agricultural Research Institute. pp105-117. ISBN 9966-879-34-X.

- 3. Book Chapter 3: Problem Formulation and Options Assessment (PFOA) for genet-ically modified organisms: the Kenya Case Study, by K.C. Nelson; G. Kibata; M. Lutta and J.O. Okuro; **F. Muyekho**; M. Odindo; A. Ely; and J.M. Waquil. In: Hilbeck A. and Andow, D.A. (eds) (2004). Environmental Risk Assess-ment of Transgenic Organisms: Volume 1. A Case Study of Bt. Maize in Ken-ya. CAB Internationa, Wallington, UK. Pp 57 82.
- 4. Book Chapter 5: Biodiversity and Non-Target Impacts: A Case Study of Bt Maize in Kenya. By Nick Birch; Ron Wheatley; Angelika Hillbeck; Salvatore Ar-paia; Gabor Loevei; Josephine Songa; Mamoudou Sétamou; Srinivasan Sithanantham; Adele Ngi-Song; Beatrice Anyango; Francis Muyekho; Den-nis Ochieno; Elijah Lelmen; Patrick Kalama; Emana Degaga; Itamar Soares Melo; Robinson Pitelli; Edson Sujii; Deise Capalbo; Eliana Fontes; Fang-Hao Wan; James Ogwang; Julian Smith; Nguyen Van Son; Tran Quang Tan. In: Hillbeck A. and Andow, D.A. (eds) (2004). Environmental Risk Assessment of Transgenic Organisms: Volume 1. A Case Study of Bt. Maoze in Kenya. CAB International, Wallington, UK. Pp 117 186.

Refereed Journal Publications

- Ongadi Patrick Mudavadi, Mpolya Abraham Emmanuel, Lukuyu Adubwa Bernard, Haule Alphonse, David Peter Ngunga, Gachuiri Charles, Muyekho Francis Namasakeand Endalkachew Wolde-meskel (2020). 59909Urea-molasses Pre-treatment to EnhanceNitrogen Gain, Digestibility, Intake and Milk Yield from Crop-Residues in SmallholderDairy Farms in Eastern Africa. Asian Journal of Research in Animal and Veterinary Sciences. 6(2): 28-43, 2020; Article no.AJRAVS.59909
- Ongadi Patrick Mudavadi, Mpolya Abraham Emmanuel, Gachuiri Charles, Muyekho Francis Namasake and Lukuyu Adubwa Bernard (2020). Effects of Season Variationon Water, Feed, Milk Yield and Reproductive Performance of Dairy Cows in Smallholder Farms in Eastern Africa. Journal of Agriculture and Ecology Research International 21(8): 1-15, 2020.
- 3. Matindu Christine, Sifuna Anthony Wawire, **Francis Muyekho**, Dennis Omayio (2020). Soil Bacteria Community Structure of Maize and Beans Smallholder Farms in the Riverlsiukhu Watershed, Western Kenya. . East African Scholars J Agri Life Sci. Vol-3, Iss6 (June, 2020): 174-180. DOI:10.36349/EASJALS.2020.v03i06.02214
- Charles O. Nundu, Jacob W. Wakhungu and Francis N. Muyekho (2020). Influence of Nutritional Management Practices on Dairy Cattle Productivity among Small HolderFarmers in Kakamega Central, Kakamega County, Kenya. IOSR Journal of Agricultureand Veterinary Science (IOSR-JAVS) e-ISSN: 2319-2380, p-ISSN: 2319-2372. Volume13, Issue 4 Ser. III (April 2020), PP 13-17
- 5. Charles Kigen, **Francis Muyekho**, Edward Masibayi, Stanely Makindi. (2019). Potential tropical climate-based spatio-temporal grass variability. Environmental ResearchCommunications Environ. Res. Commun. 1 021001. DOI: 10.1088/2515-7620/ab0cc7
- Kigen K. Charles, Stanely M. Makindi, Francis N. Muyekho and Edward N. Masibayi. Spatiotempral assessment of rainfall influence on vegetation in arid and semi-arid landof Kenya. IOSR Journal of Environmental Science, Texicology and Food Technology. Volume 13 (10) October 2019.
- 7. Andrew Lyani, **Muyekho N Francis**, Ndonga Millicent (2019). Effect of Cropping Systems on Soil Invertebrates Diversity and Abundance Around Kakamega Forest in Kenya. Int J Plant Anim Environ Sci 2019; 9 (4): 200-213. DOI: 10.26502/ijpaes.006
- 8. Muniale FM, **Muyekho F.N**, Mtakwa PW, Baanda AS and Massonga C (2019). Therole of Conservation Agriculture in management of Fall Army Worm Spodoptera frugiperda in

- Southern Tanzania. Global Journal of Scientific Researches. Vol. 7(2), pp. 27-31, 23 October, 2019.
- 9. Faith M.W. Muniale, **F.N. Muyekho**, P.W. Mtakwa, B. Kazuzuru and E.M. Mbazi(2019). The smallholder farmers perception towards conservation agriculture. GlobalJournal of Scientific Researches. Vol. 7(2), pp. 32-36, 23 October, 2019
- 10. Agevi Humphrey, Tsingalia Harrison, **Muyekho Francis**, Obiri John, Mukoya Wingred, Onwonga Richard (2019). On-Farm Tree Abundance and Biomass Carbon Stocks of Grevillea robusta and Eucalyptus saligna on Farms Around Kakamega Forest. American Journal of Agriculture and Forestry 2019; 7(5): 162-167 http://www.sciencepublishinggroup.com/j/aja
- Celestine N. Manyasi, Dennis M. W. Ochieno, Francis N. Muyekho, John V. O.Muoma, Mwikali M. Pamela & Victoria Naluyange (2018). Soil Maize Cultivar-relatedChallenges on Striga hermonthica Infested Fields in Western Kenya. Journal of PlantStudies; Vol. 7, No. 2; 2018 ISSN 1927-0461 E-ISSN 1927-047X. URL: https://doi.org/10.5539/jps.v7n2p41
- 12. Peter A. Opala, Martins Odendo and **Francis N. Muyekho** (2018). Effects of lime andfertilizer on soil properties and maize yields in acid soils of Western Kenya. AfricanJournal of Agricultural Research. Vol. 13(13), pp. 657-663, 29 March, 2018 DOI:10.5897/AJAR2018.13066
- 13. Wamalwa E.N., Muoma J. **Muyekho F.N**., Wekesa C. and Ajanga S. (2018). Genetic diversity of Fusarium Oxysporium races associated with cowpea fields in Kakamega County. Fungal Genom Biol 2018, Vol. 8:2. DOI: 10.4172/2165-8056.1000158
- Rael Adhiambo, Francis Muyekho, Irena F. Creed, Eric Enanga, William Shivogaa, Charles G. Trick, John Obiri (2018). Managing the invasion of guava trees to enhancecarbon storage in tropical forests. Forest Ecology and Management 432:623-630. DOI:10.1016/j.foreco.2018.10.010
- 15. Inviolata Nanyuli, Stanley Omuterema, **Francis N. Muyekho** (2018). The Effects of EM (Effective Microorganisms) and Biochar on the Rate of Decomposition and the Nutrient Content of the Compost Manure Produced from the Locally Available Materials during Composting in Kakamega Central Sub County Kenya. Journal of Horticulture and Plant Research. SSN: 2624-814X, Vol. 4, pp 33-47.https://www.researchgate.net/deref/https doi.org%2F10.18052www.scipress.com%2FJHPR.4.33
- 16. Odhiambo K. Ogonda, M. O. Ndonga, **F.N. Muyekho** and D. Omayio (2018). Effect ofArtemisia annua Scop in intercropped and pure stand common bean (Phaseolus vulgarisL). International Journal of Agronomy and Agricultural Research (IJAAR). Vol 13, No.2, pp 33-42, 2018.
- 17. Dennis O. Omayio, David Musyimi, **Francis N. Muyekho**, Sammy Ajanga, CharlesMidega, Zeyuer Khan and Innocent W. Kariuki (2018). Molecular Diversity of a Seemingly Altitude Restricted Ustilago kamerunensis Isolates in Kenya: A Pathogen of Napier Grass. January 2018. American Journal of Molecular Biology 08(02):119-143
- 18. Dennis O. Omayio, David Musyimi, **Francis N. Muyekho**, Sammy Ajanga, CharlesMidega, Zeyuer Khan and Innocent W. Kariuki (2018). Introducing a novel natural logarithmic indices and their corresponding percentages table towards quantitative estimation of plant tolerance levels to stressors. Int. J. Biosci. 12(4), 78-98, April 2018.
- 19. Elisheba A. Imbaya, Millicent F. Ndonga, Francis Muyekho and Dennis O. Omayio(2018). Control of Aphis fabae Scopoli. Using Leaf Extracts of Artemisia annua Linn. And Thevetia peruviana Schumann. On Solanum scabrum Miller. During The Short and Long Rain Seasons In Kenya. Researchjournali's Journal of Agriculture. Vol. 5 | No. 6July | 2018

- 20. N.I.E. Wamalwaa,b, C.A.O. Midega, S. Ajanga, N.E. Omukunda, **F.N. Muyekho**, G.O. Asudi, M. Mulaa, Z.R. Khan (2017). Screening Napier grass accessions for resistanceto Napier grass stuntdisease using the loop-mediated isothermal amplification of DNA(LAMP). Crop Protection 98, 61-69
- 21. Kariuki I.N., S.W. Mwendia, **F.N. Muyekho**, S.I. Ajanga, and D.O. Omayio (2016).Biomass production and forage quality of head-smut disease resistant Napier grass accessions. African Crop Science Journal. Vol. 24:157-165.
- 22. Leonard Obiet, Martha Konje, **Frnacis Muyekho**, Rashid C.A Kawawa and AgeviHumphrey (2016). Forage species of Impala Sanctuary, Kisumu, Kenya. Asian Journalof Basic and Applied Sciences. Vol. 3, No. 2, 2016, pp43-48. ISSN 2313-7797.
- 23. Kawawa, R.C.A1., Obiri, J.F., **Muyekho F. N**. (2016). The role of Psidium guajava L.,seed bank as a strategy for its successful invasion of Kakamega rainforest, western Kenya. Asian Journal of Basic and Applied Science. Vol. 2 No. 3, 2016. Pp1-7.
- 24. Kawawa, R.C.A1., Obiri, J.F., **Muyekho F. N**., Omayio, D.O1., Agevi, H., Mwaura, A., Obiet, L., Kimutai, D.K., and A. W. Sifuna (2016). Allellopathic potential of invasive Psidium guajava L., against selected native tree species in Kakamega Tropical Forest, Western Kenya. IOSR Journal of Pharmacy and Biological Sciences (IOSR-JPBS), Volume 11, Issue 5 Ver. II (Sep. Oct.2016), PP 80-86 www.iosrjournals.org
- Munyasi, J. W, Auma, E. O., Ngode, L. and Muyekho F. N. (2015). Evaluation of biomass yield of selected fodder species in relation to frequency of harvest alongside defoliation heights in Western Kenya. Journal of Agricultural Extension and Rural Development. Vol.7 (8), pp. 257-262, July, 2015. ISSN 2141-2154
- Mulaa M.A., F. Muyekho, S.Ajanga, P. Jones and E. Boa (2015). Napier stunt diseasevector identification and containment of the disease on farm.http://www.researchgate.net/publication/268304020
- 27. Omayio, DO, Ajanga, SI, Muoma, JV, **Muyekho, F.N**, Yamame, MK, Kariuki, I and S.Mwendia (2015). Using napier grass accessions' origins, neighbour joining groups andtheir responses to U tilago kamerunensis to predict a probable coevolutionary scenario.International Journal of Recent Scientific Research Research. Vol. 6, pp.2639-2645,February, 2015
- 28. Obiet L, K Martha, **F Muyekho**, E Danyuku, C Kigen, S Wamalwa, F Kassilly and MWabusya (2014). Forage availability and quality for the impala (Aepyceros melampusbrian) kathryh) of Impala sanctuary, Kenya. International Journal of Recent ScientificResearch Vol. 5, Issue, 10, pp.1896-1899, October, 2014.
- 29. Omayio DO, SI Ajanga, JV Muoma, DMW Ochieno, **FN Muyekho**, B Mukoye and RKLeitich (2014). Predicting Endophytes Contribution In vivo in Napier Grass Accessions'tolerance against *Ustilago kamerunensis* Using In vitro Strategies. Journal of Agri-Foodand Applied Sciences (JAAS Journal.) Vol. 2(10), pp. 296-303, 31 October, 2014
- 30. Omayio DO, SI Ajanga, JV Muoma, **F. N. Muyekho** and I Kariuki (2014). InternalTranscribed Spacer Primers Detect Better Ustilago kamerunensis; A Napier Grass HeadSmut Pathogen Constraining the Dairy Sector in Eastern Africa. Journal of Agri-Foodand Applied Sciences (JAAS Journal.) Vol. 2(9), pp. 265-274, 30 September, 2014.
- 31. Ogola A.H., Odhiambo G.D., Okalebo J.R. and **Muyekho F.N**. (2012). Influence ofphosphorus on selected Desmodium growth and nodulation parameters. ARPN Journal of agricultural and Biological Sciences. Vol. 7, pp294-301

- 32. Nyambati E.M., C.M. Lusweti, **F. N. Muyekho**, J.G. Mureithi (2011). Up-scalingNapier grass (Pennisetum purpureum Schum.) production using "Tumbuliza" method in smallholder farming systems in Northwestern Kenya. J. Agric. Ext. Rural Dev.Vol. 3 pp 1-7.
- 33. Achieng, J. O., Ouma, G., Odhiambo, G and **Muyekho, F** (2010). Effect of farmyard manure and inorganic fertilizers on maize production on Alfisols and Ultisols inKakamega, western Kenya. Agriculture and Biology Journal of North America. 1(4): 430-439
- 34. **Muyekho F.N.**, A.T. Barrion and Z. R. Khan (2005). Host range for stemborer and associated natural enemies in different farming systems of Kenya. African CropScience Journal Vol: 13 (No.3) pp 173-183
- 35. **Muyekho, F.N.**; L. Mose and D.T. Cheruiyot (2003). Development and transfer offorage production technologies for smallholder dairying: Case studies of participatory evaluation of species and methods of establishment in western Kenya. TropicalGrasslands 37: 251-256
- 36. Wanyama, J.M.; **F.N. Muyekho**; D.T. Cheruiyoti; J. Odongo; M. Ojowi; and R.Okeyo (2003). Assessing factors influencing adoption of pastures and foddersamongst smallholder subsistence farmers in selected districts of west Kenya. Tropical Grasslands, 37: 219-226.
- 37. **Muyekho, F.N**.; J.G. Mureithi and J. Ngeny (2003). Effects of rates of inorganicand organic fertilizers on Desmodium uncinatum nodulation, dry matter and seedyields on phosphorus and nitrogen deficient soils. E. Afr. Agri. For. J. (2003) 69(2): 149 156.
- 38. Khan, Z.R.; Pickett, J.A.; Wadhams, L. and **Muyekho, F.N**. (2001). Habitat management strategies for the control of cearal stemborers and Striga in maize in Kenya.Insect Sci. Applic. Vol.21, No.4, pp 375 380, 2001.
- 39. **Muyekho, F.N.**; Wanyama, J.M. and Mose, L.O. (1999). Socio-economic implications of improved forage species on smallholder farms in Kenya. East African Agricultural and Forestry Journal. 65(2): 167 175. Kenya Agricultural Research Institute.
- 40. **Muyekho, F.N.** and Odongo, J.A. (2000). Promotion of forage legume seed production and processing on smallholder farms in Western Kenya.http://www.fao.org/ag/AGP/AGPC/doc/bulletin/Eafpap1.htm

Papers in Conference and Workshop Proceedings

- Faith M. W. Muniale, F.N. Muyekho, P.W. Mtakwa and B. Kazuzuru (1019). Conservation
 agriculture adoption by vulnerable smallholder farmers in Tanzania. In Book of Abstracts of the
 "13th multi-disciplinary international conference 2019. Transformational Leadership,
 Innovation and Technology transfer for sustainable development in developing countries. Held
 at Masinde Muliro University of Science and Technology on 19th-21st June 2019. Pp 256-257
- Matindu C, Sifuna A. W. and Muyekho F.N. (2019). The effects of EM and biochar on rate of decomposition and nutrient content of the compost manure, of locally available organic materials, during composting process in Kakamega Central Sub County, Kenya. In Book of Abstracts of the "13th multi-disciplinary international conference 2019. Transformational Leadership, Innovation and Technology transfer for sustainable development in developing countries. Held at Masinde Muliro University of Science and Technology on 19th-21st June 2019. pp254
- 3. Lyani A., Ndonga M., and **Muyekho F.** (2019). Cropping system on biodiversity of soil invertebrates and soil organic matter around Kakamega forest. In Book of Abstracts of the "13th multi-disciplinary international conference 2019. Transformational Leadership,

- Innovation and Technology transfer for sustainable development in developing countries. Held at Masinde Muliro University of Science and Technology on 19th-21st June 2019. Pp263.
- 4. Wamalwa, E.N.I., Muoma J., Muyekho F.N., Ajanga S. (2018). Fusarium oxysporium isolate IARRPP recovered from Kakamega County significantly affected germination of cowpea accession seeds. In Book of proceedings of the "First Pan African International Research Congress on Knowledge Generation and Dissemination (1st PAIRC-2018)". Held in Grand Royal SWISS Hotel Kisumu, Kenya. 17th-21st June 2018. Pp73-80
- 5. Martins Odendo and **Francis Muyekho** (2017) Farmers' Awareness and Adoption of Improved Grain Storage Technology in Western Kenya. Paper Presented at 1st All Africa Postharvest Congress and Exhibition congress, 28th 31st March, 2017 Safari park Hotel, Nairobi, Kenya.
- Munyasi JW, Auma EO, Ngonde L, Muyekho FN (2016). Effect of defoliation intensity and frequency of harvest on nutrient content of selected fodder species in western Kenya.
 Proceedings in the 3rd International Interdisciplinary Conference (IIC3) conference, Eldoret Kenya
- 7. Njarui D.M.G., **Muyekho, F** and Mureithi, J.G. (2015). A review of forage research anddevelopment in Kenya. Paper presented in the Eastern and Central Africa Forage Conference, 26-28, May 2015. BecA/ILRI Hub, Nairobi-Kenya.https://www.kalro.org/amri/?q=node/177
- 8. Kawawa RCA; Obiri JF and **Muyekho FN** (2015). GIS analysis of spatial distribution of *Psidium guajava*, an invasive alien species, in Kakamega forest, western Kenya. Paperpresented at the International Conference on Expanding Theoretical and Applied Rolesof GIS in a Dynamic Global Environment. Masinde Muliro University of Science and Technology 13th 14th August 2015.
- 9. Charles Kigen, **Francis Muyekho**, Edward Masibayi and Stanley Makindi (2016). Spatial assessment of climate based range land vegetation variability in Samburu and Marsabit Counties. Conference: 2nd National Conference on Sustainable Land Management. At: Sentrim Elementaita Lodge, Naivasha, Kenya
- 10. Kigen CK; Masibayi E; Agevi H; Odira Z; **Muyekho F** (2015). Climate-based changesof sugarcane growing areas in western Kenya. Paper presented at the International Conference on Expanding Theoretical and Applied Roles of GIS in a Dynamic Global Environment. Masinde Muliro University of Science and Technology 13th 14th August 2015.
- 11. Munyasi J.W., E.O. Auma, L. Ngode L and **F.N. Muyekho** (2014). Effects of moistureregimes and fertilizer levels on morphological characteristics and biomass yield of alternative fodder grasses to Napier grasss in western Kenya. Paper presented at the EgertonUniversity Annual conference. In book of abstracts.
- 12. Omayio D.O., J.V. Muoma, **F.N. Muyekho** and S.I. Ajanga (2014). A Probable Case of Quantitatively Controlled Antibiosis Strategy of Pathogen Resistance against Napier Grass' Head Smut. Paper presented at the Egerton University Annual conference
- 13. Lusweti, F.N., J.M. Wanyama, C.M. Lusweti, E. Omamo, K.N. Wairimu, N. Kariuki, F.N. Muyekho, and J.C. Komen. 2014. Farm level use of crop by-products in the North Rift and western Kenya: implications on soil fertility in mixed farming systems. Paperpresented in Egerton University International Conference held between 26th- 28th March 2014. Egerton University, Njoro.
- 14. Mwisa P., **F. Muyekho**, M. Mulaa, D, Ndege and R. Gitonga (2013). Effects of NapierAccessions in the validation tissue culture protocol for mass production of diseases freeplanting materials.

- In EAAPP Conference on enhancing regional specialization in Technology and Dissemination for increased agricultural productivity. 12th to 13th November 2013. Book of Abstract pg 29.
- 15. Awalla B. J., Skilton R., **Muyekho F.N**., Were B., Mulaa M., Wanjala B. and KawubeG. (2013). Genetic diversity of Napier grass using Simple Sequence Repeats (SSR) inWestern Kenya. In EAAPP Conference on enhancing regional specialization in Technology and Dissemination for increased agricultural productivity. 12th to 13th November 2013. Book of Abstract pg 24
- 16. Omayio D.O., Muoma J.V., **Muyekho F.N.**, Kariuki I. and S.I. Ajanga (2013). A noveltechnique in estimating the magnitude of established quantitative resistance in selected*Pennisetum purpureum* (Schum.) accessions against headsmut disease. In EAAPP Conference on enhancing regional specialization in Technology and Dissemination for increased agricultural productivity. 12th to 13th November 2013. Book of Abstract pg 25.
- 17. Omayio D.O., Muoma J.V., Muyekho F.N., Kariuki I. and S.I. Ajanga (2013). Ustilagokamerunensis P. and H. Sydow, imposed resistance and its significance to Napier grass(Pennisetum purpureum Schum.) farmers in mitigating head smut disease challenges. InEAAPP Conference on enhancing regional specialization in Technology and Dissemination for increased agricultural productivity. 12th to 13th November 2013. pg 27.
- 18. Wamalwa, N. E. Midega A.C., Ajanga S., Omukunda N. E., Ochieno D., Omayo D.**Muyekho F.**, Mulaa M. Z. Khan (2013). Napier grass accession 16789 tolerant to Napier stunt disease (Phytoplasma 16SRXI) constraining dairy industry in Western Kenya/Eastern Africa. In EAAPP Conference on enhancing regional specialization in Technology and Dissemination for increased agricultural productivity. 12th to 13th November 2013. pg 26.
- 19. Okitoi, L.O., M. Khasatsili, **F.N. Muyekho**, M. Mudeheri, J. Ojiem, T.A. Onyango and F.P. Wandera (2013). Availability and utilization of crop residues in feeding dairy cattlein western Kenya. In EAAPP Conference on enhancing regional specialization in Technology and Dissemination for increased agricultural productivity. 12th to 13th November 2013. pg 12.
- 20. Okitoi, L.O., M. Khasatsili, F.N. Muyekho, M. Mudeheri, J. Ojiem, T.A. Onyango and F.P. Wandera (2013). The potential of crop residue based compacted total mixed rations to supply balanced feeds to dairy cattle. In EAAPP Conference on enhancing regional specialization in Technology and Dissemination for increased agricultural productivity. 12th to 13th November 2013. pg 14.
- 21. Wanyama J.M., **F.N. Muyekho**, N.F. Lusweti, E. Omamo, K.N. Wairimu, N. Kariuki,and J.C. Komen (2013). Household livelihood strategies in crop-livestock systems inNorth-West and Western Kenya. In EAAPP Conference on enhancing regional specialization in Technology and Dissemination for increased agricultural productivity. 12th to13th November 2013. pg 43.
- 22. Odendo M., Ndinya C., **Muyekho F**. and Onyango (2013). Economics of maize-legumeproduction in western Kenya. Presented at Soil Science Society of East Africa (SSSEA) and African Soil Science Society (ASSS) Conference held at Cathy Hotel, Nakuru, Kenya 20–25 October 2013.
- 23. Lusweti, C.M., J.M. Wanyama, F.N. Lusweti, E. Omamo, K.N. Wairimu, Kariuki N., F.N. Muyekho, and J.C. Komen. 2012a. Assessing farm level feed resources in the different farming systems of northwestern Kenya. Paper prepared for presentation in 13th KARI conference 22nd to 26th October 2012in Nairobi, Kenya.
- 24. Lusweti, F.N., J.M. Wanyama, C.M. Lusweti, E. Omamo, K.N. Wairimu, N. Kariuki, **F.N. Muyekho**, and J.C. Komen. 2012. Effect of farm by-product flows on soil fertility in mixed

- farming systemsof North Rift and Western Kenya Paper prepared for presentation in 13th KARI conference 22nd to 26th October 2012 in Nairobi, Kenya.
- 25. Odendo M. Mbakaya, D and **Muyekho, F** (2011). Economic tales of lime application in maize-legumecropping systems in western Kenya. Paper presented at the 26th Soil Science Society of East Africa (SSSEA) Conference, "Strategic management of soil resource for climatic change adaptation and mitigation for prosperous East Africa region". Source of the Nile Hotel, Jinja, Uganda, 21st 24th NOV2011.
- 26. Odendo M., Muyekho F., Ndinya C., and Ambitsi, N.(2011). Drivers to adoption of soil fertilityamendment technologies: An empirical Analysis in western Kenya. Poster presented at conference titled Challenges and Opportunities for Agricultural Intensification of the Humid Highland Systems of sub-Saharan Africa. International Conference Kigali | Rwanda | October, 24 27, 2011.
- 27. Odendo, Martins, F. Muyekho and J. Bashir (2011). An Empirical Analysis of Factors InfluencingAdoption and Scaling—up of Soil Fertility Management Technologies in Western Kenya. Paper presented to Sixth Egerton University International Conference: Research And Expo Theme: Transformative Research For Sustainable Development Agriculture Resources Centre, Egerton University, Njoro, Kenya, 21st 23rd September 2011.
- 28. David Mbakaya, J.R. Okalebo, **F.N. Muyekho**, R. Ochebo and B. Jama 2011. Improving soil Healthand productivity of acidic soils using lime and multi nutrient fertilizers. A case study of smallholderfarming system of western Kenya. Oral presentation. Book of abstracts page 57. 26th Soil Science Society of East Africa conference. Theme: Strategic management of soil resource for climate change adaptation and mitigation for prosperous East Africa region" Source of the Nile Hotel, Jinja Uganda 21st—24th November 2011.
- 29. David Mbakaya, J.R. Okalebo, **F.N. Muyekho**, R. Ochebo and B. Jama 2011. Using lime and multinutrient fertilizers to improving soil health and productivity of acidic soils of smallholder farmingsystem of western Kenya. Book of conference abstracts page 107. Poster presentation. Challenges and Opportunities for Agricultural Intensification of the Humid Highland systems of sun Saharan Africa. Kigali Rwanda, 24th 27th October 2011.
- 30. David Mbakaya, J.W Wakhungu, **F.N. Muyekho**, R Ochebo and C. Serrem 2012. Improving theproductivity of acidic soils through application of Agricultural Lime and multi nutrient fertilizer onsmallholder farming systems of Western Kenya. (Submitted to the forthcoming conference at Masinde Muliro University of Science and Technology).
- 31. David Mbakaya, J.R. Okalebo, C. Serrem, **F.N. Muyekho**, J.W. Wakhungu, R. Ochebo and B. Jama (2012). Impact of application of Agricultural Lime and multi nutrient fertilizers on productivity of acidic soils on smallholder farms in Siaya County in western Kenya. KARI Scientific Conference.
- 32. Lusweti CM, **Muyekho F.N.**, E. Nyambati, E. Ego and B.J. Walla (2009). Evaluation of Napier grassgermplsm for productivity and tolerance to Napier stunting disease in western Kenya. A paper presented to the Animal production society of Kenya annual symposium 22nd 23rd April 2009. SunsetHotel, Kisumu, Kenya.
- 33. Ngang'a N.M., **F.N. Muyekho**, Z.R. Khan and R.S. Copeland (2008). Tradition uses of wild grassesamongst three Kenyan farming communities. A paper presented to the 11th KARI biennial ScientificConference and 3rd Agricultural Forum. 10-14 November 2008, KARI headquarters Complex, Nairobi, Kenya. http://www.kari.org/fileadmin/publications/conference11/Traditional uses of wild.pdf.

- 34. **Muyekho F.N.**, E. Onginjo, C.M. Lusweti, J. Nandasaba, M. Mulaa and W. Kiiya (2006). Stuntingdisease on Napier grass (Pennisetum purpureum): A field evaluation of germplasm for field and resistance/tolerance in western Kenya. In Proceedings of the 10th biennial scientific conference. KenyaAgricultural Research Institute. ISBN: 9966-879-76-5.
- 35. Wanyama J.M., C.M. Mutoko, L.O. Mose, S.C. Rono, J.C. Komen, **F.N. Muyekho**, C. Nkonge, D.Cheruiyot and B. Wachiye (2006). Impact of forage technologies in smallholder farms in Trans Nzoia District. In Proceedings of the 10th biennial scientific conference. Kenya Agricultural Research Institute. ISBN: 9966-879-76-5.
- 36. Mulaa M.A., **F. Muyekho**, S. Ajanga, P. Jones and E. Boa (2006). Napier stunt disease vector identification and containment of the disease on farm. In Proceedings of the 10th biennial scientific conference. Kenya Agricultural Research Institute. ISBN: 9966-879-76-5.
- 37. **Muyekho, F.N.**; Khan, Z.K.; Copeland, R. and Ngángá, N. (2005). Conservation of grass diversityfor sustainable management of Lake Victoria environment and natural resources. Paper presented atthe 2nd National Scientific Conference of Lake Victoria Environmental Management Project 17th –19th October, 2005. In: Book of abstracts, Lake Victoria Environmental Management Project, KenyaAgricultural Research Institute. pp21-22.
- 38. Z.R. Khan, A. Hassanali, J.A. Pickett, L.J. Wadhams and **F. Muyekho** (2004) Strategies for management of cereal stemborers and striga weed in maize-based farming systems in Eastern Africa involving 'push-pull' and allelopathic tactics. Proceedings 2nd National Pest Management Conference, Wad Medani, Sudan, 6-9 December 2004, pp. 72-84.
- 39. **Muyekho, F.N**.; Barrion, A.T. and Khan, Z.R. (2003). Grass diversity and the associated stemborersand natural enemies in different farming systems of Kenya. In: African Crop Science ConferenceProceedings, Vol. 6. 246-253.
- 40. **Muyekho, F.N.**; A.T. Barrion and Z.R. Khan (2003). Grass diversity and conservation: A case studyof their indigenous roles and associated boring insects in selected agro ecosystems of Kenya. Presented to the 15th Biennial Congress of the African Association of Insect Scientists (AAIS), 9-13June 2003, Nairobi, Kenya. Abstracts. Edited by J. Bahana, A.B. bal; D. Dakouo and C.O. Omwega.pp 72-73.
- 41. Khan, Z.R.; A. Hassanali; J.A. Pickett; L.J. Walhams and **F.N. Muyekho** (2003). Strategies for control of cereal stemborers and Striga weed in maize-based farming systems in eastern Africa involving push-pull and Allelopathic tactics. Paper presented to the 6th Biennial Conference of African CropScience Society. The Hilton Hotel, Nairobi, Kenya, October 12th 17th, 2003. Abstracts. Pg 26.
- 42. **Muyekho, F.N.**; Mureithi, J.G. and Ngeny, J. (2000). Effects of rates of inorganic and organic fertilizers on Desmodium uncinatum nodulation, dry matter and seed yields on phosphorus and nitrogendeficient soils. In: Proceedings of the 18th conference and end of the millennium celebration 4-8thDecember 2000. Soil Science Society of East Africa (SSSEA). Edited by J.G. Mureithi; P.N. Macharia; M. Gichuru; M. Mburu and C.K.K. Gachene. pp209-215.
- 43. Mwendia, C.W.; **Muyekho F.N**.; Kute, C. and Mbugua, K. (2001). A review of forage germplasmintroduction and breeding for high yields and resistance/tolerance to diseases. In: Proceedings of areview workshop on pasture/fodder research in Kenya. F.N. Muyekho and F.N. Lusweti (Eds.).Kenya Agricultural Research Institute, National Agricultural Research Centre, Kitale. pp11-19.
- 44. Lusweti, C.M., Muyekho, F.N. (2001). A review of pasture/fodder research and production in themedium to high potential areas of the North Rift Valley Province of Kenya. In: Proceedings

- of a review workshop on pasture/fodder research and production in Kenya. F.N. Muyekho and F.N. Lusweti (Eds.). Kenya Agricultural Research Institute, National Agricultural Research Centre, Kitale.pp20-31.
- 45. Nandasaba, J. and **Muyekho, F.N.** (2001). Participatory evaluation of forage varieties for productivity at high altitude and waterlogged areas of the North Rift Valley, Kenya. In: Proceedings of a reviewworkshop on pasture/fodder research in Kenya. F.N. Muyekho and F.N. Lusweti (Eds.). Kenya Agricultural Research Institute, National Agricultural Research Centre, Kitale. pp79-85.
- 46. **Muyekho, F.N**.; F.N. Lusweti; S. Rono; C.K. Ruto; E. Mukisira and E.M. Nyambati (2000). Utilization of lupin (Lupinus albus cv. Ultra) as a protein supplement on smallholder dairy farms in Keiyodistrict. In: Proceedings of the 7th Kenya Agricultural Research Institute (KARI) Biennial ScientificConference. pp33-37.
- 47. **Muyekho, F.N.** (2000). Forage production on diminishing farm sizes: challenges in technology development. In: "Sustaining animal production into the 21st century, J.N. Kariuki (editor). Proceedings of the animal production society of Kenya 2000 symposium held at KARI Headquarters Conference Hall, Nairobi, 8th 9th March 2000. APSK, Nairobi, Kenya. pp9-18.
- 48. Wanyama, J.M.; Odhiambo, M.O.; Nyang' F.O.; **Muyekho, F.N.** and A.O. Masinde (2000). Economic analysis of forage technologies in Western Kenya. In: J.N. Kariuki (editor). Proceedings of the aninaml production society of Kenya 2000 symposium held at KARI Headquarters ConferenceHall, Nairobi 8th 9th March 2000. APSK, Nairobi, Kenya. pp83-91.
- 49. **Muyekho, F.N.**; Cheruiyot, D.T.; Kamidi, M.; Wanyonyi, M.; Akuno, F.; Gitahi, F. and Mwania, N.(2000). Participatory evaluation of forages for increased herbage dry matte yields in smallholderfarms: Preliminary experiences with improved forage species. In: Proceedings of 2nd Scientific Conference of the soil management and legume research network project. June 2000, Mombasa. Editors:J.G. Mureithi, C. Gachene, F. Muyekho, M. Onyango, L. Mose and O. Magenya. 331-326. KenyaAgricultural Research Institute (KARI).
- 50. **Muyekho, F.N.;** Cheruiyot, D.T. and Kapkusum, G. (2000). Effects of the "Tumbukiza" method ofplanting napier grass (Pennisetum purpureum) on the quantity and quality of forage produced on smallholder farms in Kenya. In: Proceedings of 2nd Scientific Conference of the soil management andlegume research network project. June 2000, Mombasa. Editors: J.G. Mureithi, C. Gachene, F.Muyekho, M. Onyango, L. Mose and O. Magenya. 327-339. Kenya Agricultural Research Institute(KARI).
- 51. **Muyekho, F.N.** and Mose, L.M. (2000). Economic evaluation of "Tumbukiza" as an alternativemethod for increasing napier grass (Pennisetum purpureum) productivity on smallholder farms inNorth Rift Valley region of Kenya. In: Proceeding of 2nd Scientific Conference of the soil management and legume research network project. June 2000, Mombasa. J.G. Mureithi, C. Gachene, F.Muyekho, M. Onyango, L. Mose and O. Magenya (Edts). 341-350. Kenya Agricultural Research Institute(KARI).
- 52. Ruto, C.K.; **Muyekho, F.N.;** Ronon, S.C.; Onyango, R.M.; Bunyatta, D.K. and Nyambati, E. (2000). Participatory evaluation of the production and utilization of improved forages under different fertilizer regimes. In: Proceedings of 2nd Scientific Conference of the soil management and legume researchnetwork project. June 2000, Mombasa. Editors: J.G. Mureithi, C. Gachene, F. Muyekho, M. Onyango, L. Mose and O. Magenya Edts). 369-374. Kenya Agricultural Research Institute (KARI).

- 53. Wanyama, J.M.; Mose, L.O.; **Muyekho, F.N**. and Cheruiyot, D.T. (2000). An Economic analysis offorage technologies of soil management project interventions in the North Rift Kenya. In: Proceedings of 2nd Scientific Conference of the soil management and legume research network project. June2000, Mombasa. Editors: J.G. Mureithi, C. Gachene, F. Muyekho, M. Onyango, L. Mose and O. Magenya (edts). 341-346. Kenya Agricultural Research Institute (KARI).
- 54. Wanyama, J.M., **Muyekho, F.N.**; Masinde, A.A.O.; Odongo, J.; Cheruiyot, D.T. and Ojowi, M.(2000). Factors influencing potential adoption of pastures and fodders at smallholder farms in theNorth Rift Valley and South West Kenya. In: Proceedings of 2nd Scientific Conference of the soilmanagement and legume research network project. June 2000, Mombasa. Editors: J.G. Mureithi, C.Gachene, F. Muyekho, M. Onyango, L. Mose and O. Magenya (edts). 437-449. Kenya Agricultural Research Institute (KARI).
- 55. **Muyekho, F.N.** (2000). Opportunities for forage legume seed production by smallholder farmers:Experiences from participatory research and extension in Western Kenya. In: Proceedings of the endof project conference KARI Headquarters, Nairobi, Kenya 29 November 1 December 2000. Kenya Agricultural Research Institute. Compile by: Margo Kooijman and E.A. Mukisira. pp189-199.
- 56. Muyekho, F.N.; Wandera, J.L.; Cheruiyot, D.T.; Kapkusum, G.K. and Kendagor, M. (1999). Participatory verification of methods of pasture establishment and production potential of selected foragesin the Lower Highland zone 3. In: Towards increased use of demand driven technology. KARI/DFID NARP II end of project conference, 23rd 26th March 1999. J.A. Sutherland (Editor).pp326-329.
- 57. **Muyekho, F.N**.; Wandera, J.L.; Cheruiyot, D.T. and Kapkusum, G. (1999). Participatory evaluation of "Tumbukiza" as an alternative method of napier production. In: Towards increased use of demanddriven technology. KARI/DFID NARP II end of project conference 23rd 26th March 1999. J.A.Sutherland (Editor). pp44-46.
- 58. Nandasaba, J.; **Muyekho, F.N**.; Odongo, J.; Magothe, M. and Kamau, J.N. (1999). Evaluation of afew selected forage varieties for frost/cold tolerance in the high altitude areas of Kenya. In: Towardsincreased use of demand driven technology. KARI/DFID NARP II end of project conference 23rd –26th March 1999. J.A. Sutherland (Editor). pp283-285.
- 59. Odongo, J.A.; Ojowi, M.O.; Masinde, A. and **Muyekho, F.N.** (1999). Effect of defoliation on maizegrain production and its contribution to household fodder requirements. In: Towards increased use ofdemand driven technology. KARI/DFID NARP II end of project conference 23rd 26th March 1999.J.A. Sutherland (Editor). pp288-289.
- 60. Odongo, J.A.; Ojowi, M.O.; Mbugua, D.M. and **Muyekho, F.N.** (1999). Fodder production underdifferent fertilizer regimes: A farmers' perspective. In: Towards increased use of demand driventechnology. KARI/DFID NARP II end of project conference 23rd 26th March 1999. J.A. Sutherland(Editor). pp281-283.
- 61. Lusweti, F.N.; **Muyekho, F.N**. and Scarr, M. (1999). Participatory evaluation of utilization of maizestover as dairy cattle feed for the dry season on smallholder farms. In: Towards increased use of demand driven technology. KARI/DFID NARP II end of project conference 23rd 26th March 1999.J.A. Sutherland (Editor). pp90-93.
- 62. Ojowi, M.O.; Odongo, J.A.; Mbugua, D.M. and **Muyekho, F.N.** (1999). Utilization of fresh and ensiled sugarcane tops by cattle in the lower midland zone. In: Towards increased use of

- demand driventechnology. KARI/DFID NARP II end of project conference 23rd 26th March 1999. J.A. Sutherland(Editor). pp350-353.
- 63. Ruto, C.K.; **Muyekho, F.N.**; Rono, S.C.; Onyango, R.M.; Bunyatta, D.K.; Nyambati, E. (1999). Improving soil fertility for sustainable livestock production in smallscale farms. In: Soil science a key tosustainable land use. Proceedings of the 17th Soil science society of East Africa Conference and Silver Jubilee Celebrations, Fairway Hotel, Kampala, Uganda. 6th 10th September 1999. pp199-202.
- 64. **Muyekho, F.N.** (1999). Forage establishment and management on smallholder farms. In: Proceedings of the workshop on integrated smallholder dairy farming systems in Per-Urbun areas with emphasis on forages and fodder tree utilization, Embu, Kenya. 13-17 June 1999. G.M. Karanja and E.N. Sabiiti (Editors). p37-43.
- 65. **Muyekho, F.N.** (1999). Feed conservation: Hay and silage making for smallholder farms. In: Proceedings of the workshop on integrated smallholder dairy farming systems in Per-Urbun areas withemphasis on forages and fodder tree utilization, Embu, Kenya. 13-17 June 1999. G.M. Karanja and E.N. Sabiiti (Editors). P44-48.
- 66. Irungu, G.M.; K. Changwony; T. Mugisa; S. Doto and **F.N. Muyekho** (1999). Key forage productionand feed utilization extension messages for smallholder Per-Urban farmers. In: Proceedings of theworkshop on integrated smallholder dairy farming systems in Per-Urbun areas with emphasis on forages and fodder tree utilization, Embu, Kenya. 13-17 June 1999. G.M. Karanja and E.N. Sabiiti (Editors). P115-117.
- 67. **Muyekho, F.N**.; Ouma, J.O.; Ngugi, C.N.; Lyimo, J.; Karbo, N. and Muhammed, S. (1998). Evaluating the possibilities of increasing dairy cattle feeds on smallholder farms in the Lower Highland Zone3 (LH3) of Kenya. In: Proceedings of an international conference on food, lands and livelihoods: Setting research agendas for animal science. 27-30 January 1988 © 1988 BSAS, Edinburgh ISBN 0906565 244 pp79-80.
- 68. **Muyekho, F.N.**; Mbugua, D.M. and Wandera, J.L. (1998). Effects of intercropping forage legumesand maize on maize grain and forage yield in the Upper Midland zone 1 and 4 (UM1 and 4) of Kenya.In: Agricultural Research and Development for sustainable research management and increased production. Proceedings of the 6th KARI Scientific Conference. Edited by M/S Agronam Services Ltd.pp10-17.
- 69. Odongo, J.A.; **Muyekho, F.N.**; Kute, C.A.; Magothe, M. and Buyu, G. (1998). Evaluation and management of forages in the originally non-traditional dairy producing areas of Kenya. In: AgriculturalResearch and Development for sustainable research management and increased production. Proceedings of the 6th KARI Scientific Conference. Edited by M/S Agronam Services Ltd. pp18-24.
- 70. Khan, Z.; Overholt, W.A.; Hassanali, A.; Chiliswa, P.; Wandera, J.L.; **Muyekho, F.N.**; Pickett, J.A.; Smart, L.E. and Wadjams, L.J. (1998). An integrated management of cereal stembores and Strigaweed in Africa. Paper presented to the 6th Eastern and Southern Africa Regional Maize Conference. "Maize production technology for the future: Challenges and Opportunities". Proceedings of thesixth Eastern and Southern Africa Regional Maize Conference held in Addis Ababa, Ethiopia. 21st –25th September 1998. pp190-193.
- 71. Mbugua, D.M. and **Muyekho, F.N.** (1998). Dry matter intake and ensiling potential of sugarcanetops supplemented with locally available energy and protein sources. In: Proceedings of an international conference on food, lands and livelihoods: Setting ISBN 0 906565 244. pp77-78.

- 72. Mwendia, C.W.; **Muyekho, F.N.** and Scarr, M. (1998). Small scale dairy cattle feeding for Nyakinyua area of Trans Nzoia District: A farmer problem A research dilemma. In: Agricultural Research and Development for sustainable research management and increased production. Proceedings of the6th KARI Scientific Conference. Edited by M/S Agronam Services Ltd. pp495-500.
- 73. **Muyekho, F.N.**; Mbugua, J.; Karani, L.; Wekesa, D.; Apngo, J.; Musuya, J.; Omolo, J.; and Kisaka, N. (1998). The farming systems of Tumaini farm, Kaplamai Division, Trans Nzoia District: Summary from community based activities, September 1997. In: Participatory Rural Appraisals of thefarming systems of the North of Rift Valley Province, Kenya, 1995-1997, Kitale. Edited by: D.J.Rees, C. Nkonge, J.L. Wandera, V.I. Mason and F.N. Muyekho. pp1-10.
- 74. Odongo, J.A.; **Muyekho, F.N.**; Nyambati, E.; Mulira, G.; Magothe, M. and Rotich, F. (1998). Thefarming systems of Kimnai, Marakwet District: Summary from PRA activities, October 1995. In:Participatory Rural Appraisals of the farming systems of the North of Rift Valley Province, Kenya,1995-1997, Kitale. Edited by D.J. Rees, C. Nkonge, J.L. Wandera, V.I. Mason and F.N. Muyekho.pp168-169.
- 75. **Muyekho, F.N.**; Kamidi, M.; Nkonge, C.; Omamo, B.; Ngugi, S.; Kwena, P.; Mureithi and N. Ongaro (1998). PRA report on soil fertility management in Matunda farm, Trans Nzoia District, 1994.In: Participatory Rural Appraisal of the farming systems of the soil management project sites in NorthWest Kenya. Edited by: T.J. Mwangi, W.W. Kiiya and F.N. Muyekho. pp19-32.
- 76. Mwangi, T.J.L.; **Muyekho, F.N**.; Kathuli, P. and Wekesa, F. (1997). Review of soils and soil fertilitymanagement practices in North of the Rift Valley Province of Kenya. In: Rees, Nkonge and Wandera(1997 eds.). A review of agricultural practices and constraints in the North of Rift Valley Province, Kenya. Kitale: Kenya Agricultural Research Instituee. pp.27-44.
- 77. **Muyekho, F.N.** and Wandera, J.L. (1996). Forage legume seed production: Opportunities and chanllenges for research and on-farm production in Kenya. In: Proceedings of the 6th KARI ScientificConference. Edited by: P.O. Fungor and G.C.O. Mbadi, Nairobi, Kenya. pp645-657.
- 78. Kiiya, W.; Onyango, R.M.; Mwangi, T.; Kamidi, M.; **Muyekho, F.N.** and Bunyatta, D.K. (1996). Effects of organic manures as alternatives or supplements to inorganic fertilizers on maize yield inWestern Kenya. In: Soil technologies for sustainable smallholder farming systems in East Africa. Proceedings of the 15th Soil Science Society of East Africa (SSSEA) Annual General Meeting, Sportsman's Arms Hotel, Nyanyuki, Kenya, August 19th 23rd, 1996. pp395-402.
- 79. **Muyekho, F.N**.; Carter, E.D. and McDonald, G.K. (1993). Effect of defoliation intensity, frequencyand time of final defoliation on seed yield of barrel medic. In: Proceedings of the XVII International Grassland Congress, Lincoln, New Zealand. pp1655-1656.
- 80. **Muyekho, F.N**.; Carter, E.D. and McDonald, G.K. (1993). Effects of sowing date and sowing rate onseed yield of barrel medic. In: Proceedings of the 7th Australian Agronomy Conference, Adelaide, South Australia. pp192-195.
- 81. **Muyekho, F.N**.; Carter, E.D. and McDonald, G.K. (1993). Effects of defoliation and pod set andseed yield in a range of medic cultivars. In: Proceedings of the 7th Australian Agronomy Conference, Adelaide, South Australia. Pp416.
- 82. **Muyekho, F.N**.; McDonald, G.K. and Carter, E.D. (1992). Effect of level and timing of shading onseed yield of defoliated and undefoliated swards of annual medics. In: The 4th Australia Seed Research Conference held at the Pan Pacific Hotel, Broadbeach, Queensland, July 13th 16th, 1992. Proceedings of the review and contributed papers. pp151-156, Australia.

- 83. **Muyekho, F.N.**; Carter, E.D. and McDonald, G.K. (1992). Influence of defoliation intensity and timeof final defoliation on seed yield of paraggio barrel medic. In: Proceedings of the 6th AustralianAgronomy Conference, Armidale, New South Wales. pp539.
- 84. Carter, E.D.; **Muyekho, F.N**.; Porter, R.G.; Ababneh, M.H.; Squella, F. and Valizadeh, R. (1992). The production and management of annual pasture legumes in ley management systems of SouthAustralia. In: 'Looking back planning ahead', proceedings of the 6th Australia Agronomy Conference, Amidale, New South Wales. pp.418-421.
- 85. **Muyekho, F.N.** (1988). A review on evaluation and agronomy of promising Lupine varieties inKenya. In: Pasture Network for Eastern and Southern Africa (PANESA). African forage plant genetic resources, evaluation of forage germplasm and extensive livestock production systems. Proceedings of the third workshop held at the International Conference Centre, Arusha, Tanzania, 27-30April, 1987. ILCA, Addis Ababa. pp222-229.

Extension materials and Technical Reports

 Z. R. Khan, F. N. Muyekho, E. Njuguna, J. A. Pickett, L. J. Wadhams, J. Pittchar, A.Ndiege, G. Genga, D. Nyagol and C. Lusweti (2007). A Primer on Planting and Managing 'Push-Pull' Fields for Stemborer and Striga Weed Control in Maize A Step-by-Step Guide for Farmers and Extension Staff 2nd Edition. ISBN: 92 9064 1959. Copyright © 2007 International Centre of Insect Physiology and Ecology. All rights reserved Page last updated on 11th March 2022