

CURRICULUM VITAE

Personal Details

NAME : Dr. Waweru Gitonga

DATE OF BIRTH : 24th July 1958

EMPLOYER : Kenya Agricultural and Livestock Research Organisation

POSITION IN EMPLOYMENT : Principal Research Scientist, KARLO Biotechnology Research Centre, NARL Kabete

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Key Qualifications and current duties

Key Qualification:

- PhD in Entomology (insect pathology), with emphasis on environmentally friendly plant protection methodologies
- Extensive experience in cotton research and production along the cotton agricultural product value chain
- Natural Resources Management and utilization

Field of specialization

- Plant breeding for increased yields, resistance/tolerance to insects, diseases and abiotic stresses in cotton, jute, kenaf and sisal
- Soil and water fertility and conservation (management)
- Natural resources management and protection against invasive weeds, insects and diseases, using biological and other natural pesticides
- Agronomic aspects of research in cotton, sisal, kenaf and jute

Other relevant qualifications:

- Financial Resources management and utilization
- Human resources management and utilization
- Infrastructural development, management and utilization
- Co-ordination of the commercialization of technologies developed by KARI through consultancies, contracts grants and project proposal formulation
- Overall formulation and implementation of research programmes

Current duties at KALRO

- Principal Research Scientist at the KALRO Biotechnology Centre, NARL Kabete

Educational background

- Bachelor of Science (honours) degree in Zoology and Botany 1981, Nairobi University
- Master of Science degree in Applied Entomology 1990- Imperial College, University of London
- Doctor of Philosophy in Agricultural Zoology 1996. Royal Veterinary and Agricultural University Copenhagen, Denmark

Other Relevant Courses

Attended several courses on leadership skills, profitable time management, business finance, senior management, post graduate diploma and certificate in specialized technical skills.

- Ministry of Agriculture and Livestock Development/International Maize and Wheat Improvement, Centre (CIMMYT), total of 6 weeks – 1984-1985, on-farm research training programme
- FAO/IITA/ABCP/OAU Training course in biological control of cassava mealybug (CM) and green spider mite (CGM) June 2-27, 1986, (3 weeks) at IITA, Ibadan, Nigeria
- TACK – Training International, Profitable time management, 1 week – February 1989
- Price Waterhouse Associates, Business Finance, 1 week – February 1989
- Price Waterhouse Associates, Leadership skills, 1 week – March 1989
- Imperial College, London – Diploma of the Imperial College in Applied entomology, 1989-1990
- ICIPE/WAU/IIIE Taxonomic training course on identification of Cotesia spp. (Stem-borer) Parasitoids, 13-16/1/1992
- IITA/GTZ/COMO Management and organization of national biological control programmes 13-24 June 1994
- Kenya Institute of Administration course on leadership for Senior Public Officers- 3 week course 2004
- Bt-cotton training workshop on bio-safety regulations, management of quarantine facilities and field evaluation of transgenic cotton. 8th June 2007, Thika

- Training workshop in instrument based cotton classification USDA-AMS Cotton Programme, Memphis, Tennessee, USA – 30th July to 3rd August, 2012

Grants, projects and consultancy awards

- Development and Implementation Termite control project 1992 – 1995 main donor was DANIDA **KES 35million**
- As a member of the national and regional task forces contributed to the writing and development and implementation of the Lake Victoria Environmental Management Programme (LVEMP) with emphasis on the control of water hyacinth. This project was funded in 1997 by the World Bank (IDA) and Global Environmental Facility (GEF). KARI allocation from the programme was **KES 300 million for 5 years** for the control of water hyacinth in Lake Victoria
- Development and implementation of a Small Activities Scheme (SAS) of AUSAID June 1997, for training of trainer involved in the biological control of water hyacinth **US\$ 38,727.**
- Development and implementation of a Competitive Research facility Project R 7026 © of the DFID for the control of termites in Africa, 1999 – 2001. **KES 6million for 3 years.**
- Development and implementation of a contract/ consultancy for the control of water lettuce in the hydroelectric dams of Kenya main donor – Kenya Electricity Generating Company (KenGen) 1998 – 2000 **KES 1.8million**
- Contract/consultancy on the use of *Neochetina eichhorniae*, *Neochetina bruchi* and *Orthogalumna terebrantis* for the control of water hyacinth in Omo delta Ian Parker & Co. **British pounds 2,500**
- Development and implementation of a biological contract for the control for water hyacinth at the Brookside Dairy Complex Dam in Ruiru, Kenya contract for 2002 – 2003 funded by Brookside Dairy **KES 300,000**
- Consultancy on the assessment of the complex of species of biting flies and possible management options at the Brookside Dairy Complex Ruiru, Kenya year 2006. **Report was delivered in 2007.**
- Implementation of the cotton seed production contract between KARI and the Ministry of Agriculture for the production of 100tonnes of standard/certified seed of the variety HART 89M 2007-2009 **KES 27.2million**

- Development and implementation of project CFC/ICAC/37 on “Improving cotton production efficiency in small scale farming systems through better vertical integration of the supply chain in Kenya and Mozambique” year 2009. **US\$428,000 for 4 years for Kenya through the Common Fund for Commodities. Project completed in December 2013. Project completion report provided in June 2014.**
- Contributed to the development of the project ICAC/CFC/44 “Development of a national cotton classing system in Kenya” being implemented by the Fibre Crops Directorate (formally CODA) in the Ministry of Agriculture, Livestock and Fisheries. **2012-2015 US\$428,000 for 4 years.**
- National Council for Science and Technology Research Grant on “ Post release evaluation of the biological control programme on water hyacinth, *Eichhornia crassipes* on Lake Victoria” begun in April 2013. The programme is a joint Kenya- South African scientific project being conducted with Prof. Martin Hill of Rhodes University. **KES 1.5million**
- Received funding for the production of bio-control agents under high tunnels and the biological control of kales and cabbage. This is under the Korea Overseas Project on International Agriculture (KOPIA) vegetable project. **KES 217,000 (2012- 2013)**
- Conducting pesticide efficacy tests for pests of cotton on behalf of the Pesticides Control Produce Board (PCPB) from 2012 to present. **KES 2,660,000**

Recent Publications and presentations relating to cotton production and research

International and Regional Conferences and workshops

- **Karanja, D.K. Musebe, Muthoni, L., Gitonga, W. Macharia, J.M.K., Kimani, M., and Mungai, A.K.** Comparative analysis of production practices and post-harvest handling of cotton by smallholder farmers in Kenya and Mozambique. **presented at the 5th World Cotton Research Conference, Renaissance Hotel, Powai, Mumbai, India, 7-11th November, 2011.**
- **11th Southern and Eastern African Cotton Forum, Nyeri, Kenya, August 27-29, 2012. Paper presentation on “Enhancing smallholder farmers decision making in Pest Management of cotton in Kenya”. D. Karanja, R. Musebe, W. Gitonga, A. Mungai, J. Macharia, A. Gikandi, L. Muthoni, L. Wasilwa and M. Kimani**

ICAC annual meetings

- **The 67th plenary meeting of the International Cotton Advisory Committee, Ouagadougou, Burkina Faso, November 17-21, 2008.** Paper presentation on “Developing a Sustainable Production and Marketing system for the cotton industry in Kenya”. **E. C. Ikitoo, and W. Gitonga**

Reports and guidelines on cotton

- Enhancing Cotton Production in Kenya, **W. Gitonga and H. Olweny** in **Pamba news bulletin issue number 001: July-December, 2010**
 - Enhancing cotton production through research and crop improvement, **W. Gitonga** in **Pamba news bulletin issue number 001: July-December, 2010**
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- Guidelines to managing fibre contamination and pre-ginning best practices in seed cotton; February, 2013. Desk study report prepared for the African Cotton and Textile Industries Federation (ACTIF) by **W. Gitonga and H. Olweny**
 - Contributed to the development of the National Cotton Classification System (NCCS). Lint sample collection protocol. This is a guideline developed in order to ensure that cotton lint samples for analysis using High Volume Instrument (HVI). The guideline was produced in July 2016.

- Contributed to the development of the “Cotton Classification”, understanding the data manual. The manual guides users in the interpretation and understanding data from the High Volume Instrument (HVI). The manual was produced in July 2016.
- Contributed to the development of the “Cotton Industry- Code of Practice”, in 2019
- Contributed to the development of the “Sisal Industry- Code of Practice”, in 2019

Other relevant information

Employment Record

Total of 38 years working experience in Agricultural Research based organizations

- 1981 – 1988
Assistant Research Officer, Scientific Research Division of the Ministry of Agriculture and Kenya Agricultural Research Institute at Msabaha Research Centre, Malindi, Kenya
- 1988 – 1991
Officer –In charge of Msabaha Research Centre, Malindi, Kenya

Research areas were:-

- Cotton research and pesticide management programmes
- Cassava pest programmes (Biological control of Cassava green mite)
- Sweet potato weevil population dynamics and control through the use of pheromones
- Research on storage pests of maize including the larger grain borer and maize weevil

1991 – 2000

- Research Officer the National Agricultural Research Centre, Muguga
- 1991 – 1993: Part of team that successfully controlled *Salvinia molesta* in lake Naivasha, Kenya using biological control agent *C. salviniae*
- 1992 - 1996: As part of PhD studies looked into the potential use of microbial agents *Metarhizium anisopliae* and *Beauveria bassiana* for the control of termites
- 1993 – 1994: Head Crop Protection Research Programme
- 1994 – 1996: As a member of the national and regional working groups contributed to the writing and development of the Lake Victoria Environmental Management programme (LVEMP), which was funded, in 1997 by the World Bank and Global Environmental Facility (GEF)
- 1995: Developed a programme for the control of water hyacinth in Lake Naivasha using biological control methods and released water hyacinth weevils the same year
- 1996 – 2000: Member of the research team in Kenya which under the LVEMP successfully managed to significantly lower water hyacinth levels in Lake Victoria
- 1997 – 2000: Member of the team that was involved in development of mycoherbicides as an additional control method for water hyacinth in Lake Victoria

2000-2007

- Appointed Centre Director , National Agricultural Research Centre, Muguga, - KARI, April 2000
- 2000 – 2002: Member of the East African Community committee of Environment and Natural Resources
- 1998 – 2002: Member and subsequently chairman on the task force that developed the “Regional strategy for the control of water hyacinth and other invasive weeds in the East African Community water bodies” The report was presented to the Council of Ministers of the East African Community in Arusha and adopted.
- 2001: A member of the Information Communication Technology Strategy Development team, KARI
- 2001: A member of the Regional (Kenya, Uganda, Rwanda and Tanzania) water hyacinth surveillance system team

- 2001 – 2002: As a Centre Director was a member of the KARI/World Bank constituted team that developed the Medium Term Plan (MTP) for KARI for the years 2004 and beyond

2007-2015 Centre Director KALRO-Mwea

In charge of team of scientists conducting rice, cotton, sisal, kenaf and jute research nationally in close collaboration with Fibre Crops Directorate in the Ministry of Agriculture, Livestock and Fisheries

- 2007-2009: Involved in the production of 100 tonnes of standard seed of HART 89M variety for Kenyan farmers
- 2010-2013: Principal Investigator “Improving cotton production efficiency in small-scale farming systems in Kenya and Mozambique”
- 2012 to present: Conducting pesticide efficacy tests for pests of cotton on behalf of the Pesticides Control Produce Board (PCPB). One Product Shield (Imidacloprid 600g/l) has already been registered as a seed treatment pesticide. Results for 7 other product are complete and results are being forwarded to PCPB.
- 2011-2013: Production of bio-control agents under high tunnels and the biological control of kales and cabbage. This is under the Korea Overseas Project on International Agriculture (KOPIA) vegetable project.
- 2011-2013: Chairman, Inspection and Acceptance Committee of Ambient Air Management System which was installed at the High Volume Instrument (HVI) Cotton Classification Laboratory at KALRO NARL. The committee comprised KARI and CODA officers. Involved in the technical aspects of constructing and installation of equipment. This state of the art laboratory was commissioned and opened on 22nd October, 2013 by Mr. Felix Koskei, the Cabinet Secretary Ministry of Agriculture, Livestock and Fisheries.

Supervision and collaboration with Local Universities

- Have been a second supervisor for 15 MSc. students who have completed their studies at the Kenya Methodist University (KEMU), from 2011 to date. I have personally supervised the setting up of the project proposal write-up, development of methodology and day to day supervision of one of the students, who completed his work at KEMU in 2012.

- I am currently the second supervisor for one MSc. student from Kenyatta University who completed his field work under my direct supervision at KALRO Mwea, 2 years ago.

Additional Duties entrusted to me by the Director, KARI/KALRO

- 1994 – 1996: Member of the national and regional working groups contributed to the writing and development of the Lake Victoria Environmental Management Programme (LVEMP), which was funded, in 1997 by the World Bank (IDA) and Global Environmental Facility (GEF)
- 1998 – 2002: Member and subsequently chairman on the task force that developed the “Regional strategy for the control of water hyacinth and other invasive weeds in the East African Community water bodies”.
- 2000 – 2002: Member of the East African Community committee on Environment and Natural Resources
- 2001: A member of the Regional (Kenya, Uganda, Rwanda and Tanzania) water hyacinth surveillance system team
- 2006: Chairman, “Analysis of Outstanding promotion cases for KARI staff”. This analysis was carried out from December, 2005 to January, 2006 for 999 KARI staff and recommendations given to Director, KARI
- 2011-2013: Chairman, Inspection and Acceptance Committee of Ambient Air Management System which was being installed at the High Volume Instrument (HVI) Cotton Classification Laboratory at KALRO NARL. The committee comprised KARI and CODA officers. The laboratory was commissioned and opened on 22nd October, 2013 by Mr. Felix Koskei, the Cabinet Secretary Ministry of Agriculture, Livestock and Fisheries.

National and International Awards

- Awarded National Medal “**Moran of the Order of the Burning Spear**” (MBS) on December 12, 2005 for environmental protection work under the Lake Victoria Environmental Management Programme

