

Curriculum Vitae

PROFESSOR SAMUEL GUDU

1.0 PERSONAL DATA

Name: Samuel Gudu
Date of Birth: 16th August, 1956,
Marital Status: Married and have children
Gender: Male
Religion: Christian
Citizenship: Kenyan
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2.0 EDUCATIONAL/PROFESSIONAL QUALIFICATION

B. Sc., Agriculture (Hons) (1983); M. Sc., (Genetics and Plant Breeding), University of Nairobi (1987); PhD (Plant Genetics and Biotechnology) (1993), Guelph, Canada.

3.0 WORK EXPERIENCE AT UNIVERSITY

3.1 Administration Experience and Training

3.1.1 Vice Chancellor, Rongo University from January, 2018

3.1.2 Ag Vice Chancellor, Rongo University from 7th October, 2016

3.1.3 Principal Rongo University College (September 2012 – November 2016)

I am in-charge of the overall Academic and administration matters of the institution on behalf of Rongo University College Council

3.1.4 Acting Vice-Chancellor {On several occasions}

Have acted as the Vice-Chancellor, Moi University on several occasions when the substantive Vice-Chancellor is away or out of the country.

3.1.5 Deputy Vice Chancellor (Planning & Development) {2002 – 2012}

- DVC (P/D): in-charge of physical, human resource, financial and academic planning and development activities at Moi University including Establishment and Annual Budgeting. Some notable achievements: coordinated the 1st Ten-Year Strategic Plan for the University, Three-Year University Calendar, female hostels, Wardenship Manual, Three-Year physical facilities Plan, Developed proposals for funding Sports Complex; 2250 Hostel by African Development Bank and staff scholarship Award policy.
- Chair of several standing Sub-committees of Senate: Strategic Plan Implementation Committee; Finance Planning and Development; Staff Welfare; Student Welfare; Exhibitions and Publicity Committee.
- Chair of several ad-hoc committees that report to Senate or University Management: housing allocation committee; Open learning and Distant Education (previously); Anti-corruption, Technical tenders committee; Performance Contract for Moi University.
- A member of the Interpublic University Consultative Forum (IPUCCF), Salary negotiation's committee for university staff Unions, representing Moi University Management Board; Moi university Pensions Board; Moi University Holdings Ltd.

3.1.6 Acting Principal, Chepkoilel Campus {2002 Sept. – Dec2002}

- Principal: in-charge of Campus administrative, academic and financial responsibilities on-behalf of the Vice-Chancellor, Moi University. Also acted as Principal on several occasion when substantive Principal was away.

3.1.7 Director of Research, Moi University {2000 – 2002}

- Director of research, Moi University: in-charge of research activities including development of research policy, seeking funding sources and training of staff on competitive research writing. Notable achievements: spearheaded the production of the first Draft of University Research Policy and together with others also produced the first draft of Moi University Intellectual Policy Document; organized the First training on Competitive Proposal Writing workshop at Moi University.

3.1.8 Head, Department of Botany, Moi University {1994 – 2000}.

- Head of Department in-charge of administration and academic activities of the Department including development of Curricula, examinations, and planning for teaching and marking, grading of examinations. Notable Achievements: coordinated the overall revision and production of several M.Phil. and D. Phil. curricular in the Department including D. Phil. in Plant pathology and Plant Genetics

3.1.9 Acting Dean, Faculty of Science, Moi University {1996 – 1998}

- Dean, in-charge of School administration and taking full charge of administrative and academic affairs of the School on-behalf of the Vice-Chancellor. Notable Achievement: coordinated the first computerized examination processing for the school of Science.

3.2 Training in Administration, Strategic Planning and Management of Higher Institutions

3.2.1 Strategic Planning and Management in Universities

- Attended a two-week intensive course (in 2004) in strategic planning and management of higher educational institutions at the University of Pittsburgh, USA.

3.2.2 Management of Higher Educational Institutions

- *A course on management of State Corporations:* Attended Mwongozo training on management (legal issues, human resource, finance) of State Corporations including universities from 28th- 30th September 2015, Mombasa Kenya.
- *Audit and Risk Management Training:* Attended audit and risk Management training on 22nd January 2015
- *Leadership & Governance:* attended a three-day workshop at The Kenya School of Governance, Nairobi 15-17, September 2014.
- *University Reforms and Challenges:* Attended training on University Reforms and Challenges at the 4th RUFORUM Biennial Conference in Maputo, Mozambique from 21st -25th July 2014.
- *Programme for Education Leadership:* Attended one week course on university administration and management organized by World Innovation Summit for Education (WISE) Programme and Qatar Foundation in United Arabs Emirates in 2013.
- *Strategic Leadership and Change Management:* I attended a two days course at Kenya Institute of Administration, Nairobi 12-13th November 2010 for Chief Executives of Universities and Other State Corporations.
- *Administration of Higher Educational Institutions:* Attended a three-week course (in 2006) in administration and management of higher educational institutions at Galilee in Israel. Modules handled include: resource mobilization and funding of higher educational institutions, Quality Assurance, Open learning and distance education, planning

and sitting university, human resource management, strategic planning, management of higher educational institution, marketing of University programmes and internalization of higher education.

- *Administration and Management of Higher Educational institutions* attended an international workshop on administration and management of higher educational institutions, in University of Cape Town, South Africa. Topics covered include: Quality assurance in higher Education, Funding for Universities, Open Learning and Distance education, Management of higher education institutions.
- *Administration of Higher Educational Institution*. Attended a three-weeks International Workshop in China on Administration of Higher Educational Institution. Modules handled included: Quality assurance, financing higher education, recruitment and promotion of academic staff, building and management of university teaching team, globalization and higher education employment of college graduate, reforms of teaching and research in China's Universities.
- *Quality Assurance and Management in Universities*. Attended several workshops organized by the Ministry of Education, Science and Technology, Kenya and others organized by DAAD on management of higher educational institutions, quality assurance, Open Learning and Distance education, and Reforms for higher educational institutions in Kenya.

3.3 Academic Progression and Work Experience

- Professor (2003 to date) of Genetics, plant breeding and Biotechnology, Department of Biological Sciences, Moi University.
- Associate Professor (1999 – 2003) of Genetics and Biotechnology, Moi University.
- Senior Lecturer (1995 – 1999) in Plant Genetics and Biotechnology, Moi University.
- Lecturer (1989 – 1995) in Genetics and Evolution, Moi University.
- Assistant Lecturer (1988 – 1989), in Genetics and Evolution, Moi University.
- Tutorial Fellow (1987 – 1988), Moi University.
- Part-time Lecturer (1986), Department of Botany, Moi University.
- Graduate Assistant (1985 – 1986), University of Nairobi.
- Agricultural Research Officer II (1983), Ministry of Agriculture, Perkerra Agric. Research Station

3.4 Scholarships and Recognitions

1983 – 1985	German Academic Exchange (DAAD) scholarship to study (M. Sc.
1988 – 1993	Canadian International Development Agency–Kenya Government Training Fund (CIDA-GTF) Scholarship for PhD Study.
1994	Recognized by Kenya Agricultural Research (KARI) Seminar Organizing Committee for presenting the third best scientific paper at the 2 nd International Scientific Conference
1999 – 2000	Commonwealth Fellowship for postdoctoral research at John Innes Centre in England.
2004 – 2008	A member of Technical Service Group of the Association for Strengthening Research in Eastern and Central Africa (ASERICA), reviewing Research Grants Proposal for funding.
2004	Recognized by the American Biographic Institute and made an honorary member of the Institute.
2004	Recognized for the contribution made in publication of Protocols for handling Genetically Modified Maize, co-authored book chapter with others.
2005	Appointed to the membership of the International Scientific Steering Committee on Phosphorous utilization in Acid Soils.
2008-2011	Member of the America Society of Plant Biologists (ASPB) and a member of the International Education Committee of the ASPB.

3.5 Lecturing Experience and Productivity

Twenty (20) years of lecturing at the university level. Courses taught include undergraduate and postgraduate as shown below:

3.5.1	<i>Undergraduate Courses</i>	<i>Postgraduate Courses</i>
	BOT 213 Genetics and Evolution	BOT 840 Advanced Cytogenetics
	BOT 316 Genetics	BOT 841 Molecular Genetics
	BOT 317 Cytogenetics	BOT 842 Advanced Population Genetics

BOT 418 Population Genetics

BOT 843 Plant Breeding Methods

BOT 844 Microbial Genetics

BOT 941 Special Topics in Biotechnology

SES 814 Biotechnology and Environment

SES 915 Advanced Biotechnology

3.5.2 Development of Courses in Genetics and Biotechnology

Together with others, developed courses in Genetics and Biotechnology in several Departments of the University including D. Phil Courses in Genetics and Molecular biology in Botany and Dept of Seed, Crop and Horticulture; Forest Genetics in dept of Forestry; Environmental Biotechnology in the School of Environment Studies.

3.6 ONGOING GRANT AWARDS

3.6.1 **2017: NRF, Institution Infrastructure Support.** Request Ksh. 24.4m..

3.6.2 **2017: Three Year Extension Grant to the McKnight Foundation in USA on** *Enhancing livelihoods of smallholder farmers in Western and Eastern Kenya through Agro-ecological intensification with sorghum based interventions, (2017-2020).* Request USD 450,000.

3.6.3 **2014: One Year Extension Grant to Global Challenge Program (GCP) on current** Project G7010.03.05 *Marker-assisted breeding for improving phosphorus-use efficiency and tolerance to aluminum toxicity in maize (2014-2015), Request 46,000 USA Dollars*

3.6.4 **2014: Three Year Extension Grant to the McKnight Foundation in USA on** *Improving Food and Livelihood Security in the East and Horn of Africa Using Multiple Stress Tolerant Sorghum Cultivars, (2014-2017).* Request 450,000 USA Dollars.

3.6.5 **2014: Rongo University- Hebei Academy of Agriculture and Forestry Science** *Collaborator on Maize Improvement and High Productivity Technology Research and Demonstration for Arid and Semi-arid areas of Kenya. Value 10 million Kenya Shillings. Results awaited.*

3.6.6 **2014: Kenya-South African Governments Grant** *Development and acid soil tolerant Maize varieties for Kenya and South African Farmers.* Amount Kshs. 2,400,000

3.7 GRANTS ATTRACTED

3.7.1 Sweet potato Project (1994-1995) awarded to S.Gudu as PI

- Amount: 6000 US \$
- Source of funds: IDRC/PREPACE
- Outputs/Deliverables:
 - (a) Enhanced adaptation of newly released sweet potato cultivars in South Nyanza and some of these varieties are still grown in Karungu and Lambwe valley in Migori and Suba Districts, respectively.
 - (b) Beatrice Were (a staff of Moi University) completed M.Sc. on partial scholarship.
 - (c) Several publications in refereed Journal (see Section 6.0 of this Cv)

3.7.2 Cypress Project (1994-1997) awarded to S.Gudu (as PI), H.O.Kojwang and P.O. Odago

- Amount: 12,500 US\$;
- Source of funds: African Academy of Sciences (AAS)
- Outputs/Deliverables:
 - (a) Fungi causing heart-rot in Cypress trees identified using molecular techniques and amount of wood loss in Kiandagoro and South Kinangop forests and correct felling age determined.
 - (b) Peter Odago was awarded partial scholarship and completed his M.Sc.
 - (c) A Sunto Clinometer and chemicals for laboratory were purchased
 - (d) Two Publications were made in refereed Conference Papers

3.7.3 Agro-forestry Project (1994-1997) awarded to S.Gudu (as PI) and B.Muok

- Amount: 12,500 US \$;
- Source of funds: African Academy of Sciences (AAS)
- Outputs/Deliverables:
 - (a) (Useful *Sesbania*, *Calliandra* and *Leuceana* populations identified for low soil pH areas
 - (b) Useful *Rhizobia* inocula tolerant to low soil pH areas were isolated and currently in use for inoculation of agro-forestry trees in low pH/acid soils of Kenya

(c) Benard Muok was awarded partial scholarship and completed his M.Sc.

(d) One refereed Publication was made in Agroforestry Journal

3.7.4 *Acacia albida (Acacia) Project (1995-1999) awarded to S.Gudu (as PI) and O.G. Dangasuk*

- Amount: 15,000 US \$;
- Source of funds: African Academy of Sciences (AAS)
- Outputs/Deliverables
 - (a) Diversity of *Acacia albida* across African continent and possible evolutionary relationships was revealed using molecular methods for the first time.
 - (b) Useful populations/introductions were made in the Country and some of these are currently grown in the drier regions of Baringo District.
 - (c) Prof George Dangasuk, who is a staff of Moi University, completed his PhD thesis on partial scholarship in the project.
 - (d) Four Refereed Publications were made (see Section 6.0 of this Cv)

3.7.5 *Papaya Project (1997-2001) awarded to S.Gudu (as PI)*

- Amount: 100,000 US\$;
- Source of funds: World Bank through Ministry of Education.
- Outputs/Deliverables
 - (a) New varieties of papaya for medium altitude in Kenya were developed.
 - (b) Seedling rot caused by *Fusarium* fungus reported and *Fusarium* isolates that attack papaya reported for the first time in Kenya
 - (c) Valarie Adema Palapala and Prisca Tanui obtained their M.Sc. and Janet Nyaoke is completing her M.Sc. on partial scholarship
 - (d) Equipment (Glasshouse, laminar flow bench, water deionizer, distiller, electronic balance, ordinary weighing balance, pH metre) and vehicle all worth over 4 million Kenya shillings were purchased for Botany Department, Moi University. The equipment are still used by the Department and form part of training materials for the students and staff research.
 - (e) Method for overcoming low germination of papaya seeds was developed together with regeneration of papaya plantlets from embryos via tissue culture method.
 - (f) Three refereed Conference Publications were made

3.7.6 *Agro-forestry Project (Leucaena) (2001-2004) awarded to S.Gudu (as PI)*

- Amount: 15,000 US\$;
- Source of funds: African Academy of Sciences (AAS)
- Outputs/Deliverables
 - (a) Acid tolerant genotypes selected and are already in use in some areas and aluminium stimulation of growth of *Leucaena* at low concentrations reported.
 - (b) Reuben Kodiango completed his M.Sc. on partial scholarship
 - (c) One computer was purchased for the Dept of Botany and is still used by postgraduate students
 - (d) One refereed conference publication was made

3.7.7 *Agroforestry (Sesbania and Calliandra) Project (1999-2002) awarded to S.Gudu (as PI) and P.O. Odago*

- Amount: 10,000 US\$;
- Source of Funds: KARI –ARF/Kenya Government
- Outputs/Deliverables
 - (a) Acid tolerant *Sesbania* and *Calliandra* populations for use in low pH regions identified and multiplied. Some of these varieties are grown today in Busia district of Kenya
 - (b) One non –refereed conference publication was made

3.7.8 *Maize Project (1999-2002) awarded to S.Gudu (as PI)*

- Amount: 10,000 US\$;
- Source funds: KARI –ARF/Kenya Government
- Outputs/Deliverables

- (a) Acid tolerant maize inbred lines, hybrids and populations for use in low pH regions of Kenya identified and reported to KARI for further use in development of low pH tolerant varieties in the Country.
- (b) One refereed Conference publication was made

3.7.9 Agro-forestry Project (2002-2005) awarded to S.Gudu (as PI) and P.O. Odago

- Amount: 76,000 US\$;
- Source of funds: AFORNET in collaboration with Sokoine University and Forestry Institute of Uganda.
- Outputs/Deliverables
 - (a) More acid tolerant *Sesbania* and *Calliandra* populations for use in low pH regions identified
 - (b) One computer, heavy-duty printer and chemicals purchased for the Dept of Biological Sciences.
 - (c) Useful *Sesbania* varieties were multiplied and portion given to KEFRI to share with farmers in Western Kenya.
 - (d) One non-refereed conference publication was made

3.7.10 Simsim Project (1999-2005) awarded to S.Gudu (as PI)

- Amount: 70,000 US\$;
- Source of funds: BIO-EARN/Sida-SAREC, in partnership with Swedish Agricultural University Alnarp, and East Africa Regional Biotechnology Consortium
- Outputs deliverables
 - (a) Simsim varieties developed for western Kenya
 - (b) Dr Beatrice Ang'iyio Were (Moi University staff) has completed her PhD studies in Sweden on full scholarship and re-joined the Department.
 - (c) Molecular Biology equipment (PCR Machine, Gel Electrophoresis, autoclave, Precision Gilson micropipettes, Centrifuges, laminar flow bench, plant growth chamber with controlled lighting etc) over 2million Kenya shillings purchased for the Dept of biological Science
 - (d) Six computers for Dept of Biological Sciences, network facility and internet connectivity for Chepkoilel Library as well as for the Dept of biological Sciences
 - (e) Four publications in refereed Journals was made

3.7.11 Maize Project (2002-2006) awarded to S.Gudu (as Kenyan, PI)

- Amount: 173,000 US\$;
- Source of funds: McKnight Foundation USA in Partnership with EMBRAPA, Brazil; Cornell University and University of Purdue USA
- Outputs deliverables
 - (a) Varieties of maize adaptable to low soil pH identified
 - (b) Equipment (Lap top computer & digital camera) have been purchased for the Dept
 - (c) Dickson Ligeyo and Pamela Obura completed their PhD studies on full scholarship from the project.
 - (d) Five non-refereed publications have been made.

3.7.12 Biotechnology Laboratory and Equipment Project (2005-2006) awarded to Dr Adipo Osano (as PI), Prof S.Gudu (CO-PI) and Prof B.Kwa-Otsyula (Co-PI)

- Amount: 155,000 US\$;
- Source Rockefeller Foundation
- Output/Deliverables
 - (a) A biotechnology laboratory has been at Chepkoilel Campus at a cost of about 4 million Kenya shillings
 - (b) Equipment worth about 7 million Kenya shillings is to be purchased for the laboratory, which will be used by all schools utilizing biotechnology in their research and training.

3.7.13 Maize project (2006-2008) awarded to S.Gudu (as PI)

- Amount: 60,000 US\$;
- Source GCP/CGIAR in partnership with Cornell University and EMBRAPA Brazil
- Outputs/Deliverables

- (a) To develop maize varieties for low soil pH regions of Kenya
 - (b) To develop maize linkage map for low soil pH
 - (c) One PhD scholarship is to be awarded in Plant Breeding and Genetics
- 3.7.14 *Sorghum Project (2006 - 2009) awarded to S.Gudu (As PI) and others in Kenya, Uganda, Tanzania and Ethiopia.***
Amount: 240,000 US\$;
- Source: Sida-SAREC through East African Biotechnology Network.
 - Outputs/Deliverables
 - (c) To develop sorghum varieties for low soil pH regions of Kenya
 - (d) To develop sorghum linkage map for low soil pH
 - (d) One PhD scholarship awarded to Ms Emily Too in Plant Breeding and Genetics, she is completing her PhD studies.
- 3.7.15 *Maize Project Extension (2006-2009) awarded to Prof S.Gudu (as PI), Prof J.R. Okalebo and Prof C.O. Othieno (Moi University) and Mr Dickson Ligeyo (KARI)***
- Amount: 173,000 US\$;
 - Source of funds: McKnight Foundation USA in Partnership with EMBRAPA, Brazil; Cornell University and University of Purdue USA
 - Outputs deliverables
 - (e) Varieties of maize adaptable to low soil pH will be developed in partnership with KARI via Memorandum of understanding, which is being jointly developed by KARI and Moi University.
 - (f) Equipment (Lap top computer & digital camera and computer software packages) will be purchased for the Departments of Biological Sciences and Soil Science
 - (g) Dickson Ligeyo and Pamela Obura completed PhD studies on full scholarship from the previous project and its extension.
- 3.7.16 Maize project (2007 – 2010) awarded to S.Gudu (PI) and others. Source of fund: Alliance for Green Revolution in Africa. Amount US\$185,000.
- 3.7.17 Maize and Sorghum Projects (2010-2013) Awarded to S.Gudu (PI for Maize) and co-PI (sorghum). Developing Maize & Sorghum for adaptation to acid soils. Source of Funds, Generation Challenge Program (GCP). Amount 486,300.00 US\$.
- 3.7.18 Sorghum & Finger millet improvement for drought and blast Disease for Eastern Africa. S.Gudu is a Co-PI. Source of funds: sida-SAREC through BIOINNOVATE project coordinated by BeCA based in ILRI, Kenya.
- 3.7.19 Improving Livelihoods of Rural communities in East Africa (2011- 2013) using sorghum Technologies. S.Gudu PI. Source of funds: McKnight Foundation. Amount: 432,000.00 US\$
- 3.7.20 Maize and sorghum Varieties for dry lowland acid soils of western Kenya. Shortlisted for funding. S. Gudu PI. Source of funds: National Council for Science and Technology (NCST). Amount Kshs 15,000,000.00
- 3.7.21 Irrigation Facility and Automatic Weather Station (2010). Awarded to S.Gudu (PI). Source of funds: GCP. Amount for irrigation Facility: 60,000.00US\$ and for Automatic Weather Station: 4,571.00. US\$.

3.8 Extension/Community Service

- 3.8.1 A member of Sori and B.L. Tezer Secondary School Board of Governors (2007-2010)
- 3.8.2 Released some Amaranth Varieties, together with other
- 3.8.3 Developed Papaya varieties for Homa Bay and Baringo
- 3.8.4 Participated in adoption of New Sweet potato varieties
- 3.8.5 Identified pathogens causing Heart-rot of cypress and recommended ways of minimizing damage
- 3.8.6 Developed improved Sesbania and Calliandra populations for low Soil pH regions of Kenya
- 3.8.7 Currently developing maize varieties adapted to low soil pH regions of Kenya
- 3.8.8 Participated in developing protocols for handling genetically modified organisms including maize for Kenya
- 3.8.9 Member of International Scientific steering committee on phosphorus organizing scientific Symposium that took place Mexico in the year 2010
- 3.8.10 Member of Board of Governors for Moi Institute of Technology (MIT) (2009-2012)

3.9 Partnerships and Linkages Developed

- 3.9.1 Moi University and Swedish University of Agric. Sciences at Alnarp
- 3.9.2 Moi University and EMBRAPA, Brazil in maize project
- 3.9.3 Moi University and Purdue University, USA in Maize project
- 3.9.4 Moi University and Cornell University USA in maize project
- 3.9.5 Moi University and KEFRI Kenya in AFORNET Project
- 3.9.6 Moi University and KARI Kenya in McKnight, BIO-EARN and ARF-KARI Projects
- 3.9.7 Moi University, Makerere University, University of Nairobi and Mikochei Agric Research Station in Tanzania and Addisababa University via BIO-EARN Project

3.10 Participation in University Committees

- 3.10.1 Representative of School of Science to Senate committee on Staff Development
- 3.10.2 Participated in the initial drafting of Moi University Research Policy
- 3.10.3 Participated in the initial drafting of Moi university Intellectual Property Policy
- 3.10.4 Chaired a committee that Produced the Moi University 10-year Strategic Plan
- 3.10.5 Chaired Staff Development Committee of Senate for the last 3 years
- 3.10.6 Chaired Wardens committee that has produced the wardenship Manual
- 3.10.7 Chaired 'Tenders' Technical Committee of University Management for 3 years
- 3.10.8 Chair planning and Development committee of Management (2003- to date)
- 3.10.9 Chair Staff Appointment Committee on Grades A-F (2003 – to date)
- 3.10.10 Chair Annual Establishments and Budget of the University (2003 to date)
- 3.10.11 Chaired Revision of Moi University Strategic Plan (2005/2015)

4.0 MEMBERSHIP TO PROFESSIONAL ORGANIZATIONS

- 4.1 World Innovative Summit on Education (WISE) Programme (2013 – 2015)
- 4.2 Member of International Committee on Plant Soil Interaction on Low pH (PSILPH) (2004 to date)
- 4.3 A National Task Force member of the Genetically Modified Organisms (GMOs), appointed by then Minister for Public Health (Hon. Mrs Beth Mugo) and also current Minister for Health (Hon. Mr Macharia) to advise the Government of Safety of GMOs (2013-2014).
- 4.4 Member of the International Committee of Plant Biologists of the ASPB (2009-2014)
- 4.5 A member of the American Society for Plant Biologists (ASPB) from 2009 – to date)
- 4.6 A member of the East African Agricultural Biotechnology Network (BIO-EARN) involving Kenya, Uganda, Tanzania and Ethiopia
- 4.7 A member of the international Consortia breeding maize for adaptation to low soil pH which involves EMBRAPA, Brazil; Purdue and Cornell Universities in USA and Moi University, Kenya
- 4.8 A member of the Simsim network in BIO-EARN improving simsim oil content and quality through Biotechnology involving Swedish University of Agricultural Sciences, Alnarp and others
- 4.9 Member of Crop Science of Kenya and East Africa.
- 4.10 Member of National Plant Biotechnology Group (Forestry Group).
- 4.11 Member of International Association of Cell Biology.
- 4.12 Founder member Plant Breeders Rights Association of Kenya.
- 4.13 Member of Biochemical Society of Kenya.
- 4.14 Member of East Agro-forestry Biotechnology Network.
- 4.15 Member of Sweet Potato Research Network.
- 4.16 Member of East Africa Environmental Network.
- 4.17 Member of the Kenya Science Academy
- 4.18 Member of International Steering Committee on Phosphorus Utilization on low Soil Ph

5.0 RESEARCH PUBLICATIONS

Theses;

1. **S. Gudu. 1993.** Anther Culture and Molecular Characterization of a Floral-Derived Gene in the diploid Species of Wild Barley (*Hordeum bulbosum* L.) University of Guelph, Ontario, Canada.
2. **S. Gudu. 1985.** Electrophoresis as an aid for identification of various species and cultivars of grain Amaranths. M.Sc. Thesis. University of Nairobi 89pp.

6.0 REFEREED JOURNAL PUBLICATIONS

1. E. Ouma and Gudu S. (2016). Genetic Effects for Maize P-efficiency traits in Acid and non-Acid soils of western Kenya. American Journal of experimental Agriculture. 11 (1) pp 1-13.
2. E. Ouma and Gudu S. (2015). Genetic variation in phosphorus efficiency traits in Tropical Maize in low P soils. International Journal of Current Research, 7 (12) pp 23403-23412.
3. Ringo J., Were, B., Mgonja, M., Santosh, D., Abhishek, R., Emmarold, E., Onkware A. & Gudu S. (2015). Combining ability of some sorghum lines for dry lands and sub-humid environments of East Africa. African Journal of Agricultural Research 10(19): 2048-2060, DOI: 10.5897/AJAR2014.8519.
4. Justin Ringo, Agustino Onkware, Mary Mgonja, Santosh Deshpande, Abhishek Rathore, Emmarold Mneney, **S.Gudu. 2015** Heterosis for yield and its components in sorghum (*Sorghum bicolor* L. Moench) hybrids in dry lands and sub-humid environments of East Africa. Australian Journal of Crop sciences 9(1):9-13
5. Ringo J.H., Mneney E. E, Onkware A.O, Owuochi J. O, Were B.A, Too E.J, **Gudu S.O. 2014.** Diversity of Sorghum (*Sorghum bicolor* L. Moench) Germplasm from Tanzania Journal of Biology, Agriculture and Healthcare www.iiste.org ISSN 2224-3208 (Paper) ISSN 2225-093X (Online) Vol.4, No.24, 2014
6. Kisinyo P.O., Opala P.A., **Gudu S.O.**, Othieno C.O., Okalebo J.R., Palapala V & Otinga A.N. 2014. Recent advances in understanding and managing Kenyan acid soils for improved crop production. African Journal of Agricultural Research 9: 2397-2408.

7. E.J. Too, A.S. Carlsson, A.O. Onkwere, B.A. Were, M. Geleta, T. Bringelsson and **S. Gudu**. 2014. Cell Membrane Integrity, Callose accumulation and root growth in aluminium-stressed sorghum seedling. *Biologia Plantarum*. 20(10) 1-5.
8. Emily Jepkosgei Too, Beatrice Angiyo Were, Augustino Osoro Onkwere, Justin Hanson Ringo, Peter Oloo Kisinyo, Anders S. Carlsson, Evans Ouma, Malatu Geleta and **Samuel Gudu**. 2014. Response of selected Sorghum (*Sorghum bicolor* L. Moench) to aluminium stress. *African J. Agric. Research* 9(21): 1651-1662.
9. Cheprot R.K., Matonyei TK, Were BA, Dngasuk OG, Onkwere AO, Maritim K.K., **Gudu S**. 2014. Physiological Characterization of Kenyan Sorghum Lines for Tolerance to Aluminium. *International Journal of Natural Sciences Research*, 2014, 2(4): 59-71
10. Benson Ouma Nyongesa, Beatrice Angiyo Were, **Samuel Gudu**, George Otto Dangasuk and Augustino Osoro Onkwere. 2014. Genetic Relationship between sesame (*Sesamum indicum* L.) and related wild species based on chromosome counts and isozyme markers. *African Journal of Agric Sciences* 42: pp
11. D.O. Ligeyo, E.Ouma, **S.Gudu**, P.O.Kisinyo, T. Matonyei, J.R. Okalebo and C.O. Othieno. 2014. Response of maize top cross hybrids to low phosphorous in acid soils of western Kenya. *E. Afric. For. J.* 80(1) 25-30.
12. T.K. Matonyei, R.K. Cheprot, J. Liu, M.A. Pineros, J.E. Shaff, **S. Gudu**, B. Were, J.V. Magalhaes and L.V. Kochian. 2014. Pysiological and molecular analysis of aluminium tolerance in selected Kenyan maize lines. *Plant Soil Soil* (2014) 377: 357-367.
13. Ouma E, Ligeyo D, Matonyei T, Agalo J, Were B, Too E, Onkwere, A.O, **Gudu S**, Kisinyo P.O. and Philip N. 2013. Enhancing Maize Grain Yield in Acid Soils of Western Kenya Using Aluminium Tolerant Germplasm *Journal of Agricultural Science and Technology A 3* (2013) 33-46.
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8.0 NON-REFEREED CONFERENCE AND WORKSHOP PAPERS

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2. P.A. Obura, D. O. Ligeyo, S. Gudu, J. R. Okalebo and C. O Othieno 2003. Effect of lime and phosphorus application on five maize genotypes in acid soils of western Kenya. Presented at KARI Seminar, December 2005 pp22 of Abstracts.
3. Onkwere A. O, S. Gudu et al 2002. Improving Nitrogen supply to common beans (*P.vulgaris*) through inoculation with local rhizobium isolates. Horticulture Conference JKUAT Seminar.
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13. S. Gudu 2001. Pros and Cons of Generically modified organism in relation to the Environmental and Human Health. Presented at the National Seminar on "Kenya and Global Genetic Revolution towards a systematic Approach to Biosafety Regimes" held at Holiday Inn Hotel, Nairobi. 30th October 2001.
14. J. R. Chemwetich, A. O Onkwere and S. Gudu 2001. Isolation and testing of local common bean rhizobia for improved Nitrogen supply through N-Fixation. Presented at JKUAT Seminar 2nd – 5th October 2001.
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16. G .W Thitai, S. Gudu et al 2000. The status of Biotechnology and Biosafety in Kenya. Presented at the Training Course on generically modified crop plants in practice held at Svalco-webull, Sweden 2nd – 30th October 2000. SIDA/SAREC/SEI Sweden.
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18. S. Gudu and K. J. Kasha 1998. Anther culture Response of Different Genotypes of Wild Barley (*Hordeum Bulbosum* L.) A paper presented at the East African Regional Network in Biotechnology workshop, held in Nairobi 21st – 22nd September 1998 Nairobi, Kenya.
19. H. O. Konjwang and S. Gudu 1993. Biotechnology. Applications in the production and processing of Wood and non-wood Products. A Consultative Workshop on the tree Biotechnology, May 19th – 21st, Aberdare Country Club, Nyeri, Kenya.
20. S. Gudu and H. O Kojwang' 1993. Molecular Characterization of tree germplasm for arid and semi-arid areas. A Consultative Workshop on tree Biotechnology, May 19th – 21st 1993, Aberdare Country Club, Nyeri, Kenya.
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22. S. Gudu, A Ziauddin and K. J Kasha, 1992. Production of homozygous lines of *Hordeum bulbosum* via anther culture. Abstracts of 3rd Canada Plant Tissue Culture and Genetic Engineering Meeting (IAPTC), Guelph, Ontario, Canada, 17th – 19th June 1992, pp.

9.0 BOOKS & CHAPTERS IN BOOKS

1. S.Gudu 2004. The Role and Status of Research in African Universities. In Governance, Society and Development in Kenya pp79-84, Eds. P.P.W Ochola, J. O Shiundu, H. O Mondoh, B. G Ngongah.
2. D. A. Andaw, D. A. Somer, N. Amugure, J. F. L. Aragao, K. Gosh, S. Gudu, E. Magiri, W. J Moar, S. Njihia and E. Osir 2004. Transgene louse Structure and Expression of maize pp83 – 116 in Environmental Risk Assessment of Generically Modified Organism Vol.I. A case study of maize in Kenya. Eds A Hilbeck and D. A. Andow CABI Publishing IABN 0-85, 199-861-5.
3. S.Gudu. From Genes to Genetically Modified Crops: The Future of Food Production, Human Health and Environmental Management in Africa. Moi University Inaugural Lecture Series No1. 2007. ISBN 9966 – 854 – 43 – 6. Moi University Press.

10.0 MANUALS AND BOOKS

1. B. A. Onyango, J. H. P. Kahindi, P. W. Kinyanjui, S. Gudu, N. Amugune, J. Muraya and A. Osanya, 1996. A Laboratory Manual for Molecular Biology, Vol. 1.81 pp. (Unpublished)
2. S. Gudu, A.A. Kaudia and P.O. Odago 2002 A Training Manual for Writing Competitive Research Grant Proposals (Unpublished)

11.0 CONFERENCE ATTENDANCE AND ORGANIZATION

1. Croatia, October 8th – 23rd, 2015. 9th International Symposium on Plant-Soil Interactions at Low pH
2. Hebei, China. 24th August – 12th September 2015. International Training Workshop on Crop Seeds Technology.
3. Uganda, 16th – 20th March 2015. Proposal development write-shop
4. Rayong, Thailand 1st – 7th October 2014. Generation Challenge Programme Conference
5. Maputo, Mozambique from 21st -25th July 2014: Attended training on University Reforms and Challenges at the 4th RUFORUM Biennial Conference.
6. Kenya, 2010. Easter Africa community of Practice. Understanding of Agricultural systems Approach in the face of changing climatic conditions. Addis Ababa, Ethiopia. May 12-18th 2010.
7. Brazil 2010 October 4-8th 2010. Africa-Brail Agricultural Innovations, Market place. Held in Brasilia, Brazil.
8. USA 2010. October 13-17th 2010. American Society of Plant Biologist . Washington D.C.
9. Moi University, Kenya. 2010. GCP and McKnight conference on adaptation of crops to soil acidity.
10. China 2009 Plant soil Interactions at Low Soil pH. South China University
11. Mali 2009. AGRA Organized meeting for grantees.
12. Uganda, 2008. BIO-EARN conference: A decade of research in biotechnology in Easter Africa, held at Kampala, Uganda.
13. Mali. GCP meeting to prepare proposals for funding and looking at the future of maize and sorghum research in Africa.
14. Brazil 2006 – Phosphorus Utilization in marginal acid soils, Uberlandia, Brazil
15. Brazil 2005 – Low Soil pH. Sete lagoas Brazil
16. Netherlands 2004 – Crop Production/ Food Security.
17. Cape-Town South Africa 2003 – Management of Higher Educational Institutions
18. 2nd – 20th October 2000. A Training Course on Genetically Modified Crop Plants in Practice: A route from the market at Svalov Weibull, Sweden.
19. 2nd – 5th September 2001. Enhancing the livelihood of Resource Poor through Sustainable Biotechnology, An International Symposium, held at Grand Regency, Nairobi Kenya. Organized by the Biotechnology Trust Africa
20. 3rd – 6th October 2001. Sustainable Horticulture Production in the Tropics held at the Jomo Kenyatta University of Agriculture and Technology, Nairobi, Kenya.
21. 16th – 18th November 1998 attended workshop on Industrial Property Rights organized by European Property Organization and Africa Industrial Property Organization under the Auspices of Kenya Industrial Property Organization at the University of Nairobi, Kenya.
22. 22nd – 27th November 1998 attended East African Regional Network in Biotechnology, at Imperial Boranical Hotel in Entebbe Uganda, organized by SAREC Sweden.
23. 6th -27th January 1999. Attended a workshop on Bio-safety Mechanisms Framework on Risk Assessment and Management held at Lilian Towers, Nairobi, Kenya. Sponsored by the NCST (Kenya) UNEP/GE.
24. 16th – 18th September 1998 – Organized a Regional Biotechnology Workshop (Together with others) in Nairobi, Panafric Hotel.
25. 21st – 23rd September 1998 Attended the East African Regional Network in Biotechnology in Nairobi, Panafric Hotel, organized by SAREC, Sweden.
26. 4th – 5th December 1997 IDRC/PREPACE small grants projects for sweet potato on Farm Trial Meeting at ILRI, Nairobi, Organized by CIP.
27. 17th – 28th November 1997 – Participatory Research Training organized by Kenya Agricultural Biotechnology Platform. Panafric Hotel, 17th – 28th November 1997, Nairobi, Kenya.

28. Time Management and Total Quality Management course. Organized by British Council and Moi University Management. 28th July – 2nd August 1997. Moi University.
29. 17th Internal Conference Coffee Science ASIC 1997. 20th – 27th July 1997. Nairobi, Kenya.
30. National Training Workshop on Molecular Biology. 1996. University of Nairobi, Department of Botany 17th – 29th June 1996. Training sponsored by The Kenya, Biotechnology Platform.
31. 1st Pan-African Conference on Biochem and Mol. Biol. UNEP. Nairobi, Kenya 2nd – 6th September 1996.
32. The 5th Symposium of Research of Harare: Towards building in Science and Technology 24th – 26th September 1996. Harare Zimbabwe.
33. Biodiversity Data Management (BDM) – Brain Storming Meeting organized by Ministry of Environment and Natural Resources. 2nd May 1996. National Museum of Kenya.
34. Development of Tissue Culture and other Plant Biotechnology Frame-Work under the Kenya-Netherlands Biotechnology Cooperation. April 10th – 13th 1995. Nairobi, Kenya.
35. International Society for Horticulture. The 12th African Symposium Nairobi, Kenya December 24th - 30th 1995.
36. Focus on Agricultural Research in intensifying Rural and Industrial Development. 4th KARI Scientific Conference, Silver Springs, Nairobi, Kenya. 25th – 28th October 1994.
37. Integration of Tree Crops in Farming Systems? Planning Workshop. Naro Maru River Lodge, Kenya. 21st - 25th February 1994.
38. Plant Genetics Mini-Symposium and Poster Day. University of Guelph, Guelph, Canada. March 19th 1993.
39. A Consultative Workshop on the tree biotechnology for arid and semi-arid lands. May 19th – 21st 1993. Aberdare Country Club, Nyeri, Kenya.
40. Environmental Applications of Biotechnology: Scientific Risk Assessment Methodologies June 28th – July 2nd 1993. Trieste, Italy.
41. The National Workshop on Agricultural Biotechnology, Nairobi, Kenya. 14th – 19th September 1993.
42. Balancing Scales of Biotechnology, University of Guelph, Guelph, Ontario, Canada April 14th 1992.
43. The 3rd Canadian Plant Tissue Culture and Genetic Engineering Meeting (IAPTC), Guelph, Ontario, Canada. 17th – 19th June 1992.
44. Safaripark Hotel, Kenya – Management of Higher Educational Institutions.
45. Safaripark Hotel, Kenya – Open Learning and Distance Education.

12.0 TECHNICAL AND SCIENTIFIC REPORTS

1. D Odee and S.Gudu 1999. Agroforestry Biotechnology Feasibility Study: Participatory Rural Appraisal Report on Kavilinguni Community, Machakos District Kenya p48.
2. D Odee and S.Gudu 1999. Agroforestry Biotechnology Feasibility Study: Participatory Rural Appraisal Report on Kyanganga Community, Machakos District, Kenya pp54.
3. D Odee and S Gudu 1999. Agroforestry Biotechnology Feasibility Study: A Participatory Rural Appraisal Report on Mukulusu Community, Kakamega District, Kenya p47.
4. D Odee and S.Gudu 1999. Agroforestry Biotechnology Feasibility Study: A Participatory Rural Appraisal Report on Magui Community, Vihiga District, Kenya pp47.
5. B O Muok, S.Gudu and D W Odee 1996. Isolation and Molecular Characterization of Indigenous Acid and Low pH Tolerant *Rhizobium* Spp. for use with *Calliandra* and *Sesbania* in Acid soil of Uasin Gishu District, Kenya. Technical Report, Submitted to The African Academy of Sciences, Nairobi, Kenya pp132.
6. P O Odago, S.Gudu and H O Kojwang 1996. Isolation and Molecular Characterization of Heart-rot Fungi of Kiandagoro Forest Station, Nyeri. Technical Report No.2. Submitted to African Academy of Sciences, Nairobi Kenya pp89.
7. B A Were and S.Gudu 1996. On-Farm Evaluation of Sweet Potato Cultivars in the Dry lowland basin of Lake Victoria at Lambwe and Karungu Divisions of Migori and Suba Districts, Kenya. Technical Report submitted to PREPACE/CIP, Kampala, Uganda.
8. G o Dansasuk and S.Gudu 1996. Genetic Variation in Twele Provenances of African *Fitberbia albida* L. Examined in the Field at Lodwar and in the Laboratory using Eight Isozyme Loci. Technical Report, Submitted to African Academy of Sciences, Nairobi, Kenya.
9. P O Ogado, S.Gudu and H OKojwang 1995. Estimation of Incidence and Severity Losses of Heart-rot Fun at Kiandagoro Forest Station, Nyeri, Kenya. Technical Report No.1 Submitted to the African academy of Science, Nairobi Kenya pp71.

13.0 SUPERVISION OF POSTGRADUATE STUDENTS

I have supervised 20 M. Sc. students and 11 PhD students, a good number of them have finished and graduated.

13.1 M. Sc. Students Supervision

1. J.H. Ringo 2009. Development of Sorghum Cultivars Tolerant to Aluminium toxicity. M.Sc. Thesis, Moi University. 2009.
2. T. Matonyei. Aluminium tolerance in Kenyan Maize germplasm. 2010. M.Sc. Thesis, Moi University.
3. R. Kiboi 2010. Genetic Diversity based on aluminium tolerance locus and physiological analysis of Aluminium tolerance in sorghum. M.Sc. Thesis, Moi University.
4. Teresa, Okiyo 2010. An Analysis of stay-green-drought and Aluminium tolerance in sorghum. M.Sc Thesis Moi University
5. Z. Langat. Drought Tolerance in Selected Sorghum cultivars in Kenya. M.Sc. Thesis, Moi University.

6. K. Maritim. Genetic Variation for drought tolerance among sorghum varieties in Kenya, M.Sc Thesis, Moi university.
7. P N Tanui. Generic evaluation of fruit yield in Papaya (*Carica papaya* L.) in different agro-ecological zones of Kenya completed MSc. Thesis Moi University (2004).
8. R O Kodiango. Screening of *Leucaena leucocephala* L. Genotypes for tolerance to low soil pH and aluminium toxicity. M.Sc Thesis Moi University. (Completed 2003)
9. E J Too Growth Responses of Selected Common Bean (*Phaseolus vulgaris* L). Cultivars to lo Aluminium Stress and Lime application. M.Sc. Thesis 2002, Moi University. (Completed).
10. E N Walime. Screening of Wheat varieties (*Triticum aestivum* L.) for tolerance to low soil pH and aluminium toxicity.
11. J M E Mbinga. Genetic variability and seed production Potential of *Pinus Radiata* L. at Timboroa, Kenya M.Sc. Thesis, Moi University (2002). (Completed).
12. V A P Palapala, Pathogenicity, Fungicide Efficacy and Isozyme Variation Studies in Fusarium wilt of Papaya (*Carica papaya* L.) seedling. Msc. Thesis. 2001, Moi University. (Completed).
13. S M Maina. Response of Common Bean (*Phaseolus vulgaris* L.) Genotypes to inoculation with Acid Tolerant Rhizobia and Phosphorus Fertilization in Uasin Gishu, District, Kenya. M.Phil Thesis, Moi University (1999). (Completed).
14. J Owino. The origin and Genetic Diversity of the Tilapia (*Oreochromis niloticus* L.) of Lake Victoria and other inland waters of Kenya M.Phil Thesis, (1998). Moi University (Completed).
15. B O Muok. Isolation, Molecular Characterization and screening of Indigenous *Rhizobium* for Acid Tolerance and Effectiveness of *Leucaena*, *Calliandra* and *Sesbania*. M.Phil Thesis, 1997. Moi University. (Completed).
16. P O Odago. Estimation of Incidence, Severity and Distribution of Decay in Mature and Over mature Stands of *Cupressus Lusitanica* in Muranga District and Molecular DNA Characterization of these Fungi. M.Phil Thesis , 1997. Moi University. (Completed).
17. S K Komen. Effect of Seed Multiplication Cycles on Varietal Purity and Performance of Common Bread Wheat (*Triticum aestivum*) in some Kenyan Varieties. M.Phil Thesis, 1997. Moi University. (Completed).
18. B A Were. Evaluation of improved Sweet Potatoes (*Ipomea batatas* L) Cultivars in Migori & Suba Districts, Kenya. M.Phil Thesis, (1997). (Completed).
19. J R Chemwetich. Isolation and Screening of Indigenous *Rhizobium* for tolerance to Acidity and Improved Nitrogen Fixation in Common Bean (*Phaseolus vulgaris* L). (Completed).
20. M. Nyamolo Abaja. Genetic diversity in tolerance to flooding among Kenyan maize germplasm. Moi University Thesis (completed, 2006)

13.2 PhD Students Supervision

1. S.M. Maina. Sorghum utilization of low phosphorus under limiting P in acid soils of Kenya. (On-going)
2. Justin H. Ringo. Genetic Diversity analysis and development of Sorghum hybrids for humid and semi-arid lands of East Africa. PhD Thesis, University of Eldoret , 2014
3. Thomas K. Matonyei. Genetics of Aluminium tolerance in Maize and development of maize hybrids for acid soils of western Kenya. PhD Thesis. University of Eldoret, 2014.
4. Evans O. Ouma. 2015. The genetics of phosphorus tolerance and the development of hybrids tolerance to low phosphorus for acid soils of western Kenya. PhD Thesis, University of Eldoret.
5. Emily Too. Molecular and physiological mechanisms of sorghum tolerance to soil acidity. PhD Thesis, University of Eldoret 2013.
6. J. O. Okora. The Genetics of resistance to Sorghum midge pest. PhD Thesis, University of Eldoret 2013.
7. P.O. Kisinyo. Residual and minimum in put levels for maize production in the Acid soils of western Kenya. 2010. Moi University Thesis
8. B A Were. Genetic Manipulation of Oil Quality in Sesame (*Sesamum indicum* L) (PhD 2006). Swedish University of Agricultural Sciences, Alnarp.
9. D O Ligeyo. Genetic Analysis of Kenyan maize germplasm for Tolerance to aluminium toxicity (PhD Moi University 2007).
10. B O Owuor. Genetic and Agronomic Evaluation of *Sesbania sesban* for Agroforestry in Western Kenya. PhD Moi University, 2001.
11. G O Dangasuk. Generic Diversity in *Feitbrbia albida*. PhD Thesis, Moi University (1999).

14.0 INTERNAL AND EXTERNAL EXAMINER FOR DPHIL AND M.PHIL THESES

1. Amugune O N 2001. Transformation and Regeneration of Common bean (*Phaseolus vulgaris* L) (PhD, University of Nairobi).
2. Njoroge P K 2001. *In vitro* Conservation of Sweet Potato (*Ipomea batatus* L) Using Low Growth Media. (MSc University of Nairobi).
3. Obura P A 2001. The Effect of Rock phosphate, Urea and *Rhizobium* inoculation on Growth, Yield and Nutrient Uptake on Maize Soybean intercrop in the Acid Soils of Western Kenya (MSc Moi University).
4. Tungani J O 2001. A comparative study of Soils under Contrasting Vegetation Regimes in Parts of Marigat Division, Baringo District. (MSc Moi University).

5. Woyengo V W 2000. Heterosis and Combining Ability in Pyrethrum (*Chrysanthemum cinerariaefolium* L) (MSc University of Nairobi).
6. Leley P K 1999. Responses of Seed Beans to Varying Regimes of Weed Control and Stand Establishment (MSc, Moi University).
7. Mdodo R M 1999. Environmental Factors and Coral Bleaching in Kenya (MSc, Moi University).
8. Wanyoko J K 1999. Use of Soil Amendments to Improve Yields of Tea (*Camelina sinensis* L Grown In Strongly Acid Soils. (PhD Moi University).
9. Mohammed A 1998. Arid Land Agroforestry Practices: Their Role in Resource Conservation and Management in Dua Valley, Mandera District, Kenya (M.Sc Moi University).
10. Kamunya S.N 1997. Genetic Variation and Heritability Studies in Resistance to *Cinaria Cupresi* in *Cupresus Lusitanica* (Msc. Moi Univesity).
11. Macharia S M 1997. Intraspecific Genetic Variation Among Populations of the Kenyan African Violet (*Saint paulia Rupicola*) Molecular Approach (Msc University of Nairobi).
12. Kyalo G K 1997. A Study of the effect to Gamma Rays on five Sesame varieties. (MSc University of Nairobi).
13. Kinyua M G 1997. Transfer of Genes for Resistance to Yellow Rust (*Puccinia striiformis* L.) from wild Emmer Wheat (*Triticum dicoccoides* Korn) in to Kenya Commercial Wheat Varieties (PhD, University of Nairobi).
14. Kariuki NCK 1997. Effect of Nitrogen Application and Harvesting Methods on Plant Growth and Leaf Yield and Quality of Vegetable Amaranth (*Amaranthus hypochondriacus* L) (MSc University of Nairobi).
15. Mwitari P G 1994. Karyotype Analysis Among Indigenous *Sesbania* species from Southern Africa (MSc Thesis, University of Nairobi).
16. Njenga E W 1993. Taxonomy of the *Cadus* Species in Kenya (MSc Thesis, Moi University).
17. Chenge A G Gathayo 1993 Ecophysiological Studies of Common Benas (*P. Vulgaris*) in Relation to Planting season, Intercropping and Inoculation Treatments (Msc Thesis, Moi University).
18. Omondi C O 1988. Genetic Diversity Among Isolates of *Collectrichum kahawae* L Causing coffee berry disease and their interactions with Varieties and Breeding Populations of Arabica coffee (PhD, University of Nairobi).
19. Njeru Murithi 2002. Feeding Ecology and Population Characteristics of Nile Tilapia *Oreochromis niloticus* L in Lake Victoria

15.0 REVIEW OF JOURNAL ARTICLES

- Journal of Agriculture and Biodiversity Research (An on-line Journal, 2014 onwards).
- Journal of East African Resources Management (2001 to date)
- East Africa Agriculture and Forestry journal (1995 – to date)
- Maseno Journal of Education, Arts and Science (1995 – 1997).
- Discovery and Innovation 1993 to date
- Jomo Kenyatta University, Journal of Science and Agriculture Science (2006 to date)
- African Journal of Agricultural Sciences (2009- to date).

16.0 RESEARCH INTEREST

Areas of Research interest include: Genetics, agronomy, Plant breeding, Agronomy and food production, Biotechnology, Bio-safety and Intellectual Property Rights.

1. Molecular Characterization of Plant/Bacterial/Fungal/Rhizobial genomes using isozyme and DNA markers for identification and understanding of: (a) phylogenetic relationships (b) genetic diversity (c) marker assisted selection in plan/tree breeding and (d) taking of research results to the farmers in their fields.
2. Collection of germplasm for wild relatives for crop Plants (eg *Sesamum species*, *Grain legumes*).
3. Plant Breeding Systems (eg self-incompatibility system), regulation of activity of genes involved in reproduction process.
4. Tissue culture of plants: to overcome sexing problem like in Papaya, to provide callus for plant transformation, or for any other reason.
5. Breeding for low soil pH and Aluminium tolerance in cereals, grain and tree legumes.

17.0 PARTICIPATION IN COMMUNITY DEVELOPMENT PROJECTS AND TRAINING

1. 1983 – 1986, participated in popularization and adoption of grain amaranth among small scale farmers in Central, Eastern and Coast Province in Kenya. (Project).
2. 1988 – 1992, attended two community development training sessions, each about one week organized by Ontario, African Working Group at the University of Guelph, Canada.
3. 17th – 28th November 1997, attended a course on Participatory Research Appraisal course for community Development organized by Kenya Agricultural Biotechnology Platform.
4. 1995 – 1997, participated in sweet potato adoption and National Performance trial among farmers in Migori and Suba Districts, sponsored by PREPACE/IDRC Small Grant Program managed by CIP regional office, Nairobi, Kenya.
5. 1st – 30th October 1998, involved in Participatory Rural Appraisal work in Machakos and Kakamega Districts in Kenya. We assessed the farmers felt needs for agroforestry trees in these two regions. This work was sponsored by the Kenya Agricultural Biotechnology Platform in conjunction with The Netherlands Government.
6. Chairman, Board of Governor, Sori Secondary School, 2007 to date.

18.0 JOINT ORGANIZATION FOR SHORT-TERM COURSES

1. Regional Training on Molecular Biology Technique for Technicians, Students and Researchers in Public and Private Institutions: 1996 at University of Nairobi.
2. INCRO/UNESCO International Training Course on Molecular Biology: 18 – 28 August 1997 at University of Nairobi.
3. Regional Molecular Training Course and Workshop September 7th – 15th 1998, at University of Nairobi.
4. ICRO/UNESCO International Cell Biology Training Course, Mombasa, January 8th – 20th 1999.
5. Intellectual Property Rights Seminar for universities in Kenya held at Moi University
6. Training Workshop on Competitive Research Proposal Writing October 30th – November 6th 2002.

19.0 EXTERNAL EXAMINER

External Examiner for:

1. University of Nairobi from 2000 -2004
2. Makerere University
3. University of Eldoret

20.0 ACADEMIC REFEREES

1. Prof. James Tuitoek, Tel No. 0724849662, E-mail: jktuitoek@yahoo.com
2. Prof. Mucai Muchiri, Vice Chancellor, Karatina University, P.O. Box 1957-10101, Karatina, Tel. No. 0722264408. E-Mail: muchiri50@gmail.com
3. Prof. S.G. Agong, Vice Chancellor JOOST University, P.O. Box 210-40601, BONDO. Tel.No.: 0722760538; E-Mail: sgagong@jooust.ac.ke;
4. Prof. Hezbon Koderu, Rongo University, P.O. Box 103-40404, Rongo. Tel.No.0721414793; E-Mail: hkoderu@gmail.com
5. Prof. John S. Akama, Vice Chancellor, Kisii University, P.O. Box 408-40200, Kisii. Tel. No. 0722921766; E-Mail: jsakama@yahoo.com