

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
Address: Moi University
P.O. Box 3900
ELDORET
Tel.053-43087
Fax.0321-43355
E-mail: samgudu2002@yahoo.com OR samuel.gudu56@gmail.com

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 Principal Rongo University College (September 2012 – to date)

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

3.1.2 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.

3.1.3 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 being in-charge of Establishment and Annual Budgeting for the University. Some notable achievements: successfully coordinated the production of the Ten-Year Strategic Plan for Moi University, production of the Three-Year University Calendar, completion of sections of University female hostels, production of Wardenship Manual, Three-Year physical facilities Plan, Developed some proposals for funding including Proposed Moi University Sports Complex; Completion of the 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 academic staff union, representing Moi University Management Board; Moi university Pensions Board; Moi University Holdings Ltd.

3.1.4 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.

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

- Director of research Moi University: in-charge of research activities in the University 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.

3.1.4 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

3.1.6 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. Trained on developing institutional strategic plans.

3.2.2 Management of Higher Educational Institutions

- *Strategic Leadership and Change Management:* I attended a two days course at Kenya Institute of Administration, Nairobi 12-13th November 2010. The course was intended for Chief Executives of Universities and Other State Corporations. Topics covered: leadership for organizational change, integrity, change management, Leadership role of Boards, Kenya Vision 2030, organizational transformation, Board Assessment tools, Risk Management in organizations
- *Administration of Higher Educational Institutions:* Attended a three-weeks 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 siting 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 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 Undergraduate Courses

BOT 213 Genetics and Evolution
 BOT 316 Genetics
 BOT 317 Cytogenetics
 BOT 418 Population Genetics

Postgraduate Courses

BOT 840 Advanced Cytogenetics
 BOT 841 Molecular Genetics
 BOT 842 Advanced 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 Research Experience, Grant Awards & Capacity Building

During my twenty years of teaching and research at University, I have won several research awards as shown below:

3.6.1 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)

3.6.2 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

3.6.3 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 *Leucaena* 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

3.6.4 *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)

3.6.5 *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 over coming 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

3.6.6 *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

3.6.7 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

3.6.8 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

3.6.9 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

3.6.10 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'iyu 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

3.6.11 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.

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

- 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.

3.6.13 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

3.6.14 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.

3.6.15 Maize Project Extension (2006-2009) to be 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.

3.6.16 Maize project (2007 - 2010) awarded to S.Gudu (PI) and others. Source of fund: Alliance for Green Revolution in Africa. Amount US\$185,000.

3.6.17 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\$.

3.6.18 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.

3.6.19 Improving Livelihoods of Rural communities in East Africa using sorghum Technologies. S.Gudu PI. Source of funds: McKnight Foundation. Amount: 432,000.00 US\$

3.6.20 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 15,000,000.00 Kshs

3.6.21 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\$.

3.7.0 Extension/Community Service

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

3.8.0 Partnerships and Linkages Developed

- 3.8.1 Moi University and Swedish University of Agric. Sciences at Alnarp
- 3.8.2 Moi University and EMBRAPA, Brazil in maize project
- 3.8.3 Moi University and Purdue University, USA in Maize project
- 3.8.4 Moi University and Cornell University USA in maize project
- 3.8.5 Moi University and KEFRI Kenya in AFORNET Project
- 3.8.6 Moi University and KARI Kenya in McKnight, BIO-EARN and ARF-KARI Projects

- 3.8.7 Moi University, Makerere University, University of Nairobi and Mikochehi Agric Research Station in Tanzania and Addisababa University via BIO-EARN Project

3.9.0 Participation in University Committees

- 3.9.1 Representative of School of Science to Senate committee on Staff Development
 3.9.2 Participated in the initial drafting of Moi University Research Policy
 3.9.3 Participated in the initial drafting of Moi university Intellectual Property Policy
 3.9.4 Chaired a committee that Produced the Moi University 10-year Strategic Plan
 3.9.5 Chaired Staff Development Committee of Senate for the last 3 years
 3.9.6 Chaired Wardens committee that has produced the wardenship Manual
 3.9.7 Chaired Tenders Technical Committee of University Management for 3 years
 3.9.8 Chair planning and Development committee of Management (2003- to date)
 3.9.9 Chair Staff Appointment Committee on Grades A-F (2003 - to date)
 3.9.10 Chair Annual Establishments and Budget of the University (2003 to date)
 3.9.11 Chaired Revision of Moi University Strategic Plan (2005/2015)

4.0 MEMBERSHIP TO PROFESSIONAL ORGANIZATIONS

- 4.1 Member of the International Committee of Pant Biologists of the ASPB (2009-2011)
 4.2 A member of the American Society for Plant Biologists (ASPB from 2009 - to date)
 4.3 A member of the East African Agricultural Biotechnology Network (BIO-EARN) involving Kenya, Uganda, Tanzania and Ethiopia
 4.4 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
 4.5 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
 4.6 Member of Crop Science of Kenya and East Africa.
 4.7 Member of National Plant Biotechnology Group (Forestry Group).
 4.8 Member of International Association of Cell Biology.
 4.9 Founder member Plant Breeders Rights Association of Kenya.
 4.10 Member of Biochemical Society of Kenya.
 4.11 Member of East Agro-forestry Biotechnology Network.
 4.12 Member of Sweet Potato Research Network.
 4.13 Member of East Africa Environmental Network.
 4.14 Member of the Kenya Science Academy
 4.15 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. J.H. Ringo, E.E. Mneney, A.O. Onkware, B.A. Were, E.J. Too, J.O. Owuoche and **S. Gudu** 2010. Tolerance to aluminium toxicity in Tanzanian sorghum genotypes. African Crop Science Journal 18 (4): 155-164
2. T.Okiyo, **S.Gudu**, O. Kiplagat and J. Owuoche 2010. Combining drought and aluminium toxicity tolerance to improve sorghum productivity. African Crop Science Journal 18 (4) 147-154.
3. **S.O. Gudu**, P. O. Kisinyo, E. T. Makatiani, D. W. Odee, J. F. O. Esegu, S. A. O. Shamchama, C. O. Othieno, J. R. Okalebo, J. R. Osiyo and J. O. Owuoche (2009). Screening of sesbania for tolerance to aluminum toxicity and symbiotic effectiveness with acid tolerant rhizobia strains in acid soil in western Kenya. *Expl Agric.* (2009), volume 45, pp. 417-427
4. Kisinyo, P., **Gudu S**, Othieno C., Okalebo, J.R., Ochuodho J., Agalo, J., Ngetich W., Maghanga J., Osiyo R., and Ligevo D. 2009. Residual effects of lime and phosphorous application on soil and maize

- performance in Kenyan highlands. *Journal of Agriculture, Pure and Applied Science and Technology*, 3: 1-10
5. D.O. Ligeyo, **S.Gudu**, G.A. Ombakho, P.O. Obura, J.R. Okalebo, C.O. Othieno, S.N. Parentoni, J.V. Magalhaes and R.E. Schaffert 2008. Genetic Analysis of Maize Tolerance to Aluminium Toxicity. *E. Afri Agric & For J.* 74(1): 11-16.
 6. O. G. Dangasuk and **S. Gudu**. 2007. Relationship between Isoenzyme Diversity, Seed Mass and Early Growth in the African Leguminous Tree *Faidherbia albida* (Del) A. Chev. (Fabaveae).
 7. P.O.Kodiango. A.O Onkware and **S.Gudu** 2007. Effect of Liming in Growth and Development of *Leucaena Leucocephala* in Acid Soils of Kenya. *Discovery and Innovation*, Vol.19(Afornt Special Edition, No4, pp.359-374.
 8. **S.Gudu**, J.Agalo and J.Oluoch. 2006. Writing A Competitive Research Grant Proposal: An Important Emerging Survival Tool in a University Environment. *Maarifa Journal Journal of Humanitarian and Social Sciences*, Moi University, School of Arts and Social Sciences, Moi University, Vol.2 No.2, 2007, pp.25-34.
 - 7.0 S.M. Maina, **S.Gudu**, A.O. Onkware and B.A. Anyango. 2006. Response of Common Bean (*Phaseolus vulgaris* L.) cultivars to *Rhizobium* Inoculation and Phosphorus and Fertilizer Application in Acid Soil. *J. East African Natural Resources Management* Vol.2(1): pp.201-207.
 - 8.0 **S.Gudu**, H.O. Kojwang and P.O. Odago. 2006. Molecular and Cultural Characterization of Heart-rot Fungi Infecting Cypress (*Cupressus lusitanica* L.) in Kiandogoro Forest, Kenya. *J. East African Resources Management* Vol.2(1) pp.119-129.
 - 9.0 B.A. Were, A.O. Onkware. **S.Gudu**, M. Welander and A.S. Carlsson. 2006. Seed Oil content and Fatty acid composition in East African sesame (*Sesamum indicum* L.) accessions evaluated over three years. *Field Crops Research* 97: pp.254-260.
 - 10.0 B.A. Were, **S.Gudu**, A.O. Onkware, A.S. Carlsson and M. Welander. 2006. In Vitro regeneration of sesame (*Sesamum indicum* L.) from seedling cotyledon and hypocotyls ex-plants. (Accepted, *Plant Cell Tissue and Organ Culture*)
 - 11.0 Otto, G. Dangasuk, Peter O. Odago, Beatrice A. Were and **S. Gudu**, 2006: Analysis of Geographic Variation among 16 African Provenances of *Faidherbia albida* using PCR based ITS and RAPD techniques. (Accepted: *Discovery and Innovation Journal*).
 - 12.0 D. A. Andow, D. A. Somers, N. Amugune, F.J.L. Arajoo, K.Ghosh, **S. Gudu**, E. Magiru, W. J Moor, S. Njihia and E. Osir 2004. Transgene Locus Structural and Expression of Bt Maize. Eds. A Hilbeck and D. A. Andow. *Environmental Risk Assessment of Genetically Modified Organisms* "CABI Publishing pp.83-116."
 - 13.0 **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.
 - 14.0 B. A Were, A. O Onkware and **S. Gudu** 2003. Yield and storage quality of improved sweet potato cultivars in the semi-arid lowlands of Lake Victoria Basin, Kenya *East Africa Agriculture for Journal* 68(4): 197-204.
 - 15.0 **S. Gudu** and K J Kasha Expression of Nuclear gene in Wild Berley (*Hordelium balsomus l*) *East Africa Agriculture and Forestry Journal* (2002) 68(1), 9-15.
 - 16.0 **S. Gudu**, B. O. Owuor and J. C. Onyango 2002. A Seedling inoculation test for screening Sesbania Sesban for resistance to the seedling defoliator, mesaplatys ochroptera. *Agroforestry systems* 54:193-196.
 - 17.0 B. O. Owuor, **S. Gudu** and A. Niang 2001. Direct Seedling of Sesbania Seban for green manure in Agroforestry Systems a short communication. *Agroforestry Systems* 53:23-25.

- 18.0. O. G. Dangasuk, **S. Gudu**, R. A. Aman and T. Branddyl 2001 Isozyme variation and Growth Performance in 16 provenances of African *Faithibia albida* (Del_A.Chev. in Kenya. Discovery and Innovation Special Issue p26-36.
- 19.0 **S. Gudu**, D A Laurier, K. J Kasha and J. W. Snape, 2001. RFLP Mapping of *Hordeum bulbosum* highly expresses in the pistils, and its relationship to the homeologous loci in other Graminaee species Theoretical and Applied Genetics. 105: 271-276.
- 20.0. B. A Were and **S. Gudu** 2001. Peroxidase and Esterase Isozyme Variation in Sweet Potato (*Ipomea Batatas L.*) cultivars grown in Kenya. East African Agriculture and Forestry Journal 63(3).
- 21.0. O. G Dangasuk , **S. Gudu** and R. A. Okabelo 2001. Early growth performance of 16 populations of *Faidherbia albida* in semi-arid Baringo District pp.412-428. In De Scott, R.H Mohtar and G. C Stainherdt eds. Sustaining the Global Farm selected papers from the 10th International So81.
- 22.0. O. G Dangasuk and **S. Gudu** and J. R. Okalebo 2000. Allozyme variation in sixteen Natural Populations of African *Feitherbia albida* L Hereditas 133:133 – 145, 3:141.
- 23.0. B. O Muok, **S. Gudu** and D. W. Odee 1998. A broad-range inoculants for legume trees in acid soils Agroforestry to-day 10(3): 12 – 15.
- 24.0. G. O. Dangasuk, P. Seurei and **S. Gudu** 1997. Genetic variation in seed and seedling traits in 12 African Provenances of *Faidberbia albida*(Del.) A. Chev. Trials at Lodwar Kenya. Agroforestry Systems Journal 37:133:141.
- 25.0. **S. Gudu**, J. D Procnier, A. Ziauddin and K. J Kasha. 1993. Anther culture Derived homozygous lines in *Hordeum Bulbosum* L. J. Plant Breed. 110:109-115.
- 26.0. Xia, X. J., **Gudu S.**, Du S. and K. J. Kash 1994. A high expressed gene in the pistil of *Hordeum bulbosum*. NCBI Mol. Data Base Accession HL YHBC8A Nos L26917.1 (gi 472801) and BLYHBC14A L26918.1.
- 27.0. V. K Gupta and **S. Gudu**. 1991. Interspecific hybrids and phylogenetic relationships in grain amaranths. Euphytica 52:33-38.
- 28.0. V. K Gupta and **S. Gudu**. 1990. Inheritance of some morphological traits in grain amaranths. Euphytica 46: 79-84.
- 29.0. **S. Gudu** and V. K Gupta. 1988 Electrophoretic identification of grain amaranth species and cultivars. Acta Horticulture. 218: 231-238.
- 30.0 **S. Gudu** and V. K Gupta. 1988. Male-sterility in grain amaranth (*Amaranthus Hypochondriacus ex-Nepal*) variety “Jumla”. Euphytica 37:23-26.
- 31.0 **S. Gudu** and V. K Gupta. 1987 Electrophoresis as a technique in identification of various species and cultivars of grain amaranths. East African Agriculture and Forestry J 52(4); 244-250.

7.0 ARTICLES SUBMITTED FOR PUBLICATION IN REFEREED JOURNALS

1. Kisinyo P.O., **S.O.Gudu**, C.O.Othieno, J.R.Okalebo, J.J.Agallo, J.K.Maghanga Opala, P.A, R.J.Asiyo, W.K.Ngetich, E.T. Makatiani, D.W.Odee, S.A.O.Chamshama and J.Esegu 2010. Effect of Lime, Phosphorus and Rhizobia on the Growth of *Sesbania Sesban* in Western Kenyan Acid Soil. Discovery and Innovation Journal.
2. D.W.Odee, E.T.Makatiani, S.Chamshama, J.Esegu, P.O.Kisinyo, J.A.Agallo. C.O.Othieno, J.R.Okalebo and S.Gudu 2010. Screening *Calliandara Calothyrsus* and *Sesbania Sesban* rhizobia for low pH and aluminum toxicity tolerance in acid soils of East Africa. Discovery and Innovation Journal.

3. Kisinyo P.O, Othieno C.O, Okalebo J.O, S.O.Gudu, Makambo J, Kipsat M.K, F.Chebii, and P.A.Opala 2010. Electrochemical colour removal from a Kenya Tea Factory effluent using supporting electrolytes. *Discovery and Innovation Journal*.

8.0 REFEREED CONFERENCE PUBLICATIONS

1. J.R.Okalebo, A.O.Nekesa, K.W.Ndugu, C.O.Othieno, B.Jama, M.Tayeb Mrabet, D.Mbakaya, S.Gudu, P.O.Kisinyo, M.Mbekunda, W.Ngetich, A.Ekwamu, C.Serrem, A.O.Osundwa 2009. Working with small holders farmers in Western Kenya to mitigate fertility depletion: A new practical and collaborative approach. Presented at the 9th African Crop Science Conference, September 28 - October 1, 2009. Cape Town South Africa.
2. J.R.Okalebo, P.L.Woomer, C.O.Othieno, S.Gudu, A.O.Nekesa, P.O.Kisinyo, W.Ngetich, C.Serem, D.Lesuer, P. Pypers, B.Vanlauwe, R.Merchx, J.Bashir, D.Mbakaya, B.Omar, A.Ekwamu, M.Bekunda, M.A.Osundwa, J.Ojiem 2009. Some current efforts to raise maize and legume yields through expanded fertilizer and agricultural lime application on acid soils of Western Kenya. Presented at the 26th Conference of Soils Science of East Africa December 7 - 11 2009, Arusha, Tanzania.
3. D.O. Ligeyo, S.Gudu, G.A.Ombakho, P.A. Obura, J.R. Okalebo and C.O.Othieno 2006. Differential phosphorus uptake and P Use efficiency by Kenyan maize inbreds and hybrids populations in acid soils of western Kenya. In 3rd International Symposium on Phosphorus Dynamics in Soil-Plant continuum: Integrating marginal lands into productive agricultural Systems by means of improving soil and fertilizer phosphorus efficiency, held in Uberlandia, Minas Gerais, Brazil 14 - 19th May 2006. *Eds. V.M.C. Alves, C.T. Guimaraes, J.V. de Magalhaes, R.E. Schaffert, A.M. Coelho, A.F. de Castro Bahia Filho and D.P. Santana*
4. S.Gudu, J.R. Okalebo, C.O. Othieno, P.A. Obura, D.O. Ligeyo, D.P. Santana, D.Schulze, C. Johnshon and P.O. Kisinyo 2006. Maize response to phosphorus and lime application on marginal fertility soils of western Kenya. In 3rd International Symposium on Phosphorus Dynamics in Soil-Plant continuum: Integrating marginal lands into productive agricultural Systems by means of improving soil and fertilizer phosphorus efficiency, held in Uberlandia, Minas Gerais, Brazil 14 - 19th May 2006. *Eds. V.M.C. Alves, C.T. Guimaraes, J.V. de Magalhaes, R.E. Schaffert, A.M. Coelho, A.F. de Castro Bahia Filho and D.P. Santana*
5. J.R. Okalebo, C.O. Othieno, P.L. Woomer, E.J. Rutto, F.M. Mwaura, N.K. Karanja, P.A. Obura, P.Nekesa, S.Gudu, R.K. Njoroge, H.K. Maritim and A. Bationo 2006. Towards technology Adoption: Diversifying the "PRE-PAC" product to replenish phosphorus on acid soils of western Kenya. In 3rd International Symposium on Phosphorus Dynamics in Soil-Plant continuum: Integrating marginal lands into productive agricultural Systems by means of improving soil and fertilizer phosphorus efficiency, held in Uberlandia, Minas Gerais, Brazil 14 - 19th May 2006. *Eds. V.M.C. Alves, C.T. Guimaraes, J.V. de Magalhaes, R.E. Schaffert, A.M. Coelho, A.F. de Castro Bahia Filho and D.P. Santana*
6. R. O. Kodiango, A.O. Onkware and S. Gudu (2005): Genetic Variability and Response of *L. leucocephala* provenances to aluminium in potted soil experiment presented at Moi University First Annual Conference and Partners Meeting held at Hotel Sirikwa, Kenya 14th-16th February, 2005.
7. D.O. Ligeyo, S.Gudu, G.A. Ombakho, P.A. Obura, J.R. Okalebo and C.O. Othieno 2005. Response of local and exotic maize genotypes to phosphorus and lime application in the acid soils of western Kenya. Proceedings of the 7th African Crop Science Society Conference, held in Entebbe, Uganda 5-9th December 2005.
8. S.O. Gudu, P.A. Obura, J.R. Okalebo, C.O. Othieno, D. Schulze and D.O. Ligeyo 2005. Response of maize genotypes to nitrogen, phosphorus and lime in acid soils of Western Kenya presented at Moi University First Annual Conference and Partners Meeting held at Hotel Sirikwa, Kenya 14th-16th February, 2005.
9. V. Palapala, S. Gudu and J. Koech (2005): Alteration of Peroxidase and E-stress Isosyme pattern in Papaya seedlings in Response to injection by *Fusarium* Wilt: Proceedings of the 4th Workshop on Sustainable Horticultural Production in the Tropics, Department of Horticulture, Moi University, Eldoret, Kenya 24th-27th 2004, *Edited by Wesonga, J.M., Masinde, P.W., Losenge T., Ngamu K., Agong S.G., Anjichi, V. Fricke A., Hau B., Stutzel H. pg.156-164.*
10. S.Gudu, J.R. Okalebo, C.O. Othieno, P.A. Obura, D.O. Ligeyo, D.P. Santana, D.Schulze, and P.O. Kisinyo 2004. Response of maize genotypes to nitrogen, phosphorus and lime in acid soils of western Kenya. Presented at the Conference of the Soil Science Society of East Africa, Nov/Dec 2004, Arusha, Tanzania.

11. S. Gudu, A. Onkware, S. M Maina, D. O. Ligeyo and G. Ombakho 2002. Screening of Kenya Maize germplasm for tolerance to ho soil pH and Aluminum toxicity for use in acid soils of Kenya presented at the Eastern, Central and Southern African Symposium held at KARI Headquarters Nairobi February 2002. (Eds) *Friessen, D K*.
12. J.M. Chenge, S. Gudu and A. O Onkware 1998. Some aspects of aluminum toxicity in Kenya wheat cultivars. A paper Presented at the 6th KARI Scientific Conference in Nairobi, Kenya. 9th - 13th November 1998.
13. J. M Komen, E. O. Auma and S. Gudu 1998. Effect of seed multiplication process on purity and performance of Common Bread Wheat (*Triticum aestivum* L.). Proceedings of the workshop on Seed Production and Seed Certification. 26th - 29th May 1998. Eds. *J. O. Ochuodho, H. van Reheenen, E. O Auma and P. K Mathenge*. pp73 - 82.
14. J. M Komen, E. O. Auma and S. Gudu 1998. Effect of seed multiplication process on purity and performance of Common Bread Wheat (*Triticum aestivum* L.). Proceedings of the workshop on Seed Production and Seed Certification. 26th - 29th May 1998. Eds. *J. O. Ochuodho, H. van Reheenen, E. O Auma and P. K Mathenge*. pp73 - 82.
15. B. A. Were and S. Gudu 1997. Peroxidase and Esterase isozyme variation in Sweet Potato (*Ipomeo Batata L.*) cultivars commonly grown in Kenya. In *Proceed of Horticulture Conference*, Nairobi 29-31 January 1997. Eds. *S. G. Agong, L. S. Wamocho and F. K. Ombwara*. ISBN No.9966-923-96-9. pp 212-217.
16. S. N. Maina, R. T. Jasadnuala and S. Gudu 1997. The Effect of Rhizobial Inoculation and Phosphorus fertilization on the performance of common beans (*Phaseolus Vulgaris L.*) cultivars in the acid soils of Uasin Gishu District, Kenya. In *Proceed of Horticulture Conference 29-31 January 1997*. Eds: *L. S Wamocho and F.K Ombwara*. ISBN No.9966-923-96-9. pp218-226.
17. B. A. Were and S. Gudu 1997. Peroxidase and Esterase isozyme variation in Sweet Potato (*pomea batatas L.*) cultivars in semi-arid lowlands of Lake Victoria basin, Kenya. In *Proceed of Horticultural Conference*, Nairobi 29-31 January 1977. Eds *S. G Agong, L.S Wamocho and F. K Ombwara*. ISBN No.9966-923-96-9. pp.204-211.
18. B. O. Muok, D. W. Odee, S. Gudu 1996. Genetic differentiation of indigenous acid tolerant *Rhizobium* isolates by Random Amplified Polymorphic DNA Analysis. In *1st Pan-African Conference on Biochemistry and Molecular Biology*, Nairobi, Kenya., 2nd - 6th September 1996. Eds *D. W Mackawiti and J. O. Ochanda* pp.401 - 404. ISBN 9966 - 636 - 0X.
19. P. O Odago, S. Gudu and H. O. Kojwang 1996. Rapid identification of heart-rot fungi of Cypress using Random amplified polymorphic DNA, in *1st Pan African Conference on Biochemistry and Molecular Biology*, Nairobi, 2nd - 6th 1996. Eds. D. W. Mackawiti and J. O. Ochanda pp 269 - 280. ISBN 9966 - 636 - 0 - X.
20. S. Gudu and K J Kasha 1996. DNA Exchange between nucleus and chloroplast genomes in *Hordeum bulbosum*. Abstracts of papers presented at the *3rd Symposium of Research Council of Zimbabwe, Harare. Towards Capacity Building in Science and Technology*. pp52.
21. S. Gudu and K. J Kasha. 1994. Temporal and Spatial Regulation of Expression of a Pistil-Specific Gene in *Hordeum Bulbosum L.* *Proceedings 4th KARI Scientific Conference*, 25th - 28th, Oct. 1994, Nairobi, Kenya. Eds. *P.O Fungoh, G. C. C. Mbadi and H Ondatto* pp 170-180.
22. S. Gudu and H. O. Kojwang 1993. Biotechnology Approaches to the Improvement of Forestry and Agroforestry in Kenya: Production Constraints and Potential solutions. In *J. Wekunda and B. Viesser (Eds). Proceeding of the National Agricultural Biotechnology Worksho*. pp.68-77.

9.0 NON-REFEREED CONFERENCE AND WORKSHOP PAPERS

1. D. O. Ligeyo, S. Gudu, G. A Ombakho, P. Obura, J. R. Okalebo and C. O Othieno 2005. Response of Local and Exotic Maize Genotypes to phosphorus and under low pH conditions in Western Kenya, School of Agriculture and Biotechnology, Moi University. Paper Presentation.
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. Onkware 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.

4. S. Gudu et al 2002. Identification of maize germ plasm tolerant to aluminum toxicity for use in the acid soils of Kenya. Presented at the seed industry at Crossroads Stakeholders Workshop 1st - 3rd July 2002, Kunste, Nakuru.
5. V. Palapala, S. Gudu and J. K. Koech 2002. Alternation in peroxidase and Esterase isozyme patterns in response to infection of Papaya (*Carica Papaya L.*) seedling infected by Fusarium wilt ibid. Presented at the seed industries at crossroads stakeholders workshop 1st - 3rd July 2002. Kunste Hotel, Nakuru.
6. V. Palapala, S. Gudu and J. K. Koech 2002. Pathogenicity and Fungicide Efficacy of Fusarium wilt diseases of papaya (*Carica papaya L.*) Seedlings Ibid. Presented at the seed industries at crossroads stakeholders workshop 1st - 3rd July 2002. Kunste Hotel, Nakuru.
7. S. Gudu 2002. Environmental Impact Assessment of Generically Modified Organisms. Presented at environmental Impact Assessment Seminar, School of Environmental Studies, Moi University, January 10th - 20th 2002.
8. S. Gudu, J. Okeno, A. O Onkware, O. G. Dangasuk and P. O. Odago 2002. Status of Papaya Production in East Africa. Proceedings, Malaysia 6th - 10th October 2002. Proceedings of South East Asia Papaya Biotechnology Network.
9. S. Gudu. The Role and State of Research in the Universities 2002. Presented at the OSSREA workshop held at St. John's Pastoral Centre, Eldoret 31st October - 2nd November, 2002.
10. O. G. Dangasuk, S. Gudu, R. Brandl, W. Durka and R. A. Aman 2002. Isoenzyme Diversity Seed Mass and Early growth in African Populations of *Faidherbia albida* (Del.) A. Chev. (Fabacea).
11. P. O. Odago, H. Kojwang' and S. Gudu 2002, Molecular and Cultural Characterization of Heart-rot Fungi Infecting Cypress (*Cupressus Lusitanica L.*) in Kiandagoro Forest Kenya.
12. S. M. Maina, A. O. Onkware, B. Anyango and S. Gudu et al 2002. Effect of Rhizobial Inoculations and Phosphorus Fertilizer on the performance of common bean cultivars in the acid soils of Uasin Gishu District of Kenya.
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 Onkware 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.
15. R. O. Kodiang'o , A. O. Onkware and S. Gudu 2001. Effect of Aluminium and Liming and Development of selected provenance of *Leucaena Leucocephala (Lam)* De Wilt. Growth in Acid Soils. Presented in Agroforestry Workshop KEFRI, Nairobi.
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.
17. S. Gudu 1999. Environmental Risk Assessment of Genetically Modified Organisms. Paper presented in Biosafety Workshop organized by the Kenya National Council for Science and Technology, January 1999.
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.

21. S. Gudu and K. J Kasha, 1993. Development and organ-specific expression of a pistil DNA clone in *Hordeum bulbosum* L. Abstract of Plant Genetics Mini-Symp. And Poster Day. University of Guelph, Guelph, Ontario Canada, March 1993 pp2.
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.

10.0 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 locus Structure and Expression of maize pp83 - 116 in Environmental Risk Assessment of Genetically Modified Organism Vol.I. A case study of maize in Kenya. Eds A Hilbeck and D. A Andaw CABI Publishing IABN 0-85, 199-861-5.
3. 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.

11.0 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)

12.0 CONFERENCE ATTENDANCE AND ORGANIZATION

1. 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.
2. Brazil 2010 October 4-8th 2010. Africa-Brazil Agricultural Innovations, Market place. Held in Brasilia, Brazil.
3. USA 2010. October 13-17th 2010. American Society of Plant Biologist . Washington D.C.
4. Moi University, Kenya. 2010. GCP and McKnight conference on adaptation of crops to soil acidity.
5. China 2009 Plant soil Interactions at Low Soil pH. South China University
6. Mali 2009. AGRA Organized meeting for grantees.
7. Uganda, 2008. BIO-EARN conference: A decade of research in biotechnology in Easter Africa, held at Kampala, Uganda.
8. Mali. GCP meeting to prepare proposals for funding and looking at the future of maize and sorghum research in Africa.
9. Brazil 2006 - Phosphorus Utilization in marginal acid soils, Uberlandia, Brazil
10. Brazil 2005 - Low Soil pH. Sete lagoas Brazil
11. Netherlands 2004 - Crop Production/ Food Security.
12. Cape-Town South Africa 2003 - Management of Higher Educational Institutions
13. 2nd - 20th October 2000. A Training Course on Genetically Modified Crop Plants in Practice: A route from the market at Svalov Weibull, Sweden.
14. 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
15. 3rd - 6th October 2001. Sustainable Horticulture Production in the Tropics held at the Jomo Kenyatta University of Agriculture and Technology, Nairobi, Kenya.

16. 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.
17. 22nd - 27th November 1998 attended East African Regional Network in Biotechnology, at Imperial Boranical Hotel in Entebbe Uganda, organized by SAREC Sweden.
18. 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.
19. 16th - 18th September 1998 - Organized a Regional Biotechnology Workshop (Together with others) in Nairobi, Panafric Hotel.
20. 21st - 23rd September 1998 Attended the East African Regional Network in Biotechnology in Nairobi, Panafric Hotel, organized by SAREC, Sweden.
21. 4th - 5th December 1997 IDRC/PREPACE small grants projects for sweet potato on Farm Trial Meeting at ILRI, Nairobi, Organized by CIP.
22. 17th - 28th November 1997 - Participatory Research Training organized by Kenya Agricultural Biotechnology Platform. Panafric Hotel, 17th - 28th November 1997, Nairobi, Kenya.
23. Time Management and Total Quality Management course. Organized by British Council and Moi University Management. 28th July - 2nd August 1997. Moi University.
24. 17th Internal Conference Coffee Science ASIC 1997. 20th - 27th July 1997. Nairobi, Kenya.
25. National Training Workshop on Molecular Biology. 1996. University of Nairobi, Department of Botany 17th - 29th June 1996. Training sponsored by The Kenya, Biotechnology Platform.
26. 1st Pan-African Conference on Biochem and Mol. Biol. UNEP. Nairobi, Kenya 2nd - 6th September 1996.
27. The 5th Symposium of Research of Harare: Towards building in Science and Technology 24th - 26th September 1996. Harare Zimbabwe.
28. Biodiversity Data Management (BDM) - Brain Storming Meeting organized by Ministry of Environment and Natural Resources. 2nd May 1996. National Museum of Kenya.
29. Development of Tissue Culture and other Plant Biotechnology Frame-Work under the Kenya-Netherlands Biotechnology Cooperation. April 10th - 13th 1995. Nairobi, Kenya.
30. International Society for Horticulture. The 12th African Symposium Nairobi, Kenya December 24th - 30th 1995.
31. Focus on Agricultural Research in intensifying Rural and Industrial Development. 4th KARI Scientific Conference, Silver Springs, Nairobi, Kenya. 25th - 28th October 1994.
32. Integration of Tree Crops in Farming Systems'. Planning Workshop. Naro Maru River Lodge, Kenya. 21st - 25th February 1994.
33. Plant Genetics Mini-Symposium and Poster Day. University of Guelph, Guelph, Canada. March 19th 1993.
34. A Consultative Workshop on the tree biotechnology for arid and semi-arid lands. May 19th - 21st 1993. Aberdare Country Club, Nyeri, Kenya.
35. Environmental Applications of Biotechnology: Scientific Risk Assessment Methodologies June 28th - July 2nd 1993. Trieste, Italy.
36. The National Workshop on Agricultural Biotechnology, Nairobi, Kenya. 14th - 19th September 1993.
37. Balancing Scales of Biotechnology, University of Guelph, Guelph, Ontario, Canada April 14th 1992.
38. The 3rd Canadian Plant Tissue Culture and Genetic Engineering Meeting (IAPTC), Guelph, Ontario, Canada. 17th - 19th June 1992.

39. Safaripark Hotel, Kenya – Management of Higher Educational Institutions.
40. Safaripark Hotel, Kenya – Open Learning and Distance Education.

13.0 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 Dngasuk and S Gudu 1996. Genetic Variation in Twele Provenances of African *Fithertia 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 O Kojwang 1995. Estimation of Incidence and Severity Losses of Heart-rot Fungus at Kiandagoro Forest Station, Nyeri, Kenya. Technical Report No.1 Submitted to the African academy of Science, Nairobi Kenya pp71.

14.0 SUPERVISION OF POSTGRADUATE STUDENTS

I have supervised 13 M. Sc. students and four PhD students, a good number of them have finished and graduated.

14.1 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 (gave up studying).
11. J M E Mbinga. Genetic variability and seed production Potential of *Pinus Radiota* L. at Timboroa, Kenya M.Sc. Thesis, Moi University (2002). (Completed).
12. V A P Palapala, Pathogenicity, Fungicide Efficacy and Isozyme Variation Studies in Fusairum wilt of Papaya (*Carica papaya* L.) seedling. Msc. Thesis. 2001, Moi University. (Completed).
13. S M Maina. Response of Common Bean (*Phaseoulus 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 nolutica* 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 Lusitânica* in Muranga District and Molecular DNA Characterization of these Fungi. M.Phil Thesis , 1997. Moi University. (Compeleted).
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). (Compeded).
19. J R Chemwetich. Isolation and Screening of Indigenous Rhizobium for tolerance to Acidity and Improved Nitrogen Fixation in Common Bean (Phaseoulus Vulgaris L). (Completed).

14.2 PhD Students Supervision

1. P.O. Kisinyo. Residual and Minimum in put levels for maize production in the Acid soils of western Kenya. 2010. Moi University Thesis
2. B A Were. Genetic Manipulation of Oil Quality in Sesame (*Sesamum indicum* L) (PhD 2006). Swedish University of Agricultural Sciences, Alnarp.
3. D O Ligeyo. Genetic Analysis of Kenyan maize germplasm for Tolerance to to aluminium toxicity (PhD Moi Univesity 2007).
4. B O Owuor. Genetic and Agronomic Evaluation of *Sesbania sesban* for Agroforestry in Western Kenya. PhD Moi University, 2001.
5. G O Dangasuk. Generic Diversity in *Feitrbia albid*a. PhD Thesis, Moi University (1999).
6. Emily Too. Molecular and physiological mechanisms of sorghum tolerance to soil acidity (in progress).

15.0 INTERNAL AND EXTERNAL EXAMINER FOR DPIL 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 (*Cameline 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*) Molecualr 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 striformis* L.) from wild Emmer Wheat (*Triticum dicocoides* 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 Yeild 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 Ecopsiological 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 *Collectorichum 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

16.0 REVIEW OF JOURNAL ARTICLES

- **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 1998 to date**
- **Jomo Kenyatta University, Journal of Science and Agriculture Science (2006 to date)**
- **African Journal of Agricultural Sciences (2009- to date).**

17.0 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.

18.0 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.

19.0 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.

20.0 EXTERNAL EXAMINER

External Examiner for Department of Botany, University of Nairobi from 2000 -2004

21.0 ACADEMIC REFEREES

1. Prof. P. Amuka Moi University, P.O. Box3900 Tel No. 0722489270. Email:peteramuka2009@gmail.com
2. Prof. D.C. Rotich, Moi University, P.O. Box 3900, Eldoret, Kenya, Tel No. 0722804456 and 0733759426, E-mail:dcrotich@hotmail.com
3. Prof. Kirimi Kiriamiti, Moi University, P.O. Box 3900, Eldoret, Kenya, Tel No. 0720880539, E-mail: kiriamiti@yahoo.com