

CURRICULUM VITAE

PERSONAL INFORMATION:

NAME: Dr. Richard C.A. Cheruiyot

DATE OF BIRTH: 23rd September 1956

PLACE OF BIRTH: Kericho, Kenya

MARITAL STATUS: Married with five children

NATIONALITY: Kenyan

LANGUAGES: English, Kiswahili and Kalenjin

EMPLOYMENT: Lecturer, Plant Sciences Department,
Kenyatta University

CONTACT ADDRESS: (i) Home Address: P.O. Box 83, Kedowa
(ii) Institutional Address:
Kenyatta University
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ACADEMIC QUALIFICATIONS:

(a) Schools/Institutions

	Years	Certificates
(i) Telanet Primary School	1962-1969	C.P.E.
(ii) Kabianga High School	1970-1973	K.A.C.E. Div. I
(iii) Cardinal Otunga High School	1974-1975	E.A.A.C.E. 2P 1S.
(iv) University of Nairobi	1976-1979	BEd. (Hons.)
(v) University of Nairobi	1979-1981	MSc. (Plant Ecology)
(vi) University of Sussex	1985-1990	PhD. (Plant Physiology)

Elaboration of Degree courses

1. Bachelor of Education

(i) **Education:-**

Courses in Education were: Educational Foundations – History of Education, Philosophy of Education, Sociology of Education and Comparative Education; Educational Psychology – Educational Statistics, Learning, Personality Dynamics, Attitude and Motivation, Tests and Measurement, Adolescent Psychology, Guidance and Counselling; Educational Communication and Technology and Educational Administration, Planning and Curriculum Development.

(ii) **Botany:-**

Courses consisted of: Plant Morphology and Development; Plant Function; Botanical Techniques; Taxonomy of Higher Plants; Plant Growth and Development; Plant Ecology; General Microbiology; Morphogenesis and Development Anatomy; Plant Biochemistry and Physiology; Evolution; Economic Botany and Environmental Physiology

(iii) **Zoology:-**

Courses taken were: Vertebrate Zoology; Invertebrate Zoology; Mammalian Physiology and Histology; Cell Biology; Developmental Biology; Natural History of East African Fauna; Fresh Water Biology; Marine Biology; Community Ecology; Comparative Physiology; Ichthyology; Ecology; Mammology; Parasitology and Arthropod Biology.

(iv) **Joined Botany/Zoology Courses:-**

Introduction to Ecology and Bioanalysis; Cell Biology and Genetics; Genetics; Biostatistics; Fundamentals of Hydrobiology

2. Master of Science

(i) **Taught courses:**

Gradient Analysis; Community Structure; Physiological Plant Ecology; Ecology of Plant Communities; Mangrove Ecosystems; Ecology of Strand Vegetation; Wetland Ecology and Aquatic Botany.

(ii) **MSc Research Project:**

Agro-ecological study of weeds in Kenyan Rice fields (1981): Carried out at all the four divisions of Mwea Irrigation Scheme, Kirinyaga District.

3. Doctor of Philosophy

Intercropping of upland rice with maize (1990): Field work was carried out in Kenya at the coast whereas laboratory work was done at the University of Sussex, Britain. The two key aspects researched on were competition for nutrients and solar radiation.

WORK EXPERIENCE:

Jan. 1976-Oct.1976:	Teacher (Kaplelartet Primary School)
May 1979-July 1979	Teacher (Nakuru Day Sec. School)
Sept. 1979:	Teacher (Kabarak High School)
Oct.1981-Jan.1982:	Teacher (Aga Khan High School)
Jan. 1982-April 1982:	Plant Ecologist(Natural Resources Division, National Environment Secretariat)
April 1982-Feb.1983:	Graduate Assistant (Kenyatta University)
Feb. 1983-July 1988:	Tutorial Fellow (Kenyatta University)
July 1988 to date:	Lecturer (Kenyatta University).
Sept. 1990 to date	Part-Time Lecturer (Jomo Kenyatta University of Agriculture and Technology)

RESPONSIBILITIES:

Institutional:

- (i) Current:
- Committee or Board Membership:
- Chairman, PMS Curriculum (2013)
 - Seminar Coordinator (2013)
- (ii) Past:
- Secretary, Departmental Board Meetings.
 - Chairman, PMS Board of Postgraduate Studies (2010 – 2012).
 - Secretary, PMS Curriculum Review (2009 – 2012).
 - Teaching Practice Coordinator, Nairobi Central Zone A (2009 – 2012).
 - Member, School Interdisciplinary Proposal Writing Committee (2009 – 2012).
 - Member, School of Pure and Applied Sciences Board of Postgraduate Studies (2010 – 2012)
 - Chairman, Botany Department Income Generating Committee: Non-academic Committee Programmes.
 - Head, Plant Biochemistry Section.(2006 – 2012)
 - Academic Advisor - 1st year, 2nd year, 3rd year, 4th year. (1996 – 2002)
 - Chairman, Departmental Undergraduate Studies Committee.
 - Member of Faculty of Science Welfare Committee.

- Member, Faculty of Science Undergraduate Studies Committee.
- Member of Faculty of Science Board of Postgraduate Studies.
- Member, Botany Department Board of Postgraduate Studies.
- Member, Botany Department Academic Members of Promotions & Appraisal Committee.
- Secretary, Departmental Board of Postgraduate Studies (2008 – 2010)

External Institutions:

- External Examiner for Biology, Kagumo College (1993-2000).
- External Examiner MSc Thesis (2007) – Jomo Kenyatta University of Agriculture and Technology.
- External Examiner MSc Thesis (2007) – Maseno University.
- External Examiner, Undergraduate courses – Jomo Kenyatta University of Agriculture and Technology (2009).

STUDENT SUPERVISION:

- (i) Undergraduate Projects (Equivalent to two Units):
 - Francis Omondi Oleche (1999) – Effects of submergence on commonly grown subsistence crops in Kenya.
 - Mwai Catherine Wanjiru (2002) – Growth dynamics of common crops under flooded conditions.
 - Roseline M. Osugo (2004) - Some medicinal plants used by herbalists in the treatment of ulcers.
 - Daniel Omwoyo (2008) – Medicinal Plants of Kenyatta University’s Main Campus
- (ii) Postgraduate:
 - (a) M.Sc Supervision:

Completed:-

 - Catherine W. Kimani (1993): Effects of lower temperatures on three upland rice varieties.
 - Gicharu Gibson Kamau (2006): A comparative study of nitrogen fixation in selected cultivars of bush and climbing beans inoculated with different *Rhizobia* strains..
 - Ezekiel Mugendi Njeru (2008): Effects of phosphorus, potassium and sulphur nutrition on nitrogen fixation of promiscuous soybean in Meru South District, Kenya.

- Nicholas Gitonga Mawira (2010): Nodulation and nitrogen fixation in Promiscuous and non promiscuous soybean varieties grown in Kenya.
- Mutsami Anne Naliaka (2011): Effects of Feed Additives on antimicrobial resistance and genetic characterization of poultry enteric flora in Kericho.
- Jacinta Karambu Muthuri (2012): Effects of different soil fertility amendments on the proportion of fast and slow growing Rhizobium nodulating with soybean.

(b) Ph.D

Completed:

- Moses Peris Hungu Gathaara (1998) - The influence of drip irrigation on ecophysiology and yield of Arabica Coffee Hybrid Ruiru 11.
- Francis W. Kariuki (2001) - Carbon budget and sustainable harvesting of *Cyperus papyrus* L. (Papyrus) in a papyrus swamp in Lake Naivasha Kenya.
- Ngugi Mathew Piero (2014) – Regeneration and RNAi-Mediated Downregulation of Cyano-glycoside Biosynthesis in Cassava (*Manihot esculanta*, Crantz).

THESES EXAMINATION:

(1) PhD Theses:

1. Moses Peris Hungu Gathaara (1998). The influence of drip irrigation on ecophysiology and yield of Arabica Coffee Hybrid Ruiru 11 (Kenyatta University).
2. Francis W. Kariuki (2001). Carbon budget and sustainable harvesting of *Cyperus papyrus* L. (Papyrus) in a papyrus swamp in Lake Naivasha Kenya (Kenyatta University).

3. Geoffrey M. Macharia (2009). Land Use and its effect on Biodiversity in the Lake Ol' Bolossat Basin, Nyandarua, Kenya (Kenyatta University).

4. Jacinta Kimiti Malia (2008). Integrating legumes in the farming systems of dryland Kenya to enhance soil fertility and Rhizobia diversity (Kenyatta University).

2. MSc Theses

1. Grace Njeri Njoroge (1992). A study of some members of the cucurbitaceae, with an analysis of cucurbitacin content, and an identification guide to poisons and safe species.

2. Catherine W. Kimani (1994). Effects of lower temperature on three rice varieties grown under upland conditions.

3. Shem Kuyah (2007). Comparative performance and water use of *Eucalyptus grandis*, *Eucalyptus* hybrids, *Grevillea robusta* and *Cordia africana* (Jomo Kenyatta University of Agriculture and Technology).

4. Phoebe Anyango Sikuku (2007). Effects of water deficit on growth and development of NERICA rainfed rice (*Oryza sativa* L.) (Maseno University).

5. Nicholas Gitonga Mawira (2009): Nodulation and nitrogen fixation in Promiscuous and non promiscuous soybean varieties grown in Kenya (Kenyatta University).

6. Maina Susan Muthoni (2010). Evaluation of Regeneration in Tissue Culture of Groundnut (*Arachis hypogaea* L.) Varieties adapted to Eastern and Southern Africa (Kenyatta University).

PUBLICATIONS:

(1) **Cheruiyot, R.C. 1981.** Biology of Weeds in Kenyan Rice fields. Proc. 8th East African Weed Science Conference pg.103-120.

(2) **Cheruiyot, R.C. 1983.** The effects of some biotic agents on rice field weeds (Proc. 9th East African Weed science Conference pg.317-331).

(3) **Cheruiyot, R.C. 1985.** Effects of selected weeds on IR 2071 rice variety. Kenya Journal of Science and Technology Series B (1985) 6(2): 107-112.

(4) **Cheruiyot, R.C. 1985.** Weeds of Mwea Rice Irrigation Scheme, Kenya (IRRI - Newsletter pg.23).

(5) Gathaara, M.P.H., Muthuri, F.M., **Cheruiyot, R.C. 1997** – Biomass accumulation in the various plant organs of *Coffea arabica* L. cultivar Ruiru 11 under drip irrigation in

Kenya. 17th International Scientific Colloquim on Coffee. Association Scientifique Internationale du Café, pgs.752-759.

(6) Gathaara, M.P.H., Muthuri, F.M., **Cheruiyot, R.C., 1999** – The influence of drip irrigation on the yield and quality of the *Coffea arabica* L. hybrid in Kenya —Kenya Coffee Vol.64, 2959-2965.

(7) Gathaara, M.P.H., Muthuri, F.M., **Cheruiyot, R.C.** – The effects of environmental conditions on leaf physiology in drip irrigated arabica coffee hybrid Ruiru 11 in Kenya. (In preparation).

(8) Gathaara, M.P.H., Muthuri, F.M., **Cheruiyot, R.C.** — The effects of leaf age and position in the canopy on carbon dioxide assimilation in drip irrigated arabica coffee in Kenya. (In preparation).

(9) Cheruiyot, R.C. 2007. Plant propagation methods. Paper presented at a Workshop on Use of Low Cost Tissue Culture Materials for the Initiation and Multiplication of Bananas and Cassava in Kenya held at Utalii Hotel, Kenya from 26th to 27th September 2007.

(10) Cheruiyot, R. C. 2008. Effect of soybean on soil pH and Organic matter. Paper presented at a Workshop on Acceptability and Production of Soybean and their impact on farming communities of Lake Victoria Basin held on 27th June, 2008 at Mwana Hotel, Iganga, Uganda.

(11) Njoka, F.M., Muzanila, Y.C., Cheruiyot, R.C. and Doris, K. 2009. Acceptability and Production of Soybean and its Impact on the Farming Communities of the Lake Victoria Basin. Paper presented at a workshop on Alternative Land Use Options and Technologies Cluster held on 19th – 22th, 2009 at Zanzibar Beach Resort. Zanzibar, Tanzania.

(12) Mugendi, E., Gitonga, N., **Cheruiyot, R.** and Maingi, J. 2010: Biological nitrogen fixation by promiscuous soybean (*Glycine max* L. Merrill) in the Central Highlands of Kenya: Response to inorganic fertilizer, soil amendments. World Journal of Agricultural Sciences 6 (4): 381 – 387.

(13) Gitonga, N.M., Gitonga, N. M., Gatheri, G., **Cheruiyot, R.C.** and Maingi, J. 2010: Nodulation and nitrogen fixation in promiscuous and non promiscuous soybean (*Glycine max* L. Merrill) varieties in Eastern Kenya. Accepted: Journal of Tropical Microbiology and Biotechnology.

(14) Piero, M.N., **Cheruiyot, R.C.**, Omwoyo, O., Mgtutu, A.J., and Machuka, J.S. 2013. Plant Regeneration of cassava (*Manihot esculanta*, Crantz). American Journal of Biotechnology and Molecular Sciences. 2151 – 1559.

(15) Gicharu, G.K., Gitonga, N.M., Boga, H., **Cheruiyot, R.C.**, and Maingi, J.M. 2013. Effect of inoculating selected climbing bean cultivars with different rhizobia strains on

nitrogen fixation. Online International Journal of Microbiology Research. Vol. 1. Issue 2. pp. 25- 31.

FUNDED PROJECTS

- Acceptability and Production of Soybean and their impact on farming communities of Lake Victoria Basin. Funded by Sida & Sadec Under Vic-Res (InterUniversity Council for East Africa) 2005 – 2008. Located at Mbita – Point, (Nyanza), Makerere University (Uganda) and Ukiriguru (Mwanza, Tanzania).
- Working with small scale farmers in semi arid areas on cropping systems and rain harvesting techniques to alleviate food security – Vice-Chancellor’s Research Grant (2008).

PROPOSALS SUBMITTED FOR FUNDING

- Cheruiyot, R.C., Muthuri, C. and Malau. Screening of local rice landraces and introduced varieties for high altitude cultivation (2006) – Commission for Higher Education.
- Cheruiyot, R.C., Ondieki, Mutai, C and Gichugu, E. : Strategies of crop production to climate change in Kenya (2006) – International Development Research Centre. Climate Change Adaptation in Africa (CCAA) research and development program.
- Cheruiyot, R.C., Gathaara, M.P.H., Muthuri, C. and Sang, P.K: Women economic empowerment through participation in rainfed rice/legume intercropping system in Kenya (2007) – Kenya Agricultural Productivity Project.
- Cheruiyot, R., Ondieki, C., Gathaara, M.P.H. and Kirui, A: Cost-effective strategies for attaining sustainable use of rivers and unprotected wetlands in the agriculturally high potential areas of Kenya (2007) – Commission for Higher Education.
- Gathaara, M.P.H., Cheruiyot, R.C., and Kirui, A. Working with smallholder farmers in semiarid areas of Kenya to enhance food security by rain harvesting irrigation and innovative cropping systems (2008) – Ruforum Secretariat.

CONSULTANCY SERVICES

1. Team member under Grinenvironmental Consultants. Expression of Interest on ‘Environmental and Land Cover Baseline Survey – Lake Victoria Basin, Bogoria Basin and Meru/Mwea Belt’, 2006. Submitted to PATTEC Coordination & Management Unit. Ministry of Livestock and Fisheries.
2. Cheruiyot, R.C. (Teamleader). Expression of Interest to offer consultancy

services on ‘Baseline Biophysical Data Collection for Natural Resource Management, 2009. Submitted to Lake Victoria Water Resource Management Authority.

3. Independent External Expert on Negotiation, Vetting, Monitoring and Evaluation of Performance Contracts of Ministries, State Corporations, Agencies of the Government of Kenya from 2009 – to date.

WORKSHOPS/COURSES/CONFERENCES:

1. Training course on techniques in bioproductivity and photosynthesis — sponsored by UNEP, UNDP, UNESCO, CEC, University of London and University of Nairobi (1980).
2. Weed Science Society of Eastern Africa Conference, Nairobi, Kenya – May 1981.
3. Soil and Water Conservation Workshop – Faculty of Agriculture, University of Nairobi 1982.
4. Weed Science Society of Eastern Africa Conference, Nairobi, Kenya 1983.
5. Weed Science Society of Eastern Africa Conference, Nairobi, Kenya 1985.
6. Weed Science Society of Eastern Africa Conference, Nairobi, Kenya 1987.
7. Weed Science Society of Eastern Africa Conference, Nairobi, Kenya 1991
8. Weed Science Society of Eastern Africa Conference, Nairobi, Kenya 1993.
9. International Scientific Colloquim on coffee. Nairobi, Kenya 2000.
10. Natural Products Research Network for Eastern and Central Africa (NAPRECA). Kenya Branch Symposium, Kenyatta University, Kenya, 26th Jan. 2001.
11. Development of HIV/AIDS curriculum. (Utalii Hotel) 30th October 2002.
12. Natural Products Research: Past, Present and Future. Department of Chemistry, University of Nairobi. 4th April, 2005.
13. Second Biological Postgraduate Scientific Conference. 8th – 10th August 2006

AVU. Kenyatta University.

14. ISO -9001:2000 Training conducted by Kenya Bureau of Standards held on 20th February, 2007 at the Science Complex, Kenyatta University
15. 1st Land Use Cluster Seminar held on 18th – 19th September, 2007 at Club House La Palisse, Kigali, Rwanda.
16. Use of Low Cost Tissue Culture Materials for the Initiation and Multiplication of Bananas and Cassava in Kenya. Workshop held at Utalii Hotel, Kenya from 26th to 27th September 2007.
17. Sensitization workshop for BOG Chairpersons on delegated teacher management functions held on 19th – 23rd May, 2008 at the Kenya Institute of Administration, Kabete, Nairobi.
18. Workshop on Acceptability and Production of Soybean and their impact on farming communities of Lake Victoria Basin held on 28th June, 2008 at Mwana Hotel, Iganga, Uganda.
19. Alternative Land Use Options and Technologies Cluster Workshop held on 19th – 22th, 2009 at Zanzibar Beach Resort. Zanzibar, Tanzania.
20. Awareness Training for ISO 14001:2004 Environmental Management Systems (EMS), conducted by Kenya Bureau of Standards on 11th June 2009 at the Science Complex, Kenyatta University.
21. 1st East African regional Scientific Conference of School of Pure and Applied Sciences held at Kenyatta University. 10th – 14th August, 2010.

MEMBERSHIP OF PROFESSIONAL SOCIETIES:

1. Weed Science Society of Eastern Africa.
2. Natural Products Research Network for Eastern and Central Africa (NAPRECA)

RECOGNITION/QUALITY TEACHING AND SERVICE:

- (1) **Continuing Education Programme:** Teaching/Quality Control Supervision.
- (2) **IFAD Soyabean Research Project:** Research proposal development (Specialized area - Mineral Nutrition).
- (3) **Development of New Teaching programmes in M.Sc. -** Respiration; Proteins; Biochemical Interactions.

MANAGEMENT, LEADERSHIP POTENTIAL AND COMMUNITY SERVICE

- (i) Chairman of Botany Department Board of Undergraduate Studies and Botany Department Board of Postgraduate Studies.
- (ii) Patron, Kisabo Primary School (1998 – Up to date)
- (iii) Chairman, Education Sub-Committee Chepseon Complex Sec. School.

- (iv) Chairman, Board of Governors, Chepseon Complex Sec, School (2005 – 2008)
- (v) Chairman, Board of Governors, Kimasian Secondary School (2004 – 2007)
- (vi) Chairman, Board of Governors, Kedowa Girls' Sec. School (2005 – 2008)
- (vii) Chairman, Board of Governors, Londiani Secondary School (2002 – Up to date).
- (viii) Chairman, Board of Governors, Londiani Girls' Academy (2008 – 2009)
- (ix) Chairman, Kisabo Water Project and Kisabo Self-help Road Project (1997 – Up to date)
- (x) Chairman, Ngurumani Court Security Committee (under Community Policing Project and Buru Buru Welfare Association) (2004 – Up to date)
- (xi) Resource person: -
 - a) Kericho Secondary Schools Heads Association Education Symposium held at Kericho Teachers College 1995.
 - b) Kericho Secondary Schools Heads Association Annual General meeting held at Kipsigis Girls High 1997.
 - c) Chilchila Division Professionals (Kericho District) held at Chilchila Sec. School 11th October 1997. Topic presented: The Professional and Participatory Development.
 - d) Kipkelion Secondary Schools Heads Association Conference held on 29th – 31st March, 2010 at Storm Hotel, Kisii. Topic presented: The Role of DEB in Steering Education Towards Achieving Vision 2030.

REFEREES:

1. Prof. J.M. Waithaka
Kenyatta University
Department of Botany
P.O. Box 43844
Nairobi.
2. Prof. Tim Flowers
Graduate School in Biological Sciences
University of Sussex
Brighton BN1 9QG
United Kingdom.