LAURA ATUAH (PhD)

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**PROFESSIONAL OBJECTIVE AND PROFILE**



**Objective**

To contribute to knowledge acquisition, enhancement and policies related to soil remediation, excellent horticultural practices and improve propagation of horticultural crops to promote the development of a safe environment (interior and exterior) and safe foods in Africa through teaching, research and consultancy services.

**Professional Profile and Attributes**

* An innovative and creative horticulturist and soil scientist with extensive experience in teaching, training, research and consulting in horticulture;
* Keen at promoting protected cropping in Ghana, best nursery practices to enhance nursery hygiene and reduce losses at seedling stage, formulation of soiless medium for use in Horticulture (plug production to growth and development)
* The use of organic amendments to improve soil nutrient statutes and the remediation of metal contaminated soil; disused mine sites and other industrial facilities.
* Green spaces effect on outdoor and indoor thermal comfort. (Urban landscaping and forestry)

**Consultancy and Research Interests**

* Amenity horticulture – sports turf installations and management
* Institutional and Residential landscaping
* Organic amendment formulation: Composting, biochar
* Nursery hygiene, Greenhouse and field vegetable production
* Soil Remediation and reclamation – Safety in the landscape
* Peat alternatives (soiless medium)

**EDUCATION**



1. **University of Reading, Reading, United Kingdom**

**Dates attended:** October 2007 – Dec. 2010

**Degree earned and major:** PhD Soil Science (Dec 2010)

**Thesis:** In situ remediation of metal contaminated soil: Phosphate treatment and earthworm toxicity

**University of Reading, Reading, United Kingdom**

**Dates attended:** October 1997- November 1999

**Degree earned and major:** MPhil Horticulture (June 2000)

**Thesis:** Petal tip blackening in red roses

1. **Kwame Nkrumah University of Science and Technology**

**Dates attended:** September 1990 – July 1994

**Degree earned and major:** B.Sc. (Hons) Agriculture, 2nd Class Upper (1994)

**Dissertation:** Effect of time of sowing on germination of treated pawpaw (*Carica papaya*)

seeds

**PROFESSIONAL EXPERIENCE**



1. **LECTURESHIP**
2. **September 2000 – Date: Kwame Nkrumah University of Science & Technology, Kumasi**

**Position/Title:** Lecturer

**Duties:** Teaching, Research and service to community

1. **2003 – 2004 and 2006: Part-Time Lecturer**, University of Education. Winneba, Mampong Campus, Ghana.
2. **1996-1997: Teaching & Research Assistant**, Department of Horticulture, KNUST.

**Courses Taught:**

* + Ornamental Nurseries and Nursery Management – B.Sc Agriculture, B.Sc. Agribusiness and M.Sc. Landscape Studies.
  + Floriculture – B.Sc. Agriculture
  + Plant Materials – B.Sc. Agriculture, B.Sc. Landscape design & Management and M.Sc. Landscape studies
  + Special topics in Floriculture – M.Sc. Post-Harvest Physiology and MPhil Post-Harvest Technology.
  + Landscape Horticulture – Diploma in Horticulture
  + Amenity Horticulture – BSc Agriculture, BSc Landscape design & Management, BSc Postharvest Technology
  + Environmental Horticulture - Bachelors in Agriculture Education
  + Vegetable Crop Production – Bachelors in Agriculture Education
  + Turf grass management – Bachelors in Landscape design & Management
  + Arboriculture – BSc Landscape design & management
  + Community Landscaping

1. **RESEARCH**
2. **Vegetable Crops-Based Research Areas**
   * Using host resistance for disease management in high value vegetable crops.
   * Soilless media formulation for rooting of difficult-to-root ornamentals and for production of vegetable seedlings.
   * Response of irrigated lettuce in soil and soilless media derived from composted sawdust and rice husk.
3. **In situ remediation of metal contaminated soil**

* Relative toxicity of organic amendments for Pb immobilization in contaminated soil
* Organic soil amendment formulation for in situ remediation of degraded and metal contaminated soils
* Application of surface-modified biochars to reduce arsenic (As) concentrations of food grown in gold mine impacted soil.

1. **Other Horticultural-Based Research Areas** 
   * Soilless media formulation for mature houseplants production
   * Sod production using tropical grass species
   * Media formulation for ease of rolling of sods
   * Quick production of sprigs
   * Amenity parks and sports turf establishment and maintenance
   * Packaging of cut flowers
   * Assessing the market potential of cut flowers and potted plants in Ghana.
   * Developing standard methodologies and quality parameters for the floriculture industry in Ghana.
   * Vase life studies of cut flowers
2. **STUDENT PROJECT SUPERVISION**
   * **2000 to Date**: Supervised 34 Students at the Undergraduate B.Sc. Agriculture
   * **2010 to Date**: Supervised 6 MPhil Students (co-supervisor)
   * **2010 to Date**: Supervised 6 PhD Candidates.
3. **MEMBERSHIP OF PROFESSIONAL ASSOCIATIONS**

Ghana Institute of Horticulturists, (GhIH)

1. **OTHER PROFESSIONAL EXPERIENCE**
   * *Resource Person* – National Seminar on the prospects and challenges of the floriculture industry in Africa. Kumasi, Ashanti Region – 20th January 2004
   * *Resource Person* – National Seminar on the prospects and challenges of the floriculture industry in Africa. Greater Accra – 21st January 2004
   * *Programme Coordinator*, under AgSSIP (Agricultural Services Sub-sector Investment Project - Ornamental research programme, Ghana) 2001 to 2007
   * *Project Coordinator*: Re-grassing of Paa Joe football pitch, August - September 2004
   * *Project Team Member:* Installation of Turf for the Baba Yara football stadium – November 2006 - 2008
   * *Team Leader, Consultancy*: College of Natural Resources, Sunyani, Ghana - designing, production of drawings and cost estimation for an arboretum. (2001)

* *Departmental Examinations Officer* – Department of Horticulture, KNUST, Kumasi Ghana. (2000 to 2007)
* *Departmental Board Secretary* – Department of Horticulture, KNUST, Kumasi, Ghana. (2000 to 2001)
* *Member,* Technical Reporting Team of Ghana Institute of Horticulturists. (2002 to 2006)

1. **NATIONAL COLLABORATIVE RESEARCH PROJECTS**
2. *Collaborating Scientist* – USDA-FAS-SCRP Research Project. Enhancing Sustainable Production Systems of High-Value Vegetable Crops in West Africa Using Host Resistance for Disease Management, 2012 to 2013.
3. *Project Leader* – Agricultural Services Sub-Sector investment Project (AgSSIP) Ghana. (Formulation of soiless media for houseplants using teak sawdust and coconut coir) 2002 to 2007.
4. *Collaborating Scientist* – Agricultural Services Sub-Sector investment project (AgSSIP) Ghana. (Establishing standard methodologies in the floriculture industry using the Hazard Analysis Critical Control Points (HACCP) concept. 2002 to 2007
5. *Collaborating Scientist* -KNUST/FAWE SMT Female Remedial school project 2005 to 2007
6. *Team Member* - Grassing and maintaining of the Baba Yara football pitch. Commenced in March 2007 and continues till end of CAN 2008
7. *Team Member,* Plant selection for landscape works within the Baba Yara football stadium. May 2007
8. *Team Leader* - Working document for the landscape of the Golden City Hotel (Concept development and landscape design)
9. **SEMINARS AND WORKSHOPS**

* Question and Answer Service management training in Ghana. CSIR-INSTI, Accra. – 30th October to 3rd November, 2000
* Socio-Economic and Gender Analysis Training of Trainers Workshop, Kumasi, Ghana. – 25th February to 7th March 2002.
* National seminar, Ghana Institute of Horticulturists – Horticulture, a tool for poverty alleviation and improving the quality of life. CRI, Kumasi (17th October 2002).
* Improved Pedagogy and Research Proposal writing. – February 9th – 13th 2004
* Professional Capacity Building Programme in Agricultural Research for Development. Wageningen, The Netherlands – January – June, 2005
* Workshop on Master programme in Sustainable Development – 21st – 23rd March 2007
* Workshop on project/Research writing – 17th May 2007
* Young Scientists 8 conference, British Society of Soil Science – 31st March – 1st April 2009, University of Reading, UK.
* Environmental Mineralogy Group of the Mineralogical society conference. 9th May, 2009. The University of Leeds, UK.
* Setac Europe: 20th Annual Meeting. 23 – 27 May 2010. Seville, Spain.

1. **PUBLICATIONS**

* Abubakari A. H., **Atuah L**., Banful B., Bayor H., (2015) Use of soil amendments for urban horticulture in the savannah and forest area of Ghana. Journal of soil science and environmental management: Vol 6 (3): 51 - 57
* **Atuah L., Hodson E. M.,** (2011) A comparison of the relative toxicity of bone meal and other P sources used as remedial treatments to the earthworm *Eisenia fetida.* Pedobiologia 54: 5181 - 5186
* **Atuah L.** (2010) *In situ* remediation of metal contaminated soil: Phosphate treatment and earthworm toxicity. PhD Thesis University of Reading, UK
* **Atuah L.,** Hodson E. M., (2010) Earthworm response to bone meal treated soils for remediation purposes. Society of Environmental Toxicology and Chemistry HM01B-3. 430 -431
* Dartey P.K.A, Boateng, P.Y., Adzraku, H., **Atuah, L.**, Crentsil, I. (2005) Polymeric superabsorbent can be used in air-layering of roses without being degraded. Journal of Science and Technology : 25, No. 2 : 44-45
* **Atuah L**., Adzraku H-V., Kumah P and Adu P. (2004) Preliminary studies on innovative preparation of sod using two tropical turf grass species*.* Ghana Journal of Horticulture : 64 – 69
* Ellis W. O., **Atuah L**., Kumah P., Bakang J. A. (2004) An overview of the Floriculture Industry in Ghana. Ghana Journal of Horticulture 3 : 47 -56
* Dartey P. K. A., Adzraku H., **Atuah L**., Boateng P.Y., Awotwe J. (2002) Use of a polymeric superabsorbent in air layering of roses (*Rosa hybrida*). Journal of Science and Technology 22 : 1 – 5
* **Atuah L**. (1999) Petal tip blackening in roses. M.Phil Thesis (University of Reading, U.K)

1. **TECHNICAL REPORT**

Ellis W.O., **Atuah L**., Kumah P., Bakang J. A. - Survey of the floriculture industry in Ghana – A report submitted to the Council for scientific and industrial research, Agricultural Service Sub-sector Investment Project, Ghana. February 2004

**Atuah L.,** - An annual report of the Ornamental Research Programme to the Council of Scientific and Industrial Research, Ghana. February 2004

**Atuah L**., - The market of cut flowers and potted plants in Accra and Kumasi, Ghana – A report submitted to Council of Scientific and Industrial Research, Ghana. July 2004

Adu-Anning C., **Atuah L.**, Duku S., Edusah S.E., Fialor S.C., Sey S., - Micro-credit as an instrument to promote indigenous Food Resources in Ghana. The case of Abomosu snail Farmers in the Eastern Region. – A report submitted to the International Centre for development oriented Research in Agriculture (ICRA). Anglophone programme. June 2005.

**Atuah L**., Ellis W.O., Kumah P., Idun I., Bakang J. A., Fenning J., - Completion Report of the Ornamental Research Programme submitted to the Council for Scientific and Industrial Research, (CSIR) Agricultural Service Sub-sector Investment Project, Ghana. October 2006.

1. **OTHER TECHNICAL SKILLS**

* MS Word, Excel, Publisher and Power Point presentation.