

## Personal Information



**Mai Mohammed Osman Deiab Ahmed**

**Date of Birth:** 02.07.1970

**Place of Birth:** Omdurman, Sudan

**Nationality:** Sudanese

**Social Status:** Single

**Current Address** University of Khartoum, Faculty of Agriculture, Department of Agricultural botany and Biotechnology, 13314 Shambat, Sudan

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## Educational Phases

- 1990-1995 B. Sc.(Agric.) University of Khartoum, Faculty of Agriculture  

[Specification: Biochemistry and Food Sceince](#)
- 1998-2000 M.Sc. awarded by university of Khartoum, Faculty of Agriculture,  
Dept. of Agric. Botany and Biotechnology  

[Specification: Soil Microbiology](#)

- 2003-2004 One year for promotion in Giessen University, Faculty of  
Agriculture, Institute of applied Microbiology
- Up July 2004-2007 Ph.D. in Plant nutrition, Goettingen University, Faculty of  
Agriculture , Department of Agronomy, Plant nutrition section

Specification: Major: Plant Nutrition

Minor: Food Quality and Crop Production

## Language Skills

- Arabic : Mother Tanuge

English: Fluent

German : Good in reading , talking and Understanding but less in writting

## Prizes and Awards

- The Agricultural Arab Organization Prize for the excellence academic performance (July 1993)
- The University of Khartoum Prize for the best academic performance in agricultural biochemistry the best academic performance in agricultural biochemistry (Mars 1996)
- The. Agricultural Arab Organization Prize for best academic performance in agricultural biochemistry(Mars 1996)
- The Arab Society for Agricultural Development Prize for the best academic Performance in agricultural biochemistry (Mar. 1996)

- Stipend for Master degree, University of Khartoum, Sudan (Oct.1998 - Oct. 2000).
- Stipend for German language degree, DAAD, Germany (Oct 2002 - Mar. 2003)
- Stipend for Ph. D Degree, DAAD, Germany (Apr. 2003-Mar.2007)

## **Job Specification**

·Food Technologist in Industry Management, Ministry of Finance and Economics Development. From1996 to Jun.1997

Teaching assistant Dept. of Agric. Botany and Biotechnology, Faculty of Agric., University of Khartoum Jun.1997- Apr.2001

Lecturer in the same department from April 2001-Feb2008

Assistant Professor Feb. 2008 up to now

## **Research Interest:**

1. Biofertilizers:
  - a. Optimizing the performance of Rhizobial inocula under the semi arid condition
  - b. The mode of action of Growth Promoting Rhizobacteria (GPR) in plant
  - c. The effect of GPR on the dynamic of Rhizobacteria
  - d. Improving turf grass quality via Mycorrhizal Inocula
  - e. Elevation of soil salinity and sodic via Mycorrhizal Inocua
2. Plant Microbe interaction

The physiological adjustment of Nitrogen fixation in leguminous plants

3. How the indigenous Nitrogen fixers' trees conserved the soil nitrogen in the natural habitats

4. Using Rock phosphate with Phosphorus solublizing Rhizobacteria or Mycorrihzal inocula as alternative sustainable source of phosphorus fertilization+ Phospho-composting

## **Professional Activity**

### **A. Conducting lectures**

Basics of Biofertilization, Biofertilizers Technology, Bio-inocula production. General Ecology, Microbial Ecology, , Cell and Molecular Biology, Plant Metabolism and Enzymology, Molecular genetics

### **B. Research Activities:**

1. Biofertilizers:
  - a. Optimizing the performance of Rhizobial inocula under the semi arid condition
  - b. The mode of action of Growth Promoting Rhizobacteria (GPR) in plant
  - c. The effect of GPR on the dynamic of Rhizobacteria
  - d. Improving turf grass quality via Mycorrihzal Inocula
  - e. Elevation of soil salinity and sodic via Mycorrihzal Inocula
2. Plant Microbe interaction(The physiological adjustment of Nitrogen fixation in leguminous plants)
3. How the indigenous Nitrogen fixers' trees conserved the soil nitrogen in the natural habitats
4. Biogas production and organic fertilizers
5. Using Rock phosphate with Phosphorus solublizing Rhizobacteria or Mycorrihzal inocula as alternative sustainable source of phosphorus fertilization+ Phospho-composting (On Going Research Project)

### **C. Supervision**

- a. One Master Student in Phosphorus Solubizing Bacteria (Under process)

b. Seventh graduating dissertation (Mycorrhizae Association with turf grass (2), Biochemical and Molecular characterization of Rhizospheric Bacteria in Response to PGPB (*Bacillus* sp.) (2), Biodegradation of Petroleum Hydrocarbons by Some Bacteria Isolated from Petroleum Stations, Phosphorus Solubilizing Bacteria and production of Phospho-enriched compost(1) Biogas production and modelling of Biogas assembly(1)

c. 14 intermediate Diploma projects (Effect of different nutritional level of Cu on Bean growth, Sensitivity of Beans to Marine water as irrigating water, Rhizobia as nitrogen fixing and phosphorus Solubilizing Bacteria (4), Use of Rock phosphate as cheap alternative source of Phosphorus fertilizers (2), Using the traditional medicinal herbs and plants (Arenaria and Handel) as antimicrobial agent (2), Neem Extract as Bio-control Agent For Plant fungal diseases, Detecting the *E.coli* in Raw milk that sold in Khartoum state, Biogas production and modelling of Biogas assembly)

#### **D. Other relevant information**

##### *Publications as First Author:*

- a. Mahdi A. A. & Dieab M.M. O. (2004) Use of Antibiotic Resistant Markers and Serological Techniques in Ecological Studies of Root- Nodule Bacteria. U of K. J. Agric. Sci. 12 (2).pp173-184
- b. Ahmed M., Schulze J., Drevon J-J., Fischinger S., Sulieman S. & Claassen N. (2005) P- deficiency Increase the O<sub>2</sub> uptake per N<sub>2</sub> Reduced in Alfalfa and Pea. Annual meeting of German Plant nutritionists (poster), Bonn , Germany
- c. Ahmed M. D. & Abuelkhair N. (2010). Improving Turf Grass Quality by Mycorrhizal Inocula. Conference of Graduate Research and Scientific Research , U of K (27th Feb. to 1d Mar), Khartoum, Sudan
- d. Ahmed M. D. & Schulze J. (2013) P/deficiency Induces Higher Nodule O<sub>2</sub> Permeability in Pea (*Pisum sativum* L.). Under process
- e. Ahmed M.D. and Schnell S. (2013) Development of Measuring Methodology to Differentiate between Dissimilatory and Cometalobical Iron Reducing Bacteria in Pure Culture. 1<sup>st</sup> International conference in Modern Advances in the Field of Biotechnology

and Genetic engineering, Jordan University of Science and Technology.05-08 Oct.2013, Amman,Jordan

2. *Participation in:*

- a. Biotechnology Status in Sudan (2001). One day workshop (as audience) Elshariga Hall, U of K, Khartoum, Sudan.
- b. The Annual Meetings of Plant Nutritionists (2004, 2005, 2006). (as audience and participant) Goettingen, Bonn, Stuttgart, Germany.
- c. From Nile to Niger (2003). DAAD workshop for sub-Saharan section , Leipzig, Germany
- d. Women in Profession (Frauen im Beruf) (2005). Workshop organized by Intercent with DAAD as sponsor, with specific interest in Islamic countries , 18th to 20th Nov, Berlin, Germany
- e. Women in Top Positions (Frauen in Fuehrungspositionen) (2006). Extended workshop for the first (Intercent & DAAD as Sponsor) 9th to 11th Jun, Berlin, Germany.
- f. The Half- annual Meeting of Plant Husbandry (2008, 2009,2010). Organized by the Agricultural research Cooperation, June & Dec. Wad Madani, Sudan.
- g. The Plant Biotechnology prospects in Research (2009). Lectures conducted by prof. Sager, the Institute of Excellence in Elgiza, Egypt, Organized by the Dept. of Botany, Fac. Of Sciences, U of K, Khartoum, Sudan.
- h. Scientific Research - Pillar of Civilization Development (2010). (as audience and participant) Conference of Graduate Research and Scientific Research , U of K (27th Feb. to 1d Mar),Elsadaga Hall, Khartoum, Sudan
- i. The Intermediate Diplomas in the University of Khartoum- The present status and future prospects (2011). (As organizer and participant) Evaluating workshop, Faculty of Technological and Developmental Studies, Uof K 28<sup>th</sup> of Feb 2011, Elshariga Hall, University of Khartoum, Sudan

k. The Fifth International Conference of Genetic modified Food, Amman, Jorodan, 5<sup>th</sup> -7<sup>th</sup> Jul. 2011, Algudus Hotel, Amman

l. Training of the trainers by the National Focal point of the Biosafety clearing House/ Organized by Biotechnology and Biosafety Center in Corporation with UNDP (2011), Alhafad Technology Transfer Hall, Alahafad University for Women, Jul 2011, Sudan

l. The 1st international conference in modern technologies in the field of biotechnology and genetic engineering (as audience and participant), Amman, Jorodan, 5<sup>th</sup> -8<sup>th</sup> Aug. 2013, Landmark Hotel, Amman

m. Genetic Relatedness Among Bacteria Using Molecular Biology (as participant), - 7<sup>th</sup> Aug. 2013 One day workshop (as) Landmark Hotel, Amman, Jordan

#### **E. Holding some of the Departments administration and academic duties**

1. The secretary of the Master Program Committee in the Department Seb.2010 till April 2012
2. The coordinator of the graduate dissertation project for (2008/09)
3. The Department represented staff in field training ((2008/09) and (2010/11))
4. The Co-coordinator of the intermediate Diplomas program (April2009 to December 2010)
5. Participating in the Faculty as a member in many Committees of (The Interview of Newly Coming Students (2008/09, 2009/10and 2010/11)
6. Participating in Evaluations of intermediate Diploma experience in the University f Khartoum (Workshop on Feb.2011)
7. The Department represent in The Faculty Website Renovations (2008/09 and 20142015)
8. The Faculty Permanent Exhibition 2008/09
9. The Annual evaluation and reports of the Academic performance 2009/10
10. The Faculty organizer and adviser in the Universities Fair for British High Schools in Sudan 2010/11
11. Head Department since April 2012 up to Decmber2014

#### **Memberships of Professional bodies and Academic honors**

The Sudanese Agriculture Engineering Council,  
The Sudanese Agriculture Engineering Union  
DAAD Alumni In Sudan  
Gottingen University Alumni,  
The Sudanese Society for Soil Scientists