

## Personal Information

Name Mirghani Abdel Rahman Wasfi  
Date of Birth 13.05.1942  
Place of Birth Khartoum  
Gender Male  
Marital Status Married  
Nationality Sudanese  
Academic Status Associate Professor  
Department Botany  
Faculty Science  
E. mail [mirghaniwasfi@hotmail.com](mailto:mirghaniwasfi@hotmail.com)  
Telephone No. 0912788937  
Languages Arabic, English, Frenchp

## Academic Qualifications

Degree	Institution	Country	Date
Ph.D	University of Paris	France	1983
M.Sc.	University of Khartoum	Sudan	1971
B.Sc. (Hons)	University of Khartoum	Sudan	1966

## Field of Work & interest

### FIELD OF WORK

Plant Physiology and Biochemistry

### 1.3 SPECIAL INTEREST

Nitrogen fixation, nitrogen metabolism, stress physiology, Herbicides, phenolic acids

## Academic Appointments Experience Including Indications Of External Recognition

## ACADEMIC APPOINTMENTS EXPERIENCE INCLUDING INDICATIONS of External Recognition

Position/Title	Institution/ country	Date
Assistant Professor	Fac. of Sc. Sudan	1984-1989
Assistant Professor	Fac. of Sc. Libya	1989-19

## Teaching & Examination Experiences

a) Teaching Responsibilities for this Academic year and last Academic year This year: 2014/2015 (throughout my service in the Botany Department, I taught all the biochemistry) courses to all levels (2<sup>nd</sup>, 3<sup>rd</sup>, 4<sup>th</sup> and 5<sup>th</sup> levels).

### i) Undergraduate

Course Title	Credit hours	Semester/year	Curriculum year
Bot 401 (Bio)	3	Semester	Science
Bot 403 (Bio)	3	Semester	Science

### Examiner for the Following degrees:

#### A) Ph.D.

1. Soheir Ahmed Abdelwahab. Production of glucoamylase enzymes by *Asperigillus* and *Rhizobus* species. Fac. of. Science. U.of.K. 2002.
2. Abdel Azim Ali Ahmed. Purification and characterization of eight enzymes isolated from seedlings of different sorghum lines. Fac. of Sci. U.of.K. 2007.
3. Ekhlas Eltahir. Influence of five herbicides on physiological and biochemical parameters in *Gossypium hirsutum*. And *Zea mays* L. Fac. of Sci. U.of.K. 2010.
4. Shaza Gamal. Optimization of fementaton conditions for citric acid production by *Asperlgillus niger* in fermented cultures. Fac. of Sci. U.of.K. 2012.
5. Zeinab Abdalla Misbah. Immobilization, characterization and Kinetic studies on invertase enzyme from different sources. Fac. of Sc. U.of.K. 2012.

#### B) M.Sc.:

1. Adil Ali El Hessian, Studies on the nodulation of some *Acacia* species by *Rhizobium* isolates. November 1986.
2. El Amin Yosif Abdala. Physiological studies on seedling survival of some forest trees in the Sudan. August 1987.
3. Eisa Ibrahim El Gaali, studies on the nodulaton of *Cicer arietinum* by *Rhizobium* species. 1987.

4. **Mawahib El Amin Mohamed.** Studies on the nodulation and nitrogen fixation of *Medicago sativa* and *Clitoria ternate*, July 1987.
5. **Elham Sharief Dawood.** Studies on the nodulation of *Phaseolus vulgaris* by Rhizobium isolates. July 1987.
6. **Hanan Ahmed Abu Zeid.** Biochemical evaluation of some indigenous plants of the Sudan. February 1999.
7. **Insaf Abdalla Gibril.** Factors influencing in vivo nitrate reductase activity in *Phaseolus vulgaris*. March 2000.
8. **Zeinab Jalal Abdel Daim.** Phytochemical and antimicrobial studies of some senna species. February 2001.
9. **Badr Eldin Ahmed Mohamed.** Phytoplankton communities of two types of water of same origin and their relationship with associated benthic diatoms with certain culture experiments. February 2000.
10. **Hala Omer Mohamed.** Photochemical investigation on *Aloe sinkatna*, Jan. 2001.
11. **Noon Abdel Hafeez Mohamed.** Antimicrobial and Toxicological affects of *Naoclea latifolia* fruits. Nov. 2002.
12. **Maha Abdel Hafeez Mohamed.** Diversity and cross inoculation abilities among rhizobia isolate from different Guar lines. Dec. 2003.
13. **Haider Abdel Gadir Mohamed Ahmed.** Molecular approach to the taxonomy of some plant parasitic rematodes in central Sudan. May 2004.
14. **El Naiem El Aagib Mubarak.** Some antimicrobial and Phytochemical investigation on three solanum species. July 2005.
15. **Suha Abdel Mageed Tawfig.** Production of citric acid by *Asperigillus niger* in submerged culture. Nov. 2005.
16. **Manhal Mahmoud Abdel Latif.** Regulation of nitrate reductase by nitrogenous compounds in different plant species. 2002.
17. **Naglaa Sharief Mohamed Abdalla.** The influence of plant growth promoters on nitrate reductase, proteins and nitrates in young seedlings of cotton and maize. March 2006.
18. **Deena A/Fatah A/Gadir.** Characterization of locally isolated streptomyces species and their potentialities as sources of antifungal agents. May 2007.
19. **Yassir Muddathir El Sayed.** Studies on natural sweeteners from some *Sudanese plants*. July 2007.
20. **Gihan Omer Mohamed.** Chemical study and biological activity of *Grewia sp.* November 2008.
21. **Haiffa A/Rahim Osman.** A comparative study of the effect of IAA and  $\beta$ NAA applied in two different regimes in biochemical parameters in cotton and maize. 2008.
22. **Omer Salah Abdel Latif.** A study on the chemical; constitutents and antimicrobial activity of *Prosopis chilensis* (Molina) stuntz. July 2010.
23. **Ibtisam Gabir Mohamed.** Evaluation of some annuals from south-west Kordofan as food sources. 2012

## **Administrative & Professional Responsibilities & Activities At University Of Khartoum**

<b>Date</b>	<b>Position</b>
<b>1985-1987</b>	<b>Secretary of Botany Dept.</b>
<b>2000-2002</b>	<b>Secretary of the Faculty board.</b>
<b>2000-2002</b>	<b>Deputy Dean of the Faculty of Science</b>
<b>2000-2002</b>	<b>Member of Senate Member of Faculty Board</b>
<b>2000-2002</b>	<b>Member of Faculty Research Board</b>

<b>2000-2002</b>	<b>Organizer and promoter of public, cultural, and scientific programme of the Faculty of Science and, myself presented two lectures in the programme 1) secret and emotional life of plants 2) global warming.</b>
<b>2000-2002</b>	<b>Head of the Botany Dept. Member of Senate Member of Faculty Board</b>
<b>2014-2014-2014-</b>	<b>Member of Faculty Research Board</b>

## **SERVICE ACTIVITIES**

<b>Date</b>	<b>Activity</b>
<b>1984-1987</b>	<b>Researcher with the National Council for research (UNEP programme, Rhizobium Technology).</b>
<b>1989-1996</b>	<b>Assistant professor. University of Sebha, Libya.</b>
<b>1992-1996</b>	<b>Head of the Botany Dept. University of Sebha, Libya.</b>
<b>Mid 80s</b>	<b>Taught at Military College (Academic section).</b>
<b>Mid 80s</b>	<b>Taught at Faculty of Education, U. Of K.</b>
<b>Mid 90s</b>	<b>Participated in the Banana project (Kassala Univerity) and did all the analyses of the project in the Dept. Of Botany, U. Of K.</b>
<b>Mid 90s</b>	<b>Suggested the physiology and Biochemistry courses to Shendi University.</b>
<b>2006-2007</b>	<b>External Examiner (University of el Nilain).</b>
<b>2008-2010</b>	<b>Taught at Ahfad University for Women.</b>
<b>2014-2015</b>	<b>Taught the plant physiology course to the Dept. Of Zoology, Faculty of Science in their (Master in Genetic and Molecular Biology).</b>

## **OTHER ACTIVITIES**

<b>Date</b>	<b>Activity</b>
<b>2000-2002</b>	<b>As deputy dean, I supplied and provided to the Faculty more than two tons of high quality paints (as donation) from the Nile paints company and Al Mohandis company, and these were used for</b>

- 2000-2002 painting almost all the premises of the Faculty  
As deputy dean, I supplied fifty heavy duty chairs as donation to the library of the department from the Sudan lawn Tennis association “I was secretary of association”.
- 2000-2002 As deputy dean, I self-financed and made the poster showing the sequence of deans of the Faculty of science. Now present in the secretary office of the Faculty.
- 2014-2015 As head of the Botany department, I obtained some funds from external sources to cover the urgent and necessary expenses of the department. Now, I am seeking funds, and made good contacts to rehabilitate the old and deserted research laboratory in the Dept. of Botany.

## Research and related administration

### a) SUPERVISION OF RESEARCH WORK

#### i) Undergraduate

##### A) a) Undergraduates:

suggested and supervised more than eighty graduation projects (dissertations). In the last three years I supervised the following projects. 2014-2015:

1. Limyaa Omer Mohamed. Effect of 2-4 dinitrophenol on nitrate uptake and reduction in *Dolichos lablab* seedlings.
2. Abdel Rahman Moustafa Mohamed. Induction of salinity tolerance by benzoic acid in *Dolichos lablab* seedlings.
3. Gabir Mohamed Ahmed. Influence of salicylic acid on nitrate uptake and reduction in *Dolichos lablab* seedlings.
4. Amna Khalid Ibrahim. Responses of *Dolichos lablab* seedlings. To NaCl salinity.
5. Nousayba Hamid Ibrahim. Role of proline in improving salinity stress in *Dolichos lablab* seedlings.
6. Tagwa Mohamed Ali. Responses of salt-stressed *Dolichos lablab* seedlings to calcium nitrate and potassium nitrate.

2013-2014

1. **Marwa Yagub Ibrahim:** Effect of potassium chlorae on germination and nitrae assimilaton in *Zea mays* and *Dolichos lablab*.
2. **Fatima Ahmed El Naeem.** Effect of salinity and KH<sub>2</sub> PO<sub>4</sub> supplement on germination and nitrate reductase in *Zeamays* and *Dolichos lablab*.
3. **Mohamed Osman Abdel Wahid –** Ameliorative effects of gallic acid on salt-stressed *Zea mays* and *Dolichos lablab* seedlings.
4. **Sayab Mahgoub El Harith.** Effect of two phenolic acids on germination of *Dolichos lablab* seeds and *Zea mays* grains.

## 2012-2013

1. **Ayat Mohamed Habib.** Pendimethalin affects nitrate uptake and reduction in *Zea mays* and *Dolichos lablab* seedlings.
2. **Eman Omdar Abdel Rahman.** Acetyl salicylic acid (Asprin) ameliorates the adverse effects of salt stress on *Zea mays* and *Dolichos lablab* seedling.
3. **Abeer Mohamed Salah.** Oxyfluorfen enhances nitrate uptake and reduction in *Zea mays* and *Dolichos lablab* seedlings.
4. **Postgraduate Supervision (Higher Research Degrees)**

### 1) Master

1. **Mawahib Elamin Mohamed.** (1987). Studies on the nodulation and nitrogen fixation of *Medicago sativa* and *Clitoria ternate*. Faculty of Science. Univ. of Khartoum.
2. **Insaf Abdalla Mohamed** (2000). Factors influencing in vivo nitrate reductase activity in *Phasedus vulgaris*. Faculty of Science. Univ. of Khartoum.
3. **Manhal Mohamoud Abdel Latif** (2002). Regulation of nitrate reductase by nitrogenous compounds in different plant species. Faculty of Science Univ. of Khartoum.
4. **Nagla Sharif Mohamed** (2005). The influence of plant growth promoters on nitrate reductase, proteins, and nitrates in young seedlings of cotton and maize. Faculty of Science.
5. **Haifaa Abdel Rahim Osman.** (2008). A comparative study of the effect of IAA and βNAA. Applied in two different regimes on biochemical parameters in *Gossypium hirsutum* and *Zea mays*. Faculty of Science. Univ. of Khartoum.
6. **Wahbia Massaad Bashir.** (2012). Response of *Zea mays* and *Gassypium hirsutun* to salt stress and potassium supplement. Faculty of Science. Univ. of Khartoum.

### Under Supervision:

7. **Shaymaa Tariq Mohamed.** Influence of two phenolic acids on growth of two *Zea mays* cultivars grown under high NaCl salinity. Proposal accepted by the Department and submitted to the Faculty. Jan. 2015.
8. **Nasreen Mohy Eldin Ahmed.** Influence of salicylates on plant grown. Submitted her proposal for acceptance. (June, 2015).

### Document (7)

## Ph.D.:

9. **Rashid Ibrahim Mohamed. (2009). Characterization of Fusaria and Bacteria from the Sudan and their secondary metabolites regarding their potential to control *Striga hermonthica* (Del) Benth. Faculty of Science. Univ. of Khartoum. Co. Supervisor.**
10. **Ekhlas Eltahir. (2010). Influence of five herbicides on physiological and biochemical parameters in *Gossypium hirsutum* L. And *Zea mays* L. Faculty of Science. Univ. of Khartoum. Supervisor.**

## Under supervision:

11. **Manhal Mahmoud Abdel Latif. Influence of two herbicides on nitrogen metabolism in *Gossypium hirsutum* and *Zea mays*. Registered 2011. Registration adjourned from January 2013.**
12. **Samia Mohamed Ali. Effect of oxyflurofen and pendimethalin on carbohydrate metabolism in *Gossypium hirsutum* L. and *Zea mays* L. Registraton 2011. Thesis almost ready for evaluation.**
13. **Insaf Abdalla Mohamed. Ameliorative effects of chemical treatments on growth of salt-stressed *Zea mays* L. and *Dolichos lablab* L. Registration 2**

# SCHOLARSHIPS, Awards, Honours and Distinctions

## 1. Scholarships

Awarding Body	Country	Date
CROUS (French Government Scholarship)Ph.D (Tre's Honourable)	France	1979

## .2. AWARDS

Award	Awarding Body	Country	Date
1. Techniques in biochemistry	University of Nairobi	Kenya	1976
2. Rhizobium Technology	University of Bangkok	Thailand	1986
3. 2 <sup>nd</sup> conference (Nitrogen fixation)	University of Cairo	Egypt	1986

## Specialized/ Professional Training

<b>Training</b>	<b>Institution / Country</b>	<b>Date</b>
1. <b>Biochemical Techniques Organized by UN for young African biochemists.</b>	<b>University of Nairobi, Kenya.</b>	<b>1976</b>
2. <b>Rhizobium Technology organized by UNEP</b>	<b>University of Bangkok, Thailand.</b>	<b>1986</b>

## **Future plans**

**Researching on phenolic acids, especially salicylic acid and its derivatives (salicylates) as therapeutic agents in plants. Recent studies suggest that salicylic acid and derivatives play vital roles in regulation of physiological processes in plants. Information on the role of salicylic acid in thermogenesis, stress physiology and disease resistance, suggest that under these criteria salicylic acid qualifies as a plant hormone thus far bestowed to only five other molecules.**

## **Publications**

### **i) Summary**

**No of articles, Books and Book chapters**                      **18**



<b>No of articles after Assistant Professor promotion</b>	<b>3</b>
<b>No of articles after Associate Professor promotion</b>	<b>13</b>
<b>No of articles in International Journal</b>	<b>1</b>
<b>No of articles in Regional Journal</b>	<b>14</b>
<b>No of articles in Local Journal</b>	<b>3</b>
<b>No of articles in conference proceedings</b>	<b>9</b>
<b>No of articles as First Author</b>	<b>9</b>
<b>No of articles as Second Author</b>	<b>-</b>
<b>No of articles as Last Author</b>	<b>4</b>
<b>No of articles as Original article</b>	<b>-</b>
<b>No of articles as Review article</b>	<b>-</b>
<b>No of articles as Short communication</b>	<b>-</b>
<b>No of articles as Case report/ Letter</b>	
<b>No of Books and Book-Chapters</b>	

## **ii) Publications List**

All of your publications in chronological order within each category following one Standard order for bibliographic references.

Example of citation: Light, M. A., & Light, I. H. (2008). The geographic expansion of Mexican immigration in the United States and its implications for local law enforcement. *Law Enforcement Executive Forum Journal*, 8(1), 73-82. Please provide the journal impact factor.

In addition, in the left-hand margin please star (\*) what you consider were especially significant publications and enter a 'T' against those related specifically to publications about teaching.

Where there is more than one author, you must indicate as precisely as possible the degree of your contribution, either as a percentage figure or descriptively in terms of your particular input.

## (A) Articles in Journals

Authors, title, journal, date, issue no, pages, Journal impact factor

1. Wasfi, M.A., & Abdel Rahman, E.O. (2014). Partial alleviation of the adverse effects on salt stress on *Zea mays* L. Seedlings by acetyl salicylic acid (Aspirin). *J. Plant. Prod. Mansoura Univ.*, 5 (12), 2105-2111. (\*) (70%).
2. Wasfi, M.A. (2014). Ameliorative effects of salicylic acid on salt-stressed *Phaseolus vulgaris* L. Seedlings *Sudan Journal of science*. Online 2014 – 02-18. (\*).
3. Ahlam Sirelkatim., & Wasfi, M.A. (2014). Two phenolic acids ameliorate the adverse effects of salt stress on *Zea mays* L. Seedlings. *J. Plant Production. Mansoura Univ.*, 5 (4), 469-474. (\*) (80%).
4. Wasfi, M.A., Madani, I. & Fatima El Mubarak. (2013). Chemotaxonomic study of five monocot species from North-Eastern Sudan. *J. Plant Production. Mansoura Univi.*, 4 (3)\, 417-423. (40%).
5. Madani, I., Wasfi, M.A. & Fatima El Mubarak. (2013). Taxonomic evaluation of some proximate and pytochemical composition in six monocot species. *J. Plant Production, Mansoura univi.*, 4 (3), 425-429. (40%).
6. Wasfi, M.A., & Ekhlal Eltahir. (2012). Effect of potassium chlorate on nitrate uptake and reduction in *Zea mays* L. Seedlings. *Sudan Journal of Science*. Online vol. (5) issue 1. (70%).
7. Ekhlal Eltahir., & Wasfi, M A. (2012). Effect of the herbicide oxyflorfen on nitrate reductase and nitrate content in *Zea mays* L. Seedlings *J. Plant Production, Mansoura Univi.*, 3 (5), 785-791. (70%).
8. Wasfi, M. A., & Ekhlal Eltahir. (2011). Changes in stomatal conductance and turgor pressure in *Gossypium hirsutum* L. In response to foliar application of four herbicides. *J. Plant Production, Mansoura Univi.*, 2 (1), 151-155. (70%).
9. Wasfi, M.A., & Ekhlal Eltahir. (2010). Effect of foliar application of the herbicide stomp on nitrate reductase in the leaves of *Gossypium hirsutum* L. *J. Plant Production and Pathology. Mansoura Univi.*, 1 (5), 307-311. (70%).
10. Wasfi, M.A. (2009). Photosynthate requirements for nitrate uptake and reduction in roots of *Vicia faba* L. *Agric. Sci. Mansoura Univi.*, 34 (7), 8159-8164.
11. Wasfi, M.A., & El Nour, M.E. (2009). Effect of nitrate-N on growth and N<sub>2</sub> fixation by *medicago sativa* L. and *Clitoria ternate* L., *J. Agric. Sci. Mansoura Univi.*, 34 (1), 411-417. (50%).
12. El Nour, Mawahib & Wasfi, M.A. (2008). Evaluation of selected Rhizobium inoculaants under sudan conditions. *J. Agric. Sci. Mansoura Univi.*, 33 (8), 6031-6036. (50%).
13. El Nour, M.E.M. & Wasfi, M.A. (2001). Effect fo storage temperature on growth and survival of Rhizobia in charcoal and filler-mud. *Sudan Journal of Natural sciences. Series B. Biological Sciences*. 111-120. (50%).
14. Younis, M.E. & Wasfi, M.A. (1988). Studies on growth and chemical composition of tobacco varieties. III. Influence of potassium sulphate and ammonium phosphate on growth and quality components of tobacco plants under Sudan conditions. *Bullentin of the faculty of Sci. Mansoura Univi.*, 15 (1), 285-300. (50%).
15. Younis, M.E., & Wasfi, M.A. (1987). Studies on growth and chemical composition of tobacco varieties. IV. Comparative effects of various combinations of fertilizers on economic potentialities of tobacco plants. *Qatar Univ. Sci. Bull.*, (7). 115-133. (50%).
16. Marghani Wasfi & Jean – Louis Prioul. (1986). A comparison of inhibition of French-bean and soybean nitrogen fixation by nitrate, 1% oxygen or direct assimilate deprivation. *Physiol. Plant.* 66, 481-490. (\*) (70%).
17. Younis, M.E. & Wasfi, M.A. (1976). Studies on growth and chemical composition of tobacco varieties.

**II. The effects of various NPK ratios on growth and chemical composition of Kustaga 51 tobacco plants. Bull. Faculty of Sci., Mansoura Univi., (3), 33-43. (50%).**

- 18. Younis, M.E. & Wasfi, M.A. (1974). The effect of various chemical fertilizers on growth and chemical composition of Bureley 21 tobacco plants. Bull. Fac. of Sci. Mansoura Univi., (3), 13-27. (50%)**