

The information is given below in English

السيرة الذاتية



(1) البيانات الشخصية:

الاسم: د. جمال عبدالله أحمد أبوبكر أوحيدة

الجنسية: ليبي

محل الإقامة: مدينة سبها - ليبيا

تاريخ الميلاد: 11-08-1976

مكان الميلاد: ليبيا - مدينة سبها

الحالة الاجتماعية: متزوج

المؤهل العلمي: دكتوراه

بلد الحصول عليه: السويد

الدرجة العلمية: أستاذ مساعد

التخصص العام: علوم تربة

التخصص الدقيق: أحياء التربة الدقيقة

جهة العمل: عضو هيئة تدريس بجامعة سبها كلية الزراعة - قسم التربة والمياه

رقم الهاتف المحمول: 00218925139115

00218915139115

البريد الإلكتروني: Jamal_Abubaker@hotmail.com

(2) المؤهلات العلمية المتحصل عليه:

- درجة البكالوريوس في مجال علوم التربة والمياه, قسم التربة والمياه, كلية الزراعة, جامعة سبها - ليبيا (1999-2000)

- درجة الماجستير في مجال علوم التربة, قسم التربة, الجامعة السويدية للعلوم الزراعية

(Swedish University of Agricultural Sciences) (2007)

- درجة الدكتوراه في مجال الكائنات الحية الدقيقة في التربة, قسم الميكروبيولوجي, الجامعة السويدية للعلوم الزراعية (Swedish University of Agricultural Sciences) (2012)

3 المهام الإدارية والأنشطة العلمية والمؤتمرات العلمية:

- عضو في الفريق البحثي التابع لمؤسسة JTI السويدية لدراسة الغازات الحيوية المنبعثة من الترب الزراعية المسمدة بالأسمدة العضوية المختلفة ومدى تأثيرها علي البيئة (2008-2011).
- عضو في الفريق البحثي التابع لـ MicroDrive المختص بدراسة وتقييم فاعلية استخدام المخلفات العضوية (المتبقية من إنتاج الغاز الحيوي) في تسميد الترب الزراعية (2008-2011).
- تدريس الجزء العملي لمادة الميكروبيولوجي العام في الجامعة السويدية (2011).
- تدريس الجزء العملي لمادة ميكروبيولوجي التربة في الجامعة السويدية (2010-2011).
- الإشراف علي جزء من البحوث الخاصة بطلبة البكالوريوس في الجامعة السويدية (2010-2011).
- المشاركة في المؤتمر العلمي بالدنمارك (Conference Beyond Kyoto) (2009).
- المشاركة في ورشة عمل بعنوان Focus on soils and water, مكان الانعقاد جامعة SLU السويدية (2011-03-03).
- عضو هيئة تدريس في جامعة سبها / ليبيا – كلية الزراعة – قسم التربة والمياه (2013 -الي الان).
- تدريس مقرر ميكروبيولوجي العام ومقرر ميكروبيولوجي التربة في جامعة سبها كلية الزراعة – ليبيا (2013-الي الان).
- الإشراف على البحوث اللازمة للحصول على درجة البكالوريوس في جامعة سبها – كلية الزراعة – ليبيا (2014-الي الان).
- رئيس قسم الاتجاه العام في كلية الزراعة – جامعة سبها -ليبيا (2014-الي الان).
- عضو في لجنة الدراسات العليا بقسم التربة والمياه -كلية الزراعة – جامعة سبها (2017).
- تحكيم بعض الورقات العلمية في المجالات العلمية التالية:

- African Journal of Agricultural Research
- Applied Soil Ecology
- Archives of Agronomy and Soil Science
- European Journal of Soil Science
- Journal of Soils and Sediments
- Soil Science Society of America Journal

(4) المهارات

- اللغة الانجليزية (المحادثة – الكتابة - القراء)
- برنامج Microsoft office (Word, Excel, PowerPoint)
- التحليل الاحصائي باستخدام البرامج الاحصائية SPSS – SAS
- برنامج تصميم التجارب (MODDE) design experimental program
- البرنامج المخصص لكتابة وتنسيق المراجع العلمية Endnote Software
- برنامج اعدد وانشاء الرسومات البيانية SigmaPlot

(5) الاهتمامات البحثية:

- دورة النيتروجين في التربة (Mineralization, Immobilization, Nitrification and Denitrification)
- تركيب المجتمعات البكتيرية في التربة Bacterial Community Structure
- انبعاث الغازات الحيوية من التربة - غاز أكسيد النيتروز N_2O وغاز الميثان CH_4
- التسميد بالمخلفات العضوية وتأثيره على النشاط الميكروبي في التربة وعلني نمو وإنتاج المحاصيل
- التسميد بالمخلفات العضوية وتأثيره على انبعاث الغازات الحيوية من التربة
- التسميد الحيوي ودوره في تحسين نمو وإنتاج المحاصيل

(6) الأبحاث والمنشورات العلمية:

1. Odlare, M., Arthurson, V., Pell, M., Svensson, K., Nehrenheim, E. & **Abubaker, J.** (2011). Land application of organic waste - Effects on the soil ecosystem. *Applied Energy*, 88, 2210-2218.
2. **Abubaker, J.** (2012). Effects of fertilisation with biogas residues on crop yield, soil microbiology and greenhouse gas emissions. Doctoral thesis, *Swedish University of Agricultural Sciences*.p 79.

3. **Abubaker, J.**, Risberg, K. & Pell, M. (2012). Biogas residues as fertilisers - effects on wheat growth and soil microbial activities. *Applied Energy*, 99, 126-134.
4. Odlare, M., **Abubaker, J.**, Lindmark, J., Pell, M., Thorin, E. & Nehrenheim, E. (2012). Emissions of N₂O and CH₄ from agricultural soils amended with two types of biogas residues. *Biomass and Bioenergy*, 44, 112-116.
5. Rodhe, L., **Abubaker, J.**, Ascue, J., Nordberg, A. & Pell, M. 2012. Greenhouse gas emissions from pig slurry during storage and after field application in northern European conditions. *Biosystems Engineering*, 113, 379-394
6. **Abubaker, J.**, Cederlund, H., Pell, M. & Arthurson, V. 2013. Bacterial community structures and microbial activities of different soils amended with biogas residues and cattle slurry. *Applied Soil Ecology*, 72, 171-180.
7. **Abubaker, J.**, Odlare, M. & Pell, M. 2013. Nitrous Oxide Production from Soils Amended with Biogas Residues and Cattle Slurry. *Journal of Environmental Quality*, 42, 1046-1058.
8. Odlare, M., Pell, M., Arthurson, V., **Abubaker, J.** & Nehrenheim, E. 2014. Combined mineral N and organic waste fertilization - effects on crop growth and soil properties. *Journal of Agricultural Science*, 152, 134–145.
9. **Abubaker, J.**, Risberg, K., Jönsson, E., Pell, M., Dahlin, S. & Cederlund, H. 2015. Short-term effects of biogas residue and pig slurry application on soil microbial activity. *Applied and Environmental Soil Science*, 2015, 15.
10. Elnesairy, N.N.B., **Abubaker, J.**, Mahmud, H., Mukhtar, N. 2016. The impact of *Bradyrhizobium*, farmyard manure and inorganic nitrogen on growth and yield of guar. *World Journal of Agricultural Research*, 4, 56-63.
11. **Abubaker, J.**, Elnesairy, N., Ahmed, S. 2017. Effects of non-digested and anaerobically digested farmyard manures on wheat crop cultivated in desert soil. *Journal of Aridland Agriculture*, 3, 1-10.

(7) بحوث في مرحلة الإعداد للنشر

1. Nora Ibrahim, Marym Tabet, **Jamal Abubaker**. Effects of application rate of non-digested and anaerobically digested sheep manure on growth and yield of winter wheat cultivated in desert soil (manuscript).
2. Hassan El-Zeadani, **Jamal Abubaker**, Mohammed Al-Salem, Sanussi. Effects of non-digested and anaerobically digested poultry manure with and without combination with urea on the germination of three wheat varieties (*Salambo*, *Acsad* and *Karim*) (manuscript).
3. Hassan El-Zeadani, **Jamal Abubaker**, Mohammed Al-Salem, Sanussi. Effects of anaerobically digested cattle manure with and without combination with urea on the germination of three wheat varieties (manuscript).
4. **Jamal Abubaker**. Mineralization and assimilation of nitrogen in the soil after application of digestate as fertilizer – A review (manuscript).

(8) بحوث قيد التنفيذ

دراسة تأثير التسميد بالمخلفات الحيوانية المخمرة والغير مخمرة مع او بدون التسميد الحيوي (إضافة سلالات الريزوبيوم المحلية) على نمو وإنتاج نبات البرسيم.

Curriculum Vitae

1) Personal Information

Name: Dr. Jamal Abdallah Ahmed Abubaker

Nationality: Libyan

City: Sabha

Date of Birth: 1976-08-11

Place of birth: Sabha City - Libya

Status: Married

Current Position: Assistant Professor at Sabha University - Faculty of Agriculture, Depart. Soil and Water.

Specialization: Soil Microbiology

Research Areas: Recycling of organic waste to the soil as fertilizer, nitrous oxide and methane emission, bacteria community structure, soil microbial activity, biofertilizer, organic fertilizers, mineral fertilizers, wheat growth and yield.

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2) Education

2000 B.Sc., Faculty of Agriculture, Department Soil and Water, Sabha University, Libya.

2007 M.Sc., Faculty of Natural Resources and Agricultural Sciences, Department Soil and Environment, Swedish University of Agricultural Sciences, Sweden.

2012 Ph.D. in biology with specialization in microbiology, Department of Microbiology, Faculty of Natural Resources and Agricultural Sciences, Swedish University of Agricultural Sciences, Sweden.

3) Academic Position and Activities

- Member of a research team called JTI Swedish Foundation for studying greenhouse gas emissions from agricultural soils fertilized with various organic residues at Swedish University of Agricultural Sciences (2008-2011).
- Member of a research team called (MicroDrive) at Swedish University of Agricultural Sciences for studying and evaluating the effectiveness of using organic residual from biogas production as fertilizer in agricultural soils (2008-2011).
- Teaching the laboratory part of General Microbiology and Soil Microbiology Courses at Swedish University of Agricultural Sciences (2010 - 2011).
- Participation in the supervision of undergraduate students at Swedish University of Agricultural Sciences (2010-2011).
- Participation in the scientific conference in Denmark (Conference Beyond Kyoto) (2009).
- Participation in the workshop entitled Focus on soils and water at Swedish University of Agricultural Sciences (2011).
- Lecturer at Sabha University - Faculty of Agriculture, Department Soil and Water - Libya (2013-until now).
- Teaching the following courses: General Microbiology, soil microbiology, at Sabha University - Faculty of Agriculture - Libya, Department Soil and Water (2013- until now).
- Supervision of Undergraduate Research Students at Sabha University - Faculty of Agriculture - Libya (2014- until now).
- Head of general trend department at Faculty of Agriculture - Sabha University - Libya (2014- until now).
- Member in higher education Committee, Soil and Water Department, Faculty of Agriculture, Sabha University (2017).
- Reviewer of some scientific papers in the following journals:
 - African Journal of Agricultural Research
 - Applied Soil Ecology
 - Archives of Agronomy and Soil Science

- European Journal of Soil Science
- Journal of Soils and Sediments
- Soil Science Society of America Journal

4) Skills and insterments

- Computer skills - Word, Excel, PowerPoint.
- Statistical programs: SAS and SPSS
- Sigmaplot software for creating figures, statistical analysis and fitting equation.
- Endnote software for references citation and organization.
- MODDE (designing experimental program and modeling).
- Gas chromatography for analyzing N₂O, CH₄ and CO₂.
- Respicond II for measuring soil respiration.
- Flow Injection Analysis instrument for analyzing ammonium and nitrite.
- Terminal restriction fragment length polymorphism (T-RLFP) method for analyzing bacteria community structure in the soils.
- DNA extraction and PCR amplification.
- Sampling and measuring nitrous oxide (N₂O), methane (CH₄) and carbon dioxide (CO₂) emissions at field and lab.
- Measuring soil nitrogen mineralization capacity.
- Measuring soil potential ammonium oxidation activity.
- Measuring soil potential denitrification activity.

5) Areas of interest

My area of interest is recycling of organic residues as fertilizer to agricultural soils and evaluates their effect on crop production, soil microorganisms, and greenhouse emission. I am interested in measuring the emission of N₂O and CH₄ from the soil after application of organic fertilizer. In addition, I am interested in how organic residues affect soil bacterial community structure and soil microbial activity especially those activities related to N cycle.

For more details about my interests please see my publications record, which are listed below:

6) Publications

1. Odlare, M., Arthurson, V., Pell, M., Svensson, K., Nehrenheim, E. & **Abubaker, J.** (2011). Land application of organic waste - Effects on the soil ecosystem. *Applied Energy*, 88, 2210-2218.
2. **Abubaker, J.** (2012). Effects of fertilisation with biogas residues on crop yield, soil microbiology and greenhouse gas emissions. Doctoral thesis, Swedish University of Agricultural Sciences. p 79.
3. **Abubaker, J.**, Risberg, K. & Pell, M. (2012). Biogas residues as fertilisers - effects on wheat growth and soil microbial activities. *Applied Energy*, 99, 126-134.
4. Odlare, M., **Abubaker, J.**, Lindmark, J., Pell, M., Thorin, E. & Nehrenheim, E. (2012). Emissions of N₂O and CH₄ from agricultural soils amended with two types of biogas residues. *Biomass and Bioenergy*, 44, 112-116.
5. Rodhe, L., **Abubaker, J.**, Ascue, J., Nordberg, A. & Pell, M. 2012. Greenhouse gas emissions from pig slurry during storage and after field application in northern European conditions. *Biosystems Engineering*, 113, 379-394.
6. **Abubaker, J.**, Cederlund, H., Pell, M. & Arthurson, V. 2013. Bacterial community structures and microbial activities of different soils amended with biogas residues and cattle slurry. *Applied Soil Ecology*, 72, 171-180.
7. **Abubaker, J.**, Odlare, M. & Pell, M. 2013. Nitrous Oxide Production from Soils Amended with Biogas Residues and Cattle Slurry. *Journal of Environmental Quality*, 42, 1046-1058.
8. Odlare, M., Pell, M., Arthurson, V., **Abubaker, J.** & Nehrenheim, E. 2014. Combined mineral N and organic waste fertilization - effects on crop growth and soil properties. *Journal of Agricultural Science*, 152, 134-145.
9. **Abubaker, J.**, Risberg, K., Jönsson, E., Pell, M., Dahlin, S. & Cederlund, H. 2015. Short-term effects of biogas residue and pig slurry application on soil microbial activity. *Applied and Environmental Soil Science*, 2015, 15.

10. Elnesairy, N.N.B., **Abubaker, J.**, Mahmud, H., Mukhtar, N. 2016. The impact of Bradyrhizobium, farmyard manure and inorganic nitrogen on growth and yield of guar. *World Journal of Agricultural Research*, 4, 56-63.
11. **Abubaker, J.**, Elnesairy, N., Ahmed, S. 2017. Effects of non-digested and anaerobically digested farmyard manures on wheat crop cultivated in desert soil. *Journal of Aridland Agriculture*, 3, 1-10.

7) Manuscripts

1. Nora Ibrahim, Marym Tabet, **Jamal Abubaker**. Effect of application rates of non-digested and anaerobically digested sheep manure on growth and yield of winter wheat crop cultivated in desert soil (manuscript).
2. Hassan El-Zeadani, **Jamal Abubaker**, Mohammed Al-Salem, Sanussi. Effects of non-digested and anaerobically digested poultry manure with and without combination with urea on the germination of three wheat varieties (*Salambo*, *Acsad* and *Karim*) (manuscript).
3. Hassan El-Zeadani, **Jamal Abubaker**, Mohammed Al-Salem, Sanussi. Effects of anaerobically digested cattle manure with and without combination with urea on the germination of three wheat varieties (manuscript).
4. **Jamal Abubaker**. Mineralization and assimilation of nitrogen in the soil after application of digestate as fertilizer – A review (manuscript).

8) Ongoing projects

1. Study the effect of inoculation with local *Rhizobium strains* and fertilization with digestate on the growth and yield of clover crop at cultivation in desert soil.

9) Reference Persons

Professor Mikael Pell

Swedish University of Agricultural Sciences
Department of Microbiology
Email address: Mikael.Pell@slu.se
Telephone: 004618671025

Professor Monica Odlare

Mälardalen University
Department of Energy, Building and Environment
Email address: Monica.Odlare@mdh.se
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Researcher Harald Cederlund

Swedish University of Agricultural Sciences
Department of Microbiology
Email address: Harald.Cederlund@slu.se
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Researcher Lena Rodhe

JTI - Swedish Institute of Agricultural and Environmental Engineering
Email address: lena.rodhe@jti.se
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