

Ebrahim Ahmed Ebrahim Shehata

Assistant Professor of Soil Fertility and Plant Nutrition

Department of Natural Resources and Agricultural Engineering, Faculty of Agriculture, Damanhour University

Faculty Campus, Al-Abaadia, Cairo–Alexandria Agricultural Road, Damanhour, Beheira, Egypt – P.O. Box 22516

Email: ebrahim.shehata@agr.dmu.edu.eg | Mobile: +20 100 093 5661

PROFESSIONAL SUMMARY

Assistant Professor in the Department of Natural Resources and Agricultural Engineering, Faculty of Agriculture, Damanhour University, specializing in soil fertility, plant nutrition, and soil microbiology. Holds a PhD in Agricultural Sciences (Soil and Water Sciences) from the Chinese Academy of Agricultural Sciences (2020) and completed postdoctoral research there in 2025. Has an academic and teaching career dating from 2008, including teaching undergraduate and postgraduate courses, supervising Master's and PhD theses, managing scientific laboratories and instruments, and contributing to quality assurance, assessment, and international university rankings. Author of 20 peer-reviewed publications in international and national journals.

PROFESSIONAL EXPERIENCE

Assistant Professor | April 2026 – Present

Department of Natural Resources and Agricultural Engineering, Faculty of Agriculture, Damanhour University, Egypt

Postdoctoral Researcher (Scientific Mission funded by the Egyptian Missions Sector) | February 16, 2025 – August 16, 2025

Chinese Academy of Agricultural Sciences, Beijing, China

Executive Director, Unit of Laboratories and Scientific Instruments | July 2020 – June 2023

Damanhour University, Egypt

Lecturer | September 2020 – March 2026

Department of Natural Resources and Agricultural Engineering, Faculty of Agriculture, Damanhour University, Egypt

Assistant Lecturer | January 2014 – September 2020

Department of Natural Resources and Agricultural Engineering, Faculty of Agriculture, Damanhour University, Egypt

Teaching Assistant | March 2008 – January 2014

Department of Natural Resources and Agricultural Engineering, Faculty of Agriculture (Damanhour Branch), Alexandria University, Egypt

Administrative and Academic Responsibilities

- Secretary of the Department Council, Department of Natural Resources and Agricultural Engineering, Damanhour University (2021/2022 – 2023/2024).
- Member, QS World University Rankings working team, Damanhour University (March 2024).
- Member, Quality Assurance Unit, Faculty of Agriculture, Damanhour University (November 2012 – March 2015).

EDUCATION

Postdoctoral Research (2025)

Chinese Academy of Agricultural Sciences, Beijing, China (February 16 – August 16, 2025).

PhD in Agricultural Sciences – Soil and Water Sciences (2020)

Chinese Academy of Agricultural Sciences, China.

MSc in Agricultural Sciences (2013)

Department of Natural Resources and Agricultural Engineering, Faculty of Agriculture, Alexandria University (Damanhour Branch), Egypt.

BSc in Agricultural Sciences (2007)

Department of Natural Resources and Agricultural Engineering, Faculty of Agriculture, Alexandria University (Damanhour Branch), Egypt. Grade: Excellent with Honors.

SKILLS

Laboratory and Technical Skills

- **Soil chemical analysis:** electrical conductivity (EC); soil reaction (pH); cations (Ca, Mg, Na, K); anions (CO₃, HCO₃, Cl); macronutrients (N, P, K); micronutrients (Fe, Mn, Zn, Cu); calcium carbonate; organic matter.
- **Soil physical analysis:** soil texture; moisture content; saturation percentage; bulk density; particle density; hydraulic conductivity.
- **Soil biological analysis:** determination of soil biological properties and soil microbiology.
- **Land evaluation:** land capability; land suitability for various crops; expected productivity.
- Soil fertility and plant nutrition; mineral and bio-fertilization; composting; mycorrhizal fungi.

Computer Skills

- International Computer Driving License (ICDL).
- Fundamentals of Digital Transformation Certificate (FDTC).
- Statistical analysis software: CoStat.

Languages

- English: fluent in writing and speaking (TOEFL ITP).
- Arabic: fluent in writing and speaking (native language).

TEACHING EXPERIENCE

Undergraduate Courses (Participation in Teaching)

Fundamentals of Agricultural Environment; General Mathematics; Plane Surveying; Fundamentals of Soil Science; Plant Nutrition; Soil Chemistry; Fertilizer Technology; Land Reclamation and Conservation of Land Resources; Soil Microbiology; Soil Biochemistry; Soil, Plant, and Water Analysis; Graduation Project; General and Specialized Summer Training.

Postgraduate Courses (Participation in Teaching)

Soil and Water Analysis; Soil Microbiology; Advanced Plant Nutrition; Organic Matter and Humus; Methods for Studying Soil Microorganisms; Soilless Agriculture; Thesis Examinations (Viva Voce).

Training and Lectures

- Lecturer in the training program of the Rural Development Project in Beheira, Ministry of Agriculture and Land Reclamation, Damanhour (October 16–27, 2022).
- Lecturer in the training program of the Rural Development Project in Beheira, Ministry of Agriculture and Land Reclamation, Damanhour (March 5–16, 2023).

SUPERVISION OF RESEARCHERS AND STUDENTS

Completed Master's Theses (Defended and Approved)

- Hesham Fathy Kishar
- Hossam Ahmed Abdel-Nabi
- Hadeer Mahmoud Mardi
- Yomna Mohamed Shalaby

Ongoing Supervision – PhD

- Maram Mohamed Shalaby

Ongoing Supervision – Master's

- Abdel-Aty Salem Abdel-Aty
- Rania Arafa Abdel-Razek
- Amr Kamal Abdel-Aziz

COMMITTEES AND MEMBERSHIPS

- Member, Scientific Research Ethics Committee (2025/2026).
- Member, Assessment and Evaluation Unit Committee, Faculty of Agriculture (2024/2025).

- Member, Faculty Libraries Committee (2022/2023 – 2023/2024).
- Member, Internal Quality Committee, Department of Natural Resources and Agricultural Engineering.
- Member, Quality Assurance Unit, Faculty of Agriculture (November 2012 – March 2015).
- Member, Egyptian Society of Soil Science (ESSS) (2021 – Present).
- Editorial Board Member, Alexandria Science Exchange Journal, Alexandria University (2020 – Present).
- Editorial Board Member, Journal of Agricultural and Environmental Sciences, Damanhour University (2020 – Present).
- Member, Social Club, Damanhour (2020 – Present).

GRANTS AND SCHOLARSHIPS

- Postdoctoral scholarship, Egyptian Missions Program – Soil and Water Sciences, Chinese Academy of Agricultural Sciences, China (February – August 2025).
- PhD scholarship – Soil and Water Sciences, Chinese Academy of Agricultural Sciences, China (2017 – 2020).

CONFERENCES, WORKSHOPS, AND COMPETITIONS

- 12th International Conference on Development and the Environment in the Arab World, “Sustainable Development and Addressing Environmental and Climate Change: Challenges and Solutions,” Assiut, Egypt (February 25–27, 2024).
- 1st International Conference on Research Innovation and Climate Change for Future Sustainability (ICCCS), Institute of Graduate Studies and Environmental Research, Damanhour University (February 4–5, 2024).
- 2nd International Forum on Climate and Water, “Scientific Research and Sustainable Development of Water Resources in Egypt,” Academy of Arts, Ministry of Culture, Egypt (February 23–24, 2016).
- Mentor, Food and Agriculture Pioneers Model track, FAOJect 2024 Competition (December 2024).
- Jury Member, Food and Agriculture Pioneers Model track, FAOJect 2024 Competition (December 2024).
- Jury Member, Food and Agriculture Pioneers Model track, FAOJect 2023 Competition (December 2023).
- Organizing Committee Member, “World Soil Day” workshop, Faculty of Agriculture, Damanhour University (December 5, 2024; December 5, 2023; December 5, 2022).
- Workshop on “Requirements of Modern Assessment Methods,” Measurement and Evaluation Center, Damanhour University (August 2024).
- Organizing Committee Member, introductory workshop on graduation projects for fourth-year students, Department of Natural Resources and Agricultural Engineering, Damanhour University (March 19, 2023).
- Workshop on “The Future of the Non-Conventional Water Resources Sector in Egypt,” American University in Cairo (2021).
- Workshop on “Responsible Conduct of Science,” International Academy of Science in cooperation with Alexandria and Damanhour Universities (December 2015 – January 2016).

TRAINING COURSES

- Training of Trainers (TOT1), Faculty and Leadership Development Center (FLDC), Damanhour University (April 2024).
- Crisis and Disaster Management, FLDC, Damanhour University (February 2024).
- Reference Management Systems, FLDC, Damanhour University (February 2024).
- Time and Meeting Management, FLDC, Damanhour University (January 2024).
- Fundamentals of Digital Transformation, FLDC, Damanhour University (March 2023).
- Training Program for Scholarship Recipients on External Missions 2022/2023, Ministry of Higher Education (July 24 – August 4, 2022).
- Crop Pest Diagnosis (Version 2.0), CABI Academy (2021).
- Elsevier Reviewer Training, National Research Centre (NRC), Cairo, Egypt (2021).

- Guide to Delivering Effective Presentations at Academic Conferences, Helwan University (2021).
- ICDL, Information Technology Center, Damanhour Branch, Alexandria University (2011).
- FLDC courses, Damanhour University: Research Ethics; Scientific Research Methods; Decision-Making and Problem-Solving; E-Learning; Use of International Databases; Quality Standards in the Teaching Process.
- FLDC courses, Alexandria University: Professional Ethics (2010); International Publishing of Scientific Research (2010); Use of Technology in Teaching (2009); Communication Skills in Different Education Patterns (2009); Effective Presentation Skills (2009).

PUBLICATIONS

1. Aboukila, E., & Ebrahim Shehata, E. A. (2025). EFFECT OF PLANT GROWTH-PROMOTING RHIZOBACTERIA AND CHITOSAN ON BEANS (*Phaseolus vulgaris*) IN CALCAREOUS SOIL. *Journal of Agricultural and Environmental Sciences*, 24(3), 226-245.
2. Bayoumi, S. R., Shehata, E. A., & Eid, A. R. (2025). Pre-inoculation with Arbuscular Mycorrhizal Fungi and Humic Acid Enhances Tomato Growth, Nutrient Uptake, and Induced Resistance Against *Ralstonia solanacearum*. *Alexandria Science Exchange Journal*, 46(3), 799-812.
3. Shehata, E., Khadr, A., & Salim, H. Effect of Integrated Mineral and Bio-fertilizers on Onion (*Allium fistulosum*) Growth and Soil Nutrient Status. *Alexandria Science Exchange Journal*, 46(3), 637-646.
4. Salim, H. Z., Shalaby, Y., & Ebrahim Shehata, E. A. (2025). Impact of Shrimp Shell Powder with Phosphorene on the Vegetative Characteristics of Faba Bean (*Vicia faba* L.) in a Sandy Soil. *Journal of Agricultural and Environmental Sciences*, 24(2), 47-73.
5. Ebrahim Shehata, E. A., Abdelraouf, E., Kishar, H. F. M., & Salim, H. (2025). Alleviating Salinity Stress on Different Genotypes of Maize (*Zea mays* L.) Using Mycorrhizae Fungi. *Journal of Agricultural and Environmental Sciences*, 24(1), 112-141.
6. Abdelaty, E. F., AbdElHady, A. M., Shehata, E. A., & Mardy, H. M. (2025). Monitoring Chemical and Physical Soil Degradation in Damanhour District, Al-Beheira Governorate, Egypt. *Journal of Agricultural and Environmental Sciences*, 24(1), 80-111.
7. Salim, H., & Shehata, E. (2025). Influence of Microben and/or Compost Tea and Vermicompost Tea on Pepper (*Capsicum annuum* L.). *Alexandria Science Exchange Journal*, 46(1).
8. Mohamed, E., Abdelgalil, S. H., & Shehata, E. (2025). Amelioration of Defense System by Exogenous Citric Acid Application to Lettuce (*Lactuca sativa* L.) Plant. *Horticulture Research Journal*, 3(1), 88-101.
9. Ebrahim Shehata, E. A., Nassar, I. N., Ahmed, H., & Salim, H. (2024). Impact of Hydrogel Type/Mycorrhizae on Pepper Seedlings Growth. *Journal of Agricultural and Environmental Sciences*, 23(3), 121-136.
10. Shehata, E. A., Nassar, I. N., & Ahmed, H. (2024). Assessing Two Types of Hydrogels on the Hydraulic Properties of a Sandy Loam Soil. *Assiut University Bulletin for Environmental Researches*, 27(2), 60-73.
11. Nassar, I., Ahmed, H., & Ebrahim Shehata, E. A. (2024). The Combined Effect of Hydrogel Type and Accompanying Cation on Chloride Transport in a Saturated Sandy Loam Soil. *Journal of Agricultural and Environmental Sciences*, 23(2), 335-362.
12. Shehata, E. A., & Abdelaty, E. F. (2024). The relationship between soil biomass and soil quality index for Kafr El-Dawar region, Beheira Governorate. *Soil & Environment*, 43(1).
13. Ebrahim Shehata, E. A. (2023). Composting Fish Waste Combined with Cow and Poultry Manure to Produce an Environmentally Friendly Organic Fertilizer. *Alexandria Science Exchange Journal*, 44(4), 709-716.
14. Abdelaty, E. F., Fayed, A. M., Shehata, E. A., & Rabia, A. H. (2023). Mapping Soil Properties and Land Evaluation for Agricultural Purposes, El Alamein Area, the North-Western Coast, Egypt. *Assiut Journal of Agricultural Sciences*, 55(1), 216-235.
15. Abdelaty, E. F., Abd-El-Hady, A. M., & Shehata, E. A. (2023). Soil Fertility Evaluation and Fertilizer Requirements of Nitrogen, Phosphorus and Potassium for Wheat Production (Sharq El-Owainat, Western South Egypt). *Alexandria Science Exchange Journal*, 44(3), 419-431.
16. Liu, Y., Cheng, D., Xue, J., Wakelin, S. A., Weaver, L., Shehata, E., & Li, Z. (2022). Fate of bacterial community, antibiotic resistance genes and gentamicin residues in soil after three-year amendment using gentamicin fermentation waste. *Chemosphere*, 291(Pt 1), 132734.

17. Cheng, D., Liu, Y., Shehata, E., Feng, Y., Lin, H., Xue, J., & Li, Z. (2021). In-feed antibiotic use changed the behaviors of oxytetracycline, sulfamerazine, and ciprofloxacin and related antibiotic resistance genes during swine manure composting. *Journal of Hazardous Materials*, 402, 123710.
18. Shehata, E., Cheng, D. M., Ma, Q. Q., Li, Y. L., Liu, Y. W., Feng, Y., ... & Li, Z. J. (2021). Microbial community dynamics during composting of animal manures contaminated with arsenic, copper, and oxytetracycline. *Journal of Integrative Agriculture*, 20(6), 1649-1659.
19. Shehata, E., Liu, Y., Feng, Y., Cheng, D., & Li, Z. (2019). Changes in arsenic and copper bioavailability and oxytetracycline degradation during the composting process. *Molecules*, 24(23), 4240.
20. Feng, Y., Shehata, E., & Long, J. (2019). Degradation mechanisms of oxytetracycline in the environment. *Journal of Integrative Agriculture*, 18(9), 1953-1960.
21. Abd-Elhady, A., Shehata, E., Koreish, E., & Mourad, A. (2013). Effect of sulphur bio-oxidation on the growth and nutrients uptake of green onion plant grown in newly reclaimed soil. *Journal of Agricultural and Environmental Sciences*, 12(1), 78-91. Damanhour University, Faculty of Agriculture.