

MAHMOUD HAMDY MOHAMED HUSSEIN



Teaching Assistant | Soil and Water Sciences

Department of Natural Resources and Agricultural
Engineering

Faculty of Agriculture, Damanhour University, Egypt

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Abu Hummus, Beheira, Egypt | Egyptian | 16 Dec 1995

ACADEMIC PROFILE

Teaching Assistant in Soil and Water Sciences at Damanhour University and a 2018 Agricultural Sciences graduate of the same institution, currently pursuing a Master's degree in Soil Science. Research interests span soil and water sciences, sustainable resource management, soil fertility, soil health, and environmental sustainability. Experienced in undergraduate laboratory instruction, practical student training, graduation project support, and academic quality assurance.

EDUCATION

M.Sc. Studies in Soil Science

In progress

Field: Soil Science / Soil and Water Sciences.

B.Sc. in Agricultural Sciences

Sep 2014 – Jun 2018

Institution: Faculty of Agriculture, Damanhour University, Egypt. | Major: Soil and Water Sciences. | Final grade: Excellent with Honors.

ACADEMIC APPOINTMENT

Teaching Assistant (Demonstrator)

Mar 2022 – Present

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

- Deliver practical instruction and supervise student performance in laboratory and field-based teaching sessions.
- Supervise undergraduate summer training and contribute academic and technical guidance to graduation projects.

ACADEMIC AND ADMINISTRATIVE SERVICE

Quality Assurance Committee Member

2024/25; 2025/26

Faculty of Agriculture, Damanhour University. Contributed to academic quality assurance activities and continuous improvement.

PEER-REVIEWED PUBLICATIONS

Aboukila, E. F., Hamdy, M., El-Kammah, M., Alharbi, A., Abouelsaad, I., & Aggag, A. M. (2026). From indicators to integration: Soil health assessment and the SMAF framework. *Land*, 15(7), 1278.

<https://doi.org/10.3390/land15071278>

RESEARCH INTERESTS

Soil Science • Soil and Water Management • Soil Physics • Soil Chemistry • Soil Fertility • Soil Microbiology • Soil Health and Quality • Irrigation and Drainage • Soil and Water Conservation • Land Evaluation • Environmental Soil Science

UNDERGRADUATE TEACHING PORTFOLIO

Practical instruction in Modern Irrigation Systems; General Physics and Meteorology; Surveying; Soil Mineralogy; Soil, Plant and Water Analysis; General Mathematics; and Agricultural Irrigation and Drainage.

ADDITIONAL PROFESSIONAL EXPERIENCE

Agronomist – Irrigation and Fertilization

Sep 2021 – Present

Organization: Beed Najd Agricultural Development Company.

Agronomist – Irrigation and Fertilization

2021

Organization: Arafa Import and Export Company; through 13 July 2021.

Assistant Agronomist – Irrigation and Fertilization

Jan – May 2019

Organization: Green Egast; 1 January – 15 May 2019.

LABORATORY AND FIELD COMPETENCIES

Chemical soil analysis: Electrical conductivity (EC), soil pH, soluble cations (Ca, Mg, Na, K), soluble anions (CO_3 , HCO_3 , Cl), nutrient analyses (N, P, K), micronutrients (Fe, Mn, Zn, Cu), calcium carbonate, and organic matter.

Physical soil analysis: Soil water content, saturation percentage, bulk density, and hydraulic conductivity.

Field applications: Irrigation scheduling, crop fertilization programs, crop water-requirement assessment, and heat-stress management in agricultural crops.

PROFESSIONAL DEVELOPMENT AND COMPUTER SKILLS

Digital Transformation Training Course

June 2026

Damanhour University, Egypt.

Computer proficiency: Microsoft Word, Excel, PowerPoint and Access; general computer software and hardware.

LANGUAGE PROFICIENCY

Arabic: Native language.

English: Local TOEFL, 647/677. Previous CV records a CEFR B1 self-assessment in listening, reading, spoken interaction, spoken production, and writing.

SELECTED ADVANCED COURSEWORK

Modern Irrigation Systems • Soil Mineralogy • Water Relations • Soil Chemistry • Soil Physics • Agricultural Irrigation and Drainage • Plant Nutrition • Soil Fertility • Soil, Plant and Water Analysis • Computer Applications in Agriculture • Economics of Soil and Water Resources • Soil Microbiology • Agricultural Drainage • Land Reclamation and Conservation • Aerial Soil Survey • Soil Classification and Survey.

Coursework completed at Damanhour University, Egypt.

ACADEMIC REFERENCES

Prof. Ibrahim Nassar Nassar

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Prof. Emad Fawzy Abdelaty

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Prof. Ahmed M. Abdallah

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