

# Samar S, Shawaqfeh

Associate Professor, Plant Production - Horticulture Sciences.

Department of Plant Production and Protection

Faculty of Agriculture

Jerash University- Jerash- Jordan

Mobile: +962-776495330

E-mail: [s.shawaqfeh@jpu.edu.jo](mailto:s.shawaqfeh@jpu.edu.jo)



## Education

- |  |                                      |           |
|--|--------------------------------------|-----------|
| • Ph.D. Horticulture Science- Environmental Horticulture | University of Florida- Florida - USA | 2014-2016 |
| • M.Sc. Plant and Soil Sciences                          | Oklahoma State University- OK- USA   | 2007-2008 |
| • B.Sc. Plant Production and Protection                  | Jerash University- Jerash- Jordan    | 1997-2001 |

## Experiences

### Professional Experiences

- **Acting Dean - Faculty of Agriculture** (February 2025- Present): Jerash University, College of Agriculture, Department of Plant Production & Protection.
- **Head of Agriculture Sciences Department** (October 2024- February 2025): Jerash University, College of Agriculture, Department of Plant Production & Protection.
- **Associate professor** (July 2024- Present): Jerash University, College of Agriculture, Department of Plant Production & Protection.
- **Assistant professor** (Nov 2019- July 2024): Jerash University, College of Agriculture, Department of Plant Production & Protection.
- **Agriculture specialist** (Nov 2016- Feb 2016): Hydroponic Green Farming Initiative (HGFI) program, research activities, selection of demonstration sites and hydroponics technologies to be used in greenhouses.
- **Graduate Research Assistant:** University of Florida (2014-2016) responsible for laboratory analysis - field experiments follow ups- and extension services.
- **Teaching Assistant:** University of Florida (August 2014-December 2014).
- **Teacher- Agriculture Sciences:** Jordan Ministry of education, Amman, Jordan (September 2011- January 2013): Teaching high school classes mentoring students

through the practical sections and (plant production, mushroom production, environmental resources, and ornamental production.

- **Graduate research assistant** (June 2007 –Dec 2008): Oklahoma State University.

## **Teaching Activities (Courses)**

### **Teaching undergraduate course including (November 2019- Present):**

- Principles in plant productions.
- Plant Physiology.
- Vegetable Production.
- Protected Agriculture.
- Ornamentals production.
- Climate change and sustainable development.
- Ecology and Agriculture science.
- Undergraduate (graduation project).
- Plant production practical training.

## **Training Courses- Workshops- Certificate**

- **Workshop: Developing the general framework for the vegetable production farm curriculum - irrigated agriculture Workshop:** Vocational Training Corporation & Wise Zone for Training and consulting. Amman July 24- July 27/2023.
- **Workshop: Determine the professional standards required for specializing in Hydroponics systems:** Vocational Training Corporation & GIZ & Almethaleiah for business development. Amman January 9-12 /2023.
- **Workshop: Developing the general framework for Hydroponics:** Vocational Training Corporation & GIZ & Almethaleiah for business development. Amman January 2-5 /2023.
- **Training Master Trainer (TMT) Certificate:** Hydroponic & Aquaponic. Jordan's Horticulture: A business that matters! October 15/2020 – MAY 2022- NUFFIC Program.
- **IIOE Training Series - Big Data General Level.** Sep 28- Oct 15/ 2020 International Institute of Online Education- UNESCO.
- **Hydroponics Management:** March 2016, extension training on hydroponics management (starting a Successful hydroponics Business) through the University of Florida extension service [http://smallfarms.ifas.ufl.edu/calendar/2016\\_HydroShC\\_Flyer.pdf](http://smallfarms.ifas.ufl.edu/calendar/2016_HydroShC_Flyer.pdf) .
- **Landscape palm management:** March 2015, University Of Florida, Institute of food and agricultural sciences. Fort Lauderdale Research and Education Center.

## **Supervising/Co- Graduate students- (MS students)**

- The Impact of Climate Changes on Fruit Set Failure Phenomena on Barhi Palm (In July-2024).
- The Impact of Applying Post-Harvest Practices on Medjool Date Production Sustainability in Central Jordan Valley Region (March- 2025)
- Jerash Governorate farmers' level of knowledge and implementation of smart agricultural practices to achieve food security (Dec-2024).
- The Impact of Climate Change on The Production and Sustainability of Lemon Trees in Jerash Governorate. (June-2024)
- The impact of Smart Agriculture on adapting to climate changes and achieving food security from agricultural engineers' perspectives. (Feb-2024).
- The Impact of Climate Change on Green Spaces in Irbid City. (Jan-2024).
- Role of water harvesting and pasture development projects In mitigating climate change in the Badia region .(Aug-2022).
- The effect of using biochar and compost on different soil properties and on mitigating the climate change impacts: A case study of Mafrqa Governorate. (2022).
- The impact of climate changes on the peeling phenomena of Medjoul Dates “An applied study on Jordan valley region”. (2022).
- The Impact of Climate Change on Green Spaces in Amman City (2022).

## **Awards and Fellowships**

- ✓ Dutch Youth Innovation Award: Creating Attractive Opportunity for Livelihood of Youth in Agriculture. funded by the Embassy of the kingdom of the Netherland in Jordan.
- ✓ Graduate PhD student poster competition (Third place) presented by the Annual Conference of American Society of Horticultural Science, New Orleans, LA, August, 2015.
- ✓ Certificate of Outstanding Academic Achievement, University of Florida. 2015.
- ✓ Owen and Vivian Wimberly Scholarship, Oklahoma State University, Stillwater, OK, April, 2008.
- ✓ Jerash University, Undergraduate Excellence Award, 1998- 1999

## **Grants and Funds:**

- ✓ Increasing the resilience of both displaced persons and host communities to climate change related water challenges in Jordan and Lebanon” sponsored by the Adaptation Fund of the United Nation Framework Convention on Climate Change (UNFCCC), and implemented by UN-Habitat.

## Professional Societies:

- Jordan Society for Scientific Research, Entrepreneurship, and Creativity.
- American Society of Horticultural Science, member since January, 2014.
- Jordan Agricultural Engineering Association, member since July, 2001.

## Conferences

- 1) The Second International Conference on Climate Change and Sustainability (SICCCS-( November 2023). Mutah University, Al- Karak- Jordan
- 2) The Eleventh Conference on Scientific Research in Jordan. Jordan Society for Scientific Research and Entrepreneurship and Creativity. Al- Ahliyya Amman University. **November 2023.**
- 3) 1<sup>ST</sup> International Conference on Asian Studies( ICAS23), Jerash University, Jordan 2023.
- 4) The 9<sup>th</sup> Economic Conference Titled "Jordan's role in the fertilizer industry and its development: opportunities and challenges" Petra University **8/19/2023**
- 5) Food security in Jordan reality and future vision: Al-Ahliyya Amman University, **December 2022.**
- 6) The National Conference "Mechanisms for Activating the Political Participation of Academies and Educators": Jordan University of Science and Technology, **August 2022.**
- 7) Jordanian Alumni of North America Sixth Annual Forum-Online Education. **2020,**
- 8) 2016, American Society for Horticultural Science (ASHS) annual meeting in Atlanta, Georgia. Poster Title: Salinity Effects on Growth and Root Rot Inhibition in Palms.
- 9) 2015, American Society for Horticultural Science (ASHS) annual meeting in New Orleans, Louisiana. Poster Title: Growth Response of Date Palm (*Phoenix dactylifera*), Royal Palm (*Roystonea regia*), and Washington Palm (*Washingtonia robusta*) to Saline Irrigation Water.
- 10) Fourth Annual South Florida Graduate Student Research Symposium • 14 July 2015, UF/IFAS Ft Lauderdale Research and Education Center. Poster Title: Growth Response of Date Palm (*Phoenix dactylifera*), Royal Palm (*Roystonea regia*), and Washington Palm (*Washingtonia robusta*) to Saline Irrigation Water.
- 11) 2014, American Society for Horticultural Science (ASHS) annual meeting in Orlando, Florida.
- 12) 2009, Soil Science Society of America (SSSA) Annual Meeting in Pittsburgh: Poster title: Drivers in Soil Ecosystem Function: Enzyme Activities and Carbon, Nitrogen, Phosphorus, and Sulfur Contents.
- 13) 2008, The American Society of Agronomy (ASA), Crop Science Society of America (CSSA), and Soil Science Society of America (SSSA) Annual Meetings in Houston: Poster title: "Sulfur Dynamics and Activities of Sulfur-Transforming Enzymes in Prairie Soils".

## Publications

### Submitted for Publication (Articles):

- ✓ Preferences of the fall armyworm *Spodoptera frugiperda* (J.E. Smith) (Lep., Noctuidae) to different maize cultivars grown in Jordan.
- ✓ Novel ecofriendly management tactics of the fall armyworm *Spodoptera frugiperda* (J.E. Smith) (Lepidoptera: Noctuidae) on maize in Jordan.
- ✓ Investigating the Effect of using Eco-Friendly, Edible Coating Film from Food waste (Whey Protein) on Potato's Quality and Shelf-life Extension.

### Published Articles:

- 1) Rasha Amarin, **Samar Shawaqfeh**, Omar Kafawin, Jamal Ayad, Firas Al-Zyoud, and Nizar Haddad. Growth, yield and quality of Easter lily as influenced by salinity level and growing media. Xi'an Shiyou Daxue Xuebao (Ziran Kexue Ban)/Journal of Xi'an Shiyou University, Natural Sciences Edition. 2024.20(3).
- 2) Hanan Aref Hasan, Baha'a M Abu Salma and **Samar Shawaqfeh**. Synthesis of Bio-Plastic from Agriculture Waste: Banana Peels. Pakistan Journal of Scientific and Industrial Research.2024.67(3)
- 3) **Samar Shawaqfeh**, Mohamad AlTarawneh, Hanan Aref Hasan, and Baha'a Abu Salma, Farmer's awareness, acceptance, and challenges for adopting soilless culture (hydroponics technology) for vegetable production in Jordan. The Seybold Report Journal (TSRJ), 19(102). 2024.
- 4) Ali ALsharafat, Bassam ALdesit, Hanan A. Hasan, **Samar Shawaqfeh**, Baha'a M. Abu Salma. The Impact of Adopting sustainability Practice on Economic and Finical Performance Of Fruit Production. Seybold Reoprts.2024(19):345-358.
- 5) Baha'a M. Abu Salma, Hanan A. Hasan, **Samar Shawaqfeh** & Ahmad E. Rabi .Evaluation the Effect of Pectin Based Coating on Cucumber Storage Quality. Pakistan Journal of Scientific and Industrial Research.
- 6) **Samar Shawaqfeh** and Mohammad AlTarawneh. Vegetable Farmers' Attitudes Toward Green Agriculture. December 2023. Journal of Xi'an Shiyou University, Natural Science Edition. 19 (12): December 2023.
- 7) Abdel Rahman Mohammad Al Tawaha, Abhishek Singh, Vishnu D. Rajput, Ashi Varshney, Shreni Agrawal, Karen Ghazaryan, Tatiana Minkina, Omar Mahmoud Al Zoubi, Talaat Habeeb, Lysenko Dionis, Hanan Aref Hasan, and **Samar Shawaqfeh**. Green Nano-fertilizers – The Need for Modern Agriculture Intelligent and Environmentally Friendly Approaches. Ecological Engineering & Environmental Technology 2024, 25(1), 1–21.

- 8) Baha'a M. Abu Salma, Hanan A. Hasan, **Samar Shawaqfeh** & Ahmad E. Rabi. Promoting Efficiency of Apple Pomace-Derived Pectin. November 2023.
- 9) Ahmad A. Aljardah, Ashraf O. Khashroum, **Samar S. Shawaqfeh**, Hanan A. Hasan., and Sura T. Al-Harashseh. Effect Of Using Biochar and Compost on Soil Properties and on Mitigation of Climate Change Impacts: A Case Study from Jordan. IOSR Journal of Agriculture and Veterinary Science.16(10): 32-39.
- 10)Amani Al-Dawood, **Samar Shawaqfeh**, Firas Al-Zyoud, Amer Mamkagh, Raed Al-Atiyat, and Hanan Hasan. Awareness of pesticides' residues in food and feed among students of the Faculty of Agriculture, Mutah University, Jordan. 2023. Saudi Journal of Agriculture Science.
- 11)Kimberly Moore, Cristina Burgart, **Samar Shawaqfeh**, Luci Fisher, and Mica McMillan. Increased Leaching Fraction to Improve Plant Growth Due to Irrigation Water High in Salts. HortTechnology., 32(6), 523-528.2022
- 12)Mina Bayanati, Abdel Rahman Al-Tawaha, Duraid Al-Taey, Abdul Latief Al-Ghzawi, Yousef M Abu-Zaitoon, **Samar Shawaqfeh**, Omar Al-Zoubi, Ezz Al-Dein Al-Ramamneh, Laith Alomari, Abdel Razzaq Al-Tawaha, Abhijit Dey. Interaction between Zinc and Selenium bio-fortification and toxic metals (loid) accumulation in food crops. Frontiers in Plant Science, 13: 1001992. 2022
- 13)**Samar Shawaqfeh**. Distance Online Learning During the COVID-19 Crisis from the Perspective of Agricultural Sciences Students in Jordan: Survey Study. Dirasat, Educational Sciences, Volume 49, No. 1, 2022
- 14)**Samar Shawaqfeh**, Radi A. Tarawneh and Khaled Al-Najjar. 2021. Assessment of Distance Learning for Online College of Agriculture Students During The COVID-19 Crisis. Pakistan Journal of Society, Education and Language. Vol 7 (2) July 2021.
- 15)**Samar Shawaqfeh** and Timothy Broschat. *Howea forsteriana*: Kentia Palm. IFAS extension, University of Florida, EDIS, ENH456. 2015.
- 16) Edmonds, Daniel E., Abreu, Silvano L., West, Adelheid, Caasi, Donna R., Conley, Travis O., Daft, Michael C., Desta, Birehane, England, Brandon B.,Farris, Chelsea D., Nobles, Tia J., Patel, Nehaben K., Rounds, Elliott W., Sanders, Brennan H., Shawaqfeh, Samar S., Lakmini, Lokuralalage, Manandhar, Roji and Raun, W. R. Cereal nitrogen use efficiency in Sub Saharan Africa. 2008. Journal of Plant Nutrition, 32: 12, 2107 – 2122.

### **Accepted for Publication (Book Chapters):**

- 1- Biochar: A Renewable Method to Enhance Plant Health and Soil Structure. In: Biochar Transforming Soil For Sustainable Agriculture.(2024).

## **Published book chapters:**

- 1) Impact of climate change and drought stress on arid land agriculture. In: Sustainable Agriculture under drought stress. **Samar Shawaqfeh**, Abdel Rahman Mohammad Al Tawaha , Hikmet Gunal , Abdel Razzaq Al- Tawaha , Marwa Adel Qotb , Arun Karnwal , Nataliia Nesterova , Abhishek Singh , Vishnu D. Rajput , Karen Ghazaryan , Tatiana Minkina , Iftikhar Ali , Amjad M. Husaini , Tauseef A. Bhat , Ekaterina Kozuharova , Rizwan Rashid. Elsevier (2024). <https://shop.elsevier.com/books/sustainable-agriculture-under-drought-stress/etesami/978-0-443-23956-4>.
- 2) New approaches to irrigation scheduling of agronomic crops. In: Sustainable Agriculture under drought stress. Riham Fouzi Zahalan , Abdel Rahman Mohammad Al Tawaha , Hikmet Gunal, Abdel Razzaq Al-Tawaha , Marwa Adel Qotb , Arun Karnwal , Nataliia Nesterova , Abhishek Singh, Vishnu D. Rajput , Karen Ghazaryan, Tatiana Minkina, Iftikhar Ali , **Samar Shawaqfeh**, Amjad M. Husaini, Ekaterina Kozuharova, Rizwan Rashid. Elsevier (2024).<https://shop.elsevier.com/books/sustainable-agriculture-under-drought-stress/etesami/978-0-443-23956-4>.
- 3) Impacts of climate change/drought stress on plant metabolome. In: Sustainable Agriculture under drought stress. Shah Khalid, Amanullah, Abdel Rahman Mohammad Al Tawaha, Nadia, Hikmet Gunal, Abdel Razzaq AlTawaha, Marwa Adel Qotb, Arun Karnwal, Nataliia Nesterova, Abhishek Singh , Vishnu D. Rajpu , Karen Ghazaryan , Tatiana Minkina, Iftikhar Ali, **Samar Shawaqfeh**, Amjad M. Husaini, Rizwan Rashid. Elsevier (2024). <https://shop.elsevier.com/books/sustainable-agriculture-under-drought-stress/etesami/978-0-443-23956-4>.
- 4) Rhizobia as plant growth promoting biofertilizers. In: Microbial Fertilizer Technology for Sustainable Crop Production. Taylor and Frances: Apple Academic Press. Hiba Alatrash, Abdel Rahman Mohammad Al-Tawaha, Yaman Jabbour, Roghayeh Karimirad, Abhijit Dey, Siddhartha Pati, Abdel Razzaq Al-Tawaha, Puteri E. Megat Wahab, Khaldoun Othman Al Sane, R. Z. Sayyed, Devarajan Thangadurai, Jeyabalan Sangeetha, Amreena Sultan, Kumar Pandey, Imran, Amanullah, Shah Khalid, **Samar S. Shawaqfeh**, Ekaterina Kozuharova, Sabaa Jawad Abdulkadhim, Samia Khanum, and Iftikhar Ali. (2023)
- 5) Production of plant hormones from microorganisms. In: Microbial Fertilizer Technology for Sustainable Crop Production. Taylor and Frances: Apple Academic Press. Adel Rahman Mohammad Al-Tawaha, Roghayeh Karimirad, Razzagh Karimirad, Abhijit Dey, Siddhartha Pati, Abdel Razzaq Al-Tawaha, Alla Aleksanyan, R. Z. Sayyed, Devarajan Thangadurai, Jeyabalan Sangeetha, Muhammad Aasim, Devendra Kumar Pandey, Imran, Amanullah, Shah Khalid, **Samar S. Shawaqfeh**, and Iftikhar Ali. (2023).

## **References:**

Available upon request.