

Arafat Ahmed Naji Al-Khasha

Nationality: Yemeni.

Date of Birth: 1984.

Education Background:

Degrees	Major	University	Grad. Year	GPA	Country
Ph.D. Degree	Soil Science	King Saud	2019	4.59/5	Kingdom of
		University			Saudi Arabia
Master's Degree	Soil Science	King Saud	2013	4.67/5	Kingdom of
		University			Saudi Arabia
Bachelor's Degree	Soil Science	Sanaa University	2006	81.83%	Republic of Yemen

Employment History and Professional experience:

Date	Position Title - Organization				
2019- Now	Full researcher after (P.h.D) College of Food and Agricultural Sciences, King Saud				
	University, Riyadh - KSA.				
2013 - 2019	Researcher A ((P.h.D) Student), College of Food and Agricultural Sciences, King Saud				
	University, Riyadh - KSA.				
	1- Physical Analysis of Soil.				
	2- Designer of Irrigation Water System (Drip).				
	3- Calculate of Water Requirement for Crops.				
	4-/Laboratory and Field Experiments Work (collection of data).				
	5- Lab. Works.				
	6- Prepared Articles, Reports, and Presentations				
	7- Contribute to The Research projects and Field Studies.				
A Tasks	8- Carry out Field Works and Consultation with the Principal Investigator and				
	Project Coordinator				
	9- Contributed to of Preparation and Drafting of The Research Projects and				
	proposals.				
	10- Contribute to the overall Activities of the Research Team and Department as				
	Required.				
	11- Provide Support outside Class, Such As Helping during Exams and helping in the				
	lab of soil physical research.				
2010 - 2013	Researcher B (M.S Student), College of Food and Agricultural Sciences, King Saud				
	University, Riyadh- KSA.				
A Tasks	1- Chemical- Physical Analysis of Soil and water.				
	2- Laboratory and Field Experiments Work (collection of data).				
2009 - 2010	Research Assistant- Agricultural Research & Extension Authority (AREA) - El kod				
	Agricultural Research Station - Aden - Abyan				
A Tasks	1- Data Collection and Identification.				
	2- Designer of Irrigation Water System (drip, bubbler and sprinklers)				
	3- Physical Analysis of Soil				
2007 - 2009	Engineer of Irrigation - Project of Groundwater and Soil Conservation in Sanaa - Sa'ada				
	- government				
	1- Field survey tasks for the modern irrigation system.				

A Tasks

- 2- Design of modern irrigation systems, maintenance and installation of the system.
- 3- Collect the data that which a related to crops, modern irrigation system and water requirement for crops
- 4- Implementation of irrigation networks system in agricultural fields

Submitted and under/review :

- Arafat Alkhasha Abdulrasoul Al-Omran^{a*} and Ibrahim Louki^a, Impact of Climate Change and predict Water Requirement, yield and Soil Moisture Distribution, of potato crop in Riyadh, Saudi Arabia by SaltMed and VS2d Models.
- 2. Abdulrasoul Alomran*, Mohammed Awad, Abdulaziz AlGhamdi and Arafat Alkhasha. *Effects of mechanical synthesis of magnetic biochar nanoparticles using ball-mill on the hydro-physical properties of sandy soils: influence of particle size and application depth.*

Publications List:

- 1- Abdulaziz G. Alghamdi Abdulrasoul Arafat Alkhasha and Anwar AlyAnwar Aly. Significance of Pyrolytic Temperature, Particle Size, and Application Rate of Biochar in Improving Hydro-Physical Properties of Calcareous Sandy Soil.December 2021Agriculture 11(12):1293.
- 2- Abdulaziz G. Alghamdi, **Arafat Alkhasha**, and Hesham M. Ibrahim, *Effect of biochar particle size* on water retention and availability in a sandy loam soil Journal of Saudi Chemical Society.
- 3- Abdulrasoul Al-Omrana* Ibrahim Loukia, **Arafat Alkhashaa**, Mohamed Hassan Abd El-Wahedc, and Abdullah Obadid, *Yield, Moisture, Salinity and Nitrogen Simulation Using SALTMED Model Application for Potato under Partial Root-Zone Drying Irrigation Technique, irrigation scince.*
- 4- Arafat Alkhasha, Abdulrasoul Al-Omran * and Abdulaziz G. Alghamdi , Effect of Water Quality and Date Palm Biochar on Evaporation and Specific Hydrological Characteristi of Sandy Soil. Agriculture 2020, 10, 300
- 5- Arafat Alkhasha, Abdulrasoul Al-Omran.(2020). Evaluating the Effects of Biochar and SAP Polymer on Soil Physical Quality Indices. (Communications in Soil Science and Plant Analysis, https://doi.org/10.1080/00103624.2020.1751193

- 6- Arafat Alkhasha Abdulrasoul Al-Omran and Ibrahim Idriss Louki (2019). Impact of Deficit Irrigation and Addition of biochar and polymer on soil salinity and tomato productivity. https://doi.org/10.1139/CJSS-2019-0016
- 7- Arafat Alkhasha, Abdulrasoul Al-Omran. (2019). Simulate Yield of Tomato, soil moisture and salinity using Fresh and Saline Water: Experimental and Modelling Study by SALTMED Model .irrigation science37:637–655.
- 8- Alkhasha, A., Al-Omran, A., & Aly, A. (2018). *Effects of Biochar and Synthetic Polymer on the Hydro-Physical Properties of Sandy Soils*. Sustainability, 10(12), 4642.
- 9- Alghamdi, A. G., Aly, A. A., Al-Omran, A. M., & Alkhasha, A. (2018). Impact of biochar, bentonite, and compost on physical and chemical characteristics of a sandy soil. Arabian Journal of Geosciences, 11(21), 670.
- 10-Aly, A. A., Al-Omran, A. M., & Khasha, A. A. (2015). Water management for cucumber: Greenhouse experiment in Saudi Arabia and modelling study using SALTMED model. Journal of soil and water conservation, 70(1), 1-11.

Conferences and oral presentations

- Arafat Alkhasha, 8th International conference on water resources and arid environments 22-24 January 2019.
- 2- Arafat Alkhasha, Abdulrasoul Al-Omran, and Anwar Aly (2018) Effect of biochar and synthetic polymer on hydro-physical properties of sandy soil under fresh and saline water. The 11thConference "Concepts of Sustainability of Natural Resources and the Future of Agricultural Development under Vision 2030 -Saudi Society for Agricultural Sciences -King Saud University -Saudi Arabia. 2-4 April 2018.
- 3- Arafat Alkhasha, 7th International conference on water resources and arid environments
 4-6 December 2016.
- 4- Arafat A. alkhasha, Anwar aly and Andulrasoul Masa Al Omran. Saltmed Model in Sustainable Irrigation Management in Saudi Arabia. November 5, 2013. Tampa Florida. https://scisoc.confex.com/crops/2013am/webprogram/Paper81158.html

- 5- Participant in the Fourth International Conference for Agriculture and Rural Development
 Ha'al Saudi Arabia 1432.
- 6- Arafat Alkhasha (speaker), Effect of Deficit Irrigation on Crop Production, Department of Soil Science, King Saud University (2018).
- 7- Arafat Alkhasha (speaker), Accelerated Surface Area and Porosimetry 2020 System, Department of Soil Science, King Saud University (2016).
- 8- Arafat Alkhasha (speaker), Performance of SALTMED Model, Theory and Application, Department of Soil Science, King Saud University (2015).
- 9- Arafat Alkhasha (speaker), Simulate of water content and salt distribution Department of Soil Science, King Saud University (2014).

Professional Training:

- Training course the operation and design of modern irrigation networks Agricultural Engineers Association - Hashemite Kingdom of Jordan for the period from 4/4/2009 to 16/4/2009.
- 2- Training course the instructive training of new affiliated members the category of researchers - the General Authority for Agricultural Research and guidance for period from 27 to 31/12/2008.
- 3- Training course irrigation management and preserve of Water Water and Environment Center - in concert with the World Bank Washington, Sana'a University, for the period from 16 to 19.11.2008.
- 4- Training course for irrigation engineers in northern units Sana'a Haja Shabwa in the design of the modern irrigation systems, and water requirement for crops, irrigation scheduling using GROP.WAT, and evaluation of field irrigation efficiency within a project of groundwater and soil conservation for the period from 19 to 22, May 2007.
- 5- Training course the analysis of soil and water the General Authority for Agricultural Research and instruction - Northern Highlands for 15 days in 2004.
- 6- Training course the design of modern irrigation systems, maintenance and installation of pumps - Agriculture and Irrigation Office - municipality for 15 days in 2004.

- 7- Training course the design, operation and maintenance of modern irrigation system, hydrous and Hydrological conduction within project of groundwater and soil conservation- Northern Field Unit for 15 days 2004.
- 8- Training course AutoCAD program Computer Center Sana'a University for a month, 2006.

Chapters:

1- 25-Irrigation Water Conservation in Saudi Arabia-Abdulrasoul M. HWHC-V2-Wiley-Al-Omran (1)

Programs and Computer Skills

- 1- Statistical SIGMA PLOT software.
- 2- Auto Cad software.
- 3- Microsoft Office: Word, Excel and PowerPoint.
- 4- SALTMED model
- 5- Endnote 7.0.

Languages Spoken

- 1- English: good in written and spoken English.
- 2- Arabic: fluent in written and spoken Arabic.

References available upon request

