CURRICULUM VITAE

NAEM THIYAB EID MAZAHRIH

PERSONAL INFORMATION

Naem Thiyab Eid Mazahrih
Date of birth: 6/4/1962
Place of birth: Ajloun-Jordan, 6/4/1962
Nationality: Jordanian
Sex: Male
Marital status: Married
POSTAL ADDRESS:
National Agricultural Research Center (NARC)
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EDUCATION

1) One sabbatical year of research on soil physics and water management at the Agricultural Research Service , Parlier, CA, USA with USDA scientists during 2005
2) 2001 Ph. D. (Agricultural Resources and Environment\ Soil physics and water management) University of Jordan Thesis: " Evapotranspiration measurement and modeling for Bermuda grass, alfalfa, cucumber and tomato grown under protected cultivation in the Central Jordan Valley"
3) 1993 M.S. (Soil and Irrigation), University of Jordan.
Thesis: "Determination of water consumption and crop coefficient of mature banana in the Central Jordan Valley", University of Jordan.
4) 1985 B.S. (Soil and Irrigation), University of Jordan.

Experience:

- **Recently (20th of March 2016- tell now) :**Director General Assistant for Research at National Agricultural Research Center (NARC)

-**2016- tell 2019** : Project Manager of the "Introduction of Advanced Agricultural Technologies in Dryland Areas (NARC-JICA)"

- **2017-tell now** : National Coordinator for "Ultra-Low Energy Drip Irrigation for MENA Countries" project in Jordan Valley.

2019-tell now : National Coordinator for "Adapting Mediterranean vegetable crops to climate change-induced multiple stress(VEG-ADAPT)

2019-tell now : National Coordinator for "Non Conventional WAter Re-use in Agriculture in Mediterranean countries MENAWARA" project in Ramtha.

2019-tell now : National Coordinator for "Establishing and operating a Regional Network for field measurements of actual crop water consumption (Evapotranspiration)" project in Jordan Valley.

- **2018- tell 2019**: JOR FAO External Consultant for the project " Reduce vulnerability in Jordan in the context of water scarcity and increasing food/energy demand**"**

- **2016- tell now**: Member of the Scientific Committee in National Agricultural Research Center

- **2012 - 2016:** Irrigation and Water Management Specialist at Arabian Peninsula Program/ International Center for Agricultural researches in Dry Areas(ICARDA)
- **2009-2012:** Director of Diar Alla Center for Research and Extension at the NARC
- **2000-2009:** Irrigation and Water Management Specialist at Dair Alla Center for Research and Extension at the NARC
- **1992-2000 :** Irrigation and Water Management Specialist at Ramtha Center for Research and Extension at the NARC I Worked for the National for Agricultural Research Center (NARC as Researcher in the Water & environment management program as follows:-

Duties focus on implementing research program related to different agricultural, water and environmental problems. Researches focus on the following:

- Treated waste water managements
- Irrigation water managements
- Crops Water requirements and irrigation scheduling
- Rainfall water harvesting
- Supplementary irrigation
- Soilless culture

Able to deliver course training in different water, soil and plant management issues.

- Design , installation and data analysis for large weighing lysimeters.
- Irrigation system design and management. I worked as coordinator for Water & environment management program researches in the Jordan Valley

- Treated wastewater task force member for the safe use of treated waste water in agriculture in Jordan national committee.

- Exam committee member for many graduated students form Jordanian Universities (Jordan university for science and Technology (Three students), Bulq'a Applied University (One students) and Mutah University (one student).

Implemented Projects

- Determination of evapotranspiration and crop coefficient for vegetables crops under protected agriculture in the Jordan Valley(2001-2010).
- Determination of Date palm water requirements and crop coefficient in the Jordan Valley(2010-2012).

- Supplementary irrigation and water harvesting -Ramtha(1995-1998)
- Treated waste water- ACSAD- Ramtha treated waster treatment(1993-1995)
- Water harvesting – Khansri
- Develop seasonal crop coefficients for high-value trees (peach) at Parlier-California –USDA (2004-2005)
- Develop seasonal crop coefficients for high-value vegetable crops (Peppers) using a large scale weighing lysimeter installed in an experimental field west of Fresno, near Five Points-California –USDA (2004-2005)
- Improved management tools for water-limited irrigation: combining ground and satellite information through models I R R I M E D(2005-2007)
- The Middle East Regional Irrigation Management Information System (2000-2012)
- Ultra high frequency irrigation for increased agricultural efficiency/ USAID(2005-2009)
- The use of low quality water in agriculture/USAID(2005-2009)
- Reduce vulnerability in Jordan in the context of water scarcity and increasing food/energy demand(2015-2019)
- Introduction of Advanced Agricultural Technologies in Dryland Areas (NARC-JICA)(2015-2019)
- Ultra-Low Energy Drip Irrigation for MENA Countries(2017-2019)
- Water Saving in Mediterranean countries (WASMED)(2003-2005)
- Adapting Mediterranean vegetable crops to climate change-induced multiple stress(2019-2021)
- Development of Sustainable Date Palm Production Systems in the Gulf Cooperation Council (GCC) Countries
- Technology Transfer to Enhance Rural Livelihoods and Natural Resource Management in the Arabian Peninsula ICARDA (2012-2015)
- Unlocking the potential of Protected Agriculture in the GCC countries: cutting water consumption while supporting improved nutrition and food security(2015-2017)
- Improving food security and sustainable natural resources management through enhancing integrated agricultural production systems in the Arabian Peninsula(2014-2016)
- Establishing and Operating a Regional Network for Field Measurement of Actual Crop Water Consumption (Evapotranspiration) Project.(2019-2023) with FAO &ICARDA
- Non Conventional Water Re-use in Agriculture in Mediterranean countries (MENWARA)(2019-2023) funded by ENI

- Adapting to Climate change by Quantifying optimal Allocation of water resources and socio-economic interlinkages. (ACQUAOUNT)(2021-2024)-PRIMA.
- The Mediterranean pathway for innovation capitalisation toward an urban-rural integrated development of non-conventional water resources (MEDWAYCAP)(2021-2023) funded by ENI
- Enhancing the Sustainability of Date Palm Production in States Parties through Climate-Smart Irrigation, Nutrient and Best Management Practices (ARASIA)" (2020-2022) funded by IAEA
- Adapting Mediterranean Vegetable Crops to Climate Change-induced Multiple Stress (VEG-ADAPT) (2019-2023)
- Reuse of treated wastewater in North Shouneh and its impact on agricultural production of fodder and citrus crops (2021-2023) IHE
- Creation of an irrigation mobile application for Jordan(WaFIRR)) Project.(2022-2023) funded FAO.
- Learning and action alliances for Nexus Environments in an uncertain future(LENSES) (2021-2024)

Publications

- **Mazahrih, N**. 1996. Determination of actual water consumption and crop coefficient of mature banana in the Central Jordan Valley.1996. Amman The regional Seminars on Irrigation Research in the Mediterranean region.1996. pp 255-272
- **Mazahrih, N**. and M. Modaber. 2003. "Jordan Experience In Irrigation Water Consumption Reduction". Arwatex Conference 2003 in Beruit ,Lebanon.
- **Mazahrih** et al. 2003."Determination of evapotranspiration and crop coefficients of beans inside the plastic houses in the Jordan Valley" The 43RD annual Science week conference on water sciences & technology Syria-Damascus 18-21/10/2003.
- **Mazarih,** N., Shatanawi, M. & Ghezawi, M. (2004). Jordan experiences in water saving and participatory irrigation management. In Participatory Water Saving Management and Water Cultural Heritage. Hamdy, A., Tuzun, M., Lamaddalena, N., Todorovic, M. & Bogliotti, C. (eds). pp. 171–184, Proceedings of the First WASAMED Workshop. Options Me´ditte´reanne´enes, Series B: studies and research, no. 48, CIHEAM/IAMB-EU DG Research.
- Shatnawi, M, A. Fardous, **N. Mazahrih** and M. Duqah. 2004. "Irrigation system performance in Jordan. Irrigation system performance 2nd workshop WASAMED project". Hammamet- Tunisia 25-28 June 2004.
- **Mazahrih. N**. et. Al. 2004. Determination of evepotranspiration and crop coefficient for hot pepper inside plastic houses in Jordan Valley International Water Demand Management Conference (WDM2004), May 30-June 3, 2004 Dead Sea-Jordan.
- Steven R. Evett, Brice Ruthardt, **Naem Mazahrih**, Nedal Katbehbader, Terry Howell, Judy Tolk, and James Ayars. Soil Water Content Sampling in Space and Time: A Comparison of Methods. The 18th World Congress of Soil Science (July 9-15, 2006)

- Evett, S.R., M.A. Jitan, and **N.T. Mazahrih** (2007). Crop water use measurement using a weighing lysimeter at the Dair Alla Research Station in the Jordan Valley, Jordan. Al-Muzar3 Magazine, Nazareth, Israel. Published in Arabic language on September 2007 issue. (almuzar3@ahalicenter.org)
- Evett, S.R., M.A. Jitan, **N.T. Mazahrih**, and M.H. Sawalha (2007). A weighing Lysimeter for Crop Water Use Determination in Jordan. The ASA-CSSA-SSSA International Annual Meeting (November 4-8, 2007) New Orleans, Louisiana
- **Naem Th. Mazahrih**, Nedal Katbeh-Bader, Steven R. Evett, James E. Ayars, and Thomas J. Trout. 2008. Field Calibration Accuracy and Utility of Four Down-Hole Water Content Sensors .Vadose Zone J. 2008; 7: 992-1000.
- Steven R. Evett, **Naem Th. Mazahrih**, Mohammed A. Jitan, Mahmoud H. Sawalha, Paul D. Colaizzi and James E. Ayars **(2008).** weighing lysimeter for crop water use determination in the Jordan Valley, Jordan. American Society of Agricultural and Biological Engineers. 52(1)-155-169.ISS 0001-2351.
- Evett, S.R., Schwartz, R.C., Ibragimov, **N., Mazahreh**, N.T., Katbeh-Bader, N. 2011. Local and profile soil water content monitoring: A comparison of methods in terms of apparent and actual spatial variation. Geophysical Research Abstracts Vol. 13, EGU2011-1956, 2011
- Mohammed, M. J.; **Mazahreh, N.**, (2003).Changes in soil fertility parameters in response to irrigation of forage crops with secondary treated wastewater. Comm. Soil Sci. Plant Anal., 34 (9-10), 1281-1294 (14 Pages), DOI: 10.1081/CSS-120020444.
- S.R. Evett, ., R.C. Schwartz, ., **N.Th. Mazahrih**, ., M.A. Jitan, . and I.M. Shaqir, . 2011. Soil Water Sensors For Irrigation Scheduling: Can They Deliver A Management Allowed Depletion?. Acta Hort. (ISHS) 888:231-237
- Evett, S.R., **Mazahreh, N**., Jitan, M., Shaqir, I.M. 2009. The Middle Eastern Regional Irrigation Management Information Systems project-update [abstract]. International Symposium on Olive Irrigation and Oil Quality, December 6-10, 2009, Nazareth, Israel. p.2.
- Evett, S.R., Schwartz, R.C., **Mazahreh, N**., Jitan, M., Shaqir, I.M. 2009. Soil water sensors for irrigation scheduling:Can they deliver a management allowed depletion [abstract]? Symposium on Olive Irrigation and Oil Quality, December 5-10, 2009, Nazareth, Israel. p.0-30.
- Evett, S.R., **Mazahrih, N.T**., Jitan, M.A. 2007. Crop water use measurement using a weighing lysimeter at the Dayr Alla Research Station in the Jordan Valley, Jordan. Almazare Magazine, Nazareth, Israel. 5 p
- Steven Evett , Robert Schwartz , Nazar Ibragimov , **Naem Mazahrih** , and Nedal Katbeh-Bader Local and profile soil water content monitoring: A comparison of methods in terms of apparent and actual spatial variation. Geophysical Research Abstracts .EGU General Assembly 2011. Vol. 13, EGU2011-1956, 2011
- Steven Evett[1], Terry Howell[1], Judy Tolk , Nazar Ibragimov, **Naem Th. Mazahreh** and Mohammed A. Jitan. 2010. Why Water Will Be the

Driving Force behind Agricultural Sustainability. Symposium--the Blue-Green Revolution.
- **Naem Th. Mazahrih**, Yasin AL-Zu'bi, Hany Ghnaim, Lottfy Lababdeh, Mona Ghananeem and Hesham Abu Ahmadeh. 2012. Determination Actual Evapotranspiration and Crop Coefficients of Date Palm Trees (*Phoenix dactylifera*) in the Jordan Valley. American-Eurasian J. Agric. & Environ. Sci., 12 (4): 434-443, 2012

- **Naem Mazahreh**, Arash Nejatian and Mohamed Mousa, 2015; Effect of different growing Medias on Cucumber Production and Water Productivity in Soilless Culture under UAE Conditions. Merit Research Journal of Agricultural Science and Soil Sciences (ISSN: 2350-2274) Vol. 3(9) pp. 131-138, October, 2015. Available online http://meritresearchjournals.org/asss/index.htm
- **Mazahreh N**, A. Nejatian and A. Ouled Belgacem. 2015. Reused Reclaimed Wastewater in Agriculture Literature Review. 1-30pp.
- Awawdeh, F., A. Ouled Belgacem, A. Nejatian**, N. Mazahrih**, M. Moussa, A. Al Bakri and K. Atroosh. Improving the livelihood of small farmers in the Arabian Peninsula through increasing land and water productivity: A transition towards green economy. 2014 Green Economy in the Gulf Region workshop 25-28 August 2014 at the University of Cambridge,
- **Mazahrih, N., Al**-Wahaibi, H., Al-Farsi, S. and Ouled Belgacem, A. (2016), Yield and water productivity of Buffel and Rhodes grasses under different irrigation water regimes using the sprinkler line-source system. Grass Sci, 62: 112–118. doi:10.1111/grs. 12120
- **N. Th. Mazahrih**, S. Al Sayari, A. Nejatian, A. Ouled Belgacem.(2018). Impacts of Irrigation with Reclaimed Wastewater on Forages Production, Nutrients, and Heavy Metals Content. Journal of Agricultural Science; Vol. 10, No. 2; 206-2016. ISSN 1916-9752 E-ISSN 1916-9760 . doi:10.5539/jas.v10n2p206
- **N. Th. Mazahrih**, A. S. Al Sayari , S. A. Al Shamsi & M. Ben Salah.(2018). Drip Fertigation Technology for Enhancing Date Palm Productivity and Fruit Quality. Journal of Agricultural Science; Vol. 10, No. 11;. ISSN 1916-9752 E-ISSN 1916-9760.
- Sokol, Julia; Amrose, Susan; Nangia, Vinay; Talozi, Samer; Brownell, Elizabeth; Montanaro, Gianni; Abu Naser, Khaled; Bany Mustafa, Khalil; Bahri, Abdeljabar; Bouazzama, Bassou; Bouizgaren, Abdelaziz; **Mazahrih, Naem**; Moussadek, Rachid; Sikaoui, Lhassane; Winter, Amos G. 2019. "Energy Reduction and Uniformity of Low-Pressure Online Drip Irrigation Emitters in Field Tests." *Water* 11, no. 6: 1195.pp:1-29
- **N Mazahrih**, Fertigation manual. 2018: Open-field crops and date palm, International Center for Agricultural Research in the Dry Areas (ICARDA)
- **N Mazahrih**, Technical manual for Crop Water Requirements and Irrigation Scheduling.2018.International Center for Agricultural Research in the Dry Areas (ICARDA)
- **N Mazahrih**, Technical manual for "Saline water use and management in agriculture. 2018. International Center for Agricultural Research in the Dry Areas (ICARDA)

- **Mazahrih N**. Yield and water productivity of Buffel and Rhodes grass under different irrigation water regime.2015. The Third International Conference on Water, energy and Environment (ICWEE2015). American University of Sharjah, United Arab Emirates on 24-26 March 2015.
- **Naem Mazahrih**, Safa Mazahreh, Majed Al bsoul, Mohammad Mudabber, Doaa Abu Hamoor,. Masnat Hyari and Lubna Al Mahasneh. 2017. Reduce vulnerability in Jordan in the context of water scarcity and increasing food /energy demand (Al-Ghadeer Al-Abyad watershed). Improved Agricultural water uses Workshop. Bari-Italy.
- **Mazahrih N.** 2019. Role of NARC in providing technical support and the *previous practical experiences in the field of soilless (hydroponics)* .Hydroponics: Untapped Opportunities in Jordan workshop. 27 May 2019 Holiday Inn Hotel /Amman, Jordan
- **Naem Mazahrih.** H. Hamdan. 2019. Water Productivity of Selected Vegetable Crops in Jordan Valley. Poster in The First Regional Conference on Water Productivity in Agriculture. 4-6 December 2019, Hammamet, Tunisia.
- Nezar H. Samarah, Khaled Y. Bashabshehand **Naem Th. Mazahrih.** 2020**.** Treated wastewater outperformed freshwater for barley irrigation in arid lands. Italian Journal of Agronomy. Vol.15NO.3 (2020). *doi: 10.4081/ija.2020.1610*
- FAO. 2021. Unlocking the potential of protected agriculture in the countries of the Gulf Cooperation Council – Saving water and improving nutrition. Cairo. https://doi.org/10.4060/cb4070en
- N. Th. Mazahrih, Abeer Albalawneh, Nabeel Bani Hani, Roula Khadra, Ahmed Abo Dalo, Yousef Al-Omari , Badir Al-Omari , Isabel García, Khalid Draissi, Alberto Carletti , Alessandra Paulotto and Nizar Haddad. 2022. Impact of Reclaimed Wastewater on Alfalfa Crops Production Under Different Irrigation Systems. International Conference on Sustainble Energy ICSEWEN21 |Qatar.
- R.L. Ahmad, N.T. Mazahreh, J.Y. Ayad, K.O. Al Sané, O.A. Samra.2023. Thinning treatments affect yield, fruit quality and skin separation of 'Medjool' date palm grown in semi-arid conditions in Jordan. ISHS Acta Horticulturae 1371.VII International Date Palm Conference. DOI: 10.17660/ActaHortic.2023.1371.43
- Ntanasi, T.; Savvas, D.;Karavidas, I.; Papadopoulou, E.A.;**Mazahrirh, N**.; Fotopoulos, V.; Aliferis,K.A.; Sabatino, L.; Ntatsi, G. Assessing Salinity Tolerance and Fruit Quality of Pepper Landraces. Agronomy **2024**, 14, 309. https://doi.org/10.3390/agronomy14020309

Training experiences:

- SUPLEMENTAL IRRIGATION AND IRRIGATION TECHNOLOGY.AL-Mahdieh, Morocco.14-18 June 1993.
- THE TECHNOLOGY USE IN COMUNICATION DEVELOPMENT PROCESS, University of Jordan ,Amman, Jordan. 21-25 September 1993.
- SCIENTIFIC WRITING AND DATA PRESENTATION. Amman, Jordan. 5-24 March 1994.

- THE USE OF NEW IRRIGATION TECHNOLOGY. Arab Fund for Economic and Social Development (AFESD) Amman, Jordan, 24-28 September 1995
- IRRIGATION WATER MANAGEME. Arab Fund for Economic and Social Development (AFESD),Amman, Jordan. 21-25 April 1996
- TRAINING ON GEOGRAPHIC INFORMATION SYSTEM (ADVANCED GIS/SPANS). University of Jordan. Amman, Jordan, 8-19 June 1996
- RADIATION PROTECTION. Amman, Jordan, 30 September- 5 October 1995
- THE USE OF GIS IN PLANNING WATER HARVESTING FOR AGRICULTURE. Aleppo, Syria, 8-19 December 1996
- AUTOMATIC WEATHER STATIONS. Amman, Jordan, 26-28 December 1997
- WATERSHED MODELING SYSTEM (WMS): HNDS-ON TRAINING. Amman, Jordan, 2-9 July, 2002
- Training course on Radiation Safety and use of Nuclear Gauges. USDA-ARS-WMR. Visalia, State of CA –USA by CPN International. 27th of April 2005
- Training course on the CR10X Data logger and Logger Net 3.X Data logger Support Software(October 4-6, 2005 Logan, UT)
- One year Training on Soil physics and water management at the Agricultural Research Service –Water Management Research Laboratory, Parlier, CA, as part of Multilateral US-Middle East Irrigation Management Information System (MERIMIS) project. October 15, 2004 through October 15, 2005.

Others:

1- Reviewer for Wadi Musa Wastewater Reuse pilot project entitle "TECHNICAL ASSESSMENT REPORT OF THE COMPLET IRRIGATION DESIGN IN THE TENDER DOCUMENTS".

2-Member of water resources and environment management program committee in NARC since 2001 tell 2008.

3 -Part time teaching at Al-Balq'a applied University- **Course taught : Irrigation system design**

4- Irrigation and fertigation trainer

5- Implemented training course at Dubai Hospitality entitled "*Maintenance and Operation of Vertical Turbine Pumps using New Technologies " 9-10 March 2011.*

6- Foregone trainer in *Dissemination of Agricultural Technology of Water- Saving Irrigation for Middle East training course implemented in Japan, November 2011.*

7- Reviewer in different journals

-Journal of Agricultural and Crop Research, JACR. ROOTZONE SALINITY MONITORING AND MANAGEMENT IN *ACACIA AMPLICEPS* IRRIGATED

WITH THREE WATER SALINITY LEVELS IN ENTISOLS OF UNITED ARAB EMIRATES

-reviewing manuscript # IrrSci-2008-0160 entitled "Effect of drip irrigation regimes and frequency on soil water use efficiency and tomato fruit (Lycopersicon esculentum) grown under field conditions" for Irrigation Science

- a manuscript Titled: RESPONSE OF TOMATO (LYCOPERSICUM-LYCOPERSICUM, CV UC82B) TO DRIP IRRIGATION, FERTIGATION AND PLANTING CONDITION.African Journal of Agricultural Research

Language:

English: Read, write, speak fluently
Arabic: Mother language

Computer skills

- Office programs (WinWord, Excel, Power point)
- MstatC
- GIS (Geographical Information systems)
- WMS (atershed Modeling System)
- Statistx8.1
- CROPWAT

Other skills:

- Design and installation of irrigation system (Drip, surface, sprinkler).
- Design of water harvesting Techniques
- Good ability to write research proposal and papers.
- Able to deliver course training in different water, soil and plant management issues.
- Installation of soilless production system
- Design , installation and data analysis for large weighing lysimeters.

Contact information of three professional referees

1.Nizar Haddad

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3. Thieb Oweis
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