

Dr. Naji K. Al-Mefleh

الدكتور ناجي خلف المفلح

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Education

**Ball State University
Department of Natural Resources and Environmental Management
Muncie IN 47304, USA
Ph.D in Water Resources, 2004.**

**South Dakota State University
Department of Agricultural Engineering.
Brookings SD 57007. USA
M.Sc. Irrigation, Agriculture Engineering, 1996.**

**University of Agriculture,
Faculty of Agricultural Engineering,
Faisalabad Pakistan
B.Sc. Agriculture Engineering, 1983.**

Working Experience

**Agricultural Engineer in Jordan Company for livestock
development from August 1986 to February 1987
Research assistant in faculty of agriculture at Jordan University
from February 1987 to January 1989.**

Research Experience

Doctoral Research, Ball State University.

“Impact of land cover and impervious services on runoff volume in West Fork of White River-Indiana”.

Master Research, South Dakota University.

“Field evaluation of drip irrigation theory based on Green-Ampt parameters”.

Research Assistant

1- Watershed management project in Indiana, under the supervision of Dr. Hugh Brown at Ball State University, Muncie Indiana, USA. From 2002-2003.

2- Soil fertility and irrigation systems project in Jordan University, Faculty of Agriculture, Department of Soil and Irrigation, From 1987-1988.

Teaching Courses

1- Water Resources (NREM 212), Ball State University, Muncie Indiana, USA, from 2000-2003.

2- Teaching Environmental Science (NREM 101), Ball State University, Muncie Indiana, USA. From 2000-2003.

3- Irrigation principles and practices (NRM 241), Jordan University of Science and Technology (JUST), from 2004 till now.

4- Irrigation systems (NRM 346) - Jordan University of Science and Technology (JUST), from 2004 till now.

5- Agricultural Drainage (NRM 444) - Jordan University of Science and Technology (JUST), from 2004 till now.

6- Water Surface hydrology (NRM 741) - Jordan University of Science and Technology (JUST), from 2004 till now.

7- Natural resources and man (NRM 200) - Jordan University of Science and Technology (JUST), from 2004 till now.

8- Watershed management (NRM 755) - Jordan University of Science and Technology (JUST), from 2009 till now.

9- Water resources (NRM 446) - Jordan University of Science and Technology (JUST), Spring 2012.

Research and publications

- 1- Al-Mefleh, N. K. and Tadros, M. J., 2010. Influence of water quantity on the yield, water use efficiency, and plant water relations of *Leucaena leucocephala* in arid and semiarid environment using drip irrigation system. *African Journal of Agricultural Research*. 5 (15): 1917-1924.
- 2- Al-Mefleh, N. K., Abu Salah, K. K. Abandeh, M. M. 2011. Influence of water quality and Harvesting times on biomass yield and essential oil of Lemon Verbena (*Aloysia triphylla*) under drip irrigation system. *Journal of Herbs, Spices & Medicinal Plants*. 18:166-177.
- 3- Al-Mefleh, N. K., Samarah, N., Zaitoun, S., Al-Ghzawi, A. 2012. Effect of irrigation levels on fruit characteristics, total yield and water use efficiency of melon under drip irrigation system. *Journal of food, Agriculture and Environment*. 10(2): 540-545.
- 4- Al-Mefleh, N. K., and Abu-Zreig, M. 2013. Field evaluation of arid soils wetting pattern in subsurface drip irrigation scheme. *Journal of Clean – Soil, Air, Water*. 41 (7): 651–656.
- 5- Tadros, M. J., and Al-Mefleh, N. K., Mohawesh, O. 2012. Effect of irrigation water qualities on *Leucaena leucocephala* germination and early growth stage. *International Journal of Environmental Science and Technology*. 9:281-286.
- 6- Al-Ananzehi, N., K. Al-Zboon, Alshwabkeh, A., Al-Mefleh, N. K. 2012. Design criteria for wastewater of residential community: case study from Jordan. *Carpathian Journal of Earth and Environmental Sciences*. 7(1): 1-9.
- 7- Tadros, M. J., Al-Mefleh, N. K., and Chandler, P. 2012. Morphology, productivity and forage quality of *Leucaena leucocephala* as influenced by irrigation under field conditions. *Agroforestry Systems*. 86 (1): 73-81.
- 8- Al-Mefleh, N. K., Bashabsheh, I., Talozzi, S., Al-Issa, T. (2015). Field evaluation of the performance of different irrigation emitter types using treated wastewater. *Water Quality Research Journal of Canada*. 50 (3), 240-251.
- 9- Al-Mefleh, N. K., and Al-Raja O. F. 2018. Impact of irrigation water quality and envelope materials around drip line on emitter performance in subsurface drip irrigation. *Water and Environment Journal*. Accepted in 19th October, 2018.
- 10- Al-Mefleh, N. K., AlAyyash S. M., Bani Khaled, F. A. 2019. Water Management Problems and Solutions in a Residential Community of Al-Mafraq City, Jordan. Under review in the *Journal of Water Science and Technology: Water Supply*.
- 11- Al-Mefleh, N. K., Tadros, M., Abu-Zreig, M. M. The effect of supplemental irrigation from polyacrylamide-treated microcatchments on the growth of *Acacia saligna* in dryland. Under review in the *Journal of Iforest*.
- 12- Al-Mefleh, N. K., Tadros, M., Atabbal, J. Impact of mixing treated industrial water with olive mill wastewater on vetch germination and early seedling growth. Under review in the *Australian Journal of Crop Science*.

Working Experience

- 1- **Agricultural Engineer, Jordan Livestock Development Company. Job responsibilities: Maintaining and scheduling irrigation system for barley crop. 1986.**
- 2- **Research Assistant: Jordan University, Faculty of Agriculture. Department of Working plant protection. Working in a Microirrigation project in 1987.**
- 3- **Research Assistant: Jordan University, Faculty of Agriculture. Working in a project of developing agricultural land in Arid Region, 1988.**
- 4- **Agricultural Engineer, Jordan University of Science and Technology. Agricultural Research Center. Job responsibility: Maintaining and operating the farm machinery equipments. From 1989-1993.**

Conferences

- 1- **Participating in Micro-irrigation for changing the world. Florida – U.S.A. 1995.**
- 2- **Participating in the Jordanian Scientific Research. Amman-Jordan, 17/11/2007.**
- 3- **Participating in a workshop training of the assessment and evaluation. Jordan University of Science and Technology. From 21-22/04/2010.**

Computer skills

Word and Wordperfect, Excel, Worksheet database, PowerPoint, WebPage Design, GIS and Erdas software, and QBasic Programming, SPSS, and SAS software.

Activities

- 1- **Vice president of International Arab Student Society-, Brookings-South Dakota - U.S.A., 1998-2000.**
- 2- **General Secretary of Arab Student Society, Davis – California, U.S.A., 1998-2000.**
- 3- **Member of International Islamic and Arab Student Society, Muncie, Indiana- USA. 2000-2004.**
- 4- **Member of Jordanian Association of Agricultural Engineering. From 1985-till now.**

- 5- Member committee for courses planning in the Department of Natural Resources and Environment. Faculty of Agriculture, Jordan University of Science and Technology (JUST). From 2004- till now.**
- 6- Member committee for student affairs conflicts in Student Affairs Deanship, JUST. From 28/07/2008 to 28/08/2008.**
- 7- Member committee for Courses qualification in the Department of Natural Resources and Environment, Faculty of Agriculture, JUST. From 2004- till now.**
- 8- Member committee in Faculty Council of agricultural, JUST. For year 2011/2012.**
- 9- Supervise master thesis in “Influence of Water Quality and Cutting Times on Biomass and Essential Oil of Lemon balm (*Melissa Officinalis L.*) Under Drip Irrigation System”. Majed Abenda. M.Sc thesis. 2007-2008.**
- 10- Supervise master thesis in “Evaluating water demand management in Al-Mafraq governorate: options to meet growing demand”. Fatima Bany Khalid, Spring 2012.**
- 11- Supervise master thesis in” Impact of irrigation water quality and envelope materials around drip line on emitter performance in subsurface drip irrigation”. Al-Raja O. F. M.Sc thesis. 2017.**
- 12 - Supervise master thesis in” Assessment of Treated Wastewater Reuse in Drip Irrigation under Low-Pressure Condition”. Khaled Abu-Nasir. M.Sc thesis. 2018.**
- 13 - Member of discussion committee in master thesis “Evaluation of several alternatives for agricultural water demand management in Jordan Valley. Mahmoud Abu Jamous, M.Sc thesis”. Summer 2007.**
- 14 - Member of discussion committee in master thesis “Studying the effects of implementing regulated deficit irrigation on the irrigation water demand and yield of lemon and olive trees in Jordan”. Laith Al-Waked, M.Sc thesis. Fall 2007.**
- 15 - Member of discussion committee in master thesis "Soil and crop responses to water stress and irrigation with different water qualities". Ali Marouf Ghanim, Spring 2010.**
- 16 - Member of discussion committee in master thesis: "Adjusting the irrigation water demand projection module to be viable in central Jordan valley. Mai Al-Dorgham, Fall 2008.**

Projects

- 1- Principle investigator of subsurface drip irrigation research, JUST- 2004.**
- 2- Team member of Benchmark project supported from ICARDA,**
- 3- Team member of Jordanian Education of Water and Environment leadership (JEWEL) project, supported from the USAID, Michigan University, and Ministry of Higher Education, 2008.**
- 4- Team member of tuff and zeolite applications project, supported from the Jordanian Ministry of higher education and research science, 2009.**
- 5- Team member of water harvesting project, supported from Jordan University of Science and Technology, 2011.**

Workshops

- 1- Participating in a workshop titled of “Managing water crises in arid lands”. Al-Balqa University. Salt–Jordan, from 15-16/09/2004.**
- 2- Participating in the workshop training of Educational technology under the assessment and evaluation. Jordan University of Science and Technology. From 14-16/2/2005.**
- 3- Participating in the workshop titled of “Aquifer vulnerability and risk Jordan”. Al-Hashemia University. Zarka–Jordan, 28/09/2005.**
- 4- Participating in the Jordanian Scientific Research Week under the title of “Energy, water, and environment”. Amman, 27/11/2006.**
- 5- Giving training workshop in water resources and irrigation: Problems and solutions, in Deir Ala-Jordan, 21/04/2008.**
- 6- Giving training workshop in water resources and irrigation: Problems and solutions, in Al-Hashemia city-Jordan, 29/04/2009.**
- 7- Giving training workshop in Hydrology and water harvesting applications in Arid and semi-arid regions for Yamen’s engineers in 9/11/ 2009.**
- 8- Participating in a project closing workshop of medical and Herbal plants in Jordan. In Dead Sea-Jordan, from 20-21/11/2009.**
- 9- Participating in the scientific day of Agricultural Engineers Association about Water and Agriculture. 23/11/2009.**