

## Curriculum vitae

### Dr. Zakaria I. Al-Ajlouni

Dept. Plant production/ Faculty of Agriculture.

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### PERSONAL

Date of Birth: April 01, 1974  
Place of Birth: Al-Sareeh - Jordan  
Citizenship: Jordan  
Marital Status: Married with Three children

### EDUCATION

<b>Ph.D. Agronomy</b> , Dept. of Agronomy and Horticulture, University of Nebraska-Lincoln, USA.	2003-2008
<b>M.Sc., Plant Production</b> , Jordan University of Science and Technology	1998-2001
<b>B.Sc. Plant Science</b> , Jordan University of Science and Technology	1993-1997

### Ph.D. Thesis

**Al-Ajlouni** (2008). The Effect of Semidwarfing Genes in Wheat on Plant Height in Diverse Environment in Nebraska. Ph.D. thesis, University of Nebraska-Lincoln, USA.

### M.Sc. Thesis

**Al-Ajlouni** (2001). Callus Induction and *In Vitro* Regeneration Systems in Barley (*Hordeum vulgare* L.): Influence of Genotype. MS. Thesis, Jordan University of Science and Technology.

## **EMPLOYMENT**

September / 2009 - Present	Assistant Professor, Dept. of Plant Production Sciences, Jordan University of Science and Technology -Irbid-Jordan.
2013-2015	Assistant Dean, Faculty of Agriculture, Jordan University of Science and Technology -Irbid-Jordan
2011 - 2012	Assistant Dean, Faculty of Agriculture, Jordan University of Science and Technology -Irbid-Jordan
9/2008-9/2009	Full time lecturer- Dept. of Plant Production, Jerash private University - Jerash -Jordan
February, 2002 – August, 2003.	Researcher - National Center for Agricultural Research and Technology Transfer, Jordan, Amman. Water Resources and Environment Manegment Program. Using Treated Wastwater in Agriculture (Wood and Forage Producion)
June, 2001 - February, 2002	Research Assistant - Dept. of Plant Production, Jordan University of Science and Technology, Irbid-Jordan. Supervisor: Prof. Dr. Rida Shibli, Duties included: <i>In vitro</i> Plant culture and multiplication.
Septemper, 1997 - Septemper, 2008	Research Assistant – Agriculture Research Center, Jordan University of Science and Technology, Irbid-Jordan. Supervisor: Prof. Dr. Rida Shibli,

## **CONFERENCES AND WORKSHOPS:**

- ❖ Annual meetings of American Society of Agronomy (ASA), Crop Science Society of America (CSSA), and Soil Science Society of America (SSSA) in November 15 – 18, (2015) Minnesota, Minneapolis, U.S.A.
- ❖ Participation in "Seed Extration coursework. Bakker Brothers Jordan Co. Amman- Jordan, Septemper 1 – 30, 2015.
- ❖ Invited participant in the Arab-American Forntiers Conference hoded by The Governmante of Oman. Muscat, Oman, December 13 -15, 2014.
- ❖ The International Conference on Agriculture and Forestry. June 10-11, 2014.Clombo, Sir Lanka.
- ❖ A workshop on "The role of ionizing radiation to achieve Arab food security". Arab Atomic Energy in April 12 – 17 (2014) Cairo, Egypt.
- ❖ Annual meetings of American Society of Agronomy (ASA), Crop Science Society of America (CSSA), and Soil Science Society of America (SSSA) in November 3 – 6, (2013) Florida, Tampa, U.S.A.
- ❖ Workshop of Canopy Sensors Instrumentation. workshop on the Canopy Sensors instrumentation during 25-6/3/2013 at NCARE's.
- ❖ Annual meetings of American Society of Agronomy (ASA), Crop Science Society of America (CSSA), and Soil Science Society of America (SSSA) in October 21 – 24, (2012) Cincinnati, OH, U.S.A.
- ❖ Workshop of Climate Change Impact on Biodiversity. Al al-Bayt University 9<sup>th</sup> of June 2011.
- ❖ Annual meetings of American Society of Agronomy (ASA), Crop Science Society of America (CSSA), and Soil Science Society of America (SSSA) in Nov 4– 8 (2007), Neworlean, LA, U.S.A.
- ❖ Wheat breeding field day at different states (Nebraska, 2004).
- ❖ Wheat breeding field day at different states (Oklahoma, 2005).
- ❖ Wheat breeding field day at different states (Kansas, 2006).

- ❖ Wheat breeding field day at different states Colorado 2007).
- ❖ Annual meetings of American Society of Agronomy (ASA), Crop Science Society of America (CSSA), and Soil Science Society of America (SSSA) in Nov 12–16 (2006), Indianapolis, IN. U.S.A.

### **RESEARCH INTREST:**

1. Develop new cultivars of wheat, barley, and triticale for Jordan. Develop useful germplasm for others to use as parents in creating new cultivars.
2. Develop new breeding methods for self-pollinated crops with an emphasis on biotechnology, advanced experimental designs, and crop modeling.
3. Plant Molecular Genetics & Breeding. Plant Biotechnology.

### **PUBLICATIONS:**

- 1 . **Al-Ajlouni , Z.I.** Al-Ghzawi, A. Al-Abdallat, A. Ayad, J. Abu Elenein, J Al-Quraan, N and Baenziger, P.S. 2016. Effect of Pre-Anthesis Water Deficit on Plant Height, Peduncle Length and Spike Length in 13 (*Hordeum vulgare* L.) Genotypes. Jordan Journal of Agricultural Sciences. (ACCEPTED)
- 2 . **Al-Ajlouni , Z.I.** Al-Abdallat, A. Al-Ghzawi, A. Ayad, J. Abu Elenein, J Al-Quraan, N and Baenziger, P.S .2016. Impact of Pre-Anthesis Water Deficit on Yield and Yield Components in Barley (*Hordeum vulgare* L.) Plants Grown under Controlled Conditions. *Agronomy*, 6 (2) 33: 1-14.
- 3 . **Al Ajlouni, Z. I.** Abbas, S. Shatnawi, M. and Al-Makhadmeh, I. 2015. *In vitro* propagation, callus induction, and evaluation of active compounds on *Ruta graveolens*. *Journal of Food, Agriculture & Environment*. Vol.13 (2): 101-106.
- 4 . Al Abdallat A. M, J.Y. Ayad, J.M. Abu Elenein, **Z. I. Al-Ajlouni** and W. A. Harwood. 2014. Overexpression of the transcription factor HvSNAC1

- improves drought tolerance in barley (*Hordeum vulgare* L.). *Mol Breeding*. 33:401–414
- 5 . Issam M. Qrunfleh<sup>1</sup>, M. Shatnawi and **Z. I. Al-Ajlouni**. 2013. Effect of different concentrations of carbon source, salinity and gelling agent on *in vitro* growth of fig (*Ficus carica* L.) *African Journal of Biotechnology*. Vol. 12(9), pp. 936-940.
  - 6 . Wesam G Shahrour, Mohamad A Shatnawi, Samih Abubaker, **Z. I. Al-Ajlouni**, Ahmad N Shadaideh, Hane M Al-Dmoor, Khalaf Alhussaen. 2013. Identification of *Phytophthora infestans* from infected potato and tomato plants using molecular techniques. *Journal of Food, Agriculture and Environment*. Vol.11 1 2 1 6 - 1 2 2 1.
  - 7 . **Al-Ajlouni Z. I**, M. Ajlouni, M. Shatnawi, R. Shibli, I. Makhdmeh, S. Abu-Romman and A Al-Ghzawi. 2012 .Callus Induction, Plant Regeneration, and Growth on Barley (*Hordeum vulgare* L.). *South west J Hortic Biol Environ Vol.3: 25-39*
  - 8 . M. Liakat Ali, P. Stephen Baenziger, **Z. I. Al- Ajlouni**, B. Todd Campbell, K. S. Gill, K. M. Eskridge, A. Mujeeb-Kazi, and Ismail Dweikat. 2011. Mapping QTL for Agronomic Traits on Wheat Chromosome 3A and a Comparison of Recombinant Inbred Chromosome Line Populations. *Crop Sci*. Vol: 51. 553-566.
  - 9 . M. A. Shatnawi<sup>1</sup>, R. A. Shibli, S. M. Abu-Romman, M. S. Al-Mazra'awi, **Z. I. Al Ajlouni**, W. A. Shatanawi and W. H. Odeh. 2011. Clonal propagation and cryogenic storage of the medicinal plant *Stevia rebaudiana*. *Span J Agric Res* 9(1), 213-220.
  - 10 . Abdul Latief A. Al-Ghzawi, E. Bsoul, F. Aukour, **Z. I. Al-Ajlouni**, M. Al-Azzam and M. M. Ajlouni. 2011. Genetic Variation For Quantitative Traits In Jordanian Lentil Landraces. *Advances in Environmental Biology*, 5(11): 3676-3680.

- 11 .Weiss A., P.S. Baenziger, G.S. McMaster, W.W. Wilhelm and **Z.I. Al Ajlouni**. 2009. Quantifying phenotypic plasticity using genetic information for simulating plant height in winter wheat. *NJAS. Wageningen Journal of Life Sciences*. 57: 59-64.
- 12 .**Al Ajlouni, Z** (20080. The Effect of Semidwarfing Genes in Wheat on Plant Height in Diverse Environment in Nebraska. (Phd, dissertation).
- 13 .Rida A. Shibli, M.J. Mohammad and **Z.I. Ajlouni**. 2002. Growth and Micronutrient Acquisition of In Vitro Grown Bitter Almond and Sour Orange in Response to Iron Concentration from Different Iron Chelates. *J. Plant Nutr.* 25: 1599 – 1606.

#### **AWARDED SCHOLARSHIPS and FELLOWSHIPS:**

- ❖ Ph.D Research assistantship from Dept. of Agronomy and Horticulture, University of Nebraska, Lincoln.
- ❖ Al Mosmen Fellowship (2007): This award is designated for graduate students in the Agronomy graduate program with interest in international agriculture and world food development.
- ❖ Scholarship of Channing B. & Katherine W. Baker Fund #3524 (2006 and 2007), for breeding and genetics of food and feed grains including germplasm and cultivar development (for two years).
- ❖ The 4<sup>th</sup> Scientific Day Award for College of Agriculture, 2001, Jordan University of Science and Technology.

## **FINANCIAL SUPPORT (Research Grants awarded, 2011-2016)**

**Zakaria Al Ajlouni.** 2011. Selecting Jordanian semi-dwarf wheat genotypes with long coleoptiles to cope drought stress. Jordan University of Science and Technology. \$20,140.

**Zakaria Al Ajlouni.** 2012. Callus Induction Chemical Analysis and Antimicrobial Activity of the Common Rue (*Ruta Graveolens* L. Jordan University of Science and Technology. \$10,845.

**Zakaria Al Ajlouni.** 2013. Effect of planting date and sowing depth on yield and yield components of barley genotypes under different environments in Jordan. Jordan University of Science and Technology. \$13,660.

**Zakaria Al Ajlouni.** 2016. Genetic Variation among *Ruta chelapensis* Populations from North Jordan Using Morphological Assessment and AFLP Markers. Jordan University of Science and Technology. \$9,366.

**Zakaria Al Ajlouni.** 2016. The effect of differential water regimes on the yield of wheat (*Triticum aestivum* L., *T. durum* Desf.) under dry condition of Jordan as indicated by chlorophyll content.. Jordan University of Science and Technology. \$8,450.

## **MEMBERSHIPS in SCIENTIFIC SOCIETIES AND ACTIVITIES:**

- ❖ American Society of Agronomy (ASA), and Crop Science Society of America (CSSA).
- ❖ Sigma XI (The Scientific Research Society) USA.
- ❖ Representative of agronomy graduate students in the graduate committee at the Agronomy and Horticulture department / Nebraska university for 2006 – 2007.
- ❖ Representative of agronomy graduate students in the safty committee at the Agronomy and Horticulture department / Nebraska university for 2005 – 2006.

### **PROFESSIONAL, ACADEMIC, AND ADMINSTRATIVE SERVICES:**

Served as external reviewer of papers submitted to the following research journals:

- 1 Universal Journal of Agricultural Research.
- 2 Jordan Journal of Agricultural sciences.
- 3 Mutah Journal for Research.
- 4 Jordan Journal of Biological Sciences.

### **COMMITTEES**

- 1 Member and chair of many committees at the University, Faculty and Department levels including: Social Committee, Curriculum Committee, Graduate Students Committee, Scientific Research Committee,
- 2 Web site development committee at JUST.
- 3 Organizer Committees of The 7<sup>th</sup> Scientific Agricultural Conference. Jordan University of Science and Technology. 8-10 October 2012.
- 4 JUST representative in the National Committee to Select the Best Wheat Grower (Farmer) in Jordan (2015).
- 5 Member of University Council (JUST) for Sep. 2015 - Present.

### **GRADUATE STUDENTS:**

Supervised 3 master students in the plant production program, and currently supervising 1 master student.



**TEACHING EXPERIENCE (2009-2016):**

Courses developed and taught at Jordan University of Science and technology (JUST)

<b>Course Title</b>	
<b>Number</b>	<b>Undergraduate Courses</b>
1.	Principles of Plant Science (PP205)
2.	Introduction to Biostatistics (PP213)
3.	Field Crop Production (Laboratory) (PP311)
4.	Plant Micropropagation (PP326)
5.	Plant Micropropagation (Laboratory) (PP326)
6.	Summer Practical Training (PP400)
7.	Summer Training (PP400)
8.	Plant Breeding (PP411)
9.	Plant Biotechnology (PT421)
10.	Plant Biotechnology (Laboratory) (BT421)
11.	Biotechnology in Agriculture (PP431)
12.	Seminar (PP 491)
<b>Graduate Courses</b>	
1	Experimental Design and Statistical Analysis (PP701)
2	Advance Plant Breeding (PP715)
3	Plant Tissue Culture (PP725)
4	Legume and Cereal Crops (PP712)

## **REFERENCES:**

### **Prof. P. Stephen Baenziger,**

Eugene W. Price Distinguished Professor Small Grains Breeding and Genetics. Department of Agronomy and Horticulture. University of Nebraska, Lincoln. 68583-0937.

[pbaenziger1@unl.edu](mailto:pbaenziger1@unl.edu)

### **Prof. Rida A. Shibli,**

Minister of Agriculture - Jordan

Professor of Plant Tissue Culture and Physiology. Jordan University of Science and Technology, Irbid, Jordan. [r.shibli@ju.edu.jo](mailto:r.shibli@ju.edu.jo)

### **Prof. Saeb Khresat**

Professor of Soil Science

Dean, Faculty of Agriculture

Jordan University of Science and Technology

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### **Prof. Abd Al-Majeed A. Al-Ghzawi**

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### **Prof. Hani Z. Ghosheh**

Professor of Weed Science

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### **Dr. Ibrahim M. Makhadmeh**

Associate professor of Vegetable Production and Physiology

Vice Dean, Faculty of Agriculture

Jordan University of Science and Technology.

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