



**Lasbela University**  
**of Agriculture, Water & Marine Sciences**  
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Name:	Dr. Akram Salah		
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Cell No.:	+923409566153		
Research Area:	Agronomy and Plant Physiology		
QUALIFICATION			
DEGREE	PASSING YEAR	MAJORS	UNIVERSITY
Ph.D.	2018	Crop cultivation and Farming system	Huazhong Agriculture University, Wuhan, China
Masters	2013	Agronomy	Tandojam Agriculture University
BS (Hons)	2010	Agronomy	Lasbela University of Agriculture Water & Marine
PUBLICATIONS (NATIONAL/INTERNATIONAL)			
<div>1. Akram Salah et al, (2019). <math>\gamma</math>- aminobutyric acid promotes chloroplast ultrastructure, antioxidant capacity and growth of waterlogged maize seedlings. Published in Journal of scientific reports.</div> <div>2. Akram Salah* et al, (2022). Spermidine and brassinosteroid regulate root anatomical structure, photosynthetic traits and antioxidant defense systems to alleviate waterlogging stress in maize seedlings. Published in Journal in South African Journal of Botany 144(2022):389-402</div> <div>3. Akram Salah et al, (2019). Morphological and physiological responses of maize seedlings under drought and excess soil water stress. Published in Journal of Agriculture Science and Technology.</div> <div>4. Akram, Salah et al, (2016). Effect of Bio-organic and Inorganic Fertilizers on the Growth and Yield of Wheat (Triticum aestivum L.) Persian Gulf Crop Protection ISSN: 2251-9343 (Online) Volume 2 Issue 4,</div> <div>5. Tu D, Jiang Y, Salah A, Cai M, Peng W, Zhang L, Li C and Cao C (2023). Variation of rice starch structure and physicochemical properties in response to high natural temperature during the reproductive stage. Front. Plant Sci. DOI: 10.3389/fpls.2023.1136347</div>			

6. Tu D, Jiang Y, Salah A, Cai M, Peng W, Zhang L, Li C and Cao C (2022). Response of Source-Sink Characteristics and Rice Quality to High Natural Field Temperature During Reproductive Stage in Irrigated Rice System. *Front. Plant Sci.* 13:911181. doi: 10.3389/fpls.2022.911181
7. Han, Y.; Guo, D.; Xia, F.; Salah, A.; Zhan, M.; Cao, C.; Zhao, M.; Chen, C.; Zhou, B. The Accumulation of Biomass Pre- and Post-Silking Associated with Gains in Yield for Both Seasons under Maize–Rice Double Cropping System. *Agronomy* 2022, 12, 1296. <https://doi.org/10.3390/agronomy12061296>
8. Han, Y., Ma, W., Zhou, B., Salah Akram., Zhao, M. (2021). Straw return increases crop grain yields and k-use efficiency under a maize-rice cropping system. *The Crop Journal*.
9. Han, Y.; Ma, W.; Zhou, B.; Yang, X.; Salah Akram.; et al (2020). Effects of Straw-Return Method for the Maize–Rice Rotation System on Soil Properties and Crop Yields. *Agronomy* 2020, 10, 461.
10. Batool, Maria, Ali M. El-Badri, Zongkai Wang, Ibrahim A.A. Mohamed, Haiyun Yang, Akram Salah.; et al (2022). Rapeseed Morpho-Physio-Biochemical Responses to Drought Stress Induced by PEG-6000" *Agronomy* 12, no. 3: 579. <https://doi.org/10.3390/agronomy12030579>
11. Ali M.A.El-Badri.; Maria Batool.; Ibrahim A.A. Mohamedac.; Ahmed Khatabab.; Ahmed Sherifab.; Salah Akram.; et al (2021), Modulation of salinity impact on early seedling stage via nano-priming application of zinc oxide on rapeseed (*Brassica napus* L.).Published in *Journal of Plant Physiology and Biochemistry*.
12. Ibrahim A.A.; Nesma Shalbyb.; Ali M.A.El-Badri.; Maria Batool.; Ahmed Sherifab.; Zongkai Wang.; Chunyun Wang.; Salah Akram.; et al (2021), RNA-seq analysis revealed key genes associated with salt tolerance in rapeseed germination through carbohydrate metabolism, hormone, and MAPK signaling pathways. Published in *Journal of Industrial Crops and Products*.

#### **PAPER PRESENTATIONS IN INTERNATIONAL CONFERENCES**

1. Responses of maize seedlings to waterlogging and its regulation mechanisms by exogenous plant growth regulator (11th World congress on Plant Biotechnology and Agriculture at Paris, France March 2018).
2. Iron Stress and stem Ureide Nitrogen fixation of yardlong-Bean and Peanut plants in the Acidic, Tropical environments. The Proceedings of 4th Annual World Congress of Agriculture (4thAWCA, Changchun China) . *Plant Biochemistry and Physiology* p. 56.
3. Fengliang Zhao and Guisheng Yang (2015). Increasing Peanut Plant Nodulation and Nitrogen Fixation Using Soil Organic Carbon, Nitrate and Iron Spatial Patterns in an Intercropping System. *Proceedings of the 6th Asian Conference on Precision Agriculture (6thACPA, Guangzhou, China)*, p. 29.
4. Potassium and banana-alfalfa intercropping improve soil microorganisms and reduce banana Fusarium wilt disease. *Proceedings of the 15th International Symposium on Soil and Plant Analysis (2017ISSPA, Nanjing, China)*, p. 26.

#### **ARTICLES SUBMITTED OR UNDER PREPARATION**

1. Akram Salah\* et al, (2024). Zinc and Iron Stress and on Nitrogen fixation of cassava and Peanut plants in the Acidic, Tropical environments. Submitted to *Journal of Plant Nutrition*
2. Akram Salah\* et al, (2024). (submitted). Physiological and morphological responses to waterlogging in rapeseed seedlings at different growth stages. Submitted to *Journal of Plant Physiology and Biochemistry*

3. Akram Salah\* et al, (2024). (Submitted). Comparative proteomic analysis and morphological analyses reveal the protective effect of exogenous application of brassinosteroid on maize seedlings response to waterlogging stress. Prepare to submit to plant cell
4. Akram Salah\* et al, (2022). Quantitative proteomics analysis of the inhibitory effects of stem lodging on different rapeseed cultivars. Prepare to submit to plant physiology Articles submitted or under preparation

#### TEACHING EXPERIENCE

Designation	From	To	Organization
Visiting Lecturer	12 March 2013	1-May-2013	Lasbela University of Agriculture Water & Marine
Postdoctoral Fellowship	30 March 2019	29 June 2021	Huazhong Agriculture University, Wuhan, China
Assistant Professor	08-03-2022	Up to date	Lasbela University of Agriculture Water & Marine

#### CONFERENCES AND TRANINGS

1. 11th World congress on Plant Biotechnology and Agriculture at Paris, France March 2018. 2.
2. Attend the 7th International Crop Science International Congress at Beijing 2016 3. Crop physiological ecology and production of national summer school for graduate students" in Nan Jing Agricultural University, 2017. 4.
3. Attend BIT's 4th Annual World Congress of Endoplasm, November 13-16, 2014, Haikou, Hainan, China. 5.
4. SCI papers writing class" in Nan Jing Forestry University, 2015 6. Ecological statistics and modeling international course for graduate student" in Beijing forestry university, 2015.
5. Biological information analysis training course of Shanghai personal biotechnology" in shanghai, 2014

#### SUPERVISED THESIS:

I supervised three graduate students in conducting their research as well as data analysis and with thesis write-up.

The research tittle are

1. Ramification of nitrogen fertilization on qualitative and quantitative traits of multi-cut millet (*Pennisetum glaucum* L.).
2. Effect of Different Sowing Dates on Growth and Yield of Cotton Under Climatic Conditions of Uthal.

**SHORT BIOGRAPHY:**

Dr. Akram Salah, Assistant Professor Faculty of Agriculture, Lasbela University of Agriculture, Water and Marine Sciences, Pakistan. I did my Ph.D. and postdoctoral fellowship from College of plant Science and Technology at Huazhong Agricultural University, Wuhan, Hubei Province, China, my PhD thesis title was " Responses of maize seedlings to waterlogging and its regulation mechanisms by exogenous plant growth regulators ". My research has evolved with changing technologies from plant physiology to plant abiotic stress, and environmental stress, climatic changes, effect of different plant growth regulator under environmental stress and using the techniques of antioxidant activities, transcriptomics and proteomics. My teaching is mostly in the areas plant stress physiology, such as biotic and abiotic stress on plant growth and production.