PROF. DR. MUHAMMAD ANWAR-UL-HAQ

Professor /Office Incharge

Saline Agriculture Research Centre,

Institute of Soil and Environmental Sciences, University of Agriculture, Faisalabad, Pakistan.

Office: 092 041 9201304/092 041 9200161-70 Ext. 2910

Cell: 092 300 7649027

E-mail: haqgondal@gmail.com | haq.gondal@uaf.edu.pk

Web: http://uaf.edu.pk/faculties/agri/insts/soil_environmental/soil_overview.html

Web of Science Researcher ID: AAD-1748-2022 ORCID https://orcid.org/0000-0002-6623-5756

AREAS OF EXPERTIES

• Soil Science/ Environmental Sciences / Climate Change

• Agriculture and Food Security

• Management of Saline Soil and Water Resources for Agriculture Production

• Climate Change Resilience and Environmental Sustainability

ACADEMIC QUALIFICATION

Post Doctorate (2013-14): CEREGE, University of Aix Marseille, Aix en Provence, France

Ph.D. Soil Science (2006): University of Agriculture, Faisalabad, Pakistan

M.Sc. (Hons)Agri., Soil Science (1997): University of Agriculture, Faisalabad, Pakistan

B.Sc. (Hons) Agri. Soil Science (1995): University of Agriculture, Faisalabad, Pakistan

ACADEMIC APPOINTMENTS

31.05.2024: Professor, Institute of Soil & Environ. Sciences, Univ. of Agriculture, Faisalabad 2019 to 30.05.2024: Associate Professor, Institute of Soil & Environ. Sciences, Univ. of Agriculture, Faisalabad 2006-2019: Assistant Professor, Institute of Soil & Environ. Sciences, Univ. of Agric., Faisalabad, Pakistan 2001-2006: Lecturer, Saline Agric. Research Centre, Dept. of Soil Science, Univ. of Agric, Faisalabad, Pakistan 1998-2001: Senior Technical Officer, Nature Farming Research and Development Foundation Faisalabad.

FORMAL TRAININGS / WORKSHOPS (NATIONAL / INTERNATIONAL)

- **1.** Participation in International Training workshop on climate change at Pakistan Academy of Sciences Islamabad April 9-14, 2025.
- **2.** Organized International Training Workshop on "Application of Geospatial Technique for Agriculture Resource Management" March 13-17, 2023, DLC-3-UAF
- **3.** Completed 5 days Capacity Building course for Principal Investigator organized by British Council-Higher Education Commission Islamabad at AVARI hotel Lahore. 9-13 May 2022
- **4.** Participated in training workshop "Advances in Monitoring of Water and Salinity at Farm" organized by MNS Multan on 24th November 2021; 9:00 am at Seminar Hall, MNS-UAM.
- **5.** IPO Training regarding Intellectual Property Rights (IPR's) on November 01, 2017, at New Senate Hall, University of Agriculture, Faisalabad.
- **6.** PIPRA Training Certificate entitled "Intellectual Property Management and Technology transfer" organized by US Pakistan Center for Advanced Studies in Agriculture and Food Security, UAF. November 9-11, 2015.
- 7. Indigenous on campus training (IOT) certificate on Modern University Governance Program organized by University of Agriculture, Faisalabad. November 25-29, 2014)
- **8.** In service Training of Officers of "National Bio-Saline Agriculture Program' NABSAP on the aspect of National Bio-saline Agriculture. Organized by Ministry of Food and Agriculture "National Bio-saline Agriculture Program", Islamabad. June 1-9, 2010.



- **9.** Training Workshop conducted by CSIRO Forest Biosciences, Canberra, Australia (April 22-24, 2008) at NIAB, Faisalabad.
- **10.** International Training workshop on Bio saline Agriculture Technology on Bio-saline Agriculture organized by Nuclear Institute for Agriculture and Biology (NIAB) Faisalabad, Pakistan. February 6-17, 2006
- **11.** EU Asia Link Project Short Course on Principles of Experimental Design and analysis, organized by Univ. of Agri. Faisalabad and Univ. of Wales, Bangor, UK December 1-12, 2003.
- **12.** Crawford Fund Supported Training Courses on Saline Agriculture for irrigated land in Pakistan. Saline Agriculture Research Cell, University of Agriculture, Faisalabad. April 18-21, 2000.
- **13.** Nature Farming Training from Asia Pacific Natural Agriculture Network (APNN), Thailand in 1st Jan.1999 to 30th Jan.1999.
- 14. NCC Certificate from Govt. College, Jhelum during 1988-1990.

AWARDS HONOURS

- 1. Research Productivity Award (RPA) 2014
- 2. Research Productivity Award (RPA) 2016
- 3. Productive Scientist of Pakistan (PSP) 2016
- **4.** Won French Post Doc Year 2013
- 5. HEC-Approved Supervisor

DISTINCTIONS

- Certificate of Honour from Senior Tutor Office,
- Certificate of Honour from Vice Chancellor UAF on Kissan mela,
- Certificate of Appreciation in UAF Golden Jubilee celebrations
- Certificate of Participation in International conferences at Turkey and UAE,
- Certificate of Appreciation from Vice Chancellor UAF on successful management of Book Fair 2004.

STUDENTS SUPERVISED

Degree	Supervised	Co-Supervisor	On-going
PhD	14	32	05
M.Sc. (Hons)	91	249	06

EXTRA-CURRICULAR

ADMINISTRATION/ ACADEMICS /EXTRA-CURRICULAR

- 1. Principal Officer (Hostels)/Chief Hall Warden (27.03.2024 to date)
- 2. Officer Incharge, Saline Agriculture Research Centre (13.10.2021 to date)
- **3.** Associate Senior Tutor: 25.04.2015 to date
- **4.** Associate Hall Warden 28.10.2018 to date 27.07.2021.
- **5.** Deputy Senior Tutor: 20.08.2008 -24-04-2015
- **6.** Focal Person/Incharge Character Building Society UAF
- 7. Secretary Board of Studies, ISES, UAF (2008-08.11.2024)
- **8.** Member Faculty Board, Faculty of Agriculture
- 9. Secretary Soil and Environment Science Student Society (SESSS)
- 10. Member Board of Studies at Govt. College University Faisalabad
- 11. Member Board of Studies at Mian M. Nawaz Sahrif Agriculture University Multan.
- 12. Member Board of Studies at BZU Multan
- 13. Member Board of Studies at IUB
- 14. Tutor Group Zafar Ali Khan-3, till September 2022.
- 15. Member Faculty Vigilance/ Examination Committee,
- 16. President Tug of War, December
- 17. Coordinator Debating and Quiz Club,

- 18. Incharge Internship Program,
- **19.** Member Soil Science Society of Pakistan (UAF-30)
- 20. Member Pakistan Botanical Society
- **21.** Member of the Environment Approval Committee Govt. of Punjab Environmental Protection Department, Faisalabad
- 22. HEC Nominee: Member affiliation committee GCUF nominated by HEC-Islamabad.
- 23. Member Accreditation NAEAC-HEC

SEMINAR/ CONFERENCE

- Organized International Conference = 10
- o Organized National Conference = 57
- Participated in International Seminar/Conference = 24
- o Participated in National Seminar/Conference = 39
- \circ Trainings = 12

PUBLICATIONS

- Total Publications = 128
- \circ Books Authored = **01**
- o Book Chapters Authored = 14
- o Proceedings: 07
- o Technical reports: 12
- Research Papers Published in Journals having Impact Factor = 89
- o No. of Research papers (HEC recognized Journals only) = 39
- Cumulative Impact Factor = >150
- o Citations:
- Web of Science Researcher ID (AAD-1748-2022) Publon Citation = 2660
- H-Index: Publon/Web of Science = 24
- Google Scholar = **4518**
- Google Scholar = **35**

(a) List of Research Papers Published in HEC Recognized Journals

- 1. Muhammad Nadeem, Muhammad Anwar ul Haq, Muhammad Ashar Ayub, Ghulam Hasan Abbasi, Haq Nawaz, Muhammad Ali, Rafia Mustafa, Asia Khan, Waqas Manzoor Bhutta. 2024. Climate change induced salinization and quality deterioration of groundwater resources in Pakistan; Current scenario and future prospects. Journal of Health and Climate Change. 3(1): https://doi.org/10.37939/jhcc.v3i1.8
- 2. Tajwar Alam, Muhammad Anwar-ul-Haq, Muhammad Ateeq Ahmed, Asim Hayat, Nida Fatima, Saba Babar, Muhammad Ikram, Zahid Iqbal. 2023. Soil Manuring and Genetic Variation Conjunctively Surmount the Partial Drought Stress in Wheat (Triticum aestivum L.). Journal of Plant and Environment. 5(2):98-108. DOI: 10.33687/jpe.005.02.4419
- **3.** Nadeem, M., **M. Anwar ul Haq**, I. Iftikhar, M. Awais, T. Ali, R. Ejaz, W. Umar and R. Ullah. 2023. Comparative effect of integrated fertilization approaches on soil health and crop productivity of wheat (*Triticum aestivum* L.) under different tillage systems. Journal of Agriculture Research 61(1): 25-34.
- **4.** Irshad, I., **M. Anwar ul Haq**, J. Akhtar, and M. Maqsood. 2022. Effects of different organic amendments on maize (Zea Mays L.) growth in salt affected soil. Journal of Global Innovations in Agricultural Sciences. 10:121-130. (Y category)
- **5.** Nadeem, M.Z., M.F. Salem, M.A. Wahid and **M.A. Haq**. 2022. Influence of seed priming on growth, yield and fodder quality of pearl millet cultivars. Pakistan Journal of Agricultural Research, 35(1): 215-226. (Y category)
- **6.** Rasool, M., **M.Anwar-ul-Haq**, M. Jan, J. Akhtar, M. Ibrahim and J.Iqbal. 2020. Phytoremedial potential of maize (Zea mays L.) hybrid against Cadmium (Cd) and Lead (Pb) toxicity. Pure and Applied Biology: 9(3):1932-1945.
- 7. Jan, M., S. Hussain, M.Anwar-ul-Haq, J. Iqbal, I. Ahmad, M. Aslam and A. Faiz. 2020. Effect of farm yard manure and compost application on transgenic BT cotton varieties. Pakistan Journal of

- Agricultural Research, 33(2): 371-380. ISSN: 0251-0480 DOI http://dx.doi.org/10.17582/journal.pjar/2020/33.2.371.380 (Y-Category)
- **8.** Jan, M., **M.Anwar-ul-Haq**, Tanveer ul Haq, Anser Ali, Muhammad Yousaf, Saqib Bashir, Shahbaz Khan.2019. Silicon application improves maize (Zea mays L.) performance through ionic homeostasis and ameliorating adverse effects of brackish water. Asian J Agric & Biol.: 7(3).1-7
- **9.** Majeed, A., **M. Anwar-ul-Haq**, A.Niaz, A. Mahmood, N.Ahmad and H.M W.Ali Khan. 2019. Comparison of Soil and Hydroponic Based Screening Process to Select Salt Tolerant Wheat Varieties. *Sarhad Journal of Agriculture*, 35(4): 1107-1112
- 10. Naz, T., M. M. Iqbal, O.Farooq, Atique-ur-Rehman, S. Nawaz, M. Ali, J. Akhtar, M. Saqib, M. Anwar-ul-Haq and B/ Atta. 2019. Ameliorating Effects of Foliar Applied Salicylic Acid on Growth, Chlorophyll Contents and Antioxidant Enzymes of Wheat Genotypes under Salinity Stress. Pak. J. life Soc. Sci. 17(1): 51-57. E-ISSN: 2221-7630; P-ISSN: 1727-4915.
- **11.** Hussain, S., **M. Anwar-ul-Haq**, S. Hussain, Z. Akram, M. Afzal, I. Shabbir .2017. Best suited timing schedule of inorganic NPK fertilizers and its effect on qualitative and quantitative attributes of spring sown sugarcane (*Saccharum officinarum L.*). J. Saudi Society of Agri. Sciences 16: 66-71 ISSN:1658-077X
- **12.** Naz, T., J. Akhtar, **M. Anwar-ul-Haq** and M. Shahid. 2015. Genetic variability in wheat genotypes for salt tolerance, growth and physiological responses. Soil Environ. 34(2): 187-199.
- **13.** Parveen, **M. Anwar-ul-Haq**, Sajjad Raza, Ghulam Hassan Abbasi, Ahmad Ali and Javaid Akhtar. 2015. Changes in Morphological, Physiological and Chemical Characteristics of Sunflower (Helianthus annuus L.) Genotypes Induced by Salt Stress. Intl. Journal of Plant & Soil Science 4(4): 377-388 ISSN: 2320-7035.SCIENCEDOMAIN international www.sciencedomain.org
- **14.** Majeed, A., **M.Anwar-ul-Haq**, J. Akhtar and S.M.A. Basra. 2014. Screening of Maize genotypes against poor quality of water in solution culture. J. Agri. Res.52 (3):357-368.
- **15.** Abbasi, G.H. **M.Anwar-ul-Haq**, M.Jamil, M. Anwar ul Haq, S. Ali, M. Ahmad, F.Z. Akhtar, I. Ahmad, H. N. Khan and M.A. Kharal. 2014. Enhancement of maize production through integrated plant nutrient management in arid climate. J. Pure and Applied Sciences, 24-33 (1-2): 7-16. ISSN: 0255-3643 www.iub.edu.pk/jpas
- **16.** Abbasi, G. H., J. Akhtar, **M.Anwar-ul-Haq** and N. Ahmad. 2012. Screening of maize hybrids for salt tolerance at seedling stage under hydroponic condition. Soil and Environ. 31(1):83-90. ISSN: 2074-9546. **Online ISSN: 2075-1141**
- **17.** Hussain, S.A. J. Akhtar, **M.Anwar-ul-Haq** and R. Ahmad.2011.Growth, yield and ionic concentration of two sunflower (*Helianthus annuus* L.) genotypes exposed to brackish water irrigation. Soil and Environment 30 (1): 58-65. ISSN: 2074-9546. **Online ISSN: 2075-1141**
- **18.** Maqsood, T., J.Akhtar , M.R.Farooq, **M.Anwar-ul-Haq** and Z.A.Saqib. 2008. Biochemical attributes of salt tolerance and salt sensitive maize cultivars to salinity and potassium nutrition. Pak.J. Agri. Sci., 45(1): 1-5. ISSN:0552-9034
- **19.** Hussain, S.A., J.Akhtar, **M.Anwar-ul-Haq**, M.A. Riaz and Z.A. Saqib. 2008. Ionic concentration and growth response of sunflower (*Helianthus annus* L.) genotypes under saline and or sodic water application. Soil & Environment. 27(2):177-184. ISSN: 2074-9546. **Online ISSN: 2075-1141**
- **20.** Farooq M. R., **M.Anwar-ul-Haq,** J. Akhtar, M.A. Randhawa and T. Maqsood. 2008. Comparative Response of Wheat (*Triticum aestivum* L.) Genotypes to Brackish water at Seedling Stage. Pak. J. Agri., Sci., 45(4): 439-443. ISSN:0552-9034
- **21.** Hussain K., M. Arif, **M.Anwar-ul-Haq**, T. Hussain and M.Nasim.2007.Compost for growing plants by applying EM-Bio fertilizer. Pak. J. Agri. Sci. 44(3):434-442. Impact Factor 1.24. ISSN:0552-9034
- **22.** Pervaiz, S.,M.Saqib, J.khtar, M. A. Riaz, **M.Anwar-ul-Haq** and M.Nasim. 2007. Comparative growth and leaf ionic composition of four cotton (Gossypium hirsutum 1) genotypes in response to salinity. Pak. J. Agri., Sci., 44(1): 79-84. ISSN:0552-9034
- **23.** Ibrahim, M., J. Akhtar, M. Younis, M. A. Riaz, **M. Anwar-ul-Haq** and M. Tahir. 2007. Selection of cotton (*Gossypium hirsutum* L) genotypes against NaCl Stress. Soil & Envir. 26 (1): 59-63. ISSN: 2074-9546. **Online ISSN: 2075-1141**
- **24.** Nasim. M. ,R. H. Qureshi, M. Saqib, T.Aziz, S.Nawaz, J.Akhtar and **M.Anwar-ul-Haq**. 2007. Plantation of eucalyptus *camaldulensis* on salt affected soil under field conditions; growth and soil properties. Pak.J. Agri.Sci. 44(3):385-392. ISSN:0552-9034

- **25.** Nasim. M., R. H. Qureshi, M. Saqib, T.Aziz, S.Nawaz, J.Akhtar and **M.Anwar-ul-Haq**. 2007. Properties of Salt affected soil under *Eucalpytus camaldulensis* plantation in field conditions. Pak.J. Agri.Sci. 44(3):401-414
- **26.** Iqbal , M., J. Akhtar, **M.Anwar-ul-Haq** , M. Nasim , A. Saeed and M. Naveed. 2007. Variation in growth and ion uptake in rice cultivars under NaCl stress in hydroponics. Pak.J. Agri.Sci. 44(3):393-400. ISSN:0552-9034.
- **27.** Basra, S.M.A., I. Afzal, S. Anwar, **M.Anwar-ul-Haq**, M. Shafique and K. Majeed. 2006. Alleviation of salinity stress by seed invigoration Techniques in wheat (*Triticum aestivum* L.) Seed Techno. J. 28 (1): 36-46. (0.62)
- **28.** Bhutta W.M., Javaid Akhtar and **M. Anwar-ul-Haq**, 2005. Cause and effect relations of yield components in spring wheat (*Triticum aestivum* 1.) under normal conditions. Caderno de Pesquisa Ser.Bio.,Santa Cruz do Sul,. 17 (1): 7-13 ISSN 1677-5600. ISSN 1677-5600
- **29.** Akhtar, J. **M.** Anwar-ul-Haq, K. Ahmad, M. Saqib and M. A. Saeed. 2005. Performance of Cotton Genotypes under Saline Conditions. Caderno de Pesquisa Ser.Bio.,Santa Cruz do Sul,. 17 (1): 29-36. ISSN 1677-5600
- **30.** Bhutta, W.M., J. Akhtar and **M. Anwar-ul-Haq**. 2005. Estimation of heritability of some important Traits in spring wheat (*Triticum aestivum* L.) Caderno de Pesquisa Ser.Bio.,Santa Cruz do Sul,. 17 (1): 21-28. ISSN 1677-5600
- **31.** Rasheed .M, W. M.Bhutta, **M.Anwar-ul-Haq** and A. Ghaffar 2004.Genotypic response of maize hybrids to NP application. Intl. J. of Agric. and Bio.6 (4):721-722. ISSN 1560-8530 (0.94)
- **32.** Bhutta, W. M., M. Ibrahim, J. Akhtar, A.Shahzad,, T. Haq and **M.Anwar-ul-Haq** 2004. Comparative performance of sunflower (*Helianthus Annus* L.) genotypes against NaCl salinity. Caderno de Pesquisa Ser.Bio.,Santa Cruz do Sul., 16 (1): 7-18. ISSN 1677-5600
- **33.** Akhtar, J. T. Haq, A.Shahzad, **M.Anwar-ul-Haq**, M. Ibrahim and N. Ashraf. 2003. Classification of different wheat genotypes in salt tolerant categories on the basis of biomass production. Intl. J. of Agri. & Bio. 5(3):322-325 ISSN 1560-8530 (0.94)
- **34.** Hussain, A., A.Ghafoor, **M.Anwar-ul-Haq** and M. Nawaz 2003. Application of the Langumir and Freundlich Equations for P adsorption Phenomenon in Saline Sodic Soil. Intl. J. of Agri.,& Bio.5(3): 349-356. ISSN 1560-8530 (0.94)
- **35.** Akhtar, J.,A. Shahzad, T. Haq, M. Ibrahim and **M.Anwar-ul-Haq**, 2003. Screening of 20wheat lines against salinity in hydroponics. Pak. J. of Life and Social Sciences. 1(2): 92-97 ISSN 1727-4915
- **36.** Haq.T. Javaid.A., **M.Anwar-ul-Haq** and M.Hussain. 2002. Effect of Soil Salinity on the concentration of Na, K, and Cl in the leaf sap of the four Brassica species. Intl. J.Agri .and Bio. 4(3):385-388. ISSN 1560-8530 (0.94)
- **37. M.Anwar-ul-Haq**.,T. Hussain, I. Ahmad and J. Tahir. 2002. Enhancing soil productivity by integrated Microbiallay Fermented manures with inorganic nutrient for wheat-cotton production.NFE.3(1):31-34 ISSN 1562-255X
- **38.** Zia, M.H., **M.Anwar-ul-Haq** and I. Ahmad 1999. Utilization of underground brackish water with EMTechnology for crop production. Pak.J. Agri. Sci .36 (3-4):186-188 U.A. Faisalabad. ISSN 0552-9034
- **39.** Zia, M.H., I. Ahmad, **M. Anwar-ul-Haq** and M. Jamil. 1999. Alternative of Mineral nutrient sources to sustain wheat production. Intl. J. Agri. Bio.1(4): 293-296 ISSN 1560-8530 ISSN 1560-8530

(b) RESEARCH PAPERS PUBLISHED IN JOURNALS HAVING IMPACT FACTOR

Sr. No.	Title	
1	Madeeha Kauser, Ejaz Ahmad Waraich, Hafeez ur Rehman, Muhammad Anwar ul Haq .2025. Organic and inorganic amendments improved the morpho-physiological and nutritional status of moringa (Moringa oleifera) genotypes. Acta Physiologiae Plantarum (2025) 47:39 https://doi.org/10.1007/s11738-025-03771-y	2.4
2	Akram, S., M. Anwar-ul- Haq , M. Saqib and E.A. Waraich. 2025. Improving salinity tolerance of wheat (Triticum aestivum L.) genotypes by foliar and soil applications of silicic acid H2SiO3). Soil Environ. 44(1): DOI:10.25252/SE/2025/253556	0.9

Hussain, S.A., M. Nadeem, M. A. Ayub, M. Ali, G. H. Abbasi, M. Anwar-ul-Haq , H. Mehmood, A. Khana, B. K. Alnafisi and M. Irfan. 2025. Health Risk Assessment Associated with Heavy Metals Pollution in Sandy Clay Loam Soils and Vegetables Irrigated by Wastewater: a Case Study of Bahawalpur City. Eurasian Soil Science, 2025, 58:16. ISSN 1064-2293.	1.4
Sattar, H., M. Anwar-ul-Haq, H. Aziz, U. Riaz, A. Mahmood, M. Rizwan, M. Naseem, M. S. Alwahibi, M.S. Elshikh, M. Qasim, R. Iqbal.2024. Physicochemical profiling and health risk evaluation of effluent from textile industries: insights from Faisalabad, Pakistan. Toxicology and Environmental Health Sciences. https://doi.org/10.1007/s13530-024-00247-3	1.6
Shafiq, A., M. E. Munawar, M. Nadeem, A. Khan., G. H. Abbasi, M. Anwar-ul-Haq , M. A. Ayub, I. Iftikhar, M. Awais 2024. Health risk assessment of bread wheat grown under cadmium and nickel stress and impact of silicic acid application on its growth, physiology and metal uptake. Environmental Science and Pollution Research. 31:55535–55548https://doi.org/10.1007/s11356-024-34849-8.	5.19
Naeem, A., Haroon, Z.K., M. F. Saleem, M. Anwar-ul-Haq . 2024. MPROVEMENT IN PRODUCTIVITY AND LAND EQUIVALENT RATIO WITH MAIZE SOYBEAN INTERCROPPING SYSTEM THROUGH CANOPY MANIPULATION. Xi'an Shiyou Daxue Xuebao (Ziran Kexue Ban)/ Journal of Xi'an Shiyou University, Natural Sciences Edition. Vol: 67 Issue 08 2024. ISSN: 1673-064X. DOI: 10.5281/zenodo.13292281.	0.857
Jaffar Sattar, Muhammad Uzair Qamara, Isaya Kisekkab, Muhammad Arshad and Muhammad Anwar-ul-Haq . 2024. Artificial intelligence (AI) inspired an innovative approach for real-time flow measurements — water distributions at outlets, in Punjab province Pakistan. Water Policy.26(5): 558-576. doi: 10.2166/wp.2024.265. (W).	1.6
Irshad, I., M. Anwar-ul-Haq , J. Akhtar and M. Maqsood. 2024. Enhancing maize growth and mitigating salinity stress through foliar application of proline and glycine betaine. Pakistan Journal of Botany. 56(1): 9-17. DOI: http://dx.doi.org/10.30848/PJB2024-1(34) .	1.2
Ali, T., Javaid Akhtar, M. Anwar-ul-Haq , Muhammad Maqsood. 2024. Assessing varietal potential and ameliorating effect of ZnSO ₄ levels in different bread wheat (<i>Triticum aestivum</i> L.) genotypes under salinity stress. Pak. J. Bot., 56(3): 815-826. DOI: http://dx.doi.org/10.30848/PJB2024-3(18)	1.2
Ali, T., M. Anwar-ul-Haq , J. Akhtar and E.A. Waraich. 2024. Assessment of different fertilization sources for improving zinc bioavailability in wheat under saline conditions. Soil Environ. 43(1): 14-26. DOI:10.25252/SE/2024/243295.	0.6
Muhammad Anwar ul Haq , Muhammad Nadeem, Munaza Naseem, Ghulam Hasan Abbasi, Muhammad Ali, Muhammad Ashar Ayub, Irfan Iftikhar, Muhammad Tayyab Mehmood, Muhammad Awais, Rizwan Ullah, Tasawar Ali. 2024. Role of exogenous silica fertilization and genotype selection in attenuating oxidative and osmotic stress in wheat (<i>Triticum aestivum</i> L.) under water deficit conditions. Plant and Soil: 505:283–298. DOI: 10.1007/s11104-024-06673-z	5.2
Nadeem, F., R. Mahmood, M. Anwar-ul-Haq, M. Sabir, Saifullah, Q. Ma, C. Jin, T. Samreen, M. S. Haider. 2024. Zinc Provisioned Enhancement of Manganese Use Efficiency Results in Differential Biomass and Grain Production in Two Rice Cultivars Grown in Clay Loam Soil. Journal of Soil Science and Plant Nutrition. March 15, 2024 (Online Published). https://doi.org/10.1007/s42729-024-01700-5 .	3.9
Anwar-ul-Haq, M ., I. Iftikhar1, J. Akhtar and M. Maqsood. 2023. Role of exogenous osmolytes supplementation in ameliorating osmotic, oxidative stress and promoting growth in salinity-stressed soybean genotypes. Journal of Soil Science and Plant Nutrition. 23:3682–3694 (Published online) May 16, 2023. DOI: 10.1007/s42729-023-01289-1.	3.900
Muhammad Ashar Ayub, Muhammad Zia ur Rehman, Hamaad R. Ahmad, John-Paul Fox, Preston Clubb; Alan Lee Wright; M. Anwar ul Haq ; Muhammad Nadeem; Cyren M. Rico and Lorenzo	9.988
	Mehmood, A. Khana, B. K. Alnafisi and M. Irfan, 2025, Health Risk Assessment Associated with Heavy Metals Pollution in Sandy Clay Loam Soils and Vegetables Irrigated by Wastewater: a Case Study of Bahawalpur City. Eurasian Soil Science, 2025, 58:16. ISSN 1064-2293. Sattar, H., M. Anwar-ul-Haq, H. Aziz, U. Riaz, A. Mahmood, M. Rizwan, M. Naseem, M. S. Alwahibi, M.S. Elshikh, M. Qasim, R. Iqbal.2024. Physicochemical profiling and health risk evaluation of effluent from textile industries: insights from Faisalabad, Pakistan. Toxicology and Environmental Health Sciences. https://doi.org/10.1007/s13530-024-00247-3 Shafiq, A., M. E. Munawar, M. Nadeem, A. Khan, G. H. Abbasi, M. Anwar-ul-Haq, M. A. Ayub, 1. Iftikhar, M. Awais 2024. Health risk assessment of bread wheat grown under cadmium and nickel stress and impact of silicic acid application on its growth, physiology and metal uptake. Environmental Science and Pollution Research. 31:55535-55548https://doi.org/10.1007/s11356-024-34849-8. Nacem, A., Haroon, Z.K., M. F. Salcem, M. Anwar-ul-Haq, 2024. MPROVEMENT IN PRODUCTIVITY AND LAND EQUIVALENT RATIO WITH MAIZE SOYBEAN INTERCROPPING SYSTEM THROUGH CANOPY MANIPULATION. Xi'an Shiyou Daxue Xuebao (Ziran Kexue Ban)/ Journal of Xi'an Shiyou University, Natural Sciences Edition. Vol: 67 Issue 08 [2024. ISSN: 1673-064X. DOI: 10.5281/zenod.13292281. Jaffar Sattar, Muhammad Uzair Qamara, Isaya Kisekkab, Muhammad Arshad and Muhammad Anwar-ul-Haq, 2024. Artificial intelligence (AI) inspired an innovative approach for real-time flow measurements — water distributions at outlets, in Punjab province Pakistan. Water Policy.26(5): 558-576. doi: 10.2166/wp.2024.265. (W). Irshad, I., M. Anwar-ul-Haq, J. Akhtar and M. Maqsood. 2024. Enhancing maize growth and mitigating salinity stress through foliar application of profine and glycine betaine. Pakistan Journal of Botany. 56(1): 9-17. DOI: http://dx.doi.org/10.30848/PIB2024-1(34). Ali, T. M. Anwar-ul-Haq, J. Akhtar and M. Maqsood. 2024. Assessment of different fertilization and

	Rossi. 2023. Influence of ionic cerium and cerium oxide nanoparticles on Zea mays seedlings gron	
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- **46.** Ali Raza, Javaid Akhtar, **M. Anwar-ul-Haq**, Z.A. Saqib, Tayyaba Naz, Muhammad Ameen, Irfan Iftikhar and Muhammad Nadeem. 2016. Effect of humic acid, phosphoric acid and compost on nutrient availability and yield of wheat (*Triticum aestivum* L.). 1st International Salinity Conference held on 19-21 December 2016 at Islamia University Bahawalpur.
- **47. M. Anwar-ul-Haq**, Muhammad Sarosh Nazar, Javaid Akhtar, Irfan Iftikhar, Muhammad Nadeem, Muhammad Ameen, Fawad Sufyan and Tayyaba Naz. 2016. Effect of Nitrogen and Boron on Cotton (*Gossypiam hirsutum* L.) Under Saline Conditions. 1st International Salinity Conference held on 19-21 December 2016 at Islamia University Bahawalpur
- **48. M. Anwar-ul-Haq**, Iqra Maqbool[,] Javaid Akhtar, Muhammad Nadeem, Irfan Iftikhar[,] Muhammad Ameen, Fawad Sufyan, Ashar Ayub and Z.A. Saqib. 2016. Effect of bio fertilizer (Rhizogold^{Plus}) and poultry manure on maize (*Zea mays* L.) growth under salt stress conditions. 1st International Salinity Conference held on 19-21 December 2016 at Islamia University Bahawalpur
- **49.** Rizwan Ghani, M. Saqib, Javaid Akhtar, **M. Anwar-ul-Haq**, Tasneem Khaliq and Madiha Nisar. 2016. Impact of nutrient management practices on sequestration of C and N during wheat season under a semi-arid environment. 1st International Salinity Conference held on 19-21 December 2016 at Islamia University Bahawalpur
- **50.** Saher Rubab, Javaid Akhtar, **M. Anwar-ul-Haq**, M. Farrakh Nawaz, Hina Fatima. 2016 Effect of silicon on soybean (Glycine max L.) growth under cadmium stress. 1st International Salinity Conference held on 19-21 December 2016 at Islamia University Bahawalpur
- **51.** Naz, T., J. Akhtar, **M. Anwar-ul-Haq**, M. Shahid, M. Saqib, M.M. Iqbal, M. Ameen, I. Ahmad, S. Iqbal and Z. Mazhar. Interactive effects of salinity and boron on physiological, antioxidative enzymes and yield responses of wheat (Triticum aestivum L.). 16th International Congress of Soil Science on "Healthy Soils for Food Security" from 15-17 March 2016 Organized by Soil Science Society of Pakistan.
- different **52.** Kalsom. J. M. Anwar-ul-Haq. A., Akhtar. and 2016. Screening of chickpea (Cicer arietinum L.) genotypes under 2016. 16th salt stress. Soil "Healthy International Congress of Science Soils for Food on Security" from 15-17 March 2016 Organized by Soil Science Society of Pakistan.
- **53.** Naz, T., J. Akhtar, **M. Anwar-ul-Haq**, M. Shahid, M.M. Iqbal, R. Bell and B. Dell. 2016. Carbohydrate partitioning, growth, and ionic composition of two Australian wheat varieties in response to salinity and

- boron toxicity. 16th International Congress of Soil Science on "Healthy Soils for Food Security" from 15-17 March 2016 Organized by Soil Science Society of Pakistan.
- **54.** Ameen, M., J. Akhtar, M. Sabir, M. Anwar-ul-Hag, Z.A. Sagib, T. Naz, M.M. and U. Riaz. 2016. Effect of Iqbal humic and phosphoric acid for nutrient availability health salinesodic 2016. and soil in soil. International 16th Congress of Soil Science "Healthy Soils for Food on Security" from 15-17 March 2016 Organized by Soil Science Society Pakistan.
- **55.** Arshi, A., J. Ahktar, **M. Anwar-ul-Haq** and M. Arfan. 2016. Effect of NH4NO3 fertilizer on soybean (Glycine max L.) genotypes under salt stress. 16th International Congress of Soil Science on "Healthy Soils for Food Security" from 15-17 March, 2016 Organized by Soil Science Society of Pakistan.
- **56.** Sattar, H., **M.** Anwar-ul-Haq, Hamaad R.A., M. Nasem, M. Zia-ur- Rehman, J. Akhtar. 2015. Effect of inorganic amendments on maize (*Zea mays L.*) growth and Ni uptake from naturally contaminated soil. International Conference on Soil Sustainability for Food Security, November, 15-17, 2015 at ISES, UAF. P72.
- **57.** Naseem, N., **M. Anwar-ul-Haq**, M. Zia-ur-Rehman, H. R. Ahmad, J.Akhtar. 2015. Maize growth during remediation of ni contaminated salt affected soil with organic amendments. International Conference on Soil Sustainability for Food Security, November, 15-17, 2015 at ISES, UAF. P74.
- **58.** Zahoor, S., **M. Anwar-ul-Haq**, J. Akhtar, M. Rasool, M. Jan. 2015. Interactive effect of silicon and cadmium on wheat (*Triticum aestivum L.*) growth. International Conference on Soil Sustainability for Food Security, November, 15-17, 2015 at ISES, UAF. P76.
- **59.** Rasool,M., **M.** Anwar-ul-Haq, I. Ahmad, S. Zahoor, M. Jan. 2015. Potential of maize (Zea mays L.) cultivars against cadmium (Cd) and lead (Pb) toxicity. International Conference on Soil Sustainability for Food Security, November, 15-17, 2015 at ISES, UAF. P115.
- **60.** Fatima,H., **M. Anwar-ul-Haq,** I. Ahmad, M.Jan. 2015. Effect of saline water on growth and ionic composition of maize (*Zea mays L.*). International Conference on Soil Sustainability for Food Security, November, 15-17, 2015 at ISES, UAF. P115.
- **61.** Samreen, T and **M. Anwar-ul-Haq**. 2015. Application of Hoagland's nutrient solution to reduce the effect of salinity on soybean (*Glycine max L*.). International Conference on Soil Sustainability for Food Security, November, 15-17, 2015 at ISES, UAF. P131.
- **62.** Abbasi, G., H., M. Jamil, **M. Anwar-ul-Haq**, H., Mahmood, Z. Malik, S. Ali. 2015. Response of maize (*Zea mays L*.) to potassium supply under salinity stress. International Conference on Soil Sustainability for Food Security, November, 15-17, 2015 at ISES, UAF. P136.
- **63.** Abbasi, G.H., I. Haq, M. Jamil, **M. Anwar-ul-Haq**, Z. Malik, S. Ali. 2015. Alleviation of salinity stress in tomato through zinc application. International Conference on Soil Sustainability for Food Security, November, 15-17, 2015 at ISES, UAF. P138.
- **64.** Aftab,M., **M. Anwar-ul-Haq**, J. Akhtar, A. Riaz. 2015. Exogenous application of potassium to mitigate the adverse effect of salinity and boron stress in cotton (*Gossypium hirsutum L.*). International Conference on Soil Sustainability for Food Security, November, 15-17, 2015 at ISES, UAF. P150.
- **65.** Naz, T., J. Akhtar, **M. Anwar-ul-Haq,** M. Iqbal, A. Niaz. 2015. Wheat growth response to different levels of salinity and boron. International Conference on Soil Sustainability for Food Security, November, 15-17, 2015 at ISES, UAF. P158.
- **66.** Abbasi, G.H., M.Jamil, J.Akhtar, **M. Anwar-ul-Haq**, M.Ahmad, A. Sohail and F-ul-Zaman. 2014. Characterization of wheat varieties against salinity stress 15th International Congress of Soil Science, Islamabad, Pakistan. 18-20 March, 2014.
- **67.** Amjad, M., J. Akhtar, **M. Anwar-ul-Haq** and R. Ahmad. 2014. Alleviation of oxidative stress in tomato by potassium application under salt stress. 15th International Congress of Soil Science, Islamabad, Pakistan. 18-20 March, 2014.
- **68.** Riaz A., **M.** Anwar-ul-Haq, J. Akhtar, M.Aftab and A. Niaz. 2014. Effect of calcium chloride (CaCl₂.2H₂O) salinity and boron toxicity on wheat (*Triticum aestivum L.*). 15th International Congress of Soil Science, Islamabad, Pakistan. 18-20 March, 2014.

- **69.** Aftab, M., **M. Anwar-ul-Haq**, J. Akhtar and E.A. Warraich. 2014. Screening of cotton (*Gossypium hirsutum L.*) genotypes against salinity and boron stress. 15th International Congress of Soil Science, Islamabad, Pakistan. 18-20 March, 2014.
- **70.** Azhar, M., **M. Anwar-ul-Haq**, J. Akhtar, M.Zia-ur-Rehman, S. Raza, H. R. Ahmad, M. Sabir and M. Shahbaz. 2014. Salt tolerance variations in wheat (*Triticum aestivum L.*) genotypes. 15th International Congress of Soil Science, Islamabad, Pakistan. 18-20 March, 2014. (Poster)
- **71.** Samreen, T., **M. Anwar-ul-Haq**, M.Saqib and H.Munir. 2014. Response of soybean (*Glycine max L.*) to different concentrations of Hoagland's nutrient solution under salinity stress. 15th International Congress of Soil Science, Islamabad, Pakistan. 18-20 March, 2014. (Poster)
- **72. M. Anwar-ul-Haq,** J. Akhtar, M. Saqib and Z.A. Saqib.2014.Propspects of Saline Agriculture in Pakistan. International Conference on Creating Food Self Sufficiency in Thar Utilizing indigenous groundwater Resources. September 13-14, 2014 at Pearl Continental Hotel, Karachi. Pakistan.
- **73.** Barboni, D., **M. Anwar-ul-Haq**, J.D Meunier, C. Keler.2014. Si- accumulation in durum wheat and drought stress: impact on the plant morphology and its leaf phytolith content. 9th International Meeting on Phytolith Brussels, Belgium.10-13 September, 2014.
- **74.** Ahmed S., M. Saqib, G. Abbas, **M. Anwar-ul-Haq**, M. Maqsood and T.Ali. 2012. Response of different rice (Oryza sativa L.) genotypes to boron and salinity. 14th Congress of Soil Science, 12-15 March, Expo Centre, Lahore
- **75.** Sohail, M., M. Saqib, G. Abbas, **M. Anwar-ul-Haq** and S.M.A. Basra.2012.Effect of salinity and water stress on growth performance of Guava (Psidium guajava L.) 14th Congress of Soil Science, 12-15 March, Expo Centre, Lahore
- **76.** Mumtaz, M.Z. G. Abbas, M. Saqib, M. Arfan, **M.A.Haq** and M.B. Gill.2012. Screening of different rice genotypes against salinity under field conditions. 14th Congress of Soil Science, 12-15 March, Expo Centre, Lahore
- 77. Saqib. Z.A., J.Akhtar, S.A.Hussain, M. Anwar-ul-Haq and M.A. Riaz. 2012. Management of plant nutrition can improve physiological determinants of salts tolerance and crop productivity in salt stressed environments. 14th Congress of Soil Science, 12-15 March, Expo Centre, Lahore
- **78.** Ghafoor, M.A., **M. Anwar-ul-Haq**, M.U.Jamshaid, M.Ahmad and A.A.Sheikh. 2012. Evaluationg the behavior of different genotypes of wheat (Triticum aestivum L.) in saline –sodic soil. 14th Congress of Soil Science, 12-15 March, Expo Centre, Lahore.
- **79.** Abbasi, G.H, J.Akhtar, Z.A. Saqib, M.Anwar-ul-Haq and N. Ahmad. 2012. Mitigating effect of salicylic acid on morphological determinants of maize (Zea mays L.) under salt stress. 14th Congress of Soil Science, 12-15 March, Expo Centre, Lahore
- **80.** Akhtar, J., F. Naz, M.Saqib and **M. Anwar-ul-Haq**.2010. Assessment of biomass production and salt tolerance of multipurpose tree species. 13th Cong. Of Soil Sci. Serana Faisalabad, Pakistan. 24-27 March, 2010. p.98
- **81. M. Anwar-ul-Haq,** S.Sahrif, J.Akhtar and M.A. Basra. 2010. Response of maize (Zea mays L) to Zinc application under saline conditions in hydroponics. .13th Cong. Of Soil Sci. Serana Faisalabad, Pakistan. 24-27 March, 2010. p.104
- **82.** Saqib, Z.A., J.Akhtar, S.A.Hussain, **M. Anwar-ul-Haq** and M.A.Riaz. 2010. Management of plant mineral nutrition can improve physiological determinants of salt tolerance and crop productivity in salt stressed environments. .13th Cong. of Soil Sci. Serana Faisalabad, Pakistan. 24-27 March, 2010. p.122
- **83. M. Anwar-ul-Haq**, S. Akram and J.Akhtar. 2010. The genotypic behavior of sunflower (*helianthus annuus* 1.) under saline soil conditions. in Intl. Conf. on Soil Classification and Reclamation of degraded lands in Arid Environment 17-19 May, 2010 at Abu Dhabi, UAE
- **84.** Gill M.B., M. Saqib, G. Abbas, **M. Anwar-ul-Haq**, M.S.A. Ahmed, and M.Z. Mumtaz. 2012. Response of different maize (Zea maize L.) genotypes to salinity. 14th Congress of Soil Science, 12-15 March, Expo Centre, Lahore
- **85.** M. F. U. Z. Akhtar, M. Aslam, M. Jamil, M.N. Aslam, M. Anwar ul Haq. 2009. Biological control of American bollworm, jassid and aphids by *crysopa* and *trichogramma* in cotton crop. International Conference on "Advance in Agriculture Prospects and Potentials of Natural Recourses in Food Security"11-13 August 2009. University of Azad Jammu & Kashmir, Faculty of Agriculture Rawalakot

- **86. M. Anwar-ul-Haq**, J.Akhtar, A. Haq and Z.A. Saqib. 2008. The ameliorative effect of saline or / sodic water on maize (*Zea mays L.*) production. Intl., meeting on soil fertility, land management and Agroclimatology Aydin, Turkey. 29 Oct., 2008-01Nov., 2008 p 93.
- **87.** Akhtar, J., **M.** Anwar-ul-Haq, R. Farooq and Z.A. Saqib. 2008. Poor quality water and sustainability of wheat maize production on different textured soils. Intl., meeting on soil fertility, land management and Agro-climatology. 29 Oct., 2008-01Nov., 2008 p 94.
- **88.** Akhtar, J., **M.** Anwar-ul-Haq, Z.A.Saqib and R.H. Qureshi.2006.Options for salt affected soils-field testing of crops and trees. Intl. conf. on Sustain. Crop prods. On salt affected land. SARC, UAF, Dec.4-6, 2006.
- **89.** M. Anwar-ul-Haq, J.Akhtar, Z.Ahmad, S. Pervaiz, K.Mahmood and M.A.Riaz. 2006. Estimation of salinity tolerance in different wheat genotypes. Intl. conf. on Sustain. Crop prods. On salt affected land. SARC, UAF, Dec.4-6, 2006.
- **90.** Pervaiz, S., K.Hussain, J. Akhtar, **M. Anwar-ul-Haq,** M. Saqib and M.A. Riaz.2006. Evaluation of sorghum (*Sorghum bioclor* L) genotypes for salinity tolerance. Intl. conf. on Sustain. Crop prods. On salt affected land. SARC, UAF, Dec.4-6, 2006.
- **91.** Riaz. M.A., M. Ibrar, J. Akhtar, M.Saqib, **M. Anwar-ul-Haq** and S.Pervaiz. 2006. Evaluation and performance of sunflower genotypes under salt stress conditions. Intl. conf. on Sustain. Crop prods. On salt affected land. SARC, UAF, Dec.4-6, 2006.
- **92.** Farooq, M.R., J.Akhtar, **M. Anwar-ul-Haq**, S.Pervaiz, M.A. Riaz, K.Mahmood and Z.A.Saqib. 2006. Ameliorative effect of brackish water on soil and wheat production.2006. Intl. conf. on Sustain. Crop prods. On salt affected land. SARC, UAF, Dec.4-6, 2006.
- **93.** Saqib., Z.A., J.Akhtar, **M. Anwar-ul-Haq** and A.Dasti. 2006. Differential response of rice genotypes for salt tolerance in saline conditions.2006. Intl. conf. on Sustain. Crop prods. On salt affected land. SARC, UAF, Dec.4-6, 2006.
- **94.** Haq, A., J.Akhtar, **M. Anwar-ul-Haq** and M.Ajmal. 2006. Use of brackish water for sustainable maize crop production. 2006 Intl. conf. on Sustain. Crop prods. On salt affected land. SARC, UAF, Dec.4-6, 2006
- **95.** Hussain, T., **M. Anwar-ul-Haq** and T.I.Ali 1999. Recycling of water using EM_Technology, 3rd Segmite Intl. Symp. On water resources. 36p.
- **96. M. Anwar-ul-Haq**, J. Akhtar, M. Ibrahim, W. M. Bhutta and Z.A.Dasti 2004. Use of brackish water for sustainable rice production NDP, Seminar, Peshawar

TECHNICAL REPORTS/MANUALS

- 1. Annual Progress report of Project entitled: Ecological adaptation of salt tolerant crop species to utilize saline water to sustain crop production in salt affected soils Funded by Higher Education Commission (HEC), Islamabad, Pakistan 2021-22.
- **2.** Annual Progress report of Project entitled: Combined effect of nitrogenous fertilizer and salinity on growth and oil quality of soybean (*Glycine max* L.) Funded by Higher Education Commission (HEC), Islamabad, Pakistan 2018.
- **3.** Annual Progress report of Project entitled: Combined effect of nitrogenous fertilizer and salinity on growth and oil quality of soybean (*Glycine max* L.) Funded by Higher Education Commission (HEC), Islamabad, Pakistan 2017.
- **4.** Annual Progress report of Project entitled: Combined effect of nitrogenous fertilizer and salinity on growth and oil quality of soybean (Glycine max L.) Funded by Higher Education Commission (HEC), Islamabad, Pakistan 2016.
- **5.** Use of brackish water for sustainable crop production. Funded by Higher Education Commission (HEC), Islamabad, Pakistan. Final Completion report. 2004-07.
- **6.** Use of brackish water for sustainable crop production. Funded by Higher Education Commission (HEC), Islamabad, Pakistan 2005-06.
- **7.** Use of brackish water for sustainable crop production. Funded by Higher Education Commission (HEC), Islamabad, Pakistan 2004-05.
- **8.** National coordinated Project on management of Salt affected soils and brackish water in Pakistan. ALP Project Report 2004-2005.

- **9.** National coordinated Project on management of Salt affected soils and brackish water in Pakistan. ALP Project Report 2003-2006.
- **10.** National coordinated Project on management of Salt affected soils and brackish water in Pakistan. ALP Project Report 2003-2004.
- 11. Use of brackish drainage effluent for Agriculture and Forestry.2003.
- **12.** Salinity and Drainage Survey of Shorkot site in Farmers Participatory Saline Agriculture Development Project 2001.

INVITED TALKS

- 1. Muhammad Anwar-ul-Haq. 2024. Ecological adaptation of salt-tolerant crop species by utilizing saline water to sustain crop productions. 2nd International Conference SOIL, PLANT AND ENVIRONMENTAL HEALTH UNDER CHANGING CLIMATE April 16-17, 2024, Department of Soil & Environmental Sciences, Department of Climate Change, MNS-University of Agriculture, Multan-Pakistan.
- 2. Muhammad Anwar-ul-Haq, Haq Nawaz, Muhammad Tayyab Mehmood, Rizwan Ullah, Muhammad Awais, Muhammad Nadeem, and Irfan Iftikhar. 2022. The Challenges of Climate Change: adaptation and mitigation. 1st International Conference on Climate Change November 28-29, 2022, at The Islamia University Bahawalpur
- 3. Invited talk entitled "The Challenges of Climate Change: Adaptation and Mitigation" in a Conference Impact of Climate Change on the health of General Public: Problem, Policy and Planning March 21-22, 2022, at Institute of Public Health Lahore
- **4.** Invited talk entitled "Characterization of industrial effluent to immobilize the toxic potential of pollutants by using organic and inorganic amendments to grow vegetables in peri-urban of Faisalabad" in One Day International Symposium on Recent Innovations in Water and Wastewater Management May 19, 2022, Government College University Faisalabad, Pakistan
- **5.** Guest speaker for seminar on water and soil testing one-day seminar on farmers training regarding Agriculture Inputs and Doorstep Testing Facilities at District Faisalabad. 2019
- **6.** Invited talk in 2nd salinity conference held on 28-30 April 2019 at IUB Bahawalpur entitled: Effect of nitrogenous fertilizer and salinity on growth and yield of soybean (Glycine max L.) in Pakistan.
- 7. Invited Radio Talk (FM-93) at Radio Pakistan Faisalabad on BS/MS/PhD Environment admission and outcomes along with the benefits of moon soon rains dated 25.07.2019.
- 8. Invited Radio Talk (FM-93) at Radio Pakistan Faisalabad on SMOG and Health dated 18.11.2019.
- 9. A lecturer on "Avoid use of plastic" April 22, 2018, organized by EPA-Faisalabad.
- 10. Talk on "Save to Earth" June 05, 2018, at Nishat Textile Faisalabad organized by EPA-Faisalabad.
- **11.** Radio Talk entitled" management of pollutants" June 05, 2018, World Environment Day, FM radio Faisalabad.
- **12.** Invited to talk on Soil quality degradation major challenge for sustaining food security December 05, 2018, at College of Agriculture University of Sargodha.
- **13.** How Salinity Affects Wheat Growth and Fertilizer Recommendations in Field? I presented paper at Movenpick Karachi August 10-12, 2016, sponsored by FAO-USDA,
- 14. Invited talk entitled "Climate Change adaptation" at Dynasty Faisalabad dated 21-12-2015.
- **15.** I presented paper in International Conference on "Creating Food Self Sufficiency in Thar Utilizing Indigenous Groundwater Resources entitled PROSPECTS OF SALINE AGRICULTURE IN PAKISTAN organized by Dawood University of Engineering & Technology's in September 13-14, 2014, at Hotel Pearl Continental, Karachi.
- **16.** Presented poster entitled "the genotypic behavior of sunflower (*helianthus annuus* 1.) Under saline soil conditions" in Intl. Conf. on Soil Classification and Reclamation of degraded lands in Arid Environment 17-19 May 2010 at Abu Dhabi, UAE.
- **17.** Presented paper **on t**he Ameliorative Effect of Saline or / Sodic Water on Maize (*Zea Mays* L.) Production, International Meeting on Soil Fertility Land Management and Agro-climatology. Turkey, 2008. P: 715-735.

RESEARCH PROJECTS:

• Total Projects Completed: 13

• On-going Projects: **05**

ON-GOING PROJECT

- 1. **Principal Investigator** Economic utilization of salt affected soil with the integration of chemical and biological approaches to live within salinity for sustainable agro-ecosystem. worth Rs. 3.326 million by Pakistan Science Foundation, Islamabad, Pakistan Project No. Cons. 376. 2023.
- **2. Co- Principal Investigator**: Zero-Valent iron and biochar mediated simultaneous alleviation of chromium accumulation in wheat grown in Cr-contaminated soils. NRPU -16362 HEC, Islamabad. Approved by HEC with amount of Rs. 3.58 million (04.03.2022). PI. Dr. M. Adrees.
- **3. Co- Principal Investigator:** Development of enhanced efficiency di-ammonium phosphate through bioactivation, boron and Ltryptophan enrichment for improving yield and oil content of canola. Approved by HEC with amount of Rs. 9.24 million (14.04.2022). PI. Dr. Tayyaba Samreen.
- **4. Team Member: PARB-** PROJECT ID NO.- 20-350 entitled: Development of soybean in Pakistan to reduce the import bills. (Project Manager Dr. Zahir Ahmad CAS)
- **5. Project Director** Lodging Facility at the campus 1000 female Hoste worth 886.847 million funded by Govt. of Punjab Pakistan Year 2024.

COMPLETED PROJECTS

- 1. **Principal Investigator** Ecological adaptation of salt tolerant crop species to utilize saline water to sustain crop production in salt affected soils. NRPU -13599/2020 HEC, Islamabad. Approved by HEC with amount of Rs. 17.124 million. PI. Dr. M. Anwar-ul-Haq
- **2. Principal Investigator** Combined effect of nitrogenous fertilizer and salinity on growth and oil quality of soybean (*Glycine max* L.). Approved by HEC with amount of Rs. 4.3 million (2019 Completed). PI. Dr. M. Anwar-ul-Haq.
- **3. Member/Co-ordinator**: Agro-ecological zones of Panjab Pakistan project funded by Ministry of Food and Agriculture (FAO) of united Nations (completed in 2019)
- **4. Principal Investigator** / Supervisor: Muhammad Nadeem PhD student HEC indigenous scholarship ORIC No. 8713 dated 20.11.2019. Entitled "Nutrients and Oxidative Stress management in Bread Wheat (*Triticum aestivum* L.) by exogenously applied Silicon under Saline and Water stress environment".
- **5. Principal Investigator** /Supervisor: Hafsa Zafar PhD student HEC indigenous scholarship No. 518-139074-2AV5-077, dated 20.11.2019. Entitled "Role of Nitrification Inhibitors to Manage Nitrogen Transformations under Salt Stress Conditions."
- **6. Principal Investigator/Supervisor:** Evaluation of Efficient Release of NO₃-N from Neem Coated Granular Urea and DAP (2016). Rs. 1.55 million/Year. Funded by FFBL Ltd. Rawalpindi.
- **7. Co-Principal Investigator** Agro-Physiological and biochemical characterization of *Camelina sativa* under water stress. HEC funded (2010-2016).
- **8. Co-Principal Investigator**: Impact and Assessment of Inferior Quality Groundwater on Agricultural Productivity. Approved with collaboration with Irrigation Dept. amount Rs. 3.948 million (In progress from 2015).
- **9. Principal Investigator/ Supervisor:** PhD student HEC indigenous scholarship, "Efficiency of Zinc Utilization in Rice (*Oryza sativa* L.) Genotype under Saline Conditions". Dr. Muhammad Jan Laghari
- **10. Principal Investigator:** PhD student HEC indigenous scholarship, "Alleviation of Salinity and Boron Stress by Potassium Application in Cotton (*Gossypium hirsutum* L.)" Dr. Muhammad Aftab.
- **11. Co-Principal Investigator**: Use of Brackish water for sustainable crop production. Funded by HEC, Islamabad (2005-2008).
- **12. Co-Principal Investigator**: National coordinated Project on saline agriculture for managing salt affected soils and brackish water in Pakistan (ALP- PARC, 2003-2006).
- **13.** Coordinator: Conducted soil survey of Farmers Participatory Saline Agriculture Development project IAE (2001).

FELLOWSHIP OF SCIENTIFIC SOCIETIES:

Soil Science Society of Pakistan (SSSP)-UAF 30

EDITOR/ REVIEWER OF IF JOURNAL

- 1. Journal of Phytoremediation,
- 2. Journal of Plant Nutrition
- **3.** Journal of Agronomy and Crop Sciences
- 4. Pakistan Journal of Agricultural Sciences
- 5. Journal of Agriculture Research
- **6.** Archive of Agronomy and Soil Science
- 7. Journal of Crop Sciences
- **8.** Journal of Soil and Environment
- 9. Journal of Ecotoxicology and Environmental Safety
- 10. Journal of Environmental Management
- 11. Silicon
- 12. Journal of Soil Science and Plant Nutrition