

Dr. Muhammad Ashfaq Anjum

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PERSONAL PROFILE

Marital status: Married
Nationality: Pakistani

PROFESSIONAL QUALIFICATION

Degree/Certificate	Institution	Year	Division/Grade	Subjects
Ph. D Soil Science	ISES, University of Agriculture, Faisalabad.	2011	1 st	Soil Science / Microbiology and Biochemistry
M.Sc. (Hons) Agriculture	-do-	1995	1 st	Soil Science
B.Sc. (Hons) Agriculture	-do-	1995	1 st	Soil Science
F.Sc (Pre-Medical)	BIE, Karachi	1988	1 st	Science Subjects
Matriculation	BISE, Bahawalpur	1980	1 st	Science Subjects

EXPERIENCE

DEPARTMENT OF AGRICULTURE (RESEARCH WING)

- **CHIEF SCIENTIST (B-20),**
Soil Salinity Research Institute, Pindi Bhattian, District Hafizabad.
Duration (s): 18.02.2022 to date
Duties

1. Working as administrator and supervisor of all research activities.

2. To develop new strategies mitigating soil salinity / sodicity.
3. Supervision of all technical and non-technical staff regarding official matters.
4. Timely disposal of disciplinary proceedings.
5. To incur the expenditure in accordance with rules.
6. To look after the financial matters of the Institute.
7. To manage and supervise all the research activities / correspondence external and internal matters.
8. To play active role in physical and financial development projects.
9. To plan and execute the research proposals and projects.
10. To compile periodical research reports and disseminate results to stake holders through radio talks, research papers, popular Urdu article, lectures and seminars.
11. To provide advisory services to farmers.

➤ **CHIEF SCIENTIST (B-20)**

Provincial Pesticide Reference Laboratory, Kala Shah Kaku Distt. Sheikhupura, Pakistan

Duties

1. Use administrative and financial power
2. To provide impartial analysis of disputed pesticide samples referred for re-analysis
3. To analyze the pesticide samples at the time of their registration
4. To analyze new pesticide chemistry

➤ **CHIEF SCIENTIST (B-20) / DIRECTOR (Additional charge)**

Soil Salinity Research Institute, Pindi Bhattian, Distt. Hafizabad, Pakistan

Date (s): 12.06.2020 to 11.12.2020

Duties

1. Working as administrator and supervisor of all research activities
2. To develop new strategies mitigating soil salinity/sodicity
3. Supervision of all technical and non-technical staff regarding official matters.
4. Timely disposal of disciplinary proceedings
5. To incur the expenditure in accordance with rules.
6. To look after the financial matters of the Institute.
7. To manage and supervise all the research activities / correspondence external and internal matters.
8. To play active role in physical and financial development projects.
9. To plan and execute the research proposal and projects.
10. To compile periodical research reports and disseminate results to stake holders through radio talks, research papers, popular Urdu article, lectures and seminars.
11. To provide advisory services to farmers.

➤ **SOIL BACTERIOLOGIST:**
Soil Bacteriology Section, Ayub Agriculture Research Institute, Faisalabad

Date (s): 18.04.2017 to 22.01.2019

Duties

1. Planning and execution of research program of work relevant to Soil and water conservation
2. Preparation and planning of new research projects relating to Soil and water conservation

➤ **DIRECTOR (B-20) PAFDA: (Additional charge)**
Provincial Pesticide Reference Laboratory, Kala Shah Kaku Distt. Sheikhupura

Date (s): 09.06.2016 to 20.12.2016

Duties:

1. Operationalization of PPRL-KSK working under the supervision of DG, PAFDA.
2. To conduct re-analysis of pesticide samples referred by Additional Secretary (Task Force)
3. To effectively contribute in pesticide anti adulteration campaign in Punjab.

➤ **ASSOCIATE AGRICULTURAL CHEMIST:**
Soil Chemistry Section, Ayub Agriculture Research Institute, Faisalabad

Date (s): 12.06.2015 to 18.04.2017

Duties:

1. To assist the Agricultural Chemist (soils) in research activities relevant to Soil Chemistry Section

➤ **AGRICULTURAL CHEMIST (RECLAMATION):**
Soil Salinity Research Institute, Pindi Bhattian District Hafizabad

Date (s): 01.05.2014 to 15.05.2015

Duties:

1. To act as head of soil reclamation division.
2. To Plan, monitor and execute all the research activities relevant to soil reclamation.
3. and to devise strategies to mitigate soil salinity and reclamation of salt affected soils.

➤ **AGRICULTURAL CHEMIST:**
Agri. Biotechnology Research Institute, AARI, Faisalabad

Date (s): 01.05.2011 to 30.04.2014

Duties

1. To conduct research on different aspects of agri. Biotechnology
2. To plan, monitor and execute soil microbial biotechnology related research work

➤ **AGRICULTURAL CHEMIST:**

Soil and Water Conservation Research Institute, Chakwal

Date (s): 17.11.2008 to 30.04.2011

Duties:

1. Planning and execution of research program of work relevant to Soil and water conservation
2. Preparation and planning of new research projects relating to Soil and water conservation

➤ **ASSISTANT RESEARCH OFFICER:**

➤ **Soil Bacteriology Section, Ayub Agricultural Research Institute, Faisalabad**

Date (s): 03.08.1998 to 16.11.2008

Duties:

1. Isolation, screening and maintenance of rhizobia and plant growth promoting rhizobacteria (PGPR), preparation and sale of inocula (biofertilizers) to the interested farmers.
2. Conducting experiments under axenic (lab), greenhouse and field conditions and publication of the research results in the form of papers, annual reports etc.

AGRICULTURAL CREDIT OFFICER:

United Bank Limited.

Date (s): Six months training at UBL Staff College, Lahore in 1994-95

Duties

1. Advisory services in Agri Farm development.
2. Advancing agricultural loans to interested farmers.
3. Advancing project loans to agricultural industries like sugar mill, cotton factories etc.
4. Recovery of loans.
5. General banking practices.

RESEARCH PROJECTS

Ph. D research title:

Substrate Dependent Microbial Biosynthesis of Auxins and Their Effect On Growth and Yield of Mung Bean (*Vigna radiata* L.).

M.Sc. (Hons.) Agri. research title:

Comparative efficiency of muriate of potash (MOP) and sulphate of potash (SOP) for growth and yield of mung bean.

Salient achievements

Planned and executed an ALP project “Improvement in wheat and cotton yield through biofertilizers” amounting to Rs. 17.90 millions.

FOREIGN TRAINING:

Six months advanced level training in microbial/molecular genetics in legume rhizobium symbiosis with special reference to phytohormones at Clemson University, South Carolina, USA.

RESEARCH PUBLICATION(S)

1. **Muhammad Ashfaq Anjum**, Khalil Ahmed, Ghulam Qadir, Muhammad Qaisar Nawaz, Amar Iqbal Saqib, Abdul Wakeel, Muhammad Sarfraz, Ghulam Shabir, Nadeem Iqbal, Muhammad Rizwan, Muhammad Faisal Nawaz, Muhammad Shakar, Muhammad Shafqat. 2023. Screening of Medicinal Crops at Various Salinity and Sodidity Levels. *Journal of Agriculture and Veterinary Science*, 02 (3). 155-165.
2. Bhatti, M.K., K. Ahmed, G. Shabir, M. Irfan, **M.A. Anjum**, M. Sarfraz, A.I. Saqib, A. Wakeel, H. Rafa, N. Iqbal, M.Q. Nawaz, G. Qadir, M. Rizwan and M.F. Nawaz. 2022. Response of seventeen advance rice lines to salinity and sodicity. *Pakistan Journal of Agricultural Research*, 35(3): 499-507.
3. Saqib. A. I., Ahmed. K., Wakeel. A., Nawaz. M. Q., Qadir. G., **Anjum. M. A.**, Sarfraz. M., Iqbal. N., Shabir. G., Rizwan. M., Nawaz. M. F., 2023. Growth perormance of tamarind (*Tamarindus indica* L.) Seedlings to different levels of salinity and sodicity. *Agric. Sci. J.* 5(2): xx-xx.
4. **Muhammad Ashfaq Anjum**, Khalil Ahmed, Amar Iqbal Saqib, Abdul Wakeel, Ghulam Qadir, Muhammad Sarfraz, Muhammad Rizwan, Muhammad Qaisar Nawaz, and Muhammad Faisal Nawaz. 2022. Response of sapodilla (*manilkara hexandra*) seedlings to different levels of salinity and sodicity. *Journal of Agriculture Research* Vol. 61(2):107-113.
5. Qadir, G., K. Ahmed, **M.A. Anjum**, Q.M. Affan, M.Z. Mushtaq, M.A. Qureshi, A.I. Saqib, H. Rafa, A. Wakeel1, G. Shabir, M. Rizwan, M.Q. Nawaz and M.F. Nawaz. 2022. Biomass yield response of different medicinal plants under dual stress of salinity and sodicity. *Pakistan Journal of Agricultural Research*, 35(2): 351-358.

6. **Anjum, M. A.**, Sarfraz, M., Qureshi, M. A., Rizwan, M., Naz, A., Ahmed, K., Saqib, A. I., Nawaz, M. F., Nawaz, M. Q., Ali, M. A., Khalid, M., Shabbir, G., Nazarat, A., & Alvi, A. (2022). Impact of salicylic acid on wheat growth and nutrient uptake in salinized environments. *Journal of Pure and Applied Agriculture*, 7(3), 1-7.
7. Rafique, M., Riaz, A., **M. A. Anjum**, Qureshi, M. A., & F. Mujeeb, (2018). Role of Bioinoculants for Improving Growth and Yield of Okra (*Abelmoshus esculentum*). *Univ. J. Agri. Res.* 6(3), 105-112.
8. Qureshi, M. A., F. Mujeeb, M. A. Ali, **M. A. Anjum**, N. Akhtar, S. Javed and M. A. Shakir. 2017. Role of Physiological Precursor and Rhizobium-Wheat Associations in Field Conditions. *J. Animal Plant Sci.* 27(3): 861-868.
9. Qureshi, M. A., F. Mujeeb, M. A. Ali, **M. A. Anjum**, N. Akhtar, S. Javed and M. A. Shakir. 2017. Role of Physiological Precursor and Rhizobium-Wheat Associations in Field Conditions. *J. Animal Plant Sci.* 27(3): 861-868.
10. Qureshi, M. A., F. Mujeeb, **M. A. Anjum**, M. A. Ali and A. Khan. 2017. Influence of growth stimulants with rhizobium inoculation on the yield of mung bean (*Vigna radiata* L.). *Pak. J. Agri. Sci.*, Vol. 54(3), 523-529.
11. Sultana, S., A. Niaz, Z. A. Ahmed, S. A. Anwer, M. A. Anjum, M. Ilyas. 2017. Effect of Boron Application on Growth, Yield and Quality of Bitter Gourd. *Science Letters.* 5(1):1-7.
12. Iqbal, M. M., G. Murtaza, T. Naz, W. Javed, S. Hussain, M. Ilyas, M. A. Anjum, S. M. Shahzad, M. Ashraf and Z. Iqbal. 2017. Uptake, Translocation of Pb and Chlorophyll Contents of *Oryza sativa* as Influenced by Soil-Applied Amendments under Normal and Salt-Affected Pb-Spiked Soil Conditions. *Asian J Agri & Biol.* 5(1):15-25.
13. Qureshi, M. A., M. Asif Ali, F. Mujeeb, M. J. Ahmad, S. Rashid, Sana Ullah, M. A. Anjum. 2017. Yield and quality response of cotton to a consortium of PGPR at graded fertilizer levels. *International Journal of Biosciences*, 10 (3) 46-53, 2017.
14. Majeed, A., M. A. Haq, A. Niaz, J. Akhtar, Z. A. Ahmad, A. Muhmood, **M. A. Anjum** and S. S. H. Shah. 2016. Gas Exchange Traits and Biplot Analysis Method can be used as Screening Criteria for Salt Tolerance in Maize (*Zea mays* L.) Cultivars. *Amer. J. Experiment. Agric.* 11(2): 1-11.

15. [Anjum, M. A.](#), Z. A. Zahir, M. Arshad and M. Ashraf. 2011. Isolation and screening of rhizobia for auxin biosynthesis to improve growth of mung bean (*Vigna radiata* L.) under axenic conditions. *Soil Environ.* 30(1): 18-26.
16. Zahir, Z. A., H. M. Yasin, M. Naveed, **M. A. Anjum** and M. Khalid. 2010. L-tryptophan application improves the effectiveness of rhizobium inoculation for improving growth and yield of mungbean *Vigna radiata* (L.) Wilczek.) *Pak. J. Bot.* 42 (3): 1771-1780. **(Impact factor 0.91)**.
17. Kausar, R. S. M. Shehzad, M. Arshad and **M. A. Anjum**. 2009. Screening and evaluation of rhizobacteria containing acc-deaminase for growth promotion of wheat (*Triticum aestivum* L.) under salinity stress. *J. Agri. Res.* 47 (3): 237-246.
18. Naveed, M., R. Ahmad, M. A. Nadeem, S. M. Nadeem, K. Shahzad and **M. A. Anjum**. 2008. Effect of a new post emergence herbicide application in combination with urea on growth, yield and weeds control in maize, *zea mays* L. *J. Agric. Res.* 46(2): 157-170.
19. **Anjum, M. A.** M. R. Sajjad, N. Akhtar, M. A. Qureshi, A. Iqbal, A. R. Jami and M. Hasan. 2007. Response of cotton to plant growth promoting rhizobacteria (PGPR) inoculation under different levels of nitrogen. *J. Agric. Res.* 45(2): 135-143.
20. Habib, H. U., S. S. Mehdi, A. Rashid, M. Zafar and **M. A. Anjum**. 2007. Heterosis and Heterobeltiosis Studies for Flowering Traits, Plant Height and Seed Yield in Sunflower (*Helianthus annuus* L.). *Intl. J. Agric. Biol.* 1560–8530/2007/09–2–355–358. <http://www.fspublishers.org>.
21. Habib, H. U., S. S. Mehdi, **M. A. Anjum**, R. Ahmed. 2007. Genetic Association and Path Analysis for Oil Yield in Sunflower (*Helianthus annuus* L.). *Intl. J. Agric. Biol.* 1560–8530/2007/09–2–359–361. <http://www.fspublishers.org>.
22. Habib, H. U., S. S. Mehdi, **M. A. Anjum**, M. E. Mohayuddin and M. Zafar. 2007. Correlation and Path Analysis for Seed Yield in Sunflower (*Helianthus annuus* L.) under Charcoal Rot (*Macrophomina phaseolina*) Stress Conditions. *Intl. J. Agric. Biol.* 1560–8530/2007/09–2–362–364. <http://www.fspublishers.org>.
23. Habib, H. U., S. S. Mehdi, A. Rashid, S. Iqbal and **M. A. Anjum**. 2006. Heterosis studies in sunflower (*helianthus annuus* L.). crosses for agronomic traits and oil yield under Faisalabad conditions. *Pak. J. Agri. Sci.* 43:(3-4):131-135.

24. Habib, H. U., S. S. Mehdi, A. Rashid and **M. A. Anjum**. 2006. Genetic association and path analysis for seed yield in sunflower (*Helianthus annuus L.*). Pak. J. Agri. Sci. 43:(3-4):136-139.
25. **Anjum, M. A.** M. R. Sajjad, M. A. Qureshi, S. I. Hussain. S. Rashid and A. R. Jami. 2005. Response of cotton to diazotrophic bacterial inoculum under different levels of nitrogen fertilizer. J. Agric. Res. 43(1): 39-50.
26. **Anjum, M. A.**, M. **Aslam, M.** R. **Sajjad, M. R. Gill and** A. Iqbal. 2003. Response of spinach to diazotroph bacterial inoculation under different levels of nitrogen fertilizer. Pak. J. Soil Sci. 22(2):27-31.

PROFESIONAL MEETINGS ATTENDED

- Attended Annual Rice Program meeting arranged by Pakistan Agricultural Research Council (PARC) Islamabad held on July 09-10, 2020 at NARC, Islamabad.
- Attend National Conference on Beneficial Microbes & sustainable crop production held on February 19-20, 2020 at The University of Agriculture, Peshawar.
- Attended 16th Congress of Soil Science held on March 16-18, PMAS-Arid Agriculture University, Rawalapindi-Pakistan.

MEMBER OF PROFESIONAL SOCIETIES

- Life member of Soil Science Society of Pakistan since 2003. URL: <http://www.sss-pakistan.org/> (Served as Treasurer, Soil Science Society of Pakistan for two year 2016-2018).
- Life Member of American Society for Microbiology
- Member of Soil Science Society of America, USA
- Member of Pakistan Botanical Society

COMPUTER SKILLS

- Proficient in MS-Word, Excel, Power Point etc.
- Internet surfing, browsing and Email, whatsapp, facebook, twitter, instagram etc.

SHORT COURSES & TRAININGS

- Two months training in Basic Computer Course from RAEDC, Vehari (MS-Word, Excel, Power Point etc.)

LANGUAGES

Fluent in;

- English
- Urdu
- Punjabi
- Saraiki

FUTURE PLANNING

- Bioremediation of pollutant chemicals/heavy metals through microbes.
- Bio-control of plant diseases by using efficient microbial inoculants.
- Use of biofertilizer technology for improving crop yields through sustainable agriculture
- Integrated Plant Nutrient Management Systems.
- Increasing crop production through decreasing environmental threats.

PERSONALITY

- Pleasant, hardworking, honest, excellent management and administration skills.
- Possessing excellent qualities of Planning and execution.
- Capable of working under challenging environments.