

Samina Bibi

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ABOUT ME

I am a passionate and hard-working student. Looking for a challenging task to utilize my skills in a reputable research institute, where I can enhance my working skills, knowledge, and experience. I want to devote my time to devise captivating, fascinating, and unique practices of research to improve quality and quantity of crops.

EDUCATION AND TRAINING

Doctor of Philosophy (Ph.D.) <i>Quaid-i-Azam University, Islamabad</i> Country: Pakistan Field of study: Plant Physiology Final grade: CGPA; 4.00 out of 4.00 Thesis: Impact of Nickel on Wheat: Finding A Balance between Plant Nutrition and Toxicity	[2026]
Master of Philosophy (M.Phil.) <i>Quaid-i-Azam University, Islamabad</i> Country: Pakistan Field of study: Plant Science Final grade: CGPA; 4.00 out of 4.00 Thesis: Nutritional Profiling of Root, Stem and Leaf of Berberidaceae Family	[2022]
Master of Science (M.Sc.) <i>Quaid-i-Azam University, Islamabad</i> Country: Pakistan Field of study: Plant Science Final grade: A (88.5%)	[2020]
Bachelor of Science (B.Sc.) <i>University of Punjab, Lahore</i> Country: Pakistan Field of study: Science Final grade: 1 st Division	[2017]
Higher Secondary School Certificate (HSSC) <i>Federal Board of Intermediate and Secondary Education, Islamabad</i> Country: Pakistan Field of study: Pre-medical Final grade: A	[2015]
Secondary School Certificate (SSC) <i>Federal Board of Intermediate and Secondary Education, Islamabad</i> Country: Pakistan Field of study: Science Final grade: A ⁺	[2012]

WORK EXPERIENCE

Lab Assistant

Quaid-i-Azam University, Islamabad

Country: Pakistan

Duration: 3 years

LANGUAGE SKILLS

Mother tongue(s): **Punjabi**; Other language(s): **English** | **Urdu**

DIGITAL SKILLS

Microsoft Office | Microsoft Word | Microsoft PowerPoint | DNDC modeling | XLStat software | SPSS software | RStudio | Primer designing using NCBI | MEGA11 | TBtools | Minitab | BioEdit | Biorender for graphical designing and illustrations | Graphic design applications (Adobe Photoshop, PhotoScape).

COMMUNICATION AND INTERPERSONAL SKILLS

Strong Managerial and Leadership Qualities
Excellent written and verbal communication skills
Self-motivated and target oriented
Hard-working, efficient and proficient
Reliable, hard-working, and cooperative

CONFERENCE AND SEMINARS

- Participation in Conference on Recent Approaches in Plant Sciences (RAPS-2022) held by the University of Education, Lahore, Pakistan
- Participation in Fourth International Conference on Biosciences (ICBS-2021) organized by Biological Society of Pakistan
- Participation in poster competition on international day for Biodiversity organized by Quaid-i-Azam University, Islamabad in collaboration with Ministry of Climate change Pakistan

HONOURS AND AWARDS

- Award funding for DNDC modelling in plants under “SUPER GCRF Researcher Exchange Scheme” at University of Aberdeen, Scotland, supported by the Scottish government, UK
- Laptop awarded by Prime Minister of Pakistan through Prime Minister Youth Laptop Scheme (PMYLS) on scoring 4.0/4.0 CGPA during the course work
- Fellowship on getting more than 80% marks in M.Phil. from Quaid-i-Azam University, Islamabad
- The Punjab Educational Endowment fund (PEEF) merit scholarship in M.Sc. from Government of Punjab, Pakistan

RESEARCH EXPERTISE

- Agricultural field experiments
- Agronomic research techniques
- Data collection and analysis
- Urease pathway analysis in plants and soil microbes
- DNA isolation, Primer designing, PCR and QTL mapping
- In silico studies
- Nanotechnology

- Sustainable farming practices
- Soil analysis
- DNDC modelling
- Nutritional Profiling
- Phytopathology
- Antimicrobial activity analysis
- Assessment of the impact of abiotic and biotic stress on plants
- Analysis of Enzymatic and non-enzymatic antioxidants in plants under stress

RESEARCH INTERESTS

- Plant Physiology
- Soil chemistry
- Plant-Soil Interactions
- Soil nutrient flow/cycling
- Soil fertility dynamics
- Nano-fertilizers
- Greenhouse gas emissions
- Simulation modeling
- Omics techniques
- Nanotechnology for crop improvement
- Gene Expression
- Plant-Microbe Interaction (PMI)
- Medicinal Plants

PUBLICATIONS

Research article: Trichoderma Inoculation Alleviates Ni Stress and Improves Yield Stability of Wheat (*Triticum aestivum* L.) Through Enhancing Antioxidant Activity, Physiological Response and Anatomical Adjustments (<https://link.springer.com/article/10.1007/s11274-026-05001-0>)

Research article: Investigating the Role of Bulk and Nano Nickel in Amelioration of Morphophysiology and Photosynthetic Activity of *Triticum aestivum* L. (<https://www.nature.com/articles/s41598-025-98964-3>)

Research article: Manganese oxide nanoparticles elicit cadmium tolerance in wheat seedlings by ionic and phenolic adjustment, regulation of AsA–GSH pathway, cellular thickness recovery, and antioxidant modulation (<https://pubs.rsc.org/en/content/articlelanding/2024/en/d4en00490f>)

Research article: Copper-Induced Oxidative Stress on Growth and Nutrient Profiles in JP-5 and Super Basmati Rice Cultivars (<https://austinpublishinggroup.com/agriculture-crop-sciences/fulltext/aacs-v9-id1155.php>)

Research article: Seed Priming and Foliar Spray with Thiourea-mediated NiS QDs Improve Grain Yield and Nutritional Quality of Bread Wheat by Enhancing Nutrient Uptake and Photosynthetic Efficiency (**Under review in a Peer-reviewed journal and I am lead author**)

Research article: Exploring the Nutritional Value and Anti-fungal Potential of Berberis Fruits: A Holistic Approach to Health Promotion and Disease Management (**Under review in a Peer-reviewed journal and I am lead author**)

CHAPTER: Nanobiosensors for detecting and monitoring and soil conditions (https://link.springer.com/chapter/10.1007/978-981-96-8335-2_10)

CHAPTER: Epigenetic Memory and Transgenerational Stress Adaptation in Plants (<https://www.igi-global.com/chapter/epigenetic-memory-and-transgenerational-stress-adaptation-in-plants/390306>)

CHAPTER: Soil health for improving water quality and renewability (I am lead author, publication expected in May 2026)

HOBBIES AND INTERESTS

Reading books

Gardening

Traveling

RECOMMENDATIONS

Name: Dr. Umar Masood Quraishi

Professor

Department of Plant Sciences,

Quaid-i-Azam University, Islamabad Pakistan.

Email: umasood@qau.edu.pk

Name: Dr. Muhammad Farooq Hussain Munis

Professor

Department of Plant Sciences,

Quaid-i-Azam University, Islamabad, Pakistan.

Email: munis@qau.edu.pk

Name: Dr. Mohamed Abdalla

Advanced Research Fellow

School of Biological Sciences,

University of Aberdeen, Scotland, UK.

Email: mabdalla@abdn.ac.uk