

DR. MUHAMMAD ALI

Lecturer

Department of Agriculture
Government College University
Lahore, Pakistan



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▼ ABOUT ME

I am a Lecturer in Agriculture at Government College University, Lahore, with a Ph.D. in Plant Pathology (Sustainable Agriculture) from the University of the Punjab Pakistan. I have published over 30 research articles (IF 55.124) and specialize in Sustainable Agriculture, Mycology, and Plant Pathology. As a reviewer for PLOS ONE and Archives of Phytopathology and Plant Protection, I actively contribute to the scientific community. I am keen to advance my research through international training and collaboration.

▼ EDUCATION

- **Ph.D. 2012-2019**
Sustainable Agriculture: Biological control of Chili Damping Off Disease, Institute of Agricultural Sciences, University of the Punjab, Lahore
- **Master of Science MSc. (Hons.) 2007-2009**
Sustainable Agriculture: Biocontrol of Fungal organisms by Mushroom Extracts, Institute of Agricultural Sciences, University of the Punjab, Lahore
- **Bachelor of Science B.Sc. (Hons.) 2003-2007**
Plant Pathology, University of the Punjab, Lahore

▼ WORK EXPERIENCE

- **Lecturer (BPS-18 Regular)** 2023-till date
Department of Agriculture, Government College University, Lahore, Pakistan.
- **Assistant Professor (IPFP)** 2020 - 2023
Sustainable Development Study Center (SDSC), **Government College University, Lahore, Pakistan.**
The teaching and research at SDSC are focused on Sustainable Agriculture, Fungal Ecology, and finding environmentally friendly formulations to replace harmful Agrochemicals.
- **Visiting Lecturer** 2016 - 2019
Institute of Agricultural Sciences, University of the Punjab, Lahore
Courses Taught:

- GIS and Remote Sensing (Feb 2019-June 2019)
- General Microbiology (Aug 2018-Dec 2018)
- Introductory Mycology (Oct 2017-Feb 2018)
- Introduction to Plant Parasitic Nematodes (Oct 2016-Feb 2017)

▪ **Research Associate**

2015-2018

In a research project regarding the formulation of biopesticides for the control of soil-borne diseases of the plants, funded by the Punjab Agriculture Research Board (PARB) at the Institute of Agricultural Sciences, University of the Punjab, Lahore from March 2015 to August 2018. The project was completed, and it was worth 3.5 Billion PKR.

▪ **Research Assistance**

2014-2015

- In a research project about the Molecular Probing of Mycotoxigenic Fungi from Stored Grain Rice at the Institute of Agricultural Sciences, University of the Punjab, Lahore, from March 2014 to March 2015. The project was funded by the University of Punjab, Lahore.

▪ **Project Coordinator**

2010-2012

- In a research project about the development of Agriculture Research Farm at Agriculture Research Farm of Weal-AG Corporation, Private Limited Lahore from December 2010 to October 2012.

RESEARCH PROJECTS AS PRINCIPAL AND CO-INVESTIGATOR

- I. **Biopesticides: A Sustainable Approach to manage fungal infections in Vegetable crops (PI)**
Funding Agency: Higher Education Commission of Pakistan. Budget: One million PKR. Status: Approved and recommended by HEC.
- II. **Establishing and promotion of vermicompost production unit at KSK campus of GC University Lahore (PI)** Funding Agency: ORIC Government College University Lahore

RESEARCH PUBLICATIONS

1. Khadija Sajid, Muhammad Hassan Javed, Ala'a H. Al-Muhtaseb, Mohammad Rehan, Mohammad Ilyas Khan, Farayi Musharavati, Muhammad Waqas Anjum, Muhammad Naqvi, **Muhammad Ali**, Muhammad Rizwan Tabassum and Abdul-Sattar Nizami. (2025). Advancing Sustainable Bioethanol Production from Organic Waste by Integrating Life Cycle Modeling. Energy Nexus: 100563. **(Impact factor = 9.5)**
2. Hafiz Husnain Nawaz, **Muhammad Ali**, Attiq Rehman, Muhammad Azhar Iqbal, Kashaf Nawaz and Muhammad Amjad. (2025). First Report of *Phytophthora inundata* causing crown rot on *Olea europaea* (Olive) in Pakistan. Plant Disease. **(Impact Factor = 4.4)**
3. Abdula Hannan, Sagheer Atta, Muhammad Amjad Bashir, Sajjad Hyder, Nasir Ali Tauqir, **Muhammad Ali** and Irum Mukhtar. (2025). Comparative efficacy of Commercial Fungicides and *Trichoderma harzianum* against *Fusarium* wilt in Strawberry. Pakistan Journal of Botany, 57(4):265-271 **(Impact Factor = 1.1)**
4. Mehwish Batool, Adnan Akhter, Sana Javed, Muhammad Khurshid, Habiba Arshad, Nasir Ali and **Muhammad Ali**. (2025). Effect of Biochar and Seed Bio-priming with PGR on Maize Anthracnose. International Journal of Agriculture and Sustainable Development. 7 (1): 29-44.
5. Usman Arshad, Muhammad Tanveer Altaf, Waqas Liaqat, **Muhammad Ali**, Muhammad Nadeem Shah, Muhammad Jabran and Muhammad Amjad Ali. (2024). Biochar: Black Gold for Sustainable Agriculture and Fortification against Plant Pathogens, A Review. Gesunde Pflanzen, 7:1-12. **(Impact Factor= 2.082)**
6. Hong-Yue Qi, Dan Wang, Dong-Fei Han, Jian Song, **Muhammad Ali**, Xiao-Feng Dai, Xiao-Jun Zhang, Jie-Yin Chen. (2023). Unlocking Antagonistic Potential of *Bacillus amyloliquefaciens* KRS005 to Control Grey Mold. Frontiers Microbiology. **(Accepted, Impact Factor= 6.064).**

7. **Muhammad Ali**, Sohaib Afzaal, Faiza Sharif, Shinawar Waseem Ali, Hafiz Husnain Nawaz and Waqas ud din Khan. (2023). Morphological and Molecular characterization of *Pythium* species from Punjab, Pakistan. Archives of Phytopathology and Plant Protection. **(Impact Factor=1.28)**
8. Iqra Ashraf, **Muhammad Ali**, Muhammad Asif, Waheed Anwar, Adnan Akhtar, Mhuammad Shafique. (2023). Unveiling antifungal proteins from *Tremetes versicolor* as bio-pesticide to inhibit *Alternaria alternata*. *Biological and Clinical Sciences Research Journal*. (1):185-185.
9. Muhammad Husnain Nawaz, **Muhammad Ali** (2022). *Colletotrichum acutatum*: causal agent of Olive anthracnose isolation, characterization, and fungicide susceptibility screening in Punjab, Pakistan. *Plant Disease Journal* **(Impact Factor=4.438)**
10. Masooma Batool, Shafeeq Ur Rahman, **Muhammad Ali**, Faisal Nadeem, Muhammad Nadeem Ashraf, Muhammad Harris, Zhenji Du, Waqas ud din Khan. (2022). Microbial-assisted chromium immobilization through zinc and iron-enriched rice husk biochar in sandy loam soil. *Frontier in Microbiology*, 3401. **(Impact Factor = 6.064)**
11. **Muhammad Ali**, Shinawar Waseem Ali, Faiza Sharif, Sidra Javed, Muhammad Shahzad and Ahmad Ali Shahid. (2022). Unlocking the Ecological and Molecular Characterization of Agaricales from Temperate Forests of Pakistan. *Egyptian Journal of Botany*. 62(3): 837-849. **(Impact Factor = 1.11)**
12. Um e Rabiya, **Muhammad Ali** and Waqas ud din. (2022). Comparative efficiency of silica gel, biochar, and bacterial species in chromium and lead bioaccumulation of *Solanum melongena* L. grown on wastewater treated soil. *Frontiers in Plant Sciences*. 13: 2512-2531. **(Impact Factor = 6.627)**
13. **Muhammad Ali**, Faiza Sharif, Abdul Hannan and Ahmad Ali Shahid. (2022). First report of *Pythium kunmingense* isolated from *Capsicum annum* in Pakistan. Archives of Phytopathology and Plant Protection. 55 (6): 773-782. **(Impact Factor = 1.14)**
14. Mehra Azam, **Muhammad Ali** and Faiza Sharif. (2021). Escalation in Rice (*Oryza sativa* L.) Seed Strength and Successive Development through Sustainable Application of Potassium Humate. *Journal of Plant and Environment*. 03 (01): 13-16.
15. **Muhammad Ali**, Faiza Sharif, Ahmad Ali Shahid, Muhammad Adnan Zafar and Muhammad Asif. (2021). Identification and characterization of *Aspergillus* sp. from leather. *Journal of the Society of Leather Technologists and Chemists*. 104: 307-311. **(Impact Factor = 0.40)**
16. Muhammad Ahmad, Muhammad Nasir Subhani, **Muhammad Ali** and Shaista Nasir. (2021). In-vivo Antagonistic Potential of Natural Extract and Rhizobacterial Isolates against Root Rot of Chili Incited by *Pythium aphanidermatum*. *Natural Volatiles and Essential Oils*, 8(4): 3488-3497. **(Impact Factor = 0.65)**
17. Sehrish Mushtaq, Muhammad Shafiq, Muhammad Saleem Haider, Muhammad Ashfaq and **Muhammad Ali**. (2019). Characterization of Plant Growth Promoting activities of bacterial endophytes and their antibacterial potential isolated from citrus. *Journal of Animal and Plant Sciences*, 29 (4): 978-991. **(Impact factor = 0.57)**
18. **Muhammad Ali**, Ahmad Ali Shahid and Muhammad Nasir Subhani. (2019). Mapping and Monitoring for the Valuation of Soil Fungi and Chili Damping-off. *Journal of Animal and Plant Sciences*, 29 (3): 737-745. **(Impact Factor = 0.57)**
19. Ahmad Ali Shahid, Mehra Azam, **Muhammad Ali**, Kiran Nawaz, and Moazzam Anees. (2019). Genetic Variation among the *Penicillia* Isolated from Citrus under Storage Condition. *Journal of Plant Pathology and Microbiology*, Vol 10 (2). **(Impact Factor: 2.28)**
20. Kiran Nawaz, Ahmad Ali Shahid, Louis Bengyella, Muhammad Nasir Subhani, **Muhammad Ali**, Waheed Anwar, Sehrish Iftikhar and Shinawar Waseem Ali. (2018). Evidence of genetically diverse virulent mating types of *Phytophthora capsici* from *Capsicum annum* L. *World Journal of Microbiology and Biotechnology* 34(9): 1-15. **(Impact Factor: 4.253)**

21. Kiran Nawaz, Ahmad Ali Shahid, Louis, Bengyella, Muhammad Nasir Subhani, **Muhammad Ali**, Waheed Anwar, Sehrish Iftikhar and Shinawar Waseem Ali. (2018). Diversity of Trichoderma Species in chili Rhizosphere that promote vigor and antagonism against virulent *Phytophthora capsici*. Scientia Horticulturae 239 (2018) 242–252. **(Impact Factor=4.342)**
22. Ahmad Ali Shahid, Sherish Iftikhar, Kiran Nawaz, Waheed Anwar and **Muhammad Ali (2017)**. First Report of *Alternaria alternata* Causing Brown Spot of Potato in Pakistan. Journal of Plant Pathology. (99) 1. **(Impact Factor=2.772)**.
23. Mehra Azam, Ahmad Ali Shahid, Ruqyeah Abdul Majeed, **Muhammad Ali**, Nasir Ahmad and Muhammad Saleem Haider. (2016). First Report of *Penicillium biourgeianum* causing post-harvest fruit rot of Apple in Pakistan. Plant Disease Journal. Vol. 100, No. 8, Pp: 1778 **(Impact factor=4.5)**.
24. Tayyba Chaudhry, Ahmad Ali Shahid, Muhammad Asif, Ruqyeah Abdul Majeed, Farhana Asghar, **Muhammad Ali** and Waheed Anwar. (2016) First report of *Curvularia lunata* causing leaf spot disease of *Solanum melongena* (Eggplant) in Lahore, Pakistan. Plant Disease Journal. Vol 100 (11): 2326 **(Impact Factor=4.5)**.
25. **Muhammad Ali**, Ahmad Ali Shahid and Sajid Ali. (2017). First Report of *Pythium debaryanum* causing Damping off in District Lahore of Punjab, Pakistan. Plant Disease Journal. Vol 101 (2): 391 **(Impact Factor=4.5)**
26. Ahmad Ali Shahid, Muhammad Umer, **Muhammad Ali** and Muhammad Irfan Ul Haq. (2016). Screening and application of rhizobacterial isolates as a biological control agent against charcoal rot of chilies. Science International Journal. 28(2),1 243-1 251. **(Impact Factor= 1.990)**
27. **Muhammad Ali**, Muhammad Shahbaz, Ahmad Ali Shahid, Muhammad Asif and Adnan Zahid. (2015). Incidence of Yellow Stripe Rust in Wheat Growing Areas of Lahore. Mycopath, 13(2):113-116.
28. **Muhammad Ali**, Ahmad Ali Shahid, and Muhammad Saleem Haider. (2016). Isolation and *In-vitro* screening of Potential Antagonistic Rhizobacteria against *Pythium debaryanum*. Pakistan Journal of Phytopathology. Vol. 28 (2): 231-240
29. Mirza Nabeel Baig, Ahmad Ali Shahid and **Muhammad Ali**. (2015). In vitro assessment of extracts of the Lingzhi or Reishi Medicinal Mushroom, *Ganoderma lucidum* (Higher Basidiomycetes) Against Different Plant Pathogenic Fungi. International Journal of Medicinal Mushrooms. Vol.17, Issue.4. Pp: 407-411. **(Impact Factor = 1.921)**
30. Muhammad Ali, Ahmad Ali Shahid, and Azeem Haider. (2014). A contribution to the previous study for genus Amanita from Ayubia National Park, Pakistan. Journal of Biology, Agriculture and Healthcare. Vol.4, No.27. Pp:246-247
31. Waheed Anwar, Muhammad Javed Saleem, and **Muhammad Ali**. (2014) Changing Pattern of *Mycena polygramma* in Pakistan. Journal of Biology, Agriculture and Healthcare. Vol. 4. No. 25. Pp: 268-271.
32. Ghazala Nasim and **Muhammad Ali**. (2011). Estimation of antimicrobial potential of *ganoderma lucidum* (leyss. ex fr.) karst. Extracts. Pakistan Journal of Botany. 43: 183-189.**(Impact Factor = 1.101)**
33. Ghazala Nasim, **Muhammad Ali** and Nasir Mehmood. (2010). Molecular analysis of *Ganoderma lucidum* isolates from Lahore, Pakistan Journal of Botany. 42(5): 33.07-3315, 2010. **(Impact Factor = 1.101)**
34. Ghazala Nasim, **Muhammad Ali** and Assad Shabbir. (2008). Study of genus *Ramaria* in the Ayubia National Park, Pakistan. Mycopath (2008) 6 (1&2) : 43-46
35. Ghazala Nasim, Rukhsana Bajwa and **Muhammad Ali**. (2007). *Sprassis crispa* (Wulf.) Fr., the cauliflower Mushroom – a new record from Lahore, Pakistan. Mycopath (2007) 5 (2): 119-120.

BOOK CHAPTERS

1. Muhammad Farhan, Muhammad Afzaal, Amina Kanwal, Atika Waqar, Qaiser Farid Khan, **Muhammad Ali**, Maqsood Ahmad, Zahid Ali Butt. (2025). Freshwater microalgae: promising food sources with nutritional and functional properties *In* Algae Biotechnology for Biomedical and Nutritional Applications. Science Direct, Academic Press. Page: 205-2017.
2. Anees Ahmad, Farah Hussain, Muhammad Hassan Javed, **Muhammad Ali** and Abdul Sattar Nizami. (2023). Gassification of Sewage Sludge *In* Sustainable Treatment and Management of Sewage Sludge, Page:181-200. CRC Press, Taylor, and Francis Group.
3. Ahmad Ali Shahid, Saira Yasin, Inam-ul-Haq, **Muhammad Ali**, and Muhammad Saleem Haider. (2013) "Use of Rhizobacteria for the Management of Soft Rot Disease of Potato" Athens: ATINER'S Conference Paper Series, No: AGR2013-0770

BOOKS

1. Ahmad Ali Shahid, **Muhammad Ali**, Muhammad Asif and Muhammad Saleem Haider. Mushrooms of Pakistan. 2nd Edition. Punjab University Press and Publications. (2020)
2. **Muhammad Ali**, Ahmad Ali Shahid, Kishwar Sultana Nazir, and Muhammad Saleem Haider. Mushrooms of Pakistan Volume 1. (2017)
3. **Muhammad Ali**, Javed Saleem, and Azeem Haider. The Visible Half: BASIDIOMYCOTA (A practical Manual to study Basidiomycetes) VDM Verlag Dr. Muller GmbH & Co. KG Dudweiler Landstr. 99, 66123 Saarbrücken, Germany, **ISBN: 978-3-639-34694-7**
4. Azeem Haider, Shakil Ahmed, and **Muhammad Ali**. Treatment of paper and pulp industrial effluent by *Pleurotus oestratus*. VDM Verlag Dr. Muller GmbH & Co. KG Dudweiler Landstr. 99, 66123 Saarbrücken, Germany, **ISBN: 978-3-639-35722-6**
5. Ghazala Nasim and **Muhammad Ali**. Getting the Basidio Blue Prints. (*Ganoderma lucidum*). LAP Lambert Academic Publishing. **ISBN 978-3-8465-4016-9.**

PEER-REVIEWED CONFERENCE PAPERS

1. Ahmad Ali Shahid, Muhammad Asif, Muhammad Shahbaz and Muhammad Ali. (2016) Antifungal potential of *Ganoderma lucidum* extract against plant pathogenic fungi of *Calendula officinalis*. 5th International Conference on Biological, Chemical and Environmental Sciences, March 24-25, UK, London
2. Hannan, A., Atta, S., Bashir, M. A., Hyder, S., Tauqir, N. A., Ali, M., & Mukhtar, I. (2021, October). Comparative efficacy of commercial fungicides and *Trichoderma harzianum* against Fusarium wilt in Strawberry. In *Congress Book. Cyprus West University and Nigde Omer Halisdemir University. Turkey: Turkish Science and Technology Publishing* (p. 265).

ADMINISTRATIVE EXPERIENCE

1. Performed the duties of Assistant Superintendent at the university hostel and managed the student affairs within the hostel premises at New campus, Punjab University Lahore.
2. Working as Departmental Focal Person for the National Agriculture Education Accreditation Council (NAEAC), Higher Education Commission, Islamabad.
3. Working as Academic Coordinator, IT Coordinator, and Departmental Focal Person for official correspondence for the Department of Agriculture, Government College University Lahore.

EXTRA-CURRICULARS

1. Remained **Editor of Student Magazine** "Mycomag" from 2004-2009 at Institute of Agricultural Sciences, University of the Punjab, Lahore.
2. Organized a survey of two days of **Ayubia National Park with CABI (UK)** scientists for the collection and identification of the macromycetes of the area in September 2009.
3. Performing duties of sports coordinator and Student advisor for the Department of Agriculture, Government College University Lahore.

RESEARCH SUPERVISED AS DESK SUPERVISOR/CO-SUPERVISOR

1. Microscopic and Molecular Characterization of soil-borne fungal pathogens from the cultivated lands of Lahore and Kasur (Session 2015-19)
2. Microscopic and Molecular characterization of fungal pathogens of *Lycopersicum esculentum* from Lahore and Kasur (Session 2015-19)
3. Comparative study of different Fungicides, Plant Extracts, and Biological agents against *Fusarium oxysporum f. sp. Lycopersici* (Session 2017-19)
4. Characterization of *Fusarium oxysporum* and its inhibition by different plant extracts and essential oils (Session 2017-19)
5. Molecular characterization of *Alternaria solani* and its management (Session 2017-19)
6. Detection of Antimicrobial Protein from *Bacillus pumilis* and their potential against *Fusarium oxysporum* (Session 2016-18)
7. Detection of Antifungal proteins from *Coriolus versicolor* and their effectiveness against *Alternaria solani* (Session 2016-18)
8. Biological control of *Pythium aphanidermatum* in chili with the application of Plant growth promoting rhizobacteria and *Ganoderma lucidum* extract" (Session 2015-17)
9. Antagonistic effect of different Biocontrol agents against fungal pathogens of *Solanum melongena* (Session 2014-16)
10. Antifungal evaluation of various Biological extracts and Essential Oils against Early Blight of Potato (Session 2014-16)
11. Molecular Identification and Phylogeny of *Aspergillus* and *Penicillium* Species from Apple and Citrus (Session 2013-2015)
12. Antifungal potential of *Ganoderma lucidum* against plant pathogenic fungi isolated from *Calendula officinalis* and *Oryza sativa* (Session 2013-15)
13. Biochemical and Molecular Characterization of Bacterial isolates from vegetable fields (Session 2012-16)
14. Isolation and Screening of Rhizobacteria as Biological Control against Fusarium wilt and Charcoal Rot diseases of chilies (Session 2011-13)
15. Efficacy of Entomopathogenic Fungi as Biological Control against Pests of *Gossypium hirsutum* (Session 2011-2013)
16. Biological Control of Different Fungal and Bacterial Pathogens by *Ganoderma lucidum* (Session 2011-2013).

ONLINE PROFESSIONAL CERTIFICATIONS

1. Introduction to Bio-Protection Products Foundation Certificate by CABI Academy powered by PlantwisePlus on April 8, 2024.
2. Certificate of course completion on Introduction to Statistics authorized by Stanford University, California, on January 6, 2023.
3. Certificate of course completion on Impact measurement and management for the SDGs authorized by Duke University North Carolina on January 2, 2023.
4. Certificate of course completion on Foundation of Public Health Practice: Health Protection authorized by Imperial College London on December 23, 2022.
5. Certificate of course completion on Working for Sustainable Future: Concepts and

- Approaches authorized by Lund University, Sweden on December 17, 2022.
6. Certificate of course completion on Beyond the Sustainable Development Goals, SDGs: Addressing Sustainability and Development authorized by Michigan University, U.S.A on December 15, 2022.
 7. Certificate of course completion on Sustainable Development- Ideas and Imaginaries authorized by the University of Copenhagen, Denmark, on December 17, 2022.
 8. Certificate of course completion on Management of International Development: Towards Agenda 2030 authorized by Universita Commerciale Luigi Bocconi, Italy, on December 16, 2022.
 9. Certificate of course completion on Sustainable Development Goals- A Global Transdisciplinary Vision for the Future authorized by the University of Copenhagen, Denmark, on December 5, 2022.
 10. Certificate of course completion on Introduction to Data Analysis using Microsoft Excel by Coursera project network on December 4, 2022.
 11. Certificate of course completion on Introduction to Sustainability by the University of Illinois, U.S.A., on December 2, 2022.
 12. Certificate of course completion on Writing in Science authorized by Stanford University, California, on November 29, 2022.
 13. Certificate of course completion on Learning for a Sustainable Future: Live at COP-27 by The University of Edinburgh Scotland, Learning for Sustainability Scotland and British Council on November 15, 2022.
 14. CPD Certification of course completion on Designing for Sustainable Future by SAMSUNG on November 15, 2022.
 15. Certificate of How to write an abstract and improve your article by Elsevier Researcher Academy on October 2, 2021.
 16. Certificate of Fundamentals of Manuscript preparation by Elsevier Researcher Academy on October 2, 2021.
 17. Certificate of using proper manuscript language by Elsevier Researcher Academy on September 10, 2021.
 18. Certification of Guide to Reference Managers: How to effectively manage your references by Elsevier Researcher Academy on September 8, 2021.
 19. Certificate of How to prepare your manuscript by Elsevier Researcher Academy on September 8, 2021.
 20. Certificate of structuring article correctly by Elsevier Research Academy on September 8, 2021.

PROFESSIONAL TRAINING/WORKSHOPS

1. A one-day Training on "**Intellectual Property Rights**" focused on Patent Writing/ Drafting and submission held on October 9, 2024, organized by the Office of Research Innovation and Commercialization (ORIC) Government College University Lahore.
2. **Workshop on Meta-Analysis: Techniques, Tools and Best Practices** organized by Library Society, Government College University, Lahore on July 13, 2024.
3. A one-day workshop on "**A Successful Journey from Research to Publication**" was held on February 17, 2022, organized by the Office of Research Innovation and Commercialization (ORIC) Government College University Lahore.
4. **4th International Symposium on Advances in Molecular Biology of Plant & Health Sciences** on December 23-24, 2021, organized by Center for Excellence in Molecular Biology (CEMB), University of the Punjab, Lahore.
5. **National Faculty Development Training** at the National Academy of Higher Education (NAHE) conducted by the Higher Education Commission of Pakistan from June 8, 2020, to July 4, 2020.

6. **3rd International Symposium on Advances in Molecular Biology of Plants and Health Sciences**, organized by National Center of Excellence in Molecular Biology, University of the Punjab, Lahore, on 19-21 December 2018
7. **National Workshop on Career Development** held on April 21, 2016, at the Institute of Agricultural Sciences, University of the Punjab, in collaboration with the National Academy of Young Scientists (NAYS).
8. **Workshop on Dengue Management** held on December 21 2015 at Institution of Agricultural Sciences, University of the Punjab, Lahore, with the collaboration of the Higher Education Commission of Pakistan.
9. **Workshop on Entrepreneurship and Writing a Winning Business Plan** held on October 20, 2015, at the Department of Microbiology and Molecular Genetics, University of the Punjab, Lahore, in collaboration with the Office of Research Innovative and Commercialization (ORIC), University of the Punjab, Lahore.
10. **Workshop on Writing a Research Proposal** held on 20-21 November 2014 at the Department of Food Science and Human Nutrition, Government College University, Lahore.
11. **Workshop on an Introduction to Next Generation Sequencing and its Application in Agricultural Sciences** held on April 14, 2015, at the Institute of Agricultural Sciences, University of the Punjab, Lahore.
12. **Workshop in Seed Production, Processing and Handling of Maize**, held at the University of Agriculture, Faisalabad on November 29, 2014.
13. **National Training Course on Seed Mycology and Nematology** organized by Federal Seed Certification & Registration Department (FSC & RD) in collaboration with NAPHIS from 16-19 June 2014.
14. **Workshop on Cotton Leaf Curl Disease (CLCuD) Diagnostics and Resistance**. Held from 26th to 28th August 2013 at the Institute of Agricultural Sciences, University of the Punjab, Lahore.
15. **Workshop on Quantitative Data Analysis using SPSS** on February 9, 2013 at Office of Research Innovation and Commercialization (ORIC) University of the Punjab, Lahore.
16. **2nd One-day workshop on Young Researchers Skill Development and NAYS Emerging Ideas Conference** on January 7, 2012, held at Center of Excellence in Molecular Biology, University of the Punjab, Lahore.
17. **Workshop on Education management** offered by the University of Cambridge, International examinations in collaboration with Oxford University Press, held on January 31, 2011.
18. **2nd National Symposium on New Trends and Advancement in Microbiology** on 18-20 March 2010 held at Department of Microbiology, University of Sindh, Jamshoro.
19. **National Symposium on Pharmacological Studies of Medicinal Plants**. Held on June 20, 2009, at Lahore College for Women University, Lahore.
20. **Workshop on Climate change and its influence on biodiversity** at the annual workshop for capacity building organized by the Environment Protection Department, Govt of Punjab, at Defence Club Lahore in October 2007.
21. **Workshop to promote biotechnology**, held at Lahore Chamber of Commerce Lahore in September 2007, organized by the Ministry of Agriculture, Govt of Punjab.
22. **1st International Symposium on Biofertilizers and Biocontrol Technology**, Organized by the Department of Mycology and Plant Pathology, University of the Punjab, Lahore in collaboration with National Productivity Organization (NPO), Asian Productivity Organization (APO) and Higher Education Commission (HEC). 25th-27th July 2005.
23. **Workshop on Research Management** held at Institute of Quality and Technology Management, University of the Punjab, Lahore, in collaboration with Higher Education

Commission (HEC) Quality Enhancement Cell and Research Office, University of the Punjab, Lahore.

24. **HEC workshop on Identification and Conservation of Micromycetes**, 23-28 August 2004, organized by the Department of Mycology and Plant Pathology, University of the Punjab, Lahore.

25. **HEC symposium on awareness of *Parthenium* weed**, 6-7 August 2004, Lahore. Organized by the Department of Mycology and Plant Pathology, University of the Punjab, Lahore.

SEMINARS

1. **International Seminar on Molecular Mysteries** held on March 27, 2024, organized by Zoological Society, Government College University, Lahore.
2. **International Seminar on "Resource Conservation for Sustainable Agriculture and Food Security"** organized by the Institute of Agricultural Science, University of the Punjab Lahore on April 19, 2018.
3. **International Seminar on Prospects of Agriculture Research (Current & Future)** held on August 23, 2017, at the Institute of Agricultural Sciences, University of the Punjab, Lahore.
4. **International Seminar on Sustainable Crop Production for Food Security under Changing Climate** held on April 18, 2017, at Institute of Agricultural Sciences, University of the Punjab, Lahore.
5. **Seminar on Global Halal Industry: Opportunities and Challenges** held on March 29, 2017, at the Institute of Agricultural Sciences, University of the Punjab, Lahore.
6. **International Seminar on Sustainable Production of Maize and Fodder Crops** held on January 10, 2017, at Institute of Agricultural Sciences, University of the Punjab, Lahore.
7. **Awareness Seminar on Food Safety and Hygiene** held on November 13, 2014, at the Institute of Agricultural Sciences, University of the Punjab, Lahore.
8. **National UIP seminar on Developing Local Food Additives/Preservatives**. Held on November 22, 2012, at the Institute of Agricultural Sciences, University of the Punjab, Lahore.
9. **Seminar for the protection of the deteriorating environment** at Avari Hotel Lahore, June 5, 2009. Organized by the Environment Protection Department, Ministry of Environment, Punjab.

ORGANIZED CONFERENCES

1. International Fisheries and Aquaculture Conference-2023 held on 08-09 February 2023. Organized by the Institute of Zoology, University of the Punjab, Lahore.
2. 3rd International Conference on Environment and Sustainable Development (ICESD 2021). Sustainable Development Study Centre (SDSC), Government College University, 6-8 April, 2021.
3. **International Conference on Significance of Potash Use in Pakistani Agriculture**, held on 24th and 25th November 2016 at the Institute of Agricultural Sciences, University of the Punjab, Lahore.
4. **5th International/10th National Conference of Pakistan Phytopathological Society** on Crop Protection for Sustainable Agriculture, held from 23rd to 25th November 2015 at the Institute of Agricultural Sciences, University of the Punjab, Lahore.
5. **International Conference on Stress Biology and Biotechnology** held in June 2014 at the Institute of Agricultural Sciences, University of the Punjab, Lahore. Participated in Poster presentation as well as organized the event.
6. **International Conference and Expo on Recent Developments in Human Nutrition, with the core theme of 'Innovate and Collaborate to Intervene in Malnutrition,'** held on March

13, 2014, at the University of the Punjab, Lahore.

7. **Third International Conference on Plant Pathology & Future Food Security**, 19-21 November 2007 Organized by Pakistan Phytopathological Society at the Department of Mycology and Plant Pathology, University of the Punjab, Lahore.

CONFERENCES PARTICIPATED

- **3rd International Conference on Biosciences** held on 9-11th May 2018 by Biological Society of Pakistan at Government College University, Lahore.
- **6th International Conference of Pakistan Phytopathological Society on Plant Health for Sustainable Agriculture**, held on 20-22nd November 2017 at the Department of Plant Pathology, Baha-ud-din Zakariya University Multan and Central Cotton Research Institute, Multan.
- **6th International and 15th National Conference on Dynamic Trends in Plant Science- Fostering Environment and Food Security** held on 9-11th May 2017 at Sardar Bahadur Khan Women's University, Quetta.
- **National Conference on Challenges and Opportunities to Boost Agriculture in Changing Climate** held on 29th and 30th March 2017 at College of Agriculture, Baha-ud-din Zakariya University, Bahadur Sub-Campus, Layyah.
- **International Conference on Malnutrition in South Asia**, held on 23-25 February 2015 at the Department of Food Science and Technology, Bahaudin Zakaria University, Multan.
- **All Pakistan Food Science Conference** was held from 16th to 17th March 2015 at the Pakistan Council for Scientific and Industrial Research (PCSIR) Complex, Ferozpur Road, Lahore.
- **International Conference of Plant Sciences**, held on 22nd-24th September 2014, organized by the Department of Botany, Government College University, Lahore.
- **5th International Conference on Agriculture, Food Security and Climate Change**. Held on 9th-11th September 2014 at the Faculty of Agriculture University of Poonch, Rawlakot.
- **International Conference of Pakistan Phytopathological Society on Climate Change and Plant Diseases**, held from 23rd to 25th January 2014 at the University of Karachi, Karachi.
- **1st International Conference on Prospects and Opportunities for Agricultural Development in Pakistan**, held on 25-27 June 2013, organized by the Department of Agriculture, University of Haripur, KPK at Khanspur-Ayubia.
- **8th International Conference of Pakistan Phytopathological Society on Challenges and Options for Plant Health Management**. Held on 28th-29th November 2011 at the Department of Plant Pathology, University of Agriculture, Faisalabad.
- **International Conference on Youth Empowerment on Reproductive Health**, organized by Children Hospital Lahore from 6th – 7th December 2010.
- **International Conference on Utilization of Modern Agriculture Technology in Changing Environment Perspective**, Organized by Faculty of Agriculture, University of Azad Jammu and Kashmir, Rawlakot from 21st – 23rd of July 2010.
- **22nd Asian Pacific Weed Science Conference of Asian Pacific Weed Science Society**, held at Government College University, Lahore from 8-12 March, 2010.
- **9th National Weed Science Conference, Alien invasive weeds-threat to biodiversity**, organized by Weed Science Society of Pakistan, Department of Weed Sciences, NWFP Agriculture University of Peshawar and Pakistan Science Foundation, Islamabad from 28-30 June 2009.
- **First International Symposium on medicinal plants, isolation and collection (ISMP-2008)**

May 21- 23, jointly organized by Lahore College for Women University, Lahore and British Council Lahore, Pakistan.