

DR. MASOOD AHMAD

Assistant Professor, Department of Horticulture



CONTACT

- +92-331-5248933
- masoodhort@aup.edu.pk
- Pakistan
- LinkedIn:
[Masood Ahmad, Ph.D.](#)

SKILLS

- Horticultural expertise
- Research and grant writing
- Teaching and curriculum development
- Student supervision
- Agricultural technology knowledge
- Event and seminar organization
- Data analysis proficiency
- Strong communication skills
- Industry collaboration
- Academic integrity and mentoring
- Landscape gardening
- Leadership
- Time management

LANGUAGES

- English
- Urdu and Pashto



PROFILE

- Dedicated and research-driven Assistant Professor of Horticulture with a strong academic background, extensive teaching and research as well as development sector' experience. Passionate about advancing horticultural science through innovative research, student mentorship, and practical applications. Committed to fostering an engaging learning environment, conducting impactful research, and contributing to the development of sustainable horticultural practices in Academia as well as in development sector. Seeking to enhance academic excellence, collaborate on interdisciplinary projects, and support the advancement of the Department of Horticulture through teaching, research, and institutional development.



EDUCATION

- Ph.D. in Horticulture** Session 2012-2015
Dissertation: Influence of pre- and post-harvest calcium treatments on morphological, phenological, and biochemical attributes of gladiolus.
- M.Sc(Hons) in Horticulture** 2001-2003
GPA: 3.90/4.00
- B.Sc (Hons) in Agriculture (Specialization in Horticulture)** 1998-2001
GPA: 3.70/4.00



WORK EXPERIENCE

- Assistant Professor–** May 2014 - Present
Department of Horticulture

The University of Agriculture, Peshawar, Pakistan

Additional Roles & Responsibilities:

- Additional Director, Advance Studies & Research – The University of Agriculture, Peshawar.
- Focal Person – University Mega-Project on Technology Development Center (Horticulture Component).
- In-Charge, Ornamental Horticulture Nurseries & Convener Campus Beautification Committee, The University of Agriculture, Peshawar.
- Deputy Director, Farms – The University of Agriculture, Peshawar.
- Associate Editor, Sarhad Journal of Agriculture – The University of Agriculture, Peshawar.
- Vice President Pakistan Society of Horticulture Science

Key Responsibilities as Assistant Professor:

- Teaching undergraduate and postgraduate courses in horticulture.
- Conducting research in horticulture and supervising graduate and undergraduate scholars.
- Publishing research in peer-reviewed journals and reviewing scientific publications and theses.
- Managing and executing research projects.

○ **Lecturer – Department of Horticulture**

May 2011 - May 2014

The University of Agriculture, Peshawar, Amir Muhammad Khan Campus, Mardan

- Teaching undergraduate and postgraduate courses in horticulture.
- Conducting and supervising research in horticulture.
- Publishing research in peer-reviewed journals and reviewing scientific publications and theses.
- Managing and maintaining the campus grounds and gardens.

PROFESIONAL EXPERIENCE AT OTHER ORGANIZATIONS

○ **Horticulturist (Head of Garden Branch)**

Mar 2010 - May 2011

Cantonment Board Lahore

- Planned and developed urban landscapes, ensuring sustainable and aesthetically pleasing green spaces.
- Led roadside and avenue beautification projects to enhance environmental and visual appeal.
- Managed the development and maintenance of parks and green spaces, ensuring high horticultural standards.
- Coordinated flower shows and supervised ornamental plant nursery operations for optimal growth and sales.
- Initiated research and development (R&D) programs to enhance horticultural practices and conducted capacity-building workshops for gardeners and staff.
- Spearheaded large-scale tree plantation campaigns to promote environmental sustainability and climate resilience.
- Provided regular briefings and presentations to senior authorities, ensuring strategic alignment and transparency in horticultural initiatives.
- Supervised and guided gardening teams, ensuring the successful execution of projects and daily operations.

○ **Horticulture officer**

Dec 2007 - Mar 2010

Defence Housing Authority (DHA), Islamabad

- Urban Landscape Planning & Development – Designed and implemented sustainable landscaping projects to enhance the aesthetic and environmental quality of residential and commercial areas.
- Parks & Green Spaces Management – Supervised the development, maintenance, and enhancement of parks, gardens, and public green spaces to ensure high horticultural standards.
- Ornamental Plant Nursery Management – Oversaw the production, maintenance, and distribution of ornamental plants, ensuring a steady supply for beautification and plantation projects.
- Environmental Sustainability & Tree Plantation Campaigns – Led large-scale afforestation initiatives to promote ecological balance, climate resilience, and sustainable urban greenery.

○ **Horticulturist**

Jan 2005 - Aug 2005

COMSATS Institute of Information Technology, Islamabad

- Supervised grounds and gardens to maintain aesthetic and functional green spaces.
- Managed ornamental horticulture nurseries to ensure high-quality plant production and supply.
- Led and supervised gardening staff, ensuring efficiency and productivity in horticultural operations.

○ **Horticulturist**

Jan 2004 - Dec 2004

Bahria Town, Rawalpindi/Islamabad

- Designed, implemented, and maintained landscapes, including parks, gardens, and green belts.
- Established and managed ornamental plant nurseries to support sustainable landscaping initiatives.
- Oversaw horticultural activities and supervised staff to ensure optimal execution of projects and maintenance of green spaces.

RESEARCH GRANTS & PROJECTS

Ongoing Project (Principal Investigator)

- Currently managing a two-year research project on Optimization of Production Technology and Value Addition in Tuberose.
- Awarded by the Higher Education Commission (HEC), Islamabad, Pakistan.
- Total project funding: PKR 5.02 million

Completed Project (Principal Investigator)

- Successfully led a two-year research project (2018-2019) on Developing an Aquaponics System to Produce Safe, Organic Food in a Sustainable and Environment-Friendly Way.
- Funded by USAID through a competitive grant system managed by PARC and CIMMYT (International Maize and Wheat Improvement Center), Islamabad, Pakistan.
- Total project funding: PKR 3.0 million.

TEACHING EXPERIENCE

Serving as a faculty member since 2011, teaching graduate and postgraduate courses in the Department of Horticulture.

Ph.D. Course

- Landscape Design

M.Sc. (Hons) Courses

- Post-Harvest Physiology of Horticultural Crops
- Mineral Nutrition

B.Sc. (Hons) Courses

- Introduction to Horticulture
- Principles of Ornamental Crop Production
- Commercial Flower Production
- Nursery Management & Certification System
- Introductory Landscape Gardening
- Plant Propagation and Nursery Management
- Protected Horticulture
- Indoor Plant Culture

STUDENT SUPERVISION

Ph.D. Students

- Under supervision: 02

M.Sc. (Hons) / M.Phil. Students

- Supervised: 45
- Currently under supervision: 05

B.Sc. (H) students

- Supervised: 60
- Currently under supervision: 05

PROFESSIONAL PARTICIPATION & CONTRIBUTIONS

International Workshops & Conferences:

- Participated and successfully completed International Training Workshop on "Disaster Risk Reduction and Green Development for CPEC," organized by Alliance of National and International Science Organizations – China-Pakistan Joint Research Center ANSO-CPJRC and COMSATS University Islamabad, held at COMSATS University Islamabad, Pakistan, from 18–22 June 2026.
- Participated as invited Guest Speaker in 2nd International Conference on "Plant Science and Management of Drylands for Agriculture and Biodiversity: A step towards sustainable development" held on May 18-20, 2026 at The University of Balochistan (UOB) Quetta, Pakistan organized by Department of Botany UOB.
- Organizer 10th International Conference and Expo 2026 held on April 07-09 jointly organized by the Department of Horticulture, The University of Agriculture Peshawar (UAP) and Pakistan Society of Horticulture Science (PSHS) at UAP.
- Participated as national Speaker in 10th International Conference and Expo 2026 held on April 07-09 jointly organized by the Department of Horticulture The University of Agriculture Peshawar (UAP) and Pakistan Society of Horticulture Science (PSHS) at UAP
- Organized and coordinated/participated in international seminar on "Climate Smart Agronomy: Issues & Solutions", on January 05, 2026 at Ayub Agricultural Research Institute (AARI), Faisalabad organized by Pakistan Society of Agronomy & Agronomic Research Institute, AARI, Faisalabad Pakistan
- Participated and delivered a talk as keynote speaker on "Climate-Smart Floriculture in Khyber Pakhtunkhwa: A Pathway to Sustainable Agriculture, Value Addition, and Livelihood Resilience" in an International Conference held on April 29-30, 2025 at the University of Agriculture Peshawar, Pakistan.
- Participated and delivered oral presentation at the 2nd international conference on "Climate change impacts on Agriculture and Food security" held on April 22-24, 2025 at The University of Swabi, Khyber Pakhtunkhwa Pakistan.
- Participated in 9th International Conference and Expo-2025 Organized by Department of Horticulture PMAS-AAUR and Pakistan Society for Horticulture Sciences on April 15-17, 2025.
- Participated as keynote speaker in the 3rd International Workshop on "Diversification, Value Addition, and Supply Chain Management of the Floriculture Industry" (Feb 24-25, 2025) at The University of Agriculture, Faisalabad, Pakistan.
- Participated as a Speaker & Session Chair at the International Conference on "Sustainable Agriculture and Genetic Resources" (May 9-11, 2024) at Hazara University, Mansehra, Pakistan.
- Participated as a Keynote Speaker & Session Chair at the National Conference on "Olive Production in Pakistan – A Holistic Approach" (June 14-15, 2023) at Hazara University, Pakistan.

Seminars & Workshops Conducted/Organized:

- Organized/Conducted One-Day Training on "Establishment and Management of Rose Garden" Held on January 22, 2026 Jointly Organized by Department of Horticulture & Office of Research, Innovation and Commercialization (ORIC), The University of Agriculture Peshawar, Pakistan.
- Organizing One-Day Training on "Olive Orchard Establishment and Management", Held on January 12, 2026 Jointly Organized by The University Research Farm & ORIC, The University of Agriculture Peshawar, Pakistan.
- Organized an international seminar on "Climate Smart Agronomy: Issues & Solutions", on January 05, 2026 at Ayub Agricultural Research Institute (AARI), Faisalabad organized by Pakistan Society of Agronomy & Agronomic Research Institute, AARI, Faisalabad Pakistan.
- Delivered seminar as invited speaker on "Present status and future prospects of Floriculture and value addition opportunities in Khyber Pakhtunkhwa" at Hazara University Mansehra Pakistan.
- Conducted two-days training on "Vegetative Propagation of plants" for at the Pakistan Forest Institute (PFI), Peshawar on July 28–29, 2025, providing practical guidance to PFI officers, Forest Rangers, Field Assistants, Foresters, and Gardeners to enhance forest management practices.
- Conducted a three-day training session as resource person on "Landscaping and Nursery Development" at the Pakistan Forest Institute (PFI), Peshawar (May 29–30 and June 2, 2025), providing practical knowledge and techniques to Foresters, Field

Assistants, and Gardeners to strengthen skills in nursery development and landscape design.

- Organized and supervised an educational visit of students from Qadims School of Leadership, Peshawar to the Department of Horticulture, The University of Agriculture, Peshawar on June 24, 2025, earning a formal letter of appreciation for providing an enriching learning experience.
- Co-Organized one day Seminar / Session on "Metal health awareness" on September 09, 2025, organized by Department of Rural sociology, The University of Agriculture, Peshawar
- Organized a one-day seminar on "Promoting Education in the United States for Students of Khyber Pakhtunkhwa" (June 10, 2024) in collaboration with PAIMAN ALUMNI TRUST & ORIC, The University of Agriculture, Peshawar.
- Conducted a one-day seminar on "Optimization of Production Technology and Value Addition in Tuberose" (May 31, 2024) at the Department of Horticulture, The University of Agriculture, Peshawar.
- Conducted a one-day workshop on "Landscaping Skills" (Jan 11, 2024) at the College of Home Economics, University of Peshawar
- Conducted a two-day training on "Landscape Gardening" (Dec 26-27, 2023) as a Resource Person at Pakistan Forest Institute, Peshawar.
- Conducted a two-day training course on "Training of Technical Staff & Gardeners in Compost Preparation" (Oct 25-26, 2023) at Pakistan Forest Institute, Peshawar.
- Delivered a Keynote Seminar at FATA University on "Future Plan for Plantation and Agriculture in Erstwhile FATA" (May 29, 2023).
- Organized a two-day National Conference on "Sustainable Farming through Agricultural Mechanization & Renewable Energy Technologies" (June 30 – July 1, 2021) at The University of Agriculture, Peshawar.

Trainings, Webinars & workshops Attended:

- Represented the Department of Horticulture, The University of Agriculture, Peshawar, in a high-level consultative workshop on the 2026 National UNCCD Report organized by IUCN Pakistan in coordination with the Ministry of Climate Change and Environmental Coordination, Pakistan.
 - Attended the Good Governance Academy's Global Ethics and Technology Summit (June 26, 2024).
 - Attended a one-day seminar on "Adaptation of Innovative Techniques for Agro-Food Production and Value Addition" (Dec 28, 2023) at PCSIR Laboratories Complex, Peshawar.
 - Participated in a one-day training on "Olive Good Agronomic Practices Focusing on Pruning" (Feb 3, 2023) organized by Olive Culture PSDB Olive Projects at Agricultural Research Institute, Tarnab, Peshawar.
 - Attended a training session on "Publishing with IEEE Open Access Journal" (Dec 14, 2022), organized by IEEE, U.S.
 - Attended the Good Governance Academy's Event, "The ISO Net Zero Guidelines" (Dec 8, 2022).
 - Attended the Good Governance Academy's International Webinar, "Governance in the United Kingdom" (Dec 6, 2022).
 - Organized & participated in a special seminar on WORLD SOIL DAY 2022 (Dec 5, 2022), jointly organized by the Directorate General Soil & Water Conservation, Khyber Pakhtunkhwa, and the Department of Soil & Environmental Science, The University of Agriculture, Peshawar.
 - Attended IEEE Xplore Digital Library training (Nov 23, 2022), organized by IEEE, U.S.
 - Attended ASTM COMPASS Database training (Nov 22, 2022), organized by ASTM International & HEC.
 - Attended ASTM COMPASS Database training (Oct 25, 2022), organized by ASTM International & HEC Pakistan.
 - Attended IEEE Xplore Digital Library training (Sep 28, 2022), organized by IEEE, U.S.
 - Attended online training on "From Research to Publication: IEEE Publication Process" (Sep 14, 2022), organized by IEEE, New York, U.S.

Scientific & Environmental Webinars:

- Attended Bridging Borders Series Webinar for International Wetlands Day (Feb 2, 2022), organized by Conservation Optimism Pakistan.
- Participated in an international webinar on "Conservation through the Lens of Optimism" (Sep 21, 2021), arranged by the Horticulture Society, GCU Lahore.

- Attended International Webinar on Strengthening Potato Industry Through Indigenous Breeding Program (July 29, 2021), organized by Islamia University Bahawalpur.
- Participated in an International Webinar on "Greenhouse Horticulture: Current Status and Future Prospects" (June 29, 2021), organized by MNS University of Agriculture, Multan.
- Attended International Webinar on "Hardscaping Basics" (Sep 15, 2020), arranged by the University of Illinois Extension.

Agriculture & Research Skill Development:

- Participated in 6th Annual National Tea Garden Festival 2025 organized by Pakistan Agricultural Research Council-National Tea and High value crops Research Station (PARC-NTHRI) at NTHRI Shinkiari Mansehra KP Pakistan held on 26th May, 2025.
- Attended the 1st training workshop for Departmental Focal Persons on Self-Assessment Report Writing & Evaluation Criteria for Agriculture Degree Programs (Feb 10, 2020), organized by the National Agriculture Education Accreditation Council in collaboration with HEC Islamabad.
- Participated in the Workshop on "Developing Research Skills & Data Management" (April 4-5, 2019) at Abdul Wali Khan University, Mardan.
- Participated in the 3-day International Conference on "Bio-Fortification of Staple Food Crops" (Sep 24-26, 2018), organized by HEC & The University of Agriculture, Peshawar.
- Attended Two-Day Training for Presiding Officers & Senior Assistant Presiding Officers for General Election 2018, organized by the Election Commission of Pakistan.
- Attended a five-day training workshop on "Dry Afforestation Techniques" (Mar 27-31, 2017), organized by Pakistan Forest Institute, Peshawar.
- Participated in the National Conference on "Innovations in Agriculture" (Mar 28-29, 2017) at the Summer Campus, Bara Gali, University of Peshawar, organized by the Agriculture University Teachers Association.
- Participated in the Training Course on "Bio-Engineering / Landslide Stabilization Techniques" (Dec 22-26, 2016) at Pakistan Forest Institute, Peshawar.
- Attended the Project Formulation Workshop (Sep 20-21, 2016) at Abdul Wali Khan University, Mardan.
- Attended a four-day training course on "Natural Resource Management Through Community Participation" (Sep 17-20, 2012), organized by the Pakistan Academy for Rural Development, Peshawar.
- Participated in the Cascading AIT-Based Training Program "Ensuring Training Effectiveness" (July 4-6, 2012) at the University of Agriculture, Peshawar, sponsored by HEC Pakistan.
- Participated in the First National Conference on Greening Road Infrastructure (Dec 22-23, 2009), organized by The Environ Monitor & National Foundation for Environmental Education & Research, Lahore.
- Participated in a two-day workshop on the Implementation of the "Green Man Project" (Nov 18-19, 2009), organized by the National Training Bureau, Ministry of Labour & Manpower, Islamabad.

Practical & Field Experience:

- Attended training on "Cultivation Systems, Techniques & Nursery Management of Olive" (Oct 25-27, 2007) at the Agriculture Research Institute, Tarnab, Peshawar.
- Hands-on experience in Farm Management activities such as budding, pruning, vegetable raising, and pest control at the Horticulture Research Farm, Agricultural University, Peshawar (2003).
- Internship at Agriculture Research Institute, Tarnab, Peshawar (Aug 1 – Dec 31, 2000).

MEMBERSHIP OF PROFESSIONAL BODIES

- Member, Royal Horticultural Society (RHS), UK.
- Member, Record Management Society (RMS), UK.
- Life Member, Pakistan Society of Horticulture Science (PSHS), Pakistan (ID 01034).
- Student Member, American Society for Microbiology (ASM).
- Member, The Asia Society of Researchers (ASR).
- Member, Hong Kong Chemical, Biological & Environmental Engineering Society (HKCBEEs).
- Member, Pakistan Society for Scientific Research (PSSR).
- Life Member, Pakistan National Association of Hearts (PANAHA), Rawalpindi, Pakistan.
- Member, The Mineral, Metals, and Materials Society (TMS), US.
- Member, International Association of Academic Plus Corporate (IAAC).
- ◆ Member, International Society of Substance Use Professionals (ISSUP), UK.

- Associate Member, International Society for Development and Sustainability (ISDS).

AWARDS & LETTERS OF APPRECIATION

- Recognized among the **World's Top 5% Scientists** in the *2025 SciRank Global Registry* based on independent bibliometric evaluation and global research performance analysis
- Certificate of Appreciation for serving as conference secretary and stage secretary in 10th International Conference & Expo 2026 organized by Department of Horticulture, University of Agriculture Peshawar Pakistan and Pakistan Society of Horticulture Science
- Research Award for winning grant/project entitled "Developing Aquaponics System to Safe Organic Food in a Sustainable, Environment-Friendly Way
- Research Award for winning grant/project entitled "Optimization of Production Technology and Value Addition in Tuberose."
- Appreciation certificate from Director for contribution to University's Agriculture farms (250 acres) as deputy Director Farms
- Appreciation Certificate awarded for serving as Judge in Annual Rose and spring flower shows organized by Cantonment Board Peshawar for consecutive ten years (2016-2025).
- Certificate of Appreciation for the establishment of the Rose Germplasm Unit (GPU) / Rose Garden
- Appreciation Certificate for outstanding services as a Horticulturist to the Cantonment Board Lahore, Pakistan
- Appreciation Certificate for successfully organizing the 27th Annual Flower Show Lahore Cantonment 2011
- Certificate of Merit for serving as Assistant Judge in the 26th Annual Spring Flower Show 2010 in Lahore, Pakistan
- Merit Scholarship Holder (1998-2023) during B.Sc (Hons) and M.Sc (Hons) at The University of Agriculture, Peshawar
- Certificate of Appreciation for expert advice on horticultural activities, including landscape maintenance, Development, and plantation of ornamental plants and fruit trees.

Collaborations & Intend of Cooperation IOC/ MoUs with Public/Private sector

S.No	Organization/institution name	Nature of collaboration	Status	Remarks
INTERNATIONAL				
1	Yunnan Agricultural University, China	Research, Trainings, with special in Floriculture Sector especially Roses of both Countries	IOC signed. MoU submitted and approved by University apex. Committee	Coordination with Yunnan Agricultural University, China in progress and likely to be materialized in April 2026.
2	North West A & F University China	Research, Training in areas of mutual interest in	IOC signed. MoU submitted and approved by University apex. Committee	Coordination in Progress and Likely to be materialized in April 2026.

		Floriculture Sector especially Marigold	meeting	
NATIONAL				
1.	Pakistan Science Foundations (PSF) Islamabad	Horticulture and Landscape Development	IoC Signed	Advisory services on horticultural especially ornamental & aromatic plants and landscaping
2.	PARC-Participatory Research Station , ARI, Tarnab	Research	IOC signed	Main focus on non-traditional Horticultural Crops & value addition
3.	Federal Seed Registration & Certification (FSC & RD Department	Varietal development assistance, trainings	IOC likely to be signed by end of Feb, 2026	Few meetings already held. And both parties agree to proceed
4.	NTHRI, Shinkiari, Mansehra	Research, value addition	IOC likely to be signed by end of Feb, 2026	Necessary coordination done
5.	ARI, Tarnab	Research, trainings, consultancy	IOC likely to be signed in March 2026	Necessary Coordination done with Floriculture section ARI and in an informal meeting with DG Agric. Research
6.	Pakistan Scientific and Technological Information Centre (PASTIC)	Trainings	IOC likely to be signed by end of March, 2026	Training to horticulture graduate and early career young faculty

PUBLICATIONS

Total Publications: 58

Ahmad, K., F. Munsif., S. Ullah., M.A. Mas-ud., I. Ahmad., I. Ahmad., M. Ahmad., M.S. Khan., I. Ul Haq., M.A. Haque and M.N. Matin. 2026. Melatonin seed priming enhanced drought tolerance in rapeseed (*Brassica napus* L.) cultivars. Scientific Reports. <https://doi.org/10.1038/s41598-026-56134-z>

Rome.B., **M. Ahmad.**, H. Ali., R. Khan., I. Ahmad., A. Basit., A. Khalil and H. Bilal. 2026. Influence of sowing dates and salicylic acid on the performance of Roselle (*Hibiscus sabdariffa* L.) under the agro-climatic conditions of Peshawar. Discover Plants, 3(1):122.

Ahmad.M., H. Khan., S.S. Shah., R. Alam., W. Habib., J. Alam., H. A. Khan., I. Khalil., S. K. Khalil., H. Ullah and Z. Hani. 2026. Import, Availability and Demand of Hybrid and Open-Pollinated Ornamental Flower Seeds in Pakistan: A Survey of Private Seed Companies. *Physical Education, Health and Social Sciences*.04(01): 840-846

Ahmad. M., H. Khan., R. Alam., I. Khalil., M. Ullah., H. Riaz., J.Alam., A. Moaiz., H. A. Khan and M.K. Ullah. 2026. Climate-Resilient Landscaping in Peshawar: Integrating heat and cold tolerance with social and therapeutic benefits. *Social Sci. Rev. Arch*. 4(1):2625-2633.

Shah, S.S., **M.Ahmad.**, H.Ali., S.Zaman., S.N. Malik., A. Asghar and I. Ullah.2026. Impact of Epsom salt concentrations on the growth and development of gladiolus cultivars. *BioSci. Rev*. 8(01):63-78.

Turab, A., **M.Ahmad**, M. Abbas., Z. Khan., Rahamdad., M. Ullah., M.M.Tajamul., I. Ali., M. Kamal., H.A. Khan., S.M.A.S. Gillani and I. Ullah. 2026. Enhancing growth and flowering of French marigold (*Tagetes Patula* l.) through pinching and phosphorus in protected shade house horticulture. *Physical Education, Health and Social Sciences*, 4(1): 205-213.

Rahamdad. N. Ara., **M. Ahmad**, M. Abbas., Z. Khan., A. Iqbal., A. Yar., A. Sufyan and F. Ali. 2026. Agro-Morphological Diversity and Yield Performance of Pak Choi (*Brassica Rapa* l. Var. Chinensis) under the Winter Conditions of Peshawar. *Physical education, health and social sciences*. 4(1):143- 150.

Khan. Z., **M. Ahmad**, M. Arif, Rahamdad, Z. Ali., J. Ahsan., M. Abbas., A. Sufyan., S. Razaullah., A. Iqbal and I. Ullah .2025. Offseason production of cucumber genotypes in response to salicylic acid in anti-insect walk-in tunnel. *Social Science Review Archives*, 3 (4): 3984-3992.

Martin.S., **M. Ahmad** and A. M. Khattak. 2025. Willow bark extracts ameliorate the vegetative and flowering attributes of tuberose CV. Single at calcareous soil of high pH. *Research and Innovation*. 1(1): 1-9.

Akbar, S., B. Ali., M. Rizwan., I. Ullah., M. Masoom., Z.A. Pirzada., M. Sulaiman., **M. Ahmad**, and A. Sher. 2025. Effect of organic potash on morpho-physiological traits, yield, and quality of onion (*Allium cepa* L.) cultivars under field conditions. *Integrative Plant Biotechnology*, 3(4): 361–370.

Khan.Z., **M.Ahmad**, M. Abbas, Rahamdad, M.T. Awan, S. Razaullah., A. Sufyan and Mahmood Iqbal. 2025. Effect of Willow Bark Extracts and Pinching On Performance of Flax (*Linum Grandiflorum*). *Social Science Review Archives*, 3(4): 3984–3992. <https://doi.org/10.70670/sra.v4i1.1514>

Arif.M., M. Javed., R. Khan., T. Masood., **M.Ahmad**, Z. A. Shah and K. Afridi. 2025. The effect of iron bio-fortification on the nutritive value of kitchen mint (*Mentha spicata*). *Pure and Applied Biology*.14(3):936-945.
<http://dx.doi.org/10.19045/bspab.2025.140085>

Khalil.I., **M. Ahmad**, H. Ali., A. Sufyan., S.R.Ullah., S.S. Shah, A. Rehman and M.Iqbal.2025. Influence of Zinc Nano-Particles and Bulb Size on the Growth and Flower Production of Tuberose. *Social science review archives*, 3 (4): 3909-3917.

Basit, A., I. Khan., A.Khan., H. Ali., B.Rome., S. Zaman., I. Ahmad., **M.Ahmad**, A. Naeem and A. Shafi.2025. Assessment of climate change mitigation and changed cropping patterns for extensive periods at various scales. *Plant Bulletin* 4: (2): 1-16.

Abbas.M., **M. Ahmad**, H .Ali., S. Jabin., Z.Khan., Rahamdad., I. Iqbal., S.M. Ilyas., F. Ali., A. Sufyan., and B. Rome.2025. Effect of pinching and salicylic acid application on flower and seed production of Larkspur (*Delphinium ajacis* L.). *Plant Bulletin*, 4(1):117-124.

Irfan, J., **M.Ahmad**, S.Ayaz., S.A.Jadoon, K.Junaid, M.R.Khattak, A.U.Rehman, S.Ahmad and H.Ali. 2025. Effect of sowing times and nitrogen application on the growth and production of fennel (*Foeniculum vulgare* L.). *Sarhad journal of Agriculture*, 41(2): 483-488.

Hatam.Z.U., **M.Ahmad**, H. Hamid., H. Ali., S. A. Jadoon., A. A. Awan., G. Gul., S.Jabin., M. S. Khan and B.Rome. 2025. Optimizing culturing vessels for disease-free shoot proliferation in olive (*Olea europaea* l.) cultivars. *Plant Protection*, 09 (01):163-171

Jabin.S., **M. Ahmad**, H.Ali., K. Atta., Imaduddin., L. Naz, B. Rome., A. Masood and A.Ali. 2025. Influence of salicylic acid on the vegetative and reproductive attributes of sweet pea. *International Journal of Agriculture and Sustainable Development*, 07(01): 93-100.

Ahmad, M., W. Iqbal., U. Ahmed., A. Jamal., M.F. Saeed., M.S. Elshikh, M.F. Elsadek., M. A. Ali., J. Černý and D. Ronga.2025. Enhancing floret persistence and bloom duration in gladiolus through foliar-applied calcium: a sustainable approach to floriculture. *The Journal of Horticultural Science and Biotechnology*, 100(6), 775-788
<https://doi.org/10.1080/14620316.2025.2450697>.

Nasir, S., **M. Ahmad**, H. Ali., S. Jabin., A. Khan., M. Ullah., A. Bano., H.A. Khan., A. Khan and A. Ullah.2025. Performance of gladiolus cultivars on morphological traits and corm production under the agro-climatic conditions of Peshawar-Pakistan. *Indus Journal of Bioscience Research*, 3(1):58-63.

Shah. S.Q.A., **M. Ahmad.**, H. Ali., A. Naeem., M. Raza., A. Hassan., S. Hussain., S.Jabin., S.Ayaz., M. Ullah., A.Ullah and I. Qazi.2024. Optimizing Saffron Flowering and Yield as Affected by Vernalization and Corm Size of *Crocus Sativus* L. Indus journal of bioscience research. 2(2):1550-1560.

Khan.A. , **M. Ahmad.**, M. Arif , H. Ali , S. Jabin., M.T. Awan ., M. R. Khattak ., I. Khalil., S. Razaullah., A. Sufyan., Z. Khan., M. Abbas. 2024. Influence of sucrose and silver nitrate to ameliorate post-harvest performance of gladiolus spikes. Indus journal of biosciences research. 2(2): 1321-1328.

Ali.H., **M. Ahmad.**, S. Jabin., R. Z. Muqarrab., I. Ahmad., M. A. Khan., M. Khan., I. Khalil., A. Basit, M. kamal and M.Ahmad. 2024. Effect of willow bark extracts and application timing on the production of roselle. Plant Protection. 08(04): 671-677. DOI:10.33804/pp.008.04.5422.

Qazi.I., **M. Ahmad.**, H Ali., S. Jabin., Q. S. Ali. , A. Masood., A. Basit., S. Zaib and M. Ullah. 2024. Effect of irrigation intervals and plastic mulching on flower production of carnation. Indus Journal of Biosciences Research. 2(2):932-937. DOI: <https://doi.org/10.70749/ijbr.v2i02.30>

Haq.I.U., D.R. Maslennikova., M.K.Khattak., M. Hanif and **M.Ahmad.**2024. Nutrients Management and Till with Assorted Raised Seedbeds Affecting Pedocals Soil Traits.Momona Ethiopian Journal of Science (MEJS), 16(1):127-143. <http://dx.doi.org/10.4314/mejs.v16i1.7>

Khan.R., M. Arif., T. Masood., **M. Ahmad.**, Z.A. Shah., M. Ilyas and M. Javed.2023. The effect of selenium bio-fortification on the nutritive value of kitchen mint. Pure and Applied Biology. 12 (2): 1378-1386.

Pervaiz.S., H. Gul., M. Rauf., H.I.Mohamed., K.U.Rehman., H. Wasila., I. Ahmad., S.T. Shah., A. Basit., **M. Ahmad.**, S. Akbar and S. Fahad. 2023. Screening of linum usitatissimum lines using growth attributes, biochemical parameters and ionomics under salinity stress. Gesunde Pflanzen, 75(6):2591-2609.<https://doi.org/10.1007/s10343-023-00880-x>.

Alam, M., S. Ali., S.T. Shah., Z. Hussain., L. Ali., A. Rab., M. Asim., S.A. Jadoon, **M. Ahmad** and I. Ahmad, .2023. Effect of chitosan on post-harvest shelf life of persimmon (*Diospyros kaki* L.). Acta Scientiarum Polonorum Hortorum Cultus, 22(2): 27-43.

Ahmad, W., Z. Zou, M. Awais, F. Munsif, A. Khan, J. Nepal, **M. Ahmad**, S.Akbar, I. Ahmad and M.S. Khan.2023. Seed-Primed and Foliar Oxozinc Nanofiber Application Increased Wheat Production and Zn Biofortification in Calcareous-Alkaline Soil. Agronomy.13 (2): 400. <https://doi.org/10.3390/agronomy13020400>.

Rubian.G., M.Fahim., S.A.Jadoon., I. Ahmad and **M. Ahmad.** 2022. Assessment of elite wheat germplasm for resistance to Fusarium head blight -a threat to wheat production in north-west Pakistan. Genetika, 54(3): 1217-1233. <https://doi.org/10.2298/GENSR2203217G>.

Safi. U., **M. Ahmad.**, A. M. Khattak, M. Ilyas, Asif K., N. Islam and K. Zaman. 2022. Performance of strawberry in a closed loop aquaponics system. Pak. J. Weed Sci. Res., 28(3): 333-343.

Ullah.I., D. Muhammad., M. Mussarat., S. Khan., M. Adnan.,S. Fahad., M. Ismail., I. A. Mian. A. Ali 4 , M. Hamzah., Saleem., M. Saeed., F. Gul., M. Ibrahim., M.Aown., S. Raza., H.M. Hammad., W. Nasim., S. Saud., J.Z. K. Khattak., **M. Ahmad.**, N. Ali., Rasheed Akbar., S.M. Khan and J. Banout. 2022. Comparative effect of biochar and NPK on wheat crop under different management. Crop & Pasture Science 72(2): 31-40 <https://doi.org/10.1071/CP21146>.

Zeb.I, **M. Ahmad** , F. Aman , A. Muhammad , F. Fatima , H. Khan , M. Younisand and M. Alam.2022. Heavy metal analyses of ready to eat leafy vegetables collected from different areas of district Swat. Bioscience research, 19(1): 322-328.

Zaman.S., **M. Ahmad**, S.Ayaz, S. Zaib, Imaduddin , J. Irfan , N. Ayaz and F. Ali. 2022. Foliar application of boron controls calyx split and improves flower production in carnation (*Dianthus Caryophyllus*). Bioscience research, 19(1):567-574.

Rizwan .M., **M. Ahmad.**, A. M. Khattak , A. Mohammad., F. Ali , G.Nabi , S. Ayaz and N.Ayaz.2021. Influence of

organic potash on the vegetative attributes and corm production of gladiolus cultivars. Bioscience research, 18(4):3326-3333.

Ahmad. M., M. Ishtiaq., I. Ullah., A. Basit., S.A. Jadoon., I.H. Khalil., A. Muhammad., M. Alam., I. Ahmad., M. Sajid., G. Nabi and A. Jalal. 2020. Influence of zinc on seed production and fats content of black seed (*Nigella sativa*). Fresen. Environ. Bulletin. 29(9A): 8094-8103.

Ahamd. M and A. Rab. 2020. Calcium effects on post-harvest attributes and vase life of gladiolus using different methods of application. Pak. J. Bot., 52(1): 167-179.

Alam.M., K. Hayat., I. Ullah.,M. Sajid., **M. Ahmad.**, A. Basit.,I. Ahmad, A. Muhammad., S. Akbar, Z. Hussain. 2020. Improving okra (*Abelmoschus esculentus* L.) growth and yield by mitigating drought through exogenous application of salicylic acid. Fresen. Environ. Bulletin, 20(01): 529-535.

Ahmad. M. and A. Rab. 2019. The influence of calcium sources and its application methods on the post-harvest phenological and physical quality attributes of gladiolus spikes. Bioscience research. 16(2):1647-1659.

Ahmad. M. and A. Rab. 2019. Exogenous Application of Calcium Improved the Vegetative Attributes and Corm Production in Gladiolus. Sarhad J. of Agric. 35(3):1011-1019.

Ahmad.M., M.R. Khattak, S.A. Jadoon, A. Rab, A. Basit, I.Ullah,M. A. Khalid, I. Ullah and Muhammad Shair. 2019. Influence of Zinc Sulphate on Quality Production of Flax (*Linum usitatissimum* L.): A Medicinal Flowering Plant. International Journal of Biosciences. 14(4):464-476.

Ahmad. M., S. Ayaz, S.A. Jadoon, M. Alam, A. Rab, I. H. Khalil, G. Ayub, and H.Ali. 2019. Application of maleic hydrazide controlled plant height and ameliorate flower production in local dahlia. Bioscience Research .16(2):1882-1890.

Ahmad. M., T. Khan, R. Ali, Shafiullah, Bushra and I.U. Haq. 2018. Response of marigold (*Tagetes erecta*) to different levels of nitrogen. Int. J. of Envir. And Agric. Res. 3(3):139-142.

Ullah. N., H. Ullah , K. Afridi, M.Alam, S. A. Jadoon, W. U. Khan, **M.Ahmad**, H. Uddin. 2018. Genetic variability, heritability and correlation analysis among morphological and yield traits in wheat advanced lines. Biol. Div. & Conserv. 11 (1): 166-177.

Yaseen.T., K. Ali, F. Munsif, A. Rab, **M. Ahmad**, M. Israr, and A. K. Baraich.2016. Influence of arbuscular mycorrhizal fungi, rhizobium inoculation and rock phosphate on growth and quality of lentil. Pak. J. Bot., 48(5): 2101-2107.

Ahmad. M., P. Faiz, S.I.U. Haq, A. Nawaz, P. Iqbal and Z. Ullah.2016.Foliar application of salicylic acid enhanced the production of tuberose (I I). Int. J. of Envir. & Agric. Res. 4(4): 191 – 197.

Khattak, A.M., M. Sajid, H.Z. Sarwar, A. Rab, **M. Ahmad** and M.A. Khan.2016. Effect of sowing time and plant density on the growth and production of roselle (*Hibiscus sabdariffa*). Int. J. Agric. Biol., 18: 1219–1224.

Rab. A. , J. Rahman, M. Sajid, N. Ahmad, **M. Ahmad**, K. Nawab and K. Ali. 2016. Influence of harvesting dates on fruit quality and storage performance of sweet orange (blood red) fruit. The J. of Animal & Plant Sci. 26(6): 1659-1665.

Rab. A., F. Ahmad, **M. Ahmad** and S. T. Shah. 2016. Maturity stages and packaging perforations affect the quality of plum in cold storage. The J. of Animal & Plant Sci. 26(6): 1750-1757.

Munsif, F., K. Ali, S. Khalid, A. Ali, M. Ali, **M. Ahmad**, W. Ahmad, I. Ahmad and A. Basir. 2015. Influence of row spacing on weed density, biomass and yield of chip bud settling of sugarcane. Pak. J. Weed Sci. 21(1): 137-144.

Yaseen, T., W. Ullah, **M. Ahmad**, K. Ali, Naveedullah, Abdullah and M. Amin. 2015. Effect of tillage and weed control methods on weeds density and tomato (*Lycopersicon esculentum*) productivity.Pakistan journal of weed science research 21(2) : 153-161.

Afridi, M.Z., M.T. Jan, F. Munsif, A. Khan, G. Nabi, **M. Ahmad**, M. Wasiullah, A. Khan and R. Ullah. 2014. Nitrogen Partitioning and Translocation in Wheat under Fertilizer-N Levels, Application Time and Decapitation stress. J. of

Biology, Agriculture and Healthcare. 4 (13):1-9.

Zubair, M., G. Ayub, A. Rab, N. Amin, **M. Ahmad** and N. Ara. 2013. Preflowering growth of Gladiolus in response to staggered planting. Pak. J. Bot. 45(4):1329-1338.

Zubair, M., G. Ayub, N. Amin, A. Rab, **M. Ahmad** and N. Ara. 2013. Yield and Quality of Cut Flowers and Corm production of Gladiolus vary by Cultivar at three levels of Nitrogen Fertility. Pak. J. Bot., 45(3): 967-976.

Sajid, M., A. Rab, N. Ali, M. Arif, L. Ferguson and **M. Ahmad**. 2010. Effect of foliar application of Zn and B on fruit production and physiological disorders in Sweet Oranges. Sarhad J. Agric. 26 (3): 355-360.

Ullah, T., F. Wazir, **M. Ahmad**, F. Analoui and M. Khan. 2005. A breakthrough in Guava propagation from Cuttings. Asian J. Plant Sci. 14 (3):238-243.

Ahmad, M., A. Hussain, M. Zubair and A. Rab. 2004. Effect of different sowing seasons and row spacing on the seed production of Fennel (*Foeniculum vulgare*). Pak. J. of Bio. Sci. 7(7):1144-1147.

REFERENCES

Prof. Dr. Gohar Ayub

Chairman, Department of Horticulture
The University of Agriculture, Peshawar, Pakistan.
Email address: gohar.ayub@aup.edu.pk
Mobile & WhatsApp number: +92 333 9383488

Prof. Dr. Muhammad Akmal

Chairman Pakistan Science Foundation (PSF), Islamabad, Pakistan
Ex-Chairman & Professor Department of Agronomy
Email Address: chairman@psf.gov.pk
Mobile & WhatsApp Number: +92 300 5883292

Useful links of Dr. Masood Ahmad Profiles on LinkedIn, Google scholar and official website of The University

<https://www.linkedin.com/in/masood-ahmad-ph-d-226a15249/>

<https://scholar.google.com/citations?user=yCtbpo0AAAAJ&hl=en>

<https://www.aup.edu.pk/staff/dr-masood-ahmad>
