Dr. Muhammad Ishfaq Khan

Professor (Tenured) of Weed Science

Department of Weed Science & Botany, The University of Agriculture Peshawar, Peshawar 25130, Pakistan

Postdoctoral research: Institute of Molecular Plant Science, University of Edinburgh, United Kingdom

Email: mishfaq@aup.edu.pk **Mobile / WhatsApp:** +92 333 9167803

Google Scholar: scholar.google.com/citations?user=47UhgOgAAAAJ **Web of Science ResearcherID:** GSO-3129-2022

ACADEMIC PROFILE

I am a tenured Professor of Weed Science in the Department of Weed Science & Botany at The University of Agriculture Peshawar, Pakistan, with more than 20 years of academic and research experience, including 17 years of post-PhD teaching and research. My research addresses weed biology, ecology and management, allelopathy, bioherbicides and bioactive compounds, with applied work on weeds of chickpea, wheat and maize in Khyber Pakhtunkhwa, Pakistan. I undertook postdoctoral research (2020–21) at the Institute of Molecular Plant Science, University of Edinburgh, and held a research fellowship at Charles Sturt University, Australia (2007–08). My 2024 paper in Annals of Botany, co-authored with my postdoctoral host, reports allelochemical root-growth inhibitors in cress-seed exudate. I have served as Principal Investigator or Co-Principal Investigator on three research projects funded by the Higher Education Commission (HEC) and the Pakistan Science Foundation (PSF), am an HEC-approved supervisor, and have supervised five PhD students (four completed and one ongoing). I serve as Additional Director of the Office of Research, Innovation and Commercialization (ORIC), have served as General Secretary of the Weed Science Society of Pakistan and Managing Editor of the Pakistan Journal of Weed Science Research, and received the International Weed Science Society Young Scientist Travel Support Award in 2025.

RESEARCH EXPERTISE AND KEYWORDS

Weed biology, ecology and invasive weeds	Weed seed-bank studies, phytosociology and weed surveys in Khyber Pakhtunkhwa; wild onion (*Asphodelus tenuifolius*) in chickpea; invasive species including water hyacinth and buffalobur.
Allelopathy and allelochemicals	Effects of weed extracts and plant leachates on germination and growth of crops and weeds; allelochemical root-growth inhibitors in cress-seed exudate (*Annals of Botany*, 2024).
Integrated weed management	Herbicide efficacy and dose response, mulching, tillage, sowing pattern and varietal response in chickpea, wheat, maize, tomato, onion, potato and okra.
Bioherbicides and bioactive compounds	Fungal mycelial extracts as bioherbicides; exploration of plant-derived bioactive compounds.
Plant biochemistry and stress physiology (collaborative)	Abiotic stress (cadmium, drought, fluoride), photosynthesis and grain nutritional quality in collaboration with plant-science research groups.
Biodiversity, ethnobotany and climate change	Biodiversity and plant conservation; ethnobotanical study of wild flora; climate change and weed/crop population dynamics.

Keywords: weed science; weed ecology; allelopathy; integrated weed management; bioherbicides; bioactive compounds; invasive weeds; plant biochemistry; biodiversity; climate change and agriculture.

RESEARCH IMPACT AND SCHOLARLY VISIBILITY

Citations	h-index	i10-index	Web of Science ResearcherID
2,875	**14**	**21**	**GSO-3129-2022**

My citation count, h-index and i10-index are reported from my Google Scholar profile.

ACADEMIC AND PROFESSIONAL APPOINTMENTS

Sep 18, 2026 – present	**Professor (Tenured)** Department of Weed Science & Botany, The University of Agriculture Peshawar, Pakistan
Nov 22, 2018 – Sep 18, 2026	**Associate Professor (Tenured)** Department of Weed Science & Botany, The University of Agriculture Peshawar, Pakistan
Apr 2010 – Nov 21, 2018	**Assistant Professor (Tenure Track System)** Department of Weed Science & Botany, The University of Agriculture Peshawar, Pakistan
Jan 2007 – 2010	**Lecturer** Department of Weed Science & Botany, The University of Agriculture Peshawar, Pakistan
Jan 2005 – Dec 2006	**Research Associate** Agricultural Linkages Program (ALP) project, funded by the Pakistan Agricultural Research Council, Islamabad, Pakistan

Administrative assignment

Current	**Additional Director, Office of Research, Innovation and Commercialization (ORIC)**, The University of Agriculture Peshawar. Responsibilities in research management, innovation promotion and civic engagement. †

Total academic and research experience: more than 20 years (since January 2005). Post-PhD teaching and research experience: 17 years (PhD awarded 2009).

RESEARCH AND ACADEMIC LEADERSHIP

- **Additional Director, ORIC**, The University of Agriculture Peshawar (current): research management, innovation promotion and civic engagement. †
- **Managing Editor**, *Pakistan Journal of Weed Science Research* (2019–2026). †
- **General Secretary**, Weed Science Society of Pakistan (2020–2026); organisation of national and international conferences, workshops and capacity-building programmes. †
- **President**, All Pakistan Tenure Track Faculty Association (2019–20); Joint Secretary (2018–19).
- **Principal Investigator / Co-Principal Investigator** on three research projects funded by HEC and PSF (Section: Research Funding and Grants).
- **Resident country coordinator**, SAFE Network (2016–2025). †
- **HEC-approved supervisor**; supervision of PhD, MPhil and MSc students (Section: Postgraduate Supervision and Examination).

EDUCATION AND POSTDOCTORAL RESEARCH

2020–2021 (listed as 2021 in qualifications)	**Postdoctoral research**, Institute of Molecular Plant Science, The University of Edinburgh, Scotland, United Kingdom. Postdoctoral supervisor: Prof. Dr. Stephen C. Fry. †
2009	**PhD, Agriculture (Weed Science)**, The University of Peshawar, Pakistan, and Charles Sturt University, Australia. *Research fellowship at the EH Graham Centre for Agricultural Innovation, Charles Sturt University, Wagga Wagga (Aug 2007 – Jan 2008). †*
2004	**MSc (Hons), Agriculture (Weed Science)**, The University of Peshawar, Pakistan. *First position in the Department of Weed Science.*
2002	**BSc (Hons), Agriculture (Entomology)**, The University of Peshawar, Pakistan.

RESEARCH FUNDING AND GRANTS

The amounts listed here are as recorded in my CV; no currency conversion or total funding amount is presented. PI = Principal Investigator; Co-PI = Co-Principal Investigator. I have not listed proposed or pending projects. I report fifteen travel grants from HEC, PSF, ECOSAF, HUC, Kirkhouse Trust, IDB, the International Allelopathy Society, USDA and other sources. †

#	Project title	Role	Funding agency and project number	Approved amount	Period and status
1	Weeds allelopathy	PI	Higher Education Commission (HEC), Pakistan Project No. 20-2158/NRPU/R&D/HEC/12-4758	PKR 3.81 million	2013–2017; **completed**

#	Project title	Role	Funding agency and project number	Approved amount	Period and status
2	Weed seed bank studies in wheat and maize growing areas of KP for sustainable weed management and soil fertility	Co-PI †	Higher Education Commission (HEC), Pakistan Project No. 20-5142/NRPU/R&D/HEC/14	PKR 3.9417 million	Research work completed 2020; **completed**
3	Management studies of noxious weed (*Asphodelus tenuifolius*, wild onion) in chickpea growing areas of District Karak, Khyber Pakhtunkhwa, Pakistan	Co-PI †	Pakistan Science Foundation (PSF) Grant No. PSF/NSLP/KP-UAP(932)	PKR 3.053 million	**Ongoing** (recorded as in progress, 2024) †

SELECTED RESEARCH PUBLICATIONS

*My selected peer-reviewed journal articles are listed most recent first. My name is shown in bold; * indicates the corresponding author designation as marked in my records. My complete publication record is provided in Appendix A.*

1. **Muhammad Ishfaq Khan**, R. A. Begum, L. Franková and S. C. Fry (2024). Allelochemical root-growth inhibitors in low-molecular-weight cress-seed exudate. *Annals of Botany*, 133(3), 447–458.
2. M. Munir, A. Nazir, **Muhammad Ishfaq Khan***, S. Alam, F. Irshad, I. Khan, M. N. Ahmad, T. Aziz, N. Al-Hoshani, A. M. AlGarawi, R. A. E. H. Mohamed and R. S. Jalal (2026). Valorization of invasive water hyacinth into biochar for sustainable soil amendment and enhanced okra productivity. *BioResources*, 21(1), 1899–1921.
3. A. Khadiga, **Muhammad Ishfaq Khan***, M. S. Suliman, B. Naheeda et al. (2024). Jasmonic acid priming and foliar application of spermidine up-regulate the tolerance mechanisms to alleviate the damaging effects of cadmium stress on growth and photosynthesis in wheat. *Notulae Botanicae Horti Agrobotanici Cluj-Napoca*, 52(1). https://doi.org/10.15835/nbha52213614 †
4. I. Khan, **Muhammad Ishfaq Khan**, S. Hashim, M. Fawad, A. Jamal, M. F. Seleiman, H. Khan, B. Gul, Z. Hussain, M. F. Saeed and A. Scavo (2023). Managing weed–crop interactions enhances chickpea (*Cicer arietinum* L.) chemical components. *Plants*, 12(17), 3073. †
5. H. A. S. ALHaithloul, **Muhammad Ishfaq Khan**, A. Musa, M. M. Ghoneim, A. A. ALrashidi, I. Khan, E. Azab, A. A. Gobouri, M. R. Sofy, M. El-Sherbiny and M. H. Soliman (2022). Phytotoxic effects of *Acacia saligna* dry leachates on germination, seedling growth, photosynthetic performance, and gene expression of economically important crops. *PeerJ*, 10, 13623.
6. N. Begum, L. Wang, H. Ahmad, K. Akhtar, R. Roy, **Muhammad Ishfaq Khan** and T. Zhao (2022). Co-inoculation of arbuscular mycorrhizal fungi and the plant growth-promoting rhizobacteria improve growth and photosynthesis in tobacco under drought stress by up-regulating antioxidant and mineral nutrition metabolism. *Microbial Ecology*, 83, 971–988.
7. H. Bibi, M. Iqbal, H. Wahab, M. Öztürk, F. Ke, Z. Iqbal, **Muhammad Ishfaq Khan** and S. M. Alghanem (2022). Green synthesis of multifunctional carbon coated copper oxide nanosheets and their photocatalytic and antibacterial activities. *Scientific Reports*, 11(1), 10781. https://doi.org/10.1038/s41598-021-90207-5 †
8. N. Begum, C. Qin, M. A. Ahanger, S. Raza, **Muhammad Ishfaq Khan**, M. Ashraf, N. Ahmed and L. Zhang (2019). Role of arbuscular mycorrhizal fungi in plant growth regulation: implications in abiotic stress tolerance. *Frontiers in Plant Science*, 10, 1068. https://doi.org/10.3389/fpls.2019.01068
9. I. Khan and **Muhammad Ishfaq Khan** (2019). Integration of allelopathy and herbicide to control *Asphodelus tenuifolius* in chickpea crop. *Acta Ecologica Sinica*, 39(3), 257–260. https://doi.org/10.1016/j.chnaes.2018.09.012
10. L. Yang, H. Huang, M. Saeed, Z. Huang, C. Jiang, C. Zhang, **Muhammad Ishfaq Khan**, I. Khan and S. Wei (2019). Anatomical study of seed and fruit morphology of an invasive weed buffalobur (*Solanum rostratum* Dunal). *Pakistan Journal of Botany*, 51(1), 241–246. https://doi.org/10.30848/PJB2019-1(12)
11. I. Khan, **Muhammad Ishfaq Khan**, H. Ullah, M. Haroon and B. Gul (2018). Assessment of integrated weed management approaches on *Asphodelus tenuifolius* in chickpea. *Planta Daninha*, 36. https://doi.org/10.1590/S0100-83582018360100101 †
12. M. Iqbal, R. Ullah, H. Bibi, Z. Iqbal, M. Numan, S. R. Awan, Z. Din, I. Khan and **Muhammad Ishfaq Khan** (2018). Mycelial extract of *Acremonium* sp.: a potent target-specific bioherbicide against *Echinochloa crus-galli* and *Asphodelus tenuifolius*. *Fresenius Environmental Bulletin*, 27, 1778–1785.
13. B. Gul, M. Saeed, H. Khan, **Muhammad Ishfaq Khan** and I. Khan (2017). Impact of water hyacinth and water lettuce aqueous extracts on growth and germination of wheat and its associated troublesome weeds. *Applied Ecology and Environmental Research*, 15(3), 939–950.
14. I. Khan, Abdullah, M. Ibrahim, **Muhammad Ishfaq Khan**, M. Saleem, S. A. Khan, I. A. Khan, H. Khan, Z. Hussain, M. Ilham, S. Afzal, B. Gul, N. Khan, M. A. Khan and M. Saeed (2025). Optimizing chickpea production through strategic management of *Asphodelus tenuifolius* Cav. in District Karak, Khyber Pakhtunkhwa. *Pakistan Journal of Weed Science Research*, 31(4), 258–265.

BOOKS, MONOGRAPHS AND BOOK CHAPTERS

Authored book

1. **Muhammad Ishfaq Khan** (2009). *Studies on biology, ecology and management of wild onion in chickpea: management of wild onion in chickpea*. VDM Verlag, Germany. ISBN 978-3-639-15873-1.

Edited volumes (books of abstracts)

1. M. Arif, I. Jan, B. Ahmad, **Muhammad Ishfaq Khan**, S. Khan and M. Ibrar (Eds.) (2023). *Book of Abstracts [title and conference not stated in source CV]* ISBN 978-969-8040-57-4. †
2. R. Qureshi, M. A. Khan, **Muhammad Ishfaq Khan**, N. Ilyas, S. S. H. Shah, Z. Rehman, S. Latif and A. Siddiqa (2023). *Biodiversity and Medicinal Plants: Book of Abstracts [role not stated in source CV; listed as authors/editors]* ISBN 978-969-23969-0-5. †

Book chapters

1. B. A. Khan, A. Nijabat, **Muhammad Ishfaq Khan**, I. Khan, S. Hashim, M. A. Nadeem and M. Ikram (2022). Implications of mulching on weed management in crops and vegetable. In: Mulching in Agroecosystems: Plants, Soil & Environment. Springer Nature Singapore. pp. 199–213.
2. I. Khan, G. Hassan, **Muhammad Ishfaq Khan** and M. Gul (2011). Tolerance of different wild oat biotypes to different oat killers and their impact on wheat. In: Survival and Sustainability, Part 1. Springer. pp. 129–136.
3. M. Arif, T. Jan, M. Riaz, F. Munsif, S. Fahad, Niamatullah, M. Adnan, S. Mumtaz, B. Haleema, Amanullah, K. Ali, F. Rasul, **Muhammad Ishfaq Khan**, M. Zamin, I. A. Mian, B. Khan, I. Khan and S. Saud (n.d.). Extreme low temperature and plant life. In: Improvement of Plant Production in the Era of Climate Change. Taylor & Francis, Chapter 2. [Year and page range not stated in source CV] †

TEACHING EXPERIENCE AND CURRICULUM DEVELOPMENT

The courses listed here are those I have taught in the Department of Weed Science & Botany, The University of Agriculture Peshawar; course codes and titles are retained as recorded in my CV.

Level	Course code	Course title
BSc (Hons) Agriculture	WS-401	Introduction to Weed Science
	WS-505	Allelopathy in Weed Management
	WS-513	Weed Identification-II (Kharif weeds)
	WS-515	Introductory Agrostology
	WS-604 †	Weed Management in Fruits and Vegetables
MSc (Hons) Agriculture	WS-702	Research Methods in Weed Science
	WS-705	Biodiversity and Plant Conservation
MSc Botany	Bot-606	Environmental Biology
PhD	WS-708	Biodiversity in Ecosystem
	WS-711	Perennial and Parasitic Weeds and Their Management

I have not claimed curriculum-development experience because it is not documented in my records.

POSTGRADUATE SUPERVISION AND EXAMINATION

I have listed the students below as supervised in my records; I specify the role (major supervisor, co-supervisor or committee member) only where that information is available. †

PhD supervision

Student	Year	Status
Dr. Ubaid	2023	Completed
Dr. Abdul Majid Khan	2021	Completed
Dr. Umme Kulsoom	2017	Completed †
Dr. Tamanna Bakht	2016	Completed †
Abdullah	2024	In progress (as recorded in 2024) †

MSc (Hons) Agriculture / MPhil Botany: major supervision

Student	Year	Status
Mr. Inayat Ur Rehman (MPhil Botany)	2016	Completed
Mr. Muhammad Kashif	2015	Completed
Mr. Muhammad Ibrahim	—	In progress †

MSc / MPhil: member of supervisory committee (completed)

Ms. Tamana Bakht; Mr. Sirajuddin; Mr. Muhammad Imran; Mr. Muhammad Ibrahim; Mr. Hidayat Ullah; Mr. Ijaz Ahmad; Mr. Muhammad Kabir; Ms. Nadia Khan; Mr. Muhammad Tahir (MPhil Botany); Mr. Muhammad Luqman.

BSc (Hons) Agriculture: major supervision (completed)

Mr. Khalid Khan (2011); Mr. Muhammad Waqas (2011); Mr. Shah Fahad (2012); Mr. Ishaq Khan (2014); Ms. Sundas Malik (2016); Abdullah (2017).

PhD examination duties

Examiner, PhD comprehensive examinations — written: Umme Kulsoom (2015), Zahoor Ahmad (2017), Abdul Majid Khan (2017); oral: Abdul Majid Khan (2017), Zahoor Ahmad (2017). †

EDITORIAL RESPONSIBILITIES AND PEER REVIEW

Editorial appointments

Role	Journal	Period
Managing Editor	*Pakistan Journal of Weed Science Research*	2019–2026
Editorial Board Member	*Journal of Research in Weed Science* (Turkey)	Period not stated

Peer review (ad hoc reviewer)

Pakistan Journal of Weed Science Research; *Journal of Research in Weed Science* (Turkey); *Advances in Agriculture* (Wiley); *Seed Science Research* (Cambridge University Press); *Journal of Agricultural Sciences* (Clarivate-indexed). †

PROFESSIONAL MEMBERSHIPS AND ELECTED OFFICES

Memberships (current)

Society	Membership
Weed Science Society of Pakistan (WSSP)	Life Member
Asian-Pacific Weed Science Society (APWSS)	Member
International Weed Science Society (IWSS)	Member
National Academy of Young Scientists	Member

Elected offices and coordination roles (terms as recorded)

Period	Office	Organisation
2023	General Secretary	Agriculture University Teachers Association (AUTA)
2020–2026	General Secretary	Weed Science Society of Pakistan
2019–20	President	All Pakistan Tenure Track Faculty Association
2018–19	Joint Secretary	All Pakistan Tenure Track Faculty Association
2018	Joint Secretary / General Secretary	Agriculture University Teachers Association (AUTA)
2016–2025	Resident country coordinator (elected at the 3rd International SAFE Network Conference, Vietnam, 2015)	SAFE Network
2015	Finance Secretary	Agriculture University Teachers Association (AUTA)

AWARDS, FELLOWSHIPS AND ACADEMIC DISTINCTIONS

Year	Award or fellowship	Granting organization
Oct 2025	Young Scientist Travel Support Award (attendance at the conference in Nanjing, China)	International Weed Science Society (IWSS)

Year	Award or fellowship	Granting organization
2017	Best Paper Oral Presentation Award	International Conference, University of Mauritius †
2017	Best Researcher and Best Academician Award	Bionano Frontier (India), at the same conference †
2007–08	International Research Support Initiative Program (IRSIP) Fellowship, for research at Charles Sturt University, Australia	Higher Education Commission (HEC), Pakistan
MSc (Hons)	First position in the Department of Weed Science	The University of Peshawar

INTERNATIONAL RESEARCH EXPERIENCE AND COLLABORATION

- **Postdoctoral research (2020–21)**, Institute of Molecular Plant Science, The University of Edinburgh, United Kingdom, under Prof. Dr. Stephen C. Fry; co-authored publication: *Annals of Botany* 133(3), 2024. †
- **IRSIP research fellowship (Aug 2007 – Jan 2008)**, EH Graham Centre for Agricultural Innovation, Charles Sturt University, Wagga Wagga, Australia (HEC-funded; six months).
- **International training (15 Apr – 30 May 2012)**: wild/cut-flower production technologies and herbal medicine, Fujian, China.
- **SAFE Network**: resident country coordinator for Pakistan (2016–2025).
- **Countries visited for professional training and symposia** (not research appointments): Australia, United Kingdom, China, Saudi Arabia, Turkey, Vietnam, Thailand, Qatar, United Arab Emirates, Egypt, Indonesia, Mauritius, Sri Lanka, Nepal, Iran, Tunisia.

CONFERENCE CONTRIBUTIONS, WORKSHOPS AND TRAINING

I have listed these contributions under "paper presentations" in my records. The format of each contribution (oral, poster or invited) is not specified, and I have not identified any invited or keynote talks. Contributions published as abstracts are listed in Appendix A. †

Conferences outside Pakistan

Jun 2022	International Conference on Biodiversity and Bioprospecting, Kathmandu, Nepal
Aug 2020	International Conference on Recent Trends in Agriculture and Bioscience, Computer Applications, Environment and Humanities (RTABCE-2020), Kashmir, India [online]
Jun 2020	International E-Conference on Emerging Trends and Challenges in Life Sciences, Aurangabad, India [online]
Dec 2017	International Conference on Agriculture and Fisheries, Colombo, Sri Lanka
May 2017	International Conference on Emerging Trends in Science and Technology, University of Mauritius (best oral presentation award)
Nov 2016	Second International Allelopathy Congress, Sousse, Tunisia
Apr 2016	International Conference on Advances in Natural and Applied Sciences (ICANAS-2016), Antalya, Turkey †
Nov 2015	Third International SAFE Network Conference, Ho Chi Minh City, Vietnam
Oct 2014	International Conference on Advances in Agricultural and Biological Sciences, Dubai, UAE
Feb 2014	First African Allelopathy Congress, Sousse, Tunisia
Oct 2013	24th Asian-Pacific Weed Science Society Conference, Bandung, Indonesia
Aug 2010	16th Asian Agriculture and First ISAT Symposium "Sufficiency Agriculture", KMITL, Bangkok, Thailand
Aug 2008	12th International Conference on Diffuse Pollution Management, Thailand
Nov 2007	8th African Crop Science Society Conference, Minia University, Egypt
Sep 2006	17th Iranian Plant Protection Congress, University of Tehran, Karaj, Iran

Conferences within Pakistan

Sep 2012	4th International Weed Science Conference, KP Agricultural University, Peshawar; and First International Conference on Poverty Alleviation through Sustainable Management of Biodiversity, Bara Gali summer campus †
May 2012	International Conference "Climate Change: A Challenge for Agriculturists", KP Agricultural University, Peshawar
Apr 2011	3rd International Weed Science Conference, KP Agricultural University, Peshawar
Dec 2010	International Symposium on Institutional Linkages for Agriculture Development in Pakistan, Peshawar
Mar 2010	22nd Asian-Pacific Weed Science Society Conference, Lahore †
Mar 2006	2nd International Weed Science Conference, University of Arid Agriculture, Rawalpindi
Sep 2005	First International Kashmir Science Conference
Oct 2003	First International Weed Science Conference, The University of Agriculture Peshawar

Conferences and workshops organised (organising role to be specified †)

Apr 2025	Climate-smart solutions for food security, sustainable agriculture, seed production and storage, The University of Agriculture Peshawar
Dec 2023	9th International and 18th National Conference on Biodiversity and Medicinal Plants, Arid Agriculture University, Rawalpindi
Aug 2023	Food security through sustainable agriculture, Bara Gali summer campus; and Food security in the wake of climate change, biodiversity, non-timber forest products and weeds, SBBU, Khyber Pakhtunkhwa †
Oct 2022	17th National Weed Science Congress, Punjab University, Lahore
Mar 2020	8th International and 15th National Weed Science Conference, Weed Science Society of Pakistan, Abdul Wali Khan University, Mardan
Oct 2019	International conference on food security in the changing climate, The University of Agriculture Peshawar †
Jun 2019	Workshop on weed interference, sprayer calibration, herbicide calculation and herbicide safety, Weed Science Society of Pakistan †
Dec 2018	Workshop: Developing a winning research proposal, The University of Agriculture Peshawar
Dec 2015	National workshop on awareness of weed management practices for better yield
Oct 2014	Awareness, teaching and training on weed management techniques for farmers, faculty, students, researchers and extension workers
Apr 2013	Poster competition on wild flowers, Department of Weed Science, The University of Agriculture Peshawar
Sep 2012	4th International Weed Science Conference
Mar 2010	22nd Asian-Pacific Weed Science Society Conference †
Jun 2009	9th National Weed Science Conference
Jun 2007	8th National Weed Science Conference
Mar 2006	2nd International Weed Science Conference
Mar 2005	6th National Weed Science Conference
Oct 2003	First International Weed Science Conference

Training and professional development

Jan 2021	Elsevier–HEC workshop on journal indexing in Scopus [online]
n.d.	Six-month online training: management of agricultural economy and regulation of the agricultural production environment, organised by the Government of China [online] †
Aug 2015	Training course on ICT effectiveness for good governance, Pakistan Academy for Rural Development
Aug 2014	Workshop on innovative technologies for sustainable development in agriculture, Bara Gali summer campus
Jun 2014	Workshop on exploitation of plant oil for direct use as biodiesel in a changing climate
Jan 2013	Workshop on GIS/RS, Department of Environmental Sciences, University of Peshawar
Jul 2012	Training course on incorporating technologies in education (HEC), The University of Agriculture Peshawar
Dec 2010	International training workshop on watershed management and land rehabilitation, Pakistan Academy of Sciences, Islamabad
Nov 2010	Talent research exchange programme, Sustainable Research Network
Jul 2010	Training on utilisation of modern agricultural technologies in a changing environmental perspective
May 2010	Training course on climate change and its impact on food security, KP Agricultural University, Peshawar
Feb–Mar 2007	Faculty development training course (HEC), The University of Agriculture Peshawar
Dec 2006	Training course on biodiversity and weed sciences, The University of Agriculture Peshawar
Nov 2006	Training of trainers in plant biodiversity, Department of Botany, University of Peshawar
Dec 2005	Training course on weed management, Pakistan Academy for Rural Development
Aug 2005	Training workshop for in-service teachers in botany, The University of Agriculture Peshawar

TECHNICAL AND RESEARCH SKILLS

Statistical analysis and graphics	RStudio; Statistix; SigmaPlot
General computing	Office automation; Windows operating systems
Scientific writing	Technical report writing; peer-reviewed publication

Research management	Principal Investigator and Co-Principal Investigator of funded projects; research management and innovation promotion at ORIC

COMMUNITY ENGAGEMENT AND INSTITUTIONAL SERVICE

- Farmer, extension-worker and student training in weed management, including the 2014 awareness, teaching and training programme and the 2019 workshop on herbicide calibration and safety.
- Volunteer teaching at the Agricultural University school and college (2019).
- Focal person, University Alumni Association (since 2013).
- Member, departmental disciplinary committee; seminar coordinator, Department of Weed Science.
- Member, Young Association of Pakistani Scientists.

PROFESSIONAL REFERENCES

Referee	Relationship	Affiliation	Contact
Prof. Dr. Stephen C. Fry †	Postdoctoral supervisor	Institute of Molecular Plant Science, The University of Edinburgh, Scotland, UK	+44 (0)131 650 5320 s.fry@ed.ac.uk
Prof. Dr. Ijaz Ahmad Khan	Chairman / Head of Department	Department of Weed Science, The University of Agriculture Peshawar 25130, Pakistan	+92 333 9297911 ijazahmadk@aup.edu.pk
Prof. Dr. Mudassar Iqbal	Colleague	Department of Agricultural Chemistry, The University of Agriculture Peshawar, Pakistan	+92 334 8882839 mudassariqbal@aup.edu.pk

APPENDIX A: COMPLETE PUBLICATION RECORD

*I have standardized spelling, punctuation, journal names and species names in the bibliographic details. Books, edited volumes and book chapters are listed in the main body. Author names are shown as recorded in my CV (initials or full names); * marks the corresponding author as indicated in my records, and † marks an entry flagged for verification. Duplicate entries from my records are listed once.*

A1. Peer-reviewed journal articles

1. M. Munir, A. Nazir, **Muhammad Ishfaq Khan***, S. Alam, F. Irshad, I. Khan, M. N. Ahmad, T. Aziz, N. Al-Hoshani, A. M. AlGarawi, R. A. E. H. Mohamed and R. S. Jalal (2026). Valorization of invasive water hyacinth into biochar for sustainable soil amendment and enhanced okra productivity. *BioResources*, 21(1), 1899–1921.
2. Abdullah and **Muhammad Ishfaq Khan*** (2025). Seed germination response of chickpea varieties to different chemical applications. *Sarhad Journal of Agriculture*, 41(5), 186–194.
3. I. Khan, Abdullah, M. Ibrahim, **Muhammad Ishfaq Khan**, M. Saleem, S. A. Khan, I. A. Khan, H. Khan, Z. Hussain, M. Ilham, S. Afzal, B. Gul, N. Khan, M. A. Khan and M. Saeed (2025). Optimizing chickpea production through strategic management of *Asphodelus tenuifolius* Cav. in District Karak, Khyber Pakhtunkhwa. *Pakistan Journal of Weed Science Research*, 31(4), 258–265.
4. A. Khadiga, **Muhammad Ishfaq Khan***, M. S. Suliman, B. Naheeda et al. (2024). Jasmonic acid priming and foliar application of spermidine up-regulate the tolerance mechanisms to alleviate the damaging effects of cadmium stress on growth and photosynthesis in wheat. *Notulae Botanicae Horti Agrobotanici Cluj-Napoca*, 52(1). https://doi.org/10.15835/nbha52213614 †
5. **Muhammad Ishfaq Khan**, R. A. Begum, L. Franková and S. C. Fry (2024). Allelochemical root-growth inhibitors in low-molecular-weight cress-seed exudate. *Annals of Botany*, 133(3), 447–458. †
6. I. Khan, **Muhammad Ishfaq Khan**, S. Hashim, M. Fawad, A. Jamal, M. F. Seleiman, H. Khan, B. Gul, Z. Hussain, M. F. Saeed and A. Scavo (2023). Managing weed–crop interactions enhances chickpea (*Cicer arietinum* L.) chemical components. *Plants*, 12(17), 3073. †
7. M. A. Nadeem, B. A. Khan, A. R. Chadar, R. Maqbool, A. Raza, M. M. Javaid, A. Mahmood, **Muhammad Ishfaq Khan**, M. Ahmad and M. Irfan (2022). Weed control and sustainable rice production through rice intensification system and conventional practices of weed competition periods and age of transplanted seedlings. *Semina: Ciências Agrárias*, 43(5), 2271–2292. †
8. N. Begum, L. Wang, H. Ahmad, K. Akhtar, R. Roy, **Muhammad Ishfaq Khan** and T. Zhao (2022). Co-inoculation of arbuscular mycorrhizal fungi and the plant growth-promoting rhizobacteria improve growth and photosynthesis in tobacco under drought stress by up-regulating antioxidant and mineral nutrition metabolism. *Microbial Ecology*, 83, 971–988.
9. H. A. S. ALHaithloul, **Muhammad Ishfaq Khan**, A. Musa, M. M. Ghoneim, A. A. ALrashidi, I. Khan, E. Azab, A. A. Gobouri, M. R. Sofy, M. El-Sherbiny and M. H. Soliman (2022). Phytotoxic effects of *Acacia saligna* dry leachates on germination, seedling growth, photosynthetic performance, and gene expression of economically important crops. *PeerJ*, 10, 13623.
10. Razdan, I. Khan and **Muhammad Ishfaq Khan** (2022). Impact of various organic and cultural practices on yield and weed management in okra (*Abelmoschus esculentus* L.). *Pakistan Journal of Weed Science Research*, 28(1), 53–61. †
11. H. Bibi, M. Iqbal, H. Wahab, M. Öztürk, F. Ke, Z. Iqbal, **Muhammad Ishfaq Khan** and S. M. Alghanem (2022). Green synthesis of multifunctional carbon coated copper oxide nanosheets and their photocatalytic and antibacterial activities. *Scientific Reports*, 11(1), 10781. https://doi.org/10.1038/s41598-021-90207-5 †
12. A. M. K. Dawar, I. Khan, **Muhammad Ishfaq Khan** and Z. Hussain (2021). Effect of tillage implements and weed management techniques on nutritive values of wheat grains. *Gesunde Pflanzen*, 74, 133–139.
13. I. Khan, K. Iqbal, S. U. Siddiqui and **Muhammad Ishfaq Khan** (2021). Influence of varieties, irrigation and weed control measures on nutritional status of chickpea grains. *Gesunde Pflanzen*, 73, 367–373. https://doi.org/10.1007/s10343-021-00563-5
14. I. Khan, M. Kabir, **Muhammad Ishfaq Khan**, H. Khan, S. Hashim and M. A. Khan (2021). Effect of sowing pattern and herbicides application on weed management in wheat crop. *Pakistan Journal of Weed Science Research*, 27(1), 67–78. †
15. K. Iqbal, S. U. Siddiqui, I. Khan, A. Ghafoor and **Muhammad Ishfaq Khan** (2021). Chickpea varietal response to integrated weed management under different irrigation regimes. *Acta Ecologica Sinica*, 41(2), 164–169.
16. A. Muhammad, I. A. Mian, D. Muhammad, H. Khan, I. Khan, **Muhammad Ishfaq Khan** and A. Jalal (2020). Management of weeds through planting dates alteration and using selected maize cultivars under changing climate. *Mitteilungen Klosterneuburg*, 70(2), 108. †
17. N. Begum, C. Qin, M. A. Ahanger, S. Raza, **Muhammad Ishfaq Khan**, M. Ashraf, N. Ahmed and L. Zhang (2019). Role of arbuscular mycorrhizal fungi in plant growth regulation: implications in abiotic stress tolerance. *Frontiers in Plant Science*, 10, 1068. https://doi.org/10.3389/fpls.2019.01068
18. I. Khan and **Muhammad Ishfaq Khan** (2019). Integration of allelopathy and herbicide to control *Asphodelus tenuifolius* in chickpea crop. *Acta Ecologica Sinica*, 39(3), 257–260. https://doi.org/10.1016/j.chnaes.2018.09.012

19. L. Yang, H. Huang, M. Saeed, Z. Huang, C. Jiang, C. Zhang, **Muhammad Ishfaq Khan**, I. Khan and S. Wei (2019). Anatomical study of seed and fruit morphology of an invasive weed buffalobur (*Solanum rostratum* Dunal). *Pakistan Journal of Botany*, 51(1), 241–246. https://doi.org/10.30848/PJB2019-1(12)
20. I. Khan, **Muhammad Ishfaq Khan**, H. Ullah, M. Haroon and B. Gul (2018). Assessment of integrated weed management approaches on *Asphodelus tenuifolius* in chickpea. *Planta Daninha*, 36. https://doi.org/10.1590/S0100-83582018360100101 †
21. M. Iqbal, R. Ullah, H. Bibi, Z. Iqbal, M. Numan, S. R. Awan, Z. Din, I. Khan and **Muhammad Ishfaq Khan** (2018). Mycelial extract of *Acremonium* sp.: a potent target-specific bioherbicide against *Echinochloa crus-galli* and *Asphodelus tenuifolius*. *Fresenius Environmental Bulletin*, 27, 1778–1785.
22. B. Gul, M. Saeed, H. Khan, **Muhammad Ishfaq Khan** and I. Khan (2017). Impact of water hyacinth and water lettuce aqueous extracts on growth and germination of wheat and its associated troublesome weeds. *Applied Ecology and Environmental Research*, 15(3), 939–950.
23. I. Ahmad, I. Khan, S. Zareen, **Muhammad Ishfaq Khan**, R. Khan and M. Haroon (2017). Yield and yield attributes of tomato (*Lycopersicon esculentum* Mill.) cultivars influenced by weed management techniques. *Pakistan Journal of Weed Science Research*, 23(4), 431–438.
24. I. Khan, M. A. Khan, **Muhammad Ishfaq Khan**, M. Saeed, Z. Hanif, S. M. Khan and M. Ali (2016). Weed management in maize (*Zea mays* L.) through different control strategies. *Pakistan Journal of Weed Science Research*, 22(1), 25–35.
25. **Muhammad Ishfaq Khan**, I. Khan, N. Khan, B. Gul, R. Khan, A. Hashmatullah, L. Ahmed, I. A. Khan, M. Iqbal and H. Bibi (2016). Varietal response of maize (*Zea mays* L.) against weeds aqueous extracts. *Applied Ecology and Environmental Research*, 14(4), 569–576. †
26. Z. Hussain, M. Ilyas, I. A. Khan, I. Khan, **Muhammad Ishfaq Khan** and B. Khan (2016). Effect of sowing direction, plant spacing and weed control treatments on tomato yield and its weeds. *Pakistan Journal of Weed Science Research*, 22(1), 49–62.
27. **Muhammad Ishfaq Khan**, I. Khan, R. Khan, I. Ahmad and Hashmat Ullah (2016). Response of wheat (*Triticum aestivum* L.) biotypes towards weeds allelopathy. *Journal of Agricultural Research*, 54(1), 35–41. †
28. **Muhammad Ishfaq Khan**, H. Alim, M. Afaq, I. Khan, I. Munir, G. Mustafa, I. Ullah, M. N. Ahmad and M. Yasinzai (2016). Effect of different concentrations of fluoride on growth and nutritional value of two elite genotypes of *Triticum aestivum*. *Fluoride*, 50(2), 143–150.
29. M. T. Khan, I. Khan, **Muhammad Ishfaq Khan**, Z. Hussain, S. Ayub, N. Khan, M. Shuaib and I. A. Khan (2016). Ethnobotanical study of wild flora in the remote areas of northern Pakistan. *Wulfenia*, 23, 10. †
30. G. Chaâbani, J. Tabart, C. Kevers, J. Dommes, **Muhammad Ishfaq Khan**, S. Zaoui, L. Chebchoub, M. Lachaâl and N. Karray-Bouraoui (2015). Effects of 2,4-dichlorophenoxyacetic acid combined to 6-benzylaminopurine on callus induction, total phenolic and ascorbic acid production, and antioxidant activities in leaf tissue cultures of *Crataegus azarolus* L. var. *aronia*. *Acta Physiologiae Plantarum*, 37, 1–9.
31. **Muhammad Ishfaq Khan**, I. Khan, R. Khan, I. Ahmad and Hashmatullah (2015). Allelopathic effect of aqueous extract of four weed species on germination of some crops. *The Philippine Agricultural Scientist*, 98(3), 328–332. †
32. I. Khan, Z. Ali, **Muhammad Ishfaq Khan**, Z. Hussain, S. Bibi, M. Waqas, R. Khan, S. Khan and M. Ali (2014). Allelopathic effects of some weeds on chickpea crop. *Pakistan Journal of Weed Science Research*, 20(2), 207–211.
33. K. Nawab, A. Rab, I. Khan, **Muhammad Ishfaq Khan**, M. Idrees, A. Saljoqi and M. A. Khan (2013). Effect of irrigation regimes on chickpea varieties sown on different dates on irrigated fields of Karak, Khyber Pakhtunkhwa, Pakistan. *Thai Journal of Agricultural Science*, 46(4), 175–180.
34. I. A. Khan, **Muhammad Ishfaq Khan**, I. Khan, M. Imran, M. Idrees and S. Bibi (2013). Effect of different herbicides and plant extracts on yield and yield components of wheat (*Triticum aestivum* L.). *Pakistan Journal of Botany*, 45(3), 981–985.
35. H. Hidayat, G. Hassan, I. Khan, **Muhammad Ishfaq Khan** and I. A. Khan (2013). Effect of different mulches and herbicides on potato and associated weeds. *Pakistan Journal of Weed Science Research*, 19(2), 191–200.
36. M. I. Karimi, G. Hassan, **Muhammad Ishfaq Khan**, I. Khan, I. A. Khan and S. Bibi (2012). The impact of chemical and non-chemical weed control methods on weed dynamics and on the yield of onion (*Allium cepa* L.). *Pakistan Journal of Weed Science Research*, 18(2), 255–263.
37. **Muhammad Ishfaq Khan**, G. Hassan, I. Khan, M. Saeed, A. A. Khakwani, M. Idrees and K. Nawab (2011). Factors influencing seed germination of wild onion and chickpea cultivars. *Pakistan Journal of Botany*, 43(6), 2787–2792.
38. **Muhammad Ishfaq Khan**, G. Hassan, I. Khan, K. B. Marwat, N. U. Khan and R. Gul (2011). Tolerance of chickpea (*Cicer arietinum* L.) cultivars to the major chickpea herbicides. *Pakistan Journal of Botany*, 43(5), 2497–2501.
39. I. Khan, G. Hassan, **Muhammad Ishfaq Khan**, N. U. Khan and K. B. Marwat (2010). Agronomic and polymorphism study of wild oat (*Avena fatua* L.) biotypes at DNA level. *Pakistan Journal of Botany*, 42(3), 1841–1848.
40. **Muhammad Ishfaq Khan**, G. Hassan and I. Khan (2010). Herbicides and their doses effects on wild onion (*Asphodelus tenuifolius* Cav.) in chickpea. *Pakistan Journal of Weed Science Research*, 16(3), 299–308.

41. K. Iqbal, M. Sukaiman, I. Khan, I. A. Khan, **Muhammad Ishfaq Khan** and Z. Hanif (2010). The effect and cost benefit ratio of different weeding methods on the yield of chickpea under agroclimatic conditions of District Karak. *Pakistan Journal of Weed Science Research*, 16(4), 431–442. †
42. I. Khan, G. Hassan, M. Munir and **Muhammad Ishfaq Khan** (2009). Evaluation of wild oats biotypes against different oat killers in wheat crop. *Herbologia*, 10(1), 59–70. †
43. T. Bakht, I. A. Khan, **Muhammad Ishfaq Khan**, I. Khan and A. M. Khattak (2009). Weed control in pea (*Pisum sativum* L.) through mulching. *Pakistan Journal of Weed Science Research*, 15(1), 83–89.
44. Z. Hanif, Z. A. Swati, I. Khan, G. Hassan, K. B. Marwat, S. Ali and **Muhammad Ishfaq Khan** (2008). RAPD and SSR analysis of wild oats (*Avena* species) from North West Frontier Province of Pakistan. *African Journal of Plant Science*, 2(11), 133–139.
45. **Muhammad Ishfaq Khan**, G. Hassan and I. Khan (2008). Effect of herbicide doses on fresh and dry biomass of different biotypes of *Asphodelus tenuifolius* at various growth stages. *Sarhad Journal of Agriculture*, 24(1), 101. †
46. I. Khan, G. Hassan and **Muhammad Ishfaq Khan** (2008). Effect of interaction between different herbicides and oat genotypes on yield and yield components of wheat. *Sarhad Journal of Agriculture*, 24(1), 93. †
47. I. Khan, G. Hassan and **Muhammad Ishfaq Khan** (2008). Growth analysis of different biotypes of wild oats collected across North West Frontier Province, Pakistan. *Sarhad Journal of Agriculture*, 24(1), 107–112.
48. I. Khan, G. Hassan, **Muhammad Ishfaq Khan** and M. Gul (2007). Effect of wild oat (*Avena fatua* L.) population and nitrogen levels on some agronomic traits of spring wheat (*Triticum aestivum* L.). *Turkish Journal of Agriculture and Forestry*, 31(2), 91–101.
49. G. Hassan, Z. Hanif, M. Latif, **Muhammad Ishfaq Khan** and S. A. Khan (2005). Tolerance of *Avena fatua* and *Phalaris minor* to some graminicides. *Pakistan Journal of Weed Science Research*, 11(1–2), 69–73. †
50. M. Idrees, **Muhammad Ishfaq Khan**, I. Khan and G. Hassan (2005). Survey of some weeds from District Karak, Pakistan. *Pakistan Journal of Weed Science Research*, 11(1), 29.
51. K. B. Marwat, I. A. Khan, Z. Hanif and **Muhammad Ishfaq Khan** (2004). Efficacy of different herbicides for controlling grassy weeds in chickpea (*Cicer arietinum* L.). *Pakistan Journal of Weed Science Research*, 10(3/4), 139–143.
52. **Muhammad Ishfaq Khan**, G. Hassan, I. A. Khan and I. Khan (2004). Studies on chemical weed control in wheat (*Triticum aestivum* L.). *Pakistan Journal of Weed Science Research*, 10(3/4), 113–117.
53. I. Khan, G. Hassan and **Muhammad Ishfaq Khan** (2004). Efficacy of some new herbicidal molecules on grassy and broadleaf weeds in wheat-II. *Pakistan Journal of Weed Science Research*, 10(1). †
54. M. G. Wazir, N. Amin, I. Khan and **Muhammad Ishfaq Khan** (2004). Effects of different potting mixtures and nitrogen source on the performance of *Brassica* seedlings-II. *Sarhad Journal of Agriculture*, 20(1), 25–31.
55. I. Khan, G. Hassan, M. A. Khan and **Muhammad Ishfaq Khan** (2003). Efficacy of some new herbicidal molecules on weed density and yield components of wheat. *Pakistan Journal of Weed Science Research*, 9(4), 141–146.
56. **Muhammad Ishfaq Khan**, G. Hassan, I. A. Khan and I. Khan (2003). Studies on post-emergent chemical weed control in wheat (*Triticum aestivum* L.). *Pakistan Journal of Weed Science Research*, 9, 147–152. †

A2. Full-length papers in conference proceedings

1. **Muhammad Ishfaq Khan** and F. Shah (2011). Effect of potassium nitrate and thiourea on seed germination of crops and weeds. *African Crop Science Conference Proceedings*, 10, 461–463. ISSN 1023-070X. Printed in Uganda.
2. **Muhammad Ishfaq Khan** and M. Kabir (2013). Allelopathic effects of different weeds on the seed germination of wheat and chickpea. *Proceedings of the 24th Asian-Pacific Weed Science Society Conference, Bandung, Indonesia*, pp. 412–416. ISBN 978-602-96519-2-8.
3. I. Khan, G. Hassan, **Muhammad Ishfaq Khan** and M. Gul (2007). Effect of different allelopathic extracts on weeds and wheat. *Proceedings of the 21st Asian-Pacific Weed Science Society Conference, Colombo, Sri Lanka, 2–6 October 2007 (eds. B. Marambe, U. R. Sangakkara, W. A. J. M. De Costa and A. S. K. Abeysekara)*.
4. A. Amin, H. Rashid, M. A. Khan and **Muhammad Ishfaq Khan** (2007). Allelopathic effects of *Parthenium hysterophorus* (L.) extracts on seed germination and growth of wheat and associated weeds. *Proceedings of the 21st Asian-Pacific Weed Science Society Conference, Colombo, Sri Lanka*. †
5. **Muhammad Ishfaq Khan**, G. Hassan and I. Khan (2007). Effect of different herbicide doses at various growth stages of *Asphodelus tenuifolius* grown in pots. *African Crop Science Conference Proceedings*, 8, 1091–1094.

A3. Conference abstracts

1. **Muhammad Ishfaq Khan** (2022). Ramification of climate change on biodiversity and population dynamics of weeds/crops in Pakistan. *International Conference on Biodiversity and Bioprospecting, Kathmandu, Nepal*.
2. **Muhammad Ishfaq Khan** (2017). Exploration of the hypoglycemic properties of *Aloe vera* and *Cannabis sativa*. *Multidisciplinary International Conference on Emerging Trends and Challenges in Science, Technology and Society (Bionano Frontier; hosted by the University of Mauritius, Réduit, Mauritius)*.

3. **Muhammad Ishfaq Khan** (2016). Effect of *Trianthema portulacastrum* (horse purslane) water extracts on seed germination of various weeds infesting maize crop. *International Conference on Advances in Natural and Applied Sciences (ICANAS), Antalya, Turkey*. †
4. **Muhammad Ishfaq Khan**, I. Khan, R. Khan, I. Ahmad and Hashmatullah (2015). Potential of Johnson grass and allelopathic weeds and its effects on the seed germination of economically important crops. *5th International and 12th National Conference on Weed Science, Weed Science Society of Pakistan*.
5. **Muhammad Ishfaq Khan** and I. Khan (2015). Phytosociology of the groundnut flora in District Karak, Khyber Pakhtunkhwa, Pakistan. *5th International and 12th National Conference on Weed Science, Weed Science Society of Pakistan*.
6. I. Khan, G. Hassan, **Muhammad Ishfaq Khan** and I. A. Khan (2004). Efficacy of some new herbicides on both grassy and broadleaf weeds in wheat at Peshawar, Pakistan. *14th Australian Weeds Conference: Weed Management: Balancing People, Planet, Profit*.
7. **Muhammad Ishfaq Khan**, G. Hassan, I. Khan and Y. Hayat (2004). Studies on chemical weed control in wheat (*Triticum aestivum* L.). *14th Australian Weeds Conference: Weed Management: Balancing People, Planet, Profit*.
8. M. Ibrahim and **Muhammad Ishfaq Khan** (n.d.). Allelopathic effect of some selected weeds and weedicide on chickpea (*Cicer arietinum* L.) and its associated weeds. *Proceedings of the 17th National Weed Science Conference*, p. 40. [Year not stated in source CV] †

A4. Records with incomplete bibliographic details (retained pending confirmation)

1. M. Waqas, **Muhammad Ishfaq Khan**, I. Khan, R. Khan and A. M. Khan (2012). Efficiency of weeds extracts through their priming effects on the seed germination of wheat and chickpea. [Journal not stated in source CV], 21–30. †
2. I. Khan, G. Hassan and **Muhammad Ishfaq Khan** (2006). Tolerance of wild oats biotypes to different oat killers and their impact on some agronomic and physiological traits of wheat. [Journal or proceedings not stated in source CV], 249–255. †