

DR. SAMI-UL-ALLAH

PhD (Germany)/Post-Doc (USA)

Associate Professor (Plant Breeding & Genetics)
Department of Plant Breeding and Genetics
Bahauddin Zakariya University, Multan, Pakistan



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JOB EXPERIENCE

Associate Professor 16-01-2021 to date
Bahauddin Zakariya University, Multan

Assistant Professor 16-06-2016 to 15-01-2021
Bahauddin Zakariya University, Multan

Assistant Professor 09-07-2014 to 15-06-2016
The Islamia University of Bahawalpur, Pakistan

Principal responsibilities were:

- a. To plan and carry out breeding studies for development and improvement of crop plants
- b. To utilize principles of genetics and advance molecular marker techniques for genetic improvement of cereal crops
- c. To breed new varieties and select most desirable plants for crossing.
- d. To breed plants using methods such as inbreeding, crossbreeding, backcrossing, out-crossing, mutating, or inter-specific hybridization and selection.
- e. To select progeny having desired characteristics and continues breeding and selection process to reach desired objectives.
- f. To guide, direct and mentor research scholars in their research projects
- g. To assess, supervise and mentor the progress of research activities of students
- h. Publish the research works and findings in academic books or journals
- i. To undertake teaching classes of graduate as well as the undergraduate students

RESEARCH INTERESTS

Adaptation of field crops to abiotic stresses especially drought, heat, salt and nutrient stress. Characterization (phenotypic and molecular) and breeding of germplasm for the traits adoptive to abiotic stresses.

ACADEMICS

PhD Agriculture (Plant Breeding & Genetics) <i>University of Kassel, Germany</i> <i>Grade: Magna cum Laude (With great honor)</i>	2010 - 2013
M.Sc (Hons) Agriculture (Plant Breeding & Genetics) <i>University of Agriculture, Faisalabad Pakistan</i> <i>CGPA 3.80/4.00</i>	2007-2009
B.Sc (Hons) Agriculture (Plant Breeding & Genetics) <i>University of Agriculture, Faisalabad Pakistan</i> <i>CGPA 3.64/4.00</i>	2003-2007
Higher Secondary school certificate (Pre-Medical) <i>B.I.S.E. D.G. Khan (75.09%)</i>	2001-2003
Secondary School Certificate <i>B.I.S.E. D.G. Khan (80.47%)</i>	2000-2001

Fellowship/SCHOLARSHIPS / DISTINCTIONS

Fulbright fellowship (Visiting Scholar) (2023-24) by the United States Education Foundation of Pakistan

HEC indigenous scholarship (batch IV) for master studies

PhD Scholarship from the International Center for Development and Decent Work (funded by the German Academic Exchange Service, DAAD)

Secured “Magna cum laude” (With great honor) in PhD degree

NATIONAL AWARDS/UNIVERSITY AWARDS

- Research productivity award 2017 by Pakistan Council of Science and Technology
- HEC approved PhD Supervisor
- Performance based increment for the year 2018,2019 and 2020
- Performance based honorarium for the year 2018,2019 and 2020
- Appreciation award for research achievements by the ORIC BZU, Multan

RESEARCH PROJECTS

Year of Award	Title	Sponsoring agency	PI/Co. PI/ Fellowship
2024	Characterization of cotton (<i>Gossypium hirsutum</i> L.) genotypes for drought stress tolerance	BZU Multan	PI
2022	Agronomic and molecular characterization of shattering resistance in sesame (<i>Sesamum indicum</i> L.) and its management	Higher Education Commission of Pakistan	Co-PI
2019	Physio-morphological characterization of wheat germplasm for drought stress tolerance in arid region	BZU Multan	PI
2018	Genotypic characterization of mutated cotton under water stress conditions	Higher education commission of Pakistan	Co. PI
2017	Genetic and Association studies of wheat (<i>Triticum aestivum</i>) for yield and yield related traits	BZU Multan	PI
2016	Genotypic response of corn to water stress as affected by potassium application	BZU Multan	PI
2016	Urbanization of agricultural land, fodder and dairy production, and resource use efficiency at the rural-urban interface in Pakistan and India	International Center for Development and Decent Work, Germany	PI - Collaborative project
2014	Phenotypic and Genotypic Characterization of Economic Traits in Mutated Cotton (<i>Gossypium hirsutum</i> L.)	SRGP, HEC	PI

DEVELOPMENT OF CROP VARIETY

Member of Breeding team for developed high yielding cotton variety MM-58 and IUB-13

COURSES TAUGHT

Following courses are being taught since 2014

Sr. no.	Name of the course	Level	Credit hours
1	Advance methods in Plant Breeding	Master/PhD	3(2-1)
2	Principals of Plant Breeding	Master/PhD	3(2-1)
3	Genetic Engineering in Plants	Master/PhD	3(2-1)
4	Cytogenetics in Crop Plants	Master/PhD	3(2-1)
5	Morphology and Reproductive System of Crop Plants	Graduate	3(2-1)
6	Breeding Pulse Crops	Graduate	3(2-1)
7	Breeding Vegetable Crops	Graduate	3(2-1)
8	Breeding maize and millet	Graduate	3(2-1)
9	Biodiversity and Plant Genetic Resources	Graduate	3(3-0)

10	Breeding Fodder and Forage Crops	Graduate	3(2-1)
11	Elementary Genetics	Graduate	3(2-1)
12	Introductory Plant Breeding	Graduate	3(2-1)
13	Fundamentals of Plant Biometry	Graduate	3(3-0)
14	Vegetable and flower seed production	Graduate	3(2-1)
15	Statistics I	Graduate	2(2-0)
16	Statistics II	Graduate	2(2-0)
17	General Science	Graduate	3(3-0)
18	Breeding horticultural crops	Graduate	3(2-1)
18	Communication skills	Graduate	2(2-0)
20	Modern Techniques in Plant Breeding	Graduate	3(2-1)
21	Breeding cereal crops	Graduate	3(2-1)
22	Introduction to biometry	Graduate	3(3-0)
23	Preparation of research project and Scientific Writing	Graduate	2(1-1)

SKILLS

- Field experimentation, experimental layout, Data analysis of large experiments
- Molecular plant breeding
- Development of transgenic plants
- Breeding of forages, cereals and cotton
- DNA extraction technique, PCR, Gel Documentation
- Basic orientation to tissue culture techniques
- Basic proficiency in German language (A-2 level)

CONFERENCE/SEMINAR ORGANIZED

- Organizer of two days training workshop on “Leadership pursuit” on April 10-10 at College of Agriculture, BZU Bahadur Sub-campus Layyah on 26-28 March 2018
- Organizer of 1st International and 2nd National Conference “Challenges and Opportunities to Boost Agriculture in Changing Climate”, March 26-28, 2018, at the College of Agriculture, Bahauddin Zakariya University, Bahadur Sub Campus, Layyah, Pakistan.
- Organizer of Seminar “Weed Eradication”, March 15, 2018, at the College of Agriculture, Bahauddin Zakariya University, Bahadur Sub Campus, Layyah, Pakistan.
- Organizer of Seminar “Profitable Wheat Production in Arid Region”, November 22, 2017, organized by College of Agriculture, Bahauddin Zakariya University, Bahadur Sub Campus, Layyah, Pakistan.
- “Organizer/Secretary registration committee” of “National Conference on “Challenges and Opportunities to Boost Agriculture in Changing Climate”, March 29-30, 2017, at the College of Agriculture, Bahauddin Zakariya University, Bahadur Sub Campus, Layyah, Pakistan.

CONFERENCE/ SEMINAR/P PARTICIPATION

1. Participated in **SDG DAAD Alumni workshop/seminar 2023** at University of Kassel, Witzenhausen, Germany held on 12-19 September 2023 (Oral Presentation)
2. Participated in international conference **“Tropentag 2023 - Explore opportunities... for managing natural resources and a better life for all”** organized by The Leibniz Centre for Agricultural Landscape Research (ZALF), Germany in cooperation with Humboldt-Universität zu Berlin, Germany dated 20-22 September 2023 at Berlin Germany. (Poster presentation)
3. Participated in **“9th National Agri Tourism Conference”** on November 24, 2022, held at College of Agriculture, Bahauddin Zakariya University, Bahadur Sub Campus Layyah, Pakistan.
4. Participated in a webinar **“Translational genomics for achieving higher genetic gains in groundnut”** organized by bioingene.com on December, 04 2020.
5. Participated in **1st International conference on “AGRICULTURAL AND BIOLOGICAL SCIENCES” Focusing Food Security & Climate Change** at University of Haripur, KPK Dated: 27-30 March 2019 (Oral presentation)
6. An online mini course on **“CRISPR/Cas9 and Cre-lox Technologies Certificate Program”** on 25 April 2020
7. Participated in PhD and Alumni workshop from 12-18 September 2019 at University of Kassel, Germany (Oral presentation)
8. Participated in **“Tropentag - Filling Gaps and Removing Traps for Sustainable Resources Management”** (18-20 September 2019) at University of Kassel, Germany
9. Participated in a seminar on **“One Day Training for Faculty on Professional Ethics”** at Bahauddin Zakariya University, Bahadur Campus Layyah Dated: 31 January 2019
10. Participated in **2nd Sino-Pak international conference on “Innovations in Cotton Breeding and Biotechnology”** on November 26-27, 2018 at MNS University of Agriculture, Multan, Pakistan. (Oral Presentation)
11. Participated in **international conference on “Climate Smart Agriculture: The way of Farming of 21st Century”** on 08-09 October 2018 at MNS University of Agriculture, Multan, Pakistan
12. Participated in **Seminar “Weed Eradication”**, March 15, 2018, organized by College of Agriculture, Bahauddin Zakariya University, Bahadur Sub Campus, Layyah, Pakistan.
13. Participated in **1st International and 2nd National Conference “Challenges and Opportunities to Boost Agriculture in Changing Climate”**, March 26-28, 2018, organized by College of Agriculture, Bahauddin Zakariya University, Bahadur Sub Campus, Layyah, Pakistan. (oral presentation)
14. Participated in **Seminar “Profitable Wheat Production in Arid Region”**, November 22, 2017, organized by College of Agriculture, Bahauddin Zakariya University, Bahadur Sub Campus, Layyah, Pakistan.
15. Participated in **international DAAD Alumni seminar – Food security increased by precision agriculture**, 06-13 November 2017 at University of Goettingen, Germany. (Oral presentation)
16. Participated in **1st international conference on climate change and biodiversity (IC3B-2017)** on 02-04 May 2017 at The Islamia University of Bahawalpur, Pakistan (Oral presentation)
17. Participated in **National Conference on “Challenges and Opportunities to Boost Agriculture in Changing Climate”**, March 29-30, 2017, organized by College of Agriculture, Bahauddin Zakariya University, Bahadur Sub Campus, Layyah, Pakistan. (Oral presentation)

18. Participated in **3rd International Congress “Hidden Hunger”** on March 20-22, 2017 in Stuttgart, Germany organized by University of Hohenheim, Germany. (Poster presentation)
19. Participated in **international DAAD Alumni expert seminar “Hidden Hunger”** 12-19 March 2017 at JL University, Giessen, Germany (Oral presentation)
20. Participated in **3rd International Conference “Safe food for all and Food Expo”**, March 2-3, 2017, organized by Institute of Food Science & Nutrition, Bahauddin Zakariya University, Multan, Pakistan.
21. Participated in **national conference on “sustainable animal and crop production systems”** on 8-10 December 2016. Organized by Pakistan agriculturist Scientist and held at University of Haripur, Haripur, Pakistan (Oral Presentation)
22. Participated in **Seminar on “Sustainable Agriculture in Arid Climate”**, May 12, 2016, organized by College of Agriculture, Bahauddin Zakariya University Bahadur Sub Campus, Layyah, Pakistan.
23. Participated in international DAAD alumni seminar on **“Quality Management Along Organic Agri-value Chains in Developing Countries – Production, Post-harvest technology, Processing, Marketing and Trade”** Held at university of Kassel, Witzenhausen, Germany from 2-10 February 2015 (Oral presentation)

WORKSHOPS/ TRAINING COURSE

- An online course “Assessment for Data Analysis and Visualization Foundations” September 2024
- An online course “Data Visualization and Dashboards with Excel and Cognos” September 2024
- An online course “Introduction to R Programming for Data Science” September 2024
- An online course “Excel Basics for Data Analysis” August 2024
- An online course “Introduction to Data Analytics” August 2024
- An online mini course on “CRISPR/Cas9 and Cre-lox Technologies Certificate Program” on 25 April 2020
- One Day Training for Faculty on Professional Ethics at Bahauddin Zakariya University, Bahadur Campus Layyah **Dated:** 31 January 2019
- Participated in PhD and Alumni workshop from 12-18 September 2019 at University of Kassel, Germany
- Participated in PhD workshop on “Exploring sustainable development(s)” from 1-8 March, 2014 at University of Kassel, Germany
- Participated in PhD workshop on “From research to reality: Prospects and potential of ICDD doctoral research” from 16-23 March, 2013 at UADY Mexico
- Participated in “Erst Hilfe” (First Aid) training on 17 January, 2013 at University of Kassel, Germany
- Participated in PhD workshop on “Applying Concepts and Methods” from 18-24 March, 2012 at Egerton University Njoro, Kenya
- Participated in workshop on “Experimental Design and Data Analysis using SAS from 18-23 July, 2011 at University of Veterinary and Animal Sciences Lahore, Pakistan
- Participated in “Theory Workshop for PhDs” from 12-15, May 2011 at the University of the Witwatersrand, Johannesburg, South Africa
- Participated in intensive training course on “Remote Sensing & Digital Image Processing” from 29 November to 26 December 2010 at University of Agriculture, Faisalabad, Pakistan

- Participated in “Methods Workshop for PhDs” from 27 September to 3 October 2010 at University of Kassel, Germany
- Participated in “PhD Introductory Workshop” from 8–15 April 2010 at University of Kassel, Germany
- 4-month internship at Cotton Research Station Multan from 13-02-2007 to 14-06-2007

Journal Reviewed

1. Reviewer of *Journal of Animal and Plant Sciences*
2. Reviewer of *Pakistan Journal of Botany*
3. Reviewer of *Molecular Biology Reports*
4. Reviewer of *Plant biotechnology Journal*
5. *Journal of Horticulture and Plant research*
6. *Journal of Soil Science and Plant Nutrition*
7. *Phyton “journal of Experimental Botany”*
8. Agricultural Water Management
9. Plant Biotechnology Journal
10. Plants-MDPI
11. Agronomy-MDPI
12. IJMS-MDPI
13. Plant Breeding
14. Journal of Agronomy and Crop Science

Journal Editor

- *International Journal of Agriculture and Biology*
- *Agriculture – MDPI (Guest editor)*

PUBLICATIONS

Impact Factor

1. **Ul-Allah, S.**, Sugumar, T., Jahin, S.A., Bhandari, B. and Zhang, H., 2026. Genetic and biotechnological innovations for drought and heat resilient cotton production: a review. *Journal of Cotton Research*, 9(1), p.21.
2. **Ul-Allah, S.**, Azeem, F., Madani, A., Sher, A., Sattar, A., Ijaz, M., Hassanzadehdelouei, M., Azeem, A. and Malik, W., 2025. Interactive Effect of Genotype and Zinc Sulphate Improves Productivity and Grain Biofortification of Bread Wheat in Alkaline Soils. *Journal of Soil Science and Plant Nutrition*, pp.1-10.
3. Aswathi, K.P.R., **Ul-Allah, S.**, Puthur, J.T., Siddique, K.H., Frei, M. and Farooq, M., 2025. The Plant Mind: Unraveling Abiotic Stress Priming, Memory, and Adaptation. *Physiologia Plantarum*, 177(4), p.e70372.

4. Ahmad, M., Sajjad, M., Ullah, A., Zulfikar, U., **Ul-Allah, S.**, Waraich, E.A., Din, K.U., Siddique, K.H. and Farooq, M., 2025. From Stress to Success: Strategies for Improving Heat Tolerance in Wheat. *Journal of Agronomy and Crop Science*, 211(3), p.e70048.
5. Sher, A., Nawaz, A., **Ul-Allah, S.**, Sattar, A., Ijaz, M., Qayyum, A. and Manaf, A., 2024. Foliar application of 5-aminolevulinic acid improves the salt tolerance in sunflower (*Helianthus annuus* L.) by enhancing the morphological attributes and antioxidant defense mechanism. *Acta Physiologiae Plantarum*, 46(3), p.24. **(Corresponding author)**
6. Majeed, A., Bahram Khan, M., **Ul-Allah, S.**, Akram, M., Naveed, M. and Hussain, M., 2025. Combined application of different phosphorus sources and phosphorus-solubilizing bacteria improved grain yield, quality, and profitability of pearl millet. *Journal of Plant Nutrition*, pp.1-12.
7. Majeed, A., Khan, M.B., Dawood, A., **Ul-Allah, S.** and Hussain, M., 2023. Phosphorus application improved fodder yield, phosphorus use efficiency and economic returns of different pearl millet genotypes. *Soil & Environment*, 42(2).
8. Shagufta, Jamali, F.A., Ahmad, W., **Ul-Allah, S.**, Wahocho, N.A., Jamali, M.F. and Shah, S.A., 2023. Comparative effect of varieties and types of containers on seed germination and seedling growth of geranium (*Palergonium graveolens*). *Seeds*, 2(1), pp.165-176.
9. Azeem, A., **Ul-Allah, S.**, Azeem, F., Naeem, M., Sattar, A., Ijaz, M. and Sher, A., 2023. Effect of foliar applied zinc sulphate on phenotypic variability, association and heritability of yield and zinc biofortification related traits of wheat genotypes. *Heliyon*, 9(9). **(Corresponding and co-first author)**
10. Nisar, M., Aqeel, M., Sattar, A., Sher, A., Ijaz, M., **Ul-Allah, S.**, Rasheed, U., Al-Qahtani, S.M., Al-Harbi, N.A., Alzuaibr, F.M. and Ibrahim, M.F., 2023. Exogenous application of silicon and sulfate improved drought tolerance in sunflowers through modulation of morpho-physiological and antioxidant defense mechanisms. *Journal of Soil Science and Plant Nutrition*, 23(4), pp.5060-5069.
11. Sher, A., **Ul-Allah, S.**, Sattar, A., Barbanti, L. and Ijaz, M., 2023. Characterizing sorghum genotypes for forage yield, hydrocyanic acid and sugar contents under arid climate conditions. *Plant Genetic Resources*, 21(4), pp.377-383. **(Corresponding author)**
12. **Ul-Allah, S.**, Hussain, S., Mumtaz, R., Naeem, M., Sattar, A., Sher, A., Ijaz, M., Azeem, A., Hassan, Z., Ahmad, K. and Rehman, A.U., 2023. Phenotypic characterization of wheat germplasm for heritability and dissection of association among post anthesis traits under variable sowing dates. *Journal of King Saud University-Science*, 35(3), p.102578. **(First & Corresponding author)**
13. Hassan, Z., Hassan, A., Riaz, M., Khan, A.A., **Ul-Allah, S.**, Shehzad, U., Khurshid, M., Bakhsh, A., Shah, J.M. and Manzoor, Z., 2023. Increased health risk assessment in different vegetables grown under untreated sewerage irrigation regime due to higher

heavy metals accumulation. *Environmental Science and Pollution Research*, 30(36), pp.86189-86201.

14. Abbas, A., Sattar, A., **Ul-Allah, S.**, Sher, A., Ijaz, M., Abbas, T., Irfan, M., Ullah, S., Butt, M., Javaid, M.M. and Kim, Y., 2023. Foliar application of silicon and boron improves boll retention, lint yield and fiber quality traits of transgenic cotton. *Journal of King Saud University-Science*, 35(8), p.102858.
15. Sher, A., Hassan, M.U., Sattar, A., **Ul-Allah, S.**, Ijaz, M., Hayyat, Z., Bibi, Y., Hussain, M. and Qayyum, A., 2023. Exogenous application of melatonin alleviates the drought stress by regulating the antioxidant systems and sugar contents in sorghum seedlings. *Biochemical Systematics and Ecology*, 107, p.104620.
16. Sattar, A., Sher, A., Ijaz, M., **Ul-Allah, S.**, Hussain, S., Rasheed, U., Hussain, J., Al-Qahtani, S.M., Al-Harbi, N.A., Mahmoud, S.F. and Ibrahim, M.F., 2023. Modulation of antioxidant defense mechanisms and Morpho-physiological attributes of wheat through exogenous application of silicon and melatonin under water deficit conditions. *Sustainability*, 15(9), p.7426.
17. Madani, A., Hassanzadehdelouei, M., Zrig, A. and **Ul-Allah, S.**, 2023. Comparison of different priming methods of pumpkin (*Cucurbita pepo*) seeds in the early stages of growth in saline and sodic soils under irrigation with different water qualities. *Scientia Horticulturae*, 320, p.112165.
18. Ashfaq, M., Rasheed, A., Sajjad, M., Ali, M., Rasool, B., Javed, M.A., **Ul-Allah, S.**, Shaheen, S., Anwar, A., Ahmad, M.S. and Mubashar, U., 2022. Genome wide association mapping of yield and various desirable agronomic traits in Rice. *Molecular biology reports*, 49(12), pp.11371-11383.
19. Hassanzadehdelouei, M., **Ul-Allah, S.** and Madani, A., 2022. Cotton fiber quality response to nitrogen depends on source-sink process, boll growth habit, and weather condition. *Industrial Crops and Products*, 186, p.115279. <https://doi.org/10.1016/j.indcrop.2022.115279>
20. Azeem, F., R. Zameer, M.A. Rehman Rashid, I. Rasul, **S. Ul-Allah**, M.H.Siddique, S. Fiaz, A. Raza, A. Younas, A. Rasool, M.A. Ali, S. Anwar, M.H. Siddiqui, 2022. Genome-wide analysis of potassium transport genes in *Gossypium raimondii* suggest a role of GrHAK/KUP/KT8, GrAKT2.1 and GrAKT1.1 in response to abiotic stress, *Plant Physiology et Biochemistry* 170, pp.110-122 <https://doi.org/10.1016/j.plaphy.2021.11.038>
21. Anwar, M., Saleem, M.A., Dan, M., Malik, W., **Ul-Allah, S.**, Ahmad, M.Q., Qayyum, A., Amjid, M.W., Zia, Z.U., Afzal, H. and Asif, M., 2022. Morphological, physiological and molecular assessment of cotton for drought tolerance under field conditions. *Saudi Journal of Biological Sciences*. 29(1), pp.444-452. <https://doi.org/10.1016/j.sjbs.2021.09.009>
22. Sattar, A., Sher, A., Abourehab, M.A., Ijaz, M., Nawaz, M., **Ul-Allah, S.**, Abbas, T., Shah, A.N., Imam, M.S., Abdelsalam, N.R. and Hasan, M.E., 2022. Application of silicon and biochar alleviates the adversities of arsenic stress in maize by triggering the

morpho-physiological and antioxidant defense mechanisms. *Frontiers in Environmental Science*, 10, p.979049.

23. Naeem, M., Abbas, A., **Ul-Allah, S.**, Malik, W. and Baloch, F.S., 2022. Comparative genetic, biochemical and physiological analysis of sodium and chlorine in wheat. *Molecular Biology Reports*, 49(10), pp.9715-9724.
24. Sher, A., **Ul-Allah, S.**, Sattar, A., Ijaz, M., Ahmad, W., Bibi, Y. and Qayyum, A., 2022. The effect of selenium concentration on the quantitative and qualitative yield of four safflower (*Carthamus tinctorius* L.) genotypes. *Journal of Soil Science and Plant Nutrition*, 22(2), pp.2663-2669. **(Corresponding author)**
25. Ahmad, K., Aslam, M., Saleem, M.H., Ijaz, M., **Ul-Allah, S.**, and Ali, S., 2022. Genetic diversity and characterization of salt stress tolerance traits in maize (*Zea mays* L.) under normal and saline conditions. *Pak. J. Bot*, 54(3), pp.759-769.
26. Sher, A., Sarwar, B., Sattar, A., Ijaz, M., **Ul-Allah, S.**, Hayat, M.T., Manaf, A., Qayyum, A., Zaheer, A., Iqbal, J. and Askary, A.E., 2022. Exogenous application of zinc sulphate at heading stage of wheat improves the yield and grain zinc biofortification. *Agronomy*, 12(3), p.734.
27. Hussain, M., **Ul-Allah, S.**, Binyameen, M., Jabran, K. and Farooq, M., 2022. COVID-19 and Higher Education in Agriculture Sector of Developing Countries: Impacts and Prospects. *Pedagogical Research*, 7(1).
28. Sher, A., **Ul-Allah, S.**, Sattar, A., Ijaz, M., Qayyum, A., Manaf, A. and Suleman, M., 2022. Zinc sulfate application to grass forages (oat, barley, annual ryegrass and triticale) for increasing their yield, quality and profitability. *Crop and Pasture Science*, 73(5), pp.473-483. **(Corresponding author)**
29. Sher, A., Calone, R., **Ul-Allah, S.**, Sattar, A., Ijaz, M., Sarwar, B., Qayyum, A. and Barbanti, L., 2022. Growth, yield and quality attributes of guar (*Cyamopsis tetragonoloba* L.) genotypes grown under different planting dates in a semi-arid region of Pakistan. *Pakistan Journal of Agricultural Sciences*, 59(5), pp.757-763.
30. Sattar, A., Wang, X., **Ul-Allah, S.**, Sher, A., Ijaz, M., Irfan, M., Abbas, T., Hussain, S., Nawaz, F., Al-Hashimi, A. and Al Munqedhi, B.M., 2022. Foliar application of zinc improves morpho-physiological and antioxidant defense mechanisms, and agronomic grain biofortification of wheat (*Triticum aestivum* L.) under water stress. *Saudi Journal of Biological Sciences*, 29(3), pp.1699-1706.
31. Sher, A., Adnan, M., Sattar, A., **Ul-Allah, S.**, Ijaz, M., Hassan, M.U., Manaf, A., Qayyum, A., Elesawy, B.H., Ismail, K.A. and Gharib, A.F., 2022. Combined application of organic and inorganic amendments improved the yield and nutritional quality of forage sorghum. *Agronomy*, 12(4), p.896.
32. Ghouri, F., Ali, Z., Naeem, M., **Ul-Allah, S.**, Babar, M., Baloch, F.S., Chattah, W.S. and Shahid, M.Q., 2021. Effects of Silicon and Selenium in Alleviation of Drought Stress in Rice. *Silicon* (2021). <https://doi.org/10.1007/s12633-021-01277-z>

33. Mustafa, T., Sattar, A., Sher, A., **Ul-Allah, S.**, Ijaz, M., Irfan, M., Butt, M., Cheema, M. 2021. Exogenous application of silicon improves the performance of wheat under terminal heat stress by triggering physio-biochemical mechanisms. Scientific Reports. www.nature.com/articles/s41598-021-02594-4
34. Naeem, M., Iqbal, M., **Ul-Allah, S.**, Chaudhary, H.J., Nazeer, W., Ashraf, J. and Baloch, F.S., 2021. Expression studies of stress responsive genes in cotton *Gossypium hirsutum* L. Molecular Biology Reports, pp.1-9. <https://doi.org/10.1007/s11033-021-06696-0>
35. Ulfat, A., Mehmood, A., Ahmad, K.S. and **Ul-Allah, S.**, 2021. Elevated carbon dioxide offers promise for wheat adaptation to heat stress by adjusting carbohydrate metabolism. Physiology and Molecular Biology of Plants, <https://doi.org/10.1007/s12298-021-01080-5>
36. Naeem, M., Farooq, M., Farooq, S., **Ul-Allah, S.**, Alfarraj, S. and Hussain, M., 2021. The impact of different crop sequences on weed infestation and productivity of barley (*Hordeum vulgare* L.) under different tillage systems. Crop Protection, 149, p.105759.
37. Sher, A., Wang, X., Sattar, A., Ijaz, M., **Ul-Allah, S.**, Nasrullah, M., Bibi, Y., Manaf, A., Fiaz, S. and Qayyum, A., 2021. Exogenous Application of Thiourea for Improving the Productivity and Nutritional Quality of Bread Wheat (*Triticum aestivum* L.). Agronomy, 11(7), p.1432.
38. Ijaz, M., Sattar, A., Sher, A., Ul-Allah, S., Mansha, M.Z., Khan, K.A., Shahzad, M.A., Al-Sadi, A.M., Arif, M., Aljuaid, B.S. and El-Shehawi, A.M., 2021. Sulfur Application Combined with Planomicrobium sp. Strain MSSA-10 and Farmyard Manure Biochar Helps in the Management of Charcoal Rot Disease in Sunflower (*Helianthus annuus* L.). Sustainability, 13(15), p.8535.
39. **Ul-Allah, S.**, Azeem, A., Sher, A., Ijaz, M., Sattar, A., Saleem, M.A., Bibi, M., Abbas, N. and Hussain, M., 2021. Assessment of Genetic Variability and Direct-Indirect Contribution of Post-Anthesis Traits to the Grain Yield in Bread Wheat (*Triticum aestivum*) at Different Sowing Dates. International Journal of Agriculture & Biology, 26: 193-200 (**First & Corresponding author**)
40. **Ul-Allah, S.**, Rehman, A., Hussain, M. and Farooq, M., 2021. Fiber yield and quality in cotton under drought: Effects and management. Agricultural Water Management, 255, p.106994. (**First & Corresponding author**)
41. Kashif, M., Sattar, A., **Ul-Allah, S.**, Sher, A., Ijaz, M., Butt, M. and Qayyum, A., 2021. Silicon Alleviates Arsenic Toxicity in Maize Seedlings by Regulating Physiological and Antioxidant Defense Mechanisms. Journal of Soil Science and Plant Nutrition, pp.1-9. DOI: 10.1007/s42729-021-00499-9
42. Ijaz, M., Sattar, A., Sher, A., **Ul-Allah, S.**, Mansha, M.Z., Khan, K.A., Shahzad, M.A., Al-Sadi, A.M., Arif, M., Aljuaid, B.S. and El-Shehawi, A.M., 2021. Sulfur Application Combined with Planomicrobium sp. Strain MSSA-10 and Farmyard Manure Biochar Helps in the Management of Charcoal Rot Disease in Sunflower (*Helianthus annuus* L.). Sustainability, 13(15), p.8535.

43. Iqbal, M., Khan, M.A. and **Ul-Allah, S.**, 2021. High density cotton population in late sowing improves productivity and tolerance to cotton leaf curl virus under semi-arid subtropical conditions. *Journal of Plant Diseases and Protection*, DOI: 10.1007/s41348-021-00442-1 (**Corresponding author**)
44. Saleem, M.A., Malik, W., Qayyum, A., **Ul-Allah, S.**, Ahmad, M.Q., Afzal, H., Amjid, M.W., Ateeq, M.F. and Zia, Z.U., 2021. Impact of heat stress responsive factors on growth and physiology of cotton (*Gossypium hirsutum* L.). *Molecular Biology Reports*, 48(2), pp.1069-1079.
45. Fatima, Z., Ahmed, M., Hussain, M., Abbas, G., **Ul-Allah, S.**, Ahmad, S., Ahmed, N., Ali, M.A., Sarwar, G., ul Haque, E. and Iqbal, P., 2020. The fingerprints of climate warming on cereal crops phenology and adaptation options. *Scientific Reports*, 10(1), 18013
46. Naeem, M., Iqbal, M., Shakeel, A., **Ul-Allah, S.**, Hussain, M., Rehman, A., Zafar, Z.U. and Ashraf, M., 2020. Genetic basis of ion exclusion in salinity stressed wheat: implications in improving crop yield. *Plant Growth Regulation*, DOI: 10.1007/s10725-020-00659-4
47. Ijaz, M., Rizwan, M.S., Sarfraz, M., Ul-Allah, S., Sher, A., Sattar, A., Ali, L., Ditta, A. and Yousaf, B., 2020. Biochar reduced cadmium uptake and enhanced wheat productivity in alkaline contaminated soil. *Intl J Agric Biol*. 24:1633–1640.
48. Nawaz, A., Farooq, M., **Ul-Allah, S.**, Gogoi, N., Lal, R. and Siddique, K.H., 2020. Sustainable Soil Management for Food Security in South Asia. *Journal of Soil Science and Plant Nutrition*, DOI: 10.1007/s42729-020-00358-z
49. Ghouri F., Naeem, M., Iqbal, M., **Ul-Allah, S.**, Shahid, M.Q. 2020. An analysis of genetic association between yield and quality traits in segregating population of *Oryza sativa* L. *App. Ecol. Environ. Res*. 18:5211-5224
50. Saleem M.A., Zaheer, A., Kashif, M., **Ul-Allah, S.**, Ismael, M., Amjid, M.W., Afzal, H., Ateeq M.F. 2020. Genetics and inheritance of quantitative traits using multiple segregating populations in cotton (*Gossypium hirsutum*). *Intl J Agric Biol* 24:755–761
51. Sattar, A., Sher, A., Ijaz, M., **Ul-Allah, S.**, Butt, M., Irfan. M., Rizwan, M.S., Ali, H., Cheema, M.A. 2020. Interactive Effect of Biochar and Silicon on Improving Morpho-Physiological and Biochemical Attributes of Maize by Reducing Drought Hazards. *J Soil Sci Plant Nutr*. <https://doi.org/10.1007/s42729-020-00253-7>
52. Butt, M., Sattar, A., Abbas, T. Sher, A., Ijaz, M., **Ul-Allah, S.**, Shaeen, M.R., Kaleem, F. 2020. Foliage applied proline induces salt tolerance in chili genotypes by regulating photosynthetic attributes, ionic homeostasis, and antioxidant defense mechanisms. *Hortic. Environ. Biotechnol*. 61:693–702. <https://doi.org/10.1007/s13580-020-00236-8>
53. Hussain, S., Maqsood, M., Ijaz, M., **Ul-Allah, S.**, Sattar, A., Sher, A., Nawaz A. 2020. Combined Application of Potassium and Zinc Improves Water Relations, Stay Green, Irrigation Water Use Efficiency, and Grain Quality of Maize under Drought Stress,

54. Sattar, A., Sher, A., Ijaz, M., **Ul-Allah, S.**, Butt, M., Irfan, M., Rizwan, M.S., Ali, H., Cheema, M.A. 2020. Interactive Effect of Biochar and Silicon on Improving Morpho-Physiological and Biochemical Attributes of Maize by Reducing Drought Hazards. *J Soil Sci Plant Nutra* (2020). <https://doi.org/10.1007/s42729-020-00253-7> (Corresponding author)
55. Shah, M.A., M. Hussain, M. Shahzad, K. Jabran, **S. Ul-Allah** and M. Farooq. 2020. Transplanting improves the allometry and fiber quality of Bt cotton in cotton–wheat cropping system. *Experimental Agriculture*, 56:26-36
56. **Ul-Allah, S.**, M. Ijaz, A. Nawaz, A. Sattar, A. Sher, M. Naeem, U. Shahzad, U. Farooq, F. Nawaz and K. Mahmood. 2020. Potassium application improves grain yield and alleviates drought susceptibility in diverse maize hybrids. *Plants*, 9, 75 (**First & Corresponding author**)
57. Rehim, A., Khan, M., Imran, M., Bashir, M.A., **Ul-Allah, S.**, Khan, M.N. and Hussain, M., 2020. Integrated use of farm manure and synthetic nitrogen fertilizer improves nitrogen use efficiency, yield and grain quality in wheat. *Italian Journal of Agronomy*, 15(1), pp.29-34.
58. Minhas, W.A., Hussain, M., Mehboob, N., Nawaz, A., **Ul-Allah, S.**, Rizwan, M.S. and Hassan, Z., 2020. Synergetic use of biochar and synthetic nitrogen and phosphorus fertilizers to improves maize productivity and nutrient retention in loamy soil. *Journal of Plant Nutrition*, 43: 1356-1368
59. Ijaz, M., Perveen, S., Nawaz, A., **Ul-Allah, S.**, Sattar, A., Sher, A., Ahmad, S., Nawaz, F. and Rasheed, I., 2020. Eco-friendly alternatives to synthetic fertilizers for maximizing peanut (*Arachis hypogaea* L.) production under arid regions in Punjab, Pakistan. *Journal of Plant Nutrition*, 43: 762-772 (**Corresponding author**)
60. Sher, A., Kashif, M., Sattar, A., Qayyum, A., **Ul-Allah, S.**, Nawaz, A. and Manaf, A., 2019. Characterization of peanut (*Arachis hypogaea* L.) germplasm for morphological and quality traits in an arid environment. *Turkish Journal of Field Crops* 24: 132-137 (**Corresponding author**)
61. Manaf, M., M. Raheel, A. Sher, A. Sattar, **S. Ul-Allah**, A. Qayyum, and Q. Hussain. 2019. Interactive effect of zinc fertilization and cultivar on yield and nutritional attributes of canola (*Brassica napus* L.). *Journal of Soil Science and Plant Nutrition*. 19: 671–677. DOI. 10.1007/s42729-019-00067-2. (**Corresponding author**)
62. Sattar, A., M.A. Cheema, A. Sher, M. Ijaz, **S. Ul-Allah**, A. Nawaz, T. Abbas, Q. Ali. 2019. Physiological and biochemical attributes of bread wheat (*Triticum aestivum* L.) seedlings are influenced by foliar application of silicon and selenium under water deficit. *Acta Physiologia Plantarum*. 41:146 (**Corresponding author**)

63. Farooq, M., M. Hussain, **S. Ul-Allah**, K.H.M. Siddique. 2019. Physiological and agronomic approaches for improving water-use efficiency in crop plants. *Agricultural Water Management*. 219: 95-108
64. Sattar, A., M.A. Cheema, A. Sher, A. Qayyum, M. Ijaz, **S. Ul-Allah**, M. Butt, T. Abbas and M. Hussain. 2019. Exogenously Applied Trinexapac-ethyl Improves Photosynthetic Pigments, Water Relations, Osmoregulation and Antioxidants Defense Mechanism in Wheat under Salt Stress. *Cereals Research Communication*, 47: 430-441
65. Ijaz, M., A. Waheed, **S. Ul-Allah**, A. Nawaz, A. Wasaya, A. Sattar, A. Sher. 2019. Sewage wastewater application improves the productivity of diverse wheat (*Triticum aestivum* L.) cultivars on a sandy loam soil. *Environmental Science and Pollution Research* 26: 17045–17054 (**Corresponding author**)
66. Ahmad, M.Q., M. Hassan, A. Qayyum, M.A. Saleem, W. Malik, E. Noor and **S. Ul-Allah**. 2019. Characterization of Synthetic Wheat Germplasm using Morphological and Molecular Markers. *International Journal of Agriculture and Biology*. 22: 131–138 (**Corresponding author**)
67. **Ul-Allah, S.**, S. Ahmad, M. Iqbal, M. Naeem, M. Ijaz, M.Q. Ahmad, Z. Hassan and H.G. Nabi, 2019. Creation of new genetic diversity in cotton germplasm through chemically induced mutation. *International Journal of Agriculture and Biology*. 22:51-56 (**First & Corresponding author**)
68. Ijaz, M., Tahir, M., Shahid, M., **Ul-Allah, S.**, Sattar, A. Sher, A., Mahmood, K., Hussain, M. 2019. Combined application of biochar and PGPR consortia for sustainable production of wheat under semiarid conditions with a reduced dose of synthetic fertilizer. *Braz. J. Microb.* 50: 449-458 (**Corresponding author**)
69. Ijaz, M., Hussain, S., **Ul-Allah, S.**, Nawaz, A., Sattar, A., Sher, A. and Ahmad, T., 2018. Timing of Phosphorus and Boron Application Affects Seed Yield, Oil. *Int. J. Agric. Biol.* 20: 1745–1750.
70. Hussain, M., Farooq, M., Sattar, A., Ijaz, M., Sher, A. and **Ul-Allah, S.**, 2018. Mitigating the adverse effects of drought stress through seed priming and seed quality on wheat (*Triticum aestivum* L.) productivity. *Pak. J. Agric. Sci.* 55: 313-319
71. Iqbal, M., **S. Ul-Allah**, M. Naeem, M. Ijaz, M. Hussain, A. Wasaya, Q. Ahmed. 2018. Reproductive Development and Seed Cotton Yield of *Gossypium hirsutum* L. Affected by Genotype and Planting Time. *Int. J. Agric. Biol.* 20: 1591–1596 (**Corresponding author**)
72. **Ul-Allah, S.**, M. Iqbal, S. Maqsood, M. Naeem, M. Ijaz, W. Ishfaq, and M. Hussain, 2018. Improving the performance of bread wheat genotypes by managing irrigation and nitrogen under semi-arid conditions. *Arch. Agron. Soil Sci.* 64:1678-1689 doi.org/10.1080/ 03650340. 2018.1450974) (**First and Corresponding author**)
73. Hussain, M., Farooq, S., Hasan, W., **Ul-Allah, S.**, Tanveer, M., Farooq, M., Nawaz, A. 2018. "Drought stress in sunflower: Physiological effects and its management through

breeding and agronomic alternatives." *Agricultural water management* 201: 152-166. **(Corresponding author)**

74. Naeem, M., M. Iqbal, **S. Ul-Allah**, W. Nazir, W. Zahid. 2017. QTL Identification for Within-Boll Yield Components of *Gossypium hirsutum* L. *The Philippine Agricultural Scientist*. 100: 289-295
75. Iqbal, M., **Ul-allah**, S., M. Naeem. M. Ijaz. A. Sattar, A. Sher. 2017. Response of cotton to water and heat stress: from field to gene. *Euphytica*, 213(6):131 **(Corresponding author)**
76. Sher, A., M.U Ali, M Ijaz, A Sattar, **S Ul-Allah**, A Qayyum. 2017. Foliar application of thiourea improves the safflower yield and quality. *Zeitschrift für Arznei- und Gewürzpflanzen*. 22:78-83
77. Sher, A., Fayyaz-ul-hassan, H.A., Ijaz, M., Sattar, A., Yasir, T., **Ul-allah**, S. Qayyum, A., 2017. Climatic variation effects on canola (*Brassica napus*) genotypes. *Pakistan Journal of Botany*. 49(SI): 111-117
78. Shakeel, A., M. Naeem, I. Ali, **Ul-allah**, S., I. Afzal, A. Saeed, M. Iqbal. 2017. Genetic mechanism controlling selected within boll yield components and physiological traits of *Gossypium hirsutum* L. Under salinity stress. *Turk J Field Crops* 22:89-95.
79. **Ul-allah**, S., Iqbal, M., Naeem, M. And Zahid, W. 2017. Genetic dissection of association among within-boll yield components and their relationship with seed cotton yield in F3 populations of *Gossypium hirsutum* L. *Plant Genetic Resources: Characterization and Utilization*. *Plant Genetics Resources*, 15:157-164 **(First and Corresponding author)**
80. **Ul-allah**, S., A.A. Khan, T. Fricke, A. Buerkert, and M. Wachendorf. (2015). Effect of fertiliser and irrigation on forage yield and irrigation water use efficiency in semi-arid regions of pakistan." *Experimental Agriculture*: 5, 485-500 **(First and Corresponding author)**
81. **Ul-Allah**, S., Khan, A. A., Burkert, A., & Wachendorf, M. (2014). Socio-economic aspects of fodder production in urban and peri-urban areas of Faisalabad. *Pak. J. Agri. Sci*, 51, 483-490. **(First and Corresponding author)**
82. **Ul-Allah**, S., Khan, A. A., Fricke, T., Buerkert, A., & Wachendorf, M. (2014). Fertilizer and irrigation effects on forage protein and energy production under semi-arid conditions of Pakistan. *Field Crops Research*, 159, 62-69. **(First and Corresponding author)**

Conference Proceedings/Presentations

1. Participated in **SDG DAAD Alumni workshop/seminar 2023** at University of Kassel, Witzenhausen, Germany held on 12-19 September 2023 (Oral Presentation)
2. Participated in international conference **“Tropentage 2023 - Explore opportunities... for managing natural resources and a better life for all”** organizes by The Leibniz Centre for

Agricultural Landscape Research (ZALF), Germany in cooperation with Humboldt-Universität zu Berlin, Germany dated 20-22 September 2023 at Berlin Germany. (Poster presentation)

3. Participated in **“9th National Agri Tourism Conference”** on November 24, 2022, held at College of Agriculture, Bahauddin Zakariya University, Bahadur Sub Campus Layyah, Pakistan.
4. Participated in a webinar **“Translational genomics for achieving higher genetic gains in groundnut”** organized by bioingene.com on December, 04 2020.
5. Participated in **1st International conference on “AGRICULTURAL AND BIOLOGICAL SCIENCES” Focusing Food Security & Climate Change** at University of Haripur, KPK Dated: 27-30 March 2019 (Oral presentation)
6. An online mini course on **“CRISPR/Cas9 and Cre-lox Technologies Certificate Program”** on 25 April 2020
7. Participated in PhD and Alumni workshop from 12-18 September 2019 at University of Kassel, Germany (Oral presentation)
8. Participated in **“Tropentag - Filling Gaps and Removing Traps for Sustainable Resources Management”** (18-20 September 2019) at University of Kassel, Germany
9. Participated in a seminar on **“One Day Training for Faculty on Professional Ethics”** at Bahauddin Zakariya University, Bahadur Campus Layyah Dated: 31 January 2019
10. Participated in **2nd Sino-Pak international conference on “Innovations in Cotton Breeding and Biotechnology”** on November 26-27, 2018 at MNS University of Agriculture, Multan, Pakistan. (Oral Presentation)
11. Participated in **international conference on “Climate Smart Agriculture: The way of Farming of 21st Century”** on 08-09 October 2018 at MNS University of Agriculture, Multan, Pakistan
12. Participated in **Seminar “Weed Eradication”**, March 15, 2018, organized by College of Agriculture, Bahauddin Zakariya University, Bahadur Sub Campus, Layyah, Pakistan.
13. Participated in **1st International and 2nd National Conference “Challenges and Opportunities to Boost Agriculture in Changing Climate”**, March 26-28, 2018, organized by College of Agriculture, Bahauddin Zakariya University, Bahadur Sub Campus, Layyah, Pakistan. (oral presentation)
14. Participated in **Seminar “Profitable Wheat Production in Arid Region”**, November 22, 2017, organized by College of Agriculture, Bahauddin Zakariya University, Bahadur Sub Campus, Layyah, Pakistan.
15. Participated in **international DAAD Alumni seminar – Food security increased by precision agriculture**, 06-13 November 2017 at University of Goettingen, Germany. (Oral presentation)
16. Participated in **1st international conference on climate change and biodiversity (IC3B-2017)** on 02-04 May 2017 at The Islamia University of Bahawalpur, Pakistan (Oral presentation)
17. Participated in **National Conference on “Challenges and Opportunities to Boost Agriculture in Changing Climate”**, March 29-30, 2017, organized by College of Agriculture, Bahauddin Zakariya University, Bahadur Sub Campus, Layyah, Pakistan. (Oral presentation)
18. Participated in **3rd International Congress “Hidden Hunger”** on March 20-22, 2017 in Stuttgart, Germany organized by University of Hohenheim, Germany. (Poster presentation)
19. Participated in **international DAAD Alumni expert seminar “Hidden Hunger”** 12-19 March 2017 at JL University, Giessen, Germany (Oral presentation)

20. Participated in **3rd International Conference “Safe food for all and Food Expo”**, March 2-3, 2017, organized by Institute of Food Science & Nutrition, Bahauddin Zakariya University, Multan, Pakistan.
21. Participated in **national conference on “sustainable animal and crop production systems”** on 8-10 December 2016. Organized by Pakistan agriculturist Scientist and held at University of Haripur, Haripur, Pakistan (Oral Presentation)
22. Participated in **Seminar on “Sustainable Agriculture in Arid Climate”**, May 12, 2016, organized by College of Agriculture, Bahauddin Zakariya University Bahadur Sub Campus, Layyah, Pakistan.
23. Participated in international DAAD alumni seminar on **“Quality Management Along Organic Agri-value Chains in Developing Countries – Production, Post-harvest technology, Processing, Marketing and Trade”** Held at university of Kassel, Witzenhausen, Germany from 2-10 February 2015 (Oral presentation)

PUBLICATIONS (Book Chapters)

1. **Ul-Allah, S.** and Farooq, M., 2023. Drought management of crop farming. In *Encyclopedia of smart agriculture technologies* (pp. 1-9). Cham: Springer International Publishing.
2. Farooq, S., **Ul-Allah, S.** and Hussain, M., 2023. Drought Stress in Crop Plants and Its Management. In *Disaster Risk Reduction in Agriculture* (pp. 169-190). Singapore: Springer Nature Singapore.
3. **Ul-Allah, S.**, Azeem, A., Sher, A., Ijaz, M., Sattar, A., Naeem, M. and Ullah, I., 2023. Plant Breeding Approaches in Developing Stress Tolerance. In *Biology and Biotechnology of Environmental Stress Tolerance in Plants* (pp. 167-186). Apple Academic Press.
4. Hussain, M., **Ul-Allah, S.** and Farooq, S., 2023. Sesame (*Sesamum indicum* L.). In *Neglected and Underutilized Crops* (pp. 733-755). Academic Press.
5. Iqbal, Z., Azeem, A., **Ul-Allah, S.**, Sher, A., Ahmad, M.Q., Haider, B. and Asghar, M., 2023. Advances in Biotechnological Tools and Their Impact on Global Climate Change and Food Security. In *Climate-Resilient Agriculture, Vol 2: Agro-Biotechnological Advancement for Crop Production* (pp. 667-676). Cham: Springer International Publishing.
6. Aslam, U., Azeem, A., Mumtaz, A. and **Ul-Allah, S.**, 2023. Crop Responses to Climate Change. In *Climate-Resilient Agriculture, Vol 1: Crop Responses and Agroecological Perspectives* (pp. 57-75). Cham: Springer International Publishing.
7. Azeem, A., **Ul-Allah, S.**, Sher, A., Ijaz, M., Sattar, A., Ahmad, W. and Qayyum, A., 2023. Biosafety and Biosecurity in Genetically Modified Crops. In *Sustainable Agriculture in the Era of the OMICs Revolution* (pp. 501-510). Cham: Springer International Publishing.
8. Manzoor, Z., Hassan, Z., **Ul-Allah, S.**, Khan, A.A., Sattar, A., Shahzad, U., Amin, H. and Hussain, M., 2022. Transcription factors involved in plant responses to heavy metal stress adaptation. In *Plant perspectives to global climate changes* (pp. 221-231). Academic Press.
9. Sallam, A. and **Ul-Allah, S.**, 2019. Genomics-Aided Breeding for Climate-Smart Traits in Faba Bean. In *Genomic Designing of Climate-Smart Pulse Crops* (pp. 359-395). Springer, Cham.

10. Jabran, K., **Ul-Allah, S.**, Chauhan, B.S. and Bakhsh, A., 2019. An Introduction to Global Production trends and uses, History and Evolution, and Genetic and Biotechnological Improvements in cotton. In *Cotton Production* (pp. 1-22). John Wiley & Sons Ltd.
11. Ijaz, M., Rehman, A., Mazhar, K., Fatima, A., **Ul-Allah, S.**, Ali, Q. and Ahmad, S., 2019. Crop Production Under Changing Climate: Past, Present, and Future. In *Agronomic Crops Vol. 1* (pp. 149-173). Springer, Singapore.
12. Ijaz, M., Nawaz, A., **Ul-Allah, S.**, Rizwan, M.S., Ullah, A., Hussain, M., Sher, A. and Ahmad, S., 2019. Crop Diversification and Food Security. In *Agronomic Crops Vol. 1* (pp. 607-621). Springer, Singapore.
13. Khan, M.N., Ijaz, M., Ali, Q., **Ul-Allah, S.**, Sattar, A. and Ahmad, S., 2019. Biological Nitrogen Fixation in Nutrient Management. In *Agronomic Crops Vol. 2* (pp. 127-147). Springer, Singapore.
14. **Ul-Allah, S.** 2018. Combating Hidden Hunger in Agriculture Perspective. Biesalski HK, Birner R (eds): Hidden Hunger: Strategies to Improve Nutrition Quality. World Rev Nutr Diet. Basel, Karger, 2018, vol 118, pp 161-166
15. Hussain, M., Ahmad, S., Hussain, S., Lal, R., **Ul-Allah, S.** and Nawaz, A., 2018. Rice in saline soils: physiology, biochemistry, genetics, and management. In *Advances in Agronomy* (Vol. 148, pp. 231-287). Academic Press.