

Curriculum vitae

Name: Shaghef Ejaz
Date of birth: 09 Feb 1981
Nationality: Pakistani
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Education:

- 2008-2013** **Ph.D.** in Postharvest Horticulture and Plant Biochemistry from University of Natural Resources and Life Sciences (Universität für Bodenkultur), Vienna, Austria
Thesis title: Bioelectronic Vincent as an alternative quality control technique for horticultural products
- 2004-2006** **M.Sc. (Hons.) Horticulture** from Bahauddin Zakariya University Multan
Thesis title: Growth and yield of onion (*Allium cepa* L.) in response to different transplanting times
- 1999-2003** **B.Sc. (Hons.) Agriculture (Major: Horticulture)** Bahauddin Zakariya University, Multan
- 1996-1999** **Intermediate** BISE, DG Khan
- 1995-1996** **Matriculation** BISE, DG Khan

Service experience:

1. Associate Professor (Tenured), (22/08/2020 – present)
Department of Horticulture, Faculty of Agricultural Sciences and Technology, Bahauddin Zakariya University (B.Z.U.), Multan, Pakistan.
2. Assistant Professor (TTS), (02/07/2015 – 21/08/2020).
Department of Horticulture, Faculty of Agricultural Sciences and Technology, B.Z.U., Multan, Pakistan
3. Assistant Professor (Visiting), (16/02/2015 – 04/06/2015)
Department of Horticulture, Faculty of Agricultural Sciences and Technology, B.Z.U., Multan, Pakistan
4. Assistant Professor (Visiting), (22/09/2014 – 29/01/2015)
Department of Horticulture, Faculty of Agricultural Sciences and Technology, B.Z.U., Multan, Pakistan
5. Assistant Professor (IPFP Contract), (18/06/2013 – 17/06/2014)
Department of Horticulture, Faculty of Agricultural Sciences and Technology, B.Z.U., Multan, Pakistan

Research experience:

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Research Gate Profile: https://www.researchgate.net/profile/Shaghef-Ejaz?ev=hdr_xprf

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Specific areas of research: Postharvest quality assessment, Stress physiology, Olericulture.

Supervision: Supervised 03 Ph.D., 29 M.Phil. research students and 30 B.Sc. (Hons.) Thesis. Supervising 05 Ph.D, 06 MPhil students and 04 B.Sc. (Hons.) students. Following are the 'Thesis titles' of the supervised research students.

Ph.D. Thesis Titles:

<i>Sr. No.</i>	<i>Scholar Name</i>	<i>Thesis Titles</i>	<i>Status</i>
1.	Dr. Rashid Jawad	Mitigation of heavy metals uptake in tomato and chilies through chemical amendments.	Completed
2.	Dr. Muhammad Shahzad Saleem	Application of post-harvest edible coatings to extend storage life and maintain quality of persimmon (<i>Diospyros kaki</i>) fruits	Completed
3.	Mr. Arshad Abbas	Breeding for improving yield and fruit quality traits in <i>Praecitrullus fistulosus</i> (Tinda)	Thesis submitted
4.	Mr. Syed M. Zia-ul-Hassan	Shlf life extension and quality management of guava fruits with postharvest application of edible coatings	Thesis writing
5.	Mr. M. Sheraz	Breeding pea for yield and ornamental traits	Thesis writing
6.	Mrs. Samreen Sabir	Storage life extension and quality preservation of persimmon (<i>Diaspyros kaki</i>) fruit with hydrocolloid-based edible coatings application	Thesis writing
7.	Mrs. Shaista Gull	Postharvest coating with edible gums maintains fruit quality of guava during storage	Thesis writing

M.Phil. Thesis Titles

1. Exogenous application of osmoprotectants improves physiological and yield responses of drought-stressed tomato.

2. Comparison of fenugreek (*Trigonella foenum-graecum* L.) cultivars for their tolerance against salt stress.
3. Foliar application of gibberellic acid, ascorbic acid and salicylic acid modulates the growth and yield of aubergine (*Solanum melongena* L.).
4. Plant Growth Promoting Rhizobacteria (PGPR) reduces the rates of phosphorus application in pea cultivation.
5. Effect of plant growth promoting rhizobacteria on chilli to reduce nitrogen application rates under polytunnel conditions.
6. Chemical pre-treatments of harvested chili pepper (*Capsicum frutescens* L.) to decrease drying time & preserve nutritional quality.
7. Chemical pre-treatment and drying methods affecting the characteristics of harvested chili (*Capsicum frutescens* L.) fruits.
8. Surface coating of tomato fruit with plant extracts plus sodium metabisulphite to enhance its shelf life.
9. Osmotic dehydration and drying techniques affecting the drying kinetics of red chili pepper.
10. Use of edible coating to enhance shelf life of strawberry fruits.
11. Use of botanicals to reduce post-harvest losses due to storage pests in dry fruits.
12. Effect of pre-storage sodium alginate coating on postharvest life and quality of strawberries (*Fragaria ananassa* Duch.).
13. Elevated night temperature during growth affects the postharvest quality of strawberry (*Fragaria ananassa* Duch.) Fruits
14. Application of hydrocolloid gum to extend shelf life and maintain quality of tomato (*Lycopersicon esculentum* Mill.) fruits.
15. Quantification of mangiferin in different plant parts of Pakistani mango (*Mangifera indica* L.) cultivars.
16. Application of hydrocolloid gum-based biocomposite coating delays ripening of tomato (*Lycopersicon esculentum* Mill.) fruits by regulating antioxidative and softening enzymes.
17. Response of gladiolus growth to sewage affected soil amended with biochar.
18. Use of nanoemulsion as an edible coating to maintain quality of fruits during storage.
19. A comparative study of postharvest quality changes in persimmon fruits packaged under ambient atmosphere and vacuum conditions.
20. Heavy metal-induced phytotoxicity attenuation in hydroponically grown stock (*Matthiola incana*) plants.
21. Use of *Acacia* seed oil-based nanoemulsion on guava fruits for storage life extension.
22. Application of moringa gum to extend postharvest life of tomato fruits.
23. Ripening delays in harvested banana coated with xanthan gum.

24. Delay of ripening in harvested banana fruits with exogenous oligochitosan coating.
25. Biocomposite edible coating based on gum Arabic and carboxymethyl cellulose delays senescence in stored guava fruits.
26. Effect of Biocidal Agent on the Vase life of cut-flowers.
27. Application of hydrocolloid gum as edible coating to improve storage life of tomatoes.
28. Growth of bitter gourd seedlings as affected by seed priming with iron oxide nanoparticles.
29. Application of edible coating and vacuum packaging to extend the postharvest life of broccoli florets.

B.Sc. Research Report Titles

Sr. No.	Student's Name	Thesis Title	Year
1.	Atraba Khadim	Effect of Acacia nilotica and Grewia asiatica bark extract on vase life of Lantana camara	2024
2.	Muhammad Madni	Effect of ambient and vacuum packaging on the storage life of radish pod (<i>Raphanus sativus</i> L.)	2024
3.	Muhammad Shoaib	Edible coating of pure coconut oil and beeswax on okra and chilies to extend their shelf life	2024
4.	Muhammad Walid	Investigation of the impact of different types of packaging on the shelf life of banana (<i>Musa sapientum</i>)	2024
5.	Ayesha Iftikhar	Effect Eucalyptus oil-based nanoemulsion on vase-life tuberose (<i>Polianthus tuberosa</i> L.)	2023
6.	Usama Akbar	Effect Eucalyptus oil-based nanoemulsion on chemical parameters of tuberose (<i>Polianthus tuberosa</i> L.)	2023
7.	Muhammad Hamza	Extension of vase life of cut mustard flower for marketing using salicylic acid	2023
8.	Bilal Hassan	Influence of seed priming on germination and seedling growth of bitter gourd (<i>Momordica charantia</i>)	2023
9.	Rehaba Abid	Influence of 8-HQS biocide on enhancement of vase life of gladiolus cut flowers	2022
10.	Amna Ramzan	Effect of edible coatings based on almond gum and albizia leaf extract on the extension of the shelf life of guava	2022
11.	Farwa Faraz	Effect of layer by layer coating based on khari and Albizia gum on tomato fruit storage	2021
12.	Isbah Akhtar	Effect of layer-by-layer coating based on almond and Albizia gum on tomato fruit storage	2021
13.	M. Rizwan Bashir	Effect of Low Tunnel and Row Cover Types on Strawberry Production in Multan	2021

14.	Sehrish Batool	Effect of salinity stress on growth and flowering of Dahlia	2020
15.	Hafiz M. Mubeen	Use of essential oils, antagonistic micro-organisms and plasma treatment to reduce postharvest losses in citrus	2020
16.	Laraib Amjad	Effect of gaseous treatments (ethylene, ozone and 1-MCP) on citrus postharvest life	2020
17.	Rana Badar Aziz	Effect of irradiation and low temperature storage on postharvest life of citrus	2020
18.	Shayza Zulfiqar	Effect of Salicylic Acid on Tinda Seedlings Under Different Levels of Drought Stress	2019
19.	Maria Mehboob	Effect of Glycine Betaine on Tinda Seedlings grown under Chilling Stress	2019
20.	Aimen Aziz	Effect of Naphthelene Acetic Acid and Sucrose solutions on rooting of Stem Cuttings of Grapes (<i>Vitis vinifera</i> L.) cv. Sultania	2019
21.	Muhammad Asad	Establishment of Hydroponic System for Spinach (<i>Spinacia oleracea</i>) Cultivation	2018
22.	Muhammad Numan Shafiq	Development of Truf Grass Rolls (Sod) by Using different Growing Media	2018
23.	Muhammad Saleem Shakir	Ultrasonic waves treatment prevents microbial contamination of harvested tomato and strawberry fruits	2018
24.	Ifrah Sher Muhamad	Soxhlet Extraction of essential oil from <i>Nigella sativa</i> by using different number of extraction cycles	2018
25.	Bushra Siddique	Effect of composite coatings on storage life of Strawberry	2017
26.	Mehran Mumtaz	The estimation of weight loss in Mulberry fruits through various drying methods (<i>Morus alba</i> L.)	2017
27.	Nida Khalid	Aloe Vera based edible coatings improve the quality and shelf life of Mulberry fruit	2017
28.	Pakiza Arshad	Sodium alginate coatings prolong the post-harvest life and quality of strawberry (<i>Fragaria ananassa</i> L.)	2016
29.	Sheryar	Effect of edible coatings on the shelf life and quality of strawberry (<i>Fragaria ananassa</i>) during storage	2016
30.	Zermina Muzaffar	Effect of surface dipping of strawberry fruit (<i>Fragaria ananassa</i>) with Calcium Chloride, Citric acid and Ascorbic acid on their shelf life and quality	2016

Research Publications:

(Total Impact factor: WoS IF 255.878) (W=56, X=10)

1. Muhammad Moaaz Ali, Ziyang Zhang, Xi Liang, Sajid Ali, Shaghef Ejaz, Ayesha Maryam, Muhammad Ibrahim, Sezai Ercisli, and Faxing Chen (2025) Pullulan coating enhances postharvest quality retention and extends shelf life of Chinese plums by regulating enzymatic activity and gene expression related to ROS scavenging and cell wall metabolism. *International Journal of Biological Macromolecules*: 143020. (7.700, W)*
2. Hasan Sardar, Muhammad Waqas, Aamir Nawaz, Safina Naz, Sajid Ali, Shaghef Ejaz, Riaz Ahmad, Ayman A. Ghfar, Saikh M. Wabaidur, and Sami Abou Fayssal. (2025) Amendment of Tomato (*Lycopersicon esculentum* L.) Grown in Calcareous Soil with Spent Mushroom Substrate-derived Biochar: Improvement of Morphological, Biochemical, Qualitative Attributes, and Antioxidant Activities. *Journal of Soil Science and Plant Nutrition*, 1-17. (3.400, W)*
3. Shaista Gull, Shaghef Ejaz, Sajid Ali, Muhammad Moaaz Ali, Sajjad Hussain, Hasan Sardar, Muhammad Azam, Aamir Nawaz, Safina Naz, and Mehdi Maqbool. (2024) A novel edible coating based on Albizia [*Albizia lebbeck* (L.) Benth.] gum delays softening and maintains quality of harvested guava fruit during storage. *International Journal of Biological Macromolecules*: 277, 134096. (7.700, W)
4. Farrakh Naveed, Aamir Nawaz, Sajid Ali, Shaghef Ejaz, and Muhammad Shahzad Saleem (2024) Almond gum based hydrocolloid coating delays surface reddening and suppresses softening of harvested jujube (*Ziziphus mauritiana* L.) fruit. *Progress in Organic Coatings* 194: 108554. (6.600, W)
5. Shaista Gull, Shaghef Ejaz, Sajid Ali, Muhammad Moaaz Ali, Hasan Sardar, Muhammad Azam, Honghong Deng, Ahmed Fathy Yousef, Abdulwahed Fahad Alrefaei, and Mikhliid H. Almutairi. (2024) Xanthan gum-based edible coating effectively preserve postharvest quality of 'Gola' guava fruits by regulating physiological and biochemical processes. *BMC Plant Biology* 24(1):450. (5.300, W)
6. Hasan Sardar, Muhammad Shafiq, Safina Naz, Sajid Ali, Riaz Ahmad, and Shaghef Ejaz. (2024) Enhancing Drought Tolerance in Broccoli (*Brassica oleracea* L.) through Melatonin Application: Physiological and Biochemical Insights into Growth, Photosynthesis, and Antioxidant Defense Mechanisms. *Biocatalysis and Agricultural Biotechnology* 103256. (4.000, W)
7. Shaista Gull, Muhammad Moaaz Ali, Shaghef Ejaz, Sajid Ali, Majeeda Rasheed, Ahmed Fathy Yousef, Piotr Stepień and Faxing Chen (2024) Comprehensive genomic exploration of class III peroxidase genes in guava unravels physiology, evolution, and postharvest storage responses. *Scientific Reports*, 14:1446. (4.600, W)

8. Farrakh Naveed, Aamir Nawaz, Sajid Ali, Shaghef Ejaz (2024) Xanthan gum coating delays ripening and softening of jujube fruit by reducing oxidative stress and suppressing cell wall polysaccharides disassembly. *Postharvest Biology and Technology*, 209: 112689. (7.000, W)
9. Sajid Ali, Aamir Nawaz, Bushra Hussain, Shaghef Ejaz, Hasan Sardar (2024) Carboxymethyl cellulose coating maintains quality of harvested aonla fruit by regulating oxidative stress and ascorbate-glutathione cycle. *Postharvest Biology and Technology*, 207: 112621. (7.000, W)
10. Ghulam Khaliq, Sajid Ali, Shaghef Ejaz, Gholamreza Abdi, Yahya Faqir, Jiahua Ma, Mohammed Wasim Siddiqui, Asgar Ali (2023) γ -Aminobutyric acid is involved in overlapping pathways against chilling injury by modulating glutamate decarboxylase and defense responses in papaya fruit. *Frontiers in Plant Science*, 14: 1233477. (5.600, W)
11. Sajid Ali, Sana Ishtiaq, Aamir Nawaz, Safina Naz, Shaghef Ejaz, Muhammad Wasim Haider, Anis Ali Shah, Muhammad Moaaz Ali, Sumera Javad (2023) Layer by layer application of chitosan and carboxymethyl cellulose coatings delays ripening of mango fruit by suppressing cell wall polysaccharides disassembly. *International Journal of Biological Macromolecules*, 256: 128429. (8.200, W)
12. Hasan Sardar, Muhammad Arif Ramzan, Safina Naz, Sajid Ali, Shaghef Ejaz, Riaz Ahmad, and Muhammad Ahsan Altaf. (2023). Exogenous Application of Melatonin Improves the Growth and Productivity of Two Broccoli (*Brassica oleracea* L.) Cultivars Under Salt Stress. *Journal of Plant Growth Regulation*, 1-15. (4.800, W)
13. Sajid Ali, Ahmad Sattar Khan, Aamir Nawaz, Safina Naz, Shaghef Ejaz, Anis Ali Shah, and Muhammad Wasim Haider (2023). The combined application of Arabic gum coating and γ -aminobutyric acid mitigates chilling injury and maintains eating quality of 'Kinnow' mandarin fruits. *International Journal of Biological Macromolecules*, 236, 123966. (8.025, W)
14. Hasan Sardar, Muhammad Muzammil Bashir, Safina Naz, Aamir Nawaz, Riaz Ahmad, Shaghef Ejaz, Sajid Ali, Sadeq K. Alhag, Laila A. Al-Shuraym (2023) Melatonin mitigates adverse effects of salinity in stevia through physiological and biochemical adjustments. *Scientia Horticulturae*, 322: 112390. (4.300, W)
15. Sajid Ali, Aamir Nawaz, Safina Naz, Maratab Ali, Shaghef Ejaz, Muhammad Azam, and Kashif Razzaq (2023). Exogenous melatonin mitigates chilling injury in zucchini fruit by enhancing antioxidant system activity, promoting endogenous proline and GABA accumulation, and preserving cell wall stability. *Postharvest Biology and Technology*, 204, 112445. (7.000, W)
16. Sajjad Hussain, Hamza Sohail, Iqra Noor, Shakeel Ahmad, Shaghef Ejaz, Muhammad Arif Ali, Sakeen Tul-Ain Haider, Muhammad Sohail, Hayat Jaffer, Sezai Ercisli, Raphael Morillon and Muhammad Fasih Khalid (2023) Physiological and biochemical determinants of drought tolerance in tetraploid vs diploid sour orange citrus rootstock. *The Journal of Horticultural Science and Biotechnology*, 98:6, 772-785. (1.918, X)

17. Muhammad Shahzad Saleem, Shaghef Ejaz, Walid F. A. Mosa, Sajid Ali, Hasan Sardar, Muhammad Moaaz Ali, Sami Ullah, Hayssam M. Ali, Anna Lisek, and Muhammad Akbar Anjum (2023) Biocomposite coatings delay senescence in stored Diospyros kaki fruits by regulating antioxidant defence mechanism and delaying cell wall degradation. *Horticulturae*, 9(3): 351. (2.923, W)
18. Sajid Ali, Ahmad Sattar Khan, Aamir Nawaz, Safina Naz, Shaghef Ejaz, and Sami Ullah (2023) Glutathione application delays surface browning of fresh-cut lotus (*Nelumbo nucifera* Gaertn.) root slices during low temperature storage. *Postharvest Biology and Technology* 200: 112311. (6.751, W)
19. Rashid Jawad, Aamir Nawaz, Shaghef Ejaz, Sajid Ali, Muhammad Shahzad Saleem and Hafiz Mohkum Hammad (2023) Zeolite amendment reduces lead accumulation and improves growth and yield in tomato plants irrigated with sewage water. *Environmental Science and Pollution Research*, 1-13 (5.190, W)
20. Alia Tajdar, Shaghef Ejaz, Muhammad Shah Zaib, Anum Ishfaq, Syed Muhammad Zaka, Hafiz Muhammad Safeer, and Khalid Abbas (2023) Effect of different plant extracts on olfactory response of *Bactrocera zonata* Saunder and postharvest quality of banana (*Musa acuminata* Colla). *Pakistan Journal of Zoology*, 55(2): 735-742. (0.687, X)
21. Amna Amir Khan, Ummad-ud-Din Umar, Shaghef Ejaz, Hafiz Riaz, Muazzama Batool, Ting Chen, Faheem Ahmad, and Qamar Saeed (2023) Insect-facilitated propagation of mycotoxic fungi in grain storages: association of *Sitotroga cerealella* Olivier with *Aspergillus flavus* link. *International Journal of Environmental Science and Technology*. 20: 231–238 (2.860, W)
22. Hasan Sardar, Mujahid Irshad, Muhammad Akbar Anjum, Sajjad Hussain, Sajid Ali, Riaz Ahmad, Shaghef Ejaz (2022). Foliar application of micronutrients improves the growth, yield, mineral contents, and nutritional quality of broccoli (*Brassica oleracea* L.). *Turkish Journal of Agriculture and Forestry*, 46(6): 791-801. (2.669, X)
23. Dengliang Wang, Mazhar Saeed Randhawa, Muhammad Azam, Hongru Liu, Shaghef Ejaz, Riadh Ilahy, Rashad Qadri, Muhammad Imran Khan, Muhammad Ali Umer, Muhammad Arslan Khan, Ke Wang (2022). Exogenous melatonin treatment reduces postharvest senescence and maintains the quality of papaya fruit during cold storage. *Frontiers in Plant Science*, 13: 1039373 (6.627, W)
24. Muhammad Shahzad Saleem, Shaghef Ejaz, Muhammad Akbar Anjum, Sajid Ali, Sajjad Hussain, Sezai Ercisli, Gulce Ilhan, Romina Alina Marc, Sona Skrovankova, and Jiri Mlcek (2022) Improvement of postharvest quality and bioactive compounds content of

- persimmon fruits after hydrocolloid-based edible coating application. *Horticulturae* 8: 1045. (2.923, W)
25. Sajid Ali, Aamir Nawaz, Safina Naz, Shaghef Ejaz, Mehdi Maqbool, Manzer H. Siddiqui, Hazem M. Kalaji, Jacek Wróbel, Arkadiusz Telesiński, and Alicja Auriga. (2022). Hydrogen sulfide mitigates chilling injury of postharvest banana fruits by regulating γ -aminobutyric acid shunt pathway and ascorbate–glutathione cycle. *Frontiers in Plant Science*, 13, 941246. (6.627, W)
 26. Sajjad Hussain, Hafiza Muzzamil Asif, Shakeel Ahmad, Muhammad Arif Ali, Shaghef Ejaz, Tahira Abbas, Sakeena Tul-Ain Haider, Sezai Ercisli, Talaat Ahmed, Muhammad Sohail, Muhammad Fasih Khalid (2022) Seed priming alleviates salt stress in two fenugreek (*Trigonella foenum-graecum* L.) Cultivars. *Emirates Journal of Food and Agriculture* 34(8): 650-657. (1.031, X)
 27. Safina Naz, Ahmer Bilal, Bushra Saddiq, Shaghef Ejaz, Sajid Ali, Sakeena Tul Ain Haider, Hasan Sardar, Bushra Nasir, Ishtiaq Ahmad, Rahul Kumar Tiwari, Milan Kumar Lal, Awais Shakoor, Mohammed Naseer Alyemeni, Naveed Mushtaq, and Muhammad Ahsan Altaf. 2022. Foliar application of salicylic acid improved growth, yield, quality and photosynthesis of pea (*Pisum sativum* L.) by improving antioxidant defense mechanism under saline conditions. *Sustainability*, 14: 14180. (3.889, W)
 28. Muhammad Moaaz Ali, Raheel Anwar, Rana Naveed Ur Rehman, Shaghef Ejaz, Sajid Ali, Ahmed Fathy Yousef, Sezai Ercisli, Xiaobo Hu, You Ming Hou, and Faxing Chen. (2022) Sugar and Acid Profile of Loquat (*Eriobotrya japonica* Lindl.), Enzymes Assay and Expression Profiling of Their Metabolism-Related Genes as Influenced by Exogenously Applied Boron. *Frontiers in Plant Science*, 13: 1039360. (6.627, W)
 29. Sajid Ali, Naima Zahid, Aamir Nawaz, Safina Naz, Shaghef Ejaz, Sami Ullah, and Bushra Siddiq. (2022) Tragacanth gum coating suppresses the disassembly of cell wall polysaccharides and delays softening of harvested mango (*Mangifera indica* L.) fruit. *International Journal of Biological Macromolecules*, 222: 521-532. (8.025, W)
 30. Sajid Ali, Muhammad Akbar Anjum, Ahmad Sattar Khan, Aamir Nawaz, Shaghef Ejaz, Ghulam Khaliq, Shahid Iqbal, Sami Ullah, Rana Naveed Ur Rehman, Muhammad Moaaz Ali, Muhammad Shahzad Saleem (2022) Carboxymethyl cellulose coating delays ripening of harvested mango fruits by regulating softening enzymes activities. *Food Chemistry* 380: 131804. (7.514, W)
 31. Noosheen Zahid, Mehdi Maqbool, Majid Mahmood Tahir, Sandra Horvitz, Abdul Hamid, Muhammad Shafique Khalid, Shaghef Ejaz, Rashid Jawad, Shahid Iqbal Awan, Abdur Rehman, Asgar Ali (2022) Influence of organic and inorganic fertilizer regimes on

- growth patterns and antioxidants capacity of strawberry (*Fragaria* × *Ananassa* Duch.) cv. Chandler. *Journal of Food Quality*, 2022: 8618854. ([2.450, W](#))
32. Muhammad Fasih Khalid, Raphael Morillon, Muhammad Akbar Anjum, Shaghef Ejaz, Muhammad Junaid Rao, Shakeel Ahmad, and Sajjad Hussain (2022) Volkamer lemon tetraploid rootstock transmits the salt tolerance when grafted with diploid Kinnow mandarin by strong antioxidant defense mechanism and efficient osmotic adjustment. *Journal of Plant Growth Regulation*. 41: 1125-1137. ([2.672, W](#))
 33. Mubashir Islam, Sajid Ali, Aamir Nawaz, Safina Naz, Shaghef Ejaz, Anis Ali Shah, and Kashif Razzaq (2022) Postharvest 24-epibrassinolide treatment alleviates pomegranate fruit chilling injury by regulating proline metabolism and antioxidant activities. *Postharvest Biology and Technology*, 188: 111906. ([5.537, W](#))
 34. Muhammad Shahzad Saleem, Shaghef Ejaz, Muhammad Akbar Anjum, Sajid Ali, Sajjad Hussain, Aamir Nawaz, Safina Naz, Mehdi Maqbool, and Abdul Manan Abbas (2022) Aloe vera gel coating delays softening and maintains quality of stored persimmon (*Diospyros kaki* Thunb.) fruits. *Journal of Food Science and Technology-Mysore*, 59, 3296–3306. ([2.701, W](#))
 35. Muhammad Saleem Shakir, Shaghef Ejaz, Sajjad Hussain, Sajid Ali, Hasan Sardar, Muhammad Azam, Sami Ullah, Ghulam Khaliq, Khaliq, G., Muhammad Shahzad Saleem, Aamir Nawaz, Muhammad Akbar Anjum, Ihsan Canan (2022) Synergistic effect of gum Arabic and carboxymethyl cellulose as biocomposite coating delays senescence in stored tomatoes by regulating antioxidants and cell wall degradation. *International Journal of Biological Macromolecules*, 201: 641-652. ([6.953, W](#))
 36. Sajid Ali, Muhammad Akbar Anjum, Aamir Nawaz, Shaghef Ejaz, Raheel Anwar, Ghulam Khaliq, Sajjad Hussain, Sami Ullah, Rizwan Hussain, Muhammad Shahzad Saleem, Mahmood Ul Hasan (2022) Postharvest γ -aminobutyric acid application mitigates chilling injury of aonla (*Emblica officinalis* Gaertn.) fruit during low temperature storage. *Postharvest Biology and Technology*, 185: 111803. ([5.537, W](#))
 37. Hasan Sardar, Muhammad Akbar Anjum, Sajjad Hussain, Sajid Ali, Muhammad Rashid Shaheen, Muhammad Ahsan, Shaghef Ejaz, Khawaja Shafique Ahmad, Safina Naz, Muhammad Shafique (2022) Deciphering the role of moringa leaf powder as a supplement in the cotton waste substrate for the growth and nutrition of king oyster mushroom. *Scientia Horticulturae*. 293: 110694. ([3.463, W](#))
 38. Azam, M., Qadri, R., Aslam, A., Khan, M.I., Khan, A.S., Anwar, R., Ghani, M.A., Ejaz, S., Hussain, Z., Iqbal, M.A. and Chen, J. (2022) Effects of different combinations of N, P and K at different time interval on vegetative, reproductive, yield and quality traits of mango (*Mangifera indica*. L) cv. Dusehri. *Brazilian Journal of Biology*, 82: e235612. ([1.651, X](#))

39. Muhammad Shahzad Saleem, Muhammad Akbar Anjum, Safina Naz, Sajid Ali, Sajjad Hussain, Muhammad Azam, Hasan Sardar, Ghulam Khaliq, Ihsan Canan, and Shaghef Ejaz (2021) Incorporation of ascorbic acid in chitosan-based edible coating improves postharvest quality and storability of strawberry fruits. *International Journal of Biological Macromolecules*, 189: 160-169. (6.953, W)
40. Safina Naz, Muhammad Akbar Anjum, Shaghef Ejaz, Sajid Ali, Bushra Saddiq, Hasan Sardar, and Sakeena Tul-Ain Haider (2021) Sewage wastewater reclamation with sand column filter and reduction of heavy metal accumulation in tomato and okra. *Environmental Science and Pollution Research*, 28: 45962-45970. (3.056, W)
41. Sajid Ali, Muhammad Akbar Anjum, Aamir Nawaz, Safina Naz, Shaghef Ejaz, Muhammad Shahzad Saleem, Sakeena Tul-Ain Haider, and Mahmood Ul Hasan (2021) Effect of gum arabic coating on antioxidative enzyme activities and quality of apricot (*Prunus armeniaca* L.) fruit during ambient storage. *Journal of Food Biochemistry*, 45: e13656. (1.662, X)
42. Hasan Sardar, Ammar Nisar, Muhammad Akbar Anjum, Safina Naz, Shaghef Ejaz, Sajid Ali, Muhammad Sameem Javed, and Riaz Ahmad. (2021) Foliar spray of moringa leaf extract improves growth and concentration of pigment, minerals and stevioside in stevia (*Stevia rebaudiana* Bertoni). *Industrial Crops and Products*, 166: 113485. (5.645, W)
43. Muhammad Azam, Laraib Hameed, Rashad Qadri, Shaghef Ejaz, Ali Aslam, Muhammad Imran Khan, Jiyuan Shen, Jiukai Zhang, Muhammad Nafees, Ishtiaq Ahmad, Muhammad Awais Ghani, Jiao Chen, Naveeda Anjum. (2021) Postharvest ascorbic acid application maintained physiological and antioxidant responses of Guava (*Psidium guajava* L.) at ambient storage. *Food Science and Technology*, 41(3): 748-754. (1.718, X)
44. Sajid Ali, Muhammad Akbar Anjum, Shaghef Ejaz, Sajjad Hussain, Sezai Ercisli, Muhammad Shahzad Saleem, Hasan Sardar. (2021) Carboxymethyl cellulose coating delays chilling injury development and maintains eating quality of 'Kinnow' mandarin fruits during low temperature storage. *International Journal of Biological Macromolecules*, 168: 77-85. (5.162, W)
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65. Nadra Khan, Maqsood Ahmed, Ishfaq Hafiz, Nadeem Abbasi, Shaghef Ejaz and Muhammad Anjum (2015) Optimizing the concentrations of plant growth regulators for in vitro shoot cultures, callus induction and shoot regeneration from calluses of grapes. *Journal International des Sciences de la Vigne et du Vin*, 49: 37-45. ([0.804, W](#))
66. Christian Gosch, Karthik Mudigere Nagesh, Jana Thill, Silvija Miosic, Sylvia Plaschil, Malvina Milosevic, Klaus Olbricht, Shaghef Ejaz, Annette Rompel, Karl Stich, Heidi Halbwirth (2014)

Isolation of Dihydroflavonol 4-Reductase cDNA Clones from *Angelonia x angustifolia* and Heterologous Expression as GST Fusion Protein in *Escherichia coli*. PLoS One, 9(9): e107755. (3.534, W)

67. Silvija Miosic, Jana Thill, Malvina Milosevic, Christian Gosch, Sabrina Pober, Christian Molitor, Shaghef Ejaz, Annette Rompel, Karl Stich, Heidi Halbwirth (2014) Dihydroflavonol 4-reductase genes encode enzymes with contrasting substrate specificity and show divergent gene expression in *Fragaria* species. PLoS One, 9(11): e112707. (3.534, W)

** (JCR IF, Journal Category according to Higher Education Commission of Pakistan)*

(Non-Impact factor International Journal)

1. Abdul Qadir, Muhammad Akbar Anjum, Aamir Nawaz, Shaghef Ejaz, Muhammad Ahsan Altaf, Rabia Shahid and Ahmad Hassan (2019). Growth of cherry tomato in response to salicylic acid and glycinebetaine under water stress condition. Middle East Journal of Agriculture Research, 8(3), 762-775.
2. Hasan Sardar, Muhammad Waqas, Safina Naz, Shaghef Ejaz, Sajid Ali, and Riaz Ahmad (2022). Evaluation of different growing media based on agro-industrial waste materials for the morphological, biochemical and physiological characteristics of stevia. Cleaner Waste Systems, 3: 100038.

(Non-Impact factor HEC-Recognized Journal)

1. Hasan Sardar, Muhammad Akbar Anjum, Aamir Nawaz, Shaghef Ejaz, Muhammad A. Ali, Nasir A. Khan, Fahim Nawaz, Muhammad Raheel (2016) Impact of various agro-industrial wastes on yield and quality of *Pleurotus sajor-caju*. Pakistan Journal of Phytopathology. 28(1): 87-92.
2. Muhammad Fasih Khalid, Sajjad Hussain, Muhammad Akbar Anjum, Shakeel Ahmad, Shaghef Ejaz, Muhammad Arif Ali, Abdur Rahim and Muhammad Saqib (2017) Physico-chemical profiling of promising cultivars of litchi (*Litchi chinensis* sonn.) fruit grown under agro-climatic conditions of Multan. Science, Technology and Development, 36 (3): 183-188.

(Non-Impact factor non-HEC-Recognized Journal)

1. Jahanzaib Qamar, Shaghef Ejaz, Muhammad Akbar Anjum, Aamir Nawaz, Sajjad Hussain, Sajid Ali and Shahzad Saleem (2018) Effect of Aloe vera Gel, Chitosan and Sodium Alginate Based Edible Coatings on Postharvest Quality of Refrigerated Strawberry Fruits of cv. Chandler. Journal of Horticultural Science and Technology, 1(1):8-16.

Review Papers:

1. Sajid Ali, Muhammad Akbar Anjum, Aamir Nawaz, Safina Naz, Sajjad Hussain, and Shaghef Ejaz. (2019) Effects of Brassinosteroids on Postharvest Physiology of Horticultural Crops: A Concise Review. *Journal of Horticultural Science and Technology*, 2(3), 62-68.
2. Sajid Ali, Aamir Nawaz, Shaghef Ejaz, Sakeena Tul-Ain Haider, Muhammad Waqar Alam, Hafiz Umer Javed (2019) Effects of hydrogen sulfide on postharvest physiology of fruits and vegetables: An overview. *Scientia Horticulturae*, 243: 290-299. ([1.961](#), [W](#))
3. Muhammad Ahsan Altaf, Rabia Shahid, Abdul Qadir, Safina Naz, Ming-Xun Ren, Shaghef Ejaz, Muhammad Mohsin Altaf, Awais Shakoor (2019) Potential role of plant growth promoting rhizobacteria (PGPR) to reduce chemical fertilizer in horticultural crops. *International Journal of Research in Agriculture and Forestry*, 6(5): 21-30.

Research Projects:

Projects Title	Principal/ Co-Principal Investigation	Amount	Awarding Agency
Application of Edible Coatings to Extend the Postharvest Life of Broccoli Florets	Principal Investigator	PKR 250,000	Bahauddin Zakariya University Pakistan
Incidence of Vivipary in Varieties of Mango under Different Ecologies	Team Member	3.7350 (PKR millions)	Agricultural Research Council
Storage life extension and quality preservation of persimmon (<i>Diospyros kaki</i> Thunb.) fruits with hydrocolloids based edible coatings application	Principal Investigator	PKR 250,000	Bahauddin Zakariya University Higher Education Commission of Pakistan
Postharvest storage life extension of selected export potential fruits and vegetables	Co-Principal Investigator	3.2025 (PKR millions)	Higher Education Commission of Pakistan
Development of low-cost living green walls technology for air cleaning, food security and aesthetic gratification in urban areas of Pakistan	Co-Principal Investigator	7.400 (PKR millions)	Higher Education Commission of Pakistan
Extending the shelf life of fruits of strawberry cultivars grown in Multan with alginate-based coatings	Principal Investigator	PKR 200,000	Bahauddin Zakariya University
Plant growth promoting rhizobacteria reduces the application rates of nitrogen fertilizers in chilli cultivation	Principal Investigator	PKR 200,000	Bahauddin Zakariya University
Quantification of mangiferin from Pakistani mango (<i>Mangifera indica</i> L.) cultivars	Principal Investigator	PKR 135,000	Bahauddin Zakariya University
Chemical pretreatment and drying methods affecting the characteristics of harvested chilli (<i>Capsicum frutescence</i>)	Principal Investigator	PKR 149,000	Bahauddin Zakariya University

Books Edited

Ali, S., Mir, S.A., Dar, B.N. and Ejaz. S. 2024. "Sustainable Postharvest Technologies for Fresh Fruits and Vegetables", Published by Taylor and Francis, Boca Raton, Florida, USA.

Book Chapters:

1. Shaghef Ejaz, Sajid Ali, Rehaba Abid, Neha Khizar, Laraib Amjad (2024) Role of Active Packaging in the Preservation of Fresh Fruits and Vegetables. In: Sajid Ali, Shabir Ahmad Mir, Basharat Nabi Dar, Shaghef Ejaz. (Eds.). Sustainable Postharvest Technologies for Fresh Fruits and Vegetables, CRC Press, Boca Raton, Florida, USA.
2. Sajid Ali, Muhammad Hassan, Shaghef Ejaz, Muhammad Naveed Arshad, Irfan Ali Sabir (2024) Edible Coatings for Postharvest Fruit and Vegetable Storage. In: Sajid Ali, Shabir Ahmad Mir, Basharat Nabi Dar, Shaghef Ejaz. (Eds.). Sustainable Postharvest Technologies for Fresh Fruits and Vegetables, CRC Press, Boca Raton, Florida, USA.
3. Sajid Ali, Samina Khalid, Mahmood Ul Hasan, Aamir Nawaz, Safina Naz and Shaghef Ejaz (2024) Role of hydrogen sulfide in regulating postharvest horticultural crops quality. In: Luzia Valentina Modolo, Cristiane Jovelina Da-Silva (Eds.). H₂S in Plants: Past, Present and Beyond. Academic Press (Elsevier), London, United Kingdom.
4. Sajid Ali, Aamir Nawaz, Safina Naz and Shaghef Ejaz (2024) Application of ROS, RNS, and RSS for prolonging the shelf-life of horticultural crops via the control of postharvest bacterial infections. In: Vasileios Ziogas, Francisco J. Corpas (Eds.) Oxygen, Nitrogen and Sulfur Species in Post-Harvest Physiology of Horticultural Crops. Academic Press (Elsevier), London, United Kingdom.
5. Muhammad Fasih Khalid, Muhammad Shahzad Saleem, Iqra Zakir, Rashid Iqbal Khan, Muhammad Sohail, Shaghef Ejaz, Muhammad Akbar Anjum, Samreen Sabir, Sajid Ali, Shakeel Ahmad and Sajjad Hussain (2023) Salicylic acid induced abiotic stress tolerance in plants In: Mansour Ghorbanpour, Muhammad Adnan Shahid (Eds.) Plant Stress Mitigators. Academic Press (Elsevier), London, United Kingdom.
6. Sajid Ali, Muhammad Akbar Anjum, Sami Ullah, Aamir Nawaz, Shaghef Ejaz and Ghulam Khaliq (2023). Salicylic acid mediated postharvest chilling and disease stress tolerance in horticultural crops. In: Mansour Ghorbanpour, Muhammad Adnan Shahid (Eds.) Plant Stress Mitigators. Academic Press (Elsevier), London, United Kingdom.
7. Ali, S., Nawaz, A., Naz, S., Ejaz, S., Hussain, S., Anwar, R. (2022). Decontamination of Microgreens. In: Shah, M.A., Mir, S.A. (Eds.) Microbial Decontamination of Food. Springer, Singapore.
8. Sajid Ali, Muhammad Akbar Anjum, Shaghef Ejaz, Mahmood Ul Hasan, Aamir Nawaz, Sajjad Hussain, Muhammad Shafique (2022). Natural preservatives for improvement of shelf life. In: Basharat Nabi Dar, Manzoor Ahmad Shah, Shabir Ahmad Mir (Eds.) Shelf Life and Food Safety (1st Edition). CRC Press, Boca Raton, FL, USA.

9. Ali, S., Khan, A.S., Anjum, M.A., Ejaz, S., Khaliq, G., Hussain, S., Ahmad, R. and Saleem, M.S. (2022). Pre and postharvest physiological disorders of citrus fruits. In: Hussain, S., Khalid, M.F., Ali, M.A., Ahmad, N., Hanauzzama, M. and Ahmad, S. (Eds.). *Citrus Production: Technological Advancements and Adaptation to Changing Climate*. CRC Press, Boca Raton, FL, USA.
10. Ejaz, S., Ali, S., Azam, M., Amjad, L., Saeed, F. Canan, İ. (2022). Strategies to reduce postharvest losses of citrus fruits. In: Hussain, S., Khalid, M.F., Ali, M.A., Ahmad, N., Hanauzzama, M. and Ahmad, S. (Eds.). *Citrus Production: Technological Advancements and Adaptation to Changing Climate*. CRC Press, Boca Raton, FL, USA.
11. Ali, S., M.A. Anjum, A. Nawaz, M.U. Hasan, S. Naz, S. Ejaz and S.T.A. Haider. 2021. Crosstalk of hydrogen sulfide with melatonin and nitric oxide in ripening of fruits. In: *Hydrogen Sulfide in Plant Biology: Past and Present*. Academic Press (Elsevier), London, United Kingdom
12. Ali, S., M.A. Anjum, A. Nawaz, S. Naz, S. Ejaz, S. Ahmad and S. Hussain. 2021. Role of reactive nitrogen species in mitigating organic pollutant-induced plant damages. In: Hasanuzzaman, M., and M.N.V. Prasad (Eds.). *Handbook of Bioremediation: Physiological, Molecular and Biotechnological Interventions*. Academic Press (Elsevier), London, United Kingdom.
13. Hussain, S., Khalid, M. F., Sohail, M., Anjum, M. A., Ejaz, S., Nafees, M., Zakir, I., Ahmad, M. Ali, S. & Ahmad, S. (2021). Role of transporters in accumulating salt ions by halophytes. In: *Approaches to the Remediation of Inorganic Pollutants*, (pp. 11-40). Springer Nature, Cham.
14. Ejaz, S., Fahad, S., Anjum, M. A., Nawaz, A., Naz, S., Hussain, S., & Ahmad, S. (2020). Role of osmolytes in the mechanisms of antioxidant defense of plants. In: *Sustainable Agriculture Reviews 39* (pp. 95-117). Springer Nature, Cham.
15. Azam M., Qadri R., Akram M.T., Ejaz S. (2020) Cultivation and growth constraints of ornamental palms. In: *Etiology and Integrated Management of Economically Important Fungal Diseases of Ornamental Palms. Sustainability in plant and Crop Protection* (vol 16), Springer, Cham.
16. Rashid, M., Ejaz, S., Shah, K. H. (2020). Regulatory role of transcription factors in abiotic stress responses in plants. In: *Plant Ecophysiology and Adaptation under Climate Change: Mechanisms and Perspectives II* (pp. 543-565). Springer, Singapore.
17. Ali, S., Ejaz, S., Anjum, M. A., Nawaz, A., & Ahmad, S. (2020). Impact of climate change on postharvest physiology of edible plant products. In: *Plant Ecophysiology and Adaptation under Climate Change: Mechanisms and Perspectives I* (pp. 87-115). Springer, Singapore.
18. Qadri, R., Azam, M., Khan, I., Yang, Y., Ejaz, S., Akram, M. T., Khan, M. A. (2020). Conventional and Modern Technologies for the Management of Post-Harvest Diseases. In: *Plant Disease Management Strategies for Sustainable Agriculture through Traditional and Modern Approaches* (pp. 137-172). Springer, Cham.

19. Ejaz S, Anjum MA, Hussain S, Azam M, Ali S, Ahmad S. (2019) Pretreatment of seedlings with exogenous protectants for abiotic stress tolerance. In: Priming and Pretreatment of Seeds and Seedlings (pp. 573-593). Springer, Singapore.
20. Ali S, Nawaz A, Hussain S, Khan SM, Ejaz S, Ahmad S. (2019) Abiotic stress tolerance in plants by priming and pretreatments with ascorbic acid. In: Priming and Pretreatment of Seeds and Seedlings (pp. 459-493). Springer, Singapore.
21. Khalid MF, Hussain S, Anjum MA, Ejaz S, Ahmad M, Jan M, Zafar S, Zakir I, Ali MA, Ahmad N, Rao MJ. (2019) Hydropriming for plant growth and stress tolerance. In: Priming and Pretreatment of Seeds and Seedlings (pp. 373-384). Springer, Singapore.
22. Azam M, Ejaz S, Rehman RN, Khan M, Qadri R. (2019) Postharvest quality management of strawberries. In: Strawberry-Pre-and Post-Harvest Management Techniques for Higher Fruit Quality IntechOpen. UK.
23. Khan, S.M., Ali, S., Nawaz, A, Bukhari, S.A.H., Ejaz, S. Ahmad, S. (2019) Integrated pest and disease management for better agronomic crop production. In: Hasanuzzaman M. (eds) Agronomic Crops. Springer, Singapore.
24. Khalid MF, Hussain S, Ahmad S, Ejaz S, Zakir I, Ali MA, Ahmed N, Anjum MA. (2019) Impacts of abiotic stresses on growth and development of plants. In: Plant Tolerance to Environmental Stress (pp. 1-8). CRC Press.
25. Ejaz S, Hussain S, Anjum MA, Ahmad S. (2019) Application of osmolytes in improving abiotic stress tolerance in plant. In: Plant Tolerance to Environmental Stress: Role of Phytoprotectants. (pp. 47-55). CRC Press.
26. Hussain S, Rao MJ, Anjum MA, Ejaz S, Zakir I, Ali MA, Ahmad N, Ahmad S. (2019) Oxidative stress and antioxidant defense in plants under drought conditions. In: Plant Abiotic Stress Tolerance (pp. 207-219). Springer, Cham.

Conferences:

1. International Conference of Plant Scientists (21-24 Apr 2008) organized by Pakistan Botanical Society and Department of Botany, University of Agriculture, Faisalabad. (Participated)
2. International Symposium on Prospects of Horticultural Industry in Pakistan (28-30 Mar 2007) organized by Institute of Horticultural Sciences, University of Agriculture Faisalabad, Pakistan. (Participated)
3. World Mango Conference (24-25 Jun 2014) organized by University College of Agriculture & Environmental Sciences, The Islamia University of Bahawalpur, Pakistan.
 - i. Oral talk: Zinc application influences flowering, fruit yield and quality of mango.
 - ii. Abstract: Effect of manganese and its methods of application on fruit yield and quality of Samar Bahisht Chaunsa).
4. International Conference on Citriculture (11-13 Feb 2015) organized by Department of Horticulture, B.Z.U., Multan, and Higher Education Commission of Pakistan.
 - i. Abstract: Physico-chemical profiling of promising sweet orange cultivars grown under different agro-climatic conditions of Punjab.
 - ii. Abstract: Agro-climatic conditions affect fruit quality of mandarins (*Citrus reticulata* Blanco) cultivars.
5. 2nd International Conference on Horticultural Sciences: Production Challenges and Food Security (18-20 Feb 2016) organized by Institute of Horticultural Sciences, University of Agriculture Faisalabad, Pakistan.
 - i. Poster: Effect of seed priming and foliar application of plant growth regulators on growth and yield of three okra (*Abelmoschus esculentus* (L.) Moench) cultivars.
 - ii. Abstract: Analyzing the biophoton responses of spinach to organic and inorganic growing systems.
 - iii. Abstract published on 'Physico-chemical profiling of promising cultivars of litchi (*Litchi chinensis* Sonn.) fruit grown under agro-climatic conditions of Multan.
6. 6th International Conference of Pakistan Phytopathological Society on 'Plant Health for Sustainable Agriculture' (20-22 Nov 2017) organized by Department of Plant Pathology, B.Z.U. and Central Cotton Research Institute, Multan.
7. 'International Horticulture Conference, Pakistan' (25-27 Apr 2018) organized by Pakistan Society for Horticultural Science and Department of Horticulture, P.M.A.S. Arid Agriculture University, Rawalpindi.
8. National Symposium on 'Plant Soil Water Interaction for Orchards Management under Changing Climate' (9-11 May 2018) organized by Department of Soil Science, University of Haripur, Haripur.

9. 'International Horticulture Conference' (26-28 Feb 2019) organized by Department of Horticulture, B.Z.U., Multan, Pakistan Society for Horticultural Science and Higher Education Commission of Pakistan.
 - i. Use of garlic extract as a botanical to reduce post-harvest losses due to *Tribolium castaneum* pests in stored almond
 - ii. Modified atmosphere packaging delays enzymatic browning and maintains quality of harvested litchi fruits during low temperature storage.
 - iii. Effect of different casing materials on the growth and quality of milky mushroom (*Calocybe indica*).
 - iv. Waterlogging induced changes in oxidative stress and antioxidant enzymes activities in grafted and non-grafted citrus rootstocks
10. "1st International Conference on Agricultural and Biological Sciences" (27-30 March 2019) organized by Department of Soil Science, University of Haripur, Haripur.
Oral talk: Chemical pretreatment of harvested chili (*Capsicum frutescens* L.) fruits to reduce drying time and maintain nutritional quality during drying
11. "2nd International Salinity Conference" (28-30 April 2019) organized by Department of Soil Science, The Islamia University of Bahawalpur.
Poster: Comparison of fenugreek (*Trigonella foenum-graecum* L.) cultivars for their tolerance against irrigation-induced salt stress.
12. "International Horticulture Conference" (26-28 Feb 2020) organized by Institute of Agricultural Sciences, University of Punjab and Pakistan Society for Horticultural Science.
 - i. Poster: Aloe vera gel coating reduce oxidative stress, prevents softening and maintains postharvest quality of persimmons
 - ii. Poster: Alleviation of salt stress in *Trigonella foenum-graecum* L. through different seed priming techniques
13. "International Horticulture e-Conference" (22-23 Feb 2021) organized by Institute of Horticultural Sciences, University of Agriculture, Faisalabad and Pakistan Society for Horticultural Science.
 - i. Poster: Use of nano-emulsion as an edible coating to maintain the quality of mango fruit under storage conditions
 - ii. Poster: Effect of almond gum coating on storage life extension and quality conservation of guava fruits
 - iii. Poster: Application of hydrocolloid gum as an edible coating for maintaining the persimmon fruit quality aspects under storage conditions
14. International Conference on Recent Trends in Environmental Sustainability (21-23 Feb 2022) organized by Department of Environmental Sciences, COMSATS University Islamabad, Vehari Campus, Pakistan.

- i. Oral talk: Edible coating based on nano-emulsion maintains quality and storability of harvested mango fruits.
- ii. Oral talk: Mitigation of Pb uptake in chilies by zeolite amendment in sewerage water grown plants.
- 15. International Horticulture Conference (17-19 May 2022) organized by Department of Horticulture, Faculty of Agriculture, Gomal University, Dera Ismail Khan, Khyber Pakhtunkhwa, Pakistan.
 - i. Oral talk: Application of hydrocolloids as biocomposite coating delays ripening and senescence by activating antioxidant enzymes and deactivating cell wall degrading enzymes in coated tomato fruits.
- 16. International Conference on Date Palm and Pomegranate (22-23 August 2022) organized by Department of Horticulture, MNS- University of Agriculture, Multan, Pakistan. (*Participated*)
- 17. International Horticulture Conference (23-25 Feb 2023) organized by Department of Horticulture, MNS- University of Agriculture, Multan, Pakistan. (Oral talk & Poster presentation)
- 18. 8th International Horticulture Conference and Expo (26-28 Feb 2024) Organized by Department of Horticultural Sciences, The Islamia University of Bahawalpur, Pakistan and Pakistan Society for Horticultural Science.
 - i. Oral talk: Nano-Emulsion Coating Maintains the Quality of Harvested Guavas Under Ambient Storage
- 19. International Conference on Innovation in Food and Nutrition Security organized by Department of Human Nutrition, B.Z.U., Doaba Foundation & Farmers Development Organization.
 - ii. Oral talk: Strategies to reduce postharvest losses in fresh fruits and vegetables for small-scale farming.
- 20. 8th International Horticulture Conference Sustainable Livelihoods: Climate-Smart Agriculture for Food Security (03-04 Jul 2024) organized by Faculty of Agriculture, University of Poonch, Rawalakot, Azad Jammu and Kashmir, Pakistan.

Professional Training Courses, Seminars and Workshops:

1. International “Seminar on Climate Smart Agriculture for Pakistan”, (30 Nov to 02 Dec 2022) organized by Administration and Management Institute of Ministry of Agriculture and Rural Affairs, People’s Republic of China.
2. Research Capacity Building Program (01-04 Aug 2022) organized by Higher Education Commission in collaboration with the British Council and Coventry University, UK.
3. International Webinar on “Crop Growth Modelling: A Tool to Assess Resilience In Agriculture Production Systems: Current Status and Future Prospects” (07 Oct 2021) organized by Department of Agronomy, MNS University of Agriculture, Multan
4. International Webinar on “Greenhouse Horticulture: Current Status and Future Prospects” (29-Jun 2021) organized by Department of Horticulture, MNS University of Agriculture, Multan
5. Online Training Session on ‘Performance Management’ (18 Feb 2021) organized by The National Productivity Organization, Ministry of Industries and Production Government of Pakistan.
6. Online Training Session on ‘Product Development for Entrepreneurs & Potential Exporters’ (31 Dec 2020) organized by The National Productivity Organization, Ministry of Industries and Production Government of Pakistan in collaboration with Multan Chamber of Commerce & Industry.
7. Seminar organized by Department of Horticulture, AIBU University, Turkey.
Presentation: Temperate and Sub-Tropical Fruit Production in Pakistan
8. ‘International Workshop on Phytotechnologies for Environmental Cleanup’ (8-9 May 2018) organized by Institute of Environmental Sciences & Engineering, NUST, Islamabad.
9. ‘Writing Successful Research Proposal’ (23 Aug 2017) organized by Institute of Food Science & Nutrition, B.Z.U.
10. Webinar on ‘Ways for Researchers to Store, Share, Discover, and Use Data’ (20 Jul 2017) organized by Elsevier Publishing Campus.
11. ‘Tools and Methods in Research Writing’ (18 Apr 2017) organized by Department of Soil Science, B.Z.U. and ScienceVier, Canada.
12. ‘Discovering Yourself and Others’ (6 May 2016) organized by Quality Enhancement Cell, B.Z.U. and Department of Agronomy, B.Z.U.
13. ‘Nonchemical Pest Management in Agriculture’ (07-09 Dec 2015) organized by Asian Productivity Organization and National Productivity Organization.
14. ‘Mango Diseases and Management’ (14 May 2015) organized by Department of Plant Pathology, B.Z.U.
15. Basic Training Program for HBPRC (USAID), Pakistan
16. ‘Intensive Summer Leadership Training’ (02-13 Jun 2014) organized by Ministry of Education & Training, Islamabad, Pakistan.

17. 'Irrigation Management Training Workshop' (09 Apr 2014) organized by Agricultural Sector Linkages Program, Australia.
18. Workshop on 'Modern Corn Technologies' (20 Aug 2013) organized by Monasanto Pakistan and Institute of Pure and Applied Biology, B.Z.U. Multan.
19. 'Environmental Horticulture ENVIROHORT: Erasmus Intensive Programme Summer School' (23 Jun-05 Jul 2008) organized by Department of Horticulture, Selcuk University Konya, Turkey.
20. Training Course on 'Tunnel Technology' (19-24 Feb 2007) organized by University of Agriculture Faisalabad, Pakistan.
21. Statistical Data Analysis using SAS, Austria.
22. German Language Course (Anfänger I), Austria.

Conferences/Seminars/Workshops/Events Organized

Nationals

1. Seminar on Blackberry: Prospects for Production in South Punjab (30 May 2024) Department of Horticulture, B.Z.U. Multan.
2. 15th Convocation as Member of Campus Beautification Committee (09 Aug 2019) B.Z.U., Multan.
3. 'Dunya Kisan Dost Mela' as Member of Culture Show Committee (01 Mar 2019) B.Z.U., Multan.
4. 'Annual Dinner' for Faculty of Agricultural Sciences and Technology, as Member of Organizing Committee (08 Feb 2019) B.Z.U., Multan.
5. 'Mango Show' as Member of Organizing Committee (10-12 Jul 2018) B.Z.U., Multan.
6. 14th Convocation as Member of Campus Beautification Committee (12 Oct 2017) B.Z.U., Multan.
7. One day "Floral Workshop" (12 Apr 2017) at Department of Horticulture, B.Z.U., Multan.
8. 13th Convocation as Member of Campus Beautification Committee (25 Nov 2016) B.Z.U., Multan.

International

1. 'International Seminar on Artificial Intelligence Innovations in Agriculture on (02 Aug 2023)' at Department of Horticulture, B.Z. University, Multan
(as *Chief Organizer*)
2. 'International Horticulture Conference' (26-28 Feb 2019) *organized by* Department of Horticulture, B.Z.U., Multan, Pakistan Society for Horticultural Science and Higher Education Commission of Pakistan.
(as *member of Exhibition Committee*)
3. '2nd Sino-Pak International Conference on Innovations in Cotton Breeding and Biotechnology *organized by* Department of Plant Breeding and Genetics, B.Z.U., Multan and MNS University of Agriculture Multan.

(as member of Printing and Press Committee)

4. Two days “International Workshop and Exhibition on Mango” (13-14 Jul 2017) at Department of Horticulture, B.Z.U. Multan.

(as member of Organizing Committee)

5. ‘International Conference on Citriculture’ (11-13 Feb 2015) *organized by* Department of Horticulture, B.Z.U., Multan, and Higher Education Commission of Pakistan

(as Secretary Conference)

Advisory Service

1. Associate Editor for Frontiers in Sustainable Food Systems
2. Guest Editor for Special Issue on Research Topic "Sustainable Postharvest Management Practices for Fresh Produce" in Frontiers in Sustainable Food Systems
3. Member Accreditation Inspection Committee (AIC) of National Agriculture Education Accreditation Council, HEC

Awards, Distinctions and Honors

1. Achieved Third Position in the School for Secondary School Certificate
2. Obtained Quaid-i-Azam Scout Badge as a Boy Scout
3. Award of scholarship by the Higher Education Commission of Pakistan for Ph.D. studies in Austria
4. Ph.D. completed with distinction
5. Invited by Abant İzzet Baysal University, Turkey under Mevlana Faculty Exchange Program.

Membership of societies

1. Pakistan Society of Horticultural Sciences