

DR. ALLAH WASAYA



Personal Information:

Father's name	Haji Ahmad Yar
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Date of Birth	13-10-1982
Religion	Islam
Marital status	Married
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Educational Background

Degree	Passing Year	Major subject	CGPA	Percentage
B.Sc.(Hons.) Agriculture	2005	Agronomy	3.61/4.00	75.39
M.Sc. (Hons.) Agronomy	2007	Agronomy	3.77/ 4.00	77.77
Ph.D. Agronomy	2011	Agronomy	3.51/4.00	

M.Sc. (Hons.):

University:	University of Agriculture, Faisalabad Pakistan
Title of Master's Thesis:	"Agro-economic assessment of Wheat-Fenugreek intercropping system"
Supervisor's Name:	Prof. Dr. Riaz Ahmad

Ph.D.:

University:	University of Agriculture, Faisalabad Pakistan,
Date of obtaining degree:	2011

Title of Ph.D. Thesis: Growth and yield response of Maize (*Zea mays* L.) to nitrogen management and tillage practices

Supervisor's Name: Dr. Muhammad Tahir

Professional Experience:

Associate Professor (Tenured) College of Agriculture, Bahauddin Zakariya University, Bahadur Sub-Campus Layyah, Pakistan, w.e.f. 20/12/2019 to date

Assistant Professor (TTS) College of Agriculture, Bahauddin Zakariya University, Bahadur Sub-Campus Layyah, Pakistan, w.e.f. 07/07/2015 to 19/12/2019

Post-doc. Researcher Chinese Academy of Sciences Institute of Genetics and Developmental Biology, Agro-Resources Research Center, Shijiazhuang, China

Assistant Professor (Contract) Department of Agronomy, Pir Mehr Ali Shah, Arid Agriculture University, Rawalpindi, Pakistan, w.e.f. 12/02/2015 to 05/07/2015

Assistant Professor (IPFP): Department of Agronomy, Pir Mehr Ali Shah, Arid Agriculture University, Rawalpindi, Pakistan, w.e.f. 03/10/2012 to 02/10/2013.

Lecturer: Department of Agronomy, Pir Mehr Ali Shah, Arid Agriculture University, Rawalpindi, Pakistan, w.e.f. 01/10/2009 to 01/08/2012

Soil Conservation Officer Punjab Agriculture Department, w.e.f. 24-06-2008 to 30-09-2009

Research interests: Nutrient management, Intercropping, Tillage and stress physiology in plants

Papers Published in HEC Recognized/ Impact Factor Journals

1. M. Asif, K. Mubeen, S. Ahmed, N. Sarwar, **A. Wasaya**, T. A. Yasir, A. Ghaffar, M. Aziz, A. Matloob, S. Ahmad, M. Ahmad, W. Hassan and M. Shehzad. 2026. Spatial Variability

- of Soil Physicochemical Properties in Hill Torrent Command Areas of Punjab, Pakistan. *J. Anim. Plant Sci.*, 36 (4) 2026.
2. **Wasaya, A.**, Hussain, Z., Yasir, T.A., Iqbal, M.A., Razzaq, H., Farooq, M.U., Sarwar, N., Hamad, A.A., Alalawy, I.A., Akdeniz, H. and El Sabagh, A., 2025. Sodium Nitroprusside Modulated Drought Stress and Improved Productivity and Quality of Peanuts (*Arachis hypogaea* L.) under Skipped Irrigations. *Legume Research*, 48(12), pp.2024-2031.
 3. Tauqeer Ahmad Yasir, Wasif Azhar, Qaisar Ali, Muhammad Usman Masood Bhutta, Muhammad Ateeq, **Allah Wasaya**, Mubshar Hussain and Rehana Riaz. 2024. Foliar applied calcium chloride alleviated drought stress in pearl millet (*Pennisetum glaucum* L.) by improving growth and yield contributing traits and antioxidant activity. *PLoS ONE* 19(12): e0310207. <https://doi.org/10.1371/journal.pone.0310207>
 4. **Wasaya, A.**, Yaqoob, S., Ditta, A., Yasir, T.A., Sarwar, N., Javaid, M.M., Al-Ashkar, I., Sabagh, A.E. and Farooq, M.U. 2024. Exogenous Application of β -aminobutyric Acid Improved Water Relations, Membrane Stability Index, and Achene Yield in Sunflower Hybrids Under Terminal Drought Stress. *Polish Journal of Environmental Studies*.
 5. Naveed, M., Sarwar, N., Mubeen, K., Rehman, U., Farooq, O., **Wasaya, A.** and Yasir, T.A., 2024. Elevated auxin levels during the reproductive stage improve rice crop productivity and grain quality. *Acta Agrobotanica*, 77.
 6. Sarwar, N., **Wasaya, A.**, Yasir, T.A., Mubeen, K., Hussain, M., Javaid, M.M., Mehboob, K. and El Sabagh, A., 2024. Potassium supplementation mitigates flooding stress by regulating antioxidant enzymes, photosynthetic performance, yield attributes, and lint quality in cotton plants. *Journal of Plant Nutrition*, pp.1-13.
 7. Yasir, T. A., Ateeq, M., **Wasaya, A.**, Hussain, M., Sarwar, N., Mubeen, K., & El Sabagh, A. Seed Priming and Foliar Supplementation with β -aminobutyric Acid Alleviates Drought Stress through Mitigation of Oxidative Stress and Enhancement of Antioxidant Defense in Linseed (*Linum usitatissimum* L.). *Phyton* (0031-9457), 92(11). (2023).
 8. **Wasaya A.**, Rehman I, Mohi Ud Din A, Hayder Bin Khalid M, Ahmad Yasir T, Mansoor Javaid M, El-Hefnawy M, Brestic M, Rahman MA and El Sabagh A (2023) Foliar application of putrescine alleviates terminal drought stress by modulating water status, membrane stability, and yield- related traits in wheat (*Triticum aestivum* L.). *Front. Plant Sci.* 13:1000877. doi: 10.3389/fpls.2022.1000877
 9. **Wasaya, A.**, Hassan, J., Yasir, T.A., Ateeq, M. and Raza, M.A., 2022. Foliar Application of Silicon Improved Physiological Indicators, Yield Attributes, and Yield of Pearl Millet (*Pennisetum glaucum* L.) Under Terminal Drought Stress. *Journal of Soil Science and Plant Nutrition*, pp.1-15.
 10. Javaid, M.M., Florentine, S., Mahmood, A., **Wasaya, A.**, Javed, T., Sattar, A., Sarwar, N., Kalaji, H.M., Ahmad, H.B., Worbel, J. and Ahmed, M.A., 2022. Interactive effect of

elevated CO₂ and drought on physiological traits of *Datura stramonium*. *Frontiers in Plant Science*, 13, p.929378.

11. Javaid, M.M., Mahmood, A., Alshaya, D.S., AlKahtani, M.D., Waheed, H., **Wasaya, A.**, Khan, S.A., Naqve, M., Haider, I., Shahid, M.A. and Nadeem, M.A., 2022. Influence of environmental factors on seed germination and seedling characteristics of perennial ryegrass (*Lolium perenne* L.). *Scientific Reports*, 12(1), pp.1-11.
12. Javaid, M.M., Florentine, S.K., Ashraf, M., Mahmood, A., Sattar, A., **Wasaya, A.** and Li, F.M., 2022. Photosynthetic activity and water use efficiency of *Salvia verbenaca* L. under elevated CO₂ and water deficit conditions. *Journal of Agronomy and Crop Science*.
13. Yasir, T.A., Aslam, S., Rizwan, M.S., **Wasaya, A.**, Ateeq, M., Khan, M.N., Tanveer, S.K., Soufan, W., Ali, B., Ditta, A. and Kumari, A., Role of Organic Amendments to Mitigate Cd Toxicity and Its Assimilation in *Triticum aestivum* L. *Phyton*, 2022, vol.91, no.11. 2491-2504
14. Hussain, M., Aziz, A., Javaid, M.M., Ashraf, M., **Wasaya, A.**, Majeed, M.Z., Akhtar, N., Asif, M., Adnan, M. and Bhatti, A., 2022. Evaluating the phytotoxic effects of some plant species of semi-arid regions. *Plant cell biotechnology and molecular biology*, pp.1-18.
15. Aziz, A., H. b. H. Tajaah, U. Shahid, A. Tanveer, M. Asif, **A. Wasaya**, M. Ashraf, A. Raza, N. Akhtar, S. M. Shahzad, M. S. Munir, M. E. Safdar and M. M. Javaid. 2021. Identification and validation of anti-microbial properties of some tropical folklore medicinal plant species against some multi-resistant bacterial pathogens. *Pak. J. Agri. Sci.* 58:1581-1594
16. Zaman, I., Ali, M., Shahzad, K., Tahir, M.S., Matloob, A., Ahmad, W., Alamri, S., Khurshid, M.R., Qureshi, M.M., **Wasaya, A.** and Baig, K.S., 2021. Effect of Plant Spacings on Growth, Physiology, Yield and Fiber Quality Attributes of Cotton Genotypes under Nitrogen Fertilization. *Agronomy*, 11(12), p.2589.
17. Sabagh AE, Mbarki S, Hossain A, Iqbal MA, Islam MS, Raza A, Llanes A, Reginato M, Rahman MA, Mahboob W, Singhal RK, Kumari A, Rajendran K, **Wasaya A**, Javed T, Shabbir R, Rahim J, Barutçular C, Habib Ur Rahman M, Raza MA, Ratnasekera D, Konuskan Ö I, Hossain MA, Meena VS, Ahmed S, Ahmad Z, Mubeen M, Singh K, Skalicky M, Brestic M, Sytar O, Karademir E, Karademir C, Erman M and Farooq M (2021) Potential Role of Plant Growth

Regulators in Administering Crucial Processes Against Abiotic Stresses. *Front. Agron.* 3:648694.

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19. Mubeen, K., **Wasaya, A.**, Rehman, H.U., Yasir, T.A., Farooq, O., Imran, M., Ikram, R.M., Nazeer, R., Zahoor, F., Yonas, M.W. and Aziz, M., 2021. Integrated phosphorus nutrient sources improve wheat yield and phosphorus use efficiency under sub humid conditions. *Plos one*, 16(10), p.e0255043.
20. Mubeen, K., Shehzad, M., Sarwar, N., Rehman, H.U., Yasir, T.A., **Wasaya, A.**, Ahmad, M., Hussain, M., Abbas, M.B., Yonas, M.W. and Farooq, S., 2021. The impact of horse purslane (*Trianthema portulacastrum* L.) infestation on soybean [*Glycine max* (L.) Merrill] productivity in northern irrigated plains of Pakistan. *PloS one*, 16(9), p.e0257083.
21. Javaid, M.M., Saeed, M.A., Waheed, H., Nadeem, M.A., Ahmad, M.F., Aziz, A., **Wasaya, A.**, Iqbal, M., Mahmood, A. and Balal, R.M., 2021. Optimizing the rate of phosphorus to enhance grain yield and quality in two *Camelina sativa* (L.) crantz accessions. *Semina: Ciências Agrárias*, 42(5), pp.2735-2750.
22. Sarwar, N., Farooq, O., **Wasaya, A.**, Hussain, M., El-Shehawi, A.M., Ahmad, S., Brestic, M., Mahmoud, S.F., Zivcak, M. and Farooq, S., 2021. Integrated nitrogen management improves productivity and economic returns of wheat-maize cropping system. *Journal of King Saud University-Science*, 33(5), p.101475.
23. **Wasaya, A.**, Affan, M., Ahmad Yasir, T., Mubeen, K., Ali, M., Nawaz, F., Galal, A., Iqbal, M.A., Islam, M.S., El-Sharnouby, M. and EL Sabagh, A., 2021. Foliar Potassium Sulfate Application Improved Photosynthetic Characteristics, Water Relations and Seedling Growth of Drought-Stressed Maize. *Atmosphere*, 12(6), p.663.
24. **Wasaya, A.**, Abbas, T., Yasir, T.A., Sarwar, N., Aziz, A., Javaid, M.M. and Akram, S. 2021. Mitigating Drought Stress in Sunflower (*Helianthus annuus* L.) Through Exogenous Application of β -Aminobutyric Acid. *J Soil Sci Plant Nutr.* 21:936–948. <https://doi.org/10.1007/s42729-021-00412-4>

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26. Ali, H., Sarwar, N., Muhammad, S., Farooq, O., Rehman, A.U., **Wasaya, A.**, Yasir, T.A., Mubeen, K. and Akhtar, M.N., 2021. Foliar Application of Magnesium at Critical Stages Improved the Productivity of Rice Crop Grown under Different Cultivation Systems. *Sustainability*, 13(9), p.4962.
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28. Mubeen, K., Yonas, M.W., Khalofah, A., Ikram, R.M., Sarwar, N., Shehzad, M., **Wasaya, A.**, ur Rehman, H., Yasir, T.A., Aziz, M. and Alam, M., 2021. Interference of horse purslane (*Trianthema portulacastrum* L.) and other weeds affect yield of autumn planted maize (*Zea mays* L.). *Saudi Journal of Biological Sciences*.
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31. **Wasaya, A.**, Yasir, T.A., Sarwar, N., Farooq, O., ur Rehman, A., Mubeen, K., Ali, M., Affan, M. and Aziz, A., 2021. Foliage applied potassium improves stay green, photosynthesis and yield of maize (*Zea mays* L.) under rainfed condition. *Plant Physiology Reports*, 38-48.

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35. Atiq-Ur Rehman, Qamar, R., Rehman, A., Wasaya, A., Farooq, O., Sarwar, N Iqbal, M.M. and Ahmad, S., 2020. Silicon Coating on Maize Seed Mitigates Saline Stress in Yermosols of Southern Punjab. Silicon, 1-11.
36. Naeem Sarwar, Muhammad Haseeb Javaid, Asifa Neelam, Atique-ur-Rehaman, Omar Farooq, Allah Wasaya, Khuram Mubeen, Aamir Ghani and Muhammad Zaighum Mushtaq. 2020. Application of spermidine to manage waterstress for improved fine rice yield and quality. Pure and Applied Biology. 9(3):1813-1819.
37. Javaid, MM, AUH Zia, H. Waheed, J. Nargis, A. Shahid, A. Aziz, and A. Wasaya. 2020. Effect of Isoproturon With and Without Adjuvants on Photosynthetic Attributes of Wheat and Its Associated Weeds. Planta Daninha 38.
38. Allah Wasaya, Tauqeer Ahmad Yasir, Naeem Sarwar, Omer Farooq, Ghulam Rasool Sheikh and Abdul Wahid Baloch. 2020. Improving growth and yield of mungbean (*Vigna radiata* L.) through foliar application of silver and zinc nanoparticles. Pure Appl. Biol., 9(1): 790-797.
39. Abdul Sattar, Mumtaz A. Cheema, Ahmad Sher, Muhammad Ijaz, Allah Wasaya, Tauqeer A. Yasir, Tahira Abbas and Mubshar Hussain. 2020. Foliar Applied Silicon Improves Water Relations, Stay Green and Enzymatic Antioxidants Activity in Late Sown Wheat. Silicon: 12, 223–230. <https://doi.org/10.1007/s12633-019-00115-7>

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42. Ahsan Aziz,, Muhammad Ashraf, Sultan Sikandar, Muhammad Asif, Naeem Akhtar, Sher Muhammad Shahzad, **Allah Wasaya**, Ali Raza and Babar Hussain Babar. 2019. Optimizing sulfur for improving salt tolerance of sunflower (*Helianthus annuus* L.). *Soil Environ.* 38(2): 222-233.
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- the productivity of diverse wheat (*Triticum aestivum* L.) cultivars on a sandy loam soil. Environmental Science and Pollution Research. 26:17045–17054
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19. Muhammad Ijaz, M.Sarfaraz, m. hussain, T. A. Yasir, A. Sher, A. Sattar, **A. Wasaya** and M. Saqib. Potential of diluted sugar mill effluent in improving the growth, morphology and quality of maize. Published in 1st National conference Challenges and opportunities to boost agriculture in changing climate, dated march 29-30 2017 In Layyah, Pakistan.
20. Tauqeer Ahmad Yasir, **A. Wasay**, O. Farooq, M. A. Arfat, A. W. baloch, S. Rizwan amd A.Sattar. Role of bacillus and Rhizobium inoculents in improving growth symbiotic and yield traits in chickpea. Published in 1st National conference Challenges and opportunities to boost agriculture in changing climate, dated march 29-30 2017 In Layyah, Pakistan.
21. Sehrish Faheem, A. Sher, A. Sattar, M. Ijaz, and **A. Wasaya**. Evaluating the potential of silver nano-particles on growth, physiology and forage yield of sorghum (*Sorghum bicolor* L.) Moench. Published in 1st National conference Challenges and opportunities to boost agriculture in changing climate, dated march 29-30 2017 In Layyah, Pakistan.
22. **Allah Wayasa**, Fayyaz ul Hassan, H. Ali, A. Sattar, A. Sher, M. Ijaz, T.A. Yasir and W. Hassan. Physiological expressions of hybrid maize in response to tillage system and temporal nitrogen application. Published in 14th National and 5th International conference of Botany , dated January 15-18, 2016 In University of Karachi, Pakistan.
23. Shah Nawaz, Z. I. Ahmad, M. Ansar, A. Sher, **A. Wasaya**, W. Hassan and m. Irfan. Agronomic Efficiency and HCN of Sorghum Cultivars as influenced by zinc and boron application under sub- tropical condition. Published in 14th National and 5th International conference of Botany , dated January 15-18, 2016 In University of Karachi, Pakistan.
24. Muhammad Ansar, S.S. Ijaz, A. Anwar, Y. mehmood, M .Nadeem, M. Irfan , **A. Wasaya**, A. Sher, M. Hussain and Abdul Ghafar. Problems and prospects of forage production in changing rain-fed condition of Pakistan. Published in 14th National and 5th International conference of Botany , dated January 15-18, 2016 In University of Karachi, Pakistan.
25. Tauqeer Ahmed yasir, Y.G. Hu, H. Ali, A. wahid, M. Ijaz, A. Sher, A. Sattar, **A. Wasaya** and Umer Farooq. Identification of SNPs in TaER genes and their association CID related traits in CHINESE bread wheat genotypes under water-stress conditions. Published in 14th National and 5th International conference of Botany , dated January 15-18, 2016 In University of Karachi, Pakistan.

Popular Articles in Newspaper:

1. Fertilizer Choice for a good crop yield published in “Daily DAWN”.
2. Silage making-a quality forage preservation published in “Daily DAWN”.

Urdu Booklets/Leaflets:

1. Method/procedure of producing standard seed of wheat crop.
2. Production technology of groundnut seed and its importance.

Post-graduate Students Supervised:

1. Muhammad Affan. 2012. “Enhancing drought tolerance in maize by potassium application”
2. M. S. Shabir. 2013. Efficacy of different Methods of Zinc and Boron Application on Terminal Droughts of Maize under Rainfed Conditions.
3. Qari Muhammad Hanif. 2018. Exploring genetic diversity of maize hybrids under terminal drought.
4. Zamurd Hussain. 2018. Effect of foliage applied nitric oxide on productivity and quality of peanut under different irrigation regimes.
5. Muhammad Rizwan Akram. 2018. Modelling the impact of different wheat varieties in various agro-environments of the southern Punjab, Pakistan.
6. Jamshaid Hassan. 2019. Mitigating terminal drought in Pearl Millet through exogenous application of silicon.
7. Sibtain Ali. 2019. Foliar application of different growth regulators for improving growth and yield of Canola Genotypes.
8. Abdul Waheed. 2019. Improving drought tolerance in Sunflower through foliar application of salicylic acid.
9. Farukh Nawaz. 2020. Improving growth and yield of wheat through different agro-management practices.
10. Muhammad Usama Javed. 2020. Biofortification of pearl millet with Zinc and Iron in arid climate.
11. Muhammad Shahid. 2021. Improving bread wheat productivity through iron and boron nutrition under drought stress.
12. Tanveer Abbas. 2021. Agronomic biofortification of pearl millet with boron and iron.
13. Iqra Rehman 2022. Improving drought tolerance in wheat through exogenous application of putrescine.
14. Hafiz Muhammad Mubasher 2022. Improving growth and yield of bread wheat through exogenous application of boric acid under terminal drought stress

15. Muhammad Aqib 2022. Effect of tillage practices and organic amendments on growth and yield of maize.
16. Anam Bibi 2022. Enhancing wheat productivity through foliar application of zinc and boron under drought stress.
17. Muhammad Zeeshan 2023. Enhancing productivity of wheat through foliar application of selenium under drought conditions.
18. Iqra Khadim 2023. Improving growth and yield of wheat through zinc application.
19. Umar Farooq 2023. Improving drought tolerance in wheat through exogenous application of mannitol.
20. Fouzia Naz 2024. Enhancing yield of desi and kabuli chickpea (*Cicer arietinum* L.) through soil application of boric acid
21. Lubna Shabeer 2024. Improving growth and yield of canola through different tillage systems and organic amendments.
22. Mushahid Hussain 2024. Agronomic biofortification of mungbean (*Vigna radiata* L.) with Zinc.
23. Muhammad Zain ul Hassan 2024. Improving wheat productivity through tillage systems and organic mulches.

Member of Supervisory Committee:

1. M. Arfan. 2013. Effect of Agronomic on oat forage production and preservation.

Membership of Scientific Societies:

- ❖ Life member of Pakistan Society of Agronomy
- ❖ Annual member of Pakistan Botanical Society (2011)

Other Activities:

- ❖ Coordinator of departmental time table/date sheet
- ❖ Member of department Self-Assessment Report (SAR) team
- ❖ Member of board of studies of Agronomy Department

Research Projects/Grants:

1. Won a project as P.I. entitled "Agro-management of wheat in thal region by exploiting biochar, tillage and irrigation application" funded by Higher Education Commission of Pakistan (HEC) under "NRPU" research grant worth 2.45 million. 2018.
2. Won a project as CO-PI entitled "Improving the Productivity of Wheat-based Cropping System in Punjab, Pakistan" funded by Higher Education Commission of Pakistan (HEC) under "NRPU" research grant worth 2.45 million. 2018

3. Won a project as P.I. entitled "Improving growth and yield of mungbean (*Vigna radiata* L.) through foliar application of silver and zinc nanoparticles" approved and funded by Bahauddin Zakariya University, Multan, Pakistan worth 0.2 million. 2017.
4. Won a project as P.I. entitled "Evaluating the yield performance of bread wheat genotypes under varying planting times in arid climatic conditions" approved and funded by Bahauddin Zakariya University, Multan, Pakistan worth 0.2 million. 2015.
5. Won a project as P.I. entitled "To study the relationship between nitrate reductase activity, nitrogen levels and yield in wheat" approved and funded by Higher Education Commission of Pakistan (HEC) worth 0.5 million. 2013.
6. Won a project as P.I. entitled "Enhancement of drought tolerance in maize by potassium application" approved and funded by PMAS-Arid Agriculture University, Rawalpindi worth 0.2 million. 2011.
7. Worked in a project as team member entitled "Seed technology transfer component-I" funded by Endowment Fund University of Agriculture, Faisalabad. 2011.

Research Training:

- Got training at nuclear institute for Agriculture and Biology on "Modern techniques in Research on Abiotic Stress Tolerance in Plants" on 05-09-2011 to 09-09-2011 Faisalabad, Pakistan.

Awards:

- Won scholarship during M. Sc. and Ph. D. from University of Agriculture, Faisalabad and Higher education commission of Pakistan respectively.
- Won Post-Doctorate Fellowships from CAS-PIFI China an International prestigious fellowship

Information technology:

- ❖ Word Processing (MS Word), Spreadsheet (MS Excel)
- ❖ Presentation (MS PowerPoint), Statistical soft wares (MSTATC, STATISTIX 9)

References

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