

C. V. OF DR. WIQAR AHMAD



Designation: Associate Professor (BPS 20)

PERSONAL INFORMATION

Father's Name	Shamim Ahmad
Date of Birth	April 6 th , 1976
Place of Birth	Swabi, KPK, Pakistan
Sex	Male
Marital Status	Married
N.I.C. No.	16202-5477687-7
Correspondence Address	Department of Soil & Environ. Sciences, The University of Agriculture, Peshawar AMK Campus, Mardan, Pakistan Phone and Fax: +92-937-560350

Residential Address	Link Road Swabi, Tehsil, Distt. & P.O Swabi. KPK, Pakistan Cell #: +92-334-869-2160
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E-mail: wiqar280@aup.edu.pk, wiqar280@yahoo.co.uk,

Website: www.aup.edu.pk

Impact Factor: 75

LANGUAGES

English	(Speaking, reading and writing)
Urdu	(Speaking, reading and writing)
Pashto	(Speaking, reading and writing)

EDUCATION

Post Doctorate (2021-2022)

Response of maize crop to nano ZnO particles applied through various methods under alkaline and acidic soil conditions from the Indian River Research and Education Center, The University of Florida (USA)

Ph.D. (2005-2008)

Department of Soil & Environmental Sciences, The University of Agriculture, Peshawar. Research conducted on the management of soil fertility and remediation of soil past erosion effects on the eroded soils of District Swabi through the addition of different organic and inorganic soil amendments and the inclusion of legume crop in crop rotation. *Advisor: Dr. Farmanullah Khan, Phone #: +92-91-9216548.*

Ph.D Completion Date: 22-02-2010

M.Sc. (Hons) (1999-2000)

Department of Soil & Environmental Sciences, The University of Agriculture, Peshawar. Worked on the characterization of some eroded soil series in Malakand Agency and Mouza Zem, District Charsadda.

Advisor: Dr. Farmanullah Khan

B.Sc. (Hons) (1995-1998)

Department of Soil & Environmental Sciences, The University of Agriculture, Peshawar. Studied the department of Soil & Environmental Sciences specialization courses and conducted a review write up on the “Transformation of chemical fertilizer in soil”. *Advisor: Prof. Dr. Riaz Ahmad Khattak*

H.S.S.C. (1993-1994)

Higher Secondary School Certificate from Board of Intermediate and Secondary Education, Peshawar, Pakistan. (Major as Pre-Engineering, 1st division/Grade A)

S.S.C. (1992)

Secondary School Certificate from Board of Intermediate and Secondary Education, Peshawar, Pakistan. (Major as Science group, 1st division/Grade A)

ACADEMIC DISTINCTIONS

- **B.Sc (Hons): 1st Position in the Department of Soil & Environmental Sciences** for academic session 1995-1998. (CGPA: 3.91/4.00 with 90.28% marks).
 - **M.Sc (Hons): 3rd Position in the Department of Soil & Environmental Sciences** for academic session 1999-2000. (CGPA: 3.89/4.00 with 89.58% marks)
 - **Ph.D:** Earned Higher Education Commission of Pakistan **5000 indigenous PhD fellowship Batch II under HEC No: 042-LS57-140197.**
 - **Ph.D:** Earned **International Research Support Initiative Program** of the Higher Education Commission of Pakistan under **HEC No: IRSIP-9-Agri-07/PIN No: 1-8/HEC/HRD/2009/424** dated 16-01-2009 for 6 months to Bangor University, United Kingdom and accomplished under valuable supervision of Professor Dr. David Leonard Jones (Davey Jones), Chair in Soil and Environmental Sciences, School of the Environment and Natural Resources.
 - **HEC-Post-Doctoral Fellowship Program Batch –III, Phase-1”** (Ref. No: 3-1/PDFP/HEC/2020/836 dated 09/12/2020) for the University of Florida (USA)
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PROFESSIONAL EXPERIENCE

Post Ph.D EXPERIENCE: 11 Years, 9 Months, 0 days (31-12-2019).

Research Officer (BPS 17):	Agriculture Research, Department of Agriculture, Livestock & Cooperatives, Govt. of Khyber Pakhtunkhwa (31/03/2008 to 11/05/2011)
Lecturer (BPS 18):	Department of Soil & Environmental Sciences, Faculty of Crop Production Sciences, The University of Agriculture, Peshawar, AMK Campus, Mardan (12/05/2011-13/05/2014)
Assistant Professor (TTS)	Department of Soil & Environmental Sciences, Faculty of Crop Production Sciences, The University of Agriculture, Peshawar, AMK Campus, Mardan (13/05/2014-to 03/03/2022)
Associate Professor (BPS-20)	Department of Soil & Environmental Sciences, Faculty of Crop Production Sciences, The University of Agriculture, Peshawar, AMK Campus, Mardan (04/03/2022-to date)

Research Interests

- Nanofertilizers,
- Nanochar formation and application,

- Biochar particle size assessment
 - Soil and Plant Nutrition,
 - Soil Organic Fertility and microbiology
 - N and C cycling in soil,
 - Soil and water pollution and Bio remediation
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COURSES TAUGHT

i. B.Sc (Hons.)

SES-503, 3(2-2) Soil Fertility and Fertilizers,	2012 to date.
SES-511, 3(2-2) Soil Salinity,	2011 to 2021.
SES-513, 3(2-2) Soil Survey and Land Evaluation,	2011 to date
SES-514, 3(2-2) Municipal Waste Management,	2011.
SES-602, 3(2-2) Chemical Properties of Soil,	2012-2013, 2018
SES-604, 3(2-2) Soil & Water Conservation,	2011 to 2021
SES-605, 3(2-2) Nitrogen Fixation and management,	2014, 2023
SES-612, 3(2-2) Degraded Land Management,	2011 to 2021

ii. M.Sc (Hons.)

SES-702, 3(2-2) Soil Chemistry,	2018.
SES-709, 3(3-0) Soil Plant relationship,	2015, 2016.
SES-704, 3(2-2) Soil microbiology and Biochemistery,	2015- to date
SES-705, 3(2-2) Soil Classification,	2018 to date

STUDENTS RESEARCH (2014-2019)

Post Graduate Students (M.Sc Hons)	Supervisor
	• Asadullah Khan, Session 2015-2016 • M. Motasim Billah, Session 2015-2016 • Amjad Ali, Session 2015-2016 • Muhammad Zeeshan, Session 2016-2017 • Muhammad Awais, Session 2018-2019 • Muhammad Asim, Session 2018-2019 • Ibrar Ahmad, Session 2018-2020 • Muhamamd Numan, Session 2020-2021 • Muhammad Younis, Session 2021-2022 • Muhammad Ilyas, Session 2022-2023
	Member supervisory committee • Hidayat Ullah Khan, Session 2013-14 • Suhail Ahmad, Session 2013-14 • Zakirullah Jan Session 2015-16 • Muhammad Adnan Session 2017-18 • Muhammad Jassar Session 2017-18

Ph.D	Supervisor Umar Farooq, Session 2022-2025 (In progress) Member supervisory committee • Mr. Murad Ali Session 2019-22 • Sadiq Hussain Session 2018-21 • Muhammad Kabir Session 2021-2025
Undergraduate Students	• Assadullah Ullah Khan, Session 2011-2014 • Motasim Billah, Session 2011-2014 • Mujahid Shah, Session 2011-2014 • Masood Shah, Session 2012-2015 • Muhammad Zeeshan, Session 2012-2015 • M. Tariq, Session 2012-2015 • Fazal Rokhan, Session 2013-2016 • Numan Khan, Session 2013-2016 • M. Numan, Session 2013-2016 • Mehran Anwar, Session 2014-2017 • Ibrar Ahmad, Session 2014-2017 • Muhammad Asim, Session 2014-2017 • Aumair Gul Khan, Session 2015-2018 • Arbaz Khan, Session 2015-2018 • Kamal Khan, Session 2017-2020 • Muhammad Umair, Session 2017-2020 • Mehad Khan, Session 2017-2020 • Muhammad Hussain, Session 2017-2020 • Umar Farooq, Session 2018-2021 • Azhar Khan, Session 2019-2022 • Faheem Khan, Session 2020-2023 • Muhammad Numan Session 2022-2026

PUBLICATIONS

INTERNATIONAL JOURNALS WITH IMPACT FACTOR

- i. D.L. Jones, D.V. Murphy, M. Khalid, **W. Ahmad**, G. Edwards-Jones, and T.H. DeLuca. **2011**. Short-term biochar-induced increase in soil CO₂ release is both biotically and abiotically mediated. **Soil Biology & Biochemistry** 43 1723-1731 **(IF: 3.65)**.
- ii. **Wiqar Ahmad** and Farmanullah Khan. Remediation of soil past erosion effects through amendments and agronomic practices. **2014**. *Journal of National Science Foundation of Sri Lanka*: 42 (1): 45-62. **(IF: 0.323)**
- iii. **Wiqar Ahmad**, Farmanullah Khan and Muhammad Naeem. **2014**. Improvement in physical properties of eroded agricultural soils through agronomic

management practices. *The Indian Journal of Agricultural Sciences*: 84 (7) 62-67. (IF: 0.19).

- iv. **Wiqar Ahmad**, Farmanullah, Zahir Shah, Muhammad Jamal, and Kawsar Ali Shah. 2014. Recovery of organic fertility in degraded soil through fertilization and crop rotation. *Journal of the Saudi Society of Agricultural Sciences* 13, 92–99.
- v. Sabir Gul Khattak, Peter J. Dominy, **Ahmad Wiqar**. 2015. Assessment of Zn Interaction with Nutrient Cations in Alkaline Soil and its Effect on Plant Growth. *Journal of Plant Nutrition*, 38:1110–1120, <http://dx.doi.org/10.1080/01904167.2015.1009093>. (IF: 0.536)
- vi. Sabir Gul Khattak, Peter J. Dominy, **Ahmad Wiqar**. 2015. Effect of Zn as Soil addition and foliar application on yield and protein content of wheat in alkaline soil. *Journal of National Science Foundation of Sri Lanka*, 43 (4): 303 – 312, DOI: <http://dx.doi.org/10.4038/jnsfsr.v43i4.7965> (IF: 0.323).
- vii. Sadiq Hussain, Muhammad Sharif, **Wiqar Ahmad**, Farmanullah Khan, Hina Nihar. 2018. Soil and plants nutrient status and wheat growth after mycorrhiza inoculation with and without vermicompost. *Journal of Plant Nutrition*; DOI: 10.1080/01904167.2018.1459687. <https://doi.org/10.1080/01904167.2018.1459687>. (IF: 0.536).
- viii. **Wiqar Ahmad**, Farmanullah Khan, Zahir Shah, Muhammad Jamal Khan, 2019. Quality and Crop Yield Potential of Moderately Degraded Alfisols Under Different Nutrient Inputs and Cropping Patterns. *Pedosphere*, 29(2): 235–247. [https://doi.org/10.1016/S1002-0160\(17\)60364-3](https://doi.org/10.1016/S1002-0160(17)60364-3) (IF: 3.181).
- ix. Muhammad Mutasim Billah, **Wiqar Ahmad** & Murad Ali. 2019. Biochar particle size and Rhizobia strains effect on the uptake and efficiency of nitrogen in lentils, *Journal of Plant Nutrition*, 42(15): 1709-1725, DOI: 10.1080/01904167.2019.1628984. (IF: 0.536)
- x. Muhammad Zeeshan, **Wiqar Ahmad**, Fida Hussain, Waqas Ahamd, Muhammad Numan, Masood Shah, Ibrar Ahmad. 2020. Phytostabilization of the heavy metals in the soil with biochar applications, the impact on chlorophyll, carotene, soil fertility and tomato crop yield. *Journal of Cleaner Production*, 255 (2020) 120318. <https://doi.org/10.1016/j.jclepro.2020.120318> (IF: 7.42)
- xi. Muhammad Zeeshan, Fida Hussain, **Wiqar Ahmad**, and Kamran Khan. 2020. Impact of Biochar Particle Sizes on the Bioaccumulation of the Heavy Metals and Their Target Hazard Assessment. *Environmental Engineering Science* 37(9):614-622, DOI: <https://10.1089/ees.2019.0513> (IF: 1.575)
- xii. Ijaz Ahmad, Fida Mohammad, Sultan Akber Jadoon, Aurang Zeb, Fazal Munsif and **Wiqar Ahmad**. 2020. Diallel analysis for the inheritance study of phytic acid along with morpho-yield traits in bread wheat, *African Journal of Biotechnology* 19(5):.259-264, DOI: <http://10.5897/AJB2019.16815> (IF 0.44)
- xiii. Sadiq Hussain, Muhammad Sharif & **Wiqar Ahmad**, 2021. Selection of efficient phosphorus solubilizing bacteria strains and mycorrhizea for enhanced cereal

growth, root microbe status and N and P uptake in alkaline calcareous soil. *Soil Science and Plant Nutrition*, 67(3): 259-268 (IF: 2.525, Category W). <https://doi.org/10.1080/00380768.2021.1904793>

- xiv. Fazal Munsif, Umar Farooq, Muhammad Arif, Tariq Shah, Muhammad Jehangir, Sajjad Zaheer, Kashif Akhtar, Muhammad Shahid Khan, Ijaz Ahmad, **Wiqar Ahmad**, Shamsher Ali, and Rabia Amir. 2021. Potassium and salicylic acid function synergistically to promote the drought resilience through upregulation of antioxidant profile for enhancing potassium use efficiency and wheat yield. *Annals of Applied Biology*, <https://doi.org/10.1111/aab.12731> (IF: 2.75, Category W)
- xv. **Wiqar Ahmad**, Arbaz Khan, Muhammad Zeeshan, Ijaz Ahmad, Muhammad Adnan and Shah Fahad. 2022. Relative Efficiency of Different Size Biochar Particles in the Immobilization of Heavy Metals and Improving Soil Properties One Year after Application. *Crop & Pasture Science* (IF: 2.286 Category W). <https://www.publish.csiro.au/CP/justaccepted/CP20453>.
- xvi. Murad Ali, Muhammad Sharif, **Wiqar Ahmad** and Iftikhar Ahmed. 2022. Assessing Potent Zinc Solubilizing Bacteria to Augment Wheat Yield and Zinc Biofortification. *Gesunde Pflanzen* (IF: 2.082 Category W), <https://doi.org/10.1007/s10343-022-00757-5>.
- xvii. Ali, A.; **Ahmad, W.**; Munsif, F.; Khan, A.; Nepal, J.; Wójcik-Gront, E.; Ahmad, I.; Khan, M.S.; Ullah, I.; Akbar, S.; et al. 2022. Residual Effect of Finely-Ground Biochar Inoculated with Bio-Fertilization Impact on Productivity in a Lentil–Maize Cropping System. *Agronomy*, 12, 2036. (IF: 3.7, Category W) <https://doi.org/10.3390/agronomy12092036>
- xviii. Muhammad Asim, **Wiqar Ahmad**, Zahid Qamar, Muhammad Awais, Jaya Nepal and Ijaz Ahmad. 2022. Seed Coating with Zinc Oxide Nanofiber (ZnONF) and Urea Improved Zinc Uptake; Recovery Efficiency, Growth, and Yield of Bread Wheat (*Triticum aestivum* L.) *Journal of Soil Science and Plant Nutrition* (IF: 3.9, Category W) <https://doi.org/10.1007/s42729-022-00978-7>
- xix. J. Nepal, X. Xin, A. L. Wright, **W. Ahmad** and Z. L. He. 2022. Water-dispersible carbon nanomaterials improve lettuce (*Lactuca sativa*) growth and enhance soil biochemical quality at low to medium application rates. *Plant Soil*, (IF: 4.993, Category W) <https://doi.org/10.1007/s11104-022-05852-0>.
- xx. Nepal J, **Ahmad W**, Munsif F, Khan A and Zou Z. 2023. Advances and prospects of biochar in improving soil fertility, biochemical quality, and environmental applications. *Front. Environ. Sci.* 11:1114752. (IF: 4.6, Category W) <https://doi.org/10.3389/fenvs.2023.1114752>
- xxi. **Ahmad, W.**; Zou, Z.; Awais, M.; Munsif, F.; Khan, A.; Nepal, J.; Ahmad, M.; Akbar, S.; Ahmad, I.; Khan, M.S.; et al. 2023. Seed-Primed and Foliar Oxozinc Nanofiber Application Increased Wheat Production and Zn Biofortification in Calcareous-Alkaline Soil. *Agronomy* 2023, 13, 400. (IF: 3.7, Category W) <https://doi.org/10.3390/agronomy13020400>.
- xxii. **Ahmad W**, Nepal J, Zou Z, Munsif F, Khan A, Ahmad I, Zaheer S, Khan MS, Jadoon SA and Tang D. 2023. Biochar particle size coupled with biofertilizer enhances soil carbon-nitrogen microbial pools and CO₂ sequestration in lentil.

- Front. Environ. Sci. 11:1114728. (IF: 4.6, Category W) <https://doi.org/10.3389/fenvs.2023.1114728>
- xxiii. **Wiqar Ahmad**, Jaya Nepal, Xiaoping Xin and Zhenli He. 2023. Agronomic Zn biofortification through nano ZnO application enhanced growth, photosystem efficiency, Zn and P nutrition in maize. Archives of Agronomy and Soil Science. (IF: 3.092, Category W) <https://doi.org/10.1080/03650340.2023.2231350>
- xxiv. Aziz Khan, Zheng Jie, Jing Wang, Jaya Nepal, Najeeb Ullah, Ze-Ying Zhao, Peng-Yang Wang, **Wiqar Ahmad**, Adnan Khan, Wei Wang, Meng-Ying Li, Wei Zhang, Mohammad Soliman Elsheikh, You-Cai Xiong. 2023. Ecological risks of microplastics contamination with green solutions and future perspectives. Science of the Total Environment, 899 (2023) 165688. www.elsevier.com/locate/scitotenv (IF: 10.754, Category W) <https://doi.org/10.1016/j.scitotenv.2023.165688>
- xxv. Jaya Nepal, Xiaoping Xin, Gabriel-Maltais-Landry, **Wiqar Ahmad**, Jorge Pereira, Swadeshmukul Santra, Alan L. Wright, Andy Ogram, Peter J. Stofella, Mark Ritenour and Zhenli He. 2023. Carbon nanomaterials are a superior soil amendment for sandy soils than biochar based on impacts on lettuce growth, physiology and soil biochemical quality. Nanoimpact, <https://doi.org/10.1016/j.impact.2023.100480> (IF: 6.038, Category W)
- xxvi. Ahmad, I., **W. Ahmad**, J. Nepal, M. B. Junaid, N.A. Bukhari, M. Usman, N. Ahmad and R.N. Khan. 2024. Synergistic enhancement of maize crop yield and nutrient assimilation via zinc oxide nanoparticles and phosphorus fertilization. Journal of Science of Food and Agriculture , 104(11):6733-6745. Doi 10.1002/jsfa.13500, (IF: 4.038, Category W)
- xxvii. Nepal, J., X. Xin, G. Maltais-Landry, **W. Ahmad**, A. L. Wright, A. Ogram, P.J. Stoffella, Z. He. 2024. Comparing carbon nanomaterial and biochar as soil amendment in field: influences on soil biochemical properties in coarse-textured soils. Nutr Cycl Agroecosyst. <https://doi.org/10.1007/s10705-024-10393-2>. (IF: 2.4)
- xxviii. Xin, X., Nepal, J., Shohag, J.I., C.de-Souza. João (jr.), S. He, **W. Ahmad**, B. Scully, Z. He. 2025. Enhancing Corn Growth and Nutrient Uptake Using Carbon Nanoparticles Derived from Carbon Black: A Two-Year Field Study. J Soil Sci Plant Nutr. <https://doi.org/10.1007/s42729-024-02192-z> (IF: 3.4).
- xxix. **Wiqar Ahmad**, Jaya Nepal, Xiaoping Xin, Muhammad Nadeem, Zhenli He. 2025. Nano Zinc Oxide Enhances Corn Growth and Nutrient Uptake: Comparison between Soil Drench and Seed Coating Applications in Alkaline Sandy Soils. Journal of Soil Science and Plant Nutrition, 25: 3198-3210. <https://doi.org/10.1007/s42729-025-02329-8> (IF: 3.4)
- xxx. Muhammad Nadeem, Muhammad Anwar-Ul-Haq, Xiaoping Xin, M.J.I.Shohag, Muhammad Ashar Ayub, **Wiqar Ahmad** & Zhenli He. 2025. Exogenous application of silica and nano silica particles improves nutrient acquisition and growth of maize (Zea Mays L.) under saline and water deficit conditions, Communications in Soil Science and Plant Analysis, <https://doi.org/10.1080/00103624.2025.2480126>
- xxxi. Xin X, He Z and Wiqar A (2026) Editorial: Nanotechnology-enabled agriculture and its environmental impact. Front. Environ. Sci. 14:1886685. doi: XXXX10.3389

NATIONAL REFEREED HEC RECOGNIZED JOURNALS

- xxxii. Farmanullah Khan, **W. Ahmad**, A.U. Bhatti and R.A. Khattak. 2003. Effect of soil erosion on physical properties of some soil series in NWFP, Pakistan. Pak Journal of Soil Science 22(1) 36-41.

- xxxiii. Farmanullah Khan, **Wiqar Ahmad**, A.U. Bhatti, R.A. Khattak and M. Shafiq. **2004**. Effect of soil erosion on chemical properties of some soil series in NWFP, Pakistan. *Science, Technology and Development*. 23(4) 31-35.
- xxxiv. M. Naeem, F. Khan and **W. Ahmad**. **2009**. Effect of Farmyard manure, mineral fertilizers and mung bean residues on some microbiological properties of eroded soil in District Swat. *Soil & Environment* 28(2) 162-168.
- xxxv. **W. Ahmad**, F. Khan and M. Naeem. **2010**. Impact of cropping patterns and fertilizer treatments on the organic fertility of slightly eroded Pirsabak soil series in NWFP, Pakistan. *Soil & Environment* 29 (1) 53-60.
- xxxvi. Mohammad Arif, Kawsar Ali, Fazal Munsif, **Wiqar Ahmad**, Akhlaq Ahmad and Khalid Naveed. **2012**. Effect of biochar, fym and nitrogen on weeds and maize phenology. *Pakistan Journal of Weed Science Research*, 18(4): 475-484.
- xxxvii. Amir Khatam, **Wiqar Ahmad** and Muhammad Zafarullah Khan. **2012**. Perception of farmers regarding effect of various weed management practices in onion crop. *Pakistan Journal of Weed Science Research*, 18(4): 553-559
- xxxviii. Farmanullah Khan, Zubair Hayat, **Wiqar Ahmad**, Muhammad Ramzan, Zahir Shah, Muhammad Sharif, Ishaq Ahmad Mian and Muhammad Hanif. **2013**. Effect of slope position on physico-chemical properties of eroded soil. *Soil and Environment* 32(1): 22-28,
- xxxix. Amir Khatam¹, Muhammad Zafarullah Khan, Khalid Nawab, Ishaq Ahmad Mian, and **Wiqar Ahmad**. **2013**. Effect of various herbicides and manual control on yield, yield components and weeds of maize. *Pakistan Journal of Weed Science Research*, 19(2): 209-216.
- xl. **Wiqar Ahmad**, Zahir Shah, Farmanullah, Shamsher Ali, and Wasiullah Malik. **2013**. Maize yield and soil properties as influenced by integrated use of organic, inorganic and bio-fertilizers in a low fertility soil. *Soil and Environ*. 32(2): 121-129.
- xli. Kawsar Ali, Muhammad Arif, Waheed Ullah, Abdullah, **Wiqar Ahmad**, M. Rabnawaz Khan, L.S. Ayeni, M. Amin and Muhammad Jehangir. 2015. Influence of organic and inorganic amendments on weeds density and chemical composition. *Pak. J. Weed Sci. Res.*, 21(1): 47-57.
- xlii. Fazal Munsif, Kawsar Ali, Shah Khalid, Amjad Ali, Murad Ali, Masood Ahmad, **Wiqar Ahmad**, Ijaz Ahmad and Abdul Basir. **2015**. Influence of row spacing on weed density, biomass and yield of chip bud settling of sugarcane. *Pak. J. Weed Sci. Res.*, 21(1): 137-144.
- xliii. **Wiqar Ahmad**, Mujahid Shah, Farmanullah Khan, Wasiullah Malik, Sadiq Hussain, Fazal Munsif and Ijaz Ahmad. **2016**. Comparative effectiveness of parthenium weed compost on growth and yield of chili crop. *Pak. J. Weed Sci. Res.* 22(2): 239-252.
- xliv. Khan, F., S. Khan, **W. Ahmad** and I. Khan. **2016**. Nutrient application from integrated sources improve crop yield and soil properties of water eroded land. *Sarhad Journal of Agriculture*, 32(3): 202-211. DOI | <http://dx.doi.org/10.17582/journal.sja/2016.32.3.202.211>
- xlvi. Hussain, S., M. Sharif, S. Khan, F. Wahid, H. Nihar, **W. Ahmad**, I. Khan, N. Haider and T. Yaseen. **2016**. Vermicompost and mycorrhiza effect on yield and phosphorus uptake of wheat crop. *Sarhad Journal of Agriculture*, 32(4): 372-381. DOI | <http://dx.doi.org/10.17582/journal.sja/2016.32.4.372.381>

- xlvi. Ali, M., F. Khan, **W. Ahmad** and I. Khan. 2017. Optimizing Farmyard and Poultry Manures Co-Applied with NPK for Improved Yield and Soil Fertility of Water Eroded Land. *Sarhad Journal of Agriculture* 33(3): 419-425. DOI: 10.17582/journal.sja/2017/33.3.419.425
- xlvii. Jan, Z. , S. Ali, T. Sultan, Wasiullah and **W. Ahmad**. 2017. The role of cyanobacteria on availability of major plant nutrients and soil organic matter to rice crop under saline soil condition. *Sarhad Journal of Agriculture*, 33(4): 566-572. DOI: <http://dx.doi.org/10.17582/journal.sja/2017/33.4.566.572>
- xlvi. Ahmad, I., F. Munsif, **W. Ahmad** and S. Akber. 2017. Weed flora of Amir Muhammad Khan campus Mardan, Pakistan. *Pak. J. Weed Sci. Res.* 23(3): 323-336.
- xlix. Munsif, F., Faryal, M.Z. Afridi, I. Ahmad, **W. Ahmad**, W. Malik and M.R. Khan. 2017. Impact of crop row orientation on weed density and biomass and yield of wheat. *Pak. J. Weed Sci. Res.* 23(3): 343-350.
- l. **W. Ahmad**, I. R. Arshad, M. Naeem, S. Hussain and F. Khan. 2017. Lentil yield and nodulation in response to foliar S and Zn combined with NPK and their interaction with farmyard manure. *Pakistan Journal of Agriculture, Agricultural Engineering and Veterinary Sciences* (ISSN 1023-1072), 33 (2): 201-211.
- li. Khan, I., Z. Shah, **W. Ahmad**, F. Khan and M. Sharif. 2018. Integrated nutrient and tillage management improve organic matter, micronutrient content and physical properties of alkaline calcareous soil cultivated with wheat. *Sarhad Journal of Agriculture*, 34(1): 144-157. DOI | <http://dx.doi.org/10.17582/journal.sja/2018/34.1.144.157>.
- lii. Khan, I., Z. Shah, **W. Ahmad**, F. Khan and M. Sharif. 2018. Wheat yield and post harvest fertility status of calcareous soil using shallow and deep tillage and integrated nutrient management (INM). *Sarhad Journal of Agriculture*, 34(2): 459-470. DOI| <http://dx.doi.org/10.17582/journal.sja/2018/34.2.459.470>.
- liii. Murad Ali, Farmanullah Khan, Subhanullah, **Wiqar Ahmad**, Muhammad Ishaq and Muhammad Saeed. 2018. Enhancing wheat productivity and soil physical properties of water eroded agricultural land through integrated nutrient management. *Soil and Environment*, 37(1): 21-27.
- liv. **Ahmad, W.** and F. Khan. 2018. Integrated nutrients and cropping patterns management on eroded soil for yield and fertility restoration. *Sarhad Journal of Agriculture*, 34(3): 533-542.
- lv. Ali, S., S. Khan, M.J. Khan, N. Ullah, M. Rashid and **W. Ahmad**. 2018. Screening of Various Bread Wheat (*Triticum aestivum* L.) Varieties in Different Saline Soils on the Basis of Emergence and Plant Height. *Sarhad Journal of Agriculture*, 34(3): 563-568.
- lvi. Ullah, S., A. Jan, M. Ali, **W. Ahmad**, H.U. Rehman, M. Ishaq and B. Ahamd. 2018. Response of chickpea (*Cicer Arietinum* L.) to phosphorus and zinc levels and their application methods. *Sarhad Journal of Agriculture*, 34(3): 575-582.
- lvii. Muhammad Mutasim Billah, **Wiqar Ahmad**, Murad Ali and Farmanullah Khan. 2018. Effect of biochar particle size and biofertilizers on lentil (*Lense culinarous* M.) yield and available fractions of soil nutrients. *Soil & Environ.* 37(2): 143-151.

- lviii. Ali, A., **W. Ahmad**, M. Zeeshan, F. Khan and M.M. Billah. 2019. Biochar and biofertilizers residual effect on fertility status of soil two crop seasons after their application. *Sarhad Journal of Agriculture*, 35(3): 727-733.
- lix. Khan, A.U., **W. Ahmad**, A. Raza, F. Khan and M. Sharif. 2019. Assessing suitability of wheat genotypes for growth, yield and nutrients uptake under sand culture. *Sarhad Journal of Agriculture*, 35(3): 741-750.
- lx. **Ahmad, W.**, F. Khan, M. Sharif and M.J. Khan. 2019. Agricultural land management of eroded soil to restore productivity, organic matter (OM) stock and physical properties. *Sarhad Journal of Agriculture*, 35(4): 1144-1154.
- lxi. Rehman, R., Z. Ahmad, **W. Ahmad**, M. Mansoor and S. Masaud. 2019. Efficacy of different rhizobium strains on nodulation and seed yield in mungbean (*Vigna radiata* L.) cultivar "Inqalab Mung". *Sarhad Journal of Agriculture*, 35(4): 1099-1106.
- lxii. **Wiqar Ahmad**, Sadiq Hussain, Muhammad Sharif and Farmanullah Khan. 2019. Efficiency of nitrogen sources as composting starter and decomposition of parthenium weed into a quality compost. *Pak. J. Weed Sci. Res.*, 25(1): 27-36
- lxiii. Ijaz Ahmad, Munsif Khan, Wiqar Ahmad and Sultan Akber. 2019. Diversity in the weed flora of Swabi Khwar, a water body in Swabi District, Khyber Pakhtunkhwa, Pakistan. *Pak. J. Weed Sci. Res.*, 25(3): 209-221.
- lxiv. Murad Ali, **Wiqar Ahmad**, Irfan Ullah Khan, Fazal Said, Ahmad Zubair, Muhammad Saeed, Rifat Ali, Zeeshan Shahzad, Obaid Ullah Shah. 2021. Integrated nutrients management for enhancing yield and nutrients uptake in wheat under water eroded land. **BIOSCIENCE RESEARCH**, 18(3): 2355-2361 (Category Y).

PAPERS IN CONFERENCE PROCEEDINGS

1. **Wiqar Ahmad** and Sadiq Hussain, Effect of parthenium weed compost on yield and the occurrence of verticillium wilt in chillies. In: 15th international congress of soil science; Soil management in changing climate, NARC, Islamabad-Pakistan, **18-20 March, 2014**. Pp. 10.
2. **Wiqar Ahmad**, Assadullah Khan, Farmanullah Khan, Wasiullah Malik and Imran Khan. Effect of rock phosphate acidulation on phosphorus availability in soil and accumulation in maize crop. 16th international congress of soil science, PAMAS Arid Agriculture University, Rawalpindi-Pakistan, **15-17 March, 2016**. Pp. 25.
3. **Wiqar Ahmad**, Farmanullah Khan, Murad Ali and Imran Khan. Restoring productivity -under degraded soil conditions through integrated nutrient management. 16th international congress of soil science, PAMAS Arid Agriculture University, Rawalpindi-Pakistan **15-17 March, 2016**. Pp. 108.
4. **Wiqar Ahmad**, Sadiq Hussain, Farmanullah Khan and Wasiullah Malik. Evaluation of nitrogen sources as compost starter on physic-chemical properties of parthenium weed compost. 13th national conference of weed sciences, Shahedd Benazir Bhutto University, Shringal, Dir Upper-Pakistan, **19-21 August, 2016**. Pp. 17.

5. Mutasim Billah and **Wiqar Ahmad**. Biochar particle size and rhizobia strains can increase lentil yield and biomass accumulation by enhancing major nutrients availability. National Conference on Climate change threats to agriculture and food security (THINK-ADAPT, 2017), The University of Agriculture Peshawar, November 22-24, 2017.
6. **Wiqar Ahmad** and Sadiq Hussain. Parthenium weed composting with different nitrogen sources as compost starter based on properties of the mature compost. 14th National Weed Science Conference, Islamia College University, Peshawar. March 24-25, 2018.

CONFERENCES/WORKSHOPS ATTENDED/PAPERS PRESENTED

- i. 15th International Congress of Soil Sciences “Soil Management in Changing Climate National Agricultural Research Center, Islamabad 18-20 March, 2014
Paper presented: Effect of Parthenium weed compost on yield the occurrence of verticillium wilt in chillies.
- ii. Innovative Tech. and Sustainable Development in Agriculture Summer Campus, Bara Gali, Abbottabad August 19-22, 2014, as Participant.
- iii. 5th International and 12th National Conference of Weed Science, Shaheed Benazir Bhutto University, Shrinagar, Dir Upper, 12-14 June, 2015, Papers presented: (i) Parthenium weed compost; an environment friendly way of its control and to harness its allelopathic effect”. (ii) Comparative effectiveness of parthenium weed compost on growth and yield of chilies.
- iv. 16th International Congress of Soil Sciences, “Healthy Soil For Food Security” Pir Mehar Ali Shah Arid Agriculture University, Rawalpindi. 15-17 March, 2016. Paper Presented: Effect of rock phosphate acidulation on phosphorus availability in soil and uptake in maize crop (*Zea mays L.*)
- v. 13th National Conference of Weed Science, Shaheed Benazir Bhutto University, Shrinagar, Dir Upper August 19-21, 2016, as Participant
- vi. Thinking Climate Change Adaptation (THINK-ADAPT, 2016) Climate Change Centre, The Uni. Agric. Peshawar, Nov. 28-30, 2016 as Participant
- vii. Innovations in Agriculture, The University of Agriculture Peshawar, 28-29 March, 2017, as Participant.
- viii. Climate change threats to agriculture and food security (THINK-ADAPT, 2017), The University of Agriculture Peshawar, Nov. 22-24, 2017, Paper Presented: Biochar particle size and rhizobia strains can increase lentil yield and biomass accumulation by enhancing major nutrients availability
- ix. 17th International Congress of Soil Science Serena Hotel, Faisalabad, Pakistan March 13-15, 2018, as Participant.
- x. 7th International & 16th National conference of Botanical Soc. of Pakistan Islamia College University, Peshawar March 23-26, 2018, as Participant
- xi. 14th National Weed Science Conference, Islamia College University, Peshawar March 24-25, 2018, Paper presented: Parthenium weed composting with different nitrogen sources as compost starter based on properties of the mature compost.
- xii. Climate Smart Agriculture and Crop Modeling, University of Agriculture, Peshawar, April 18-19, 2018, as Participant.
- xiii. International Conference on Climate Change impacts on Agriculture and Food Security, University of Swabi, April 24-26, 2018, as Participant.
- xiv. International Conference on Biofortification of staple food crops, University of Agriculture, Peshawar Sept. 24-26, 2018, as Participant.
- xv. National Conference on wise soil management, University of Agriculture, Peshawar, December 12, 2019, as Participant.
- xvi. 18th International Congress of Soil Science, Sindh Agricultural University, Tando Jam, Pakistan, February 11-13, 2020, as Participant.
- xvii. 8th International/15th National Weed Science Conference, Abdul Wali Khan University Garden Campus Mardan, Pakistan, March 2-3, 2020, as participant.
- xviii. Tri-Societies (SSA, CSA, ASA) meeting, Salt Lake city, Utah, USA, Nov, 18-22 (Poster Presentation)

TRAINING WORKSHOPS

- i. How to write a worth publishing research paper/thesis, The University of Agriculture Peshawar 3-4 April, 2014, as Participant.
- ii. Exploitation of Plant's Oil for Direct Use as Biodiesel in the Changing Climate of Pakistan, The University of Agriculture Peshawar, June, 19, 2014, as Participant.
- iii. Awareness on Weed Manag. Practices for Better Yield, The University of Agriculture Peshawar Dec 30-31, 2015, as Participant.
- iv. Pakistan Science Foundation Project Formulation Workshop , The University of Agriculture Peshawar, April, 27-28, 2016, as Participant.
- v. PASTIC-NAYS Biosafety Training Workshop, AMK Campus, Mardan, Univ. of Agric. Peshawar, May 11, 2016, as Participant.
- vi. Pakistan Science Foundation Project Formulation Workshop, Abdul Wali Khan University, Mardan, Sept. 20-21, 2016, as Participant.
- vii. PASTIC-PSF & DoST Intellectual Property Rights Workshop, The University of Agriculture Peshawar, December 16, 2016, as Participant.
- viii. Organic Farming-Clean Food, The University of Agriculture Peshawar, December 26, 2016, as Participant.
- ix. Role of micro-nutrients in plant growth, Pesticides Dealers Training, District Director Agriculture, Mardan May 5, 2017, as Resource Person.
- x. Data presentation and interpretation, Abdul Wali Khan University, Mardan, March 20, 2018, as Participant.
- xi. Mardan Science Festival, Sports Complex Mardan, May 10, 2018, Presented: soil conservation model and anaerobic composter.
- xii. Two Day Training of Presiding Officer, GHS Cantt No. 3, Peshawar, May 14-15, 2018, as Participant.

MEMBERSHIP IN SCIENTIFIC SOCIETIES

- a. Soil Science Society of Pakistan (life Time)
 - b. Weed Science Society of Pakistan (Life Time)
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SERVICES

• SCIENTIFIC SERVICES

- a. **Associate Editor**, Sarhad Journal of Agriculture, The University of Agriculture Peshawar since **2016-2022**
- b. **HEC Approved Ph. D. Supervisor** vide HEC letter No. 1-97/HEC/HRD/AGRI/2014/116(9) date: 10-12-2014.
- c. **Member Board of Study**, Department of Soil and Environmental Sciences
- d. **Seminar Incharge**, Department of Soil and Environmental Sciences, AMK Campus

e. REVIEWER/EDITORIAL REVIEW

- i. OMICS-GROUP Engineering Journal
- ii. The Indian J. of Agric. Sci.
- iii. Hydrology Current Research
- iv. Journal Dynamics Reviews
- v. Archives Agron. and Soil Science

- vi. Journal of Plant Nutrition
- vii. Engineering Journals
- viii. Pedosphere
- ix. Scientific Reports
- x. Communication in Soil Sci. and Plant Anal.
- xi. Sarhad Journal of Agriculture.
- xii. Pakistan Journal of Weed Science Research
- xiii. Pure and Applied Biology
- xiv. International Journal of Agricultural and Environmental Research

• **ADMINISTRATIVE SERVICES**

- i. Member, Proctors Board, AMK Campus, Mardan (2012-2018)
- ii. Member Departmental Students Grievances Committee, AMK Campus Mardan (2014- till date)
- iii. Admin Office AMK Campus since 4-9-2015 till 19-02-2016.
- iv. Coordinator to DASAR, AMK Campus Mardan since 12-04-2016-2022.
- v. Director AMK Campus, April 12, 2022 – June 05, 2023.

PROJECT (Status: Co-PI): Increasing sugarcane roductivity through chip buds nursery raising and transplanting seedling age, December 2016 to December, 2018,
Amount Rs. 15,82,289, Funding Agency: NRPU-HEC