



CURRICULUM VITAE

DR. RASHID IQBAL

OBJECTIVE

To get the challenging job in an organization where I could use my skills more professionally and effectively and seek as the challenging professional.

ACADEMIC QUALIFICATION

Program	Year	Division / CGPA	Percentage Marks	Board / University
Ph.D. Agronomy	2019	3.80/4.00	80.65	The Islamia University Bahawalpur & Aarhus University Denmark
M.Sc. (Hons.) Agronomy	2015	4.00/4.00	89	The Islamia University Bahawalpur
B.Sc. (Hons.) Agriculture	2013	3.75/4.00	78	The Islamia University Bahawalpur
F.Sc. (Pre-Medical)	2008	1 st	77	B.I.S.E Multan
Matric (Science)	2006	1 st	89	B.I.S.E Multan

RESEARCH WORK

- Ph.D. Agronomy Studying the dynamics of partial rhizosphere drying to improve water use efficiency and productivity of cotton.
- M.Sc. (Hons.) Agronomy Effect of foliar application of Fe and Zn on growth and yield of wheat (*Triticum aestivum* L.) under agro-ecological conditions of Bahawalpur.
- B.sc. (Hons.) Agriculture Effect of foliar application of NPK on growth and yield of chick pea (*Cicer arietinum* L.).

WORK & RESEARCH EXPERIENCE

Assistant Professor (Agronomy)	Department of Agronomy, The Islamia University of Bahawalpur, Pakistan	09-01-2021 to date
Lecturer (Biology)	Ibn-e-Sina Education College Yazman (Regd.)	01-04-2019 to 08-01-2021
Research Associate (Agronomy)	Department of Agronomy, The Islamia University of Bahawalpur, Pakistan	31-03-2017 to 31-03-2019
Lecturer (Biology)	Ibn-e-Sina Education College Yazman (Regd.)	01-01-2014 to 30-03-2017
Admin Officer	Allama Iqbal College of Commerce (Regd.)	01-01-2011 to 31-12-2013.

- Participate in wheat campaign launched by Govt. of Punjab for one month.
- Worked as Internee in Arid Zone Research Institute (AZRI) Bahawalpur for six months.
- All general laboratory techniques.
- Time Domain Reflectometry (TDR, Campbell Scientific, UT, USA) for measuring the soil moisture content.
- Skillful in using various instruments (Portable Photosynthetic Apparatus (CIRAS-2 portable photosynthesis system (PP system Inc. MA, USA). Spectrophotometer, Atomic Absorption Spectrophotometer etc) commonly used to assess the physiological changes during stress conditions.

Conferences / Workshops / Certificates

- Attended “**International Conference on Date palm: Present Status and Future Prospects**” conducted at The Islamia University of Bahawalpur, Pakistan during September 02-03, 2013.
- Attended “**World Mango Conference & Exhibition**” conducted at The Islamia University of Bahawalpur, Pakistan during June 24-25, 2014.
- Attended “**1st International Salinity Conference (ISC-2016)**” conducted at The Islamia University of Bahawalpur, Pakistan during December 19-21, 2016.

- Attended one day Seminar “**Significance of Medicinal Plants**” conducted by Punjab Agricultural Research Board at The Islamia University of Bahawalpur, Pakistan during October 16, 2018.
- Attended “**International conference on Climate Smart Agriculture: The way of farming for 21st Century**” conducted at MNS-University of Agriculture Multan, Pakistan during October 8-9, 2018.
- Attended “**2nd International conference on Climate Smart Agriculture: The way towards Sustainability**” conducted at MNS-University of Agriculture Multan, Pakistan during November 26-27, 2019.
- Attended “**International conference on Smart Plant Protection**” conducted at MNS-University of Agriculture Multan, Pakistan during January 27-28, 2021.
- Attended “**3rd International conference on Climate Smart Agriculture: The way towards Ecosystem Restoration**” conducted at MNS-University of Agriculture Multan, Pakistan during March 15-16, 2022.
- Attended “**1st International conference on Climate Change (ICCC-2022)**” conducted at The Islamia University of Bahawalpur, Pakistan during November 28-30, 2022.
- Attended “**2nd International conference Physical Sciences and Engineering**” conducted at Khawaja Fareed University of Engineering and Information Technology, Rahim Yar Khan, during December 14-16, 2022.
- Attended “**2nd International conference on Climate Change and Environment**” conducted at The Quid-e-Azama University Islamabad, Pakistan during January 11-13, 2023.
- Attended “**1st International conference on Precision and Sustainable Agriculture and Climate Change (IPSAC-2023)**” conducted at Khawaja Fareed University of Engineering and Information Technology, Rahim Yar Khan, during February 16-17, 2023.
- Attended “**2nd International conference on Precision and Sustainable Agriculture and Climate Change (IPSAC-2024)**” conducted at Khawaja Fareed University of Engineering and Information Technology, Rahim Yar Khan, during February 22-23, 2024.
- **English proficiency certificate** by University College of Agriculture and Environmental Sciences, The Islamia University Bahawalpur.
- **Position certificate** by University College of Agriculture and Environmental Sciences, The Islamia University Bahawalpur.

ACHIEVEMENTS

- 3rd Position in B.Sc. (Hons.)

- Gold Medalist in M.Sc. (Hons.)
- **Class Representative** during the whole duration of M.Sc. (Hons).
- **Research Associate** in Department of Agronomy University College of Agriculture and Environmental Sciences, The Islamia University Bahawalpur Pakistan w.e.f. 31-03-2017 to 31-03-2019 (**Paid Employment**).
- **IRSIP Fellowship**: Sep 2017- March18, Drought stress (Partial root-zone drying & Deficit irrigation) research on water relations, physiology and productivity of wheat and cotton under PRD and DI techniques was conducted in glass house & growth chamber at Foulum campus of **Aarhus University (AU), Denmark (Paid Employment)**.
- **Visiting Lecturer** (Oct 2018-March 2019) in Department of Agronomy University College of Agriculture and Environmental Sciences, The Islamia University Bahawalpur Pakistan (**Paid Employment**).
- **IPFP Fellow training** of National Academy of Higher Education (NAHE) for National Faculty Development Programme (NFDP) (Sep-Oct 2020).

Theses Supervised

M. Phil

S. No.	Name	Thesis Title	Status
1	Atif Sarfraz	Role of ZnO nanoparticles and <i>Azospirillum brasilense</i> on the growth and physiology of Wheat (<i>Triticum aestivum</i> L.).	Completed
2	Umer Aziz	Investigating the combine application of bentonite and <i>Azospirillum brasilense</i> in improving wheat yield and soil properties in the semi-arid region of Punjab, Pakistan.	Completed
3	Muhammad Umar Zafar	Impact of silicon nanoparticles on morpho-physiological and biochemical attributes of maize (<i>Zea mays</i> L.) under limited water conditions.	Thesis writing in process
4	Saira Naseem	Effect of Iron and Zinc nanoparticles on growth and yield potential of Wheat under drought stress	Thesis writing in process

PUBLICATIONS

1. Salman Ahmad, Muhammad Aown Sammar Raza, Muhammad Farrukh Saleem, Syeda Sadaf Zahra, Imran Haider Khan, Muhammad Ali, Abdul Manan Shahid, **Rashid Iqbal** and Muhammad Saqlain Zaheer. (2015). Mulching strategies for weeds control and water conservation in cotton. ARPN Journal of Agricultural and Biological Science, Vol. 10, No. 8: 299–306.

2. Muhammad Aown Sammar Raza, Abdul Manan Shahid, Muhammad Farrukh Saleem, Imran Haider Khan, Salman Ahmad, Muhammad Ali, **Rashid Iqbal**. (2017). Effects and management strategies to mitigate drought stress in oilseed rape (*Brassica napus* L.): a review. *Zemdirbyste-Agriculture*, Vol. 104, No. 1, p. 85–94. <https://doi.org/10.13080/z-a.2017.104.012>.
3. Muhammad Aown Sammar Raza, Salman Ahmad, Muhammad Farrukh Saleem, Imran Haider Khan, Salman Ahmad, **Rashid Iqbal**, Muhammad Saqlain Zaheer, Imran Haider, Muhammad Ali. (2017). Physiological and biochemical assisted screening of wheat varieties under partial rhizosphere drying. *Plant Physiology and Biochemistry*, 116 (2017), p. 150-166. doi: 10.1016/j.plaphy.2017.05.007.
4. Sohail Akram, Tanveer Hussain, Muhammad Safeer, Muhammad Abdullah, **Rashid Iqbal**, Muhammad Saqlain Zaheer, Muhammad Waseem. (2017). Assessment of the effect of major anthropogenic factors and current conservation status of indigenous vegetation in degraded rangeland of Cholistan desert, Pakistan. *Journal of Biodiversity and Environmental Sciences*. Vol. 11, No. 5, p. 237-250.
5. Raza, M. A. S., M. S. Zaheer, M. F. Saleem, I. H. Khan, F. Khalid, M. U. Bashir, M. Awais, **R. Iqbal**, S. Ahmad, M. U. Aslam, et al. 2017. Investigating drought tolerance potential of different wheat (*Triticum aestivum* L.) varieties under reduced irrigation level. *International Journal of Biosciences* 11:257–65. <https://doi.org/10.12692/ijb/11.1.257-265>.
6. Sohail Akram, Muhammad Safeer, Muhammad Saqlain Zaheer, **Rashid Iqbal**. (2017). Effect of aqueous extracts of eucalyptus (*Eucalyptus camaldulensis* L.) on germination and seedling growth of wheat (*Triticum aestivum* L.). *International Journal of Biosciences*. Vol. 11, No. 5, p. 286-293. <http://dx.doi.org/10.12692/ijb/11.5.286-293>.
7. Shahbaz Shafiq, Muhammad Adeel, **Rashid Iqbal**, Rana Muhammad Yasir Riaz, Waqas Ahmed, Muhammad Younis. (2018). Resistance appraisal of Solanum melongena against *Meloidogyne incognita*. *International Journal of Biosciences*. Vol. 13, No. 4, p. 343-349. <http://dx.doi.org/10.12692/ijb/13.4.343-349>.
8. Muhammad Saqlain Zaheer, Muhammad Aown Sammar Raza, Muhammad Farrukh Saleem, Imran Haider Khan, Salman Ahmad, **Rashid Iqbal** & Kiril Manevski (2019): Investigating the effect of *Azospirillum brasilense* and *Rhizobium pisi* on agronomic traits of wheat (*Triticum aestivum* L.). *Archives of Agronomy and Soil Science*, Vol. 65, No. 11, p. 1554-1564. <https://doi.org/10.1080/03650340.2019.1566954>.
9. Hafiz Qamar Zia Ali, Fahmeed Ahmad Choudhary, Salman Hayat, **Rashid Iqbal**, Tasneem Khaliq and Ashfaq Ahmad. (2019). Viable alternatives to cotton-wheat crop rotation for semi-arid climatic conditions. *Journal of Development and Agricultural Economics*. Vol. 11(3), pp. 57-62. <https://doi.org/10.5897/jdae2018.1023>.
10. **Rashid Iqbal**, Muhammad Aown Sammar Raza, Muhammad Farrukh Saleem, Imran Haider Khan, Muhammad Saqlain Zaheer, Salman Ahmad, Imran Haider, Muhammad Usman Aslam, Monika Toleikiene (2019). Foliar applied iron and zinc improves the growth, physiological and yield related traits of wheat under drought. *International Journal of Biosciences*. Vol. 14, No. 3, p. 376-387. <http://dx.doi.org/10.12692/ijb/14.3.376-387>.
11. **Rashid IQBAL**, Muhammad AS RAZA, Muhammad F SALEEM, Imran H KHAN, Salman AHMAD, Muhammad S ZAHEER, Muhammad U ASLAM, Imran HAIDER (2019). Physiological and biochemical appraisal for mulching and partial rhizosphere drying of cotton. *Journal of Arid Land*, 11(5): 785–794, DOI: <https://doi.org/10.1007/s40333-019-0014-9>.
12. **Rashid Iqbal**, M.N. Andersen, M.A.S. Raza, M.A. Rashid and S. Ahmad. (2019). Physiological manipulation and yield response of wheat grown with split root system under deficit irrigation. *Pakistan Journal of Agricultural Research*, 32(3):

514-526. <http://dx.doi.org/10.17582/journal.pjar/2019/32.3.514.526>.

13. Shafiq, S., Adeel, M., Raza, H., Iqbal, R., Ahmad, Z., Naeem, M., Sheraz, M., Ahmed, U. and Azmi, U.R. (2019). Effects of Foliar Application of Selenium in Maize (*Zea Mays* L.) under Cadmium Toxicity. *Biological Forum -An International Journal*, 11(2): 61-71.
14. Muhammad Saqlain Zaheer, Muhammad Aown Sammar Raza, Muhammad Farrukh Saleem, Kehinde O. Erinle, Rashid Iqbal & Salman Ahmad (2019): Effect of rhizobacteria and cytokinins application on wheat growth and yield under normal vs drought conditions, *Communications in Soil Science and Plant Analysis*, 50 (20): 2521-2533. <https://doi.org/10.1080/00103624.2019.1667376>.
15. Salman Ahmad, Muhammad Aown Sammar Raza, Muhammad Farrukh Saleem, Rashid Iqbal, Muhammad Saqlain Zaheer, Imran Haider, Muhammad Usman Aslam, Muhammad Ali, Imran Haider Khan. (2020). Significance of Partial Root Zone Drying and Mulches for Water Saving and Weed Suppression in Wheat. *The Journal of Animal and Plant Sciences*, 30 (1): 154-162. <https://doi.org/10.36899/japs.2020.1.0018>.
16. Monika Toleikiene, Ausra Arlauskienė, Andreas Fliessbach, Rashid Iqbal, Lina Sarunaite, Zydre Kadziulienė. (2020). The decomposition of standardised organic materials in loam and clay loam arable soils during a non-vegetation period. *Soil and Water Research* (Published Online, 20-01-2020). <https://doi.org/10.17221/31/2019-SWR>.
17. Muhammad Usman Aslam, Muhammad Aown Sammar Raza, Muhammad Farrukh Saleem, Muhammad Waqas, Rashid Iqbal, Salman Ahmad & Imran Haider (2020): Improving Strategic Growth Stage-based Drought Tolerance in Quinoa by Rhizobacterial Inoculation, *Communications in Soil Science and Plant Analysis*, 51: 853-868. DOI: 10.1080/00103624.2020.1744634.
18. Hassan Mehmood, Ghulam Hasan Abbasi, Moazzam Jamil, Zaffar Malik, Muhammad Ali, Rashid Iqbal, Salman Ahmed, Muhammad Waqar Akhtar, Muhammad Irfan, Sobia Afzal. (2020). Potential of applied potassium in improving salt tolerance of Maize (*Zea mays* L.) hybrids. *Journal of Biodiversity and Environmental Sciences*, 16: 35-43.
19. Rashid Iqbal, Muhammad Aown Sammar Raza, Mohammad Valipour, Muhammad Farrukh Saleem, Muhammad Saqlain Zaheer, Salman Ahmad, Monika Toleikiene, Imran Haider, Muhammad Usman Aslam, and Muhammad Adnan Nazar. "Potential agricultural and environmental benefits of mulches-a review. *Bulletin of the National Research Centre* 44, no. 1 (2020): 1-16. <https://doi.org/10.1186/s42269-020-00290-3>.
20. Muhammad Aown Sammar Raza, Muhammad Saqlain Zaheer, Muhammad Farrukh Saleem, Imran Haider Khan, Salman Ahmad and Rashid Iqbal. (2020). DROUGHT AMELIORATING EFFECT OF EXOGENOUS APPLIED CYTOKININ IN WHEAT. *Pak. J. Agri. Sci.*, 57: 725-733. DOI: 10.21162/PAKJAS/20.8183.
21. Rashid Iqbal, Muhammad Aown Sammar Raza, Monika Toleikiene, Muhammad Ayaz, Fatemeh Hashemi, Muhammad Habib-ur-Rahman, Muhammad Saqlain Zaheer, Salman Ahmad, Umair Riaz, Muhammad Ali, Muhammad Usman Aslam and Imran Haider. Partial root-zone drying (PRD), its effects and agricultural significance: a review. *Bulletin of the National Research Centre* 44, no. 1 (2020): 1-15. <https://doi.org/10.1186/s42269-020-00413-w>.
22. Aslam M, M Naeem, A Rehman, MM Zafar, R Iqbal, MA Shahzad, RMI Khan, J Iqbal (202x). Maize (*Zea mays*) intercropping with legumes enhances growth, dry matter and its forage yield under deficit irrigation. *Intl J Agric Biol* 25 (1):89-97. DOI: 10.17957/IJAB/15.1642.
23. Mehboob, K.M.R., R. Iqbal, M. Israr, J. Shamshad, U. Riaz, M.H. Rahman, F. Ali, A. Nawaz, M. Sarfraz, A. Waheed, M.T. Khan and M. Aslam. 2020. Assessment of

- the consequences of heat changes on cotton cultivars growth, phenology and yield at different sowing regimes. *Pakistan Journal of Agricultural Research*, 33(4): 759-769. <https://doi.org/10.17582/journal.pjar/2020/33.4.759.769>.
24. Muhammad Aamer, Muhammad Ali, **Rashid Iqbal**, Salman Ahmad, Muhammad Usman Aslam, Imran Haider, Hassan Mehmood, Muhammad Adnan Rafique, Syed Zaheer Uddin, Malik Attique Ur Rehman. 2020. Growth and yield response of rice varieties to foliar application of Boron. *Journal of Biodiversity and Environmental Sciences*, 17 (1) 66-72.
 25. Chhargri, M.A., Khan, M.T., Nizamani, G.S., Yasmeen, S., Khan, I.A., Aslam, M.M., Rajpar, A.A., Tayyaba, T., Nizamani, F., Nizamani, M.R. and **Iqbal, R.**, 2020. Effect of Plant Growth Hormones on Shoot and Root Regeneration in Rose under In Vitro Conditions. *Advancements in Life Sciences*, 8(1), pp.93-97.
 26. Haider, I., Raza, M.A.S., **Iqbal, R.**, Aslam, M.U., Habib-ur-Rahman, M., Raja, S., Khan, M.T., Aslam, M.M., Waqas, M. and Ahmad, S., 2020. Potential effects of biochar application on mitigating the drought stress implications on wheat (*Triticum aestivum* L.) under various growth stages. *Journal of Saudi Chemical Society*, 24 (12) 974-981. <https://doi.org/10.1016/j.jscs.2020.10.005>.
 27. Muhammad Aown Sammar Raza , Imran haider , Muhammad Farrukh Saleem , **Rashid Iqbal** , Muhammad Usman Aslam , Salman Ahmad & Salman Haidar Abbasi (2020): Integrating Biochar, Rhizobacteria and Silicon for Strenuous Productivity of Drought Stressed Wheat. *Communications in Soil Science and Plant Analysis*, DOI: <https://doi.org/10.1080/00103624.2020.1853149>.
 28. Muhammad Ali , Yasir Niaz , Ghulam Hassan Abbasi , Salman Ahmad , Zaffar malik , Muhammad Kamran , **Rashid Iqbal** , Muhammad Saqlain Zaheer , Muhammad Adnan Bodlah , Muhammad Nawaz , Habib Ali , Muhammad Aamer & Muhammad Ayaz (2021): Exogenous Zinc Induced NaCl Tolerance in Okra (*Abelmoschus Esculentus*) by Ameliorating Osmotic Stress and Oxidative Metabolism, *Communications in Soil Science and Plant Analysis*, DOI: <https://doi.org/10.1080/00103624.2020.1869761>.
 29. Israr M, Ali F, Ullah A, Rehman SU, Nawaz A, **Iqbal R**, Ullah S, Zeb U, Noreen Z. Immunochromatographic Test and Third Generation ELISA for Elucidating the Existence and Risk Factors of Anti-HCV Antibodies Among Blood Donors from Swabi Pakistan. *Abasyn Journal of Life Sciences* 2020; 3(2): 138-144. <https://doi.org/10.34091/ajls.3.2.13>.
 30. Ayaz, M.; Feiziene, D.; Tilvikiene, V.; Akhtar, K.; Stulpinait , `U.; **Iqbal, R.** Biochar Role in the Sustainability of Agriculture and Environment. *Sustainability* **2021**, *13*, 1330. <https://doi.org/10.3390/su13031330>.
 31. Ahmed, M.Z., Saeed, S., Hassan, A., Ghuffar, S., Abdullah, A., Haque, K., Anwaar, H.A., **Iqbal, R.**, Asif, M.A. and Shafique, M.S., 2021. *Alternaria alternata* causing *Alternaria* Leaf Spot of Cucumis melo (Muskmelon) in Pakistan. *Plant Disease*. <https://doi.org/10.1094/pdis-05-20-0973-pdn>.
 32. Nazim Hussain, Azra Yasmeen, Malik Muhammad Yousaf, Waqas Malik, Safina Naz, Ihsan Qadir, Bushra Saddiq, Aqeela Shaheen, **Rashid Iqbal**. Exogenously applied nutrients can improve the chickpea productivity under water stress conditions by modulating the antioxidant enzyme system. *Brazilian Journal of Biology*. <https://doi.org/10.1590/1519-6984.236251>.
 33. Mustafa, F.; Wang, H.; Bu, L.; Wang, Q.; Shahzaman, M.; Bilal, M.; Zhou, M.; **Iqbal, R.**; Aslam, R.W.; Ali, M.A.; et al. Validation of GOSAT and OCO-2 against In Situ Aircraft Measurements and Comparison with Carbon Tracker and GEOS-Chem over Qinhuangdao, China. *Remote Sens.* **2021**, *13*, 899. <https://doi.org/10.3390/rs13050899>.
 34. Haider, I., M.A.S. Raza, **R. Iqbal**, S. Ahmad, M.U. Aslam, M. Israr, U. Riaz, M. Sarfraz, N. Abbas, S.H. Abbasi, Z. Abbas and M. Aamer. 2021. Alleviating the drought stress in wheat (*Triticum aestivum* L.) by foliar application of amino acid

- and yeast. *Pakistan Journal of Agricultural Research*, 34(1): 239-246. <https://doi.org/10.17582/journal.pjar/2021/34.1.239.246>.
35. Rashid Iqbal, Muhammad Aown Sammar Raza, Muhammad Adil Rashid, Monika Toleikiene, Muhammad Ayaz, Farhan Mustafa, Muhammad Zeshan Ahmed, Sajjad Hyder, Muhammad Habib-Ur Rahman, Salman Ahmad, Muhammad Usman Aslam & Imran Haider (2021): Partial Root Zone Drying Irrigation Improves Water Use Efficiency but Compromise the Yield and Quality of Cotton Crop, *Communications in Soil Science and Plant Analysis*, DOI: 10.1080/00103624.2021.1892720.
 36. Saeed Ahmad, Abdul Ghaffar, Muhammad Habib Ur Rahman, Ijaz Hussain, Rashid Iqbal, Ghulam Haider, Mahmood Alam Khan, Rao Muhammad Ikram, Hammad Hussain & Muhammad Shafqat Bashir (2021): Effect of Application of Biochar, Poultry and Farmyard Manures in Combination with Synthetic Fertilizers on Soil Fertility and Cotton Productivity under Arid Environment, *Communications in Soil Science and Plant Analysis*, DOI: 10.1080/00103624.2021.1908324.
 37. Shahzaman, M.; Zhu, W.; Bilal, M.; Habtemicheal, B.A.; Mustafa, F.; Arshad, M.; Ullah, I.; Ishfaq, S.; Iqbal, R. Remote Sensing Indices for Spatial Monitoring of Agricultural Drought in South Asian Countries. *Remote Sens.* **2021**, *13*, 2059. <https://doi.org/10.3390/rs13112059>.
 38. Khan, Z.; Rahman, M.H.u.; Haider, G.; Amir, R.; Ikram, R.M.; Ahmad, S.; Schofield, H.K.; Riaz, B.; Iqbal, R.; Fahad, S.; et al. Chemical and Biological Enhancement Effects of Biochar on Wheat Growth and Yield Under Arid Field Conditions. *Sustainability* **2021**, *13*, 5890. <https://doi.org/10.3390/su13115890>.
 39. Yasar, Abdullah, Tariq Javed, Firdaus Kausar, Jaweria Shamshad, Muhammad Umar Hayat Khan, and Rashid Iqbal. "Ground water toxicity due to fluoride contamination in Southwestern Lahore, Punjab, Pakistan." *Water Supply* (2021). <https://doi.org/10.2166/ws.2021.084>.
 40. Luqman Amrao, Muhammad Zeshan Ahmed, Saba Saeed, Rashida Perveen, Muhammad Subhan Shafique, Hafiz Arslan Anwaar, Umer Ayyaz Aslam Sheikh, Rashid Iqbal, Safdar Ali1, Misbah Ali, and Mustansar Aslam., 2021. First Report of *Alternaria alternata* Causing Leaf Spot on Chili (*Capsicum annuum* L.) in Pakistan. *Plant Disease*. <https://doi.org/10.1094/pdis-12-20-2706-pdn>.
 41. Salman Ahmad, Muhammad Saqlain Zaheer, Hafiz Haider Ali, Kehinde O. Erinle, Shabir Hussain Wani, Rashid Iqbal, Okon Godwin Okone, Ali Raza, Muhammad Mohsin Waqas & Muhammad Nawaz (2021): Physiological and biochemical properties of wheat (*Triticum aestivum* L.) under different mulching and water management systems in the semi-arid region of Punjab, Pakistan, *Arid Land Research and Management*, 36(2), pp.181-196. DOI: 10.1080/15324982.2021.1943567.
 42. Iqbal, R., Habib-ur-Rahman, M., Raza, M.A.S. *et al.* Assessing the potential of partial root zone drying and mulching for improving the productivity of cotton under arid climate. *Environ Sci Pollut Res* (2021). 28, 66223-66241. <https://doi.org/10.1007/s11356-021-15259-6>.
 43. Ali F, Israr M, Ur Rehman S, Azizullah A, Gulab H, Idrees M, Iqbal I et al. (2021) Health risk assessment of heavy metals via consumption of dietary vegetables using wastewater for irrigation in Swabi, Khyber Pakhtunkhwa, Pakistan. *PLoS ONE* 16 (8): e0255853. <https://doi.org/10.1371/journal.pone.0255853>.
 44. Shahzaman, M.; Zhu, W.; Ullah, I.; Mustafa, F.; Bilal, M.; Ishfaq, S.; Nisar, S.; Arshad, M.; Iqbal, R.; Aslam, R.W. Comparison of Multi-Year Reanalysis, Models, and Satellite Remote Sensing Products for Agricultural Drought Monitoring over South Asian Countries. *Remote Sens.* 2021, 13, 3294. <https://doi.org/10.3390/rs13163294>.
 45. Israr M, Ali F, Nawaz A, Idrees M, Khattak A, Ur Rehman S, Rashid I, et al. (2021) Seroepidemiology and associated risk factors of hepatitis B and C virus infections among pregnant women attending maternity wards at two hospitals in Swabi, Khyber Pakhtunkhwa, Pakistan. *PLoS ONE* 16(8):e0255189. <https://doi.org/10.1371/journal.pone.0255189>.
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- Israr, M.; El Sabagh, A. Potential Effects of Biochar Application for Improving Wheat (*Triticum aestivum* L.) Growth and Soil Biochemical Properties under Drought Stress Conditions. *Land* 2021, 10, 1125. <https://doi.org/10.3390/land10111125>.
47. Manzoor, S., Habib-ur-Rahman, M., Haider, G., Ghafoor, I., Ahmad, S., Afzal, M., Nawaz, F., **Iqbal, R.**, Yasin, M., Danish, S. and Ghaffar, A., 2021. Biochar and slow-releasing nitrogen fertilizers improved growth, nitrogen use, yield, and fiber quality of cotton under arid climatic conditions. *Environmental Science and Pollution Research*, pp.1-14. <https://doi.org/10.1007/s11356-021-16576-6>.
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 50. Mehmood H, Abbasi GH, Jamil M, Malik Z, Ali M, **Iqbal R** (2021) Assessing the potential of exogenous caffeic acid application in boosting wheat (*Triticum aestivum* L.) crop productivity under salt stress. *PLoS ONE* 16(11): e0259222. <https://doi.org/10.1371/journal.pone.0259222>.
 51. Mustafa, F., Bu, L., Wang, Q., Yao, N., Shahzaman, M., Bilal, M., Aslam, R.W. and **Iqbal, R.**, 2021. Neural Network Based Estimation of Regional Scale Anthropogenic CO₂ Emissions Using OCO-2 Dataset Over East and West Asia. *Atmospheric Measurement Techniques*, 14, no. 11 (2021): 7277-7290. <https://doi.org/10.5194/amt-14-7277-2021>.
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