

List of Publications

Name: Dr. Muhammad Baqir Hussain

Designation: Assistant Professor

Department: Soil and Environmental Sciences

Total Publications: 33

Impact Factor: 24.687

Research articles

International Impact Factor Journals

1. Ahmad, I., M.J. Akhtar, A. Zakir, **M.B. Hussain**, A. Khaliq, M.F. Saeed, M.A. Farooqi and N. Ahmed. **2020**. Co-inoculation of biogas slurry and *Bacillus* strain CIK-515 in improving nutrient concentration and yield of potato (*Solanum tuberosum*). ***Pakistan Journal of Botany***. 52(4):1465-1472. (IF: 0.75)
2. Ahmed, N., S. Ahsen, M.A. Ali, **M.B. Hussain**, S.B. Hussain, M.K. Rasheed, B. Butt, I. Irshad and S. Danish. **2020**. Rhizobacteria and silicon synergy modulates the growth, nutrition and yield of mungbean under saline soil. ***Pakistan Journal of Botany***. 52(1): 9-15. (IF: 0.75)
3. Ahmed, N., **M.B. Hussain**, M. Murtaza, M.A. Ali, S. Mahmood, M.A. Qazi, I. Ahmad and Z. Haider. **2019**. Silicon improves rice nutrition and productivity under salinity. ***Pakistan Journal of Botany***. 51(3): 837-843. (IF: 0.75)
4. **Hussain, M.B.**, Z.A. Zahir, I. Mehboob, S. Mahmood, N. Ahmed, Tanveer-ul-Haq, I. Ahmad and M. Imran. **2019**. *Mesorhizobium ciceri*-CR-39 inoculation to wheat for drought tolerance at critical growth stages. ***Pakistan Journal of Botany***. 51(1): 65-72. (IF: 0.75)
5. Zeb, H., A. Hussain, M. Naveed, A. Ditta, S. Ahmad, M.U. Jamshaid, H.T. Ahmad, **M.B. Hussain**, R. Aziz and M.S. Haider. **2018**. Compost enriched with ZnO and Zn-solubilizing bacteria improves yield and Zn-fortification in flooded rice. ***Italian Journal of Agronomy***. 13: 310-316. (IF: 0.965)
6. Raza, M.A.S., M.F. Saleem, I.H. Khan, **M.B. Hussain** and G.M. Shah. **2018**. Amelioration in growth and physiological efficiency of sunflower (*Helianthus annuus* L.) under drought by potassium application. ***Communications in Soil Science and Plant Analysis***. 49(18): 2291-2300. (IF: 0.687)
7. **Hussain, M.B.**, S. Mahmood, N. Ahmed and H. Nawaz. **2018**. Rhizobial inoculation for improving growth physiology, nutrition and yield of maize under drought stress conditions. ***Pakistan Journal of Botany***. 50(5): 1681-1689. (IF: 0.75)
8. Ahmad, I., M.J. Akhtar, S. Mehmood, K. Akhter, M. Tahir, M.F. Saeed, **M.B. Hussain**, and S. Hussain. **2018**. Combined application of compost and *Bacillus* sp. CIK-512 ameliorated the lead toxicity in radish by regulating the homeostasis of antioxidants and lead. ***Ecotoxicology and Environmental Safety***. 148: 805-812. (IF: 4.527)
9. Hussain, S., **M.B. Hussain**, A. Gulzar, M. Zafar-ul-Hye, M. Aon, M. Qaswar and M. Rizwan. **2017**. Time of zinc and phosphorus applications to maize is depended on nutrient-

- nutrient and nutrient-inoculation interactions. *Soil Science and Plant Nutrition*. 63(4): 351-357. (IF: 1.415)
10. Mahmood, S., I. Daur, **M.B. Hussain**, S.G. Al-Solaimani, S. Ahmad, A.A. Bakhshwain and A.K. Elsafor. **2017**. Silicon application with rhizobacteria to regulate mung bean response to saline water irrigated conditions. *CLEAN - Soil, Air, Water*. 45(8) DOI:10.1002/clen.201600436 (IF: 1.512)
 11. Khakwani, A., M. Imran, I. Ahmad, R. Waqas, S. Hussain, S.M. Nadeem, **M.B. Hussain**, M. Arif and M. Arshad. **2017**. Comparative efficacy of bio-organic and mineral phosphate on growth, yield and economics of wheat (*Triticum aestivum* L.) grown by different methods. *Communications in Soil Science and Plant Analysis*. 48(1): 73-82. (IF: 0.687)
 12. Nawaz, H., N. Hussain, A. Yasmeen, S.A.H. Bukhari and **M.B. Hussain**. **2017**. Seed priming: A potential stratagem for ameliorating irrigation water deficit in wheat. *Pakistan Journal of Agricultural Sciences*. 54(2), 241-254. (IF: 0.618)
 13. **Hussain, M.B.**, Z.A. Zahir, H.N. Asghar, R. Mubarak and M. Naveed. **2016**. Efficacy of rhizobia for improving photosynthesis, productivity and mineral nutrition of maize. *CLEAN – Soil, Air, Water*. 44(11): 1564-1571. (IF: 1.512)
 14. **Hussain, M.B.**, Z.A. Zahir, H.N. Asghar and Sajid Mahmood. **2014**. Scrutinizing rhizobia to rescue maize growth under reduced water conditions. *Soil Science Society of America Journal*. 78: 538-545. (IF: 1.997).
 15. **Hussain, M.B.**, Z.A. Zahir, H.N. Asghar and M. Asgher. **2014**. Can catalase and EPS producing rhizobia ameliorate drought in wheat. *International Journal of Agriculture and Biology*. 16(1): 3-13. (IF: 0.902).
 16. Naveed, M., **M.B. Hussain**, Z.A. Zahir, B. Mitter and A. Sessitsch. **2014**. Drought stress amelioration in wheat through inoculation with *Burkholderia phytofirmans* strain PsJN. *Plant Growth Regulation*. 73: 121-131. (IF: 2.473)
 17. Naveed, M., M.A. Qureshi, Z.A. Zahir, **M.B. Hussain**, A. Sessitsch and B. Mitter. **2014**. L-Tryptophan dependent biosynthesis of indole-3-acetic acid (IAA) improves plant growth promotion and colonization of maize by *Burkholderia phytofirmans* PsJN. *Annals of Microbiology*. 65: 1381-1389. (IF: 1.431)

National Non-impact Factor Journals

1. Habib, R., K. Mubeen, A. Matloob and **M.B. Hussain**. **2020**. Interference of horse purslane (*Trianthema portulacastrum* L.) on growth and yield of soybean [*Glycine max* (L.) Merr.]. *Pakistan Journal of Weed Science Research*, 26 (1): 61-73.
2. Zafar-ul-Hye, M., U. Aslam, B. Muqaddas and **M.B. Hussain**. **2017**. Connotation of *Enterobacter cloacae*-W6 and *Serratia ficaria*-W10 with or without carriers for improving growth, yield and nutrition of wheat. *Soil and Environment*. 36(2): 182-189.
3. Asghar, H.N., Z.A. Zahir, M.A. Akram, H.T. Ahmad and **M.B. Hussain**. **2015**. Isolation and screening of beneficial bacteria to ameliorate drought stress in wheat. *Soil and Environment*. 34: 100-110.
4. Ali, T., S. Mahmood, M.Y. Khan, A. Aslam, **M.B. Hussain**, H.N. Asghar and M.J. Akhtar. **2013**. Phytoremediation of cadmium contaminated soil by auxin assisted bacterial inoculation. *Asian Journal of Agriculture and Biology*. 1(2): 79-84.

5. **Hussain, M.B.**, I. Mehboob, Z.A. Zahir, M. Naveed and H.N. Asghar. **2009**. Potential of *Rhizobium* spp. for improving growth and yield of rice. *Soil and Environment*. 28(1): 49-55.

Review article

1. Naveed, M., I. Mehboob, M.A. Shakar, **M.B. Hussain** and M. Farooq. **2015**. Biofertilizer in Pakistan: Initiatives and limitations. *International Journal of Agriculture and Biology*. 17: 411-420. (IF: 0.902)

Book chapter

1. Ahmad, I., M. Tahir, U. Daraz, A. Ditta, **M.B. Hussain** and Z.U.H. Khan. **2020**. Responses and Tolerance of Cereal Crops to Metal and Metalloid Toxicity. *In: Agronomic Crops, Vol. 3: Stress Response and Tolerance*, M. Hasanuzzaman (ed.), **Springer Nature Singapore Pte Ltd.** pp. 235-264.
2. Ahmed, N., S. Masood, S. Ahmad, S. Bashir, S. Hussain, W. Hassan, R.I. Khandekar, **M.B. Hussain** and M.A. Ali. **2019**. Soil management for better crop production and sustainable agriculture. *In: Agronomic Crops, Vol. 2: Management Practices*, M. Hasanuzzaman (ed.), **Springer Nature Singapore Pte Ltd.** pp. 47-72.
3. Ullah, S., **M.B. Hussain**, M.Y. Khan and H.N. Asghar. **2017**. Ameliorating salt stress in crops through plant growth promoting bacteria. *In: Plant-Microbe Interactions in Agro-Ecological Perspectives*, D.P. Singh, H.B. Singh, R. Prabha (eds), **Springer, The Netherlands**. pp. 549-575.
4. Naveed, M., **M.B. Hussain**, I. Mehboob and Z.A. Zahir. **2017**. Rhizobial amelioration of drought stress in legumes. *In: Microbes for Legumes Improvement*, A. Zaidi, M.S. Khan and J. Musarrat (Eds.), 2nd Edition, **Springer International Publishing AG, Switzerland**. pp. 341-365.
5. Ahmad, I., M. Imran, **M.B. Hussain** and S. Hussain. **2017**. Remediation of organic and inorganic pollutants from soil: The role of plant-bacteria partnership. *In: Chemical Pollution Control with Microorganisms*, N.A. Anjum (Ed.), **Nova Publishers, New York, USA**. pp. 197-244.
6. Naveed, M., I. Mehboob, **M.B. Hussain** and Z.A. Zahir. **2015**. Perspectives of rhizobial inoculation for sustainable crop production. *In: Plant Microbe Symbiosis- Applied Facets*, N.K. Arora (Ed.), **Springer, India**. pp. 209-239.

Magazine/ popular article

1. **Hussain, M.B.** **2020**. Phosphorus crisis: Pakistan perspective. *Business News*. 15(120): 4 (January 02, 2020).
2. **Hussain, M.B.**, H. Nawaz and N. Hussain. **2016**. Integrated strategies: Agrarian commendations. *Kissan Wing*, 12(5): 44-45.
3. Zahir, Z.A., S.S. Akhtar and **M.B. Hussain**. **2012**. Microbial biotechnology for sustainable production of legumes. *Farming Outlook*, 11(2): 8-12.
4. **Hussain, M.B.**, Z.A. Zahir, M. Arshad. **2011**. Microbial strategies to induce drought tolerance in crops. *Farming Outlook*, 10(3): 24-30.