

**PUBLICATIONS**

1. **Maria Mussarat**, Muhammad Shair, Dost Muhammad, Ishaq Ahmad Mian, Shadman Khan, Muhammad Adnan, Shah Fahad, Eldessoky S. Dessoky, Ayman EL Sabagh, Afia Zia, Bushra Khan, Haroon Shahzad, Shazma Anwar, Haroon Ilahi, Manzoor Ahmad, Hamida Bibi, Muhammad Adnan and Farmanullah Khan. 2021. Accentuating the Role of Nitrogen to Phosphorus Ratio on the Growth and Yield of Wheat Crop Sustainability. 13, 2253. <https://doi.org/10.3390/su13042253>
2. **Maria Mussarat**, Hazrat Ali, Dost Muhammad, Ishaq Ahmad Mian, Shadman Khan, Muhammad Adnan, Shah Fahad, Fazli Wahid, Khadim Dawar, Shamsheer Ali, Afia Zia, Manzoor Ahmad, Sowm Khan, Wajid Ali Shah, Muhammad Romman, Rainaz Parvez, Manzer H. Siddiqui, Abid Khan, Depeng Wang, Xue Jiang. Comparing the phosphorus use efficiency of pre-treated (organically) rock phosphate with soluble P fertilizers in maize under calcareous soils. Peer J. **DOI:** <http://10.7717/peerj.11452>.
3. Ishaq Ahmad Mian, Bilal Ahmad, Shadman Khan, Bushra Khan, Khadim Dawar, Muhammad Tariq, **Maria Mussarat**, Mamoona Wali Muhammad, Shamsheer Ali, Hamida Bibi, Farmanullah Muhammad, Khair Khan. 2021. Improving wheat productivity and soil quality through integrated phosphorous management with residual effect of biochar. Saudi Journal of Chemical Society. 2021. **Volume 25, Issue 1**, January, 101175. <https://doi.org/10.1016/j.jscs.2020.11.008>
4. Shadman Khan, Zahir Shah, Ishaq Ahmad Mian, Khadim Dawar, Muhammad Tariq, Bushra Khan, **Maria Mussarat**, Hazrat Amin, Muhammad Ismail, Shamsheer Ali, Tasneem Shah, Saud Alamri, Manzer H. Siddiqui, Muhammad Adnan, Muhammad Romman, Shah Fahad, Aqib Nouman and Abid Kamal. 2020. Soil Fertility, N<sub>2</sub> Fixation and Yield of Chickpea as Influenced by Long-Term Biochar Application under Mung–Chickpea Cropping System. Sustainability. <https://doi:10.3390/su12219008> 12, 9008.
5. Hamida Bibi, Suleman Hameed, Mudassar Iqbal, Amal AlBarty, Hadeer Darwish, Amanullah Khan, Shazma Anwar, Ishaq Ahmad Mian, Murad Ali, Afia Zia, Muhammad Irfan, **Maria Mussarat**. 2021. Evaluation of exotic oat (*Avena sativa L.*) varieties for forage and grain yield in response to different levels of nitrogen and phosphorous. **DOI:** [10.7717/peerj.12112](http://10.7717/peerj.12112).

6. Muhammad Irfan, Farooq Ishaq, Dost Muhammad, Muhammad Jamal Khan, Ishaq Ahmad Mian, Khadim Muhammad Dawar, Asim Muhammad, Manzoor Ahmad, Shazma Anwar, Shamsher Ali, Fahim Ullah Khan, Bushra Khan, Hamida Bibi, Abid Kamal, **Maria Musarat**, Waheed Ullah, Muhammad Saeed. 2021. Effect of wheat straw derived biochar on the bioavailability of Pb, Cd and Cr using maize as test crop. Saudi Journal of Chemical Society. <https://doi.org/10.1016/j.jscs.2021.101232>
7. Rafiullah, Muhammad Jamal Khan, Dost Muhammad, Shah Fahad, Muhammad Adnan, Fazli Wahid, Saud Alamri, Farmanullah Khan, Khadim Muhammad Dawar, Inam Irshad, Subhan Danish, Muhammad Arif, Amanullah, Shah Saud, Bushra Khan, Ishaq Ahmad Mian, Rahul Datta, Tayebah Zarei, Anis Ali Shah, Musarrat Ramzan, Muhammad Zafar-ul-Hye, **Maria Mussarat** and Manzer H. Siddiqui. 2020. Phosphorus Nutrient Management through Synchronization of Application Methods and Rates in Wheat and Maize Crops. Plants 2020, 9, 1389. <http://10.3390/plants 9101389>
8. Ishaq Mian, Yasir Anwar, Shadman Khan, Maimoona Wali Muhammad, **Maria Mussarat**, Muhammad Tariq, Aiman Usman, Bushra Khan, Muhamad Adnan, Khadim Dawar, Khair Ullah and Jawad Ali. 2021. Integrated Influence of Zinc and Maize Along With Farm Yard Manure on the Yield and Nutrients Uptake in Spring Maize. Egyptian journal of soil science. DOI: <http://10.21608/EJSS.2021.78515.1450>
9. Munir Ahmad, Dost Muhammad, **Maria Mussarat**, Muhammad Naseer, Muhammad A. Khan, Abid A. Khan, Muhammad IzharShafi. 2018. Spatial variability pattern and mapping of selected soil properties in hilly areas of Hindukush range northern Pakistan. Eurasian J Soil Sci. 7(4): 355-364
10. Jamil Ahmad, Dost Muhammad, MujiburRahman and **Maria Mussarat**. 2018. Fortification of locally developed single super phosphate with zinc sulphate for enhanced zinc nutrition to maize crop under calcareous soil conditions. Current Agriculture Research Journal. 6(1): 30-36.
11. Mujib urRahman, Dost Muhammad, **Maria Mussarat**, Muhammad Sharif, Muhammad Irfan, Rafiullah, Jamil Ahmad and FarooqIshaq. 2018. Effect of acidulated levels and application techniques of rock phosphate on phosphorous use efficiency and yield of wheat in calcareous soil of Peshawar-Pakistan. . Pure and Applied Biol. 7(3): 1094-1103.

12. Rafiq Ahmad, Dost Muhammad, **Maria Mussarat**, Shah Fahad, ShahidUllah, Taimur Ahmad, and Sara Wahab. 2018. Effect of different levels of nitrogen on yield of Colocasia (Colocasisesculenta) at district Malakand Dargai. Open journal of Soil Science. 87-98 (**Global impact factor is 1.36 but is not in Thomson Reuter list, Non-HEC**)
13. Abida Saleem, Sajida Perveen, Dost Muhammad, Muhammad Jamal Khan, **Maria Mussarat**, Nasrullah Muhammad, Ihtesham Kaleem, and Abdul Wahid. 2017. Integrating Effects of Applied Zn with Organic Amendments for Enhanced Maize and Wheat Yields at Two Diverse Calcareous Soils. Turkish journal of Agricultural and Natural Sciences. 4(2): 179–188 (**International Journal Impact factor is 2.6250 but not in Thomson Reuter list, Non-HEC**)
14. Munir Ahmad, Dost Muhammad, **Maria Mussarat**, Abid Ali Khan, Shah Faisal Khan and Muhammad WaqasJaved. 2016. Appraisal for site specific plant nutrient management through spatial variability and mapping in hilly areas of northern Pakistan. J Soils Sediments. DOI 10.1007/s11368-016-1606-z (**Thomson Reuter IF is 2.206 HEC recognized**)
15. Irshad Ali, Dost Muhammad, Fayaz Ali, Zia Ullah, Muhammad Amin, Muhammad Arshad, Fida Muhammad, **Maria Musrrat** and Muhsan Ali Kalhoro. 2015. Land evaluation of Umerzai area, District Charsadda for Cropping. Lasbela, U. J. Sci. Technl., 4: 168-171. (Nil)
16. Waheed, M., M.A. Khan, T. Naseem, D. Muhammad, and **M. Musarat**. 2015. Improving effectiveness of rock phosphate through mixing with farmyard manure, humic acid and effective microbes to enhance wheat and phosphorus uptake by wheat. Pure and applied biology. 4(4): 480-490( **HEC recognized category Y**)
17. Naseem, T., **M. Mussarat**, M. A. Khan, M. Waheed, T. Kamal, M. Adil and S. Nawab. 2015. Effect of city waste compost applied alone and in combination with chemical fertilizers on the yield and nutrient uptake of wheat and subsequent maize crop. Pure and applied biology. 4(4): 471-479. ( **HEC recognized category Y**)

18. Samad, A., D. Muhammad, **M. Mussarat** and W. Ullah. 2014. Enhancing wheat yield and phosphorus use efficiency through foliar application in calcareous soil. *J. Natural Science Research*. 4(7): 70-74.
19. Bibi, Z, N. Khan, **M. Mussarat**, M.J. Khan, R. Ahmad, I.U. Khan and S. Shaheen. 2011. Response of *GossypiumHirsutum* genotypes to various nitrogen levels. *Pak. J. Bot.* 43(5): 2403-2411 (**Thomson Reuter IF. 0.69 HEC category W**)
20. **Mussarat, M**, A. U. Bhatti and F. U. Khan.2007.Heavy metals in sewage and canal water used for irrigation in the vicinity of Peshawar city. *Sarhad J. Agri.* 23(2):335-338(**HEC recognized category X**)
21. Bhatti, A.U., and **M. Mussarat**.2006. Heavy metal hazards in water, soils and plants in the vicinity of Peshawar city: Effect of city and Industrial effluents. *Proc. Natl. Sem. Soil Care for Sustainable Environment UAF (Proceedings)*
22. **Mussarat, M**, A.U. Bhatti. 2005. Heavy metal contents in fodder crops growing in vicinity of Peshawar city. *Soil and Environ.* 24(1):58-62 (**HEC recognized category Y**)
23. **Mussarat, M**. A. U. Bhatti, and M. Elahi. 1999. Soil Erosion assessment survey of Sumandar Kata catchment and adjoining area of Harro River in Abbottabad District. *Pak. J. Forestry.* 49(1-4):101-113. (NON HEC)

## **PAPERS PRESENTED IN CONFERENCES/ABSTRACTS PUBLISHED**

- WaseemHaider\*, Maria Mussarat, Dost Muhammad, and Rafiq Ahmad. 2014. Ahmad Evaluating the Role of Humic Acid, FYM and Poultry Manure on yield of Colocasia for Organic Farming in Malakand Agency. Submitted to 15th International Congress of Soil Science on “Soil Management in Changing Climate” March 18-20, 2014, Islamabad, Pakistan.
- Rafiq Ahmad\*, Dost Muhammad, Maria Mussarat, and Waseem Haider. 2014. Effect of Nitrogen levels on Yield of Colocasia (*Colocasia esculenta*) at Farmer’s Field in District Malakand. Submitted to 15th International Congress of Soil Science on “Soil Management in Changing Climate” March 18-20, 2014, Islamabad, Pakistan.

- Dost Muhammad\*, Abdul Samad, Maria Mussarat, Muzamil Shah, and Muhammad Arif. 2014. Enhancing Wheat Yield and Phosphorous Use Efficiency through Foliar Application in Calcareous Soil. Submitted to 15th International Congress of Soil Science on “Soil Management in Changing Climate” March 18-20, 2014, Islamabad, Pakistan.
- Dost Muhammad\*, Maria Mussarat, Muhammad Numan, and Abid Ali Khan. 2014. Influence of humic acid on phosphorus sorption in alkaline calcareous soil. Submitted to 15th International Congress of Soil Science on “Soil Management in Changing Climate” March 18-20, 2014, Islamabad, Pakistan.
- Waqar Ahmad and **Maria Mussarat**. July 2021. Presented paper on” Assessment Of Heavy Metals Accumulation By Aquatic Macrophytes In Natural Habitat And Artificially Spiked Hoagland Solution” in 16<sup>th</sup> international weed science congress.at UAP.
- **Maria Mussarat** and Hazart Ali. June2021. Presented paper on “Effect of Pretreated Sources of Phosphatic Fertilizers on Yield and Phosphorus Uptake of Maize” in the conference on sustainable farming through intervention of agricultural mechanization and renewable energy resources at UAP.