Review of: "Technological quality of wheat grains and flour as affected by nitrogen fertilization and weather conditions"

Shah Fahad

Potential competing interests: No potential competing interests to declare.

English should improve by a native person. The paper suffers from a poor English structure throughout and cannot be published or reviewed properly in the current format. The manuscript requires a thorough proofread by a native person whose first language is English. The instances of the problem are numerous and this reviewer cannot individually mention them. It is the responsibility of the author(s) to present their work in an acceptable format. Unless the paper is in a reasonable format, it should not have been submitted.

2. The novelty of the study needs to be highlighted compare to other similar studies.

3. Discussion is weak. The discussion needs enhancement with real explanations not only agreements and disagreements. Authors should improve it by the demonstration of biochemical/physiological causes of obtained results. Instead of just justifying results, results should be interpreted, explained to appropriately elaborate inferences. Discussion seems to be poor, didn't give good explanations of the results obtained. I think that it must be really improved. Where possible please discuss potential mechanisms behind your observations. You should also expand the links with prior publications in the area, but try to be careful to not over-reach. For the latter, you should highlight potential areas of future study.

4. The scientific background of the topic is poor. In "Introduction" and "Discussion", the authors should cite recent references between 2016-2022 from JCR journals.

Amanullah, Fahad S (Eds.), (2018b) Nitrogen in agriculture – updates. IntechOpen Croatia 2018.http://dx.doi.org/10.5772/65846

Aziz K, Daniel KYT, Fazal M,Muhammad ZA, Farooq S, FanW, Fahad S, Ruiyang Z (2017a) Nitrogen nutrition in cotton and control strategies for greenhouse gas emissions: a review. Environ Sci Pollut Res 24:23471–23487. https://doi.org/10.1007/s11356-017-0131-y

Aziz K, Daniel KYT, Muhammad ZA, Honghai L, Shahbaz AT, Mir A, Fahad S (2017b) Nitrogen fertility and abiotic stresses management in cotton crop: a review. Environ Sci Pollut Res 24:14551–14566. https://doi.org/10.1007/s11356-017-8920-x

Hafiz MH, Farhat A, Ashfaq A, Hafiz FB, Wajid F, Carol Jo W, Fahad S, Gerrit H (2020a) Predicting Kernel Growth of Maize under Controlled Water and Nitrogen Applications. Int J Plant Prod https://doi.org/10.1007/s42106-020-00110-8

Hafiz MH, Farhat A, Shafqat S, Fahad S, Artemi C, Wajid F, Chaves CB, Wajid N, Muhammad M, Hafiz FB (2018) Offsetting land degradation through nitrogen and water management during maize cultivation under arid conditions. Land Degrad Dev 1–10. DOI: 10.1002/ldr.2933

Hafiz MH, Wajid F, Farhat A, Fahad S, Shafqat S, Wajid N, Hafiz FB (2016) Maize plant nitrogen uptake dynamics at limited irrigation water and nitrogen. Environ Sci Pollut Res 24(3):2549–2557. https://doi.org/10.1007/s11356-016-8031-0

Huang Li-Y, Li Xiao-X, Zhang Yun-B, Fahad S, Wang F (2021) dep1 improves rice grain yield and nitrogen use efficiency simultaneously by enhancing nitrogen and dry matter translocation. J Integrative Agri Doi: 10.1016/S2095-3119(21)63795-4

Ikram U, Khadim D, Muhammad T, Muhammad S, Fahad S (2021) Gibberellic acid and urease inhibitor optimize nitrogen uptake and yield of maize at varying nitrogen levels under changing climate. Environ Sci Pollution Res https://doi.org/10.1007/s11356-021-16049-w

Khadim D, Saif-ur-R, Fahad S, Syed SA, Shah AK et al. (2021b) Influence of variable biochar concentration on yield-scaled nitrous oxide emissions, Wheat yield and nitrogen use efficiency. Sci Rep 11:16774. https://doi.org/10.1038/s41598-021-96309-4

Manzer HS, Saud A, Soumya M, Abdullah A. Al-A, Qasi DA, Bander MA. Al-M, Hayssam MA, Hazem MK, Fahad S, Vishnu DR, Om PN (2021) Molybdenum and hydrogen sulfide synergistically mitigate arsenic toxicity by modulating defense system, nitrogen and cysteine assimilation in faba bean (*Vicia faba* L.) seedlings. Environ Pollut 290 : 117953. https://doi.org/10.1016/j.envpol.2021.117953

Saud S , Fahad S , Hassan S (2022a) Developments in the investigation of nitrogen and oxygen stable isotopes in atmospheric nitrate. Sustainable Chemistry for Climate Action 1 : 100003. https://doi.org/10.1016/j.scca.2022.100003

Saud S, Fahad S, Cui G, Chen Y, Anwar S (2020) Determining nitrogen isotopes discrimination under drought stress on enzymatic activities, nitrogen isotope abundance and water contents of Kentucky bluegrass. Sci Rep 10:6415 | https://doi.org/10.1038/s41598-020-63548-w

Saud S, Fahad S, Yajun C, Ihsan MZ, Hammad HM, Nasim W, Amanullah Jr, Arif M and Alharby H (2017) Effects of Nitrogen Supply on Water Stress and Recovery Mechanisms in Kentucky Bluegrass Plants. Front. Plant Sci. 8:983. doi: 10.3389/fpls.2017.00983

Wajid N, Ashfaq A, Asad A, Muhammad T, Muhammad A,Muhammad S, Khawar J, Ghulam MS, Syeda RS, Hafiz MH, Muhammad IAR, Muhammad ZH, Muhammad Habib ur R, Veysel T, Fahad S, Suad S, Aziz K, Shahzad A (2017) Radiation efficiency and nitrogen fertilizer impacts on sunflower crop in contrasting environments of Punjab. Pakistan Environ Sci Pollut Res 25:1822–1836. https://doi. org/10.1007/s11356-017-0592-z

Zaman I, Ali M, Shahzad K, Tahir, MS, Matloob A, Ahmad W, Alamri S, Khurshid MR, Qureshi MM, Wasaya A, Khurram SB, Manzer HS, Fahad S, Rahul D (2021) Effect of Plant Spacings on Growth, Physiology, Yield and Fiber Quality

Attributes of Cotton Genotypes under Nitrogen Fertilization. Agron 11, 2589. https://doi.org/ 10.3390/agronomy11122589

Fahad S, Hussain S, Saud S, Hassan S, Chauhan BS, Khan F et al (2016a) Responses of rapid viscoanalyzer profile and other rice grain qualities to exogenously applied plant growth regulators under high day and high night temperatures. PLoS One 11(7):e0159590. https://doi. org/10.1371/journal.pone.0159590

Fahad S, Hussain S, Saud S, Hassan S, Ihsan Z, Shah AN,Wu C, Yousaf M, Nasim W, Alharby H, Alghabari F, Huang J (2016c) Exogenously applied plant growth regulators enhance the morphophysiological growth and yield of rice under high temperature. Front Plant Sci 7:1250. https://doi.org/10.3389/fpls.2016. 01250