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Designation	Assistant Professor					
Affiliation	Department of Botany, Harisingh Gour Vishwavidyalaya Sagar (A Central University)					
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EDUCATIONAL PROFILE						
Degree	Institution				Year	Remarks
B. Sc.	University of Allahabad				2013	
M. Sc.	University of Allahabad				2015	
M. Phil.	NA				-	-
Ph. D.	University of Allahabad				2021	
CAREER PROFILE						
Organization / Institution		Designation		Duration	Role	
Multanimal Modi College, Modinagar Ghaziabad, UP (Affiliated to C.C.S. University, Meerut)		Assistant Professor (Permanent)		2022-2024	Teaching faculty (B.Sc ; M.Sc) in the Department of Botany	
Areas of Interest / Specialization						
Plant Physiology, Nano-Technology, Stress Physiology, Environmental Toxicology, Plant Anatomy						

Publications

1. **Yadav, V.**, Arif, N., Hussain, I., Patel, A., Tiwari, S., Chauhan, D. K., & Prasad, S. M. (2024). Antioxidant machinery modulation by phosphorus mitigates zinc oxide nanoparticle toxicity in *Triticum aestivum* and *Solanum lycopersicum* seedlings. *Nanotechnology for Environmental Engineering*, 1-19. <https://doi.org/10.1007/s41204-024-00384-7>, Q2
2. Singh, Y., Tripathi, S. N., Pandey, P., Tripathi, A., Arif, N., **Yadav, V.**, ... & Chauhan, D. K. (2024). Comparative physiological and anatomical responses of *Tagetes erecta* L. and *Zinnia elegans* Jacq. Seedlings to AgNO₃ and ZnSO₄ metals and their nanoparticles. *Industrial Crops and Products*, 212, 118378. <https://doi.org/10.1016/j.indcrop.2024.118378> ; IF= 5.9, Q1
3. **Yadav, V.**, Gill, R. A., Arif, N., Gill, S. A., Singh, V. P., Ramawat, N., ... & Chauhan, D. K. (2021). Endogenous indole-3-acetic acid and nitric oxide are required for calcium-mediated alleviation of copper oxide nanoparticles toxicity in wheat seedlings. *Physiologia Plantarum*, 173(4), 2262-2275. <https://doi.org/10.1111/ppl.13576> ; PMID: 34590723, IF=6.4. Q1.
4. **Yadav, V.**, Arif, N., & Chauhan, D. K. (2021). A comparative study of the effective response of di-potassium phosphate (K₂HPO₄) on physiological, biochemical and anatomical aspects of crops dwelling with zinc oxide nanoparticles toxicity. *Toxicology Research*, 10(2), 214-222. <https://doi.org/10.1093/toxres/tfab004> ; PMID: 33884172, IF= 2.2, Q3
5. Sarraf, M., Janeeshma, E., Arif, N., **Yadav, V.**, Zahra, N., Bouzroud, S., ... & Hasanuzzaman, M. (2024). Biochar for the Mitigation of Metal/Metalloid Stress in Plants. *Journal of Plant Growth Regulation*, 1-17. <https://doi.org/10.1007/s00344-024-11335-6> ; IF=3.9, Q1
6. Shomali, A., Das, S., Arif, N., Sarraf, M., Zahra, N., **Yadav, V.**, ... & Hasanuzzaman, M. (2022). Diverse Physiological Roles of Flavonoids in Plant Environmental Stress Responses and Tolerance. *Plants*, 11(22), 3158. <https://doi.org/10.3390/plants11223158> ; PMID: 36432887, IF=4.658. Q1

7. **Yadav, V.**, Arif, N., Singh, V. P., Guerriero, G., Berni, R., Shinde, S., ... & Tripathi, D. K. (2021). Histochemical techniques in plant science: More than meets the eye. *Plant and Cell Physiology*, 62(10), 1509-1527. <https://doi.org/10.1093/pcp/pcab022> ; PMID: 33594421, **IF=3.9, Q1**
8. Chauhan, D. K., **Yadav, V.**, Vaculik, M., Gassmann, W., Pike, S., Arif, N., ... & Tripathi, D. K. (2021). Aluminum toxicity and aluminum stress-induced physiological tolerance responses in higher plants. *Critical Reviews in Biotechnology*, 41(5), 715-730. <https://doi.org/10.1080/07388551.2021.1874282> ; PMID: 33866893, **IF= 8.1, Q1**.
9. **Yadav, V.**, Arif, N., Kováč, J., Singh, V. P., Tripathi, D. K., Chauhan, D. K., & Vaculík, M. (2021). Structural modifications of plant organs and tissues by metals and metalloids in the environment: A review. *Plant Physiology and Biochemistry*, 159, 100-112. <https://doi.org/10.1016/j.plaphy.2020.11.047> ; ; PMID: 33359959, **IF=6.1, Q1**.
10. Khan, M. Y., Prakash, V., **Yadav, V.**, Chauhan, D. K., Prasad, S. M., Ramawat, N., ... & Sharma, S. (2019). Regulation of cadmium toxicity in roots of tomato by indole acetic acid with special emphasis on reactive oxygen species production and their scavenging. *Plant Physiology and Biochemistry*, 142, 193-201. <https://doi.org/10.1016/j.plaphy.2019.05.006>; PMID: 31301530, **IF= 6.1, Q1**.
11. Arif, N., Sharma, N. C., **Yadav, V.**, Ramawat, N., Dubey, N. K., Tripathi, D. K.,... & Sahi, S. (2019). Understanding heavy metal stress in a rice crop: toxicity, tolerance mechanisms, and amelioration strategies. *Journal of Plant Biology*, 62(4), 239-253. <https://doi.org/10.1007/s12374-019-0112-4> ; **IF= 2.2, Q1**
12. Tripathi, D. K., Singh, S., Gaur, S., Singh, S., **Yadav, V.**, Liu, S., ... & Sahi, S. (2018). Acquisition and homeostasis of iron in higher plants and their probable role in abiotic stress tolerance. *Frontiers in Environmental Science*, 5, 86. <https://doi.org/10.3389/fenvs.2017.00086>; **IF= 3.3, Q2**
13. Arif, N., **Yadav, V.**, Singh, S., Singh, S., Mishra, R. K., Sharma, S.,... & Chauhan, D. K. (2016). Current trends of engineered nanoparticles (ENPs) in sustainable agriculture: an overview. *Journal of Environmental and Analytical Toxicology*, 6(5). <https://doi.org/10.4172/2161-0525.1000397> **IF=2.3, Q2**

14. **Yadav, V.**, Arif, N., Singh, S., Srivastava, P. K., Sharma, S., Tripathi, D. K.,... & Chauhan, D. K. (2016). Exogenous mineral regulation under heavy metal stress: advances and prospects. *Biochemistry & Pharmacology*, 5(220), 2167-0501.
<https://doi.org/10.4172/2161-0525.1000397> IF= 0.67, Q2
15. Arif, N., **Yadav, V.**, Singh, S., Singh, S., Ahmad, P., Mishra, R. K.,... & Chauhan, D. K. (2016). Influence of high and low levels of plant-beneficial heavy metal ions on plant growth and development. *Frontiers in environmental science*, 4, 69.
<https://doi.org/10.3389/fenvs.2016.00069> ; IF=3.3, Q2

BOOK CHAPTERS

1. Singh, S., **Yadav, V.**, Arif, N., Singh, V. P., Dubey, N. K., Ramawat, N.,... & Chauhan, D. K. (2020). Heavy metal stress and plant life: uptake mechanisms, toxicity, and alleviation. In *Plant Life Under Changing Environment* (pp. 271- 287).
<https://doi.org/10.1016/B978-0-12-818204-8.00001-1>. ELSEVIER, ACADEMIC PRESS. Citations.
2. **Yadav, V.**, Arif, N., Singh, V. P., Deshmukh, R., Sahi, S., Shivaraj, S. M.,... & Chauhan, D. K. (2020). Roles of microRNAs in plant development and stress tolerance. In *Plant Life Under Changing Environment* (pp. 719-733). <https://doi.org/10.1016/B978-0-12-818204-8.00031-X>. ELSEVIER, ACADEMIC PRESS.
3. Arif, N., **Yadav, V.**, Singh, S., Tripathi, D. K., Dubey, N. K., Chauhan, D. K., & Giorgetti, L. (2018). Interaction of copper oxide nanoparticles with plants: uptake, accumulation, and toxicity. In *Nanomaterials in Plants, Algae, and Microorganisms* (pp. 297-310).
<https://doi.org/10.1016/B978-0-12-811487-2.00013-X>. ELSEVIER, ACADEMIC PRESS.
4. Tripathi, D. K., Shweta, S. S., **Yadav, V.**, Arif, N., Singh, S., Dubey, N. K., & Chauhan, D. K. (2017). Silicon: a potential element to combat adverse impact of UV-B in plants. *UV-B radiation: from environmental stressor to regulator of plant growth*, 1, 175-195.
<https://doi.org/10.1002/9781119143611.ch10>. Chichester, West Sussex : JOHN WILEY & SONS.

5. Arif, N., **Yadav, V.**, Singh, S., Kushwaha, B. K., Singh, S., Tripathi, D. K.,... & Chauhan, D. K. (2016). Assessment of antioxidant potential of plants in response to heavy metals. In *Plant responses to xenobiotics* (pp. 97-125). https://doi.org/10.1007/978-981-10-2860-1_5. **SPRINGER, SINGAPORE.**

Research Projects (Major Grants/Research Collaboration)

NA

Awards

- ❖ CSIR Junior Research Fellowship (JRF) – Life Sciences (2018)
- ❖ CSIR Senior Research Fellowship (SRF) – Life Sciences (2020)
- ❖ Best Poster Paper Presentation (International Conference on Environmental and Ecology – 2021)
- ❖ Best Oral Paper Presentation (National Seminar on Sustainability of Agriculture in Changing Climate Scenario – 2018)

Scientific Services

Peer Reviewer for Scientific Journals:

- *Plant Gene* (Elsevier)
- *Frontiers in Plant Science*
- *Scientific Reports* (Nature Portfolio)