

Dr Rajnish Sharma

Associate Professor & Head



Specialization: Plant Biotechnology & Molecular Biology
Contact: +91 1792 252310 (O)
Cell: +91 94181 93900
E-mail: rajnish.sharma@yahoo.co.in; rajnishbtc@yaspuniversity.ac.in

Ongoing Research Projects

- “Molecular and agronomic evaluation of *in vitro* developed tolerant tomato somaclones against devastating disease Fusarium wilt” funded by Department of Environment Science & Technology, Shimla (HP) from April 2023 to March 2025 (Principal Investigator).

Important Research Publications

- Chaudhary D, Kumar V, Sharma R, Devi S, Sharma P, Kumar P. 2024. Isolation, characterization and management of endophyte(s) prevailing during the *in vitro* establishment of endangered medicinal herb Himalayan Trillium (*Trillium govaniatum* Wall. ex D. Don). *Plant Cell Tissue and Organ Culture*. **156**(1):16.
- Kapoor B, Sharma M, Sharma R, Zadokar A, Thakur A, Sharma P, Kumar S, Rozar KP, Kumar KS, Hegde N and Pandey D. 2023. De novo transcriptome profiling and development of novel secondary metabolites based genic SSRs in medicinal plant *Phyllanthus emblica* L. (Aonla). *Scientific Reports*. **13**:17319.
- Poonam, Sharma R, Sharma P, Sharma NC, Kumar K, Singh KN, Bhardwaj V, Negi N and Chauhan N. 2023. Exploring genetic diversity and ascertaining genetic loci associated with important fruit quality traits in apple (*Malus x domestica* Borkh.). *Physiology and Molecular Biology of Plants*. **29**: 1693-1716
- Shaunak I, Sharma R, Sharma P, Gupta M and Bhardwaj RK. 2023. Developing resistance against soil-borne Fusarium pathogen causing tomato wilt through *in vitro* cell line selection. *Plant Cell Tissue and Organ Culture* **153**:91-104.
- Kumar A, Sharma DP, Dogra RK, Singh G, Sharma R and Kumar P. 2022. Identification and characterization of Apple (*Malus x domestica* Borkh.) bud sports mutations in the apple growing Northwestern Himalayan region. *Scientia Horticulturae*. **304**:111308.
- Thakur D, Sharma P, Sharma R, Kumari C and Rana VS. 2022. Critical factors governing the efficient direct organogenesis in green-fleshed kiwifruit (*Actinidia deliciosa*) [A. Chev.] var. *deliciosa*. *In Vitro Cellular and Developmental Biology - Plant*. **58**:1107-1116.
- Thakur A, Sharma R, Dhiman SR, Negi R and Singh A. 2022. Genetic diversity analysis in chrysanthemum (*Dendranthema grandiflora* Tzvelev) using SSR markers: corroborating mutant behaviour of newly evolved genotypes. *Genetic Resources and Crop Evolution*. **70**:449-460.
- Sharma M, Sharma R, Sharma NC, Rana N, Sharma P and Chauhan N. 2021. Graft-induced variations based on morphological, biochemical and molecular parameters in apple (*Malus x domestica* Borkh.). *Indian Journal of Experimental Biology*. **59**:339-348.

- Sharma H, Sharma P and Sharma R. 2021. Transferability of apple and pear SSRs to other temperate pome fruit crops of family Rosaceae. *Genetika*. **53**(1):195-208.
- Negi S, Sharma G and Sharma R. 2020. Introgression and confirmation of everbearing trait in strawberry (*Fragaria x ananassa* Duch.). *Physiology and Molecular Biology of Plants*. **26**(12):2407-2416.

Books and manuals

- Kaur R, Bhardwaj SV and Sharma R. 2013. *Biotechnology - A Ready Reckoner*, Westville Publishing House, New Delhi. p150.
- Kumar P, Warghat AR, Partap M and Sharma R. 2022. *Plant Biotechnology Research Analysis - A Practical Handbook for Beginners*, Jaya Publishing House, Delhi. p151.
- Kumar P, Sharma P, Singh A, Sharma S, Thakur M and Sharma R. 2023. *Practical Manual on Elementary Plant Biotechnology*, Dr YS Parmar University of Horticulture & Forestry, Nauni, Solan (HP). p40.

Awards & Recognitions

- Honorary position as a Senior Research Fellow in the Faculty of Health and Life Sciences at De Montfort University, Leicester, UK.
- Overseas training on 'DNA Barcoding in Plants' at De Montfort University, Leicester, UK under ICAR sponsored NAHEP-IDP programme (March 2023).
- International travel grant from DST, Ministry of Science & Technology, New Delhi to Italy (Year 2013).
- DST Young Scientist Fellowship under Fast Track Scheme (Year 2009).
- CSIR Research Associateship for two years (Year 2007).
- University Gold Medal and Honours Certificate in Doctoral Programme (Year 2007).
- Gold Medal and Honours Certificate by Himotkarsh Sahitya-Kala Parishad, Una (HP) (Year 2007).
- Best oral presentation conferred in the National Conference "Future of Agriculture and Agriculture for Future: Indian Perspectives" held at SKUAST-K, Srinagar w.e.f. Sept. 04-06, 2023. (*Self*)
- Best oral presentation conferred in International conference "BioSangam 2022: Emerging trends in Biotechnology" held at Motilal Nehru National Institute of Technology, Prayagraj w.e.f. March 10-12, 2022. (*Self*)
- Best poster award conferred in XXII National Symposium on 'Climate smart agronomy for resilient production systems and livelihood security' held at ICAR-Central Coastal Agricultural Research Institute, Goa w.e.f. Nov. 22-24, 2023. (*As co-author*)
- Best Research Thesis Award-2020 conferred to Himanshu Pandey by Agricultural Technology Development Society, UP, India in the 4th International Conference w.e.f. February 26-28, 2021. (*As major advisor*)
- Best poster award conferred to Himanshu Pandey in 'Progressive Horticulture Conclave-2019' held at ICAR-Central Institute for Subtropical Horticulture, Lucknow w.e.f. December 08-10, 2019. (*As major advisor*)
- Best poster award conferred to MN Adarsh by Indian Phytopathological Society (NZ) in National Symposium on "Holistic approaches for plant health management" w.e.f. September 28-29, 2015. (*As Co-advisor*)