

Dr. Jagesh Kumar Tiwari, Principal Scientist (Horticulture – Vegetable Science) is working at ICAR-Indian Institute of Vegetable Research, Varanasi (2022 to till date). Before that, he worked at ICAR-Central Potato Research Institute, Shimla during 2008 to 2022 on potato biotechnology including pre-breeding, tissue culture, somatic hybridization, allele mining, mapping, molecular markers, functional genomics and varietal development. He had post-doctorate from the University of Adelaide, Australia under the post-Doctoral Endeavour Research Fellowship (Australia).

He has significant contribution in the development of interspecific potato somatic hybrids via protoplast fusion using non-crossable wild species *Solanum cardiophyllum*, *S. pinnatisectum* and *S. etuberosum* to widen the genetic base of the cultivated potato for late blight resistance and potato virus Y resistance. He has established genetic stability of *in-vitro* plants, identified SSR for germplasm/ varietal identification, MAS, identified novel genes and micro RNAs for N stress in potato tuberization & late blight resistance using transcriptome sequencing, and sequenced whole genome of dihaploid potato (C-13) and glass-house potato aphid (*Au. solani*).

He has contributed in the development of five potato varieties viz., Kufri Neelkanth, Kufri Jamunia, Kufri Ruby (Developer team) & Kufri Lohit Kufri Uday and Kufri Ratan (Associate), five tomato varieties/hybrids (Kashi Shreshth, Kashi Daksh and Kashi Arya-hybrids & Kashi Cherry Tomato-3 and Kashi Cherry Tomato-14 varieties); registered 22 genetic stocks of potato (21) & tomato (1) with ICAR-NBPGR, New Delhi for unique traits, and granted one Patent (“*Aeroponic nutrient solution, and applications thereof*” Patent No. 441138), and “Apical Rooted Cutting (ARC) technology” of low-cost and farmers’ friendly techniques for seed potato production and numerous genomics resources on potato and tomato submitted with NCBI genebank. Published over 145 research publications, 6 books, > 200 other publications and Editor, *Vegetable Science* journal.

He is the recipient of national and international awards/honours such as Fellow, National Academy of Agricultural Sciences (NAAS)-2025; ICAR-Lal Bahadur Shastri Outstanding Young Scientist Award-2019 (for Crops & Horticultural Sciences); Post-doctorate Endeavour Research Fellowship (Australia)-2015; ICAR–Hari Om Ashram Trust Award (for Crops & Horticultural Sciences) for Biennium 2016-17 (Associate) in 2019; NAAS Associateship-2018; NASI Membership (Prayagraj)-2024; IAHS-D.P. Ghosh Memorial Young Scientist Award-2021; CPRI-Dr. S. Ramanujam Award (2016); Fellow, Indian Academy of Horticultural Sciences (IAHS)-2022; Fellow, Indian Society of Vegetable Science (ISVS)-2019; Fellow, Confederation of Horticulture Association of India (CHAI)-2021; Fellow, Indian Potato Association (IPA); Associate Fellow, National Academy of Biological Sciences (NABS)-2023; Fellow, Bihar Agriculture Science Academy (BASA)-2024; IPA-Chandra Prabha Singh Young Scientist Award (2014); AEDS- Young Scientist Award (2019); CPRI Best Worker Award (Scientific) (2018); IARI Ph.D. Scholarship (2004-2007); ICAR JRF in M.Sc. (2002-2004) a few more.

Research interest: Pre-breeding, breeding and genomics of potato and tomato

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