# Dr Vishal Singh Rana

Professor

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## **On-going Research Projects**

- "Diversification of fruit farming through cultivation of potential underutilized fruits in low and foot hills of Himachal Pradesh" sponsored by DST ,Ministry of Agriculture, GOI for ₹ 38.45 lakh from 2000 to 2023 (Principal Investigator).
- "Quality nursery production of subtropical fruits and flowers a RHR&TS, Dhaulakuan" state funded project under special grant to University for ₹ 14.00 lakh from 2023 to 2024 (Principal Investigator).
- "Introduction, assessment and commercial production of *JUJUBE* in Himachal Pradesh" state funded project under special grant to University for ₹ 04.00 lakh from 2023 to 2024 (Principal Investigator).
- Mass multiplication of promising varieties of strawberry at HRTS&KVK Kandaghat, Solan" state funded project under special grant to University for ₹ 02.00 lakh from 2023 to 2024 (Co-Principal Investigator).
- "Establishment of Experimental plantations to develop adhoc package of practices of Dragon fruit" state funded project under special grant to University for ₹ 10.00 lakh from 2023 to 2024 (Co-Principal Investigator).
- "Honey and other hive products production model for sustainable high-hill beekeeping in Himachal Pradesh" sponsored by National Bee Board (NBB) under National Beekeeping and Honey Mission (NHM),Department of Agriculture, cooperation & Farmer's Welfare, GOI for ₹ 327 lakh from 2023 to 2024 (Co-Principal Investigator).

## **Important Research Publications**

- Rana VS, Sharma S, Rana N, Kumar V Sharma U, Modgill V and Prasad H. 2023. Underutilized fruit crops in North-Western Himalayan region under changing climatic scenario. *Genetic Resources and Crop Evolution* **70**, 37–69.
- Rana VS, Sharma, V, Sharma, S, Rana, N, Kumar, V, Sharma, U. Almutairi, KF, Avila-Quezada, GD, Abd\_Allah, EF, Gudeta, K. 2023. Seaweed Extract as a bio-stimulant agent to enhance the fruit growth, yield, and quality of Kiwifruit. *Horticulturae*. 9: 432 (1-14).
- Rana VS, Mishra L.N, Sharma S, Kumar V, Pawar R. 2022. Harvest maturity for low chill cultivars of peach under mid hill conditions of Himachal Pradesh *Indian Journal of Horticulture* **79** (3): 311-316.
- Rana VS, Sharma S, Rana N, SharmaU, Patiyal V, Banita. 2022. Mangement of hailstorms under changing climate in agriculture: a review. *Environmental Chemistry Letters* **20**: 3971–3991.
- Sharma S, Rana VS, Rana N, Prasad H, Umesh Sharma and Vikrant Patiyal. 2022. Biochar from fruit crops waste and its potential impact on fruit crops.

Scientia Horticulturae. 299: 1-13.

- Rana V, Zarea S, Sharma S, Rana N, Kumar V and Sharma U. 2022. Differential response of the leaf fruit ratio and girdling on the leaf nutrient concentrations, yield, and quality of nectarine. *Journal of Plant Growth Regulation* **42**: 1-14.
- Sunny S, Rana VS, Kumar V, Singh G, Negi N, Sharma U. 2022. Prediction of chilling units in kiwifruit cultivars by using four different chill models under changing climatic scenario. *Environmental Engineering and Management Journal* **21**(9): 1569-1577.
- Sharma S, Rana VS, Prasad H, Lakra J, Sharma U. 2021. Appraisal of Carbon Capture, Storage, and Utilization through Fruit Crops. *Frontiers in Environmental Science* **9**:1-6.
- Jhalegar Md, Sharma RR, Pal RK and Rana V. 2011. Effect of postharvest treatments with polyamines on physiological and biochemical attributes of kiwifruit (*Actinidia deliciosa*) cv. Allison. *Fruits* **67**:13-22.
- Rana VS, Chopra SK and Neerja S. 2003. Standardization of optimum harvest maturity in relation to storage performances in Allison kiwifruit (*Actinidia chinensis*). *Indian Journal of Agricultural Sciences* **73**(5): 256-260.

### Awards & Recognitions

- Received Eminent Scientist Award for outstanding contribution in the field of Horticulture by Agro Environmental Development Society (AEDS) on the occasion of 5<sup>th</sup> international Conference on Agriculture, Environment on Biosciences for Sustainable Development w.e.f. August 05-07, 2021 in association with CAU Passighat, Arunachal Pradesh, India.
- Awarded certificate of appreciation for acting as resource person during 2 days online Trainer's training on production technology and postharvest management of horticultural crops organized by the Director, Central Institute of Horticulture, DAC & FW, GOI Nagaland w. e. f June 23-24, 2021.
- Elected as member of university Senate representing Professor equivalent category since 2020 till date
- Awarded certificate of appreciation in recognition of outstanding contribution in kiwifruit production by Dr. HC Sharma, Hon'ble Vice Chancellor, Dr. YS Parmar University of Horticulture and Forestry, Nauni- Solan (HP) on June 12, 2019.

### **International Exposure**

- Participated in 7<sup>th</sup> International Symposium on Kiwifruit in Faenza, Italy during September, 2010 which was organized by University of Bologna, Italy and presented two research papers on kiwifruit
- Nominated as faculty by the Dr. Y S Parmar University of Horticulture and Forestry, Nauni, Solan to visit Innovative Hi-Tech eco-friendly Fruit Production Approaches in Australia (w.e.f.12/03/2023 to 31/03/2023) under IDP, ICAR Project