

## Curriculum vitae

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Rakesh Kumar Daroch  
(Ph.D Entomology and Apiculture)  
*Associate Professor (Animal Sciences)*



### Personal Details

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**Citizenship:** India

### Professional Qualifications

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Sr. No	Education	Year	Subject	Field of Specialization	University/Institution	Univ. Rank
1	Ph.D	2009	Entomology and Apiculture	Vegetable Entomology	Dr YSP UHF Nauni	A
2	M.Sc	2002	Entomology and Apiculture	Vegetable Entomology	Dr YSP UHF Nauni	A
3.	B.Sc	1999	Horticulture (Hons.)	Horticulture	Dr YSP UHF Nauni	A

### Employment History

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Sr. no.	Post Held	Duration	Nature of Duty	University/Institution	Pay Scale
1	Scientist (Entomology)	21 <sup>st</sup> November, 2018 to till date	Research, Teaching and Extension	Department of Entomology, Dr YSP UHF Nauni	7 <sup>th</sup> UGC Scale
2	Scientist (Entomology)	July, 2014 to November 2018	Extension and Research	Regional Horticultural Research and Training Station and KVK Sharbo, Dist. Kinnaur, H.P.	15600-39100+AGP 6000
3	Horticulture Development Officer	August, 2009	In-charge Progeny cum Demonstration Orchard, Dev Block Tissa, Dist. Chamba	State Department of Horticulture	10800/-+ AGP 5000/-

## Personal Distinctions

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- Served as In-charge of testing of commercial insecticides for Himachal Pradesh and its recommendations for CIBRC New Delhi, India during this more 10 insecticides and HMOs have been evaluated and 3 have been included in spray schedule of Himachal Pradesh.
- Participated in Series of Seminars/Interactive Sessions on various themes of standardization on Environment & Forestry, Good Governance of Standardization and Disaster Resilience & Climate Change, at Agency for the Standardization of Environmental and Forestry Instruments, Jakarta, Indonesia w.e.f 24 September to 04 October, 2023.
- Contributed in the development of Package of Practices for High Density Apple, and Stone fruit & Walnut for the State of Himachal Pradesh.
- Served for 6 years as Co-PI Plant Protection (Entomology) HP HDP, World Bank Project.
- Life Member of Himalayan Life Science Society, Dharamshala.
- Member of The Entomological Society of India, IARI, New Delhi.
- Member of Indian Ecological Society, PAU, Ludhiana (PB).
- Member Himalayan Phytopathological Society, UHF Nauni Solan.
- **Booked as Expert in Live Prog.** In Krishi Darshan and delivered Live in TV talk on DD1 at 5.30pm on title सेब में कीट प्रबंधन (Total Duration 25min) on dated 06.07.2021
- **Booked as Expert: -- Live Studio based Talk in Krishi Darshan Programme on title सेब में सर्दियों में नाशीकीट.** On DD Shimla on dated 24.01.2025 at 06.00 p.m.
- **Booked as Expert: -- Live Studio based Talk as an Expert in Krishi Darshan Programme on title हिमाचल प्रदेश में मधुमक्खी पालन.** On DD Shimla on dated 20.08.2025 at 06.00 p.m.

## Invited Seminars and Invited Conference Presentations (last 5 years)

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1. Participated in National Seminar on “*Precision Farming Technologies for Improving Production and Productivity for Horticulture and Forestry Crops*” w.e.f 23-24 October, 2024. Organized by Dept of Soil Science and Water Management and Indian Society of Tree Scientist, Dr YS Parmar University of Horticulture and Forestry Nauni-Solan H.P. India.
2. Food System through Natural Farming on title “*Cow urine based Sapindus extracts as alternate for Insect-pest Management in NF*” Held at UHF Nauni-Solan w.e.f 13-14 .09.2024.

3. Participated in Roundtable workshop on Safe use of agrochemicals in Horticulture and Pollination Management, organized by GIZ Germany, at Directorate of Horticulture, Navbahar Shimla 18.02.2025
4. Delivered lecture "Insect pests of Kiwi fruit crop and their management" to the farmers of Uttarakhand on dated 19.07.2024.
5. Lecture delivered on Management of Insect Pests in apple under "Apple Production Techniques" held at DEE, UHF Nauni-Solan on dated 29.08.2024
6. Lecture delivered on Management of Insect Pests in apple under "Apple Production Techniques" held at DEE, UHF Nauni-Solan on dated 29.08.2024.
7. Lecture delivered on Delivered Lecture to Farmers on Insect Pests Management on Kiwi w.e.f. 28-30.10.2024.
8. Lecture delivered on Insect Pests in apple under "Production and Protection Technologies for High Density Plantation of Apple" w.e.f 20-21 st September, 2024 held at DEE, UHF Nauni-Solan on dated 21.09.2024.
9. Delivered Lecture to Farmers on Apiary Site Selection and Data collection w.e.f. 12.11.2024.
10. Delivered lecture to ITBP on Labelling, branding and marketing honey and other hive products. On 14.11.2024.
11. Invited lecture delivered to Govt officials on "Insect pests of management for post entry quarantine" at CIPM Solan on dated 22.02.2025.
12. Participated in ISVS Golden Jubilee National Seminar on Technological Innovations in Vegetable Production under Changing Climate Regime w.e.f 24-26 February, 2024. Organized at ANDA&T, Ayodhya UP, India.
13. Delivered invited talk on National Level Seminar on Insect dynamics under changing climate vis-à-vis management strategies in: Smart Technologies for climate change Mitigation and Adaptation in Agriculture" Organized by Dept. of Environmental Science in collaboration with MANAGE Hyderabad. Online mode on dated 26.07.2023.
14. Scientific Lecture on "Ipm in vegetable crops" delivered to scientist of winter school organised by Department of Vegetable Science under National Security through Diversified Vegetable Production w.e.f February 02-22, 2024 organized for Advanced Centre of Vegetable Production UHF, Nauni under ICAR-AICRP.
15. Scientific Lecture on "Management of Major insect pests of apple, kiwi and walnut" delivered to technical staff and agri- entrepreneurs of Nepal In: Ten days Capacity building of Public and Private Stakeholders for Organic High Land Apple and Walnut Farming in Karnali.
16. Attended Two days training programme on Advances in Integrated Pest Management (IPM) approaches for ATARI – Zone-XI Venue: ICAR-NCIPM (on line) October 21-23, 2021
17. Attended training Furtherance in Integrated Pest Management (IPM) approaches for ATARI - Zone IX from July 22 to 24, 2021" (On line)
18. Attended Five training on "Pest Surveillance" On Line w.e.f August 23-27, 2021 at NIPHM Hyderabad.
19. Attended One day webinar on Rodent Pest and surveillance on dated August 26, 2021 at NIPHM Hyderabad in Online mode.

## Professional Contributions (last 5 years)

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- Contributed in the development of Package of Practices for High Density Apple, and Stone fruit & Walnut for the State of Himachal Pradesh.
- Served for 6 years as Co-PI Plant Protection (Entomology) HP HDP, World Bank Project with budget of Rs 300 lakhs.

## Teaching

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Teaching of courses:

**UG and M.Sc Courses:** *Fundamentals of Entomology, Insect Pests of vegetable crops ornamentals and spice crops, Insect Morphology, Pests of Horticultural and Plantation Crops, Concepts of Integrated Pest Management, Vertebrate Pest Management* etc.

**Ph.D Courses:** *Integrated Pest Management* for more than 6 years.

## Doctoral Thesis Supervision

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M.Sc students who completed thesis: **08 since 2019-2024).**

**Ph.D Student who completed thesis: 01- Ph.D**

**Entitled “Pestilence of *Helicoverpa armigera* (Hübner) in relation to plant metabolites in apple”.**

## University Administration

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- Member of BOS of Study of Dr YS Paramr UHF Nauni-Solan H.P w.e.f 2023-25.
- Treasurer to UHF Teachers Association from 2022-2025.

## Research Projects and Income

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Sr. No.	Name of the Project	Funding Source	Year of Start	Grant (Rs Lakh)
1	Co-PI Plant Protection (Entomology) HP HDP	World Bank	2016	300.0
2	PI “Out scaling of fruit fly traps for the management of fruit flies in different crops”	ICAR R&D funding through the Director of Research	2023-2024	5.0
3	Co-PI “Management of root knot nematode under	ICAR R&D funding through the Director of	2023-2024	3.0

	protected cultivation”	Research		
4	Co-PI (Entomology Component)	ICAR AICRP-Vegetable Crops	-	Variable every year
5	PI (Vertebrate Pest Management ICAR AINP CAZRI for Volunteer centre UHF Nauni)	ICAR AINP -on Vertebrate Pest Management	-	7.0 per annum

## Publications

### Authored Books

1. Farmers reference book on “उच्च घनत्व सेब वागवानी में कीट प्रबंधन. Copyright to Dr YS Parmar University of Horticulture and Forestry Nauni-Solan H.P. India. **ISBN 978-81-973425-1-6.**

### Refereed Journal Articles (five best)

1. Singh, Chander, Subhash Chander Verma, Prem Lal Sharma, **Rakesh Kumar Daroch**, Vishav Gaurav Singh Chandel, Rajeshwar Singh Chandel, Vibhuti Sharma, Anshuman Semwal, and Ojas Chauhan. "Host range expansion of *Helicoverpa armigera* to apple orchards in the Himalayan region." Scientific reports 15, no. 1 (2025): 22341. <https://doi.org/10.1038/s41598-025-91775-6>
2. Chauhan, Ojas, Priyanka Thakur, Harish Kumar Sharma, Kiran Rana, Neha Negi, Simran Bhatia, **Rakesh Kumar**, and Deeksha Sharma. "Repercussion of colony conditions on attributes of *Apis mellifera* L.(Hymenoptera: Apidae) drones." International Journal of Tropical Insect Science (2025). <https://doi.org/10.1007/s42690-025-01521>
3. Chauhan, Ojas, Priyanka Thakur, Harish Kumar Sharma, Kiran Rana, Neha Negi, Simran Bhatia, **Rakesh Kumar**, and Deeksha Sharma. "Repercussion of colony conditions on attributes of *Apis mellifera* L.(Hymenoptera: Apidae) drones." International Journal of Tropical Insect Science (2025). <https://doi.org/10.1007/s42690-025-01521>
4. Vashisth, Sumit, Pankaj Kumar, Vishav Gaurav Singh Chandel, **Rakesh Kumar**, Subhash Chander Verma, and Rajeshwar Singh Chandel. "Unraveling the enigma of root-knot nematodes: from origins to advanced management strategies in agriculture." Planta 260, no. 2 (2024): 36. <https://doi.org/10.1007/s00425-024-04464-5>
5. Singh, Jagmeet, Dharminder Kumar, Vinay Bhardwaj, Salej Sood, and **Rakesh Kumar Daroch**. "Biochemical profiling of tetraploid potato (*Solanum tuberosum*) genotypes." The Indian Journal of Agricultural Sciences 94, no. 10 (2024): 1069-1074. <https://doi.org/10.56093/ijas.v94i10.140910>
6. Singh, J., Sharma, S., & **Kumar, R.** Evaluation of a new Acaricide, Pyridaben 20% WP against phytophagous apple mites. Journal of Entomological Research, (2023). 47(3), 538–542. <https://doi.org/10.5958/0974-4576.2023.00098.1>

7. Singh MP, **Daroch R**, Korneyev SV, Sharma I. A new species of genus *Tephritis Latreille* and a new distribution record of genus *Urophora* Robineau-Desvoidy, from India. *Zootaxa*. (2023) Nov; 5375(3):336-348. DOI: 10.11646/zootaxa.5375.3.2. PMID: 38220816.
8. Palial, Shivani, S. C. Verma, P. L. Sharma, R. S. Chandel, **Rakesh Kumar**, Meenu Gupta, Nidhi Sharma, and Priyanka Sharma. "Biology, predatory potential and growth parameters of the syrphid fly, *Scaeva pyrastris* (L.) (Diptera: Syrphidae) feeding on the cabbage aphid, *Brevicoryne brassicae* (L.)." (2022): 20220556462. <https://doi.org/10.1186/s41938-022-00632-5>
9. Sharma, Anurag, **R. K. Daroch**, R. Kapoor, and I. K. Kasi. "Status of bee keeping in Himachal Pradesh, India: A review." *The Pharma Innovation Journal* 11, no. 3 (2022): 257-265. <https://doi.org/10.22271/tpi.2022.v11.i3Sd.11234>
10. Chandel, Rajeshwar S., Joginder Singh, P. L. Sharma, **Rakesh Kumar**, and Pramod Kumar. "New insights of processionary moth, *Thaumetopoea cheela* on pistachio nut (*Pistacia vera*): Interaction effect on flowering and nut yield." *The Indian Journal of Agricultural Sciences* 89, no. 11 (2019): 1818-1822. <https://doi.org/10.56093/ijas.v89i11.95299>
11. **Kumar Rakesh**, et al., Bioefficacy of Podophyllotoxin against *Plutella xylostella* and *Pieris brassicae*. *International Journal of Agriculture Sciences*, ISSN: 0975-3710 & E-ISSN: 0975-9107, (2018) Volume 10, Issue 13, pp.- 6539-6542. <https://www.bioinfopublication.org/jouarchive.php?opt=&jouid=BPJ0000217>
12. **Kumar, Rakesh**, K. C. Sharma, and R. S. Chandel. "Biological activities of *Melia azedarach* L fractions against *Plutella xylostella* L affecting cabbage and cauliflower." *AgricINTERNATIONAL* 2, no. 1and2 (2015): 32-44.
13. Kumar, **Rakesh, K. C. Sharma**, and Dharminder Kumar. "Studies on ovicidal effects of some plant extracts against the diamondback moth, *Plutella xylostella* (L.) infesting cauliflower crop." In *Biol. Forum Int. J*, vol. 1, no. 1, pp. 47-50. (2009).
14. Sharma, Ajay, K. C. Sharma, **Rakesh Kumar**, and Usha Chauhan. "Effect of continuous exposure of insecticides on the developmental biology of diamondback moth *Plutella xylostella* L.(Lepidoptera: Yponomeutidae)." *Journal of Entomological Research* 32, no. 3 (2008): 233-236.
15. Ajay Sharma, Ajay Sharma, Parvinder Kaushal Parvinder Kaushal, K. C. Sharma, and **Rakesh Kumar**. "Bioefficacy of some plant products against Diamond back moth *Plutella xylostella* L.(Lepidoptera: Yponomeutidae)." (2006): 213-217.

#### Book Chapters

1. Chapter in Compendium on title “**Integrated pest management in Commercial vegetable crops**” delivered to scientist of winter school organised by Department of Vegetable Science under National Security through Diversified Vegetable Production w.e.f February 02-22, 2024.
2. Chapter in *POPs High Density Apple Plantation*. Pg 37-39 (Hindi and English) <https://eudyan.hp.gov.in/cms/en/managementpractices/>

3. Chapter in *POPs Cultivation Practices for stone fruit and walnut*. (Hindi and English) <https://eudyan.hp.gov.in/cms/en/managementpractices/>

**Multimedia products:**

1. Subject Expert TV Talk on title **Insect Pest Management in Apple** (Total Duration 25min) **On DD Shimla. (Recording with DD Shimla)**
2. Subject Expert TV Talk on title **सेब में सर्दियों में नाशीकीट** (Total Duration 25min). **On DD Shimla (Recording with DD Shimla)**
3. Subject Expert TV Talk on title **Himachal Pradesh Mein Madhumakkhi Palan** (Total Duration 25min). **On DD Shimla (Recording with DD Shimla)**