



Scientific Profile

Dr. Sachin Kumar

Scientist / Subject Matter Specialist-Plant Protection (Entomology)

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Professional Summary

A seasoned Agricultural Entomologist and Plant Protection Scientist with extensive expertise in Integrated Pest Management (IPM), insect ecology, and climate-smart agricultural interventions. Currently serving as a Scientist/SMS at KVK Ranichauri under UUHF, bringing years of core experience spanning university research, state agricultural administration, and grassroots extension ecosystems. Proficient in transferring strategic crop protection technologies from lab to land and establishing sustainable pest control modules for mountain farming communities.

Academic Profile

- **Ph.D. (Agricultural Entomology):** Awarded in 2016 with an exemplary academic score of 91.4%. Specialist focus on demography, behavior, and management thresholds of major crop pests.
- **M.Sc. (Agricultural Entomology):** Completed in 2012 with a distinguished record of 95.0% (Merit / Rank Holder).

Core Research Specialization & Regional Contributions

- **Integrated Pest Management (IPM):** Designing multi-tactical biological, ecological, and biorational interventions for hill and valley crops.
- **Regional Pest & Disease Management:** Actively diagnosing, monitoring, and addressing emerging local pest and disease outbreaks in the region to minimize crop losses for hill farmers.
- **Institutional & Line Department Collaboration:** Working in close coordination with state agricultural line departments and regional stakeholders for effective implementation of crop protection advisories and technology dissemination.
- **Extension Entomology:** Empowering farming communities through front-line demonstrations (FLDs), diagnostic clinics, and tech-advisory services.

Professional Experience & Contributions

- **Scientist (Plant Protection):** KVK Ranichauri, VCSG UUHF (Sept 2022 – Present). Leading regional crop diagnostics, executing field demonstrations, and formulating bio-intensive pest modules.

- **Institutional & Administrative Roles:** Successfully completed strategic tenures contributing to agricultural resource management, project monitoring, and watershed-level technical advisories under state agricultural administration systems.

Intellectual Property Rights (IPR) & Publications Overview

- **Intellectual Property Rights:** Holds Patents registered/published for development of innovative processes and mechanical/biorational tools geared towards improving efficiency in sustainable pest management.
- **Books & Scholarly Contributions:** Co-authored core academic textbooks (including 'Fundamentals of Entomology') and dedicated chapters in premium volumes mapping technological breakthroughs in precision agriculture.
- **Research Publications:** Published numerous high-impact research papers across various vital subjects in National and International Peer-Reviewed and NAAS-Rated Journals, focusing on insect biology, socio-economic impact studies, and narrative climate reviews.
- **Technical & Extension Literature:** Prolific author of technical articles and extension literature focusing on mountain agriculture and hill farming distress solutions. Key thematic contributions published in popular e-magazines / bulletins (The Pahadi Agriculture, Agriculture Bulletin, Aerosphere's, Current Agriculture Trends) include:
 - Bio-Intensive Integrated Pest Management (BIPM) & Biological Control Methods.
 - Insect Pest Resistance to Insecticides, Resistance Management, and New Generation Insecticides.
 - Role of Artificial Intelligence (AI) and ICT in Insect Pest Surveillance.
 - Conserving Pollinators in Agro-ecosystems and the Role of Honeybees in Crop Production.
 - Grassroots Mountain Interventions: Resolving human-wildlife conflicts for agricultural safety in Garhwal Himalayas, and publishing popular technical advisories on regional pest outbreaks and crop solutions.

Professional Memberships

- **Society Memberships:** Life and annual member of multiple prestigious national Agricultural and Entomological Societies.