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Qualifications: Ph.D. (Chemistry)

Field of Specialization:

Pesticide formulation technology development, Research & development of user & environment friendly pesticide formulations, bio-botanical formulations and advanced formulations. Execution of research and Industry sponsored Projects, Scale up of formulation process to production level. Thirty six years of experience in this field.

Technology Transfer:

Major contribution in development of various pesticide formulation technologies, most of the developed technologies have been transferred to different industries in India and abroad.

Latest research publications:

1. Smriti Kala, **Amrish Agarwal**, Krishna Kant, B.K. Mishra, Nisha Sogan, Natish Kumar, Chetan K.D. Jawle, Dipak Kumar Hazara, Jitendra Kumar. An environmentally benign oil dispersion/phytoextract system for improved retention upon foliage and control of aphids in spice crops. *Journal of Cleaner Production* 2023, 137449 (IF-11.02)
2. Smriti Kala, Chetan K.D. Jawle, Mukesh Kumar, Nisha Sogan, Himmat Singh, Gaurav Shukla, **Amrish Agarwal**, L.K. Takhur, Jitendra Kumar. Pomegranate Resembling Design of Starch Sago Beads Encapsulates Nano-Pyriproxyfen, Enabling Slow Release and Improved Bioactivity. *ACS Applied Materials & Interfaces* 2022, 35,15, 1843-1858. (IF-10.38)
3. Nusrat Iqbal*, Dipak Kumar Hazra, Chetan Jawale, Samsul Alam, Shubham Yadav, **Amrish Agrawal**, Ajin S Anil, and Jitendra Kumar, Biofabrication of Microbeads Infused with Acorus calamus Oil and Eucalyptus Extract for Sustainable Stored Grain Pest Management, *ACS Applied Polymer Materials* 2024 6 (3), 1599-1610, DOI: 10.1021/acsapm.3c01779- I.F-5.0)
4. Nusrat Iqbal, Selvamuthukumar Thirunavukkarasu, Rama Krishna, Dipak Kumar Hazra, Chetan Jawale, Shubham Yadav, Samsul Alam, **Amrish Agrawal** and Jitendra Kumar, Environmentally Benign Design of Renewable Oleoresin-Bioenergized Imidacloprid Nanohydrocolloids for Improved Activity, Lower Toxicity, and Agroecological Sustainability, *ACS Sustainable Chemistry & Engineering* , 2023 DOI:10.1021/acssuschemeng.3c05105 (I.F-8.4)

5. Nusrat Iqbal, Dipak Kumar Hazra, Alope Purkait, **Amrish Agrawal**, Mahesh Kumar Saini, and Jitendra Kumar, Eco-Oriented Formulation and Stabilization of Oil–Colloidal Biodelivery Systems Based on GC-MS/MS-Profiled Phytochemicals from Wild Tomato for Long-Term Retention and Penetration on Applied Surfaces for Effective Crop Protection. *Journal of Agricultural and Food Chemistry* 2023, 71 (8), 3719-3731 (I.F-6.2).
6. Smriti Kala, Chetan Jawale, Nish Sogan, **Amrish Agrawal**, Krishna Kant, B.K. Mishra, Jitendra Kumar(2022) Analogous Foliar uptake and leaf to root translocation of micelle nano particles in dicot plants of two diverse families . *NanoImpact* 2022, 28; 100431.(I.F-4.9)
7. Nusrat Iqbal,Dipak Kumar Hazra,Alope Purkait, **Amrish Agrawal**, Jitendra Kumar Bioengineering of neem nano-formulation with adjuvant for better adhesion over applied surface to give long term insect control, *Colloids and Surfaces B: Biointerfaces* 209 (2022) 112176 (I.F- 5.8)

Institutions visited abroad:

1. National Centre for Agricultural Utilization Research U.S. Department of Agriculture, Peoria, IL, U.S.A.
2. Kwizda Agrochemicals, Kornewburg, Austria.
3. Plant Health & Soil Conservation-Station of Budapest, Hungary.
4. Nantong Pesticide Formulations Centre, Nantong, P.R.China
5. Tescan Brno Research Centre, Brno, Czech Republic