

1. **Name (Block letters)** : **Dr Joni Kumar**
2. **Designation** : Assistant Professor
3. **Department** : Agri. Entomology
4. **Date of joining** : 09.01.2020
5. **E-mail id** : jonikumar68@gmail.com
6. **Mobile No.** : +91 9821476010
7. **Research area** : Integrated pest management,
Apiculture, Biological control,
Chemical ecology of insects



❖ Academic Qualifications

Sr. No.	Degree	Year	Subject	University
1	PhD	2018	Agri. Entomology	ICAR-IARI, New Delhi
2	M.Sc	2013	Agri. Entomology	G.B. Pant University of Agriculture & Technology, Pantnagar, UK
3	B.Sc	2011	Agriculture	GMV Rampur Maniharan, Saharanpur, UP
4	ICAR-NET	2013	Agri. Entomology	Agricultural Scientists Recruitment Board, New Delhi

PhD Research Work: Effect of semiochemicals on natural enemies of *Lipaphis erysimi* (Kaltenbach) and *Myzus persicae* (Sulzer) occurring in Mustard

M.Sc Research work: Stock improvement and royal jelly production through better performing colonies of *Apis mellifera* L.

❖ Technical experience

1. Chromatography techniques: TLC, GC-MS, HPLC, Column, ion- exchange,
2. Electroantennography: Volatiles
3. Queen rearing & Royal jelly production: Honey bee, *Apis mellifera*
4. Molecular techniques: Electrophoresis-GEL/SDS-PAGE, Hybridization-Northern & Southern, PCR

5. Layout of experimental designs
6. Data analysis of experimental designs like CRD, RBD, LSD, some other test viz., DMRT, Fisher' LSD, Tukey test, Student test, and Chi square test.

❖ **Mass rearing and toxicity evaluation of following insects**

1. **Mass rearing and toxicity evaluation of Lepidopteron insects under laboratory condition:** Gram pod borer, *Helicoverpa armigera*, Tobacco caterpillar, *Spodoptera litura*, Diamond back moth, *Plutella xylostella*,
2. **Mass rearing and toxicity evaluation of Hemiptera insects under laboratory condition:** cotton whitefly, Bemasia tabaci, Brown plant hopper, *Nilaparvata lugens*, Aphids, *Lipaphis erysimi*, *Myzus persicae*, *Brassicorhynchus brassicae*, cotton mealy bug, *Phenacoccus solenopsis*
3. **Laboratory rearing and toxicity evaluation of thrips and Mites**
4. **Laboratory rearing and toxicity evaluation of beneficial insects: Predators- (*Coccinella septempunctata*, *Chrysoperla carnea*) and Parasitoids (*Aphidius colemani*, *Diaeretiella rapae*).**
5. **Laboratory rearing and toxicity evaluation of *Apis mellifera***

❖ **Awards and Fellowships**

1. ICAR-JRF (Agricultural Entomology) -2011
2. ICAR-IARI fallowship-2013
3. UGC-JRF fellowship-2013
4. UGC-SRF fellowship-2016

❖ **Professional Recognition**

1. Society for Conservation of Nature (Life Member)
2. Society of plant protection science (Life member)

❖ **Research paper**

1. **Joni Kumar**, Bishwajeet Paul, Shivashankara and Sweetee Kumari (2017). Differential electroantennogram response of male and female of *Dysdercus cingulatus* to okra plant volatiles. Journal of Entomology and Zoology Studies.5: 197-201.
2. **Joni Kumar**, Bishwajeet Paul, Suresh M Nebapure, and Sharda Singh (2017). Comparative GC-MS Analysis of two *Brassica rapa* L. Varieties for Identification of Volatile Compounds. Chemical Science Review Letters. 6: 884-889.

3. **Joni Kumar** and Bishwajeet Paul (2017). Population dynamics of aphid, *Myzus persicae* (Sulzer) (Hemiptera: Aphididae) on different Brassica species. *Agricultural Science Digest*. 37: 64-67.
4. **Joni Kumar** and Pramod Mall (2017). Hygienic behavioral response of *Apis mellifera* Ligustica against pin-killed and infectious brood. *Journal of Entomology and Zoology Studies*. 5: 913-915.
5. **Joni Kumar** and Pramod Mall (2016). Assessment of colony performance through brood and honey measurement in *Apis mellifera* Ligustica. *Journal of Experimental Zoology, India*. 9: 1355-1358.
6. **Joni Kumar** and Pramod Mall (2016). Effect of life stages and colony on live weight of newly emerged queen *Apis mellifera* Ligustica. *Journal of Experimental Zoology, India*. 19: 1379-1383.
7. **Joni Kumar**, Bishwajeet Paul, and Suresh M Nebapure (2019). Electrophysiological response of *Dysdercus cingulatus* (Hemiptera: Pyrrhocoridae) to cotton plant extracts and host related compounds. *Proceedings of the National Academy of Sciences, India Section B: Biological Sciences*
8. **Joni Kumar** and Bishwajeet Paul. Response of *Pieris brassicae* (Linnaeus) (Lepidoptera: Pieridae) to Brassica extracts. *Journal of Entomology and Zoology Studies*. 6: 1226-1228.
9. Shivashankara, R. M. Srivastava, ARNS Subbanna, **Joni Kumar**, Sandip P. More. Diversity of insect pollinators and foraging behavior of native honey bees on Coriander. *Environment and Ecology*. 34: 1315-1319.
10. Sandeep K. Malyan, Om Kumar, Rumesh Ranjan and **Joni Kumar** (2018). Understanding units of measurement in agricultural and environmental sciences. A threat to sustainable management of water. *International journal of environmental rehabilitation and conservation*. 2: 25-51.
11. Yogendra Sain, Rajendra Singh, Gaje Singh, DV Singh, Kamal Khilari, MP Gautam, **Joni Kumar**, and Sushil Kumar (2020). Seasonal profile of different insect-pests of black gram in the western region of Uttar Pradesh. *Journal of Entomology and Zoology Studies*. 8: 771-773.
12. Vipin Kumar, Sandeep kaur, **Joni Kumar**, Yachna gupta and Harjot pal (2018). Development of white butterfly, *Peris brassicae* L. in cabbage ecosystem. *Journal of Entomology and Zoology Studies*. 6: 1270-1273.

13. Suman Parre, RS Raje, NK Singh, and **Joni Kumar** (2018). Genetic variability and association analysis for morphological and biochemical traits related to pod borer (*Helicoverpa armigera*) resistance in Pigeonpea [*Cajanus cajan* (L) Millspaugh] among recombinant inbred lines. Journal of Entomology and Zoology Studies. 6: 1570-1575.
14. Shivashankara, AK Karnatak, ARNS Subbanna and **Joni Kumar** (2018). Study on population dynamics of early shoot borer in sugarcane ecosystem at Pantnagar. Journal of Pharmacognosy and Phytochemistry. 5: 20-25.

❖ Conference Proceedings with full paper

1. **Joni Kumar** (2017). Infochemicals: An effective and environment friendly management of insect pests for sustainable agriculture. National Conference organized by Janta Vedic college barut, Baghpat.
2. Sandeep K. Malyan, Arti Bhatia, Renu Singh, Smita S. Kumar, Om Kumar, **Joni Kumar**, Rumesh Ranjan, Ritu Tomer (2017). Impact of Azolla application on nitrous oxide emission from rice soils. International Conference on Advances in Agricultural & Applied Sciences for Promoting Food Security. Hotel Mirage Lord Inn, Battishputli, Kathmandu, Nepal
3. **Joni Kumar** (2015). Impact of harvesting time on royal jelly in *Apis mellifera* L. National Conference on Innovative Approaches for Sustainable Agriculture, Livelihood and Environment Security. Department of Plant Pathology Gochar Mahavidyalaya, Rampur Maniharan, Saharanpur [U.P.]

❖ Chapters in Book

1. **Joni Kumar** and Bishwajeet Paul (2017). Seasonal parasitization of aphid by *Diaeretiella rapae* (M'Intosh) in *Brassica* ecosystem. Advances in Agricultural and Biodiversity.
2. **Joni Kumar**, Yogandar Sain, M.P. Gautam, Sushil Kumar and Sachin Kumar (2020) Toxic Effects of Insecticides on Beneficial Insects. Green initiative and sustainable development. 217-221p.
3. M.P. Gautam, **Joni Kumar**, Yogandar Sain, S. N. Singh, Sushil Kumar and Sandeep (2020). Impact of Agrochemicals on the Environment and Human Being. Green initiative and sustainable development. 199-208p.

❖ Conferences/Training/Workshops/Seminars/Symposium

1. **Poster presentation** in International conferences on “Advance in Plant and Microbial Biotechnology” held on 2-4 February, 2017 at Jaypee Institute of Information, Technology, India.
2. **Paper presentation** in National Symposium on “Agrochemicals for food and environment safety” held on 28-30, January, 2015, at ICAR-IARI, India.
3. **Poster presentation** in national symposium on “Population dynamics of aphids on different Brassica species” held on 1-2 December, 2016 at Centre for Environment Science and Climate Resilient Agriculture, IARI New Delhi-110012.
4. Participated in **2 days workshop** on “Apiculture” held on 19-20 June, 2013 at Department of Entomology, G.B Pant University of Agriculture and Technology, Pantnagar, UK-263145
5. **Paper presentation** in national seminar on “Impact of harvesting time on royal jelly production in *Apis mellifera* L” held on 7, November, 2015, at GMV Rampur Maniharan, Saharanpur (U.P)- 247451.
6. **Presented paper** in international conference on “Effect of abiotic factors on seasonal abundance of aphid, *Lipaphis erysimi* (Kalt.) on different Mustard species” held on 16-18, February, 2017, at Guru Jambheshwar University of Science & Technology, Hisar-125001, Haryana, India.
7. **Presented paper** in national conference on “Electroantennography: a tool for screening volatiles compounds involving in insect-plant interactions” on 10 March, 2017, at GMV Rampur Maniharan, Saharanpur (U.P)-247451.
8. **Presented paper** in international conference on “ Impact of Azolla application of nitrous oxide emission from rice soil” held on 13-15, May, 2017 at Hotel Mirage Lord Inn, Battishputli, Kathmandu, Nepal
9. Completed online training course ‘Crop pests diagnosis’ from CABI, United Kingdom on May 2020

❖ Abstracts published

1. **Joni Kumar**, 2015. Measurement of the broods and bee population of *Apis mellifera* L. in Pantnagar area. UGC sponsored national seminar on innovative approaches for sustainable agriculture, livelihood and environment security held on 7 October 2015.

2. **Joni Kumar**, 2015. Evaluation of hygienic behavioural response of *Apis mellifera* L. colonies through pi killed method. UGC sponsored national seminar on innovative approaches for sustainable agriculture, livelihood and environment security held on 7 October 2015.
3. **Joni Kumar**, 2015. Insect epigenetics. UGC sponsored national seminar on innovative approaches for sustainable agriculture, livelihood and environment security held on 7 October 2015.
4. **Joni Kumar**, 2015. Investigation on tritrophic interaction among okra crop, shoot and fruit borer and its natural enemies. UGC sponsored national seminar on innovative approaches for sustainable agriculture, livelihood and environment security held on 7 October 2015.
5. **Joni Kumar**, 2015. Proteomic application in entomology. UGC sponsored national seminar on innovative approaches for sustainable agriculture, livelihood and environment security held on 7 October 2015.
6. **Joni Kumar**, Sandeep k. Malyan, Rumesk Ranjan, Yogandar Sain and Sushil Kumar. 2017. RNA interference: a new strategy for sucking pest management. National conference on agriculture renewal for evergreen revolution: concept & approaches held on 10th March, 2017.
7. **Joni Kumar**, Bishwajeet Paul, Sandeep k. Malyan, Rumesk Ranjan, Yogandar Sain and Sushil Kumar. 2017. Electroantennography: a tool for screening volatile compounds involving in insect- plant interactions. National conference on agriculture renewal for evergreen revolution: concept & approaches held on 10th March, 2017.
8. Sushil Kumar, D.V. Singh, Yogandar Sain and **Joni Kumar**, 2017. Insect pest management for stored grain. National conference on agriculture renewal for evergreen revolution: concept & approaches held on 10th March, 2017.
9. Yogandar Sain, Rajendra Singh, Sushil Kumar and **Joni Kumar**. 2017. Mango fruit fly, *Bactrocera* Spp. And their management in western plain zone of Uttar Pradesh. National conference on agriculture renewal for evergreen revolution: concept & approaches held on 10th March, 2017.
10. **Joni Kumar** and Yogandar sain (2020) Toxic effect of pesticides on natural enemies of insect-pests. National conference on Replacement of Petrochemicals by bio-based chemical for safe environment.

11. **Joni Kumar** and Yogandar sain (2020) Plant volatiles: Significance in herbivore plant interactions. National conference on Replacement of Petrochemicals by bio-based chemical for safe environment.