DR. K CHANDRAKUMARA

Scientist-B,
Central Muga Eri Research & Training Institute,
Central Silk Board
Ministry of Textiles: Govt. of India
Lahdoigarh, Jorhat-785 700, Assam, INDIA
Email: kchandru.csb@nic.in/ kck.ento45@gmail.com
Mobile: 9731075715

I. EDUCATIONAL CAREER

Degree/Diploma/ Certificate	Class/Grade	University/Board/ Institute	Year of passing
Doctor of Philosophy in Entomology	**8.62%** First class with Distinction	ICAR- Indian Agricultural Research Institute, New Delhi	2023
M. Sc. (Agri.) in Agricultural Entomology	**92.40 %** First Pass with Distinction	UAS, GKVK, Bengaluru	2020
B.Sc. in Agriculture	**90.90 %** First Pass with Distinction	College of Agriculture, Bheemarayanagudi, UAS, Raichur	2018

II. RESEARCH SKILLS AND EXPERIENCES

- ✓ Well aquatinted with detection and management of insect pests of cereals, pulses and oil seed crops.
- ✓ Having knowledge on conducting bee feeding studies particularly to study the impact of insecticides on its homing behavior.
- ✓ Planning and execution of field experiments in field crops particularly for insecticide screening and varietal screening.
- ✓ Proficient in conducting studies pertaining to bionomics of insects, and biochemical assessment in plants.

III. CONTRIBUTION TO THE FIELD OF ENTOMOLOGY

- ✓ I have contributed to the field of Entomology as my M. Sc. Research and Ph.D. Research were related to the Entomology.
- ✓ During my M.Sc. programme, the thesis title was **"Effect of Neonicotinoid Insecticides on Bee Pollinators".** The effect of widely used neonicotinoid insecticides (imidacloprid and thiamethoxam) on the foraging activity of honey bees was assessed through seed treatment *vis-*

à-vis foliar spraying. The results deciphered that seed treatment with neonicotinoids had no impact on the foraging activity. It was also supported by the absence of imidacloprid and thiamethoxam residues in pollen and nectar. Further, foliar spraying had negative impact on the foraging behaviuor of honey bees up to 5 days after spray. It is advisable to not go for spraying neonicotinoids during blooming period of sunflower to ensure the bee activity for better productivity.

- ✓ During Ph.D. degree, I worked on Insect-plant interactions, and the thesis title was **"Elucidating biological and biochemical interaction between popular cultivars of *Brassica juncea* (L.) Czern & Cross. and *Lipaphis erysimi* (Kaltenbach)".**
- ✓ **The salient outcomes of the study**:
  1. Biochemical markers were identified for future screening of *Brassica* germplasm against *L. erysimi*
  2. Cultivars DRMR-150-35, NRCHB-101, RLC-3, PM 27 and RH-725 had detrimental effects on the bionomics of *L. erysimi*, and found with higher induced defense compounds, thus can be exploited in *Brassica* improvement programme

IV. TRAININGS

- ✓ Successfully completed "**Induction Training**" organized by Central Silk Board, Bengaluru from 19-Jan-2024 to 23-Feb-2024.
- ✓ Successfully participated in **Five Days IPM Orientation Training Programme** organized by Regional Central IPM, Bengaluru, Karnataka State Department of Horticulture and Staff training Unit, Directorate of Extension, UAS, Hebbal, Bengaluru from 25th- 29th, November, 2019
- ✓ Successfully completed the 21 days International Training cum Certificate Course on "**Agriculture Drones: Revolutionizing the future of Agriculture**" organized by Agri Meet Foundation and Avian in collaboration with ICAR-IISR, UPCAR Lucknow, MPAUT, CAIE, NABARD, NAHEP & ITM University Gwalior MP from 21st May to 10th June 2022
- ✓ Participated in 10 days online short course on "**Recent Advances in Millets Crop Production, Processing, Value Addition and Marketing**" organized by ICAR- Indian Institute of Millets Research, Hyderabad, from 16-25th August, 2023

V. PRIZES, MEDALS, SCHOLARSHIPS *etc*.

MEDALS:

- ✓ **Guruprasad Pradhan Medal, 2023** for the best PhD student of the Division of Entomology, ICAR-IARI, New Delhi
- ✓ **University of Agricultural Sciences Gold Medal** award for securing highest percentage and **'First rank'** in B.Sc. (Agriculture) from UAS, Raichur
- ✓ **Guruprasad Pradhan Medal, 2023,** issued by Indian Agricultural Research Institute, New Delhi awarded for the **best Ph.D. student** of the Division of Entomology, IARI, New Delhi

- ✓ **Shri Soogappa Varad, Retired Lecturer, Shahapur Gold Medal** award for securing highest percentage in **Plant Pathology** subject from UAS, Raichur
- ✓ **Late Sri Basavaraj Hampayya Sajjanshetty Gold Medal** award for securing highest percentage in **Agricultural Microbiology** subject from UAS, Raichur
- ✓ **Sri Amrut Rao Mulage Gold Medal** award for securing highest percentage in **Agricultural Economics** subject from UAS, Raichur

ACADEMIC EXCELLENCE:

- ✓ Secured **14th** rank in AIEEA- JRF during 2018-19 and **15th** rank in AIEEA- SRF during 2019-20 in the field of Agricultural Entomology
- ✓ Secured **First rank** in State Entrance Examination for PG Programme (2018-19) in the field of Agricultural Entomology
- ✓ Cleared three **National Eligibility Tests** conducted by **ICAR** (Agricultural Entomology), **CSIR** (Life Sciences) and **UGC** (Environmental Sciences) at first attempt

FELLOWSHIPS:

- ✓ Availed **CSIR-JRF (Life Sciences) fellowship** during doctoral degree programme
- ✓ Selected for **Rajiv Gandhi National Fellowship**
- ✓ Qualified for **ICAR- SRF fellowship**

VI. TEAM GAME/SPORTS/NCC/HITCH-HIKING/MOUNTAINEERING *etc*.

N.S.S:

- ✓ **Represented University in National Adventure Camp** held at **ABVIMAS** (Atal Bihari Vajpayee Institute of Mountaineering and Allied Sports), Manali (Himachal Pradesh) from 20.11.2016- 29.11.2016 and organized by NSS, Government of India

SPORTS: Represented University/Institute at National level for three times

- ✓ In Cross country (**5000m**)- Held at CCSHAU, Hissar during 2016-17
- ✓ In **Kho-Kho** – Held at UAS, GKVK, Bengaluru during 2017-18
- ✓ In Cross country (**5000m**)- Held at CCSHAU, Hissar during 2022-23

CULTURAL EVENTS:

- ✓ Participated in **State level theatre and dance competition** held at Bengaluru organized by Kannada & Culture Department, Government of Karnataka

VII. PUBLICATIONS

A. RESEARCH ARTICLES:

1. **Chandrakumara, K**., Murali Mohan, K., Anand, H. S., V. V. Belavadi, Suresh G. and Ramanappa, T. M. 2022. Seed treatment with neonicotinoid insecticides does not affect the foraging behavior of honey bees. *Apidologie*, 54(3): 29.

2. **Chandrakumara, K.,** Dhillon, M. K., Tanwar, A. K., & Singh, N**.** 2023. Constitutive phytochemicals in *Brassica juncea* (L.) Czern & Coss. in relation to biological fitness of *Lipaphis erysimi* (Kaltenbach). *Arthropod-Plant Interactions*, 1-13.

3. **Chandrakumara, K.,** Dhillon, M. K., & Singh, N. (2024). Aphid-induced phytochemicals in *Brassica juncea* (L.) Czern & Coss. afflicting host preference and bionomics of *Lipaphis erysimi* (Kaltenbach). *Journal of Applied Entomology*.

4. **Chandrakumara, K.,** Dhillon, M. K., Tanwar, A. K., & Singh, N. 2023**.** Phytochemicals in *Brassica juncea* distressing developmental and reproductive biology of mustard aphid (*Lipaphis erysimi*). *The Indian Journal of Agricultural Sciences*, 93(10): 1139-1143.

5. **Chandrakumara, K.,** Dhillon, M. K., & Singh, N. (2024). Tolerance in *Brassica juncea* Cultivars *Vis-a-Vis* Population Buildup of Mustard Aphid *Lipaphis erysimi* (Kalt.). *Indian Journal of Entomology*.

6. **K. Chandrakumara**, Kalyanam Sai Ishwaryalakshmi and Mukesh K. Dhillon. 2023. Impact of Pesticide Usage on Biodiversity. *Annals of Multidisciplinary Research, Innovation and Technology (AMRIT)*, 2(2): 16-22.

7. **Chandrakumara, K**., Sau, A. K., Tanwar, A. K., & Hadimani, B. N. 2023**.** Variations in the Biological and Ecological Attributes of Insects Due to Climate Change: A Review. *Indian Journal of Entomology*, 01-10.

B. POPULAR ARTICLE:

1 **K Chandrakumara**, Arunkumar C G, Mukesh K. Dhillon, Vinay K. Khalia and K Srinivas. 2022. Insect ectoparasites: A driving force in the evolution of zebra stripes. *Indian Entomologist*, **3**(2): 61- 67.

2 **K Chandrakumara** and Arunkumara C G. 2021. Insecticide Resistance in BPH: An Overview. *Agriculture and Food: E Newsletter*, **3**(11): 183-185.

3 **K Chandrakumara**, Mukesh K Dhillon, M C Keerthi and G N Kiran Kumar. 2023. A gist of unheeded insect calcium channels as a target for insecticides. *Indian Entomologist*, 4(1): 63-67.

4 **K Chandrakumara**, Mahendra K R, E V Madhuri, K Srinivas and K S I Lakshmi. 2023. Plastic eating insects: Current contrivance for plastic pollution. *Indian Entomologist*, 4(1): 68-74.

5 **K Chandrakumara**, Vijay R, Basavaraj N Hadimani and Siddanna. 2023. Mating genres in Mecoptera. *Indian Entomologist*, 4(1): 83-88.

C. BOOK CHAPTERS:

1 **K Chandrakumara**, K Srinivas, Ranjith H V and Basavaraj N H. 2022. The Honey Bee: Let it Be in Nature. Applied Entomology and Zoology (Volume **-9**). *AkiNik Publications, New Delhi.*

2 Mukesh K Dhillon, Kalyanam Sai Ishwarya Lakshmi and **K Chandrakumara**. Insecticide Resistance: Current Status and Future Prospects. In: Current Scenario of Pesticide Toxicology and Its impact on Future Agriculture, CCSHAU, Hisar, Haryana.

VIII. AFFILIATIONS:

- ✓ Central Muga Eri Research and Training Institute, Jorhat
- ✓ ICAR- Indian Agricultural Research Institute, New Delhi
- ✓ University of Agricultural Sciences, GKVK, Bengaluru
- ✓ University of Agricultural Sciences, Raichur

Date: 30.05.2024 **(Dr. K Chandrakumara)**