

## **Academic Achievements of the Department**

- Department has bagged the DST-FIST project worth 53.50 lakhs for the year 2018-19.
- Various teaching aids *viz.*, digitized class notes, Power point presentations, video clips related to pest management, insect collection, blow-ups *etc.*, have been developed for five UG and 15 PG courses.
- Department has all the basic and advanced infrastructure facility such as walk in growth chamber, flight mill system, plant growth chambers, insectary, stereo zoom binocular microscopes with image analysing software, Phase contrast microscope, Potters spray tower, Audio-visual aids, computers with internet facility for the benefit of UG and PG teaching and research
- Offering innovative teaching course such as MOOC (Massive Open Online Course) in IPM for students and faculty of entomology across the globe. In the last two years the course has been offered thrice with more than 20,000 enrolments.
- PG students have excelled in academics with 30 NET eligibility, six national fellowships (Maulana Azad; Rajiv Gandhi; DST-INSPIRE), 15 ICAR JRF/SRF and 2 ARS scientist in the last five years.
- Many PG students have won coveted honours such as best thesis, best oral and poster presentations in national and international conferences.
- One International and Several National and State awards have been conferred to faculty of Entomology for their contributions in the field of Entomology including ICAR instituted Best Teacher award and Best incentive awards conferred by UAS, Raichur.

## **Research Achievements of the Department**

- Successfully demonstrated area-wide management of pink bollworm on *Bt*-cotton over an area of 1000 acres with Controlled Release Emission Mating Interruption Technology (CREMIT); a mating disruption technique with 90 per cent control over farmers' practice. It is first of its kind in the country wherein, successful management of pink bollworm on *Bt* cotton was showcased in about one lakh acres in the country.
- Designed, developed and deployed e-SAP (Electronic Solutions against Agricultural Pests), an IT application for Real time, Comprehensive Crop Health management in both agricultural and horticultural ecosystem for the Karnataka State.
- Climate change studies with respect to increased CO<sub>2</sub> (@550 ppm) concentration in the atmosphere revealed a significant decrease in the Cry toxins in *Bt* cotton to the extent of 25 per cent (Cry1Ac) and 7.7 per cent (Cry2Ab), thus, favouring the bollworms mainly PBW to outbreak on *Bt* cotton.

- Demonstration to popularize Direct Seeded Rice (DSR) cultivation as an alternative to puddle transplanted rice was made in TBP and UKP command areas. Mere change in planting geometry has resulted in reduction in hopper complex along with sheath blight disease. In addition, DSR also proved a resource saving technology in terms of saving the cost of cultivation (Rs. 6000/acre), 37 per cent in irrigation water and 35 per cent methane gas emissions.
- Confirmed the facultative migratory behaviour in *Helicoverpa armigera* using a novel flight mill technique under laboratory condition. The study helps in tracking the movement of the pest for better management.
- With the mandate of conservation and augmentation of bio-control agents in different cropping systems of Kalyana-Karnataka region, the AICRP contingent centre on Bio-control was established. Under this programme, NBAIR strains of parasitoids and entomopathogens are mass produced and distributed to farming communities for successful management of target pests.
- Climate change in terms of elevated CO<sub>2</sub> and temperature has resulted in increased biomass (3.19%) with increase in 'C' related compounds (C, CHO, Tannins and Phenols etc.). While, 'N' related compounds (N, Proteins, amino acids, etc.,) have decreased, particularly morin content was decreased to the tune of 39.01% compared to reference plot. This resulted in decreased cocoon filament weight (0.135g) as compared to reference plot (0.184g).
- Established state-of-art NABL accredited (As per ISO/IEC17025:2017) Pesticide Residue and Food Quality Analysis Laboratory to analyse pesticide residues, heavy metals and aflatoxin in agriculture produce and their products. It is also notified by Govt. of Karnataka as referral laboratory as per the section of the Insecticide Act of 1968.
- Established the state of art of research facility *i.e.*, Centre for Agro-climatic Studies of UAS, Raichur which is unique in South India. This centre was credited with a state award of '**Nagamma Dattatraya Rao Desai**' cash prize by UAS, GKVK, Bengaluru for outstanding research contribution in the field of climate change.
- Department of Entomology, College of Agriculture, Raichur has full pledged research facilities including field and glasshouse.

#### LIST OF STUDENTS WHO SECURED VARIOUS FELLOWSHIPS

Sl. No.	Name of Fellowship	Year
<b>I.</b>	<b>DST-INSPIRE Fellowship</b>	
1	Kariyanna B Desai	2016

2	G Sham Supreeth	2020
3	Archana B R	2021
4	Srilekha K	2024
<b>II.</b>	<b>DST-KSTePS</b>	
1	Bharati Jambunatha Patil	2022
2	Akshatha	2022
3	Supriya G A	2024
<b>III.</b>	<b>Rajiv Gandhi National Fellowship</b>	
1	Latha	2011
2	Shreevani G N	2012
3	Jamuna B	2014
<b>IV.</b>	<b>Maulana Azad National Fellowship</b>	
1	Abdul Khader Biradar	2013
2	Tabassum Nikhat	2015
<b>V.</b>	<b>National Fellowship for OBC/SC (UGC)</b>	
1	Thammali Hemadri	2018
2	K Arun Saikumar	2023
<b>VI.</b>	<b>Indian Agricultural Research Institute Fellowship</b>	
1	Anil	2018
2	Kiran	2018
<b>VII.</b>	<b>Savitribai Jyotirao Phule Single Girl Child Fellowship (UGC)</b>	
1	Chandana T P	2023

**STUDENT'S ACHIEVEMENTS/AWARDS FOR THE BEST THESIS IN THE DEPARTMENT  
OF AGRICULTURAL ENTOMOLOGY**

<b>Sl. No .</b>	<b>Name of the student</b>	<b>Name of the award/achievement</b>	<b>Year of the award</b>	<b>Sponsoring agency</b>
1	Jyothi Patil	Scientist Associate award	2018	Society for Scientific Development on Agriculture and Technology
2	Ravindragouda Patil	All India Best Research Award for Master's level	2018	Society for Advancement of Human and nature (SADHNA), Himachal Pradesh

3	Saraswathi Mahato	Young Agriculture Scientist Award	2022	Dr. B. Vasantharaj David Foundation, Chennai, Tamil Nadu
4	Saraswathi Mahato	Young Entomologist Award	2022	Science and Technology Society for Integrated Rural Development, Hyderabad
5	G. Sham Supreeth	Prof. B. Kameswara Rao Award	2022	Applied Zoologist and Research Association, Bhubaneswar, Odisha
6	Eurekha S	Prof. Shrivastava Award	2022	Applied Zoologist and Research Association, Bhubaneswar, Odisha
7	Mallikarjuna S	Best Ph. D. Thesis Award	2023	Society for Advancement in Agriculture Rural Development (SAARD), Uttar Pradesh
8	G. Sham Supreeth	Young Scientist Award	2023	Dr. B. Vasantharaj David Foundation, Chennai, Tamil Nadu
9	Bharati J Patil	Young Scientist Award	2023	Dr. B. Vasantharaj David Foundation, Chennai, Tamil Nadu
10	Abinaya S	Young Scientist Award	2023	Dr. B. Vasantharaj David Foundation, Chennai, Tamil Nadu
11	Thammali Hemadri	Best Ph. D. Thesis	2023	Society for Scientific Development in Agriculture and Technology, Meerut, Uttar Pradesh
12	Thammali Hemadri	Plant Protection Award	2023	Abraham Verghese Insect and Nature Trust, Bengaluru, Karnataka
13	G. Sham Supreeth	Junior Scientist Award	2023	International Academy of Science and Research, Kolkata
14	Bharati J. Patil	Junior Scientist Award	2023	International Academy of Science and Research, Kolkata