

INFOCHEMICALS FOR ECOFRIENDLY NSECT PEST MANAGEMENT

Many insect species are known to be pests of crops of economic importance. Management of insect pests has been a constant challenge to entomologists worldwide. In order to avoid overdependence on chemical pesticides, search for alternative ecofriendly methods are gaining importance for reducing ill effects of insecticides such as environmental contamination, residue in produce and chronic ill effects on human beings. In this context, the chemical ecology of pest and crop taught us the lesson of natural equilibrium by competing each other. The knowledge on infochemicals, which is a component of pest management, is essential for effectively devising strategies to combat insect problems in agriculture. The chemical signals in the insect behaviour science (Infochemicals) are known for their involvement in host insect interaction, host plant selection and regulation of biological control agents in a given ecosystem. Use of infochemicals in pest management is in advanced stage in developed countries and recently in India it is also catching up with the rest of the world. Though more than two decades info-chemicals mediated insect regulation has been viewed as having much promise in ecofriendly pest management strategies, use of such novel method is still in take-off stage in India for want of expertise and infrastructure facilities. In the recent past, TNAU has made a strong initiative through different national and international programmes to develop infrastructure and human resource in this field.

The training programme on "Infochemicals for Ecofriendly Insect Pest Management" is sponsored by Indian Council of Agricultural Research, New Delhi under Centre of Advanced Faculty Training and being organized by the Department of Agricultural Entomology, Tamil Nadu Agricultural University, Coimbatore, Tamil Nadu.

OBJECTIVES

- To impart training to professionals working in Agricultural Entomology and Plant Protection on recent advances in semiochemical research.
- To create awareness on behaviour modifying chemicals in tritrophic interaction of plant-pest-natural enemy system.
- To demonstrate the potential of infochemicals in monitoring and management of crop pests.

COURSE OUTLINE

- Info chemicals in insect - Types and Classification
- Identification and formulation of insect pheromone
- Molecular dimensions of bio-communication in insects
- Host plant and insect pest interaction in cereals, pulses, cotton, oilseeds, sugarcane and vegetables.
- Pheromones in pest management in horticultural crops
- Chemical ecology of borers in banana and coffee
- Behavioural pest management in grain storage
- Chemical ecology of phytophagous mites and nematodes
- Behavioural ecology of parasitoids and predators
- Chemical communication in plant pathogens
- Repellents and attractants in insect control
- Pheromone technology outreach "Success stories in SIB and GLM"
- Plant origin molecules and their impact on insect behaviour
- Communication in bees, termites and spiders
- Instruments in chemoreception research
- Olfactometer and wind tunnel assays
- Electroantennogram, microphotography and Electron microscope
- GC, GC-MS and HPLC technique
- Pheromones in commercial perspectives
- X-ray diffraction in nano-formulations
- Trap designs and Insect baits in ecofriendly IPM

ELIGIBILITY

Participant should be a post graduate entomologist from an ICAR institute or State Agricultural University and shall preferably be below the age of 45 years. Candidates who have undergone any training related to this field of research earlier at Tamil Nadu Agricultural University need not apply.

VENUE

Department of Agricultural Entomology
Tamil Nadu Agricultural University
Coimbatore – 641 003

TRAVEL

The Centre would pay to and fro rail fare by **AC-III tier** or by bus by the shortest route to the candidates on production of actual tickets. The candidates have to provide a certificate to the effect that they have not been given TA and DA by the sponsoring institute for travel.

ACCOMMODATION

Boarding and lodging will be arranged for the participants in the campus according to the budget provided by the ICAR.

LOCATION AND SEASON

Coimbatore, located near the picturesque Western Ghats is famous for Cotton Textiles, Engineering Industries, Agricultural Research and Education and sweet Siruvani drinking water. The weather at Coimbatore during February will be cool and pleasant.

TRANSPORT

Coimbatore is well connected by Road, Rail and Air to all major cities in India.

APPLICATION AND SELECTION

The participants are requested to send the filled in application forms through proper channel to the following address by post. Advance copy can be sent by email.

Dr. S. Kuttalam

Professor and Head, Director of CAFT
Department of Agricultural Entomology
Tamil Nadu Agricultural University,
Coimbatore - 641 003
Telephone: 0422-6611414 / 6611214
Fax: 0422-6611414
E-mail: entomology@tnau.ac.in
URL: <http://sites.tnau.ac.in/cpps>

Last date for receipt of application through the sponsoring Institute is 18. 01. 2013.

Candidates will be informed of their selection before **21. 01.2013**

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APPLICATION FORM

1. Full Name (in block letters) :
2. Designation :
3. Present employer and address :
4. Address to which reply should be sent (in block letters) along with Email, phone & mobile number :
5. Date of Birth :
6. Sex : Male / Female :
7. Teaching / Research/ Professional experience (mention post held during last 5 years and number of publications) :
8. Field of specialization and current area of research / teaching :
9. Mention if you have participated in any Summer / Winter School/ Short Course, etc. during the last 3 years under ICAR & other organizations. :

10. Academic record

Examination passed	Subjects Main / subsidiary	Year of passing	Class/ rank / distinctions	University or Institution
				Bachelor's degree
				Master's degree
				Ph.D

11. Authority who shall issue relieving :
orders in the event of selection
(Address & Email ID)

Place

Date :..... Signature of the applicant

12. Recommendations :
of the Head of the
Department

Certificate

It is certified that the information furnished above are correct.

Date:

Signature & Designation of the sponsoring authority
with office seal



CENTRE OF ADVANCED FACULTY TRAINING ON

INFOCHEMICALS FOR ECOFRIENDLY INSECT PEST MANAGEMENT

February 6 – 26, 2013



Course Director
Dr. S. Kuttalam

Course Coordinators
Professors: C. Durairaj, S. Raguraman,
M.R. Srinivasn and M. Kalyanasundaram

Sponsored by
Indian Council of Agricultural Research,
New Delhi

Organized by
Department of Agricultural Entomology
Centre for Plant Protection Studies
Tamil Nadu Agricultural University
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