### **TRAVEL**

The centre would pay to and fro rail fare by AC-3 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.

#### ACCOMODATION

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

### LOCTION AND SEASON

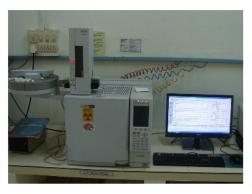
The weather at Coimbatore during August will be cool (Min. 22°C and Max. 32°C)

## APPLICATION AND SELECTION

Candidates are requested to visit the website of Capacity Building Program of ICAR at http://cbp.icar.gov.in and create login ID and apply online for this CAFT course. They are also requested to send filled-in application form through proper channel to the following address by post. Advance copy can be sent by email.

Professor and Head, Director of CAFT Telephone: 0422-661141 / 6611214

Fax: 0422-6611414 E-mail:entomology@tnau.ac.in Mobile/ WhatsApp: 9486257548/ 9944050779





Last date for the receipt of application through the sponsoring institute 30.07.2018

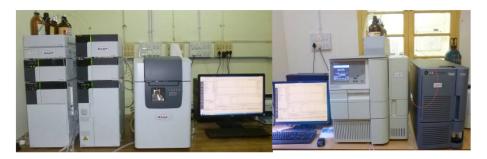


# FACULTY TRAINING



# Capitalizing pesticide benefits for safer environment

August 23, 2018 – September 12, 2018



Course Director
N. Natarajan
Professor and Head

Course Coordinators
Dr. K.Bhuvaneswari
Dr. Johnson Thangaraj Edward
Dr.B.Vinothkumar
Dr.A.Suganthi
Dr.M.Paramasivam

Sponsored by
Indian Council of Agricultural Research
New Delhi
Organized by
Department of Agricultural Entomology
Centre for Plant Protection Studies
Tamil Nadu Agricultural University
Coimbatore - 641 003

# Capitalizing pesticide benefits for safer environment

Pesticides are an integral part of Indian agriculture. Modern crop protection practices support increased productivity on existing agricultural land and lessen pressure on uncultivated areas which provide important habitats for wildlife such as birds, bees and other insects. Pesticides are the chemicals that are solely used or combined with nonchemical pest management strategies in crop production systems. The benefits of judicial pesticide use include increased crop and livestock yields and improved food security. However, health and environmental problems arising from pesticide use in developing countries is much in focus. The consumption of pesticide in India estimated as 0.6 kg/ha though one of the lowest in the world, issues related to pesticide usage is becoming more and more because of the faulty perception, magnified media reports, indiscriminate use and lack of awareness among the consumers. It is important that scientists, policy makers, and companies gain a realistic understanding of boon and bane of pesticides and reorient pesticide research.

Hence, the training is proposed with the objective of sharing knowledge on managing agrochemicals for clean environment, detection and determination of pesticide residues, safe use and occupational hazards and management strategies for minimizing contamination so as to protect the environment.

The entomology section of Tamil Nadu Agricultural University, Coimbatore was started in the year 1912to study insect problems of the State and devise suitable methods of control. The earlier years of pesticide research focused on the efficacy of insecticides against pests and persistence. The Pesticide Testing Laboratory established in the year 1966 undertook studies on pesticide formulation and developed analytical methods for estimation of active ingredients.

Later, the laboratory was expanded as Pesticide Toxicology Laboratory in 1973 with intensified work on various aspects of pesticide toxicology like persistence in soil, adsorption, leaching, microbial degradation, metabolism of pesticides, occupational exposure hazards, monitoring of pesticide residues in plant and environmental matrices, effect on non target organisms, resurgence, insecticide resistance monitoring and its mechanism.

The laboratory is equipped with modern analytical equipments like GC-MS and LC-MS/MS. The laboratory got accredited by NABL during the year 2011.

### THE COURSE

The objective of the training is capacity building of the scientists on safe and effective use of pesticides and create skilled persons in pesticide research; to provide theoretical background and thorough practical knowledge on impact of pesticides on environment, estimation of pesticide residues and ways and means to minimize their adverse effects.

# COURSE OUTLINE

- Contemporary issues on pesticide usage
- · Pesticides, classification and importance
- · Bioassay techniques for evaluation of insecticide toxicity
- · Environmental fate of pesticides mobility, transport and degradation
- Pesticide residue status in India
- BIS standards on pesticides
- · Pesticide risk assessment
- · Impact of pesticides on non target organisms and biodiversity
- · Good Agricultural Practices with respect to use of pesticide
- Genetics, mechanisms and management strategies of insecticide resistance
- Biotechnological tools for insecticide resistance assessment
- · Non pesticidal environmental contaminants
- Environmental alteration and metabolism of insecticides
- Dietary exposure assessment of pesticides
- · Safe handling and disposal of pesticides
- · Occupational exposure and protective clothing
- Newer techniques in pesticide residue estimation
- Application of Gas Chromatography and Mass Spectrometry (GC and GC-MS)
- Instrumentation and use of HPLC for pesticide residue analysis
- · Application of LC-MS/MS for pesticide residue analysis
- · Methods of multiresidue analysis in food crops
- Pesticide formulation technology
- Pesticide dissipation kinetics and risk assessment in food crops
- Pesticide decay curve
- Method validation in pesticide residue analysis
- · Good laboratory practices and food standards

## **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.

**VENUE** 

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