

Application Form For Advanced Training Course on
**'RECENT TRENDS IN PESTS STATUS, PESTICIDE USAGE AND
 PEST MANAGEMENT STRATEGIES IN AGRICULTURE'**
 FROM 5th To 25th OCTOBER, 2018

1. Full Name (in block letters) :
2. Designation :
3. Name of the Department :
4. Name of the Instt./Univ. :
5. Date of joining :
6. Date of birth :
7. Address for correspondence :
8. Telephone/Mobile No./ Fax :
9. E-mail :
10. Educational Qualifications :

Exam.	Year	University	Any distinction
B.Sc.			
M.Sc.			
Ph.D.			

Signature of applicant

The application of Dr..... is hereby recommended for attending the advanced Training Course on 'Recent Trends in Pests Status, Pesticide Usage and Pest Management Strategies in Agriculture' from 5th to 25th October, 2018.

It is certified that the information furnished by the candidate has been verified and found correct.

Signature

Designation

Address of sponsoring authority with stamp

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Note: If more copies of application are required, the proforma may be reproduced / photocopied / downloaded from our website hau.ernet.in



ADVANCED TRAINING
 COURSE ON



**'RECENT TRENDS IN PESTS STATUS, PESTICIDE USAGE
 AND
 PEST MANAGEMENT STRATEGIES IN AGRICULTURE'**

5th To 25th OCTOBER, 2018



Sponsored By

**INDIAN COUNCIL OF AGRICULTURAL RESEARCH
 NEW DELHI**

Organized By

**Centre of Advanced Faculty Training
 Department of Entomology
 CCS Haryana Agricultural University, Hisar (INDIA)**

The Indian Council of Agricultural Research (ICAR), New Delhi has identified the Department of Entomology, CCS Haryana Agricultural University, Hisar as a Centre of Advanced Faculty Training (CAFT). The CAFT is entrusted with the organization of specialized and advanced training courses for the State Agricultural University teachers/ICAR scientists to update their knowledge and skills. The main objective of training courses being conducted under CAFT is Human Resource Development in the discipline of Entomology within the country. This centre is organizing an advanced training course of 21 days on 'Recent trends in pests status, pesticide usage and pest management strategies in agriculture' from 5th to 25th October, 2018. Hopefully, the course would be very useful, interactive and the participants would be greatly benefited.

Participation & eligibility : Sponsored faculty members of the rank of Asst. /Assoc. Professor from SAU/CAU/ICAR Institutes are eligible to participate in the training course. The status of selected candidates will be made available on the CBP Vortal itself. They will also be informed through e-mail.

Location : Hisar is located 165 km from Delhi. It is connected to Delhi by train as well as bus. The buses ply between New Delhi and Hisar starting from Inter State Bus Terminus (ISBT), Kashmiri Gate. Presently, there are three trains from Delhi viz. Sarsa Express (leaving New Delhi Railway Station at 6.20 PM), Gorakhdham express (leaving New Delhi Railway Station at 6.05 AM) and Kisan Express (leaving Old Delhi Railway Station at 2.50 PM). You are advised to update yourself about the trains & their timings.

Season : Weather in Hisar during October normally remains comfortable with temperature ranging from 20° - 35°C.

How to apply ?

The participants' application will be received online using CBP Vortal through <http://iasri.res.in/cbp> or under the link Capacity Building Program at <http://icar.org.in>. After filling the online application, take a printout of the application and get it approved by the competent authority of your organization. Upload the scanned copy of application through CBP vortal.

Send the approved hard copy of the application form to the Course Director. For help, you may contact at alka.arora@icar.gov.in or sudeep.marwaha@icar.gov.in

The approved application should reach the Course Director latest by 31st August, 2018 by post, FAX or E-mail. Boarding and lodging would be provided free by the University as per ICAR norms. To and fro rail fare as per entitlement subject to maximum of AC-III Tier or Bus fare by the shortest route to the selected candidates on production of actual tickets will be reimbursed.

Number of participants : The maximum number of participants shall not exceed 25.

Please make all correspondence and general enquiries to:

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Prof. & Head-cum-Director CAFT

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The dynamics of crop diseases and pest influx are changing rapidly due to changing climate. The rising levels of CO₂ and temperature are having direct effect on pests and diseases in crops. Elevated CO₂ can increase levels of simple sugars in leaves and lower their nitrogen content. These can increase the damage caused by many insects, who will consume more leaves to meet their metabolic requirements of nitrogen. In that case, any attack will be more severe. Higher temperatures from global warming, mainly due to elevated CO₂, will mean that more numbers of pests will survive the winter season. Elevated CO₂ will help in easier over-wintering of pathogens while higher temperatures will favour thermophilic fungi. Higher temperatures will lead to a poleward spread of many pests and diseases in both hemispheres. This will lead to more attacks over longer periods in the temperate climatic zone.

Other possible effects of climate change need to be taken into account. On one hand, warmer temperature lowers the effectiveness of some pesticides but on the other hand, it favours insect carriers of many disease pathogens and natural enemies of pests and diseases. Thus, depending on the pest or pathogen, elevated CO₂ may act in a synergic or opposing manner with higher temperatures. Results of such interactions are difficult to be anticipated.

Elevated CO₂ levels and higher temperatures will keep changing the composition and duration of infective stages of pests and diseases. Secondary pests may become primary pests. The current agronomical models for anticipation and control of crop pests and diseases will thus be ineffective. Therefore, in changing agro-climatic scenario, management of the pests in current times as well as in future may be a huge challenge.

Instead of preventive, the dominant approach to manage pests in agricultural system over the last 60 years has been responsive and thus offering short-term solutions rather than measures that provide long-term sustainability. Keeping in view the current and projected issues affecting crop protection, it is clear that the crop protection strategies need to be developed and implemented based on the principles of integrated pest management to provide durable and economical management of insect pests, diseases and weeds which are causing the huge losses in major agricultural and horticultural crops. The new strategies must include all the latest and conventional measures available in compatible manner to ensure the highest quality of pest control in eco-friendly manner. Innovative strategies of plant protection for insect-pests management in changing agricultural scenario must support natural stability of the agro-ecosystem and suppress the pest outbreaks at the very beginning when the pest population density is still low. Thus, novel strategies of pest management needs to be sufficiently robust, far-sighted, effective to cope up with the climate change and easily adoptable by the farmers. Therefore, it is expected from this training course that there will be useful deliberations on different issues related to plant protection to develop better understanding among the participants to formulate effective pest management strategies.

Course outline:

- The detailed course content is available on the CBP Vortal. However, important topics include:
- Innovative pest management tactics for sustainable agriculture and their impact on food security.
- Challenges and future outlook of GM crops for better crop protection.
- Role of parasitoids for the management of Lepidopterous pests.
- Role of host plant resistance in insect pest management.
- Effect of transgenic crops on natural enemies of insect pests.
- Application of insect pests management strategies to real time situations.
- Effect of pest management practices on the population of insect pollinators.
- Innovative pest management tactics for insect pests of field crops, fruits, vegetables etc.
- Recent novel technologies in integrated plant disease management.
- Agrochemicals in insect-pest management for quality food production.
- Innovative strategies for management of weeds, diseases and plant parasitic nematodes.
- Recent innovations in the pesticides classes used in IPM.
- Usefulness of microbial pesticides under changing agricultural scenario.
- Mathematical modelling for IPM.
- Biocontrol approaches in insect-pests management in agricultural/horticultural crops.