भाकृअनुप
ICAR

ICAR-NBAIR sponsored HRD Training Programme
on

Mass Production Protocols of Biocontrol Agents for the Management of Crop Insect Pests

January 18-22, 2027



Course Directors

Dr. G. Sivakumar
Principal Scientist

Dr. Richa Varshney
Senior Scientist

Course Co-ordinators

Dr. P. Sreerama Kumar, Principal Scientist
Dr. A. Kandan, Principal Scientist
Dr. Jagadeesh Patil, Principal Scientist
Dr. K. Selvaraj, Senior Scientist
Dr. U. Amala, Senior Scientist
Dr. Manjunatha, C., Senior Scientist
Dr. Manjunatha, B.S., Senior Scientist
Dr. Prabhulinga, T., Senior Scientist

Organized by

ICAR-NATIONAL BUREAU OF AGRICULTURAL INSECT RESOURCES
P.B. No 2491, H.A. Farm Post, Hebbal, Bengaluru - 560 024

Background

In India, around 15-30% of the crop yield potential is lost as a result of damage caused by insect pests, nematodes, plant diseases and weeds corresponding to 30 million tons of food grain loss. In an attempt to avoid such losses, the primary strategy employed has been to manage the pests by using chemical pesticide. Despite their success, potential hazards or risks have emerged that have had a substantial impact on the environment and other non-target organisms. Indiscriminate and excessive use of the chemical pesticides have also led to destruction of natural enemies and plant disease antagonists of crop pests, pesticide residues on produce, contamination of ground water and development of pesticide resistance in pests.

To overcome the hazards associated with chemical pesticides, the use of biocontrol agents is increasingly being adopted. A great deal of knowledge has been gathered on the use of biocontrol agents including predators, parasitoids, bacteria, fungi, virus, yeast, mycorrhiza, actinomycetes, protozoan and nematodes for the management of pest and diseases. Biocontrol agents have offered some realistic alternatives to chemical pesticides when used as part of an ecologically based integrated pest management or area-wide pest management strategy. There are many reasons for the recent increased interest in biocontrol agents and biopesticides, including the development of resistance to conventional synthetic pesticides, a decline in the rate of discovery of novel insecticides, increased public perception of the dangers associated with synthetic pesticides, host-specificity of microbial pesticides, and improvement in the production and formulation technology of microbial biopesticides. The rapid biological control success is due to its specificity and safety as compared to chemical insecticides. Great successes have been made by the farmers in India by adopting the microbial biological control-based technologies.

A great deal of developments had happened in the characterization and production of biocontrol agents at ICAR-NBAIR as well as in the country. ICAR-NBAIR, erstwhile, Project Directorate of Biological Control (PDBC) hand-in-hand with AICRP Biological control of Insects, Diseases, Weeds and Nematodes have immensely contributed to the science of biological control of insect pests, diseases, weeds and nematodes, and is considered as the centre of excellence for macrobial and microbial biocontrol in the country. Hence, a training program on "***Mass Production Protocols of Biocontrol Agents for the Management of Crop Insect Pests***" of 5 days will sensitize and update the knowledge of technical officers engaged in biological control about the advanced techniques on mass culturing of biocontrol agents for the management of insect pests.

Objectives

- ✓ To provide advanced hands-on training on mass culturing techniques of macrobial and microbial biocontrol agents
- ✓ To provide an opportunity to discuss and exchange ideas with experts / resource persons in the field of biological control.

Course Outline

- Mass culturing of host insects for the production of insect natural enemies and microbial biocontrol agents
- Mass culturing of Predators and parasitoids
- Mass culturing techniques of entomopathogenic fungi, insect viruses, entomopathogenic bacteria and entomopathogenic nematodes for the management of insect pests of crops

Faculties/Resource Persons

ICAR-NBAIR has great strength of renowned Scientists working on biological control of insect pests of crops will deliver specific lectures and practical.

Venue, Date and Duration

The 5 days training programme will be conducted at ICAR-NBAIR, Bengaluru from **18-22 January, 2027.**

Target Group

Participation in this training program is open for the Research Scholars and Technical Personnel (Entomology, Plant Pathology, Ag. Microbiology, Nematology, Plant Protection) with keen interest in mass multiplication of insect predators, parasitoids and microbials are encouraged to participate in the training. The number of participants for the programme will be limited to 15. The selection of the candidates will be made by screening committee as per the guidelines of ICAR in force.

Nomination

Nomination for participation in the training program may be made in prescribed proforma given herewith. Directors of ICAR Institutes, Vice Chancellors of Agricultural Universities, Heads/ Directors of University Departments and Principals of affiliated colleges can nominate one or two suitable candidates from respective Institute/ University. ***Candidates may send the hard copy of the application through post via the proper channel. No soft copy will be accepted.*** Candidates should bring permission and relieving letter from the respective Institute.

Important Dates

Last date for receiving the nomination form	: 4th December, 2026
Intimation of selection	: 11th December, 2026
Confirmation by participants	: 16th December, 2026
Intimation to waitlisted participants if selected	: 21st December, 2026

Registration Fee

A registration fee of Rs. 50/- (Rupees fifty only) per participant is fixed as per ICAR guidelines, which may be paid through Online transfer

SCAN & PAY	
	Name of the Beneficiary: NATIONAL BUREAU OF AGRICULTURAL INSECT RESOURCES Account Number: 10476392081 Name of the Bank: State Bank of India Branch: Hebbal Type of Account: Current Account IFSC Code No: SBIN0001316 Branch Code No: 01316 UPI ID: 9343142610A@SBI

Travel, Boarding & Lodging

TA/DA and Accommodation for participation in the training programme will be borne by the respective participants' institutes. Accommodation in the Guest House of the Organizing Institute, ICAR–NBAIR, may be provided to trainees on a payment basis, subject to availability. Working lunch and session tea/refreshments will be provided by ICAR–NBAIR. Local participants will not be eligible for boarding and lodging facilities; however, working lunch and refreshments will be provided.

Institute Information

National Bureau of Agricultural Insect Resources is a nodal ICAR Institute at National level for research and development on all aspects of work on harnessing resources of insects including biological control of crop pests, training, information, repository, technology dissemination and National / International cooperation. NBAIR is located in the Bengaluru to Bellary Highway NH 7, opposite to CBI (Central Bureau of Investigation), next to Veterinary College, Hebbal Bengaluru. The Institute is located 5 km from Cantonment railway station, 4 km from Yaswantpur railway station and 8 km from Bengaluru city junction and 35 km from KIA airport. Buses which are plying to Yelahanka, Devanahalli, Doddaballapur, international airport will pass through NBAIR. Participants are requested to get down at CBI bus stop to reach NBAIR.

Course Directors

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Dr. Prabhulinga, T., Senior Scientist

All applications should be sent to:

Dr. G. Sivakumar
Principal Scientist & Course Director
ICAR-National Bureau of Agricultural Insect Resources (NBAIR)
P. B. No. 2491, H A Farm Post, Hebbal, Bengaluru - 560 024
Mobile No. 8618056588
Email: sivakumarg.nbaii@gmail.com
CC to: richavarshney84@gmail.com

For Further Details

THE DIRECTOR
ICAR-National Bureau of Agricultural Insect Resources (NBAIR)
P. B. No. 2491, H A Farm Post, Hebbal, Bengaluru - 560 024.
E-mail: nbairdirector@gmail.com
www.nbair.res.in

Application Form for Participation in training programme

(To be sent directly to Course Director of training programme concerned)

ICAR-NBAIR HRD sponsored 5 days training programme on

"Mass Production Protocols of Biocontrol Agents for the Management of Crop Insect Pests"

from 18-22 January, 2027

1. Name in full (Block Letters) : .....
2. Designation: .....
3. Present Employer and Address: .....
.....
4. Address for Correspondence: .....
.....
5. Tel No: .....(O).....(Mob.) .....
6. Email: .....
7. Date of Birth and age: .....
8. Sex: .....
9. Marital Status: Married/ Unmarried
10. Teaching/Research/Professional Experience .....
(Mention post held during last 5 years) .....
11. Academic record:

Examination	**Subject**	**Year of Passing**	**Institution/ University**	**OGPA / %**
Bachelor's Degree				
Master's Degree				
Ph.D				
Other certificates/ Diplomas etc.				

12. Transaction ID /UTR No..... Date..... for Rs.50/- (Rupees fifty only) (non-refundable) for registration of application

Signature of the applicant

Recommendations of the forwarding Institute

Dr./Shri. /Ms. ..... is hereby nominated for participation in the 5 days training programme on "**Mass Production Protocols of Biocontrol Agents for the Management of Crop Insect Pests**" at ICAR-NBAIR, Bengaluru during 18 – 22 January, 2027.

Signature, Designation & Address

Certificate

It is certified that the information was furnished by the office record and was found correct.

Signature,

Designation, Address and Office Seal of the Sponsoring Authority