PDBC

Project Directorate of Biological Control

Bangalore

Course

1. Biological control of crop pests and weeds

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Project Directorate of Biological Control was established in 1993 to undertake basic and applied research on biological control of crop pests and weeds. The All India Co-ordinated research Project for Biological Control of Crop Pests and Weeds with 10 State Agricultural University (SAU's) based and 6 Indian Council of Agricultural Research (ICAR) based research centers across the country is part of the Institute research activity.

Training has been one of the major activities of the Directorate. PDBC has been providing trainig at various levels to top level officials from all over India and abroad on all aspects of biological control of agricultural, horticultural and plantation crop pests and weeds. The Directorate is also providing the technological backstop for establishment of biological control agents production centers to government and private entrepreneurs. The Directorate has state-of-art facilities for training such as air-conditioned conference hall, audio-visual aids, well equipped laboratories and hostel facilities of international standard besides one research farm and a number of field demonstration projects.

1.
Biological Control of Crop Pests and Weeds

The Directorate has been a pioneer in research, development and training in the area of biological control of crop pests and weeds. Biological control of crop pests gains prime importance on the back drop of poisoning of crop produce, the water bodies and the village surroundings due to excessive abuse of pesticides for the control of crop pests.

Now, it is also linked with employment generation, social equality, poverty alleviation and environmental quality. Thus it encompasses the entire gamut of rural development. Synchronization of various interests and conflict resolution are important in biological control programme. The course is designed in such a way that the participants will be exposed to the whole spectrum of biological control activities so as to be in a position to discharge the responsibilities more efficiently by them.

Training Programme

The objectives are:

- To expose the participants to the range and themes of biological control of crop pests
- To give an overview of the possible technological options for better resource conservation, productivity improvement, environmental up gradation and socio economic benefits.
- To brainstorm and arrive at suitable biological control programme models for the back home situations of participants.

Faculty

PDBC has experienced scientists and trainers in all the disciplines of biological control programmes viz. biological control of crop pests and diseases, mass production of biocontrol agents such as egg parasitoids, larval parasitoids, predators, antagonistic fungal pathogens, entomopathogenic nematodes, control of plant parasitic nematodes, entomopathogenic bacteria and insect viruses. Besides, faculty are also drawn up from other National and International organizations and also NGOs to share their experiences with the participants.

Course Director	:	Dr B S Bhumannavar
Duration	:	2 weeks
Course fee	:	US $ 1,250 per trainee
No. of trainees per course	:	20
Accommodation	:	Will be provided at a very reasonable cost in the Institute's guest house
Eligibility	:	Subject matter specialists / scientists/Extension functionaries/University teachers from Gos and NGOs

Course Contents

- Status of biological control of crop pests and weeds
- Orientation programme on information technology using library facility
- Biochemical techniques and their application in biological control
- Artificial diets and insect nutrition
- Use of computer in biological control
- Conservation of natural enemies and tritrophic interactions and host habitat manipulations
- Biological control of insect pests in potato, fruit crops, vegetables, coconut, rice, sugarcane, pulses, cotton, oilseeds.
- Biological control of insect pests using fungal pathogens
- Biological control of crop diseases using fungal and bacterial antagonists
- Biological control of mites using fungal pathogens
- Mass multiplication of *Corcyra*, trichogrammatids and chrysopids
- Mass multiplication of host insects such as Chilo spp. *Opisina* sp., *Plutella* sp., PTM, Mealy bugs, scale insects and aphids
- Mass multiplication of bethylids, chalcidids, elasmids, eulophids and encyrtids
- Mass mulplitication of *Helicoverpa* sp., *Spodoptera* sp. and their promising parasitoids and predators
- Mass mulplitication of coccinellids and syrphids
- Mass production of fungal and bacterial antagonists
- Mass production of entomofungal pathogens and mite pathogens
- Biological control of insect pests using entomopathogenic nematodes and mass production of EPN
- Biological suppression of plant parasitic nematodes
- Biological control of crop insect pests using insect viruses
- Biological control of weeds
- Visits to biocontrol production units