

exploited for pest management and will be able to produce commercial formulations of Microbial Biopesticides and develop analytical skills in quality control of Biopesticides. The students will find suitable opportunities in both Public and Private sectors involved in production of Biocontrol Agents and Biopesticides in addition to acquiring adequate skills for self employment.

Acquisition of Certificates

Depending upon the specialization chosen, the students will also acquire Certificates in specialised courses along with their PGDPHM for example :

1. Plant Biosecurity- Certificate in Fumigation and Forced Hot Air Treatment.
2. Pesticide Management - Certificate in Pesticide Formulation Analysis, Pesticide Residue Analysis and Instrumentation Analysis.
3. Vertebrate and Structural Pest Management - Certificate in Urban IPM.

Programme Duration: One year

July 2012-June 2013 (Semester system - 30 credits)

Evaluation: Classroom participation, assignments, theory and practical exams.

Eligibility

B.Sc.(Agri. or Hort.), M.Sc.(Entomology/ Plant Pathology/ Botany/Zoology/ Microbiology/ Biotechnology/ Biochemistry / Chemistry / Environmental Chemistry); B.Sc.in Agriculture and Rural Development; B.Tech. (Agricultural Engineering).

Reservation: As per Government policies for SC, ST, OBC, Ex-Servicemen and persons with disability.

Selection: Candidates will be selected on the basis of the marks/grades obtained in graduation.

Last date for submission of application forms

20.06.2012; visit website <http://niphm.gov.in>

Course fee: Indian participants Rs.1,25,000/-,
International participants US\$ 5,000

Lodging and boarding charges:

- Indian participants Rs.75,000/-,
- International participants US\$ 7,500

Payment schedule: 50 per cent of the course fee and other charges at the time of enrollment and balance before first fortnight of the second semester.

Scholarship/part fee waiver: 50% course fee waiver and free accommodation available for meritorious students and students belonging to reserved categories. Limited scholarship also available over and above the 50% fee waiver.

Earn while you learn: Opportunities exist for needy students.

Study loans from Banks: NIPHM will try to facilitate, but does not guarantee. Repayment of loan is solely the responsibility and liability of the student.

Placement: NIPHM will endeavour to make placements on successful completion of the PGDPHM, but does not guarantee placement.

Facilities: The Institute has well equipped laboratories for conducting practical classes and adaptive research. All laboratories are provided with modern equipment such as phase contrast microscopes, inoculation chambers, refrigerator, centrifuge, rotary shaker, autoclaves, B.O.D. incubators, Potter tower etc. The Pesticide Management Laboratory has sophisticated analytical equipment such as GLC, HPLC, UV visible, FTIR Spectrophotometer. The division is being strengthened with GC/MS/MS and LC/MS/MS.

Accommodation: Available within the campus.

Library: Rich collection of journals and books of National and International repute are available.

ICT: Internet facility is available in the library, classrooms and hostel.

Contact Address: Registrar,
National Institute of Plant Health Management
Rajendranagar, Hyderabad - 500030
Telephone: + 91-40-24013346;
Tele-Fax: + 91-40-24015346
E-mail: registrarniphm@nic.in, niphm@.nic.in
Website: <http://niphm.gov.in>



NATIONAL INSTITUTE OF PLANT HEALTH MANAGEMENT



(Department of Agriculture & Cooperation)

Post Graduate Diploma in Plant Health Management 12 Months Programme 2012-13

Capacity Building



Nature's Solution



Pest Problem



Introduction

Growth in agricultural production, which is dependent on several factors such as weather conditions, soil fertility, irrigation etc, is impacted to varying degree by pests and nutritional imbalances. In spite of increasing pesticide consumption, it is estimated that in India, crop loss due to pests will be in the range of 10 to 30%. The looming threat of climate change may further exacerbate the crop loss due to pests. Intensive use of ecosystems to enhance productivity can erode ecosystems through soil erosion, water depletion/contamination and biodiversity loss and disruption in flow of ecosystem services, which in-turn will have a bearing on plant health and productivity. Moreover, due to globalization, biosecurity has emerged as one of the urgent issues to be addressed.

The Post Graduate Diploma in Plant Health Management (PGDPHM) has been designed to expose the participants to Plant Health Management, the science and practice of understanding and overcoming the biotic and abiotic factors that limit plants from achieving their full genetic potential as crops. The course also prepares the participants to address the emerging challenges in Biosecurity.

About NIPHM

CPPTI was established in 1966, and later renamed as National Plant Protection Training Institute (NPPTI), for Human Resource Development in Plant Protection Technology. From mid 1980s the emphasis shifted to crop-oriented integrated pest management. The institute was identified as a Regional Training Centre for Plant Protection by the FAO of the United Nations. The institute was also recognized as a Centre of Excellence for Training in Plant Protection Technology under the World Bank aided NAEP - III. The Institute was converted in 2008 into an autonomous body viz. National Institute of Plant Health Management to meet the emerging training needs in environmentally sustainable Plant Health Management with focus on Biosecurity and Incursion Management, and to function as a policy support centre.

Aim of the Course

Develop a highly committed and competent cadre of agricultural professionals to promote environmentally sustainable Plant Health and Biosecurity Management in India and her neighbourhood.

Objectives/Outcome

On completion of the course, participants will develop

- skills to organize Farmer Field Schools (FFS) effectively to empower the farmers to take informed decisions by adopting discovery based learning.
- competence in Agro-ecosystem based analysis which relies on experiential learning so as to promote environmentally sustainable Plant Health Management.
- skills in Ecological Engineering and Rhizosphere Engineering for pest management.
- knowledge to promote safe and judicious use of pesticides through adoption of appropriate application techniques, besides expertise in pesticide formulation / residue analysis.
- expertise in situation analysis of vertebrate pest problem, with focus on rodents, in agricultural fields & commodity storage and adoption of ethological based management.
- understanding of the issues involved in bio-security and incursion management in the context of globalization, with exposure to Sanitary and Phytosanitary issues.
- skills in pest surveillance and disease diagnostics.

Course Design & Framework

The programme will consist of four major components

- 1. Participatory learning in classroom and laboratory.**
- 2. Field visits for enhancing observational skills.**
- 3. Agro-ecosystem based analysis through Farmers Field Schools (FFS)**
- 4. Specialization in one of the following select areas:**
 - (a) Plant Bio security, (b) Pesticide Management, (c) Vertebrate and Structural Pest Management, (d) Plant Health Engineering, (e) Production Protocol of Bioagents and Quality Assessment & Quality Management of Microbial Biopesticides**

(A) Plant Biosecurity: Students specializing in Plant Biosecurity will acquire knowledge in Plant Quarantine procedures, Regulations, International and National standards for Phytosanitary measures (ISPM & NSPM) and competency in Pest risk analysis, Pest Surveillance, Phyto Sanitary Treatments, Pest diagnostics and Pest Incursion Management. The students will become suitable for positions in Plant Quarantine and Bio Security divisions of Central and

State Governments besides finding opportunities in Import and Export Houses engaged in the trade of agricultural commodities.

(B) Pesticide Management: Students specializing in Pesticide Management will be exposed to the complete life cycle management of pesticides encompassing issues involved in pesticide manufacture, import, export, transport, storage, use, application, post use surveillance and disposal. The regulatory provisions of licensing, inspection, sampling, analysis and further proceedings are dealt in this course. The students will acquire knowledge in the principles of operation of sophisticated equipments and will undergo mandatory training required for analysis in Pesticide Formulation and specialized training in Pesticide Residue analysis by using GLC, HPLC, LC-MS-MS, GC-MS-MS etc. Students will find suitable opportunities in Pesticide Industry, Analytical Laboratories and in Government Organisations.

(C) Vertebrate and Structural Pest Management: Students specializing in Vertebrate & Structural Pest Management will develop competency in pest diagnostics, pest surveillance and acquire skills for integrated management of vertebrate pests with specific focus on Rodents and Structural Pests viz. termites, store grain pests, mosquitoes etc. The students will also undertake a certificate course in Urban Integrated Pest Management as part of the Course. Students will find suitable opportunities in PCO industry, Warehousing and Storage organizations besides acquiring adequate skills for self employment.

(D) Plant Health Engineering: Students specializing in Plant Health Engineering will acquire requisite skills and knowledge in the area of pesticide application technology, selection, calibration and maintenance of related equipments and nozzles that will enable them to promote safe, judicious and efficient use of pesticides through adoption of appropriate engineering systems. Students will find opportunities in PCO industry, Seed Industry, Pesticide industry and Warehousing industry.

(E) Production Protocol of Bioagents and Quality Assessment & Quality Management of Microbial Biopesticides: The students specializing in this area will develop skills and competency in production of various Biocontrol Agents such as Fungi, Bacteria, Virus, Insects and Mites that can be commercially