

Details of course content in respect of PGDPHM One Year Course offered by NIPHM, Hyderabad

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,

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 neighborhood.

Objectives/Outcome

On completion of the course, participants will develop

- 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.
- Skills to organize Farmer Field Schools effectively to empower the farmers to take informed decisions by adopting discovery based learning
- Expertise in situation analysis of vertebrate pest problem, with special 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.
- Mass multiplication of biocontrol agents including microbial biopesticides
- Skill in Quality Assessment and Quality Management of microbial biopesticides.

Course Design & Framework

The programme consists 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) **Biocontrol Input Production Management:** Participants 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 exploited for pest management and will be able to produce commercial formulations of Microbial Biopesticides and develop analytical skills in quality control of Biopesticides.
 - b) **Biosecurity Incursion Management:** Participants 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.

- c) **Pesticide Management:** Participants specializing in Pesticide Management will be exposed to the complete life cycle management of pesticide 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 proceeding are also dealt in this course. The participants will acquire knowledge in 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, and GC-MS-MS etc.
- d) **Vertebrate and Structural Pest Management :** Participants 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 participants will also undertake a certificate course in Urban Integrated Pest Management as part of the Course.
- e) **Plant Health Engineering:** Participants 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.

Programme Duration: One year: August, 2017- July2018 (2 Semesters – 30 credits each)

I semester- August 2017 to January 2018; II semester - February 2018 to July 2018 (observing 10 days semester break)

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

Last date for submission of application forms: 16.08.2017.

Course fee, Lodging & boarding charges: for Government nominated officials - nil.

Fee for others*: The unemployed candidates have to pay **Rs. 62,500/-** as course fee in four instalments and boarding charges as per the prevailing rates of catering service. They shall also be provided **free accommodation in NIPHM hostel**. For the employees of private organization, the course is offered on full payment basis i.e Rs.2, 00,000/-.

* 1.Unemployed students will be paid stipend up to Rs.20000/- (@ Rs.2000 per month for 10 months).

2. Students will be provided opportunity for working under “Earn While you Learn (EWL)” programme (@ Rs.60/- per hour).

3. Scholarship is provided to a maximum of 10 students @ Rs.10, 000/- per student. Five scholarships for the students securing 80% in their graduation, two scholarships for children of poor farmers based on economic criteria, three scholarships for weaker sections SC-2 & ST-1. The facility shall be provided subject to availability of funds and fulfilling other conditions.

Accommodation: Available within the NIPHM campus.

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