Established by UP Govt. Act No. 07 of 2015 Recognized by U.G.C. under section 2 (f) of Act-1956



VALUE ADDED COURSE

"Integrated Pest Management
(IPM) in Agriculture: Sustainable Approaches
for Insect Pest Control"

Faculty of Agricultural Sciences



Faculty of Agricultural Sciences

Value Added Course

AGVAC-015

"Integrated Pest Management

(IPM) in Agriculture: Sustainable Approaches for Insect Pest Control"

Learning Objectives:

This value-added course will provide students with an understanding of integrated pest management (IPM) and the sustainable approaches used for controlling insect pests in agriculture. Students will learn about the principles and practices of IPM, the use of biological control methods, and the techniques for monitoring and managing insect pest populations.

Course Outcomes:

Upon completion of this course, students will be able to:

- 1. Understand the principles and practices of integrated pest management
- 2. Identify and classify insect pests in agricultural systems
- 3. Develop and implement IPM strategies for managing insect pests
- 4. Use biological control methods to manage insect pest populations
- 5. Understand the techniques for monitoring and evaluating IPM programs

Duration: 8-10 weeks (depending on the pace of the student)

Intake: 60 students



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Course Modules (Syllabus):

Module-1

Introduction to Integrated Pest Management

- · Overview of IPM and its importance in sustainable agriculture
- The principles and practices of IPM
- The advantages and limitations of IPM

Module-2

Identification and Classification of Insect Pests in Agriculture

- Identifying and classifying insect pests in agricultural systems
- The biology and behavior of insect pests
- The impact of insect pests on crop production

Module-3

IPM Strategies for Managing Insect Pests

- · Developing and implementing IPM strategies for managing insect pests
- The use of cultural, physical, and chemical control methods
- The integration of multiple control methods

Module-4

Biological Control Methods for Insect Pest Management

- Understanding the principles of biological control
- The use of natural enemies for managing insect pest populations
- The benefits and limitations of biological control

Module-5

Monitoring and Evaluation of IPM Programs

- · Techniques for monitoring and evaluating IPM programs
- The use of decision-making tools and models
- The importance of program evaluation and improvement



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Assessment:

- Weekly quizzes and assignments
- Final project on designing and implementing integrated pest management plan.

Reference books:

- 1. Integrated Pest Management in Indian Agriculture by R. S. Singh and R. C.
- 2. Principles of Integrated Pest Management for Insect Pests by S. S. Mundra and S. B.Kute
- 3. Biological Control of Insect Pests in India by B. K. Tyagi and P. Kumar
- 4. IPM for Sustainable Agriculture in India by R. K. Upadhyay and K. G. Mukerji

Pest Management in Horticultural Ecosystems by P. Parvatha Reddy and V. RameshBabu

Love Cordinder Dean
Lay'a Kyma Dr. Huller
Singh
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