

PLANT HEALTH ENGINEERING DIVISION

Objectives & Goals of Training Programmes

1. SAFE AND JUDICIOUS USE OF PESTICIDES

➔ Aim -

- ✓ Provide insights to appropriate pesticide application techniques to promote safe and judicious use of pesticides.
- ✓ Enhance knowledge & skills for selection of appropriate nozzle, proper equipment, its maintenance, and calibration.

➔ Course Outline-

- ✓ Safe & Judicious use of pesticides,
- ✓ High, low and ultra-low volume techniques,
- ✓ Selection of nozzle based on droplet size,
- ✓ Calibration of sprayers and dosage requirement calculations,
- ✓ Label claim of pesticides,
- ✓ Precautions to be taken while spraying and storing the pesticides,
- ✓ Care & maintenance of application equipment
- ✓ AESA based plant health management in conjunction with Ecological Engineering for Pest Management.
- ✓ Biointensive Plant Health Management techniques.
- ✓ Mass production of bioagents production
- ✓ Field visit to discuss with farmers on aspects of biointensive approach to pest management and adoption of AESA & Ecological Engg for Pest Management with a view to minimize pesticide use (judicious use).

➔ Duration: 8 days

➔ Methodology -

- a) Theory (35%)
- b) Class room Exercises (20%)
- c) Practicals (35%)
- d) Field /Institutional Visit (10%)

➔ **Skills that will be acquired -**

- ✓ Selection of the right equipment based on application techniques (high, low and ultra-low volume techniques)
- ✓ selection of nozzles based on droplet size/ pest situation,
- ✓ calibration of sprayers
- ✓ care and maintenance of the sprayers.
- ✓ mass production of bioagents at farm level.

➔ **Utility of the training programme:**

At the end of the training programme the participants -

- ✓ Will be able to guide farmers on -
 - a) adoption of appropriate pesticide application techniques to promote safe and judicious use of pesticides.
 - b) selection of pesticides with label claim.
 - c) pre harvest intervals and to reduce the residues.
 - d) on nozzles selection, type of equipment, and on calibration techniques.
 - e) Adoption of Biointensive Plant Health Management techniques at farm level.

2. APPROPRIATE PESTICIDE APPLICATION TECHNIQUES AND FARM LEVEL STORAGE PRACTICES

➔ Aim:

- ✓ Providing knowledge & skills on proper selection of appropriate equipment, nozzles, droplet size and calibration of the appliances for efficacious pesticides application
- ✓ Providing knowledge on appropriate storage practices at farm level (where a large quantum of harvested grains are handled and stored for considerable period of time, and where facilities are grossly inadequate) and aimed at loss reduction during storage.

➔ Course Outline:

- ✓ High volume, low volume and ultra-low volume spraying techniques,
- ✓ Equipment and nozzle selection based on droplet size,
- ✓ Calibration of the equipment,
- ✓ Pesticide formulations, Safe & judicious use of pesticides,
- ✓ AESA based plant health management in conjunction with Ecological Engineering for Pest Management.
- ✓ Biointensive Plant Health Management techniques & Mass production of bioagents at farm level
- ✓ Storage problems of food grains at commercial / farm level.
- ✓ Management of biotic & abiotic factors to reduce storage losses of food grains
- ✓ Field visit to discuss with farmers on aspects of AESA & Ecological Engg for Pest Management with a view to minimize pesticide use (judicious use).
- ✓ Institutional visit for exposure on different types of storage facilities and their improvements.

➔ Duration: 8 days

➔ Methodology:

- a) Theory- 35%
- b) Classroom Exercises- 15%
- c) Practicals- 35%
- d) Field / Institutional Visit- 15%

➔ Skills that will be acquired-

- ✓ Suggestive improvements of farm level storage structures
- ✓ Selection of PP equipment for high volume, low volume and ultra-low volume spraying techniques for safe & judicious use of pesticides,
- ✓ Nozzle selection,
- ✓ Calibration of the equipment,
- ✓ Mass production of bioagents production at farm level,
- ✓ AESA based plant health management in conjunction with Ecological Engineering for Pest Management.

➔ **Utility of the training programme:**

At the end of the training programme the participants -

- ✓ Will be able to guide the farmers on -
 - a) appropriate choice of pesticide application technology for safe & judicious use of pesticides.
 - b) selection of pesticides with label claim, pre harvest intervals and to reduce the residues.
 - c) nozzles selection, type of equipment, and on calibration techniques.
 - d) appropriate storage methods to reduce losses and adoption of scientific practices.
 - e) biointensive Plant Health Management techniques