Faculty Development Program

Title : Biopesticides Production and its significance in Environmental Sustainability

Date : 2025-04-23 - 2025-04-23
Time : 14:15 - 17:30
Venue : TT707

Event Outcome

- Skill Development Programme

Resource Person 1 - Details
Name : Dr G Sivakumar
Designation : Principal Scientist, VAIAL
University/ Company : ICAR National Bureau of Agricultural Insect Resources, Bengaluru
Address : INDIA, 560024.

Resource Person's Profile :

1. Profile of Dr G Sivakumar

I am Dr. G. Sivakumar, is currently working as a Principal Scientist (Microbiology) at ICAR-National Bureau of Agricultural Insect Resources, Bengaluru and had completed 27 years of my professional service on Plant Pathology specialized on developing biopesticides especially on microbial biopesticides of crop pests and diseases. I had developed a bacterial consortium for the management of rhizome rot and capsule rot of cardamom. I had developed a liquid formulation of

Biopesticides are pest and pathogen control agents derived from natural sources like plants, animals, bacteria, and minerals, offering a sustainable alternative to synthetic pesticides. They include microbial pesticides, botanical pesticides, and plant-incorporated protectants (PIPs).

Types of Biopesticides:
Microbial Pesticides:
These are microorganisms (bacteria, fungi, viruses, etc.) or their metabolites used to control pests. For example, Bacillus thuringiensis (Bt) is a naturally occurring bacterium that is effective against certain insect pests.
Botanical Pesticides:
These are derived from plants and include compounds like neem oil, pyrethrum, and nicotine.
Plant-Incorporated Protectants (PIPs):
These are pesticidal substances produced by plants that contain genetic material added to the plant, often through genetic engineering.
Advantages of Biopesticides:
Environmentally Friendly:
Biopesticides are often more specific in their action, meaning they are less likely to harm non-target organisms compared to broad-spectrum synthetic pesticides.
Biodegradable:
Many biopesticides break down naturally, reducing the risk of environmental contamination.
Sustainable:
Biopesticides can be produced using renewable resources, making them a more sustainable option for pest control.
Reduced Residues:
Biopesticides often leave fewer residues on crops compared to synthetic pesticides, which can be beneficial for consumers and the environment.
Lower Risk to Human Health:
Some biopesticides, like botanical pesticides, are considered to pose lower risks to human health compared to synthetic pesticides.

projector

Coordinator's: **Prof. VIDYA R 10746 - Associate Professor Sr. - VAIAL**
Prof. THUNDIL KARUPPA RAJ R 12449 - Professor Higher Academic Grade - SMEC