

# INTEGRATED PEST MANAGEMENT

## INTRODUCTION

Integrated Pest Management or IPM is a holistic pest management approach which combined available pest control methods such as biological control, habitat manipulation, modification of cultural practices, and use of resistant varieties to manage pest damage by the most economical means, and with the least possible hazard to people, property, and the environment. The ultimate goal of including IPM in plant management agriculture is to ensure the sustainable production of a healthy crop



## MONITORING OF PEST

Early detection of pests in IPM is important to monitor for pests and identify them accurately, so that appropriate control decisions can be made in conjunction with action thresholds. Information from monitoring and identification of pest should assist farmers in control method's decision making and removes the possibility that pesticides will be used when they are not really needed or that the wrong kind of pesticide will be used



## CULTURAL CONTROL

Modifications of production practices and crop environment so that crops thrive and the environment is less suitable for pests to live and reproduce. It covers all aspects of production (agronomy) and cultivation technology including good soil preparation and drainage system, fertilization at an optimal rate according to plant intake and sanitation/ cleaning of the farm



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## MECHANICAL CONTROL

This method of pest control uses tools or manual labor to prevent, kill and keep it away. It is cheaper and practical. Examples of mechanical method are the destruction of pests by hand, the installation of traps such as yellow/blue stickers and silvershine plastic

## PHYSICAL CONTROL

Physical controls kill a pest directly, block pests out, or make the environment unsuitable for it. This method of pest control uses energy or sound to prevent, kill or repel pests such as light traps



## BIOLOGICAL CONTROL

Use of Natural Enemy pests such as predators, parasites, pathogens, and competitors to control pest populations and their damage. Examples are ladybird, Trichoderma and Bacillus spp. The use of beneficial crops or repellants can also help reduce the population of pests on crops. Examples are legumes, tunera, and chrysanthemums

## CHEMICAL CONTROL

Chemical control is the use of pesticides. It is used to kill, reduce, prevent or avoid crop pests. Chemical poisons are either from natural sources or synthetic chemicals. Chemical pesticides from natural sources/biopesticides are like wood vinegar and other natural sources. Synthetic chemical pesticides are registered pesticides/diseases and their use must be in accordance with the recommendations on the label. However, pesticides are used only when the other alternatives are not satisfying





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## ADVANTAGES OF IPM

1

### LOWER COST INTERVENTION

The application of IPM in a long term would lessen the financial burden. Moreover, different techniques involved in IPM are more sustainable with long lasting benefits

2

### OPEN AND ENHANCE NEW EXPORT MARKETS

Implementation of IPM will increase the trust of importing country and value of plant products by reducing the pesticide residue level and lower any pest infestation which results in lessen the needs to use chemical measures at the postharvest stage

3

### BENEFITS TO THE ENVIRONMENT

- IPM is an eco-friendly approach and the effects on the environment is always considered before the application of any interventions
- Less use of pesticides will not affect the fertility of soil

6

### MINIMIZES RESIDUE HAZARDS OF PESTICIDES

IPM schedule the use of pesticides will be considerably reduced, hence the pesticide residue hazards will also get automatically minimized

4

### ANTI-RESISTANCE

Pesticides are used only when the other alternatives are not satisfying. Thus, creates less tcases of anti-resistance

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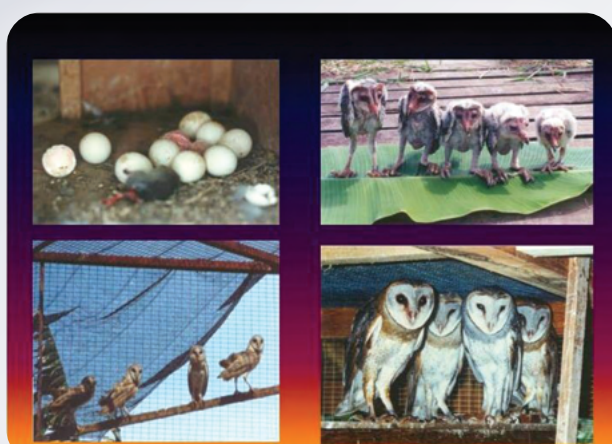
### BENEFITS TO HUMAN AND ANIMAL HEALTH

Fruits and vegetables that are lowest in pesticides making it safer to consume





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