

# **Sustainable Insect and Pest Management Practices | Integrated Pest Management System**

Biological control employs strategies such as introducing natural predators, parasites, or pathogens to regulate pest populations. It also involves fostering the presence of beneficial insects and organisms that prey on pests. Crop Rotation and Polyculture strategies include alternating the cultivation of different crops in the same field to disrupt pest life cycles and planting diverse crops together to reduce the risk of pest outbreaks, enhancing natural resistance.

## **Integrated Pest Management (IPM)**

Integrated Pest Management (IPM) combines various pest control methods such as biological control, cultural practices, and judicious use of chemical controls when necessary. It also includes monitoring and assessing pest populations to make informed and targeted management decisions.

Cultural Practices involve selecting pest-resistant crop varieties, adjusting planting dates and spacing to reduce pest vulnerability, and utilizing cover crops and mulches to enhance soil health and suppress weeds. Organic Farming techniques focus on avoiding synthetic pesticides and fertilizers, prioritizing soil health and fertility through organic amendments, and implementing eco-friendly practices to enhance biodiversity on the farm.

## **Trap Cropping**

Trap cropping employs strategies such as planting specific crops to attract pests away from main crops and strategically

placing trap crops to concentrate and control pest populations. These holistic approaches collectively contribute to sustainable and environmentally friendly pest management practices.