

# INTEGRATED PEST MANAGEMENT (IPM)

## What is IPM?

**Integrated Pest Management** is a science-based approach that combines a variety of techniques. By studying their life cycles and how pests interact with the environment, IPM professionals can manage pests with the most current methods to improve management, lower costs, and reduce risks to people and the environment.

### IPM tools include:

- Alter surroundings
- Add beneficial insects/organisms
- Grow plants that resist pests
- Disrupt development of pest
- Prevention of pest problem developing
- Disrupt insect behaviors
- Use pesticides

## 1 IDENTIFY/MONITOR

Determine the causal agent and its abundance (contact your local extension agent for help).

## 2 EVALUATE

The results from monitoring will help to answer the questions: Is the pest causing damage? Do we need to act? As pest numbers increase toward the economic threshold further treatments may be necessary.

## 3 PREVENT

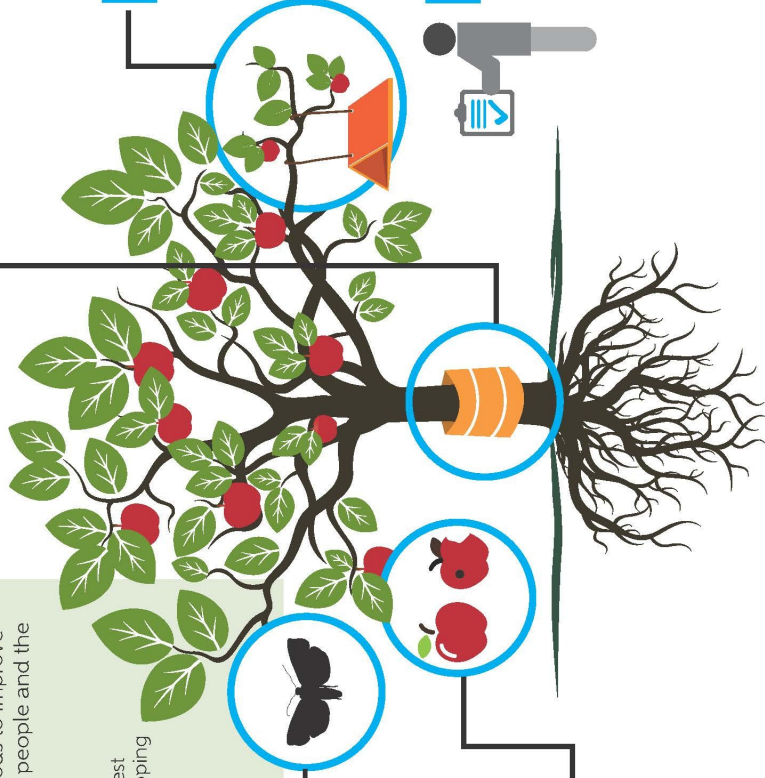
Some pest problems can be prevented by using resistant plants, planting early, rotating crops, using barriers against climbing pests, sanitation, and sealing cracks in buildings.

## 4 ACTION

IPM uses multiple tools to reduce pests below an economically damaging level. A careful selection of preventive and curative treatments will reduce reliance on any one tactic and increase likelihood of success.

## 5 MONITOR

Continue to monitor the pest population. If it remains low or decreases, further treatments may not be necessary, but if it increases and exceeds the action threshold, another IPM tool should be used.



## WHERE CAN YOU PRACTICE IPM?



### Buildings and Homes:

Inspect, identify pests, keep pests out, clean to deny pests food and water, vacuum, trap, or use low-risk pesticides.



### Farms:

Check for pests/pest damage regularly, identify accurately, choose pest-resistant plant varieties, encourage/introduce beneficial insects, time planting to avoid pests, and if needed use low-risk pesticides.



### Managed Natural Systems:

Identify the pest and use management options that have minimal risks to pollinators, humans, and pets.



The Entomological Society of America is the largest organization in the world serving the needs of entomologists and other insect scientists. ESA stands as a resource for policymakers and the general public who seek to understand the importance and diversity of earth's most diverse life form— insects. Learn more at [www.entsoc.org](http://www.entsoc.org).

# **MONITOR**

**CHECK PLANTS REGULARLY**

**CAUSE OF DAMAGE**

**MONITOR INSECT POPULATION**

**THRESHOLD FOR PLANT DAMAGE**

# **PREVENTION**

**PLANT EARLY IN SEASON**

**ROTATE CROPS**

**BARRIERS**

**SANITATION**

**PLANT RESISTANT VARIETIES**

**KEEP WEEDS TO A MINIMUM**

**ATTRACT BENEFICIALS TO THE  
GARDEN**

**WATER EARLY IN MORNING**

# **ACTION**

**PHYSICAL BARRIERS**

**MECHANICAL-PICK OFF BUGS**

**BIOLOGICAL CONTROLS**

**BENEFICIAL INSECTS**

**CHEMICAL CONTROL**

**ORGANIC VS NON ORGANIC**