



# Integrated Pest Management (IPM) Pest Control Industry's View

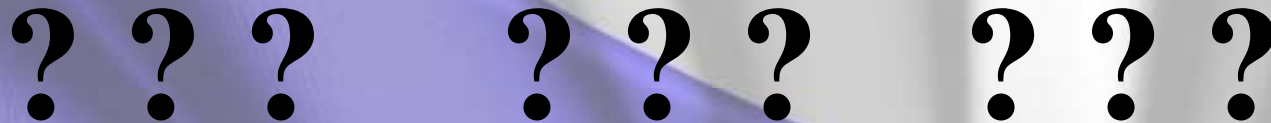
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# What is IPM?

- Important Perspective Means? Yes
- Intelligent Professional Management? Yes
- Intensive Pest Monitoring? Yes
- Insect Prevention Measures? Yes
- Integrated Pest Management? Yes
  - Using many tactics simultaneously = physical, mechanical
  - Generally low toxic chemicals are a last resort



# Time Of Transition



# IPM



# “Pest Control”

# What is IPM?



IPM is a preventative pest management system that combines several methods to keep pests below levels that may cause a loss of profit.



- A **key** for future pest management.

# What is a Pest?

“Pest” means any insect, rodent, nematode, fungus, weed, or any other form of terrestrial or aquatic plant or animal life or virus, bacteria or other microorganism, except viruses, bacteria or other microorganisms on or in living man or other living animals.

(EPA)

# IPM Principles

- Inspection, Monitor Pest Population, SOS
- Identification, Determine Pest Threshold
- Recommendation, Apply Strategies/Tactics
- Treatment, IPM Toolbox, Treat The Source
- Evaluation, Adjust Strategy, Communicate

# IPM Principles

- **Based Upon Pest Damage Thresholds**
- **What the Facility Should Do:**
  - Pest Exclusion, Pest Proofing, Building Repairs
  - Sanitation, Housekeeping, Cleaning
  - **What the Client Expects**
    - PMP = Pest Management Professional
  - **What the Technician Can Do for the Facility**
    - Treatment = Prevention or Extermination
    - Provide specialized services; exclusion or target cleaning
- **Considerate of Limitations**

# IPM Tactics

## Treatment Tactics

- **Consider Multiple Non-Chemical Tactics:**
  - Deny Pest Entry, Use Traps or Other Mechanical Devices to Prevent Access Around Openings  
Emphasize to close openings (doors, windows, etc.)
  - Remove Harborages, Eliminate Conducive Conditions of Food, Water and Shelter  
Cleaning, Vacuuming, Caulking
  - Use Physical Modifications To Manage Pests  
Lights, Air Flow, Temperature, Humidity



# IPM Tactics

## Treatment Tactics

### □ Consider Chemical Tactics:

- Approved Materials
- Read and Follow All Label Directions
- Low to Moderate Toxicity Before Higher Toxicity
- Tailored For The Pest Groups
  - Crawling Insects, Flying Insects, Rodents, Birds



# Inspection



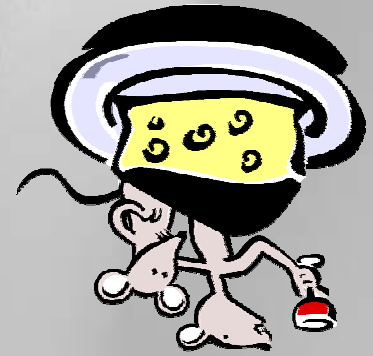
- A prevention activity to detect potential or existing pest problems.
- Food plant employees are good inspectors.
  - Look in the work area for situations that can lead to pest activity.
  - Tell a service technician if a pest problem is found.
    - Pest sighting memo.
    - Collect a specimen for identification.

# Exclusion



- Keeping pests out is an effective IPM tactic.
- Pests found inside come from outside.
- Pests can enter by:
  - Structural defects
  - Open doors & windows
  - Raw materials or ingredients
  - Employee actions

# Housekeeping



- Good housekeeping is effective pest control.
- It applies to every “nook & cranny” inside food plants.
- Cleanliness is critical to removing the food that attracts pests allowing their survival and/or reproduction.
- Cleaning also removes the immature pests.



# Physical



- Physical controls such as airflow, hot and cold are measures used to make an environment unsuitable for pest entry or survival.
- Insects respond to different temperatures differently.

## Temperature Insect Response

| Zone        | Temperature    | Insect Response                  |
|-------------|----------------|----------------------------------|
| Lethal      | 120°F to 140°F | Death in minutes                 |
|             | 110°F to 115°F | Death in hours                   |
| Sub-optimum | 95°F to 100°F  | Development stops                |
| Optimum     | 75°F to 90°F   | Maximum development              |
| Sub-optimum | 65°F to 70°F   | Development slows                |
|             | 55°F to 60°F   | Development stops                |
| Lethal      | 35°F to 45°F   | Death in weeks                   |
|             | -5°F to 10°F   | Most S.P.I.'s die                |
|             | -20°F to -10°F | Death in minutes, insects freeze |

Heat treatments roast insects  
 ← Stay out of their optimum zone  
 Cold treatments freeze insects

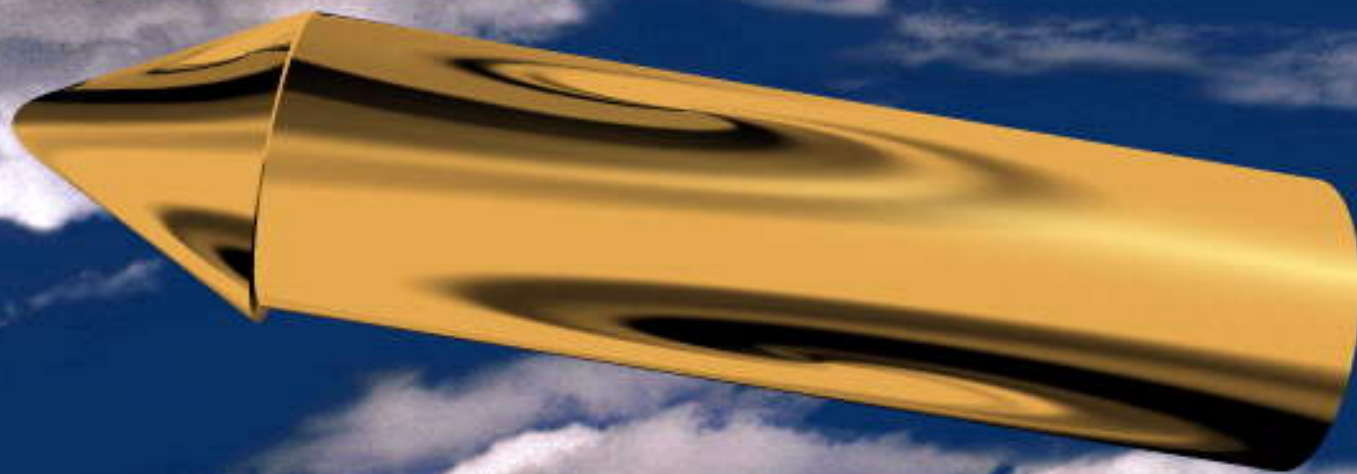
# *A System Designed To Withstand The Test Of Time*



Cooperation



# No "Magic Bullet"







# Integrated Pest Management (IPM)

**Copesan** – Specialists In Pest Solutions

Thank you for your attention.