

# Managing Pests in Child Care Centers Using Integrated Pest Management (IPM)



# The purpose of this course

- This presentation is designed to give several levels of training to the people who work in child care centers:
  - Center operators, directors, decision-makers
  - Center maintenance and custodial staff
  - Child care-givers, teachers, and nurses
- Training focus is on pest reduction and prevention, and why this is important.

# Curriculum

- Module 1 Introduction
- Module 2 - IPM in Child Care for Directors
- Module 3 - IPM in Child Care for Maintenance
- Module 4 - IPM in Child Care for Care Givers
- Additional Pest Modules
  - Ants, bed bugs, cockroaches, lice, mice and rats, yellowjackets and paper wasps.

# Module 1 – Introduction to Integrated Pest Management

## Goals:

1. To protect the health of children, staff and the environment.
2. To control pests effectively and safely.
3. To prevent pests in the future.

# Take home messages:

- Children should not be exposed to pests or pesticides.
- Both pose risks to children's health and safety.
- Parents and guardians of the children in your care expect clean, safe facilities for their kids.
- IPM is a way to reduce pest and pesticide risks.

# You will learn

- How to identify pests and pest activity.
- How to use IPM to control pests while lowering pesticide use and exposure.
- Each person's role in the IPM program.
- How to prevent pests.

# Risks posed by pests and pesticides

- Injury or illness from pests
  - Allergies and asthma triggers
  - Bites from animals and insects
  - Food-borne illness
- Injury and illness from pesticides
  - Overexposure, poisoning
  - Chronic, long-term effects
  - Hypersensitivity



# How People Are Exposed to Pests

- Inhalation of dander, droppings & urine
  - Mouse and cockroach allergens
- Skin contact
  - Rodent bites
  - Bed bug bites
  - Lice, mosquitoes
- Contamination of food and products



# How People are Exposed to Pesticides

- Inhalation of dust particles, vapors, aerosols (sprays).
- Ingestion of residues that get on the skin, food, dishes or anything that goes into a child's mouth.
- Contact and absorption through the skin of pesticides from the environment, indoors and outdoors.

# What is a Pest?

A pest is anything that:

- Injures humans, structures, or possessions;
- Competes with humans for food or water;
- Spreads disease to humans or domestic animals .



# Ways to reduce these risks include:

- Follow all laws and regulations about pest management or pesticide use in child care.
  - Do you know what these are for your state?
- Prevent pests – don't allow pest problems to happen.
- Use an integrated pest management (IPM) program for prevention and control.

# Integrated Pest Management

- An IPM program uses common sense strategies to reduce food, water and shelter for pests in buildings and grounds.
- An IPM program uses all pest management tools, including the careful use of pesticides, when necessary.
- IPM is a safer and more effective pest management program.
- IPM can be cheaper in the long run.

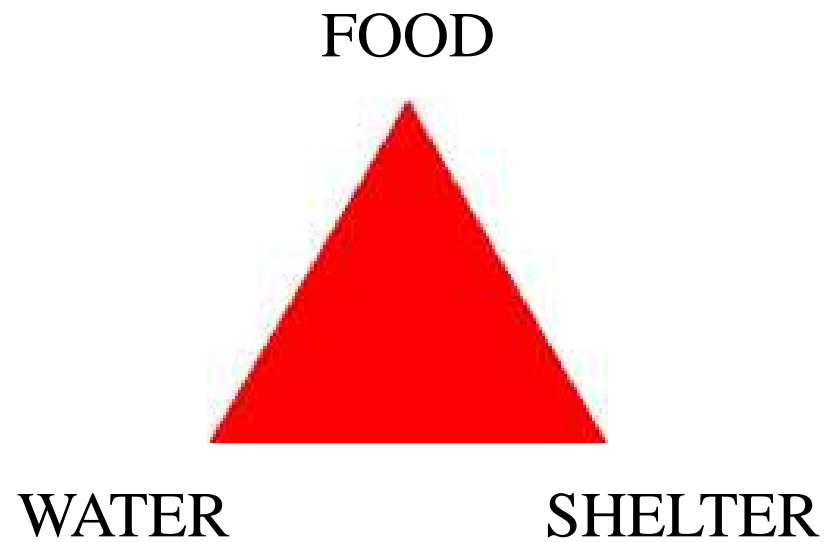
# Integrated Pest Management (IPM)



- Knowledge intensive (know the pest!).
- Think about long-term pest control.
- Major emphasis on pest prevention.
- Tracks changing conditions that favor pests.
- Major purpose of most site visits is to inspect.
- Types and amounts of pesticides used, if any, are limited to products posing least-risk of exposure or toxicity.

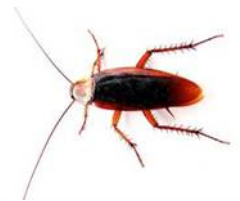
# Pest Triangle

To control and prevent pests we must change our habits as well as our habitat to reduce and eliminate the pest's "*Triangle of Life*".



# IPM decision-making includes:

- How much risk is presented by the pest?
  - For example, a ladybeetle vs. cockroach
- Does it need to be addressed immediately, or can it wait?
- Do you have a protocol for this problem?
- What are the best management steps to take?



# The steps of IPM are as follows:

1. Identify the pest if it can be found.
2. Conduct a thorough inspection or hire a PMP to inspect.
3. Identify reasons for pest entry.
4. Act to exclude the pests and prevent future entry.
5. Use sanitation for pest management.

## If intervention is needed:

6. Use mechanical control options:
  - a) Traps
  - b) Cleaning and removal of pests
7. Use pesticide(s) appropriate for use in child care centers.
8. Follow up and monitoring steps.
9. Recordkeeping.



# Identify the pest



Gary Alpert, Harvard Univ., bugwood.org



IFAS - UFL



Unknown origin

# Conduct an inspection or hire a PMP to inspect

- Inspection is used to define the problem.
- What pest, how many are there, how serious is the problem?
- What conditions are helping the pest?
  - Gaps, holes, openings
  - Torn screens, open windows and doors
  - Moisture, leaks, wet wood or damage
  - Food available for pests, trash or grime

# What problems do you expect?



# Choose ways to exclude the pests and prevent future entry

- Windows and doors, under siding and roof top flashing – common places for pest entry.
- Repair screens, seal gaps, install door sweeps
- Drain covers in floor drains
- Can you can think of others?



# Sanitation for pest management

- Sanitation reduces food and water for pests.
- Organizing removes hiding spots.
- Cleaning removes pest allergens, such as mouse droppings.



# Sanitation for pest management

- Change sanitation routines to help prevent pests
  - Take all garbage out at the end of the day.
  - Wipe up spills and crumbs
  - Clean in and under refrigerator/microwave often



# Mechanical control options

- Traps capture pests so they can be removed.
- The truth about electronic “pest repellers” is they do not work.



Gary Alpert, Harvard Univ., Bugwood.org

# Appropriate pesticide use in child care centers

- Follow state and local laws; some places do not permit any pesticide use in child care.
- “Lowest risk” products should be used.
- Low risk = low toxicity and/or no risk of exposure.
- Products are placed out of reach or in areas where people do not sit, sleep, crawl, etc.
- Some formulations (dust, aerosol) increase the chance of exposure.



# Follow up and monitoring steps

- Check back to see if the pests are gone. If not, a new method may be needed.
- Monitoring is done by setting traps over a longer period of time. Monitors should be checked regularly.



# Recordkeeping

- Pest activity/complaint records help track problems and will show if it's getting better or worse.
- Keep a record of pest management activities that were tried to know if a method does or does not work.
- Record help identify issues if there is ever a question of health problems resulting from pest presence or pesticides used.

# Do you really pay more for IPM?

- Because IPM involves repairs and improvements in the first phase, it may cost more at first.
- Long-term control means declining costs later.
- These improvements help with more than IPM. Better building quality, energy use results.
- Repeated pesticide application "treadmill" vs. a permanent fix that blocks pests out....

# Adopt an IPM policy

- A policy
  - Communicates to all how pests are handled
  - Provides a framework for action for employees and contractors
  - Justifies the methods used
  - Assures clients that you are taking the right approach
- Model policies are available

• See:

[http://www.ipminstitute.org/school\\_ipm\\_2015/resources.htm#IPM\\_Policies](http://www.ipminstitute.org/school_ipm_2015/resources.htm#IPM_Policies)

# Assign an IPM coordinator

- You do not need a new employee. This could be the facilities manager or a custodian.
- The IPM coordinator should be interested in this program and willing to participate.
- Tasks include:
  - Understand some pest management basics
  - Coordinate with pest management contractor (PMP)
  - Maintain log book of pest sightings and actions taken
  - Coordinate facility improvements
  - Communicate with others about pest management

# Hiring a Pest Control Contractor

Hire a Pest Management Professional (PMP) who:

- Knows the laws and regulations of your state.
- Recognizes the need to protect children by using IPM.
- Is skilled enough to control and prevent pests using methods other than pesticides.
- Provides on-going inspection and monitoring for pests
- Is willing to communicate and work with you
- Has training and / or credentials in IPM

# Role of facility staff vs. PMP

## Staff

- Sanitation
- Building repairs
- Use traps, service traps
- Monitor for pests
- Keep records of pest complaints and actions

## PMP

- Inspection for pests and needed building repairs
- Monitor for pests
- Keep records of pest activity and actions
- Use traps, service traps
- Use pesticides, including baits and sprays

# Provide training for staff and parents

- Each staff member plays a role in pest management (cleaning, recognizing pests).
- Awareness leads to early detection of pests.
- Early detection makes it easier to stop and prevent infestations from getting BIG.
- Parents play a role with control of some pests.
- Parents should understand the center's approach to pest management.



# Action Items

- Find out how pests issues are managed in your facility.
- Is there an IPM or Pest Management policy?
- Who makes the decisions about pest management?
- Is your facility inspected regularly with pests in mind?

# Learn more

- Follow additional modules based on your role in child care:
  - Director, administration – see Module 2
  - Maintenance staff – see Module 3
  - Care givers and teachers – see Module 4