An Ounce of Prevention!

Integrated Pest Management (IPM) For Schools and Child Care Facilities

This brochure is intended for school and child care facility staff, parents, and pest management professionals.

Everyone has a role in IPM to prevent and manage pests in and around schools and child care facilities.

Follow all appropriate federal, state, and local regulations. Always read and follow label directions before buying or using a pesticide.
INTRODUCTION

What is Integrated Pest Management?

Integrated Pest Management (IPM) is a proactive approach to pest problems, where the management strategies are based on an accurate identification and a basic understanding of the target pest biology, behavior, and offspring (eggs, larvae, etc.). This information is used to implement a management strategy that will control the pest and prevent it from causing unacceptable damage. This is achieved by controlling current pest problems and prevent or minimize recurrence. IPM is an integral part of safety at schools and child care facilities.

Why is IPM Important for Schools and Child Care Facilities?

While some pests are simply nuisances, others can contaminate food, affect health and safety, and impair property. Some pests, such as ants and yellowjackets, are venomous, cause pain, and cause quarters to rust. Cockroaches and their remains, bed bugs and many weeds also cause pest problems. When present, pests can noticeably hinder activities, such as mowing, fertilizing and watering a lawn.

An effective IPM program begins with making a decision to control pest problems and using an approach that focuses on minimizing the pest population. The IPM program may address insect pests, weeds, disease-causing pathogens, rodents, and birds, and may be tailored to fit the specific pest and environment.

IPM programs should be designed to control pests that present a risk to health and safety of children and employees, such as ticks, fleas, rodents, and birds that can be involved in the spread of other pathogens.

Child Care Facilities?

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Child Care Facilities?
INTRODUCTION

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Integrated Pest Management (IPM) is a proactive approach to pest control and should be used in all facilities. IPM is a structured program with a series of steps that are scientifically based and focus on pest identification to reduce unnecessary pesticide use. IPM is practiced in all states, schools, and child care facilities.

IPM is particularly useful for pest problems in facilities where pest management is an integral part of safety at schools and child care facilities.

WHY IS IPM IMPORTANT FOR SCHOOLS AND CHILD CARE FACILITIES?

While some pests are simply nuisances, others can contaminate food, affect health and safety, and disrupt learning. Some pests, such as the ants and yellow jackets, are venomous, cause pain and could result in long-term medical problems. Cockroaches and their relatives, bed bugs, and many weeds can spread disease-causing pathogens, such as E. coli. Spiders, ticks, and other insects can also spread disease-causing pathogens, such as Lyme disease.

An effective IPM program begins with making schools and child care facilities safe places for children and staff. One key feature of an effective IPM program is education of the personnel who work in schools and child care facilities. An IPM education program should focus on pest biology, identification, and management strategies to help reduce pest populations. In addition to helping schools and child care facilities implement IPM programs, this manual will also include guidance for school administrators, building and grounds supervisors, and pest management professionals in managing pest problems.

IMPLEMENTING AN IPM PROGRAM

There are five basic components of an IPM program:

1. Pest Identification.
2. Inspection and Monitoring.
3. Education and Training.
5. Use of Multiple Tactics.

Each of these components of an IPM program is a crucial part of any pest management strategy. For example, a pest management program that focuses only on the use of pesticides is unlikely to be effective.

Each of these components are discussed in detail in this manual. For a more comprehensive understanding of IPM, consult one of the recommended books on IPM.

SANITATION

A primary goal of pest management is to keep the facility clean. Prevention is one of the most effective ways to control pests. A clean environment can also help prevent the spread of disease and improve the overall health of the facility.

Mechanical Control:

Some mechanical control actions that often use insecticides:

Water and Collection Tanks: Food and water for insects are primary sources of food. The water and collection tanks should be kept free of stagnant water. The water should be changed weekly or even daily.

Physical Control:

Mechanical traps are devices that can be used to control pests. Some examples of mechanical traps include: snap traps, glue boards, and pheromone traps.

Chemical Control:

Chemical control is a part of an IPM program. However, it is important to use chemical control as a last resort. Chemical control should only be used when it is necessary and when other control methods have failed.

Mechanical traps are used when the pest is present in small numbers. For example, snap traps in areas accessible to children. However, mechanical traps are not effective on pests that are present in large numbers. For example, snap traps in areas inaccessible to children. Chemical control should only be used when other control methods have failed.

3. Action Thresholds.

A common feature of IPM programs is the use of action thresholds. An action threshold is the level of a pest population at which some action is taken. The action threshold can be used to distinguish between pest occurrences that do and do not require intervention.

4. Use of Multiple Tactics.

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**INTRODUCTION**

Integrated Pest Management (IPM) is a proactive approach that uses an integrated mix of pest-avoidance, prevention, and control techniques to reduce pest populations to levels that meet the needs of individuals, facilities, and communities. It involves the careful use of pest-avoidance, prevention, and control actions that eliminate unacceptable pests and strives to prevent future instances of pest problems from occurring. IPM is an integral component of pest management for individual and institutional service areas.

**What is Integrated Pest Management?**

Integrated Pest Management (IPM) is an ongoing process that uses an integrated mix of pest avoidance, prevention, and control techniques to reduce pest populations to levels that meet the needs of individuals, facilities, and communities. It involves the careful use of pest avoidance, prevention, and control actions that eliminate unacceptable pests and strives to prevent future instances of pest problems from occurring. IPM is an integral component of pest management for individual and institutional service areas.

While some pests are simply nuisances, others can contaminate food, affect health and safety, damage property, and cause economic losses. Weeds, insects, and other pests can spread diseases (e.g., Lyme disease, leishmaniasis), contaminate food, affect health and safety, and damage property. If left unchecked, pest populations can contaminate food, affect health and safety, and damage property if left unchecked. An effective, corrective action must be tailored to the pest management program is to develop a management strategy where necessary measures are combined to target pests (insects, weeds, disease-causing pathogens, etc.) This information is used to implement a management approach to managing pests that focuses on preventing pest problems, service areas (very low action threshold), while clover in lawns or meadows might be better treated with herbicides. Strategies for managing pests in schools and child care facilities must be used only when needed - setting low action thresholds for specific insects or weeds may make it difficult to determine when the use of a pesticide is warranted. Always use appropriate pesticides and labeled for the specific indoor or outdoor use. For example, home pest control products are generally safer than professional-grade products. Only designated IPM Coordinator: Superintendents, child care facility managers, and school nurses must understand the IPM program and make decisions about the use and placement of pesticides.

The IPM Coordinator is responsible for implementing the integrated pest management program, serving as liaison with the pest management professional or instructor trained in IPM. Depending on the size and location of the school, the IPM Coordinator may be reporting to the Principal, Superintendent, or other school administration official. The IPM Coordinator must have an understanding of IPM principles and the ability to implement and maintain the program. The IPM Coordinator must be knowledgeable about the specific pest problems and the appropriate control measures available. The IPM Coordinator must be able to communicate effectively with the pest management professional or instructor and other school staff.

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**What makes an effective IPM program?**

An effective IPM program must address the following key components:

1. **Adopt a clear IPM policy, and an IPM plan that are consistent with the school’s mission and goals:**
   - Contains and Requires:
     - A specific IPM policy and plan for each pest and an action plan for each facility.
     - Annual Review and Improvements
     - Proper Training of Pesticide Applicators
     - Notification/Posting/Re-Entry
     - Careful Record-Keeping
     - Designated IPM Coordinator
     - Accurate Pest Identification and Monitoring
     - Ongoing Assessment of All IPM Tactics

2. **Pesticide use:**
   - Pesticides must be used only when needed – setting low action thresholds for specific insects or weeds may make it difficult to determine when the use of a pesticide is warranted. Always use appropriate pesticides and labeled for the specific indoor or outdoor use. For example, home pest control products are generally safer than professional-grade products. Only designated IPM Coordinator: Superintendents, child care facility managers, and school nurses must understand the IPM program and make decisions about the use and placement of pesticides.

3. **Create pest-specific action thresholds:**
   - Pesticide use should be considered only when necessary to control a pest problem. Thresholds for each pest should be established so that treatment is not applied unless the pest population exceeds a certain level. Thresholds should be based on scientific data and should be reviewed periodically.

4. **Implement pest management practices:**
   - Pest management practices are classified as control methods that eliminate unacceptable pests and strive to prevent future instances of pest problems from occurring. IPM is an integral component of pest management for individual and institutional service areas.

**What is pest management?**

Pest management is the science and practice of planning and implementing actions to control pests that interfere with human activities. Pest management involves the use of several strategies, including cultural, mechanical, biological, and chemical control methods. These strategies are selected based on the specific needs of the facility and the characteristics of the pests being managed.
WORKING WITH A PEST MANAGEMENT PROFESSIONAL

Administrators and IPM Coordinators have key roles in selecting and collaborating with a PMP.

1. Ask about the PMP’s pesticide safe use practices and all other IPM practices.
   - Locate and hire a reputable PMP.
   - Your state regulatory agency has a record of violations and complaints. You should also ask for and check references.

2. Verify that the PMP is a certified applicator for the specific use (structure, turf, etc.) and will perform or supervise the application (even if your state does not require certification).
   - All certified applicators are trained in fundamental (core) principles of pesticide use – basic knowledge such as proper use of application equipment, potential application hazards, mixing instructions, protective clothing and equipment, applicable state and federal pesticide laws and regulations, interpretation of pesticide labels, other components of IPM and more.
   - Depending on the state and product, “supervision” may mean easily available by phone, or may mean physically present.

3. Accompany the PMP on a complete inspection at least annually, and communicate regularly about new or unresolved problems.
   - Discuss the target pest(s) and infestation level(s), and agree on what pests and areas will be treated and how. Discuss IPM practices that are already in use and who will be responsible for monitoring and decisions to re-treat.

4. Maintain hard copies of (or immediate electronic access to) labels and Safety Data Sheets for every pesticide product that will potentially be used.
   - This includes labels for products referred to as “organic,” “green,” “safe” or “nontoxic,” because all effective pesticides are toxic to some organisms. If you are concerned that the label directions and precautions cannot be followed for any product, resolve all questions before the application is made.

5. Read the contract provided by the PMP. It should contain the inspection and monitoring plan, pest prevention plan, nonchemical and chemical control plan, and the school’s or child care facility’s required roles in all contracted services. Only use PMPs that will document a comprehensive IPM approach. In some states, you can request a state inspection if you have concerns about a PMP’s activities or work.

IPM – NO EXCEPTIONS

A good IPM plan will immediately implement all appropriate exclusion, sanitation and control techniques. It will increasingly identify pests, establish thresholds, and monitor regularly. Where thresholds are exceeded and nonchemical control techniques are known to be insufficient or not practical, chemical control will be done according to all laws – by certified professionals, persons under their supervision or otherwise trained persons who are certified to PM. Pesticides should be used only when needed and not “as a last resort” (after every other possible technique has failed) because some pests are serious and/or small infestations can quickly get out of hand.

IS YOUR SCHOOL OR CHILD CARE FACILITY UTILIZING A VARIETY OF IPM TECHNIQUES?

PM coordinators, administrators, teachers, staff, parents and others can easily observe whether many key components of IPM are being practiced at their school or child care facility. Remember, there are many different types of pests (insects, rodents, weeds, disease-causing pathogens, etc.), and IPM works!

Photos Courtesy of NC State University

This publication can be downloaded or ordered in the Resource sections of the following websites:

Maine School IPM Program: www.maine.gov/schoolipm
North Carolina State University: http://schoolipm.ncsu.edu
Texas A&M AgriLife Extension: http://schoolipm.tamu.edu
Syngenta Environmental Stewardship: syngentacropprotection.com/Env_Stewardship/
Pesticide Environmental Stewardship (PES): pesticidestewardship.org
An Ounce of Prevention!

For Schools and Child Care Facilities

Your Building

- All gaps sealed around doors and windows
- All cracks sealed where utilities enter building
- Screens with tight fit and holes repaired
- All grates sealed in foundation, floor, walls, and roof
- Ventilation intakes and other required openings screened
- Poop traps installed on exterior doors
- All leaks in roof, pipes, or faucets repaired
- All inside drains clean and working
- All outside gutters and drains intact and free of debris

Food
- All food (including pet food) stored in sealed, pest-proof containers
- Food stored at recommended temperature and humidity (e.g. “cool, dry” location)
- First food in first-food-out (FIFO)
- Expiration dates checked (not same as “best by” dates)

Food Residue and Food Garbage
- Crumbs, spills, and food wrappers cleaned up promptly
- Grease and other food residue buildup prevented in kitchens, room sinks, and drains
- Indoor and outdoor trash cans emptied at end of day
- Recyclables rinsed before storage or recycling
- Trash cans with intact plastic liners and self-closing lids
- Trash cans, recycle bins, and dumpsters not overflowing and kept clean
- Dumpsters at least 50 feet from buildings, if possible
- Only tightly closed plastic garbage bags placed in dumpsters
- Dumpster lids/doors kept closed
- Dumpsters not on concrete or asphalt surfaces – not soil or gravel

OUTDOORS
- Trees, shrubs, branches, grass, and plant mulch at least one foot from building
- Wood not controlled if they cause health or safety concerns
- Ground slope and/or gutter release points divert water away from foundation

IPM Coordinator
- Regular inspections, monitoring, maintenance, and service, etc. as appropriate
- Pest logbook for anyone to report, plus any action taken (what/where/when)
- Review of and decision on all reported concerns
- All required notifications and posted notices of pest control service and re-entry times
- PMP service reports and all other required records maintained

YES!
- Clogged gutters or drains
- Overflowing dumpsters or trash cans
- Exposed food, crumbs, spills, grease, or other food residues
- Healthy lawn that is properly mowed to compete with weeds
- Caulk, seal, clean, screen, and ventilate

NO!
- Gravel within one foot of foundation
- Windows open
- Plants close to building
- Overgrown grass
- Leaf litter in gutters
- High weeds

Follow all appropriate federal, state, and local regulations. Always read and follow label directions before buying or using a pesticide.