



**Subject: Integrated Pest Management**

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**SUMMARY:** Integrated Pest Management (IPM) is an ecological approach to pest management and is the methodology to be used in University buildings. All available techniques are used to reduce pest populations to acceptable levels while minimizing the potential impact of pesticides upon humans and the environment.

**SCOPE:** This Guideline applies to all University buildings that require pest management services

**REFERENCE REGULATIONS:** Natural Resources and Environmental Protection Act (Act 451, P.A. of 1994) Part 83, Pesticide Control

Michigan Department of Agriculture Regulation 636, Pesticide Applicators

Michigan Department of Agriculture Regulation 637, Pesticide Use

**DEFINITIONS:** *Building Manager* - the person who is designated as being responsible for the building's pest management program and to whom any reporting and notification is made; the contact person.

*Pests* - any unwanted insect, rodent, nematode, fungus, weed, or other animal, plant, or microorganism. This does not include organisms in or on living animals.

*Pesticide* - any substance or mixture of substances intended to prevent, destroy, repel, or mitigate pests, or intended for use as a plant regulator, defoliant, or desiccant that limits the unwanted growth of a pest.

*Pest Management Professional* - a person specializing in the identification, reduction, and prevention of pest populations.

*Threshold Levels* - an agreed upon level of pest populations at which pest management action should be taken to meet the objectives outlined for the building.

**RESPONSIBILITY:** Deans, Directors, and Department Heads

Designate and empower individuals who will be responsible for the preparation and implementation of the IPM program.

Actively support this Guideline within individual units.

Ensure an environment where principal investigators, supervisors, and other personnel are encouraged to follow this Guideline.

#### Building Manager

Building managers that need pest control may contact the Plant Building Services Pest Management Team at 764-0521. If a non-University pest control company is selected, it must be licensed through the Michigan Department of Agriculture. Include the IPM guideline in any bid specifications.

Select a pest management professional who is certified in appropriate categories and who has participated in an IPM training program approved by the Michigan Department of Agriculture (MDA).

Coordinate building maintenance and sanitation to minimize pest entry points and reduce the availability of food, moisture, and harborage.

Make building occupants aware of the things they can do to help prevent pest problems.

Establish a logbook, e-mail, or other system to assist building occupants in reporting pest and maintenance issues.

Determine (along with pest management professional) how much pest activity can be tolerated before controls are instituted. Some areas may require preventive treatment; some areas may need routine monitoring and treatment as necessary; some areas may be inspected only upon complaint.

Obtain notification signs from pest management professional and post them appropriately to inform the public of pesticide applications.

Assure that any person using a ready-to-use pesticide such as an aerosol insecticide or ant bait station has participated in an IPM training program approved by the Michigan Department of Agriculture.

#### OSEH

Audit the use of pesticides in University of Michigan buildings to assure that applicators are aware of applicable regulations. Applicators are encouraged to conduct self-audits using [Appendix A](#).

Follow up on pesticide related complaints; act as a liaison between the University and the Michigan Department of Agriculture.

Review and revise this document as needed.

#### Custodial and Cleaning Services Personnel

Report pest sightings to building manager.

Identify and report doors that are propped open, window screens that have been removed, and other activities that allow pests into the building.

Identify and correct unsanitary conditions that provide food for a pest population.

Identify and report areas of the building that have been damaged by moisture; many pests flourish in moist environments.

Identify and report holes, cracks, and other places where pests are living. Accumulations of cardboard and paper bags make excellent pest harborage.

Remove and dispose of dead birds or animals using appropriate gloves, shovel, or other tool. NEVER handle wild animals.

Participate in an IPM training program approved by the Michigan Department of Agriculture prior to using a ready-to-use pesticide such as an aerosol insecticide or ant bait station.

#### Maintenance Personnel

Perform necessary maintenance services including but not limited to:

- Installation of screens on windows that can be opened.
- Installation of weather-stripping and door-closer devices on exterior doors.
- Patch holes, fill gaps, seal cracks, screen vents, and eliminate other pest access points and harborages.

- Identify leaking pipes and plumbing fixtures, leaking roofs, or other sources of moisture, and make the necessary corrections. Replace wet building materials and improve ventilation when necessary.

Participate in an IPM training program approved by the Michigan Department of Agriculture prior to applying any ready-to-use pesticide such as an aerosol insecticide or ant bait station.

### Building Occupants

Building occupants can help by reporting pest sightings, cleaning problems, and maintenance issues and by identifying and correcting habits that may contribute to a pest problem. Examples include:

- Open windows only if there is a screen to keep pests out.
- Do not prop open outside doors.
- Rinse beverage cans before placing in recycling bin.
- Store snacks and other food in mouse-proof containers.
- Discard lunch remnants in appropriate waste container.
- Discard old bird seed and other stored grain products.
- Do not feed wild animals.
- Minimize storage of used paper bags and corrugated cardboard.

Participate in an IPM training program approved by the Michigan Department of Agriculture prior to using any ready-to-use pesticide such as an aerosol insecticide or ant bait station.

### Pest Management Professionals

In-house pest control programs have been established in the following facilities:

Plant Building Services (PBS) provides pest control services in many University of Michigan facilities. Contact:

Terry Norris	Hospital Buildings	4-8041
Rosemary Kuderick	General Fund Bldgs	4-6211
Bruce Donald	Athletics, N Campus	7-1144

Jack Booms	Housing, Unions	7-2229
Dale Hodgson	Med School, Research	7-4118
Kevin Gates	Family Housing	7-2261.

Participate in an IPM training program approved by the Michigan Department of Agriculture.

The pest management professional must:

- Identify areas that may be sensitive to pesticide use.
- Identify pests.
- Identify and report routes of pest entry.
- Identify and report sanitation and building maintenance deficiencies.
- Coordinate training for pesticide applicators.
- Determine (along with building manager) how much pest activity can be tolerated before controls are instituted. Some areas may require preventive treatment; some areas may need routine monitoring and treatment as necessary; some areas may be inspected upon complaint.
- Select and apply appropriate control methods.
- Keep records of pesticide applications.
- Provide building manager with appropriate notification signs; these are available from the Michigan Pest Control Association, PO Box 608, New Baltimore, MI, 48047. Phone: (810) 598-7205

**PROCEDURES:** *Objectives of the IPM Program*

The building manager and pest management professional must set attainable objectives for the IPM program. These objectives may include:

- Enhancing the esthetics of the building
- Minimizing annoyance in the working environment
- Minimizing structural damage
- Preserving documents or museum specimens

- Meeting the standards of an accreditation board
- Preventing contamination of food

### *Setting Threshold Levels*

There must be agreement on when pest management controls will commence, such as:

- Upon Complaint – some areas such as offices and waiting rooms might be inspected only upon complaint. Appropriate recommendations for cleaning or repair should be made, and when necessary, controls should be implemented.
- Monitored Areas - areas such as food storage and preparation areas and dishwashing areas might be monitored and inspected on a routine basis. Recommendations for cleaning or repair should be made, and controls implemented as necessary.
- Preventative Treatments - certain key areas might require preventative treatment. These areas should first be inspected and recommendations for cleaning or repair should be made.

### *Pest Management Inspections*

Periodic inspection of the facility will help identify conditions that allow pests into the building, provide food and water supplies, and provide hiding places or harborages. [Appendix B](#), a sanitation worksheet, may be helpful in identifying routes of entry or unsanitary conditions that are conducive to pest infestation.

### *Pest Monitoring*

Sticky traps and lures can be useful in determining the pest species, location, density, and routes of entry. They may be useful in or around food and animal feed storage rooms, food preparation areas, waste storage and recycling areas, and other areas where pests have been sighted.

### *Selection of Control Methods*

Non-chemical controls are often effective and should be considered in any IPM program. These may include, but are not limited to structural repair; the installation of air curtains, screening, or electrocution grids; and the use of vacuum cleaners, light traps and, live traps, guillotine mouse traps, glue boards, or biological controls.

Read all label directions before selecting a chemical control.

### *Notification*

Pest management professionals must, upon completion of a pesticide application in a public building or health care facility, provide a sign to be displayed in a readily observable place at the primary point of entry, by the building manager. Posting signs are available from the Michigan Pest Control Association, PO Box 337, Eastpointe, MI, 48021.

Service receipts with the house-in-the-cloud emblem on them may also be posted on the external door.

### *Record Keeping*

The pest management professional is responsible for maintaining records of the IPM program. These records must include:

- Location of pests and/or conditions conducive to pest infestation.
- Date of application.
- Target pest(s).
- Recommendations to the building manager.
- Name, quantity, and location of pesticide(s) used.
- Name of applicator and emergency phone number.

### *Safety*

Pesticides, pesticide containers, and pesticide containing materials must be stored, transported, mixed, applied, and disposed of according to label directions. Be sure to read the label thoroughly before use.

University employees that require respiratory protection must be included in the OSEH Respiratory Protection Program and the OSEH Medical Surveillance Program. Only respirators supplied by OSEH may be used. Call 615-2140 for more information on these programs.

Pesticide applicators must follow the label directions regarding personal protective equipment (PPE). Long pants, protective footwear, long sleeve shirt (short sleeves may be worn if wash water or waterless soap is

available and if not prohibited by the label), and impervious gloves are required as minimum PPE.

*Evaluation*

The building manager and pest management professional should jointly review and revise the objectives of the program and determine if they have been met. Adjustments should be made where necessary.

**RELATED  
DOCUMENTS:**

[Personal Protective Equipment Guideline](#)  
[Respiratory Protection Guideline](#)  
[Medical Surveillance Program](#)

**TECHNICAL  
SUPPORT:**

All reference guidelines, regulations, and other documents are available through OSEH 647-1142.

**ATTACHMENTS:**

[Appendix A](#) - UM Pesticide Audit Work Sheet  
[Appendix B](#) - Sanitation Evaluation Worksheet