

The Missouri Center for Safe Schools gratefully acknowledges that this example procedure is largely taken from the Nixa R-II School Pest Management Policy, with the gracious consent of that school district. School districts everywhere are encouraged to download and adapt this procedure for their own use. Submit your recommendations for improving this example document to thompsonrs@umkc.edu.

Integrated Pest Management Procedures

ShowMe School District

May 25, 2005

Purpose The purpose of the Integrated Pest Management (IPM) Procedures is to utilize all available pest management strategies to prevent damaging pest outbreaks while reducing risks to human health and the environment. Structural and landscape pests (animals, plants, or microorganisms) can pose significant problems for people and property. Pesticides can pose risks to people, property, and the environment. Pest problems will be solved in the least toxic manner possible, minimizing pesticide use.

Program Components

- Monitor the pest population and other relevant factors
- Accurately identify the pest
- Determine the threshold that triggers treatment. The mere presence of a pest does not necessarily warrant treatment.
- Spot-treat for the pest
 - Look at the whole system to determine the best place to solve the problem
 - Apply treatments where the actions will have the greatest effect
- Time treatment to the best advantage, considering:
 - Pest life cycle and susceptibility to control
 - Safety of school population
- Select the least disruptive tactics
 - Cultural controls
 - Physical controls (barriers, temperature and humidity modification, traps, removal, etc.)
 - Biological controls
 - Chemical controls
- Evaluate the effectiveness of treatments to fine-tune future actions
- Educate all people involved with the pest problems

IPM Coordinator

The IPM Coordinator designs a pest management system that takes into account potential liability, applicator and occupant safety, costs, effectiveness, time required, and occupant satisfaction.

IPM Coordinator Responsibilities

- Maintain this IPM Procedure
- Review pest management contracts to assure pesticide applicators are trained in and utilize IPM practices.
- Record all pest sightings by school staff and students
 - Name of pest
 - Where the pest was monitored

- When the pest was monitored
- Who did the monitoring
- Meet with the District Safety Committee to share information on pest problems and IPM measures being taken
- Assure that all sanitation and maintenance requirements associated with IPM are carried out
- Maintain pest-specific IPM protocols for managing any pests which the school district has experienced. Protocols are to be updated annually by reviewing information from the Missouri Department of Agriculture (www.mda.mo.gov), the University of Missouri (www.muextension.missouri.edu/explore/agguides/pests/index.htm), the Missouri Center for Safe Schools (www.umkc.edu/safe-school), etc.
- Assure that any pesticide use is done when school is not in session or when the area can be completely secured against access by school staff and students
- Record all pesticide use and maintain files on material safety data sheets for pesticides used
- Limit pesticide purchase and storage to the amount utilized in one year. Pesticides will be stored and disposed of in accordance with the EPA-registered label directions and state regulations. Pesticides will be stored in an appropriate, secure site not accessible to students or unauthorized personnel.
- Provide IPM training to maintenance/custodial staff, other staff, students, and parents.
- Maintain a voluntary registration of individuals who could be adversely affected by exposure to pesticides
- Evaluate the effectiveness of the IPM practices

Maintenance/Custodial Staff

Maintenance and custodial staff play key roles in the IPM program and will receive necessary training. They are responsible for recognizing and correcting conditions that may lead to pest problems, such as water leaks, potential pest entryways, and poor sanitation practices. Frequently vacuum carpeted areas. Use plastic liners in trash cans and clean trash cans regularly. . Monitor entryways: shut doors and containers, install weather stripping, caulk and seal openings, install/repair screens, and keep vegetation at least 1 foot from structures.

Staff and Students

The most important pest management responsibility of staff and students is sanitation. Success in reducing pest infestations depends on keeping food out of classrooms, desks, lockers, etc. In all areas, remove dust and debris. Keep doors and containers shut when not in use. Keep indoor plants healthy and remove them at the first sign of an infestation. Keep areas as dry as possible and remove standing water as well as water damaged or wet materials. Store animal foods in tightly sealed containers and regularly clean cages. Staff and students can also provide important information by reporting the presence of pests. Staff and students must not bring pesticides to school and must never apply pesticides at school.

Parents

Parents should learn about IPM practices and follow them at home so that pests are not carried to school in student property or on the person. Parents will be represented on the District Safety Committee which oversees pest management and other safety concerns.

Applying Pesticides

- The following procedures will minimize the exposure of people and other non-targeted species when applying pesticides:
- Read and follow all label instructions
- Choose a pesticide that is labeled for the specific site, intended for the pest targeted, and as target specific as possible, rather than broad spectrum
- Use a spot-treatment method of application, for example treating only the obviously infested plants
- Limit the use of sprays, foggers, or volatile formulations
- Apply baits in crevices when possible
- Place all rodenticides either in locations not accessible to children or in tamper resistant bait boxes. Securely lock or fasten shut the lids of all bait boxes. Place bait in the baffle-protected feeding chamber of the box, never in the runway of the box.
- Apply only when occupants are not present or in areas where they will not be exposed to the material applied. Note any re-entry time limits listed on the label, and be aware that some residues can remain long after application.
- Use proper protective clothing or equipment when applying pesticides
- Properly ventilate areas after pesticide application
- Notify students, staff, and interested parents of upcoming pesticide applications
 - Post advanced notices around the school
 - Send advanced notices home
 - Inform the adjacent community in advance of outdoor pesticide application
 - Post application notices in treated areas
- Keep copies of current pesticide labels, consumer information sheets, and Material Safety Data Sheets (MSDS) easily accessible

Contracting Pest Management Professionals

Professional pest control businesses must have a business license and be certified to apply pesticides. Schools should check to make sure the business has met this legal requirement. Applicators should be able to identify pests and should know about pest behavior and control methods. Training in Integrated Pest Management (IPM) practices is also essential. If an applicator is being hired to help maintain school grounds, knowledge of plant health maintenance is beneficial. Experience in school pest control is helpful but not required.

Professional applicators should provide proactive suggestions that identify housekeeping and structural deficiencies that contribute to pest problems. The Business should offer an IPM service program including:

- Development of a pest monitoring program including:
 - regular inspection of potential problem sites
 - identification of pests
 - classification of outdoor areas
 - discussion of pest thresholds with school staff
 - recommendations for control
 - evaluation of control measures
- Making of pest control recommendations
 - emphasis on maintenance and sanitation
 - pesticide applications only when necessary, i.e. when the established pest threshold is exceeded.

- provide schools with pesticide labels and toxicity information for each pesticide that may be used
- use of low risk pesticides when other means of control are not feasible
- scheduling applications when school or grounds are not occupied

Be prepared to discuss with the pest management professional the school's pest control procedures, the goals of the IPM Program (pest tolerances, limited pesticide use, etc.), the history of the school's pest problems, and the pest management actions that school or district will be responsible for.

IPM Provides Economic Benefits

- Reduce pest damage
- Reduce unnecessary pesticide applications
- Improve staff and student attendance
- Minimize emergency repairs
- Improve maintenance and sanitation
- Reduce utility expenses by improving insulation

Forms:

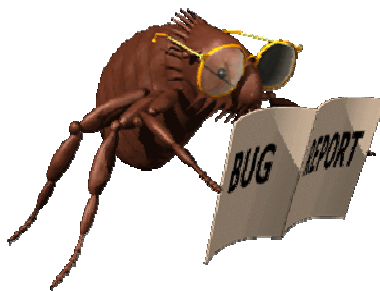
The forms utilized in managing the IPM process appear on the following pages:

- Action Thresholds
- Pest Reporting Form
- Pest Sighting Log
- Pest management Action and Follow Up
- Monitoring Station Report
- Pesticide Use Log
- Parent/Guardian Information Letter
- Parent/Guardian Request for Notification of Pesticide Application
- Pesticide Treated Area Notice
- IPM Cafeteria Inspection Checklist

Action Thresholds

Landscape or Grounds Pests	
Bagworms	Control on conifers whenever two or more large bags/tree or bush
Landscape plants	When pest damage reaches 10 percent/plant
Lawn pests	When pest damage reaches 10 percent/100ft ²
Poison ivy	1 plant in any student area; no action in woods unless near path or student area
Tent caterpillars	1 tent or egg mass/desirable tree; other trees if aesthetically unacceptable; 2 public complaints within 2 weeks
Ticks	<i>3 of any species in student activity areas; in woods, action if moderate to heavy infestations; treat wood edges if evidence of blacklegged ticks</i>

Pest	Classrooms	Medical	Kitchen	Grounds
Ants, common house	5/room	1/room	3/room	2 mounds/yard
Ants, carpenter	3/room	1/room	2/room	1 nest within 25 ft
Bats	1/room	1/room	1/room	Any activity
Bees, honey	1/room	1/room	1/room	If children threatened
Bees, bumble	1/room	1/room	1/room	If children threatened
Bees, carpenter	1/room	1/room	1/room	1 bee/5 linear feet
Cockroaches	2/room	1/room	1/room	If invading building
Crickets	3/room	1/room	2/room	
House flies	3/room	1/room	1/room	5/trash container; 10/dumpster
Lice (head or body)	Refer to nurse	Refer to nurse	Refer to nurse	Refer to nurse
Mice	1/room	1/room	1/room	Burrows in student area
Rats	1/room	1/room	1/room	Burrows in student area
Silverfish	1/room	1/room	2/room	
Spiders, poisonous	1/room	1/room	1/room	1/activity area
Spiders, other	1/room	1/room	1/room	
Yellowjackets/hornets	1/room	1/room	1/room	10/10 minutes at dumpster



Pest Reporting Form

Name: _____

Date: _____

Time: _____

Pest: _____

Where was the pest seen?

Room: _____ Location in the Room _____

Attach copy of school floor plan and note specific location(s).

Copy of floor plan can be located at Principal Office & Maintenance Director Office.



Pest Sighting Log

Initially record the pest seen and recommended actions.

When the recommended actions are completed, fill in the date of completion.

Date and Time	Pest seen	Number of pests	Person who saw pest	Recommended actions	Date completed



Monitoring Station Report

Record the number and type of pest found in each monitoring station.

Mark new insects so that they are not counted in the next inspection.

A=Ant, C=Cockroach, R=Rat, M=Mouse, X=Nothing found in the monitoring station

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Date												
Station # ____												
Station # ____												
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Parent/Guardian Information Letter



Dear Parent or Guardian,

We would like to inform you that an Integrated Pest Management (IPM) approach for controlling insects, rodents, and weeds will be used at ShowMe School District. The IPM approach we will be using focuses on making the school buildings and grounds an unfavorable place for pests to live and breed. Through maintenance and cleaning, we will reduce or eliminate available food and water sources, and hiding places for the pests. We will also routinely monitor the school area to detect pest problems and prevent the pests from becoming established. Some IPM techniques we will employ include monitoring, increased sanitation, sealing entry points, physically removing the pest, and modifying storage practices.

From time to time, it may be necessary to use chemicals to control a pest problem. Chemicals will only be used when necessary, and will not be routinely applied. When chemicals must be used, the school will try to use the least toxic products when possible. Access to treated areas will be secured against unauthorized access for the period specified on the pesticide label. Notices will be posted at application sites and will remain there until the posted safe re-entry time is met.

For your information, we have a list of pesticides and material safety and data sheets (MSDS) that may be used in the school this school year. This list may be obtained by contacting the IPM coordinator at (816) 235-5656.

Parents or guardians may request prior notification of specific pesticide applications made at the school. To receive notification, you must be placed on the notification registry. After July, 2005, the registrants will be notified at least 72 hours before a pesticide is applied. If a chemical application must be made to control an emergency pest problem, notice will be provided as soon as possible after the application. Exemptions to this notification include cleaners (disinfectants), baits and gels, and any EPA exempt pesticides. If you would like to be placed on this registry, please complete and return the enclosed form.

If you have any questions, please call (816) 235-5656 for further information about school **Integrated Pest Management**.

Sincerely,

Parent/Guardian Request for Notification of Pesticide Application



IPM Coordinator:

I would like to be notified before any specific pesticide application is made at this school. I understand that I will be notified after the application, if the pest problem requires an emergency application.

would prefer to be contacted by (circle one): Mail Phone E-mail

Name of Parent/Guardian:

Date:

Street Address:

U.S. Mail Address:

Daytime Phone:

Evening Phone:

E-mail:

Return to:

ShowMe School District
1 School Street
ShowMe, MO. 64110-2499
Attn: IPM Coordinator



**DO NOT ENTER AREA
NO ENTRE AREA**

WARNING

Pesticide Treated Area

ADVERTENCIA

Area Tratada Con Pesticida

Location Treated :Room(s) _____
Name of Pesticide/Nombre del Pesticida: _____
Date of Application/ Fecha de la Aplicacion: _____
Contact Information /Informacion: _____

**KEEP OUT UNTIL DRY
NO ENTRAR HASTA SECO**

This sign may be removed on/ Este signo
se puede quitar en: _____

Integrated Pest Management Cafeteria Inspection Checklist

School Name: _____ Date/Time of Inspection: _____

Inspector: _____

Building Exterior: Satisfactory Unsatisfactory Comments for Facilities/Maintenance

1. Garbage storage area _____
2. Garbage handling system _____
3. Perimeter walls _____
4. Perimeter windows/openings _____
5. Roof areas _____
6. Parking lot and/or drainage areas _____
7. Weeds and surrounding landscape _____
8. Rodent-proofing _____
9. Other _____

Building Interior

1. Walls _____
2. Floors _____
3. Ceilings _____
4. Floor drains _____
5. Lighting _____
6. Ventilation/Air handling equip. _____
7. Other _____

Food Storage

1. Dry food storage area _____
2. Damaged/spoiled dry food _____
3. Empty container storage _____
4. Refrigerated areas _____
5. Overall sanitation _____

6. Other _____

Satisfactory Unsatisfactory Comments for Facilities/Maintenance

Food Preparation/Distribution Areas

1. Counter and surface areas _____

2. Food serving lines _____

3. Spaces around appliances/equip. _____

4. Other _____

Other Kitchen Areas

1. Dishwashing areas _____

2. Garbage/Trash areas _____

3. Tray return area _____

4. Storage area for pots/pans/plates _____

5. Other _____

Utility Areas and Bathroom

1. Sinks and waterclosets _____

2. Custodian's closet/work area _____

3. Other _____

Lunchroom area

1. Tables/chairs _____

2. Office areas _____

3. Vending machine area _____

4. Other _____

Recommendation to cafeteria employees to aid in pest prevention:

This report reviewed by _____ (name) _____ (title)

This report reviewed on _____ (date)

Action taken: _____