# Integrated Pest Management and Notification Handbook

SEPTEMBER 2000

#### This handbook was completed with the help of the

## Safer Pest Control Project (SPCP)

Contact SPCP, a non-profit organization dedicated to reducing pesticide use and promoting safer alternatives throughout Illinois, for free information on implementing and practicing IPM.

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#### IPM Handbook Table of Contents

IPM and Notification Checklist	2
Summary of State Laws Requiring IPM and Notification	3
Definition of Integrated Pest Management	4
IPM Policy	5
Forms: Sample IPM Policy	5
IPM Participants	6
Forms: IPM Information Sheet for Staff, Faculty, Students, and Parents Sample Contract Specifications for IPM in Schools IPM Contact Information	8
Practicing IPM	13
Forms: IPM Monitoring Form. Detailed Monitoring Form. IPM Inspection Checklist. Pest Sighting Log. Sample Building Floor Plan. Pest Control Response. Trap and Bait Monitoring Form.	17 20 22 23
Pesticide Applications Notification	27
Forms: Sample Notification	28
Appendix A: Legislation	29
School IPM and Indoor Notification Legislation Outdoor Notification "Parent Right-to-Know" Legislation	
Appendix B: Guidelines for Pest Tolerance Levels	33
Appendix C: School IPM Resources and Contacts	35

#### **IPM and Notification Checklist**

	Review laws concerning IPM and notification						
	Adopt a policy requiring IPM and notification						
	Educate staff, faculty, students, and parents about the IPM program						
	Appoint a school employee to oversee IPM and notification						
	Assign IPM duties to appropriate staff						
	Modify contract with pest control operator to reflect IPM requirements						
	Create an IPM program that emphasizes prevention, non-chemical control methods, and least-hazardous control methods						
-	Establish monitoring and inspection procedures						
-	Set pest tolerance guidelines						
-	Select and apply appropriate treatment strategies						
-	Undertake preventive actions to reduce future pest problems						
-	Establish recordkeeping procedures						
	Establish notification procedures for notifying parents and staff prior to pesticide applications						
-	Create a voluntary registry of parents and staff who wish to be notified						
OR	Establish a system for notifying all parents and staff						

#### Summary of State Laws Requiring Integrated Pest Management and Notification

#### Public Act 91-0525 (SB 529) School IPM

This law amends the Structural Pest Control Act administered by the Department of Public Health and covers indoor pest management practices in schools. Effective August 1, 2000.

- 1. When economically feasible, each school is required to adopt an integrated pest management program (IPM). IPM is a program that combines preventive techniques, non-chemical pest control methods, and the appropriate use of pesticides with preference for products that are the least harmful to human health and the environment.
- 2. If IPM is not economically feasible, the school must supply supporting cost data analysis to the Department of Public Health.
- 3. A school employee should be designated to assume responsibility for the oversight of pest management practices in that school.
- 4. Schools are required to provide written notification to parents, guardians, and staff two business days prior to pesticide applications in school buildings. Baits and antimicrobial agents are exempt from the notification requirement.
- 5. To notify parents and staff, school districts must maintain a registry of parents, guardians, and employees who have registered to be notified OR provide written notification to all parents, guardians, and staff. Notification can be included in newsletters, bulletins, calendars, or other correspondence currently published by the school district.

#### Public Act 91-0099 (SB 527) Parents Right-to-Know

This law amends the Lawn Care Products Application and Notice Act, administered by the Illinois Department of Agriculture. Effective August 15, 1999.

- 1. Schools are required to provide written notification to parents and guardians two business days prior to pesticide applications on school grounds.
- 2. School districts must maintain a registry of parents and guardians who have registered to be notified OR provide written notification to all parents and guardians. Notification can be included in newsletters, bulletins, calendars, or other correspondence currently published by the school district.

The full text of these bills is included in Appendix A (p. 31-34).

Note: The term "pesticide" includes insecticides, herbicides, rodenticides, and fungicides.

#### **Definition of Integrated Pest Management**

#### What is IPM?

Integrated Pest Management (IPM) is an effective, economical approach to pest control. It involves identifying and correcting the problems that lead to pest problems and the use of non-chemical and least-hazardous control methods to address existing infestations. Regularly scheduled pesticide applications are not acceptable in an IPM program.

Illinois Public Act 91-0525 states "It is recognized that pests can best be controlled through an integrated pest management program that combines preventive techniques, nonchemical pest control methods, and the appropriate use of pesticides with preference for products that are the least harmful to human health and the environment."

As defined by the Structural Pest Control Act (225 ILCS 235/3.24) IPM is a pest management system that includes the following elements whenever possible:

- Identifying pests and their natural enemies
- Establishing an ongoing monitoring and record keeping system for regular sampling and assessment of pest and natural enemy populations
- Determining the pest population levels that can be tolerated on aesthetic, economic and health concerns, and setting action thresholds where pest populations or environmental conditions warrant remedial actions
- Preventing pest problems through improved sanitation, management of waste, cultural or mechanical pest management methods, or on the use of natural control agents
- When necessary the use of chemical pesticides, with preference for products that are the least harmful to human health and the environment
- Record keeping and reporting of pest populations, surveillance techniques, and remedial actions taken

#### Why practice IPM?

- It is required by law
- It reduces unnecessary risk posed by frequent applications of pesticides
- It provides better pest control
- It can save money

#### Why notify parents and staff about pesticide applications?

- It allows those with special sensitivities to pesticides, like people with asthma, to take precautions
- Parents and staff have a right to know when potentially hazardous pesticides are being applied

#### **IPM Policy**

#### **Purpose**

An official policy requiring IPM to be practiced in school buildings makes it clear to employees and contractors that they must comply with the IPM program. The policy also serves as a guide for the pest manager as he or she makes decisions on pest control.

#### Sample IPM Policy

#### **Policy**

It is the policy of this school district to implement and practice Integrated Pest Management (IPM) procedures to control pests in school buildings and minimize the exposure of students, faculty, and staff to pesticides. State law requires public schools to practice IPM.

#### **Pests**

It is the policy of this school district to control pests in the school environment. Pests can pose hazards to human health, damage property, and disrupt learning.

#### **Pesticides**

It is the policy of this school district to reduce potential exposure to pesticides in the school environment. Exposure to pesticides can pose a health risk to students, staff, and others, which can be minimized by practicing IPM.

Regularly scheduled applications of pesticides are <u>not</u> permitted under the IPM policy.

#### **Integrated Pest Management (IPM)**

The Integrated Pest Management program at this school will include the following:

- Regular monitoring to identify pest problems
- Preference for the use of non-chemical control methods to address pest problems
- When necessary, the use of least-hazardous chemical controls after non-chemical controls methods have been applied
- Preventive actions to reduce future pest problems

#### **IPM Coordinator**

An appropriate staff member will be designated as the IPM Coordinator. This person will be responsible for overseeing pest control for the district.

#### **Notification**

If a pesticide application is deemed to be necessary by the IPM Coordinator, parents and staff will be notified in writing two business days prior to the pesticide application.

#### **Contractors**

Any contractor hired by the school district to provide pest control or other services must comply with the district's IPM and notification policy.

#### **IPM Participants**

#### **Education and Communication**

IPM works best when everyone involved in the school—students, faculty, staff, and parents—is educated about IPM. Each of these groups can help prevent pest problems or inadvertently make them worse. Additionally, they are concerned about the safety of the pest control methods used as well as their effectiveness. They should receive information addressing these concerns, explaining how IPM works, and their roles in the school's pest management system.

The *IPM Information Sheet* (p. 7) is a brief introduction to IPM that can be given students, faculty, staff, and parents.

#### **IPM Coordinator**

An appropriate staff member should be designated to oversee IPM and notification. This person will be responsible for making decisions regarding pest control and should have an understanding of the pest control needs of the school. This person should also receive training and access to IPM resources.

See Appendix C (p. 35) for information on School IPM resources.

#### **IPM Staff**

Staff members that will be involved in carrying out IPM activities—such as monitoring, making structural repairs, improving sanitation, placing traps and baits—should receive an orientation and/or training session regarding IPM. Appropriate staff includes:

- Buildings and Grounds/Maintenance staff
- Custodians and janitors
- Food service workers
- Administration representative
- Teacher representative
- Pest control operator representative

#### **Pest Control Operator**

A professional pest control operator can provide some or all of a school's pest control needs. If the school chooses to contract with a pest control operator, the contract should specifically require the company to practice IPM in accordance with the school district's policy.

See the sample Contract Specifications for IPM in Schools (p. 8).

#### **Contact Information**

The IPM Coordinator, IPM staff, school administration, and pest control operator should have contact information for all other IPM staff. See the sample *IPM Contact Information* (p. 12.)

#### IPM Information Sheet for Staff, Faculty, Students, and Parents

#### **Integrated Pest Management**

It is the policy of this school district to control pest problems in a way that poses the least hazard to human health and the environment. Therefore, we have adopted an Integrated Pest Management (IPM) program in compliance with Illinois state law. IPM is a pest control program that combines prevention, non-chemical pest control methods, and the appropriate use of pesticides with preference for products that are the least harmful to human health and the environment. By addressing and correcting the root causes of pest problems, IPM can provide long-term, economical pest control while minimizing the potential risk posed by frequent pesticide applications.

#### How Can I Help?

We are asking for your cooperation with our IPM program! The success of IPM depends on the involvement of many individuals. Students, teachers, school staff, administration, and parents are all participants in the IPM program. Together we can help reduce pest problems and pesticide applications.

You can have a positive impact on our district's goal to reduce pest problems by doing the following and encouraging others to do the same:

- Report pest sightings to a teacher or staff member
- Clean up leftover or spilled food and beverages immediately
- Store food, including animal food, in tightly sealed containers in designated areas
- Keep refrigerators, vending machines, and microwaves clean and free of spills
- Do not prop open window screens or doors that could allow pests to enter school buildings
- Remove trash daily
- Keep areas dry and report leaks
- Include information on pest ecology, pesticides, and IPM in appropriate curriculum
- Do not pressure school staff to apply pesticides; there are other effective means of controlling pest problems
- Do not tamper with sticky traps, bait stations, bait boxes, and traps laid out to monitor or kill pests

<u>Please remember that spraying pesticides in school building without notifying parents and staff is illegal under Illinois State law.</u>

For more information		
If you would like more information on	the district's pes	t control practices or IPM, please contact
(IPM Coordinate	or) at	(phone) or the administration office
at (phone).		

#### Sample Contract Specifications for IPM in Schools

#### 1. General

A. <u>Description of Program</u>: This specification is part of a comprehensive Integrated Pest Management (IPM) program for the premises listed herein. IPM is a process for achieving long-term, environmentally sound pest suppression through the use of a wide variety of technological and management practices, including monitoring, physical, cultural, and procedural modifications that reduce the food, water, harborage, and access used by pests. When necessary, the use of pesticides, with preference for products that are the least harmful to human health and the environment.

#### B. Contractor Service Requirements:

- i. The Contractor shall furnish all supervision, labor, materials, and equipment necessary to accomplish the surveillance, trapping, pesticide application (when deemed necessary), and pest removal components of the IPM program.
- ii. The Contractor shall provide detailed, site-specific recommendations for any structural and procedural modifications needed to aid in pest prevention.
- iii. The Contractor shall provide evidence of sufficient expertise in pest control and IPM training and/or IPM experience to carry out these responsibilities. No contractor without IPM training or experience need apply. All contractors must be a licensed commercial structural pest control business by Illinois Department of Public Health.
- iv. All services provided by the contractor will be in compliance will all relevant Federal, State, and local laws, including the state laws requiring IPM and notification in Illinois schools.
- C. <u>IPM Coordinator</u>: The school district will appoint a school employee as the IPM Coordinator. The IPM Coordinator will act as the manager of the IPM program including overseeing and monitoring contract performance.

#### 2. Pests Included and Excluded

The IPM program specified in this contract is intended to suppress the populations of rodents and insects found indoors and all excluded pest populations that are incidental invaders inside buildings.

#### 3. Action Thresholds

Levels of pest populations or site environmental conditions that require remedial action by the Contractor shall be established. Action shall only be taken when a pest population is present and posing a problem and/or risk to school property and/or building inhabitants.

#### 4. Initial Building Inspections

The Contractor and the IPM Coordinator shall conduct a thorough, initial inspection during the first month of this contract. The purpose of the initial inspection is for the Contractor to evaluate the pest management needs of the property and discuss these with the IPM Coordinator. Access to building space shall be coordinated with the IPM Coordinator. The inspection shall address:

- identification of problem areas in and around buildings
- identification of structural features or sanitation problems contributing to pest infestations
- discussion of the effectiveness of previous control efforts
- facilitation of Contractor access to all necessary areas
- information about restrictions or special safety precautions, or other constraints that the Contractor should be aware of

#### 5. Pest Management Plan

Following the initial inspection, the Contractor will develop a detailed Pest Management Plan and Service Schedule for each property. This written plan and schedule must be submitted to the IPM Coordinator for approval prior to initiation. The Pest Control Plan shall consist of the following:

- A. <u>Service Schedule for Each Building or Site:</u> Frequency of inspections, monitoring, and treatment by the Contractor shall depend on the specific pest management needs of the premises. At a minimum, the Contractor shall perform regularly scheduled inspections and monitoring to determine if remedial action is necessary.
- B. Monitoring and Inspection Program: The Contractor shall outline a monitoring and inspection program that includes proposed methods of surveillance and that will identify infested areas and allow an objective assessment of site environmental conditions and pest population levels. Monitoring and inspection shall be continued throughout the duration of this contract. Between visits from the Contractor, the IPM Coordinator will ensure regular monitoring takes place.
- C. <u>Description of Site-Specific Pest Control Methods:</u> The Contractor shall describe physical, structural, operational, and least-hazardous chemical responses to pest populations that exceed the established thresholds or other measures aimed at preventing pest infestations. The Contractor shall use non-chemical methods wherever possible.
- D. <u>Description of any Structural or Operational Changes That Would Facilitate the Pest Control Effort:</u> The Contractor shall provide the IPM Coordinator with written recommendations for site-specific solutions for preventing future pest infestations or eliminating observed sources of pest food, water, harborage, and access.
- E. <u>Statements of the conditions considered necessary to allow pesticide applications:</u> Pesticide applications shall be by need and not by schedule. The Contractor must obtain written permission from the IPM Coordinator to use pesticides that require notification of parents, guardians, and staff under Illinois State law.
- F. <u>Proposed Materials and Equipment for Service:</u> The Contractor shall provide current labels and *Material Safety Data Sheets* (MSDS Sheets) for all pesticides to be used, and brand names of pesticide application equipment, rodent bait boxes, pest monitoring devices, pest surveillance and detection equipment, and any other pest control devices or equipment that may be used.
- G. <u>Commercial Pesticide Applicator Certificates or Licenses:</u> The Contractor shall provide photocopies of the business' Pest Control License and Pesticide Applicator Certificates and/or Identification Cards for every Contractor employee who will be performing on-site service under this contract.
- H. <u>Notification and posting:</u> The Contractor shall work with the IPM Coordinator to ensure full compliance with Illinois' notification and posting requirements where applicable.

#### 6. Record Keeping

The IPM Coordinator shall be responsible for maintaining a pest control logbook or file for each building or site specified in this contract. These records shall be kept on site. The Contractor shall be responsible for documenting each visit to the site and all services provided. This file shall include:

- A. <u>Pest Control Plan</u>: A copy of the Contractor's approved Pest Control Plan, including labels and MSDS sheets for all pesticides used in the buildings, brand names of all pest control devices and equipment used in the buildings, and the Contractor's service schedule for the buildings.
- B. <u>Pest Sighting Reports</u>: Pest monitoring data sheets which record the number and location of pests as revealed by the Contractor's monitoring program or sightings by building occupants.
- C. Work Request and Inspection Forms: Work Request and Inspection Forms will be used to advise the Contractor of routine service requests and to document the performance of all work, including emergency work. Upon completion of a service visit to the building or site, the Contractor's employee performing the service shall complete, sign, and date the form, and return it to the logbook.

D. <u>Contractor's Service Report Forms</u>: Customer copies of a Contractor's Service Report Form documenting all information on pesticide applications, including the location of all traps, trapping devices, and bait stations in or around the property.

#### 7. Manner and Time To Conduct Service

A. <u>Time Frame of Service Visits</u>: The Contractor shall perform routine pest control services that do not adversely affect building occupant health or productivity during the regular hours of operation in buildings. When it is necessary to perform work outside of the regularly scheduled hours set forth in the Pest Control Plan, the Contractor shall notify the IPM Coordinator at least one day in advance.

#### B. Safety and Health:

- The Contractor shall observe all safety precautions throughout the performance of this contract.
   All work shall comply with applicable state and municipal safety and health requirements.
   Where there is a conflict between applicable regulations, the most stringent will apply.
- ii. The Contractor shall assume full responsibility and liability for compliance with all applicable regulations pertaining to the health and safety of personnel during the execution of work.
- C. <u>Special Entrance</u>: The Contractor must coordinate access to restricted areas with the IPM Coordinator.
- D. <u>Uniforms and Protective Clothing</u>: All Contractor personnel working in or around buildings designated under this contract shall wear distinctive uniform clothing. The Contractor shall determine the need for and provide any personal protective items required for the safe performance of work. Protective clothing, equipment, and devices shall comply with FIFRA and the specific pesticide labels.
- E. <u>Vehicles</u>: Vehicles used by the Contractor shall be identified in accordance with state and local regulations.

#### 8. Special Requests and Emergency Service

On occasion the IPM Coordinator may request that the Contractor perform corrective, special, or emergency service(s) that are beyond the routine service requests. The Contractor shall respond to these exceptional circumstances and complete the necessary work within one working day after receipt of the request. In the event that such services cannot be completed within one working day, the Contractor shall immediately notify the IPM Coordinator and indicate an anticipated completion date.

#### 9. Use of Pesticides

The Contractor shall minimize the use of pesticides whenever possible. The Contractor shall not apply any pesticide that has not been included in the Pest Management Plan or approved in writing by the IPM Coordinator. These applications will be restricted to unique situations where no alternative measures are available or practical and non-chemical options have been exhausted. The pesticides used by the Contractor must be registered with the U.S. EPA and used in strict accordance with the manufacturer's label instructions and all applicable Federal, State, and local laws and regulations.

The Contractor shall adhere to the following rules for pesticide use:

A. Written Permission to Use Pesticides: The Contractor will not use any pesticide without first obtaining written permission from the IPM Coordinator after inspections or monitoring indicate the presence of pests and non-chemical control methods or actions have not reduced the pest population to below the action threshold. The Contractor shall provide a written request explaining the need to use a pesticide. The request shall identify the target pest, the need for such treatment, the time and specific place of treatment, the pesticide to be used, the method of application, what precautions should be taken to ensure tenant and employee safety, and the steps taken to ensure the containment of the spray to the site of application. If pesticide use is approved, the Contractor shall employ the least-hazardous material, most precise application technique, and minimum quantity of pesticide necessary to achieve control.

- B. <u>Timing of Application</u>: The Contractor must time applications of pesticides requiring notification to occur when buildings are unoccupied and will remain unoccupied until the reentry period specified by the label.
- C. <u>Notification Procedures</u>: The IPM Coordinator shall provide the Contractor with information about the district's procedures for notifying parents, guardians, and staff about applicable pesticide applications. The Contractor shall provide the IPM Coordinator with sufficient advance notice of pesticide applications for the district to comply with the notification requirement.
- D. Pesticide Storage: The Contractor shall not store any pesticide product on the premises listed herein.

#### 10. Structural Modifications and Recommendations

Structural modifications for pest suppression will not be the responsibility of the Contractor. The Contractor shall be responsible for advising the IPM Coordinator about any structural, sanitary, or procedural modifications that would reduce pest food, water, harborage, or access. The Contractor shall be responsible for adequately suppressing all pests included in this contract regardless of whether or not the suggested modifications are implemented.

#### 11. Insect Control

- A. Monitoring: Sticky traps shall be used to guide and evaluate indoor insect populations and control efforts.
- B. <u>Emphasis on Non-chemical Methods</u>: The Contractor shall use non-chemical methods of control whenever possible. For example:
  - i. Portable vacuums rather than pesticide sprays shall be used for initial cleanouts of cockroach infestations, for swarming (winged) ants and termites, and for control of spiders in webs wherever appropriate. If vacuuming is used as a pest control method, be sure to use a vacuum cleaner with a HEPA (high efficiency particulate air) filter to avoid suspending materials in the air that can cause respiratory problems.
  - ii. Exclusion and trapping devices rather than pesticide sprays shall be used for control of flying insects indoors wherever appropriate.
- C. <u>Insecticide Bait Formulations</u>: Bait formulations shall be used for cockroach and ant control wherever appropriate. Bait shall be placed in areas inaccessible to children and other building occupants.
- D. <u>Records</u>: The locations of all monitoring devices, bait stations, and other control devices shall be recorded in the pest control logbook.

#### 12. Rodent Control

- A. <u>Indoor Trapping</u>: As a general rule, rodent control inside occupied buildings shall be accomplished with trapping devices only. All such devices shall be concealed out of the general view and in areas inaccessible to children and in protected areas not affected by routine cleaning and other operations. Trapping devices must be checked regularly by the Contractor or school employee authorized by the IPM Coordinator. The Contractor or school personnel shall dispose of rodents killed or trapped within 24 hours.
- B. <u>Rodenticides</u>: Rodenticides will not be placed inside buildings unless in EPA-registered tamper-resistant bait boxes. Frequency of bait box servicing shall depend upon the level of rodent infestation. All bait boxes shall be labeled and dated at the time of installation and each servicing. All bait boxes shall be maintained in accordance with EPA regulations, with an emphasis on the safety of non-target organisms.
- C. <u>Records</u>: The locations of all traps, trapping devices, and bait boxes shall be recorded in the pest control logbook.

#### 13. Quality Control Programs

A. The Contractor shall establish a complete quality control program to assure the requirements of the contract are provided as specified.

This document is intended for general guidance only and does not pertain to any actual contract.

#### **IPM Contact Information**

School District:			
Address:			
Telephone:		Fax:	
School IPM Staff	Name/Position	Telephone/Fax	Schedule
IPM Coordinator			
Secondary IPM Contact			
Admin. Contact			
Other:			
Pest Control Oper	rator (PCO):		
•	ator (FCO).		
Telephone:		Fax:	
PCO Staff	Name Name	Telephone/Fax	Schedule
Primary Technician			
Secondary Technician			
Supervisor			

#### **Practicing IPM**

#### Monitoring and Inspecting

A regular and ongoing monitoring program will help you answer the following questions:

- ✓ Are there existing pest problems?
- ✓ Where are they located?
- ✓ What is the problem pest?
- ✔ How is the pest entering the building?
- ✓ What are the pests' sources of food, water, and shelter?
- ✓ Are there conditions conducive to future pest problems that can be corrected?

See the sample monitoring forms (p. 15-18).

Table 1. Areas to be monitored and appropriate staff to monitor each area

Area	Main- tenance	Food Service Staff	Teachers and Staff	Students	Pest Control Expert
Kitchen & storage area	✓	✓			✓
Dining areas	✓	✓	✓	✓	✓
Restrooms	✓		✓	✓	
Locker rooms	✓		✓	✓	✓
Utility rooms & janitor closets	✓				✓
Entrances & hallways	✓		✓	✓	
Classrooms	✓		✓	✓	
Staff lounges	✓		✓		✓
Student lockers	✓			✓	
Outdoors	✓		✓	✓	✓

#### Pest Sighting Logs

Everyone who uses school buildings can help alert IPM staff to pest problems. Pest sighting logs should be placed at critical areas such as food service and storage, teacher's lounge, and classrooms where pests have been seen. Sample logs are on p. 20-21.

#### Monitoring Tools

✓ Clipboard with monitoring forms✓ Sticky traps✓ Site plans✓ Hand lens

✓ Flashlight
✓ Plastic bags for collecting specimens

#### **Pest Tolerance Levels**

The next step is determining whether a response to an existing pest population is needed.

- ✓ Is the pest population growing?
- ✓ Are the pests located in a sensitive area (i.e. kitchens, cafeteria, or sick rooms)?
- ✓ Are the pests posing a health threat to humans?
- ✓ Are the pests damaging school property?
- ✓ Are the pests annoying or worrying students, faculty, and staff?
- ✓ Are the pests causing aesthetic damage?

✓ Are there state or county health codes requiring control of the pest problem (i.e. pests in areas where food is stored, prepared, or served)?

See Appendix B for Guidelines for Pest Tolerance Levels (p. 34-35).

#### **Pest Control Response**

To respond to a pest problem, choose an appropriate treatment strategy using the information collected during monitoring and inspection.

- ✓ Would improved sanitation remove the pests' source of food?
- ✓ Are there leaks and standing water providing to the pest with water?
- ✓ Is there cardboard and clutter where the pest can hide?
- ✓ Are there hiding places in cracks and crevices that can be caulked or sealed?
- ✓ Can installing window screens and door sweeps and sealing openings around doors and windows block the pest's entry points?
- ✓ Can the infestation be vacuumed up?
- ✓ Are there traps that can be set out for rodents?
- ✓ Can we remove the pests by hand?
- ✓ Do we need to educate building occupants about IPM so they don't contribute to pest problems?
- ✓ Is there a less hazardous pesticide, such as a bait or boric acid, which can be applied in an area inaccessible to children?

Table 2: Response times for pest problems

Response Time	Condition	Pest
Not over four hours	Potential physical harm	Rodents or wildlife where students or staff are likely to contact them
i i i		Stinging or biting insects
One working day	Potential medical harm	Fleas, lice, Bed/Bat bugs, and poisonous spiders
One working day	Potential for food contamination	Cereal pests, cockroaches, rodents, ants in kitchen or food storage area, and flies around food
1 - 2 working days	Large numbers of non- threatening bugs	Ant or termite colonies in building; movement into the building of millipedes, crickets, boxelder bugs etc.

#### Prevention

Many actions that are appropriate for responding to a pest problem can also help prevent future problems. Monitoring will help you identify these problem areas.

#### **Record-keeping**

A file should be kept with records for all of the following items:

- ✓ Monitoring forms including pest sighting logs
- ✓ Actions taken for pest problems
- ✓ Location of all traps, bait stations, and bait boxes
- ✓ Dates, times, and locations of all pesticide applications
- ✓ Material Safety Data Sheets (MSDS) and labels for all pesticides used
- ✓ Notification procedures and announcements for pesticide applications
- ✓ Copy of contracts with pest control operators

#### **IPM Monitoring Form**

Facility:		[	Date:	Time:
Person Monit	oring:			
Area	Pest Problem Found	Conditions		Recommendations

Area	Pest Problem Found	Conditions	Recommendations

#### **IPM Monitoring Form**

Facility: Wylie M	iddle School	Date:	9/6/00	Time: 1:30 pm
				·
Person Monitoring:	Terry Adams			

Area	Pest Problem Found	Conditions	Recommendations
Cafeteria/ Kitchen	Roaches and evidence of mice	Food not stored in pest-proof containers; lots of cardboard; trash not being taken out regularly	<ol> <li>Transfer food to pest proof containers 2) Remove cardboard</li> <li>Take out trash regularly</li> </ol>
Science class	Ants	Animal cages need to be cleaned; Cracks in wall allowing ants to enter	1) Talk to science teachers about cleaning cages more often 2) Caulk cracks in wall

#### **Detailed Monitoring Form**

School:		Date:	Time:
Area/Room Inspected:	Person Mo	nitoring:	
Previous Problems:	Action Tak	en:	
Pests Observed and Estimated Number:			
Conditions Found: (i.e. sanitation problem	ns, structur	al deficiencies)	
Recommended Actions:			
Assigned To:			
Comments:			

#### IPM Inspection Checklist

School Name:	D	ate/Time of Inspect	ion: Inspector:
Building Exterior	Satisfactory	Unsatisfactory	Comments for Facilities/Maintenance
Garbage storage area Garbage handling system Perimeter walls Roof areas Parking lot and/or drainage areas Weeds and surrounding landscape Rodent-proofing Other			
Building Interior			
Walls Floors Ceilings Floor drains Lighting Ventilation/Air handling equipment Other			
Food Storage			
Dry food storage area Damaged/spoiled dry food Empty container storage Refrigerated areas Overall sanitation Other			

Food Prep/Distribution Areas	Satisfactory	Unsatisfactory	Comments for Facilities/Maintenance
Counter and surface areas Food serving lines Spaces around appliances/equipmen Other	t		
Other Kitchen Areas Dishwashing areas Garbage/Trash areas Tray return area Storage areas for pots/pans/plates Other			
Utility Areas and Bathroom Sinks and waterclosets Custodian's closet/work area Other			
Lunchroom area Tables/Chairs Office areas Vending machine area Other			

Recommendations to staff and faculty to aid in pest control:

#### Pest Sighting Log

Facility:	IPM Coordinator:
J -	

Type of Pest or Description	Number of Pests Seen	Location Sighted	Time and Date of Sighting	Name of Person Making Report

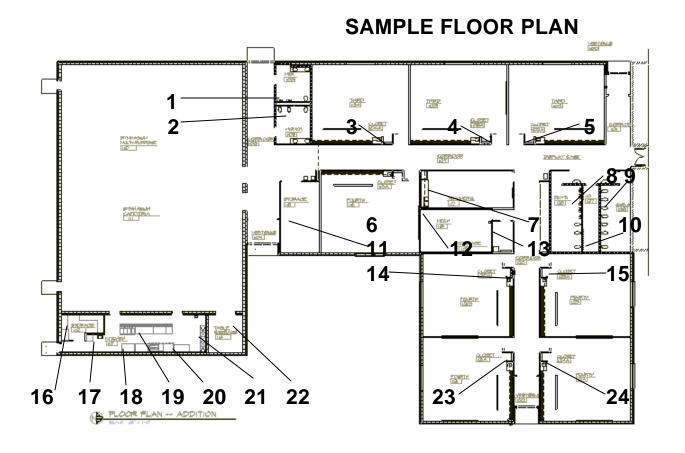
#### Pest Sighting Log

Facility: Wylie Middle School IPM Coordinator: Terry Adams

Type of Pest or Description	Number of Pests Seen	Location Sighted	Time and Date of Sighting	Name of Person Making Report
Cockroaches	2	Kitchen	9/4 noon	Ana Lopez
Ants	20-30	Science lab	9/7 10:00 am	Mr. Wilson
Mouse	1	Teacher's lounge	9/11 1:30 pm	Ms. Lee

#### Sample Building Floor Plan

- Include School Name
- Label Rooms/Areas
- Record pest sighting locations and placements of bait stations, bait boxes, and traps



#### Pest Control Response

Facility:			

Area/Room	Pest Problem	Action Taken	Person Responsible	Date/Time

#### Pest Control Response

Facility: Wylie Middle School

Area/Room	Pest Problem	Action Taken	Person Responsible	Date/Time
Cafeteria/ Kitchen	Roaches and mice	Transferred food to pest-proof containers; Removed cardboard; Required trash to be taken out daily	Terry Adams	9/12/00
Teacher's Lounge	Mice	Discussed cleaning with teachers; put out 3 mice traps	Same	9/13/00
Cafeteria/ Kitchen	Roaches	Continued problems with roaches—placed 5 bait stations around kitchen	Same	9/18/00

#### **Trap and Bait Monitoring Form**

Building:	Person Monitoring:
Banang	i disan maniferingi

Trap Type	#	Room # or Name	Date Trap Set	Date Trap Checked	Trap Missing?	Location Description	Number of Specimens

#### **Trap and Bait Monitoring Form**

Building: Wylie Middle School Person Monitoring: Terry Adams

Trap Type	#	Room # or Name	Date Trap Set	Date Trap Checked	Trap Missing?	Location Description	Number of Specimens
Roach bait station	1	Kitchen	9/18	9/19	No	SE drain, under grate	N/A
Same	2	Same	Same	Same	No	Sink under electric box	N/A
Same	3	Same	Same	Same	Yes	Under conveyor belt	N/A
Mice trap	1	Teacher's Lounge	9/25	9/26	No	Under sink	0
Same	2	Same	9/25	9/26	No	In the closet	1

#### **Pesticide Application Notification**

Notifica	ation Checklist
	Send out two business days prior to the pesticide application
	Send to parents and staff* in writing
	Include:
	<ul> <li>Intended date of application</li> <li>Name and contact number of the school personnel responsible for pesticides applications</li> </ul>
	Include the notification in a newsletter, bulletin, calendar, or other correspondence that will reach <u>all</u> parents and staff
OK	
	Create a registry of parents and staff who wish to be notified
_	Inform all parents and staff that a registry is being created

#### **Exempt Materials**

Applications of the following pesticides are not subject to the notification requirement:

- Antimicrobial agents (i.e. disinfectants, sanitizers, or deodorizers)
- Insecticide baits
- Rodenticide baits

#### **Emergency Pesticide Applications**

Prior written notice is not required if there is an imminent threat to health or property. Written notification should be provided as soon as possible that includes an explanation of the circumstances that gave rise to the emergency.

#### **Regularly Scheduled Applications**

According to state law, regularly scheduled pesticide applications are <u>not</u> an acceptable part of an IPM program. <u>Therefore, creating a calendar of pre-scheduled pesticide applications to notify parents and staff is an inappropriate mechanism for notification.</u>

<sup>\*</sup>State law requires parents, guardians, and staff to be notified prior to <a href="indoor">indoor</a> applications but only parents and guardians be notified prior to <a href="outdoor">outdoor</a> applications. However, it is recommended that school districts create one set of procedures that covers both indoor and outdoor notification and includes parents, guardians, and staff rather than different procedures for indoor and outdoor applications.

#### **Sample Pesticide Application Notice**

Dear Parent, Guardian, or Staff Member:

This district practices Integrated Pest Management (IPM), an appro-	ach to pest control
that reduces pest populations while minimizing pesticide applications. Afte	r trying non-chemical
means to control a current pest problem, a pesticide has been deemed ned	cessary. On
(date), an application of (name of pesticide) will be ap	plied at
(location) for the control of (pest).	
If you have any questions or comments, please contact	(name
of responsible school employee) at (phone).	
Sample Pesticide Application Registry Notice	<u>ə</u>
Dear Parents, Guardians, and Staff:	
(School district) practices Integrated Pest Managem	ent, a program that
combines preventive techniques, non-chemical pest control methods, and t	he appropriate use
of pesticides with a preference for products that are the least harmful to he	uman health and the
environment. The term "pesticide" includes insecticides, herbicides, roden	ticides, and
fungicides.	
This school district is establishing a registry of people who wish to be	oe notified prior to
pesticide applications. To be included in this registry, please complete the	attached form and
submit it to (name of responsible school employed	e).
I would like to be notified two days before the use of pesticides at the schothat if there is an immediate threat to health or property that requires trea notification can be sent out, I will receive notification as soon as practicable	tment before
Parent/Guardian/Staff Member's Name	
Signature	Date
Student's Name	Grade

# Appendix A: School IPM and Indoor Notification Legislation

# State of Illinois Public Acts 91st General Assembly

Public Act 91-0525

SB529 Enrolled

LRB9105046LDmb

AN ACT to amend the Structural Pest Control Act by changing Sections 2, 3, and 10.2 and adding Sections 3.26 and 10.3.

Be it enacted by the People of the State of Illinois, represented in the General Assembly:

Section 5. The Structural Pest Control Act is amended by changing Sections 2, 3, and 10.2 and adding Sections 3.26 and 10.3 as follows:

(225 ILCS 235/2) (from Ch. 111 1/2, par. 2202)

Sec. 2. Legislative intent. It is declared that there exists and may in the future exist within the State of Illinois locations where pesticides are received, stored, formulated or prepared and subsequently used for the control of structural pests, and improper selection, formulation and application of pesticides may adversely affect the public health and general welfare.

It is further established that the use of certain pesticides is restricted or may in the future be restricted to use only by or under the supervision of persons certified in accordance with this Act.

It is recognized that pests can best be controlled through an integrated pest management program that combines preventive techniques, non-chemical pest control methods, and the appropriate use of pesticides with preference for products that are the least harmful to human health and the environment. Integrated pest management is a good practice in the management of pest populations, and it is prudent to employ pest control strategies that are the least hazardous to human health and the environment.

Therefore, the purpose of this Act is to protect, promote and preserve the public health and general welfare by providing for the establishment of minimum standards for selection, formulation and application of restricted pesticides and to provide for the licensure of commercial structural pest control businesses, the registration of persons who own or operate non-commercial structural pest control locations where restricted pesticides are used, and the certification of pest control technicians.

It is also the purpose of this Act to <u>reduce economic, health, and environmental risks by promoting encourage</u> the use of integrated pest management for structural pest control in schools, by making guidelines on integrated pest management available to schools. (Source: P.A. 87-1106.)

(225 ILCS 235/3) (from Ch. 111 1/2, par. 2203)

Sec. 3. Definitions.) As used in this Act, unless the context otherwise requires, the terms specified in Sections 3.01 through 3.26 3.24 have the meanings ascribed to them in those Sections.

(Source: P.A. 83-825.)

(225 ILCS 235/3.26 new)

Sec. 3.26. "School" means any structure used as a public school in this State.

(225 ILCS 235/10.2) (from Ch. 111 1/2, par. 2210.2)

Sec. 10.2. Integrated pest management guidelines.

- (a) The Department shall prepare guidelines for an integrated pest management program for structural pest control practices at school buildings and other school facilities. Such guidelines shall be made available to schools and the public upon request.
- (b) When economically feasible, each school is required encouraged to adopt an integrated pest management program that incorporates the guidelines developed by the Department. If adopting an integrated pest management program would not be economically feasible because it would result in an increase in the school's pest control cost, the school district must provide written notification to the Department. The notification must include projected pest control costs for the term of the pest control program and projected costs for implementing integrated pest management for that same time period. The Department shall make this notification available to the general public upon request. In implementing an integrated pest management program, a school employee pest control specialist should be designated to and that person should assume responsibility for the oversight of pest management practices in that school and for recordkeeping requirements.
- (c) The Structural Pest Control Advisory Council shall assist the Department in developing the guidelines for integrated pest management programs. In developing the guidelines, the Council shall consult with individuals knowledgeable in the area of integrated pest management.
- (d) The Department, with the assistance of the Cooperative Extension Service and other relevant agencies, may prepare a training program for school pest control specialists. (Source: P.A. 87-1106.)

(225 ILCS 235/10.3 new)

Sec. 10.3. Notification. School districts must maintain a registry of parents and guardians of students and employees who have registered to receive written notification prior to application of pesticides to school property or provide written notification to all parents and guardians of students before such pesticide application. Written notification may be included in newsletters, bulletins, calendars, or other correspondence currently published by the school district. The written notification must be given at least 2 business days before application of the pesticide application and should identify the intended date of the application of the pesticide and the name and telephone contact number for the school personnel responsible for the pesticide application program. Prior written notice shall not be required if there is an imminent threat to health or property. If such a situation arises, the appropriate school personnel must sign a statement describing the circumstances that gave rise to the health threat and ensure that written notice is provided as soon as practicable. For purposes of this Section, pesticides subject to notification requirements shall not include (i) an antimicrobial agent, such as disinfectant, sanitizer, or deodorizer, or (ii) insecticide baits and rodenticide baits.

Section 99. Effective date. This Act takes effect August 1, 2000.

#### Outdoor Notification "Parent Right-to-Know" Legislation

# State of Illinois Public Acts 91st General Assembly

Public Act 91-0099

SB527 Enrolled

LRB9105047LDpk

AN ACT to amend the Lawn Care Products Application and Notice Act by changing Section 3.

Be it enacted by the People of the State of Illinois, represented in the General Assembly:

Section 5. The Lawn Care Products Application and Notice Act is amended by changing Section 3 as follows:

(415 ILCS 65/3) (from Ch. 5, par. 853)

Sec. 3. Notification requirements for application of lawn care products.

- (a) Lawn Markers.
- (1) Immediately following application of lawn care products to a lawn, other than a golf course, an applicator for hire shall place a lawn marker at the usual point or points of entry.
- (2) The lawn marker shall consist of a 4 inch by 5 inch sign, vertical or horizontal, attached to the upper portion of a dowel or other supporting device with the bottom of the marker extending no less than 12 inches above the turf.
- (3) The lawn marker shall be white and lettering on the lawn marker shall be in a contrasting color. The marker shall state on one side, in letters of not less than 3/8 inch, the following: "LAWN CARE APPLICATION STAY OFF GRASS UNTIL DRY FOR MORE INFORMATION CONTACT: (here shall be inserted the name and business telephone number of the applicator for hire).
- (4) The lawn marker shall be removed and discarded by the property owner or resident, or such other person authorized by the property owner or resident, on the day following the application. The lawn marker shall not be removed by any person other than the property owner or resident or person designated by such property owner or resident.
- (5) For applications to residential properties of 2 families or less, the applicator for hire shall be required to place lawn markers at the usual point or points of entry.
- (6) For applications to residential properties of 2 families or more, or for application to other commercial properties, the applicator for hire shall place lawn markers at the usual point or points of entry to the property to provide notice that lawn care products have been applied to the lawn.
- (c) Information to Customers of Applicators for Hire. At the time of application of lawn care products to a lawn, an applicator for hire shall provide the following information to the customer:
  - (1) The brand name or common name of each lawn care product applied;
  - (2) The type of fertilizer or pesticide contained in the lawn care product applied;
  - (3) The reason for use of each lawn care product applied;

- (4) The range of concentration of end use product applied to the lawn and amount of material applied;
- (5) Any special instruction appearing on the label of the lawn care product applicable to the customer's use of the lawn following application; and
- (6) The business name and telephone number of the applicator for hire as well as the name of the person actually applying lawn care products to the lawn.
  - (d) Prior notification of application to lawn. In the case of all lawns other than golf courses:
- (1) Any neighbor whose property abuts or is adjacent to the property of a customer of an applicator for hire may receive prior notification of an application by contacting the applicator for hire and providing his name, address and telephone number.
- (2) At least the day before a scheduled application, an applicator for hire shall provide notification to a person who has requested notification pursuant to paragraph (1) of this subsection (d), such notification to be made in writing, in person or by telephone, disclosing the date and approximate time of day of application.
- (3) In the event that an applicator for hire is unable to provide prior notification to a neighbor whose property abuts or is adjacent to the property because of the absence or inaccessibility of the individual, at the time of application to a customer's lawn, the applicator for hire shall leave a written notice at the residence of the person requesting notification, which shall provide the information specified in paragraph (2) of this subsection (d).
- (f) Notification for applications of pesticides to school grounds other than school structures. School districts must maintain a registry of parents and guardians of students who have registered to receive written notification prior to the application of pesticides to school grounds or provide written notification to all parents and guardians of students before such pesticide application. Written notification may be included in newsletters, bulletins, calendars, or other correspondence currently published by the school district. The written notification must be given at least 2 business days before application of the pesticide and should identify the intended date of the application of the pesticide and the name and telephone contact number for the school personnel responsible for the pesticide application program. Prior written notice shall not be required if there is imminent threat to health or property. If such a situation arises, the appropriate school personnel must sign a statement describing the circumstances that gave rise to the health threat and ensure that written notice is provided as soon as practicable. (Source: P.A. 86-358.)

Section 99. Effective date. This Act takes effect upon becoming law.

# Appendix B: Guidelines for Pest Tolerance Levels

The following guidelines for pest tolerance levels are excerpted from <u>A Practical Guide to Management of Common Pests in Schools</u> developed by the Illinois Department of Public Health. To receive a copy of the manual and contact information for these groups see p. 35.

#### Ants

In a food area they should be eliminated quickly as they may contaminate open food, although to a lesser degree than flies or roaches. In nonfood areas they are strictly a nuisance and should be handled as such. Ants outside a building that are not migrating into the building are more beneficial than detrimental and should be left alone.

#### **Bats**

These are protected animals and can only be removed by a specialist who is licensed by the Illinois Department of Natural Resources. Although bats are nocturnal and are beneficial in their feedings on night-flying insects, they can pose some problems for a school. If they are allowed to roost in a building for a long time, the accumulation of bat droppings can become a health hazard, and can cause physical damage to the building. If a student handles a sick bat on the playground, there could be a serious health problem.

#### **Birds**

In general, birds should not present a problem for a school. However, bird nesting on school buildings should be discouraged to prevent accumulation of droppings that may harbor pathogens and to prevent migration of pests such as fowl mites or carpet beetles from an abandoned nest into classrooms.

#### Biting or stinging insects

These include *bees, yellowjackets, wasps, brown recluse spiders*, and *black widow spiders*. They can cause a serious health threat to some children and adults who are hyperallergic to stings or bites. For this reason, there should be no tolerance for these pests either inside or outside of the building.

#### **Cereal Pests**

These infest flour and other cereal grain products and should not be tolerated. Ingestion of insects or pathogens in infested grain products can cause illness in anyone who consumes the food.

#### Cockroaches

There should be no tolerance for cockroaches in any area of the facility. They can carry several pathogens that can cause health problems under certain circumstances, including salmonella and causing asthmatic reactions.

#### House flies

In nonfood areas, these are more a nuisance than a threat. An occasional housefly in a nonfood area is not a cause for alarm. Many flies in a nonfood area could be a sign of a sanitation problem that needs to be addressed. Houseflies in a food area cannot be tolerated. The pads of the feet of flies are sticky and pick up debris from wherever they land. If the fly should land on garbage or animal feces and then fly into the kitchen and land on exposed food, some of that debris will be transferred to the food.

#### Other flies

Small numbers of other flies do not constitute a health threat, but they can be a nuisance and should be treated as such. However, many flies in a room or area may indicate a problem that needs to be investigated.

#### Mice

There should be no tolerance in any area of the school for mice. They contaminate food by gnawing into unopened packages and by urinating or defecating on open food or food preparation surfaces. Their constant gnawing can cause damage to the building and, in extreme cases, may cause an electrical short and resultant fire. If a student or staff person attempted to pick up a mouse, he or she could receive a rather nasty bite.

#### Occasionally invading insects

These include such pests as *Crickets, spiders* (except *Brown Recluse* and *Black Widow Spiders*), *Boxelder Bugs, Millipedes, Clover Mites* (not *Fowl Mites*), *Springtails*, etc. These insects are not a health threat and only become a nuisance if they appear in large numbers or are found near open food areas.

#### **Raccoons**

These are protected animals and can only be removed from a school by a specialist who is licensed by the Illinois Department of Natural Resources. Raccoons are nocturnal and normally would not contact students or staff. However, they should be removed from the facility as they can be physically destructive to the building. They can get into garbage and create a mess that is attractive for flies and other pests. Additionally, they can carry fleas, and there have been a few isolated cases where children have been bitten by raccoons.

#### **Rats**

There should be no tolerance for rats inside or outside of a the school building at any time. Like mice, they can contaminate food by gnawing into unopened packages and by urinating or defecating on open food or food preparation surfaces. Their gnawing habits can cause damage to the building and they could cause a fire by gnawing into an electrical wire. A bite from a rat can be more serious than one received from a mouse.

#### **Squirrels**

These are protected animals and can only be removed by a specialist who is licensed by the Illinois Department of Natural Resources. Squirrels can cause physical damage to a building and they carry fleas. They tend to be more "people tolerant" and will feed on food scraps found on the school grounds or in the garbage area during the daytime. This will increase the possibility of a student coming in contact with one.

# Appendix C: School IPM Contacts and Resources

#### Illinois Dept. of Public Health (IDPH)

Contact IDPH for information on indoor pest control, IPM, and notification as well as pesticide applicator training and licenses.

Fred Riecks and Linn Haramis Structural Pest Control Program, IDPH 525 W. Jefferson St. Springfield, IL 62761 ph: 217/782-5830; fax: 217/785-0253

www.idph.state.il.us

#### Illinois Dept. of Agriculture (IDA)

Contact IDA for information outdoor pest control, outdoor IPM, and notification as well as pesticide applicator training and licenses.

Tom Walker Bureau of Environmental Programs, IDA IL State Fairgrounds Springfield, IL 62706 ph: 217/785-2427; fax: 217/524-4882 www.agr.state.il.us/envprogs.html

### **University of Illinois Cooperative Extension Service (CES)**

Contact CES for help identifying pests, choosing appropriate IPM strategies, and IPM training.

Phil Nixon
Dept. of Natural Resources
103 Vegetable Crops Building
1103 S. Dorner, Urbana, IL 61801
ph: 217/333-6650
www.ipm.uiuc.edu/ipm/index.html

#### School IPM Hotline: 1-877-668-8IPM

Contact the <u>toll-free</u> School IPM Hotline for free information on implementing and practicing IPM. The Hotline is sponsored by the *IPM Technical Resource and Information Center* at Purdue University.

Al Fournier
Dept. of Entomology
1158 Smith Hall, Purdue University
W. Lafayette, IN 47907-1158
ph: 1-877-668-8IPM
www.entm.purdue.edu/entomology

#### Safer Pest Control Project (SPCP)

Contact SPCP, a non-profit organization dedicated to reducing pesticide use and promoting safer alternatives throughout Illinois, for free information on implementing and practicing IPM.

Jessica Bullen, SPCP 25 E. Washington, Suite 1515 Chicago, IL 60602 Ph: 312/641-5575; fax: 312/641-5454 www.spcpweb.org

#### U.S. EPA Region V

Contact the EPA for information on educational materials on IPM and information on federal laws concerning pesticides.

Don Baumgartner Pesticides & Toxics Branch, DRP 8J 77 W. Jackson Blvd, Chicago, IL 60604 ph: 312/886-7835; fax: 312/353-4788 www.epa.gov/pesticides

#### **Additional Resources**

<u>Integrated Management of Structural Pests</u> <u>in Schools</u> and <u>A Practical Guide to Common</u> Pests in Schools

These are both available **free** from IDPH. Call 217/782-5830 or see <a href="https://www.idph.state.il.us">www.idph.state.il.us</a> under "A-Z topics", hit "P" for pests. See the previous page for more contact information.

#### IPM for Schools: A How-To Manual

Published by Bio-Intregral Resource Center (BIRC) is available for \$50.00. BIRC, P.O. Box 7414, Berkeley, CA 94707; Ph: 510/524-2567

#### <u>IPM Practitioner</u> and <u>Common Sense Pest</u> <u>Control Quarterly</u>

These two journals are also available from BIRC (see above).

#### www.ifas.ufl.edu/~schoolipm

The website hosted by the University of Florida has extensive information on IPM and links to other IPM websites.