

Guidance for Creating a School Integrated Pest Management Plan In Compliance with New Jersey Law



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Use the guidance provided in this document to help your school to create it's own IPM Plan.

Each school is different and has it's own special and unique situations and personnel. This document helps to make clear what needs to be done and offers suggestions as to who should do it.

Only you know your school, school grounds and school personnel (including the school community) well enough to create a plan that will work for your school. Using the guidance and suggestions in this document, going one section at a time, will help you to get the seemingly difficult job of creating an IPM Plan done, and you'll find it was not too difficult at all.

General school information:

This section of the plan should contain a statement that identifies the School and names the key parties involved with the implementation of the IPM plan. The statement should contain the name, address, email and phone numbers for the school. The statement should also contain the name and contact information for the school IPM Coordinator, as well as contract information of any pest control professionals under contract with the school.

Integrated Pest Management Statement:

Include an Integrated Pest Management statement as a part of your plan. As an example, an IPM statement may read as follows.

Integrated Pest Management on school property is a long-term approach to maintaining healthy landscapes and facilities that minimizes risks to people and the environment. Our school will use ongoing site assessment, pest monitoring, and pest prevention in combination with a variety of pest management tactics to keep pests within acceptable limits. Instead of routine chemical applications, our school will employ mechanical, physical, and biological controls with selective use of pesticides when needed

School IPM Policy:

Attach a copy of your school IPM Policy to your school IPM plan. A model policy is available at the NJDEP Pesticide Control Program web-site at <http://njipm.org> or at the Rutgers Cooperative Extension web-site at <http://www.pestmanagement.rutgers.edu/IPM/SchoolIPM> New Jersey law states that,the superintendent of the school district, for each school in the district, the board of trustees of a charter school, and the principal or chief administrator of a private school, shall adopt and implement a school integrated pest management policy for the school property consistent with the model policy.....

School IPM Plan Goals:

- ▶ The roles, responsibilities, and training requirements of all members of the School Community regarding integrated pest management at the school are clearly defined. The school community consists of all groups associated with your school, and will vary from location to location. Some fairly standard groups include the school administration, the IPM coordinator, students, teachers and other school staff, parent-teacher associations or organizations and vendors or contractors including pest control professionals.

- ▶ School pest identification. Initially identify interior and exterior pests for your school by historic account and by direct monitoring. List and then learn about the pests that are in your school now or that can be expected at a given point during a normal school year. Establish monitoring methods and schedules. Establish record keeping policies and record keeping forms. Some good forms are available for download at the NJDEP or Rutgers IPM in Schools web sites, or you can make your own.
- ▶ Pest prevention and control to maintain a healthy school environment. Decide what non-chemical pest controls will be routinely practiced at the school. Establish action threshold levels for all anticipated pests. The importance of this step can not be over-stated. Action thresholds are the number of or frequency of a pest that will trigger the need for action and possibly, the use of a chemical control. Define the prescribed use of a low impact versus a non-low impact pesticide for identified pests. Maintain records of all pesticide applications.
- ▶ Keep the School Community informed. The law requires that all schools issue an annual notice of their school IPM program. Make records available for public inspection. Establish pre-notification procedures for when or if you must use non-low impact pesticides. Adopt notification procedures for the emergency use of non-low impact pesticides. Establish posting procedures for interior and exterior areas that are treated with non-low impact pesticides.
- ▶ Evaluate and revise your School IPM Plan annually. Update your school's IPM priority list as projects are completed. Discuss what is working well in your plan and what is not, what was cumbersome and what went easily, and adjust your plan accordingly. Your school IPM plan will always be a 'living document' subject to change, but in the first several years it's likely to be a very dynamic document as your school becomes less and less pest friendly.

School IPM Roles & Responsibilities

For an IPM program to be successful, all members of the School Community should be involved. School administrators, IPM coordinators, students, teachers and other school staff, vendors or contractors, along with the parents or guardians of the student body. Each of these groups must be made aware of the school's policies on pest control and their roles in the schools pest management plan. Many of the roles, responsibilities and training requirements regarding pest management at a school are outlined below.

Keep in mind that this is a guidance document.
 Different roles and responsibilities may be assigned differently at your school.
 However, all responsibilities should be clearly stated in your IPM plan. The IPM plan will be reviewed during random State and County school inspections.

School Administrators:

Specific duties of New Jersey School Administrators as required by law.

- ▶ Adopt and begin to implement a school IPM policy that requires the development of a site-specific IPM plan for the school property by June 12, 2004. Implement these IPM procedures to control pests and minimize exposure of students, teachers, and other school staff to pesticides.
- ▶ Designate a School IPM Coordinator. The IPM Coordinator should be someone who is familiar with the school's building(s) and property, such as buildings and grounds or janitorial service personnel. The School IPM coordinator may also be a teacher or other school staff member. The IPM Act does not intend for the IPM Coordinator and the pesticide applicator servicing the school to be one in the same; however, there is nothing in the statute that prohibits the school from employing an outside pesticide contractor or consultant in this capacity. In the case of contracted services the ultimate compliance responsibility will remain with the school administration and not the contractor.

A primary job for school administrators early in an IPM program will be to help in evaluating the responsibilities of an IPM coordinator. Once a program becomes established, the duties of a coordinator will become more predictable, but may be very time consuming early in an IPM program.

Other duties to be performed in a successful IPM program are listed below
Remember these duties may be assigned differently at your school, but must be clearly
stated in your IPM plan

- ▶ Maintain records of pesticide applications and issue annual notices of IPM policy.
- ▶ Permitting the use of certain pesticides and providing the notifications required.
- ▶ Posting of signs prior to use of certain pesticides in all required areas.
- ▶ Providing the notifications required of the emergency use of certain pesticides.
- ▶ Develop contracts, bid specifications, and contract addenda that foster school IPM.

School IPM Coordinator:

The School IPM Coordinator, by law, is jointly responsible with the school administration for the implementation of your School IPM Plan.

New Jersey law calls for ...each local school board of a school district, each board of trustees of a charter school, and each principal or chief administrator of a private school' to designate an IPM coordinator.

The IPM Coordinator is usually an individual within a facility in charge of pest control activities. This individual has the authority and backing of the school administration. The IPM coordinator has the primary responsibility for ensuring that the IPM plan is carried out. The IPM coordinator is also the primary contact for the school community and the public with regard to pests or pesticide use. Ultimately, this person is directly responsible for the integration of all IPM activities through the coordination of all parties involved.

Some specific duties of a New Jersey School IPM Coordinator as required by law include:

- ▶ Maintain information about the IPM Policy and Plan in place at the school.
- ▶ Maintain information about pesticide applications on school property including records obtained from the pesticide applicator, material safety data sheets (MSDS) when available for pesticides used, and labels for all pesticide products used.
- ▶ Maintain non-pesticide pest control records as required by law.
- ▶ Respond to inquiries and provide information to teachers and other school staff, students and parents or guardians regarding IPM at school.
- ▶ Provide access to the above information for public review.

Other duties to be performed in a successful IPM program are listed below. These duties may be assigned to an IPM coordinator, or may be assigned differently at your school. All assigned responsibilities should be clearly stated in the school IPM plan.

- ▶ Provide training in IPM practices to the school community. This training should reflect your school's IPM plan 'roles and responsibilities' section.
- ▶ Consider all available actions (including no action) prior to determining what pest control(s) should be used. Consult with the school's pest control professional if the school has one under contract.
- ▶ Ensure that the pest control professional(s) make accurate and readable entries on record forms. If a form can not be easily read, it should be done over, don't allow a sloppy application form to be the reason your school is found to be out of compliance. Maintain pesticide application records for a minimum of 3 years; or in the case of termites, maintain records for a minimum of 5 years.
- ▶ Oversee all pest management personnel to ensure that they have the correct NJDEP-required license for pesticide applications. The State requires that applicators have specific licenses. For example license category 7A is General and Household (for in and around buildings), which, is not the same as category 3B which is for turf and lawn applications.
- ▶ Coordinate pre-notification and post-notification of parents and staff regarding non-low impact pesticide applications according to the school's notification policy and procedure.
- ▶ Prepare and send out the school's annual IPM policy notification to parents and staff.
- ▶ Serve as the point of contact for contracted pest management services for the school.
- ▶ Distribute forms and train the school community in the use of forms, if any were developed for your school's IPM program, for reporting pests or suspected pest activity.

- ▶ Compile all reports of pest sightings as well as suspected or actual pest activity and record actions taken to remedy pest problems in an IPM logbook or file.
- ▶ Develop and maintain a map(s) of the school and school grounds for the purpose of tracking all pest-monitoring activities. Maintain records of all pest-monitoring activities, including the locations of all traps used for monitoring. This information should also be kept in an IPM logbook or file.
- ▶ Maintain a prioritized list of interior and exterior pest management issues, including such items as key pests, needed structural and landscape improvements, poor sanitation practices, leaky pipes etc...for the school.
- ▶ Prepare and post signs, as required, in areas where non-low impact pesticides are to be applied.
- ▶ Work with administrators when contracting for pest control services to ensure that the bid specifications comply with the school IPM policy and plan.
- ▶ Provide a signature when a pest management professional requests that a School Integrated Pest Management Act Compliance Certification Form be signed.

School IPM Coordinator Training - The School IPM Coordinator must receive NJDEP-approved training, when it becomes available, that provides an overview of the principles of IPM, legal requirements, and how to implement the IPM Policy and Plan at your school in compliance with the rules and regulations adopted by the NJDEP.

School Nurse:

The school nurse will consider potential pesticide exposure when evaluating a child's health complaint. The school nurse should have access to the Material Safety Data Sheets (MSDS) for any chemical used on school property (when available) and be aware of any children with asthma or chemical sensitivities.

Possible other responsibilities for the School Nurse in the School IPM Program may include those listed below. All IPM responsibilities should be clearly stated in the school IPM plan.

- ▶ Keep copies of and review the MSDS of all pesticides used on school property.
- ▶ Maintain easy access to Poison Control Center hotline at 1-800-222-1222 in case acute poisoning is suspected.
- ▶ Monitor for head lice, a common problem for children between the ages of three and ten. Head lice are a medical problem (not considered a pest problem) and should be treated as such.
- ▶ Educate students, teachers and other school staff and parents about preventing the spread of head lice if or when they occur.
- ▶ Following your school's policy, reports any pest sighting(s), and suspected or actual pest activity to the school IPM coordinator using whatever system your school has in place. Suggestions include filing a form or using email or voice-mail to inform the IPM coordinator, who will then keep records of all such reports.

School Nurse Training - In addition to required professional training, be aware of public health pests of significance that may impact student health; see EPA's List of Pests of Significant Public Health Importance at http://www.epa.gov/opppmsd1/PR_Notices/pr2000-draft.htm. Obtain copies of selected pesticide resources on poisoning which may include: *[Recognition and Management of Pesticide Poisonings](#)*, Routh Reigart and James Roberts, 5th edition, U.S. Environmental Protection Agency, March 1999.

Kitchen Staff:

Food handling, preparation and distribution areas are among the most critical areas for pest management. Kitchen staff must keep all food areas free of crumbs and food residues after each use. Suggested duties of an IPM plan that may be assigned to kitchen staff.

These responsibilities may be assigned to an individual from the kitchen or to other school staff. All IPM responsibilities should be clearly stated in the school IPM plan.

- ▶ A strict practice of good sanitation in all kitchen and food service areas is essential, clean all areas daily.
- ▶ The supervisor of the kitchen staff will inspect the kitchen and food service areas daily to verify proper sanitary maintenance of food service areas. A record of these daily inspections will be kept in accordance with your schools policies.
- ▶ On a monthly basis, the IPM coordinator will inspect kitchen and food services areas, and keep a record of these inspections in an IPM logbook or file.
- ▶ Pest sightings or evidence of pest activity in these areas should be reported on a daily basis or according to school policy.

Kitchen Staff Training - The School IPM coordinator will be responsible for training the kitchen staff in proper sanitation procedures when hired and annually thereafter. The School IPM Coordinator will also train the kitchen staff in the pest detection and monitoring program in place in the kitchen, when hired and annually thereafter. See the **NOTE** in the next section.

Maintenance Staff:

Maintenance staff usually maintains the sanitation and structural needs of the school building and grounds on a day to day basis. These staff members may be assigned to both interior and exterior maintenance. It is important to **NOTE** that just because staff has been cleaning or maintaining the building and grounds 'for a long time', does not mean the way they clean or maintain is acceptable in a school with an IPM program. The 'old' way may have been fine in a school that relied completely on chemical controls for pest management issues, but not acceptable in an IPM program. For example, mopping alone is not going to keep a kitchen area clean enough to deny cockroaches a free meal. The gook that accumulates in corners and around

the legs of food prep tables and such, may contain enough organic matter to feed cockroaches. Some good old fashion floor scrubbing may be required once a month or so to prevent this type of build-up. This new type of activity should be on a schedule, and staff will need to be somewhat re-trained in cleaning and maintaining a school that is trying to become both pest and pesticide free.

Some IPM responsibilities that may be assigned to School Maintenance Staff are listed below. All IPM duties should be clearly stated in the school IPM plan.

- ▶ Practice all sanitation and maintenance techniques according to the school IPM policy and plan.
- ▶ Recognize report and correct conditions that may lead to pest problems such as water leaks, potential pest entryways, and poor sanitation practices, in and around the school.
- ▶ Following your school's policy and plan, reports any pest sighting(s), and suspected or actual pest activity to the school IPM coordinator using whatever system your school has in place. Suggestions include filing a form or using email or voice-mail to inform the IPM coordinator, who will then keep records of such reports.
- ▶ Manage specific pest issues as directed by the IPM Coordinator. This will not include pesticide applications unless you are a licensed Pesticide Applicator.

Maintenance Staff Training - Maintenance staff must understand that even over the counter products such as weed killers, bug sprays, and weed & feed lawn care products are not to be used by school maintenance staff unless they hold a valid pesticide applicator license.

The School IPM Coordinator will be responsible for training the maintenance staff, when hired and annually thereafter, in the following areas.

- ▶ Proper sanitation procedures for your school, according to the school IPM plan.
- ▶ The pest detection and monitoring program and devices in place throughout the school.
- ▶ Pest control products they are allowed to use and the pest control products they are not allowed to use on school property.

Students Teachers and other School Staff:

The duties of the students' teachers' and other school staff in the school IPM program should be clearly explained in the IPM plan.

- ▶ The most important responsibility of students' teachers' and other school staff is sanitation. Much of the prevention and reduction of pest infestation at the school site depends on whether or not students teachers and staff clean up food leftovers, food in lockers, teacher and staff lounges, gum under desks, paper clutter, etc..., and perform proper maintenance according to school IPM policy and plan.
- ▶ Following your school's policy and plan, reports any pest sighting(s), and suspected or actual pest activity to the school IPM coordinator using whatever system your school has in place.

Suggestions include filing a form or using email or voice-mail to inform the IPM coordinator, who will then keep records of all such reports.

- ▶ Students' teachers' and other school staff will not remove or move sticky traps or other pest monitoring devices found in or around the school. If a student, teacher or other school staff member thinks a trap or monitoring device has been moved or tampered with they should report it to the school IPM coordinator, following school IPM policy and plan.

Training - Students teachers and other school staff - The School IPM Coordinator will train students, teachers and other school staff in their role in the school's integrated pest management program.

Specifically, students, teachers and other school staff will be given a brief overview on pest identification and the conditions that they, as building occupants, may create that promote pests. This information will focus on pest reduction strategies connecting people's behavior; such as over watering plants, eating at desks, leaving crumbs on floor, etc., to pest problems.

Education will be focused to increase people's willingness to share their environment with other organisms so that people are less likely to insist on toxic treatments for innocuous organisms. They will be instructed on how to follow your school's policy and plan, and to report any pest sighting(s), and suspected or actual pest activity to the school IPM coordinator using whatever system your school has in place. Suggestions include filing a form or using email or voice-mail to inform the IPM coordinator, who will then keep records of all such reports.

Pamphlets and fact sheets will be made available at the time of training and posted on bulletin boards in specific areas such as the cafeteria and teachers' lounge.

Parents and Guardians:

Some of the duties required of Parents and Guardians in the School IPM Program.

- ▶ Learn about IPM practices and follow them at home so pests are not carried to school in notebooks, lunch boxes, clothing etc....
- ▶ Make their children aware of their role in the IPM Program at their school.
- ▶ Encourage children to lend a hand in cleaning up.
- ▶ Discourage children from keeping food in their lockers and desks, for extended periods of time.
- ▶ Be aware of the current pest management practices in their children's school(s). Review the 'Annual School IPM Program Notification' to Parents as well as all notices of pesticide application at the school.
- ▶ Parents may and should express their views regarding pesticide use to the school.

Training for Parents and Guardians of Students – The school IPM coordinator will make parents and guardians of students aware of the School IPM Program. Pamphlets and fact sheets, MSDS's and product labels will be made available upon request.

The annual IPM Program Notification that is sent home each year at the beginning of the school year may, when slightly modified, count as a level of education for most of the school community. However, the positive effect of additional training for the school community, especially for the student body and teaching staff members can not be over-stated.

If the Annual Notice is expanded to include instruction from the IPM Coordinator on how students and staff can contribute to the success of an IPM program in their school, then it also becomes a level of education for that part of the school community not directly involved with the implementation of the schools IPM policy and plan.

Vendors and Contractors:

The duties of vendors and contractors who work in and around the school or who have machines in or around the school will be clearly defined within the School IPM Plan as well as within each contract the school has with a contractor or vendor. IPM duties for vendors and contractors will be clearly spelled out in contracts or in a contract addendum for each contract. Contracts or contract addenda will specify regular maintenance service, cleaning under and behind machines during service visits, and immediate correction of problems that may foster pests (e.g., breakage, leaks, or excessive condensation from machinery).

Pest Management Professional:

As part of a school IPM plan the following are specific duties of Pest Management Professionals.

New Jersey Administrative Code Title 7 Chapter 30; Subchapters 1-13 state that all pesticide applications which are made on school property must be done by applicators or operators licensed to apply pesticides by the New Jersey Department of Environmental Protection Pesticide Control Program.

- ▶ Inspect the school building and grounds to identify potential problem areas and any structural **or** management practices, which may contribute to pest problems. This may take several inspections or visits from the pest management professional, and includes such things as garbage maintenance and food service area maintenance evaluations.
- ▶ Notify the IPM Coordinator in writing when pests or signs of pest activity are found.
- ▶ Make written recommendations to the School IPM Coordinator detailing corrective actions to be taken to reduce potential pest problem conditions.

- ▶ Recommend to School IPM Coordinator appropriate non-pesticide procedures to correct pest problems.
- ▶ Offer a selection of a low impact pesticide first, when it is determined that a pesticide must be used.
- ▶ Provide School IPM Coordinator with material safety data sheets (MSDS), when available, and product labels of all pesticides that are applied on school property.
- ▶ Provide application information as specified by the IPM in Schools Law and other New Jersey regulations to the IPM coordinator, when pesticides are applied at the school.
- ▶ If a non-low impact pesticide must be used, request that a 'School Integrated Pest Management Act Compliance Certification Form' be signed by the School IPM Coordinator, ensuring all advance notification and posting has been performed by the school as required.
- ▶ Provide comments in writing regarding any necessary modifications to the School IPM plan at the time of the annual review.

NOTE: Applicators will not be held liable for damages resulting solely from the failure of the School Administration to provide the required notifications and postings. However, applicators **may be** held liable if it is determined that they made an application knowing the school was not in compliance, e.g., no posting signs are visible when entering a building to be treated etc...

Pest Management Professional Training - The pest management professional should become aware of school policies and procedures that may effect pest populations or pest control measures in or around the school. Examples may include learning the kitchen maintenance routine and the garbage maintenance routine. Others areas of interest may include the schools recycling program, trash or dumpster locations, and the school's open window policy etc...

Pest Identification

Preliminary Site Assessment and Ongoing Monitoring

One of the key components of school IPM is site assessment to precisely define the presence of pests and the site conditions that contribute to their presence. Interior and exterior pests will be identified for the school by historic account, interviews, and by direct monitoring. When an IPM program is implemented at your School the IPM coordinator, in conjunction with the pest management professional if one has been contracted, will perform a thorough inspection of the school, both inside and out, to identify pest activity and conditions that are contributing to any pest problem(s).

Interior site assessment

The IPM coordinator for the school, in conjunction with the pest management professional if one has been contracted, will conduct a thorough inspection and make a record of the following information.

- ▶ Areas that currently have pests or show signs of pest activity.
- ▶ Areas that historically have had pests and when this occurs during the year.
- ▶ Conditions or behaviors contributing to pest problems that can be corrected.
- ▶ If already in use, note the location of detection and monitoring devices and bait stations.
- ▶ Recommendations for sanitation, structural repairs, and habitat modification.

This information will also be recorded or indicated on a site-map drawn for this purpose.

Exterior site assessment

The IPM coordinator for the school, in conjunction with the pest management professional if one has been contracted, will conduct a thorough inspection and make a record of the following information.

- ▶ Locations of trees, shrubs, and ornamentals.
- ▶ Assign and divide the landscape into management units (turf areas, front lawn, athletic fields, shrubs etc...).
- ▶ Note key plants and any pest problems, either current or historical.
- ▶ Horticultural recommendations.

This information will also be recorded or indicated on a site-map drawn for this purpose.

NOTE: The Rutgers Cooperative Extension ‘IPM Report Card for School Grounds’ provides a series of self-assessment tools for schools to measure their adoption of IPM on school grounds. Additionally, each Report Card in the series can be used as a guide to incrementally or completely implement IPM by simply following the practices outlined. IPM practices are precisely outlined for control of common pests of New Jersey schools. Report Cards for School Grounds include: General Requirements; Athletic Fields; Turf; Ornamental Plants; and Landscape Plantings.

<http://www.pestmanagement.rutgers.edu/IPM/SchoolIPM/reportcard.html>

Pest Identification

It is important that pests be accurately identified in order to gather information about the pest’s life cycle and habits. Identification is essential for selecting the combination of strategies, which will be most effective, and knowing when to implement them. If the IPM coordinator for the school, or the pest management professional if one has been contracted, is unable to identify the pest(s), the county office of Rutgers Cooperative Extension (RCE) will be consulted and samples will be submitted for identification if needed. Information is available at the following web address <http://www.rcrc.rutgers.edu/extension/>. Once at this web-site, click on the county’s tab for your county’s contact information.

Ongoing Pest Monitoring

Once a pest is correctly identified, monitoring methods and schedules, as well as pest control strategies will be determined based on the pest’s life cycle, food sources, habitat preferences, water needs and natural enemies.

Interior pests will be monitored by direct inspection. Direct inspection means sticky traps, pheromone baits or traps, tracking powder, mechanical traps, and glue-boards etc... to determine the presence of a pest. If baits or traps of any kind are used each one will be tracked as follows.

- ▶ Each bait station or trap is assigned an identification number.
- ▶ A map is prepared showing the location and number of each trap or bait placement.
- ▶ Each trap or bait station is marked with appropriate warning language.
- ▶ Traps will be checked by the IPM coordinator or the pest management professional weekly during the early stages of solving a pest infestation, then taper off to monthly once the pest problem is under control.
- ▶ Captured rodent pests will be recorded and disposed of on a daily basis.

Exterior pests, whether animal or plant, will also be monitored by direct inspection. Landscape plants are scouted at least monthly during the growing season for conditions requiring action. Examples include damaged, diseased or dead limbs; soil erosion or compaction; insects, disease, weed pests and damage. Scouting usually begins when plants put out new leaves in spring and ends when leaves fall in autumn. Plants with annually recurring pest problems will be scouted according to pest appearance timetables.

Additionally, areas surrounding the school, school playgrounds or school athletic fields can be scouted for stinging insect activity. Problems can and will be avoided if you can stop a nest early in its construction.

Monitoring Records

Following your school's policy, the school IPM coordinator or pest management professional will maintain and keep records of any pest monitoring activities, including the placement of all traps used, using whatever system (a log book or file) your school has in place, including the placement of this information on site-maps drawn for this purpose.

Pest Prevention and Control

Wherever possible the school will take a preventive approach by identifying and removing, to the degree possible, the basic causes of the problem rather than merely attacking the pests. This prevention-oriented approach is also best achieved by integrating a number of strategies. It is easier to spot a potential problem when the interior and exterior of the school is clean and uncluttered.

IPM employs a multi-tactic approach, integrating several strategies to combat a particular pest. Control strategies that remove a pest's food, water, and shelter (harborage), and limit its access into and throughout buildings and on school grounds will be used at the school as follows:

Cultural Control

For example, improve sanitation, reduce clutter, get people to change habits like leaving food in the classroom, maintain plant health by taking care of plant habitats, fertilization, plant selection, the right plant for the right place, and cultural exclusion techniques to keep problematic pests and weeds away.

Physical control

For example, pest exclusion; removing pest access to the school building by sealing openings with caulk and copper mesh; repairing leaks and screens; removing pests by hand.

Mechanical control

For example, trap rodents, till soil prior to planting to disrupt pest life cycles.

Biological control

For example, use of a pest's natural enemies, by the conservation and augmentation of natural enemies of pests in the landscape; introduce beneficial insects or bacteria to the environment or, if they already exist, provide them with the necessary food and shelter and avoid using broad-spectrum chemicals that will inadvertently kill them.

Least hazardous chemical control

For example, give preference to low impact pesticides as defined in the School IPM Act.

Pesticides will only be selected for use when other control methods are not effective or practical in resolving a pest problem. Pesticides will not be used at the school unless the pest has been both identified and its presence at the school verified through monitoring. This will be reflected in your IPM records along with whatever non-pesticide control methods were tried before going to a chemical control.

It is neither possible, nor desirable to completely exterminate every pest and potential pest from school property. Also, there will never again be on-going chemical controls of any type. The days of scheduled pesticide applications (either low impact or non-low impact) are over in New Jersey Schools. The goal of IPM is to use pesticides only when necessary to get a problem under control. If the problem is on going, then it is incumbent on the IPM Coordinator to find where the program is failing and correct the situation, that is what an IPM Coordinator does!

Thresholds

The school will establish injury levels also known as tolerance levels or threshold levels or action thresholds for each individual pest species before making any chemical treatment. Appropriate injury levels will be set, and may take into consideration economic losses (the amount of foodstuffs contaminated by pantry pests), health risks (the occurrence of disease-bearing pests), aesthetic evaluations (weeds in the school lawn), and nuisance problems (stinging insects).

The New Jersey School IPM law defines a low impact pesticide. The law and resulting model school IPM policy published by DEP make it clear that when a pesticide is needed, preference must be given to choosing a low impact pesticide whenever possible.

NOTE: A low impact pesticide is a pesticide that is considered to have relatively minimal risk as compared to pesticides in general. The New Jersey School IPM Law specifically defines what a low impact pesticide is in two parts.

1. The first part consists of a federal EPA list of pesticides that EPA considers to be minimal risk and thus do not require formal registration. These pesticides are listed in the federal code at 40 CFR § 152.25. <http://pcpnj.org/ipm-lowimpact.htm>
2. The second part consists of a list of pesticide ingredients (such as boric acid or diatomaceous earth) and formulation types (such as gels or pastes) that are considered low impact. It is important to note that a substance considered "low impact" does not necessarily mean zero risk. All pesticides must be used properly to reduce potential risk from their use.

See the Rutgers Cooperative Extension School IPM web-site for information on low impact pesticides as it becomes available.

<http://www.pestmanagement.rutgers.edu/IPM/SchoolIPM/NJAct/lowimpact.htm>

When it is determined that a **non-low impact pesticide** must be applied to adequately control pests within the established pest thresholds for your school, certain pesticide application guidelines will be followed according to the law.

Specifically, a non-low impact pesticide may only be applied in a school building if students are in another area of the building, which is separated by fire doors **AND** a different air handling system serves the area being treated with the non-low impact pesticide. Also, applications of non-low impact pesticides on school property will only be made when students will not be present, in the treated area, for instruction or extra-curricular activities, for a minimum of seven hours when the label does not give a specific number of hours to stay away.

So if the label says 4 hours restricted entry, it's four hours, if the label says 12 or 24 hours then it's either 12 or 24 hours, depending on what the label says. However, if the label says something that does not include a specific numeric value for restricted entry to a treated area, then the default is seven hours the area must be kept clear of. For instance, if a label says stay out of treated area until product has dried and settled, then the default of seven hours applies.

The New Jersey School IPM Act allows for the emergency application of a non-low impact pesticide only when the health or safety of a student or staff member is threatened. A "school pest emergency" as defined in the law is.... an urgent need to mitigate or eliminate a pest that threatens the health or safety of a student or staff member...

One example would be the presence of stinging insects such as ground hornets in an athletic field where events are scheduled. If a pest emergency exists, the school may use pesticides without the normal posting of signs warning of a pesticide application and the 72-hour notice to parents and

staff. Rather, the posting must be done at the time of the application, and the notice to parents and staff must be done within 24 hours of the emergency application or on the morning of the next school day whichever is earlier. The notice that goes to parents and staff must explain what the reason for the emergency was, and if possible, what could be done to prevent such an emergency in the future.

Treatments, either low impact pesticides, or non-low impact pesticides will only be applied at the school when and where they are needed. It is rarely necessary to treat an entire building or landscape area to solve a pest problem. The school will use monitoring to pinpoint where pest numbers are beginning to reach the action level and confine 'spot' treatments to those areas.

The school IPM coordinator and the pest management professional, if the school contracts one, will meet on a set schedule to review monitoring results and reports and determine corrective actions. This schedule will be determined according to the needs of the school and stated in your school IPM plan. If one is under contract, the pest management professional should make recommendations for corrective actions to the School IPM Coordinator. The IPM coordinator will share suggested pest control options with the correct school officials and someone will make a decision. Who will make the final decision? This decision making process must be clearly defined in your school IPM plan. The person or persons making the final decision will consider all options, including the option to do nothing at all, and look at pest activity levels versus the pest thresholds that were decided upon before making a final decision.

They will consider EPA-defined criteria for selecting a treatment strategy:

- ▶ Least hazardous to human health
- ▶ Least disruptive of natural controls
- ▶ Least toxic to non-target organisms
- ▶ Most likely to be permanent
- ▶ Easiest to carry out safely and effectively
- ▶ Most cost-effective
- ▶ Most site-appropriate

All controls that are actually implemented should be documented in an IPM logbook or file.

The school IPM coordinator will generate a pest management priority list to optimize a plan of corrective and preventative actions throughout the school buildings and grounds. This should be done with the advice of someone familiar with the schools budgeting process. Realistically some necessary projects may have to wait for monies before work can be started or completed. Be realistic and look at the big picture or the long-term picture. Annually, assign appropriate staff to carry out individual tasks on the IPM priority checklist, and update the checklist as necessary.

Notification and Posting

It is important to keep the school community informed of the school's IPM Plan. Accordingly, this section outlines the annual notification of the School IPM program, the pre-notification of planned use and the notification of emergency use of non-low impact pesticides. Also covered in this section are the posting (warning sign) requirements for both interior and exterior areas that are treated with pesticides.

Annual Notification

At the beginning of each school year, the school will prepare and send out an annual notice regarding the school IPM program to the parents and guardians of the student body. The annual notice will also be sent to teachers and all other school staff members. Once the annual notice has been sent, the school will give this information to new staff or the parents or guardians of new students when they arrive. Late arrivals will not have to wait for the next annual notice to receive this information.

New Jersey law requires that the annual notice inform the school community of the following:

- ▶ A copy of the School IPM policy
- ▶ The name, address, and telephone number of the school integrated pest management coordinator
- ▶ A list of any pesticide that is in use or that has been used within the last 12 months on school property
- ▶ Information stating that the integrated pest management coordinator maintains the product label and material safety data sheet (MSDS), when available, of each pesticide that may be used on school property and that the label and data sheet is available for review by a parent, guardian, staff member, or student
- ▶ The integrated pest management coordinator is available to parents, guardians, and staff members for information and comment
- ▶ The time and place of any meetings that will be held to adopt or to modify and readopt the school integrated pest management policy
- ▶ And the following statement:

As part of a school pest management plan (insert school name) may use pesticides to control pests. The United States Environmental Protection Agency (EPA) and the New Jersey Department of Environmental Protection (DEP) register pesticides to determine that the use of a pesticide in accordance with instructions printed on the label does not pose an unreasonable risk to human health and the environment. Nevertheless the EPA and DEP cannot guarantee that registered pesticides do not pose any risk to human health thus unnecessary exposure to pesticides should be avoided. The EPA has issued the statement that where possible persons who are potentially sensitive such as pregnant women infants and children should avoid unnecessary pesticide exposure.

Notification and Posting of Non-Low Impact Pesticide Use

When it has been decided that a non-low impact pesticide must be used on school property, notification must be given to a large section of the school community, and warning signs must be posted at the school. This section explains when and where warning signs must be posted on school property and when and to whom notifications must be given.

Pre-Planed Application of Non-Low Impact Pesticides

When it is known in advance that a school must use a non-low impact pesticide, these are the procedures that must be followed. Use this information to develop your own specific policies. Be sure to name the responsible persons in your school IPM plan.

Pre-Notification and Pre-Posting of Non-Low Impact Pesticide Use

During the school year AND during holidays and the summer months, the school will issue prior notification of all non-low impact pesticide use. Specifically your school will issue notice to all staff, and the parents or guardians of the student body. During the summer months and during holiday breaks, notification will go to staff members and to the parents or guardians of students using the school in an authorized manner. Signs giving notice of the up-coming pesticide application must be posted in an area in or adjacent to where the pesticide is going to be applied AND at each entrance to the school building or school ground to be treated. Note: the posting signs for a notice of application must be at least 8.5 inches by 11 inches.

Your school IPM plan should clearly state who will be responsible for which duties. For example, 'notifications regarding non-low impact pesticide use will be conducted by the principal's office. Posting signs regarding non-low impact pesticide use will be hung by the lead custodian following a directive from the principals office'.

Assign the duties however it makes sense in your school, but clearly communicate your decisions in your IPM plan.

Emergency Application of a Non-low Impact Pesticide:

Sometimes you just can't wait!

An example would be when a ground-nest of hornets is discovered on a field, where a game is scheduled on the following day. Some events can and should be rescheduled (intramural games) while other events can not be rescheduled because they involve so many other people (league games). In this case you will not be able to fully comply with the law, and have the pest situation dealt with in time for an event that can not be rescheduled.

The IPM in School Act states that in an emergency situation these procedures will be followed:

Rather than posting signs 72 hours before a non-low impact pesticide application, the signs will be posted at the time of the application and left in place for 72 hours following the treatment. The signs will be posted in an area, in or adjacent to, where the pesticide is going to be applied AND at each entrance to the school building or the school grounds to be treated. Notifications will still be sent to the school community but rather than 72 hours in advance they will be sent within 24 hours of the application, or on the morning of the next school day, whichever is earlier.

Who will decide if there is a pest emergency? Be sure to clearly state in your IPM Plan who will make these decisions for your school.

The content of the notices and signs we have discussed are also spelled out in the New Jersey law. You can make your own notices and signs or use the model posting signs and the model notices available at the www.njipm.org web site or the Rutgers Cooperative Extension web-site <http://www.pestmanagement.rutgers.edu/IPM/SchoolIPM/NJAct/nj.htm> .

Both the notices and the posting signs must include the following information.

- ▶ The common name of pesticide used
- ▶ The EPA registration number
- ▶ The location, date, and time of application, one date for an indoor application; three dates for an outdoor application, in case of weather related cancellations
- ▶ The potential adverse effects of the product
- ▶ The reasons for the application
- ▶ The contact information for the School IPM Coordinator
- ▶ Any further label information or precautions listed for public safety
- ▶ A statement by the EPA that says ...

...Where possible, persons who are potentially sensitive such as pregnant women, infants, and children, should avoid any unnecessary pesticide exposure...

For consideration in deciding your school's policies, note that the required notification may be given in any of the following methods or a combination of these methods.

- ▶ Written note that the students take home
- ▶ Written note that is mailed at least one week prior to the application
- ▶ A phone call
- ▶ By direct contact
- ▶ Via an e-mail

Record Keeping and Evaluation

Record Keeping

Much of this topic has already been covered in the roles and responsibilities section. The law requires that records are kept for three years following a pesticide application and that records are kept for five years following a pesticide treatment for termites. The school will keep records on site at the school (not at a district or central location) in an IPM logbook or file. Remember to spell out all the details in your school IPM Plan, including the storage location for the logbook or file, which should always be available for review.

The following are examples of records that may be maintained in an IPM logbook or file. An * indicates a form or document that is required for compliance with the New Jersey Law. The records at your school may be different, you may have more or less depending on the policies you set and the information you decide to track..

- ▶ * A copy of the school IPM Policy
- ▶ * A copy of the school IPM Plan
- ▶ * A copy of any Contract for Pest Management
- ▶ * A copy of the Annual School IPM Program Notification
- ▶ * A copy of any 72 hour pre-notification of the use of pesticides forms used
- ▶ * A copy of any Emergency pesticide use notification forms used
- ▶ * A copy of any School Integrated Pest Management Act Compliance Certification Forms signed by the IPM Coordinator at the request of a Pest Control Professional
- ▶ * A copy of any Posting Sign for indoor or outdoor use – The Notice of Pesticide Application sign
- ▶ * A copy of any Applicator Use Records Form (for all pesticide applications at the school, low impact and non-low impact)
- ▶ School IPM Report Cards
- ▶ Service reports will also be placed in the IPM logbook or file when or if action needs to be taken by a pest management professional.
- ▶ Pest Sighting/Problem Reports
- ▶ Food Services Area Reports
- ▶ IPM Priority Checklists
- ▶ Non-Low Impact Pesticide Application Log

All of the model documents and forms discussed in this section and throughout this guidance document are available for down-load from both the Department of Environmental Protection and Rutgers' Cooperative Extension IPM in School web sites located at:

DEP web-site <http://www.njipm.org> (Look in the Tools and Templates area)

Rutgers web-site <http://www.pestmanagement.rutgers.edu/IPM/SchoolIPM/index.htm>.

Available Forms

Most forms are available in both Microsoft Word and Adobe .pdf format:

Model IPM Policy

Guidance for Creating a School Integrated Pest Management Plan In Compliance with New Jersey Law

Model IPM Plan

Model Contract

Annual Notification Form

72 Hour Notification Form (of Non-Low Impact Pesticide Use)

Emergency Notification Form (of Non-Low Impact Pesticide Use)

Compliance Certification Form

Posting Sign / Form (Notice of Pesticide Application)

Applicator Use Records Form

Pest Sighting Log

Cafeteria Check List

These and other helpful forms can be found in the Appendix of the Model Plan listed above.

Evaluation

To design a truly effective plan will take some work, and it might not happen on your first try. Your plan should be constantly evaluated and tweaked to get it just right. During the first few years of an IPM Program your plan will be a very dynamic document. However, while the 'plan' will always be a living document, subject to change annually, it will be less dynamic then in the first few years.

Continued re-evaluation of your school IPM plan may lead to a change or changes in your school IPM policy, which will then be reported to the school community in the annual notification letter. IPM priority lists will be changed each year as projects are completed and new projects are added until there are no major IPM projects planed. When you achieve this level of a 'plan'

then your IPM Plan document will be changed less and less frequently, but will always be subject to change.

Program evaluation involves reviewing pest-monitoring data, actions taken, treatment impacts and effectiveness, and any other relevant observations. Records will provide information on previous and current pest populations and which strategies were successful and which were not. Comparing data will clearly indicate which pest management strategies were most effective for the amount of time and money spent. IPM practices and procedures will be modified, as necessary, based on past experience, recent results and the IPM knowledge you have gained.

The school building Principal is required to do an annual evaluation in concert with the IPM Coordinator. This should be clearly stated in your school IPM plan. If more than one person will have input, identify the others involved in the process as well. Choose a date that everyone can get together on (schedule it in writing) and discuss the previous years activity. If the school is using a pest control professional, invite that person to the evaluation meeting as well.

Possible topics of discussion for an evaluation meeting include:

- ▶ Adequacy of pest control both interior and exterior
- ▶ Areas of concern
- ▶ Sanitation issues
- ▶ Building maintenance issues
- ▶ New less toxic pest control tactics
- ▶ Adequate support by all members of the school community
- ▶ Adequacy of pest threshold levels
- ▶ Revise integrated pest management priorities list

Following the evaluation meeting, changes to the plan will be reported to those who are effected by the changes. If the changes to the plan require changes to the School IPM Policy, the policy will be revised and any changes will be reported to the school community in the annual notification letter concerning integrated pest management at your school. The school community must have a chance to provide input when there is going to be changes to the school's IPM Policy.