

Integrated Pest Management for Iowa Schools



Successful Pest Management Programs in Schools

Introduction

The goal of successful pest management programs in schools is to protect students, faculty, and staff from noxious pests and toxic pesticides. We can reduce pesticide use and still manage pest populations by preventing pest infestations, using non-chemical methods to manage pests, applying least toxic pesticides only as needed, and targeting pesticides to locations where pests occur.

Traditional Pest Control

Traditional pest control in schools has usually meant regularly scheduled pesticide applications. Broad-spectrum nerve poisons such as organophosphates, carbamates, and pyrethroids are often sprayed on exposed surfaces throughout the school whether pests are present or not. These exposed surfaces are not only areas that pests contact, but also are areas that children may touch.

Parents are becoming more concerned about the effects pesticides have on their children. Many people consider themselves sensitive to the chemicals used in pesticide formulations and feel their children have a right to attend school without being exposed to these harmful chemicals. Concerned parents and environmental organizations are very upset about pesticide use in schools and are filing lawsuits to protect children from excessive pesticide exposure. Because some schools use untrained or minimally trained personnel for pest control, there is significant liability for most schools.

Covering exposed surfaces with pesticides may increase the risk of children contacting surface residues and inhaling contaminated airborne dust particles. The National Academy of Science recently reported in 1995 that children may be more susceptible to pesticides than adults because of their small size.

Pesticides do not solve the problems that cause pest infestations. For instance, poor sanitation creates food and water resources that pests exploit. Pesticides may kill some of the pests that thrive in conditions of poor sanitation. However, the continual use of pesticides leads to insecticide resistance in pest populations, resulting in the need to apply more at higher doses

According to a 1995 telephone survey of Florida school districts, 88% of the districts that contract for and 55% of the districts that perform "in house" service apply broad-spectrum nerve poisons throughout the school. Schools that use pest control service contracts usually specify regularly scheduled treatments whether insects are present or not. Consequently, these contracts do not allow for the use of pest management. Whether pest control is done "in-house" or by contract, it is important to manage pests such as wasps, fire ants, and cockroaches.

Pests

The most dangerous venomous arthropods to humans are wasps. They cause more than two hundred deaths a year nationally. However, measures can be taken to reduce the threat from wasps. Frequent inspections of the school grounds and removal of nests will insure that wasps will not endanger any children.

Some children and adults are allergic to venomous arthropods. These victims may suffer a mild reaction such as itching. However, allergic reactions of some may include cyanosis and death. Many deaths across the United States are attributed to venomous insects each year.

The health and safety of children is the school's responsibility while they are at school. If a child reacts badly to a sting received while at school, is the school negligent? What is the liability of the school district if a child is stung triggering a severe reaction?

German cockroaches can live and breed by the thousands in areas where humans live and work. Classrooms and kitchen are exploited by the cockroaches because there is an abundance of food, water, and shelter and sanitation is often poor. German cockroaches can carry germs, like Staph and Strep. They are the number one cause of asthma in urban youth.

Cockroach body parts and droppings may cause asthmatic reactions in sensitive children. The more children are exposed to cockroaches the more sensitive they become. What is the liability of the school district if an asthmatic child is exposed to cockroaches and that exposure triggers an attack?

Pesticides

It is important to manage pests, but equally important to protect children from excessive pesticide exposure. Many pesticides are usually broad-spectrum poisons that may harm humans and kill pests.

Chemical sensitivity may be a reaction to pesticides. Even though pesticides are applied carefully, they can travel on air currents to affect

chemically sensitive people. Liquid pesticides are volatile and have been shown to move from the application site to areas where no pesticides have been applied.

Surface treatments from a hand held, compressed-air pump sprayer increases the risk of exposure to pesticides by sensitive individuals from airborne particles. This exposure may trigger reactions that could be life threatening. Schools have the responsibility to provide a safe environment without the risk of exposure to pesticides. What is the liability of the school district if a child is exposed to pesticides in school?

Each school must decide if pesticides will be stored on campus. If the schools decide to store pesticides on campus, control measures must be strictly followed to limit and document the access and use of the pesticides in order to reduce any risk of accidental poisoning.

Many schools do not store pesticides properly. It is common to find improperly stored pesticides that are accessible to children in the classroom such as in sink-based cabinets, on shelves or on the teacher's desks. The improper storage of pesticides is an accident waiting to happen. One of the primary responsibilities of the school-based IPM committees is to decide on the proper storage and handling procedures for pesticides at the school site. What is the liability of the school district if a child is poisoned due to improper pesticide storage?

Integrated Pest Management (IPM)

Schools are faced with the dilemma of managing pests and minimizing the use of pesticides. Integrated pest management is designed to provide a safe and healthy environment for children, while managing pests that may harm children or disrupt the learning environment.

Integrated Pest Management offers an alternative to traditional pest control methods. IPM emphasizes pesticide reduction through long-term solutions to pest populations. IPM prevents pests by decreasing the resources pests need to survive. Then if pests become a problem, non-chemical alternatives are employed to reduce pest populations. Pesticides are used only as the last resort, selecting the least hazardous material and precisely applying it to maximize efficacy and to minimize exposure.

IPM Policy Statement

As with any important issue addressed by the school board, it is important to establish a general policy so that all schools in the district know the rules and can comply. A district-wide IPM policy statement is necessary and functions as a road map. It guides the transition from a regularly scheduled chemical-based

program to a program that relies on the prevention of pest populations. The policy statement puts into writing the general policy of the school board for Integrated Pest Management.

The goal of IPM can be summarized simply by the following: reduced pesticide use while providing long-term solutions for pest management. Any policy statement should include a commitment to implement IPM procedures, the pests to be managed, a commitment to reduce pests and pesticides, and list the goals and concepts of IPM as it relates to pest management and pesticide reduction.

A policy statement should be short on words, simple to understand, and generally state what the goals of IPM are for your school district. Individual schools in the district will specifically address what procedures will be adopted to achieve the stated goals of reduced pesticide use and long term pest management solutions. The policy statement should affirm the school district's responsibility to manage pests and provide a safe environment. For instance "It is the policy of this school district to implement IPM procedures and manage pests while reducing the use of pesticides. These pests include but are not limited to cockroaches, fire ants, wasps, and rodents, to name a few.

The next item addressed by the policy statement should recognize the risks of traditional pest control to children and the school board's commitment to reduce excessive exposure to harmful pesticides. The policy statement should explicitly state its commitment to the reduction of traditional pesticide use. The risk of exposure to pesticides can result in poisoning or allergic responses in sensitive individuals. This section of the policy statement acknowledges the fact that traditional pest control raises the question of safety for the children.

Finally, The school board should state the concepts and goals of IPM. Also stated should be the procedures for to establish an IPM program. As you can see by the model policy statement, these concepts are listed. If there are any questions regarding which concepts or goals that should be included, the extension agent and many PCO's have the knowledge to help you.

IPM Advisory Committee

Each school in the district establishes its own IPM Advisory Committee to develop their individual pest management policies. These policies reflect the priorities of each school. The Advisory Committee should include concerned parents, school administrators, faculty, and staff, and pest control operators, . This committee could be part of the PTA, SAC or the Safety Committee, which are already functioning at the school.

Once the IPM Committee is established, its function will be to coordinate preventative pest management practices and pesticide reduction at the school level. The committee also develops ways to track and evaluate the progress of the IPM Program in meeting the district-wide goals of reducing pests and pesticide use. It is the responsibility of the school IPM Committee to coordinate the implementation of IPM practices in the school. The Committee acts as a clearinghouse for information about IPM procedure and facilitates compliance with the policy statement within the school.

The committee, with the help of an IPM expert, designs the necessary forms, reports, and procedures to properly document pest management activities such as repairs, maintenance, pesticide use, and storage. These reports are critical to the success of the IPM Program. The data necessary to evaluate the effectiveness of IPM will be analyzed from these reports.

Regularly scheduled IPM Committee meetings are necessary to monitor and evaluate progress, correct inefficient procedures that hinder meeting the stated goals of the school IPM policy statement, and educate concerned individuals involved with the program.

Forms and Records

One of the reports necessary for the success of the IPM Program is an Inspection Report. The pest control operator inspects the property on a regular basis as agreed upon in the service agreement. The PCO documents problem areas that are conducive for pest infestations, such as unsanitary conditions in the food service area, discovery of any infestations, and offers recommendations to correct any deficiencies. Once recommendations are made it is the responsibility of the principal to facilitate corrections. The Advisory Committee monitors the progress made in meeting the above recommendations.

The sighting log is another tool that helps the PCO monitor and locate pest populations. Insects documented on the report show the pest control operator where there may be the beginnings of an infestation. These logs should be placed at critical areas such as food service and storage, teacher's lounge, and classrooms where pests have been seen. The log should include the location(s) of the pest sighted, date discovered, the pest, and who sighted the pest. A section for the PCO's signature and date the PCO investigated the sighting should also be included. This log would also serve as a service record for treatment.

After all non-chemical methods of pest management have been employed, it may be necessary to use pesticides. The Pesticide Usage Report is the most important document used to monitor the use of pesticides at the school. It

documents if treatment is needed, the areas treated, target pests, chemicals used, at what rates, and the amount of pesticide used.

If and when pesticide treatments are necessary to manage pests, it is important to notify everyone at the site. The pesticide application warning sign should include the date and time of treatment, materials used, and re-entry time. The sign should be placed in a conspicuous area where treatments are being made. The Advisory Committee is responsible for pesticide notification.

Some of the issues the IPM Committee will also address are certification of the individuals applying pesticides, will there be any exceptions to the certification in the cases of ants or wasps, and should pesticides be stored on site? What forms will be used for pesticide notification, pesticide use, and how to document where pesticides are applied. Other concerns that will be addressed is how to develop lines of communication with the parties involved with the IPM program, and facilitate changes at the school to help eliminate pest populations.

Implementation of IPM

To be effective, a pest management program has to establish clear lines of communication and designated roles of responsibilities. The school board sets the over-all pest management policy, provides funding, and monitors the results from the individual schools. The schools design a program that satisfies its priorities within the parameters set by the school board. The school principal ensures that recommendations from the PCO are carried out and completed. The pest control operator is no longer solely responsible for pest prevention. Everyone at the school shares in the responsibility for pest management. The IPM Committee develops and coordinates procedures, facilitates communication, and evaluates the procedures and progress of the pest management program. The PCO inspects, monitors, and recommends changes to factors contributing to any infestations. The remaining staff upgrades procedures to prevent pest populations.

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