



# **IPM REPORT CARD FOR SCHOOL GROUNDS**

## **General Requirements**



### **A Self-Assessment Tool for School Administrators and Those Making Pest Control Decisions on School Grounds**

Compiled by

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Thank you for requesting the School IPM Report Card - General Requirements. Use this document to evaluate your facility and its pest management activities. This exercise should also help learn about integrated pest management on school grounds (IPM), what it involves and how it varies depending on the outdoor areas at the school being maintained. Once you have completed this report card and made the necessary changes, additional report cards covering turf, landscape plantings, ornamental pests and athletic fields are also available for your use.

## **Integrated Pest Management on School Grounds**

Integrated pest management on school grounds is defined as a long-term approach to maintaining healthy landscapes & facilities that minimizes risks to people and the environment. IPM uses site assessment, monitoring, and pest prevention in combination with a variety of pest management tactics to keep pests within acceptable limits. Instead of routine chemical applications, IPM employs horticultural, mechanical, physical, and biological controls with selective use of pesticides when needed.

As such, IPM on school grounds is more than just applying pesticides on a regular time-table or schedule. In fact, regularly scheduled applications to the exclusion of other pest management techniques may cause more problems than if nothing was done at all. Research has shown that reliance on pesticide alone can lead to problems such as pest resistance, pest resurgence or secondary pest outbreaks.

Pesticide resistance occurs when all the susceptible individuals in a particular pest population are killed leaving only those individuals who are tolerant or “resistant” to the pesticides being used against it. These tolerant individuals then produce offspring that are also resistant to the pesticide(s) being used. Eventually, all the individuals in the population turn out to be resistant and the use of a pesticide becomes ineffective. This phenomenon has been documented with insects, plant diseases and even certain weed species.

Pest resurgence is the ability of a pest to obtain higher population numbers after the use of a pesticide. This occurs, especially with broad spectrum pesticides, following an application because the pesticide interferes with the pest’s natural enemies. Natural enemies, sometimes called “beneficials,” are organisms that either parasitize or consume the pest and thereby help to keep pest populations in check. Natural enemies are normally thought of in terms of insects such as ladybird beetles and lacewing larvae, however, there are also organisms that eat weeds or antagonize the development of plant diseases. By using the wrong pesticide or by using it incorrectly, these organisms are killed or repelled thereby reducing their impact on the pest population. The result is an unchecked increase in the pest populations.

Secondary pest outbreaks occurs when a pesticide application kills the primary pest and has little or no effect on a secondary or less frequent pest but has a large impact on the secondary pest’s natural enemies. Normally the secondary pest is never a problem because of the action of its natural enemies. However, as with pest resurgence, the removal of these natural enemies due to applying the wrong pesticide or by using it incorrectly allows the secondary pest to increase in number and become a problem.

Today, societal perception of pesticide use, especially in and around schools, has changed dramatically from what it was even five years ago. Today, parents, teachers, staff and students are aware of their environment and are concerned about the hazards they may be exposed to. In certain states, parents and staff are required by law to be informed about the materials being used on school grounds that may impact their health. As a result, those persons responsible for pest management activities on school grounds must be more selective about the pesticides and other chemicals used at schools and begin to look to other methods for managing pests.



All of these factors, pest resistance, pest resurgence, secondary pest outbreaks and societal perceptions make it necessary to properly manage pests while limiting the use of pesticides. Practicing IPM on school grounds will allow this to happen.

## **Components of an IPM Program on School Grounds**

What makes for a good IPM program will vary from school to school depending on the conditions present at the school, however, all IPM programs have certain things in common. Techniques such as monitoring for pests, using plants resistant to certain pest problems or proper fertilization are all components of a good IPM program. The following is a brief discussion of the possible components of a good IPM program.

### Monitoring for Pests

Monitoring for pests is an essential part of any good IPM program. Without it, intelligent decisions regarding pest management cannot be done. Monitoring involves inspecting plant material and various key areas around the school at regular intervals to determine if any problems occur. Only when pest populations or their damage is high enough to warrant control should an appropriate management measure be taken.

### Resistant Plant Material

Pest problems can be prevented by choosing that are resistant to key pests. The use of plants with disease and insect resistance can reduce the need for pesticides. Planting certain grasses, such as grasses containing endophytes, can also help prevent insect outbreaks. Plants that are tolerant or resistant to drought can also help prevent problems by water stress thereby making the plant less susceptible to attack by diseases and insects.

### Cultural Techniques

Cultural control practices involve using techniques that modify the plant environment in order to help them tolerate pests. They include considerations involving plant hardiness, fertilization and irrigation schedules, proper site selection and the design of the entire landscape.

### Physical and Mechanical Control Techniques

These non-chemical techniques use manual methods to manage pests. Practices such as sanitation, hand removal of pests and pruning of infected plant material can prevent or manage certain pest problems. Additional techniques include removal of overwintering sites or alternate host plants, installing physical barriers and washing infested plants with a strong stream of water.

### Biological Control

Biological control of pests involves the conservation, augmentation or release of natural enemies of a pest. These organisms either consume the pest, parasitize the pest during its juvenile stage causing the pest to die or create an antagonistic environment for a pest (plant disease antagonists). Most people think of biological control as the release of organisms into the environment in an attempt to manage or manage a pest. However, conserving natural enemies through the use of pesticides less harmful to natural enemies or the use of cultural and mechanical methods of control



can prevent unnecessary reductions in the number of types of natural enemies already present. In addition, augmenting the effectiveness of natural enemies by keeping them in an area can increase the chance of managing pests. This includes many techniques, the most popular of which is the providing alternate food sources for natural enemies, many of which feed on nectar, by planting various types of annual and perennial flowering plants.

### Proper Pesticide Use

Pesticides are part of good IPM; however, they must be used wisely and judiciously. Using them indiscriminately or improperly will only lead to problems. Only use pesticides when absolutely necessary such as when all other techniques either fail or are not appropriate. If you do use a pesticide, select one that is right for the job. Attempt to choose a pesticide that has a narrow spectrum of target organisms that is less harmful to non-target organisms, and which has low human toxicity. Choose wisely to minimize the risk to humans and the environment.

### **How the Report Card Works**

The following material is designed to help you to make a self-assessment of your pest management practices that are used around the school. It is divided into six sections. Each section is designed to evaluate a different area of the school grounds.

As you answer the “yes” or “no” questions for each section you will be able to rate your performance as either poor, fair or good. If you answer “yes” to less than 50% of the questions in an individual section then you’re doing a “FAIR” job with your IPM program and need to implement considerable changes. If you are between 50 and 75% then you’re doing “FAIR” job and need to make a moderate number of changes. If your score is between 75 and 100% then you’re doing a “GOOD” job and need to make only minor changes.

When you have completed the self-assessment tool, rate your overall performance. If less than 50% of your section ratings are “GOOD” you need to make considerable changes. If you score is between 50 and 75% “GOOD” you’re on the right track but need to make a number of changes. If your score is greater than 75% “GOOD” you’re doing great job, need only minor changes and are well on your way to implementing a successful school IPM program.



# IPM Foundation for School Grounds

## General Standards

Please answer the following according to the views and policies of the school decision-makers

### 1. Landscape maintenance personnel

Is your current landscape maintenance program adequately staffed?	Y	N
Have they had formal IPM training?	Y	N
Are they accepting and implementing IPM methods?	Y	N

*Assignment of a specific employee to perform the landscape maintenance work on the school site is important as personnel and budgets may change from year to year. Horticultural contractors or subcontractors, custodial staff, etc. may be performing outdoor maintenance tasks according to a predetermined desired aesthetic appearance standard. Ideally, strive for employees/personnel trained in IPM method.*

### **YOUR GRADE: (G/F/P)**

### 2. Current Pest Control Program

Are pesticide decisions based on the calendar?	Y	N
Are pesticide decisions based on the presence of a pest?	Y	N
Are pesticide decisions based on damage levels?	Y	N

*Pesticides applied according to the calendar (at the same time each year according to past predictions) is not part of IPM. IPM decisions are based upon the pest circumstances (see next question).*

### **YOUR GRADE: (G/F/P)**

### 3. Awareness of State Regulations

Are appropriate personnel aware that IPM on school grounds may be mandatory in your state?	Y	N
Are appropriate personnel periodically updated on new state regulations pertaining to school IPM and pesticides?	Y	N

*New IPM regulations for schools in the Northeast will undoubtedly be increasing in the years ahead. Regulations differ from state to state, including requirements such as record keeping, public access to records, public notification, pesticide use complaint procedures, identification and notification of sensitive individuals, and posting, pesticide applicator licensing and certification.*

### **YOUR GRADE: (G/F/P)**



4. Awareness of Monitoring and Thresholds?

If only one individual is noticed is monitoring continued?	Y	N
If only a few individuals are noticed and no damage or annoyance threshold is reached, is monitoring continued?	Y	N
If enough individuals are noticed to trigger damage or annoyance thresholds, are treatments made at the proper time according to the pest's lifecycle?	Y	N

*If only one or a few pests are noticed, they rarely can inflict enough damage to warrant treatment. Monitoring more frequently ensures that the pest population does not increase. If damage, annoyance or fear results from a few or many pests, treatment may be warranted. However, timing the treatment according to the proper pest life stage or time of the year is important.*

**YOUR GRADE: (G/F/P)**

5. Awareness of Pest Control Regulations

Do personnel responsible for applying pesticides on school grounds have a valid Commercial Pesticide Applicator license issued by your state pesticide regulatory agency?	Y	N
Do your personnel responsible for applying pesticides on school grounds maintain their certification status by attending continuing education courses?	Y	N

**YOUR GRADE: (G/F/P)**

6. Appropriate IPM Resources Acquired

Do school maintenance personnel have access to information sources concerning school IPM issues?	Y	N
Have various publications and on-line resources been acquired to assist in developing and implementing IPM?	Y	N
Is staff aware of state agencies, universities, state/county Extension pest management personnel or other public resources serving school pest management needs?	Y	N
Are pest management professionals with expertise in school IPM consulted?	Y	N

*Your county Cooperative Extension office or your state Department of Environmental Protection or Conservation can provide you with updates on laws, regulations, pesticides, and other issues. Specific questions as well as pest identification and pest control options can also be handled by your county extension agent. Your state may also offer education and training materials for School IPM.*

**YOUR GRADE: (G/F/P)**



7. Written IPM Policies, IPM Committees and IPM Coordinators

Does the school have a written policy that states a commitment to IPM implementation?	Y	N
Are pest management objectives clearly identified?	Y	N
Is the policy reviewed and updated at least every three years?	Y	N
Does your school have an IPM committee?	Y	N
Is the committee made up of faculty, staff, students and parents?	Y	N
Is the committee composed of people who are knowledgeable about IPM philosophy and methods?	Y	N
Is there an individual committed to the IPM philosophy who can provide the day-to-day oversight of IPM implementation?	Y	N
Is there a plan developed that provides the necessary training for the IPM Coordinator?	Y	N
Are there resources for the IPM Coordinator to attend advanced training opportunities?	Y	N
Is the IPM Coordinator aware of and have access to resources to identify key pests?	Y	N
Does the IPM Coordinator utilize these resources?	Y	N

*Written IPM policies should include a commitment to effective pest controls using low risk management strategies as a first preference. Additionally, the written policy should act as a guide to help IPM decision-making. An IPM Committee is formed to create and maintain the IPM policy and provides guidance in interpreting the policy. Designating an IPM Coordinator creates a person who can implement the written policies and work with the IPM committee to better implement IPM on school grounds.*

**YOUR GRADE: (G/F/P)**

8. Posting Notification of Pesticide Applications

Are postings placed in designated public areas at least 24 hours in advance of pesticide applications?	Y	N
Does the notice provide details concerning locations to be treated and contact information for additional facts or concerns?	Y	N
Do posted notifications remain in place for at least 48 hours after the application?	Y	N

*In some states, notification about pesticide applications is required by law. Please contact your state pesticide regulatory agency for exact details.*

**YOUR GRADE: (G/F/P)**





9. Additional Postings

Are additional postings placed on school grounds in accordance with all laws (i.e., at the entry points of pesticide application sites)?	Y	N
Are these postings removed in accordance with all laws?	Y	N

**YOUR GRADE: (G/F/P)**

10. Availability of Pesticide Labels, MSDS Sheets and General IPM Information

Are copies of the pesticide labels for pesticides used available on request and maintained on file in a central location?	Y	N
Are copies of the MSDS sheets for pesticides and other chemicals used available on request and maintained on file in a central location?	Y	N
Are copies of the pesticide labels and MSDS sheets for the chemical products used available to students, faculty, staff and parents?	Y	N
Is public access provided on request to all information about the school IPM policy?	Y	N
Is public access provided on request to all information about the school IPM plan and its implementation?	Y	N
Is someone responsible for sending out this information?	Y	N

**YOUR GRADE: (G/F/P)**

11. Written Records

Are legible records of each pesticide application completed?	Y	N
Do they include the product and quantity used, date and time of application, location, application method, target pest and the name of the applicator? Are the records maintained for at least three years?	Y	N
If pesticide applications are contracted out, are records of their activities available on site at a central location at the school?	Y	N

**YOUR GRADE: (G/F/P)**

12. Inspection of Grounds

Is a preliminary inspection of the school grounds performed to determine the extent of pest problems?	Y	N
Is the preliminary inspection of the school grounds used to set IPM priorities?	Y	N

**YOUR GRADE: (G/F/P)**

### 13. Pesticide Risk Management

Do individuals who are licensed by the state to apply pesticides to turf and ornamental areas apply all pesticide applications?	Y	N
If not all of the individuals applying pesticides are licensed to apply pesticides to turf and ornamental areas are they under the supervision of a person who is?	Y	N
If this supervisory person is not always present on school grounds during an application, are the unlicensed people registered as commercial pesticide operators (New Jersey only)?	Y	N

**YOUR GRADE: (G/F/P)**

### 14. Pesticide Risk Management

Are pesticides only applied after the detection and identification of a verifiable pest?	Y	N
Applications are never routinely applied on a regularly scheduled basis (e.g., weekly or monthly calendar treatments are never made).	Y	N
Are low risk pesticides applied when possible?	Y	N
Is pesticide use data reviewed annually?	Y	N
Are pesticides chosen to minimize the risk of exposure based on toxicity, formulation, application method, site, etc.?	Y	N

*A review of the pesticides used and how they are used on school grounds is made to evaluate potential exposure risks. This evaluation will help determine if practices should be changed and if the use of higher-risk pesticides need to be reduced or replaced.*

**YOUR GRADE: (G/F/P)**

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