Title 15 MARYLAND DEPARTMENT OF AGRICULTURE

Subtitle 05 PESTICIDE USE CONTROL

Chapter 02 Integrated Pest Management and Notification of Pesticide Use in a Public School Building or on School Grounds

Authority: Agriculture Article, §§5-204 and 5-208.1, Annotated Code of Maryland

.01 Scope of Regulations.

This chapter sets forth the procedure for a county board of education to:

A. Develop and implement in its schools and on school grounds an integrated pest management system; and

B. Notify a parent or guardian of a student attending a public school, a student, or a school staff member before a pesticide is applied in a school building or on school grounds during the school year.

.02 Definitions.

A. In this chapter, the following terms have the meanings indicated.

B. Terms Defined.

- (1) "Bait" means an insecticide or rodenticide mixed with a food material that attracts a pest.
- (2) "Bait station" means a container enclosing an insecticide or rodenticide bait.
- (3) "Contact person" means an individual:
 - (a) Knowledgeable about integrated pest management; and
 - (b) Designated by a county board to act as a contact for inquiries about the integrated pest management system.

(4) "Crack and crevice treatment" means the application of small amounts of a pesticide in a building into openings such as those commonly found:

- (a) At expansion joints;
- (b) Between levels of construction; and
- (c) Between equipment and floors.
- (5) "Department" means the Maryland Department of Agriculture or its designee.

(6) "Emergency" means a sudden need to mitigate or eliminate a pest which threatens the health or safety of a student or staff member.

(7) "Integrated pest management" means a managed pest control program in which methods are integrated and used to keep pests from causing economic, health-related, or aesthetic injury through the utilization of site or pest inspections, pest population monitoring, evaluating the need for control, and the use of one or more pest control methods, including sanitation, structural repair, nonchemical methods, and, when nontoxic options are unreasonable or have been exhausted, pesticides, in order to:

- (a) Minimize the use of pesticides; and
- (b) Minimize the risk to human health and the environment associated with pesticide applications.
- (8) Pesticide.

(a) "Pesticide" means a substance or mixture of substances intended for:

- (i) Preventing, destroying, repelling, or mitigating a pest;
- (ii) Use as a plant regulator, defoliant, or desiccant; or
- (iii) Use as a spray adjuvant, such as a wetting agent or adhesive.
- (b) "Pesticide" does not include:
 - (i) An antimicrobial agent, such as a disinfectant, sanitizer, or deodorizer, used for cleaning purposes; or
 - (ii) A bait station.
- (9) "School" means a public school in the public elementary and secondary system of the State.

(10) "School year" means that period during the year defined by each county board of education when public schools are regularly open for students.

(11) Space Spraying.

(a) "Space spraying" means an application of pesticide by discharge into the air throughout an entire room or area by a fogger or aerosol device.

(b) "Space spraying" does not include crack and crevice treatment.

(12) Staff Member.

- (a) "Staff member" means an employee of a school system.
- (b) "Staff member" includes an administrator, teacher, or other support personnel.
- (c) "Staff member" does not include:
 - (i) A registered employee or pest control applicator certified by the Department; or
 - (ii) An individual assisting in the application of a pesticide.

(13) "Universal notification" means written notice by a school to all parents, guardians, and staff members.

.03 Integrated Pest Management System.

A. County Board of Education Requirements.

(1) Each county board of education shall:

(a) Develop and implement for its schools an integrated pest management system approved by the Department; and

(b) File a written integrated pest management plan with the Department for approval.

(2) When any change is made to the integrated pest management system, the county board of education shall submit the revised integrated pest management plan to the Department for approval before the initiation of the new plan.

B. The integrated pest management system of a county board of education shall meet the following minimum requirements:

(1) Have an integrated pest management policy;

(2) Have a policy on pest management roles and responsibilities of decision makers, including the name, address, and telephone number of the contact person;

(3) Have procedures for conducting the pest control program, including pest management objectives;

(4) Have procedures for regular inspection and monitoring activities to determine the presence and distribution of pests;

(5) Have standards to determine the:

(a) Severity of pest infestation; and

(b) Need for corrective action;

(6) Require each school:

(a) To make records documenting:

(i) Pest sightings;

(ii) Pest control procedures; and

(iii) Any communications to students and staff members regarding integrated pest management or pesticide use;

and

(b) To maintain these records for 2 years and make these records immediately available, on request, to the Department.

(7) Have pest management strategies, including sanitation, structural repair, physical, cultural, and biological control, nonchemical methods and pesticide application, when nontoxic options are unreasonable or have been exhausted;

(8) Provide education and training of staff members, students and parents or guardians in integrated pest management procedures;

(9) Require an annual evaluation of:

(a) Integrated pest management strategies; and

(b) Program quality assurance; and

(10) Have procedures for notification of a parent or guardian of a student attending the school and of a staff member at the school before a pesticide is applied in a school building or on school grounds.

.04 Information for Parent, Guardian, or Staff Member.

A. School Notice Requirement.

(1) At the beginning of each school year, each school shall include notice of the school's integrated pest management system in the school calendar or other universal notification.

(2) The notice required in §A(1) of this regulation shall include the following information:

(a) A statement that explains the school's integrated pest management system;

(b) A list of the common name of any pesticide or bait station that may be used in a school building or on school grounds;

(c) The name, address, and telephone number of the contact person;

(d) A statement that the contact person maintains the product label and material safety data sheet of each pesticide or bait station used in a school building or on school grounds;

(e) A statement that the:

(i) Product label or material safety data sheet is available for review by a parent, guardian, staff member, or student attending the school; and

(ii) Contact person is available for information or comment; and

(f) Instructions for including a parent, guardian, or staff member on a pesticide notification list provided for in §B of this regulation.

(3) After the beginning of a school year, a school shall provide the written information required by this regulation to a:

(a) Parent or guardian of a newly enrolled student; and

(b) Newly employed staff member.

(4) The written notice shall be approved by the Department before distribution.

B. Pesticide Notification List.

(1) At the beginning of each school year, each middle school or high school shall develop a pesticide notification list of each staff member and of each parent or guardian of a student attending the school who requests in writing prior notification of a pesticide application made during the school year in the school building or on school grounds.

(2) The school shall:

(a) Keep the pesticide notification list current; and

(b) Add names upon written request by a:

(i) Parent or guardian of a student attending the school; or

(ii) Staff member.

(3) The school shall make the pesticide notification list available to the Department, upon request.

.05 Notification of a Pesticide Application in an Elementary School Building or on School Grounds.

A. During the school year, each school that enrolls elementary school students shall notify each parent or guardian of a student attending the school and each staff member:

(1) At least 24 hours before a pesticide is applied in a school building or on school grounds; and

(2) For emergency pest control:

(a) Within 24 hours after a pesticide is applied, or

(b) On the next school day, as provided in Regulation .09 of this chapter.

B. The following information shall be provided in the notification required by §A of this regulation:

(1) Common name of the pesticide applied;

(2) Location of the application;

(3) Date and time of the application;

(4) The following language: "The Office of Pesticide Programs of the United States Environmental Protection Agency has stated: `Where possible, persons who potentially are more sensitive, such as pregnant women and infants (less than 2 years old), should avoid any unnecessary pesticide exposure'";

(5) A brief description, approved by the Department, of potential adverse effects, based upon the material safety data sheet of the pesticide applied; and

(6) Reason for the emergency application, if applicable.

C. The school shall provide notification by a written notice sent home with each student or provided to each staff member.

D. For application on school grounds, the notice of the planned date and time of application may specify that weather conditions or other extenuating circumstances may cause the actual date of application to be postponed to a later date or dates.

E. If the actual date of application is more than 14 days later than the planned date provided in the notice, notice of the application required under this regulation shall be reissued.

.06 Notification of a Pesticide Application in a Middle School Building or High School Building or on School Grounds.

A. During the school year, each middle school or high school shall notify each parent or guardian and staff member on the pesticide notification list, as provided in Regulation .04B of this chapter:

(1) At least 24 hours before a pesticide is applied in a school building or on school grounds; and

(2) For emergency pest control:

(a) Within 24 hours after a pesticide is applied, or

(b) On the next school day, as provided in Regulation .09 of this chapter.

B. The following information shall be provided in the notification required by §A of this regulation:

(1) Common name of the pesticide applied;

(2) Location of the application;

(3) Date and time of the application;

(4) The following language: "The Office of Pesticide Programs of the United States Environmental Protection Agency has stated: `Where possible, persons who potentially are more sensitive, such as pregnant women and infants (less than 2 years old), should avoid any unnecessary pesticide exposure'";

(5) A brief description, approved by the Department, of potential adverse effects based upon the material safety data sheet of the pesticide applied; and

(6) Reason for the emergency application, if applicable.

C. The school may provide prior notification by:

(1) A written notice sent home with the student or provided to the staff member;

(2) A telephone call;

(3) Direct contact; or

(4) A written notice mailed at least 3 days before the application.

D. For application on school grounds, the notice of the planned date and time of application may specify that weather conditions or other extenuating circumstances may cause the actual date of application to be postponed to a later date or dates.

E. If the actual date of application is more than 14 days later than the planned date provided in the notice, notice of the application required under this regulation shall be reissued.

.07 Notification of Space Spraying.

A. Except as provided by Regulation .09 of this chapter, each school that intends to use space spraying in a school building shall provide written notice to each parent or guardian and staff member at least 1 week before the application.

B. The written notice shall be sent home with each student or provided to each staff member.

C. The notice shall:

(1) Be on a separate paper sheet at least 8-1/2 by 11 inches in size; and

(2) Contain:

(a) Common name of pesticide to be used;

(b) Location of space spraying;

(c) Planned date and time of space spraying;

(d) The following language: "The Office of Pesticide Programs of the United States Environmental Protection Agency has stated: 'Where possible, persons who potentially are more sensitive, such as pregnant women and infants (less than 2 years old), should avoid any unnecessary pesticide exposure'";

(e) A brief description, approved by the Department, of the pesticide to be applied, if the pesticide is not addressed in the notice as provided by Regulation .04 of this chapter;

(f) A brief description of potential adverse effects based upon the material safety data sheet of the pesticide to be applied; and

(g) The name and telephone number of the contact person.

.08 In-School Notification.

A. Pesticide Application in a School Building.

(1) Each school system shall develop an appropriate means of in-school notification to students and staff before a pesticide is applied in a middle school building or high school building.

(2) The in-school notification shall include a sign or notice posted:

- (a) At the room or area of the pesticide application; and
- (b) Either:
 - (i) At the primary entrance to the school, or
 - (ii) In a central school location accessible to parents, guardians, students, and staff.
- (3) In-school notification to students and staff may also include:
 - (a) Oral announcements; or
 - (b) Written notices.
- (4) The notice or sign shall include the following information:
 - (a) "Caution—Pesticide Application";
 - (b) Common name of the pesticide applied;
 - (c) Location of the application;
 - (d) Date of the application; and
 - (e) Contact person for additional information, including information on potential adverse effects.

(5) The notice or sign shall remain posted for at least 48 hours after a pesticide is applied.

B. Bait Station.

(1) Each school system shall provide in-school notification to students and staff before a bait station is used in any school.

(2) The in-school notification shall include a sign or notice posted on the door of the room or primary entrance to the area in which the bait station is placed.

(3) The notice or sign shall include the following information:

- (a) "Caution-Pesticide Application";
- (b) Common name of the pesticide applied;
- (c) Date the bait station was placed in the room or area; and
- (d) Contact person for additional information, including information on potential adverse effects.
- (4) The notice or sign shall remain posted until the bait station is removed.
- C. Pesticide Application on School Grounds.

(1) Each school system shall develop an appropriate means of in-school notification to students and staff before a pesticide is applied on the school grounds of a middle school or high school.

- (2) The in-school notification shall include a sign or notice posted:
 - (a) At the primary entrance to the school; or
 - (b) In a central location accessible to parents, guardians, students, and staff.
- (3) In-school notification to students and staff may also include:
 - (a) Oral announcements; or
 - (b) Written notices.
- (4) The notice or sign required under §C(2) of this regulation shall:
 - (a) Include the following information:
 - (i) "Caution—Pesticide Application";
 - (ii) Common name of the pesticide applied;
 - (iii) Location of the application;
 - (iv) Date of the application; and
 - (v) Contact person for additional information, including information on potential adverse effects; and
 - (b) Remain posted for at least 48 hours after a pesticide is applied.

.09 Emergency Pest Control.

A. A pesticide may be applied in a school building or on school grounds without prior notification only if an emergency pest situation exists.

B. Within 24 hours after an emergency pesticide application, or on the next school day, the school shall notify:

(1) The parent or guardian of each student and each staff member at an elementary school according to Regulation .05 of this chapter; or

(2) Each parent or guardian and staff member on the pesticide notification list provided by Regulation .04B of this chapter, for a middle school or high school according to Regulation .06 of this chapter.

.10 Pesticide Application in a Public School Building or on School Grounds.

A. A licensee, permittee, or certificate holder may not apply a pesticide in a school building or on school grounds until notification is provided in accordance with Regulation .05, .06, .07, or .08 of this chapter, unless provided in accordance with Regulation .09 of this chapter.

B. A person who applies a pesticide in a school building or on school grounds shall be a:

- (1) Certified applicator; or
- (2) Registered employee working under the supervision of a certified applicator.

C. A licensee, permittee, or certificate holder shall provide the school with a record of each pesticide application at the time of the pesticide application.

15.05.02.11

.11 Posting of Sign on School Grounds.

A licensee or permittee applying a pesticide to a school ground shall post, at the time of application, a sign which conforms to the requirements of COMAR 15.05.01.15B—G.

Administrative History

Effective date:

Regulations .01—.10 adopted as an emergency provision effective February 11, 1999 (26:5 Md. R. 388); adopted permanently effective May 3, 1999 (26:9 Md. R. 730)

Regulation .01—.06 and .08—.10 amended as an emergency provision effective April 28, 2000 (27:10 Md. R. 963); amended permanently effective July 24, 2000 (27:14 Md. R. 1343)

Regulation .01 amended as an emergency provision effective January 15, 2002 (29:3 Md. R. 214); amended permanently effective April 15, 2002 (29:7 Md. R. 622)

Regulation .02B amended effective December 11, 2003 (30:24 Md. R. 1745)

Regulation .03 amended as an emergency provision effective January 15, 2002 (29:3 Md. R. 214); amended permanently effective April 15, 2002 (29:7 Md. R. 622)

Regulation .03B amended effective January 24, 2011 (38:2 Md. R. 85)

Regulation .11 adopted as an emergency provision effective April 28, 2000 (27:10 Md. R. 963); adopted permanently effective July 24, 2000 (27:14 Md. R. 1343)

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Anne Arundel County Public Schools

Integrated Pest Management Plan

Notification Procedures And Program Practices



Submitted by: Christopher E. Williams, M.H.S., C.I.H. Environmental Issues Program Manager Operations Division December 1, 2015

Revision Date – April 5, 2002 2nd Revision Date – November 19, 2004 3rd Revision Date – April 11, 2007 4th Revision Date – March 12, 2012 5th Revision Date- December 1, 2015

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SECTION 1

ANNE ARUNDEL COUNTY PUBLIC SCHOOLS

INTEGRATED PEST MANAGEMENT PROGRAM <u>AND</u> <u>NOTIFICATION PROCEDURES</u>

FUNCTIONAL POLICY STATEMENT

This written integrated pest management and notification program revises Anne Arundel County Public Schools 2012 IPM Program Practices. It reflects and implements important program changes and updates and has been submitted to the Maryland Department of Agriculture for approval per COMAR 15.05.02.03.A(2) Integrated Pest Management and Notification of Pesticide Use in a Public School Building or on School Grounds.

Anne Arundel County Public Schools (AACPS) is committed to providing schools with pest-free environments through the implementation of preventive hygiene methods and chemical strategies when necessary. Beginning in 1989 AACPS shifted from chemical spraying to control pests and adopted a pest prevention program known as the Integrated Pest Management (IPM). This practice emphasizes the use of non-chemical (pesticide) prevention techniques for pest control and emphases applying pesticides only when urgently required or when non-toxic methods have been exhausted. Its foundation is an inspection and monitoring program designed to find and remove the sources of pest harborage, food and/or water. Non-chemical traps are used to determine the presence of pests, estimate population size, and identify species. Their habitat or means of entrance to the school is sought in order to seal it or otherwise prevent access. By denying a source of food and entrance, pests are controlled. If these actions do not work and the infestation persists, applications of non-toxic or low toxicity chemicals, such as boric acid may be necessary.

IPM has produced the following benefits:

- Increased cleanliness of facilities.
- Reduction of possible adverse effect on sensitized school occupants.
- Stresses prevention.
- Limits pesticide use as a means of correction actions.
- Reduces reliance on outside vendor/contractor services for pesticides as pest control.

Integrated Pest Management Goal

To provide a safe and healthy learning and working environment which is conducive to effective staff productivity and student learning by managing pests and their environments while balancing costs and benefits with human health and environmental quality.

In 2004 Anne Arundel County Public Schools integrated pest management program was audited by the IPM Institute of North America. AACPS performance in reducing pests and pesticide risks to

health and the environment was verified by this independent, third party. As a result, AACPS was recognized as the fourth school system in the nation to be IPM STAR Certified.

IPM PROGRAM OBJECTIVE

Pests and pesticides can pose significant problems and risks to people, property, and the environment. The objective of *AACPS* is to incorporate *Integrated Pest Management (IPM)* procedures for control of structural and landscape pests. These practices will: minimize the amount and toxicity of pesticides used in the schools or on school property, eliminate unnecessary pesticide applications, provide education to school based staff, improve sanitation, utilize Maryland licensed pesticide applicators when necessary and provide universal notification at least 24 hours in advance to all parents, guardians and staff in both elementary and secondary schools, whenever a pesticide application is necessary.

RULES AND REGULATIONS

When it is determined that a pesticide must be used, the least hazardous chemical determined to be effective in controlling the pest will be chosen and label directions shall be followed. The application of pesticides is subject to the following Federal, State and Local rules and provisions: the Federal Insecticide, Fungicide, and Rodenticide Act, the Environmental Protection Agency, the Occupational Safety and Health Administration, the Superfund Amendments and Reauthorization Act, the Resources Conservation and Recovery Act, the Hazardous Materials Transportation Uniform Safety Act, the Endangered Species Act, and State of Maryland COMAR regulations, Anne Arundel County regulations and AACPS school district policies and procedures.

DEFINITIONS

Action Threshold Level means the level of pest populations at which pest control action will be taken to prevent pests in an area from causing unacceptable injury or harm and may be based on site location, type of pest, aesthetic, health or economic considerations.

Anti-microbial pesticide:

A pesticide used for control of microbial pests including viruses, bacteria, algae, and protozoa for the purpose of disinfecting or sanitizing. Anti-microbials do not include fungicides used on plants.

Bait:

A type of insecticide with a delayed toxicity. Baits have two components: a delicious or otherwise attractive matrix and a slow-acting poison. Baits are consumed or otherwise carried away by a particular pest. The slow-acting poison then kills the pest after a 5-7 days period of time.

Biological pesticide:

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A chemical derived from plants, fungi, bacteria, or other non-man-made synthesis and used for pest control.

Contact Person

An individual knowledgeable about Integrated Pest Management and designated by the county board to carry out all IPM rules, regulations and policies.

Conventional pesticide (vs. biological pesticide):

Any man-made chemical that can be used to kill pests.

Diatomaceous earth:

A mineral product from fossilized shells used as a mechanical control for some pests. In some insects the coarse texture abrades the outer waxy coating that keeps water inside and allows the insects to dehydrate.

Disinfectant:

A chemical that destroys vegetative forms of harmful microorganisms, but does not ordinarily kill bacterial spores.

Emergency:

The sudden need to mitigate or eliminate a pest that threatens the health or safety of a student or staff member or that may be responsible for causing serious damage to a building.

FIFRA - The Federal Insecticide, Fungicide, and Rodenticide Act:

FIFRA was enacted in June 25, 1947. The act instructs the EPA to regulate 1) the registration of all pesticides used in the United States; 2) the licensing of pesticide applicators; 3) re-registration of all pesticide products; and 4) the storage, transportation, disposal, and recall of all pesticide products.

Harborage:

Shelter for pests. All living organisms require food, water, and shelter to thrive. Harborage is a component of habitat for pests that can include clutter, stacks of newspapers, and cardboard boxes.

Herbicide:

A pesticide used to kill or control undesirable plants (generally considered weeds).

Insecticide:

A pesticide used to kill and/or control insects.

Integrated Pest Management (IPM):

The decision making process and managed pest control program in which methods are integrated and used to keep pests from causing economic, health related, or aesthetic injury through the utilization of site or pest inspections, pest population monitoring, evaluating the need for control, and the use of one or more pest control methods including sanitation, structural repair, non-chemical methods and when nontoxic options are unreasonable or have been exhausted, pesticides, in order to: minimize the use of pesticides and minimize the risk to human health and the environment associated with pesticide applications.

Integrated Pest Management Program Manager

The individual that oversees the day - to- day operation of the Integrated Pest Management Program.

IPM Plan:

A written document including specific information regarding the operation of the school IPM program, such as IPM roles for all school staff, parents, students, and other community members; pesticide application notification policies; list of key pests; action thresholds, a risk-based hierarchy of control options and prevention/avoidance strategies to be used for key pests; inspection schedules for school facilities; policies for working with outside contractors; lists of resources for resolving technical questions; and other pertinent information. $\underline{1}$

Key pest:

An insect, mite, disease, nematode, or weed that frequently results in unacceptable damage and thus typically requires a control action. $\underline{1}$

Monitoring:

One of several steps in an effective IPM plan, monitoring involves regular, ongoing site inspections and trapping to determine types and infestation levels of pests at each site.

SDS:

A widely used acronym for safety data sheets. These contain details of the hazards associated with chemicals, and give information on their safe uses. These are available for all certified pesticides.

Pathogen:

A living microorganism, usually a bacterium, fungus, mycoplasma, or virus that can cause disease in the presence of a specific host and under the right environmental conditions. <u>1</u> FY'16 Docs IPM 699-2015 Revised December 1, 2015 6 Pests:

Populations of living organisms (animals, plants, or microorganisms) that interfere with use of the school site for human purposes. Strategies for managing pest populations will be influenced by the pest species and whether that species poses a threat to people, property, or the environment.

Pesticides:

Chemicals used to control pests and include insecticides, herbicides, rodenticides and fungicides.

Pesticide residue:

A film of pesticide left on the plant, soil, container, equipment, handler, etc., after application of the pesticide.

Residual insecticides:

Insecticides that remain persistent on a surface over a long period of time.

Rodenticide:

A pesticide or any chemical used to kill rodents.

Sanitation:

One of several steps in an effective IPM plan, sanitation involves routine cleaning,

maintenance, removal of clutter, and harborage. It is pest control.

Universal Notification:

The written notification to all staff, parents and guardians of an upcoming pesticide application conducted in a school or on school grounds during the calendar school year.

ROLES AND RESPONSIBILITIES

The Integrated Pest Management Program will require the assistance and cooperation of each school's administration, staff and students. <u>AACPS has appointed Christopher E. Williams</u>, Environmental Issues Program Manager, Operations Division, 9034 Ft. Smallwood Road, Pasadena, Maryland 21122, 410.360.0138, as the Contact Person for this program.

The contact person serves as liaison between school administrations and parents, guardians, staff and students. The primary function of this position is to address questions and concerns regarding the IPM system and AAPCS' pest control practices. Other duties include but are not limited to: maintaining SDSs and product labels for all pesticides that may be used, providing IPM program oversight, ensuring consistency within the pest control program and ensuring the provisions of the Regulation are fulfilled. The Contact Person will advise the administration, staff, parents and guardians and staff of IPM program changes as necessary and new laws or regulations affecting the IPM program. The contact person makes

updates to the IPM program and submits changes to the Department of Agriculture for approval and may confirm problem areas identified through the regular inspection and monitoring process.

Integrated Pest Management Program Manager means the individual who oversees the day - today operation of the Integrated Pest Management Program. Duties include; responding to complaints, scheduling inspections and performing school visits, maintaining records, maintaining the Public Agency Pesticide Permit, maintaining Public Agency Pesticide Applicator Certification, educating school administrators, teachers and staffs, training custodians on pest prevention techniques, maintaining pesticide complaint and inspection database, identifying pesticide and equipment needs, maintaining equipment, monitoring pesticide storage and inventories, identifying pests, setting pest action thresholds, contracting licensed pesticide applicators, and training and supervising IPM technicians.

Integrated Pest Management Technician: means the individual responsible for the following activities; responding to pest complaints, maintaining records of site visits, identify pests, applying pesticides when necessary, posting notifications, ensuring IPM protocols are followed, properly uses pest control equipment and personal protective equipment, securing pesticides and attending continuing education training classes.

Students and staff: are encouraged to cooperate with the provisions of the IPM system by ensuring that areas requiring maintenance or repair, sanitation problems and pest problems or sightings are reported to the pest management office. Students and staff are encouraged to follow good sanitation protocols.

INTEGRATED PEST MANAGEMENT PROCEDURES

IPM procedures will determine when to control pests, and identify conditions contributing to pest problems through the use of monitoring and thorough inspections conducted at regular intervals. Problem areas will be identified where alternative pest control technologies can be incorporated in order to eliminate routine pesticide applications. The necessity for pest control, if warranted, will be evaluated based on information obtained from inspections and monitoring. Actions will be based on **action threshold levels** that are established based on the **site and pest**. When pest control procedures are warranted the utilization of one or more pest control strategies including; sanitation, structural repair, physical, cultural, biological, non-chemical methods and when nontoxic options are unreasonable or have been exhausted, pesticides.

IPM practitioners shall depend on current, comprehensive information on the pest and its environment and the best available pest control methods. By applying IPM principles, unacceptable levels of pest activity and damage will be prevented by the most economical means while minimizing the risk to human health and the environment associated with pesticide applications. The decision to use pesticides will be made after consideration of alternatives or other available options have been exhausted or are deemed unreasonable.

When it is determined that a pesticide must be used in order to meet vital pest management goals, the least hazardous pesticide will be selected. The application of all pesticides is subject to AACPS' policies and procedures and all applicable state, federal and local regulations including the Maryland Pesticide Applicators Law and Regulations, and the Federal Insecticide, Fungicide, and Rodenticide Act.

AACPS INTEGRATED PEST MANAGEMENT STRATEGIES

IPM strategies will be used to determine when to control pests and whether to use mechanical, physical, chemical, cultural, and/or biological means. IPM practitioners depend on current, comprehensive information on the pest and its environment and the best available pest control methods. Applying IPM principles prevents unacceptable levels of pest activity and damage to occur by combining the most economical means of control with the least possible hazard to people, property, and the environment.

The decision to use a pesticide will be based on a review of all other available options and a determination that these options are not acceptable or are not feasible. Cost or staffing considerations alone will not be adequate justification for use of chemical control agents, and select non-chemical pest management methods will be implemented whenever possible to provide the desired control. It is the practice of AACPS to utilize IPM principles to manage pest populations adequately. The full range of alternatives, including no action, will be considered.

INTEGRATED PEST MANAGEMENT "IN SCHOOLS" STRATEGIES INCLUDE:

- Inspection / Monitoring
- Action Thresholds
- Sanitation / Structural repairs
- Non-pesticide control, i.e. biological, cultural, physical controls, vacuuming, over-seeding
- Pesticides
- Record Keeping/ SDS
- Notification
- Education / Communication
- Annual Program Evaluation / Quality Assurance

Inspection and Monitoring

IPM personnel shall perform monthly inspections of all school kitchens, including storerooms and garbage can washrooms. Zone monitors shall be placed monthly and a written inspection is presented to the kitchen staff. Additionally, Family and Consumer Science (home economics) areas shall be inspected in secondary schools on an as needed basis.

Action Thresholds

Action thresholds establish the point or the level of pest populations at which pest control action will be taken to prevent unacceptable injury or harm and may be based on site location, type of pest, aesthetic, health or economic considerations. **Different levels dictate the control action**. Common sense is utilized to determine pest severity and likelihood to cause harm. Levels can be revised based on continued sightings or lack thereof. In general, the following action thresholds are used to guide IPM technicians in making decision regarding the use of pesticides.

Ants (common house-infesting)

Classrooms and other public areas: 5 ants/room; infirmary: 1 ant/room; kitchen: 3 ant/room; maintenance and storage areas: 5 ants/100 square feet in two successive monitoring periods;

Outside grounds:

Field ants mounds/square yard.

Ants (carpenter)

Classrooms, public areas, maintenance areas: 3 ants/room; infirmary: 1 ant/room; kitchen: 2 ant/ room; immediate action if ant colony suspected inside or within 25 feet of any building.

Bagworms

Control on conifers when 2 or larger bags/tree or bush. In light infestations, hand pick and destroy; in heavy infestations spray with BT. between June 15 and July 15, or spray residual insecticides after July 15.

Bats Immediate response and turn over to Animal Control for rabies testing; report results to the Anne Arundel County Health Department.

Bees (honey)

Classrooms, infirmary, kitchen and public areas: 1 bee; maintenance areas: 3 bees; outdoors: no action unless children are threatened.

Bees {bumble}

Classrooms, infirmary, kitchen and public areas: 1 bee; maintenance areas: 3 bees; outdoors: action necessary if communal nests are present in student activity area. Also action whenever children are threatened.

Bees (carpenter)

Classrooms, infirmary, kitchen and public areas: 1 bee; maintenance areas: 3 bees; outdoors: 1 carpenter bee/5 linear feet if susceptible, unfinished wood. Also action whenever children are threatened.

Cockroaches

Classrooms and other public areas: 2 cockroaches/room. If 2-10 cockroaches per room, apply cockroach bait. If 10 or more, track down infestations, review sanitation, trash handling, clutter,

etc.; open equipment, check inaccessible areas; vacuum and otherwise clean room, and apply baits or other insecticides as necessary. Infirmary: 1 cockroach/room; kitchen: 1 cockroach/room;

maintenance areas: 5 cockroaches/room; outside grounds: no action unless noticeable infestation.

Crickets

Classrooms and other public areas: 3 crickets/room; infirmary: 1 cricket/room; kitchen: 2 crickets/room; maintenance areas: 10 crickets/room; outside grounds: no action unless causing problems.

Grain and flour pests

Found in food for human consumption: l/package or container; pet food: 1 if escaping from packaging; if found in pheromone traps: 2 of anyone species (total of all traps)

Grubs:

On playgrounds or near school building entrances take preventative actions in area with known grub problems or populations

House flies

Classrooms and other public areas: 3 flies/room; infirmary: 1 fly/room; kitchen: 1 fly/room; maintenance areas: 5 flies/room; outside grounds: 5 flies around anyone trash can or 10 flies around a dumpster.

Landscape plants (general)

Whenever pest damage approaches 10 percent/plant. Lawn pests (insects, nematodes, disease) Whenever visible damage approaches 10 percent in any 100 square foot area.

Lice (head or body)

Take no action: refer to nurse.

Mice

Indoors: any mouse sighting or evidence of mice {such as new mouse droppings, tracks, etc.) triggers pest management action; outdoors: any noticeable burrows or activity in student areas.

Pigeons

Roof ledges: 1 a/building for 3 consecutive inspections; public area or roof: whenever droppings accumulate more than 1-inch or nests obstruct gutters or equipment.

Poison ivy

Student activity areas: 1 plant; wooded areas: no control necessary unless near path or student activity area.

Rats

Indoors: any rat sighting or evidence of rats (such as new droppings, tracks, etc.) triggers pest management action; outdoors: any active burrows or activity.

Silverfish

Library and wherever books, paper, files are stored: l/room; other indoor areas: 2/room

Snakes:

Indoors: Take immediate action

Spiders

Take immediate action if a black widow or brown recluse is suspected in any area; other spiders' classrooms: 1 spider/room; infirmary: 1 spider/room; kitchen/cafeteria: 1 spider/room; hallways:

2 spiders/hallway; maintenance and unoccupied areas: 3 spiders/room; outdoors: only if in large numbers or causing problems.

Tent caterpillars

Desirable ornamental plants: 1 tent or egg mass/tree; woodland trees, non-ornamental trees: if potentially damaging or aesthetically intolerable, or after two complaints in two weeks (to prevent repeated infestations, remove wild cherry hosts).

Ticks

Outdoor student activity areas: 3 tick, any species; outdoor wooded and other areas of low student activity: keep grass and weeds trimmed; if any blacklegged ticks found, treat wood edges; for other species, take action if moderate to heavy populations.

Weeds

Lawns: whenever weeds approach 15 percent in any 100 square foot area; Ornamental plantings: whenever competing with ornamental plants or whenever aesthetically displeasing.

Yellow jackets/hornets

Classrooms and other public areas: 1 yellow jacket or hornet; outdoors: action necessary if nests are present in or near student activity area; 10/10 minutes at trash can or dumpster; 1 yellow jacket or hornet anywhere if children are threatened.

Sanitation

Sanitation includes vacuuming, steam cleaning or power washing using vermin proof containers, stock rotation, waste disposal and scheduling, proper selection of exterior plantings.

Physical and Mechanical Controls

Physical and Mechanical controls to be used will include alterations to prevent or otherwise reduce the attractiveness of the area including: the use of door kick plates, weather stripping, screening and hardware cloth, caulking, mortar and/or concrete sealing and moisture control. Mulch is discouraged from being placed directly against the school building. Other mechanical measures include; installing screen doors, using flypaper, glue boards, zone monitors and electrical light traps.

Cultural Controls

Cultural controls including removing the breeding environment for the pest, removing clutter, exterior weeds and leaves and removing food and water sources.

Biological Controls

Biological controls involve the use of a natural predator against the pest however such actions may be limited in the school setting.

EDUCATION

Staff, students, pest managers, and the public shall be educated about potential school pest problems and the IPM policies and procedures to be used to achieve the desired pest management objectives and will be informed of their role in meeting these objectives.

IPM staff shall be trained and attend continued education courses relating to potential school pest problems and IPM practices and procedures to be used to achieve the desired pest management objectives.

The Integrated Pest Management Manager shall develop training materials and educate Food and Nutrition Services Personnel and Custodial staff on pest prevention techniques, including sanitation, source control and maintaining good structural repair.

Record Keeping

Records of pesticide use shall be maintained at the Operations Division, Maintenance Division, or Agriscience Department to meet the requirements of the state regulatory agency and AACPS depending upon the application site, (inside the school or on school grounds). In addition, pest surveillance data sheets, used to record the number of pests or other indicators of pest populations shall be maintained to verify the need for <u>treatments for two years</u>. Records of pesticide use shall be provided to the school by the licensee, permittee or certified applicator at the time of the pesticide application and <u>shall be</u> <u>maintained by each responsible division for 5 years</u>. Records must be current and accurate. The Contact Person shall maintain documentation of all communications to parents, guardians, students and staff regarding IPM and pesticide use.

SAFETY DATA SHEETS (SDS) AND LABELS

Mr. Christopher E. Williams, Environmental Issues Program Manager, Operations Division, 9034 Ft. Smallwood Road, Pasadena, Maryland 21122, shall maintain the Safety Data Sheets (SDS) and labels for the pesticides that may be being applied in a school or on school property. Requests for copies of these documents may be obtained by calling 410-360-0138.

NOTIFICATIONS

AACPS shall provide the following notifications as appropriate and include specific information as required by Maryland Law.

BEGINNING OF THE SCHOOL YEAR & NEW STAFF/ STUDENT NOTIFICATIONS

At the beginning of each school year, AACPS will issue an annual notice in the *Parent-Student Handbook* that provides specific details about; the Integrated Pest Management Policy and Program, specific chemicals that may be used in school buildings, on school property, and in the Agriscience Curriculum during the school year, the name, address and phone number of the Contact Person and information regarding material safety data sheets and labels, written universal notification and school specific pesticide application notification lists and any other information as required in COMAR 15.05.02.04. During the school year, new staff, at orientation, **shall be provided** a copy of the Pesticide Information Notification letter by the Division of Human Resources and new students shall be provided a copy of the Parent-Student Handbook during the school registration process.

UNIVERSAL NOTIFICATION

AACPS shall practice universal notification in all elementary and secondary schools. AACPS shall notify all school staff, students, parents and guardians prior to pesticide applications made in school buildings, on school grounds, or in the Agriscience Curriculum in accordance with Maryland regulations. Notices shall be posted in centrally located designated areas at school, placed in staff mailboxes, sent home to parents and guardians of elementary and secondary school students. The information in the notice shall provide at a minimum the specific information as required in COMAR 15.05.02.08.

The Contact Person is responsible for notifying the school administration of an upcoming pesticide application. The Contact Person provides the applicable school(s) principal(s) with:

- When necessary, a *memorandum* which explains the need for the notification, and/or
- A *notification letter* addressed to all staff, parents and guardians.

Staff letters will be placed in staff mailboxes and parents/guardian letters shall be sent home via the student. It is the responsibility of the individual school to photocopy the notification letter and distribute the written copies of the forthcoming pesticide application to all school-based staff and all parents and guardians via the students at least twenty-four (24) hours in advance of the application.

PESTICIDE NOTIFICATION LIST

At the start of each school year, parents/guardians of children and staff in secondary schools may elect to receive written notification prior to an upcoming pesticide application. The student's **Emergency Notification Card** or other means will be used to transmit this information to the school and to secondary school staff. The school-based health staff shall assist developing and maintaining this information and make this information available for inspection by the Department. It is AACPS' considered opinion that the universal notification procedures detailed above complies with the requirement of providing advanced notification to those individuals on the secondary schools pesticide list. As such, individual or dual notification <u>will not</u> be conducted.

SPACE SPRAYING NOTIFICATION

In the event a space spraying is necessary to eradicate pests located within a building, written universal notification as outlined above shall be given at least **one week** in advance. The information in the notice shall provide at a minimum the specific information as required in COMAR 15.05.02.07

EMERGENCY APPLICATIONS NOTIFICATION

In the event an emergency pesticide application is necessary, for example; infestation of bees, wasps, spiders, etc., written universal notifications and postings will be issued within **twenty-four (24)** hours after the application or the next school day.

BAIT STATION NOTIFICATION

In the event a bait station is used in the school, a sign shall be **posted** outside the entrance to the room or area in which a bait station is placed and it shall remain posted until the bait station is removed. The sign shall provide specific information as specified in COMAR 15.05.02.08

PESTICIDE STORAGE AND PURCHASE AND DISPOSAL

Pesticide purchases shall be made after considering the inventory stock on hand and estimating the amount of pesticides use during the school year. Pesticides shall be stored and disposed of in accordance with the EPA-registered label directions and state regulations.

Pesticides must not be accessible to students or unauthorized personnel. Pesticides shall be stored in locked and posted storage closets or trailers at the Maintenance and Operations Divisions' headquarters building and in secure/restricted designated sites at limited schools (athletic grounds and agrisciences). IPM Technicians shall ensure pesticides are stored in locked vehicles.

Disposal of unwanted or unnecessary pesticides is contracted with a hazardous waste removal contractor and disposed of according to federal, state and local regulations

PESTICIDE APPLICATIONS

AACPS' policy states that pesticides may be used after it is determined that non-toxic options are unreasonable or have been exhausted. The **least hazardous pesticide** shall be selected and the method and time of application will be based on AACPS' goal to minimize the potential for exposure of students and staff to the pesticide. Pesticide applications made in or on school property <u>will be</u> <u>conducted by an individual certified as a pest control applicator or by a registered employee</u> <u>working under the supervision of a certified applicator only</u>. Applicators will be trained in the principles and practices of IPM and the use of pesticides. They will follow state and federal pesticide regulations, label precautions and comply with AACPS IPM Plan, Program Practices and Notification Procedures.

Pesticide applications conducted inside the school shall be scheduled when classrooms are vacant except when applications are associated with the Chesapeake Connections or Agriscience curriculum and specifically involved pesticide application training to students in these curriculums. Contractors will be scheduled after normal school hours, and if possible, on weekends. Pesticide applications made on school grounds shall be applied as weather and wind conditions (<5–10 mph) permit to prevent drifting, after normal school hours or if possible on weekends and after reviewing field use schedules.

LICENSED PESTICIDE APPLICATORS

Only State of Maryland licensed pesticide applicators with a working knowledge of the principles and practices of IPM, and who use only pesticides approved by AACPS shall be utilized. Contractors must follow regulations and label precautions. Applicators must comply with AACPS' IPM Plan including having Safety Data Sheets, labels, posting of areas to be treated and adhering to the notification timeframes.

PEST MANAGEMENT PLANS

Pest management plans shall be developed and approved by the Integrated Pest Manager / technician for the specific activities and shall include proposed integrated pest management measures.

Program Evaluation

The Contact Person shall meet either in person or via teleconferencing with the Integrated Pest Management Manager, the Athletic Grounds Manager, Grounds Manager and the Agriscience. Chesapeake Connections Coordinator to determine the effectiveness of the IPM Plan, Program Practices and Notification Procedures. This meeting shall include: a review of inspection reports, sanitation reports, and other records to establish current conditions; the progress of the program against pest problems and conditions; updating chemical lists; reviewing the effectiveness of action thresholds, and identifying problem areas in the IPM Plan that may need to be modified or changed. This report shall be maintained with the Contact Person.

SECTION 2

GROUNDS & ATHLETIC GROUNDS DEPARTMENT

INTEGRATED PEST MANAGEMENT PROGRAM PRACTICES AND NOTIFICATION PROCEDURES

NOTIFICATION PROCEDURES

Grounds Department pesticide application notifications will follow all notification procedures detailed earlier this Plan.

INTEGRATED PEST MANAGEMENT PRACTICES

The AACPS Grounds Department limits their use of Pesticides to: Hard surface areas (Concrete walks and Asphalt surfaces) Playground safety surfaces (Sand and Mulch) and Poisonous plants (Poison Ivy and Poison Oak).

Grounds Department IPM Program for Hard Surface Areas

Hard surface areas: Grounds personnel will continue the program of sealing cracks in asphalt and caulking all joints in concrete. This is an on going program with no end, as concrete and asphalt will continue to deteriorate. With 45,820,887 Sq. Ft. of asphalt and 2,500,355 Sq. Ft. of concrete it would be impossible to manually remove all weeds. Herbicide spraying (Roundup) is performed by inhouse personnel and by contract during the summer months when schools are closed to students.

Playground Safety surfacing: Grounds personnel perform three formal safety inspections per year on playground equipment and safety surfacing. Currently AACPS has 727 Pieces of playground equipment at 122 sites. In an average year AACPS will perform 259 Hours inspecting playground equipment and 1,336 hours hand removing plant growth from playground sand. ASTM and CPSC have strict requirements for playground surfacing and it is essential that all avenues be used to keep the playgrounds safe. Herbicide spraying (Roundup) is performed by in-house personnel and by contract during the summer months when schools are closed to students.

Poisonous Plants: Grounds personnel will hand or mechanically remove isolated poisonous plant growth when ever possible. Large areas such as fence lines and the perimeter of wooded areas will be sprayed on an as needed basis. Ground personnel cut and mow these perimeters each winter to reduce the need for pesticide spraying.

Recommended pesticides will not harm the environment or humans if applied according to directions, and if proper precautions are taken. Because these chemicals are being applied in a public school environment, pesticides with the **least possible toxicity** are used. All pesticides used in the AACPS Grounds/Athletic Grounds programs are in the "General Use" category, however, even relatively safe pesticides can cause serious damage and personal injury if not properly handled,

mixed, and applied. For this reason, training sessions are conducted by a certified pesticide applicator to ensure that all employees who work with pesticides are competent in handling, applying, and first aid and safety techniques. Employees satisfactorily completing the training course are registered with the Department of Agriculture for Public Agency Pesticide Application for AACPS in the areas of turf, ornamental plant, industrial weed, and right of way pesticide application.

As a public agency, AACPS has a responsibility to the public to apply chemicals as infrequently as is necessary to safeguard those who use athletic fields in community events and for children who are in school settings for much longer periods. The use of "General Use" pesticides on public grounds greatly reduces risk to the applicator and the property user, but even these can result in injury and property damage if handled with total disregard for the potential of injury. AACPS Integrated Pest Management has become the standard of care throughout the pest control industry. IPM definitely has an overall benefit in out program.

A major concern is protection from direct contact with pesticides mists, vapors, and dusts during measuring, mixing and application. Wearing protective clothing as detailed on the label is required. Application of pesticides must be in a manner that minimizes drift of pesticide spray into sensitive areas such as playgrounds, non-target ornamental plantings, wildlife, and fish habitats.

Cultural practices that provide a dense, vigorous, competitive turf is the best protection of weeds and insects; however, chemical application will still be utilized as needed in our maintenance program to provide optimum growth and playing conditions for our programs. Once the pest complex has been defined, the probable amount of damage predicted, and the tolerable level of damage determined, all control strategies are considered.

Cultural Control

The most effective long-term solution to minimizing weed pest population and fungus disease outbreaks is through proper establishment and maintenance of turf areas. Maintaining a thick and healthy turf minimizes weed seed germination, growth, and survival. The most common infectious agents to grasses include bacteria, virus, and fungi with the latter being the leading cause of disease outbreaks.

Cultural Control Methods Include:

Selecting turf grass species that are well adapted to Maryland climate and disease resistance. Using certified seed inspected by the Maryland Department of Agriculture.

Taking soil tests regularly and corrects soil acidity problems and deficiencies.

Applying recommended amounts of nitrogen at the proper time. Both low and high or improper fertilization application rates make turf grass more susceptible to pests and diseases.

Mowing at recommended heights and frequencies. Use sharp blades that do not tear grass blades and leave injured blades open to infection. Never remove more than one-third of the leaf blade.

Irrigating thoroughly to encourage deep rooting during the morning hours. Good drainage and infiltration must be maintained since excessive moisture in the soil will decrease air circulation to the FY'16 Docs IPM 699-2015

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roots and lead to rotting.

Thatching to remove the dead and decaying grass at the soil level at the base of the grass. Thatch is composed of clippings from mowing and natural mortality of the grass. Excessive amounts can harbor insect and disease pests. Air circulation and water infiltration to the roots is reduced and thinning turf density results. Pesticide effectiveness may be reduced due to the barrier effect and the active ingredient not being able to reach the target area to control the pest.

Over seeding the worn, thinning areas of turf on a regular basis to minimize time soil is exposed to allow weed seed germination.

Sanitizing by removing food and shelter from the pest and making the site inaccessible is important in the control of some pests.

Biological Control Methods

Pests have natural enemies, known as parasites and predators that keep the population constant in the wild. Introducing the natural enemies or increasing its population can result in control of the pest. Japanese beetle grubs are controlled in the soil by applications of the bacteria *Bacillus papillae*. The bacteria are watered into the soil and infect the grubs, which die. *Bacillus thuringiensis* is used in various products for biological control of mosquitoes and caterpillars while the protozoan *Nosema locustae* is a specific control of grasshoppers. These biological controls attack only the pest organism and do not harm beneficial insects such as bees.

Chemical Control Methods

Pesticides must be used in situations where other tactics are ineffective. When pesticides are needed, AACPS will choose those that are least disruptive to the pests' natural enemies.
SECTION 3

ATHLETIC GROUNDS

INTEGRATED PEST MANAGEMENT PROGRAM PRACTICES AND NOTIFICATION PROCEDURES

Preface

Anne Arundel County has prided itself in the quality and safety of its athletic fields at the public schools for over the last 20 years. This, however, was not always the case. Prior to 1980 the county performed little or no field maintenance practices, and a maintenance plan was not even in place. Needless to say, the condition of the fields were dreadful, and many safety issues were apparent. In 1980, a plan (and timetable) was instituted to renovate many of the inferior fields, and a maintenance plan (cultural and chemical) was drawn up to serve as a guideline to successfully manage all of the athletic fields.

Each high school was even approved to employ a Sports Turf Technician (STT). Grounds equipment was purchased to carry out this maintenance plan ensuring safe and quality fields from year to year.

During this 20-year field improvement process, field chemicals (along with cultural practices) were used, as a tool to improve the quality and safety of the fields, and provide a product each school could be proud of and eager to protect. However, even during this period, chemicals were not blanket applied and only used out of necessity to protect our investment on improved field conditions.

Introduction

Anne Arundel County Public Schools (AACPS) has developed an Integrated Pest Management (IPM) program to reflect the times and increase safety awareness to the environment and students. In developing this mandated IPM program, school systems are under pressure to maintain expected field quality under very tight budgets and with a limited workforce.

Chemical use on school grounds has always been a controversial issue. Grounds Departments in most jurisdictions do not randomly apply chemicals. However, they are used as a tool to treat athletic fields. This treatment helps reduce the vicious cycle of weed and pest encroachment that can ruin an athletic field aesthetically and reduce field safety.

We agree in principle with IPM programs being a good alternative to traditional pesticide based pest control services. A program, which utilizes prevention, sanitation, cultural controls, monitoring, and record keeping to reduce reliance on pesticides is definitely appealing. However, we believe that, in some instances, pre-emergent pesticides are necessary to reduce multiple sprays down the line because the budget and labor force would not be able to handle the mechanical removal of weeds or pests. The quality and safety of the field, pressure from school administrators and coaches has kept

FY'16 Docs IPM 699-2015 Revised December 1, 2015 AACPS applying pre-emergence chemicals up to the year 2000. The potential of weeds encroaching greater than 10% and subsequent backlash from school administration provided the impetus for AACPS to continue this process through the 2000. The lack of workforce for cultural removal and risk of later multiple sprays to control the problem were also concerns.

In 2001, because of a change in the Athletic Grounds Manager at AACPS, many or all of the preemergent chemicals were not applied to the fields and the results were rather dramatic. Weed encroachment was well beyond 10% on most fields and many complaints had to be fielded by the new Athletic Grounds Manager. Despite this example and fears of complaints about poor quality, AACPS will implement an IPM program that totally eliminates pre-emergent chemicals in 2002.

AACPS practice has always been to spray as little as possible to get the desired results. This will not change in the future. The challenge in delivering quality, safe athletic fields under an IPM program is to balance the desire of people who want chemical control of weeds and pests and the concerns of the small, but vocal, group of people who want no chemical use at all. Many times the minority voice of no chemical use on school grounds gets their point across because they are more vocal. They know who to call and are proactive and their diligence pays off because their concerns are heard. In the end, it becomes very difficult to justify any chemical use no matter how warranted it may be.

Under the proposed IPM program, AACPS will develop a training program for its employees. A monitoring form will be developed and each STT will be required to scout at their school. Funds are not available to hire a full-time scout to go from school to school so each STT will need to take ownership of their own facility. Scouting forms will be filled out monthly recording weed density (%), pest density, severity of problems, and recommended action (mechanical or chemical).

The main concern regarding the IPM program is that, in utilizing the IPM processes and procedures, AACPS might not have the financial resources to continue to uphold the field standards that have been established over the past 20 years. These standards have evolved from a need to provide safe, quality athletic fields. Upholding these standards has provided AACPS a sense of pride both for the staff maintaining the fields and the community that the fields support.

In developing the IPM program, AACPS has met the intent of state guidelines. AACPS will attempt to reduce reliance on pre-emergent chemicals and spray only post-emergent chemicals when necessary as determined by field scouting reports. These post emergent sprays would usually come in the summer when exposure to students will be limited, allowing AACPS to be sensitive to children's health and more environmentally friendly. The program that will be implemented is directly correlated with the financial resources available. After 2002, the effectiveness of the program will be evaluated and adjusted accordingly with input from both the school and community.

IPM ON ATHLETIC FIELDS

AACPS has developed three levels of athletic fields for our IPM program. We chose the levels by certain criteria such as: the intended purpose was the field subject to cause injury from the groups who participated on the field, and how much funding is available.

Cultural controls for athletic field maintenance is not a one shot operation. It takes a cumulative effort over a period of months and years to be successful. Developing a consistent maintenance

FY'16 Docs IPM 699-2015 Revised December 1, 2015 schedule is critical for any program to be successful. Being persistent about completing assignments in a timely and efficient manner will enhance your chances of providing an acceptable field.

Weeds are almost always a problem on sports fields, a problem that is often accelerated by the fact that a heavily used field has a more open turf canopy due to the traffic on the turf. The weeds provide competition for the desirable turf grass species, affect playability, and cause injuries to the players, particularly around the ankles and knees, because of no uniformity of footing for the athletes. In our level **Ia** fields, because of lack of manpower on staff to mechanically remove the weeds, we will utilize a chemical spray program with properly timed post emergence applications when the weeds are in the early stage of development to maintain the turf and provide safe playing fields. Utilizing cultural controls that will emphasize maintaining a healthy thick stand of turf this should reduce the multiple applications of post-emergence sprays. Level **Ia** fields will only include the stadiums at each High School in the County. These 12 fields are composed of Tall Fescue turf; a variety that was selected because of it's reduced disease problems in our humid area. It should also stay thicker because of this disease tolerance reducing weed encroachment. These turf characteristics will help AACPS reduce its dependence on chemical controls.

Level **Ib** fields are Bermuda-grass Field Hockey game fields or prime practice fields for all sports. Their resistance to disease and aggressive growth habit choke out weeds and reduce the need for many chemical applications. AACPS currently has 12.5 of these fields in the County

The following are a break down of our three levels of Athletic Fields.

Level Ia and Ib Athletic Fields

IPM Action Points

- #Mowing Mow with enough frequency to adhere to the "1/3 rule" which states that one third or less of the leaf tissue is removed at any one mowing. Mowing heights are 3 inches for stadium fields and ³/₄-1 inch for Bermuda fields.
- # Irrigation Irrigate sufficiently -to provide approximately one inch of water to the turf each week with rainfall amounts included. For example, if 1/4 inch of rain falls one week, supply 3/4 inch through irrigation. However it is important to note that too much water can be worse than not enough. Over-watering must be avoided; it can cause disease problems and shallow rooting. All of this can lead to poor turf quality and weed infestation.
- #Fertilization On the stadium fields: Apply a maximum of four to five pounds of nitrogen per thousand square feet annually. Higher use Bermuda-grass fields may require six or more pounds of nitrogen per thousand square feet during the months of May through August. Two of the stadium applications, one in November and one in April are slow release nitrogen with I.B.D.U.
- # Aerification Perform core aerification as needed to minimize compaction. Aerification can be performed at up to two to three week intervals during the growing season, although one aerification in spring and one in autumn may be sufficient. The stadium is also shatter aerated once per year with a yeager twose or verti-drain.

- #Topdressing Topdressing consists of regular applications of soil and sand, ranging from 1/16 - 1/4 inch layers each time. These applications should match the existing soil as closely as possible. This will reduce layering, which contributes to shallow rooting thus poor turf quality. This topdressing soil should be as clean as possible (little rocks, sticks, and weed seed)
- #Over seeding/Sodding Overseed thin areas in which the turf density provides less than 90-95% coverage as needed. Overseed a minimum of two times with mechanical overseeding and broadcast between games. Sod crease areas after the spring sport season. Sprig and plug bare areas on Bermuda fields at least once per year.

These are prime athletic fields, high school stadiums and Bermuda playing fields. Level **Ia** and **Ib** athletic fields are typically reserved for games. These fields should have dense turf (> 90% cover), good drainage, and irrigation. The soil types are native soil. The field must provide a uniformly smooth surface and have an appropriate turf that will sustain a high level of traffic. Annual events on these fields should be limited. Events and activity should be cancelled or limited in the event of inclement weather to prevent major and costly repairs to these fields. A dedicated field manager with turf management education and/or experience with proper training are considered vital to allow proper decisions and implementation of management strategies on a day-to-day basis.

Primary cultural practices for Level A athletic fields include regular mowing, fertilization and irrigation. Secondary cultural practices include routine aeration, topdressing, and over seeding or sodding to replace worn areas. Use of chemicals to control or manage weed, disease, and insect pests is allowed as a function of the overall integrated pest management program which stresses ideal turf management as a means to limit the extent of damage from pests.

Mowing

The turf needs to be mowed with sufficient frequency to adhere to the "1/3 Rule" which states onethird or less of the leaf tissue is removed at any one mowing. Mowing height will vary depending on the field's intended use (type and frequency of sport) but in general will be within one to three inches. Clippings should not need to be collected if the one-third rule is followed. Keep mower blades sharp to provide a clean cut that allows the cut leaves to quickly recover, which will minimize disease and maintain stress tolerance. Keep mowers in good repair as leaking oil and grease can damage and even kill turf.

Irrigation

Irrigation should be supplied to replenish the amount of moisture lost from the turf on a weekly or daily basis. If information is unavailable, irrigate sufficiently to provide approximately one inch of water to the turf each week; rainfall amounts need to be considered in this calculation so it is important to monitor weekly rainfall using a simple rainfall collection device. Irrigation systems in Level **Ia** and **Ib** athletic fields will often be permanent, in ground systems. Irrigate according to the soil permeability, do not try to supply all the weekly requirements with one irrigation application, if the soil cannot absorb all the water; instead, irrigate two or three times over one or more days to supply the necessary amount of water. The best time to irrigate is early morning (3 am or later); late afternoon or early evening irrigation can promote diseases, which may necessitate fungicide FY'16 Docs IPM 699-2015 Revised December 1, 2015

applications. Do not irrigate fields less than 24-48 hours before events unless a light application is required to prevent wilting.

Fertilization

Apply a maximum of four to five pounds of nitrogen per thousand square feet (4-5 lb. N/M) annually. Higher use fields may require up to six or more lb. N/M annually; do not apply more than 1 lb. N/M at any one time. Fertilizers with an approximately 30-50% slowly available N are appropriate. Apply with a properly calibrated and functioning fertilizer spreader to obtain a uniform distribution. Irrigate with approximately 1/2-inch of water within 24 hours of fertilization unless rainfall occurs. Base phosphorus and potassium inputs on soil tests collected every two to three years. Otherwise, use a fertilizer that supplies at least a 2:1 ratio of nitrogen to potassium. Since phosphorus requirements are significantly less than nitrogen or potassium, little to no phosphorus is usually required unless indicated by a soil test. Other nutrients are rarely if ever limiting, although sand based root zones should be soil tested for P, K, Ca. Ma, Fe, Mn, Zn, Cu, B, Mo, and Cl at least every other year, and corrective applications made as needed. There is no reliable test for N in turf as forms of nitrogen fluctuate constantly. We are currently using Par-ex 24-4-12 for the stadium fields and 46-0-0 (Urea) and 21-0-17 (Ammonium Sulfate) for the Bermuda Fields.

Aerification

Aerification is used to aid drainage, alleviate compaction, and promote turf growth, particularly rooting, resulting in increased stress tolerance, improved nutrient uptake, and reduced weed invasion. Aerification can also manage thatch buildup, although this is rarely a concern on athletic fields and other high traffic areas.

Aerification should be performed as needed to minimize compaction, up to two to three week intervals during the growing season, although one aerification in spring and/or autumn may be sufficient. Use hollow tines, which pull cores out of the field, rather than solid tines or water injection systems. The cores can be left on the surface and will disintegrate within a few weeks, or they can be broken up using a drag mat. Cores can also be removed with sweepers, rakes or shovels, but the field will then need to be top dressed to replace the lost soil. The soil must be moist enough to allow good penetration of the tines but not so moist as to result in rutting or compaction from the machinery. Use at least 3" long tines and set the aerifier to penetrate to at least a 3-inch depth.

We try to shatter aerate annually in the fall with a yeager twose or verti-drain on the 12 stadium Tall Fescue fields. These processes can also be contracted out.

Topdressing

Athletic fields require topdressing to maintain a uniform surface and a crown that is imperative for surface drainage. Soil based fields rely almost solely on surface drainage. Topdressing consists of regular applications of soil or sand, ranging from 1/16-1/4-inch layers each time. Our Topdressing equipment is a Ty crop top dresser that holds 4 cu. Yards. We can top dress a stadium in less than two hours. We try to match the topdressing material with the subsoil.

Other topdressing source must:

Be free from glass, rocks, or other debris.
FY'16 Docs IPM 699-2015
Revised December 1, 2015

- # Match the soil type of the root zone, a requirement that is difficult for native soil fields
- # Be able to supply a consistent material (both size and type) for years to come, which further limits the types of acceptable topdressing. If a soil type is used which has finer particle sizes than the underlying soil root zone, a surface layer will be formed which prevents proper water infiltration, and root growth.

Over seeding

Thin areas in which the turf density provides less than 90-95% coverage should be over seeded as needed to maintain a weed-free, uniform surface to minimize injury resulting from ruts and compaction. Over seeding can be performed using either broadcast or slit seeding. Slit seed largely, or totally bare areas in two to three directions to provide sufficient seed; otherwise, a single pass is sufficient. Broadcast seeding can be performed a variety of ways. One of the best methods is to overseed concurrent with aerification. Spikers or vertical mowers may also be used to expose soil to aid seedling establishment. Once an area has been over seeded, apply topdressing to help ensure seed to soil contact to aid germination. An area may also be over seeded shortly before games in which case the cleats from the athletes will help push the seed into the soil.

Our seed mixture contains 80% Tall fescue, 10 % Kentucky bluegrass, and 10 % perennial ryegrass for over seeding. Kentucky bluegrass plants form rhizomes (underground lateral shoots) which are important for providing traction and allow the plant to fill in bare areas, while perennial ryegrass germinates quickly (3-5 days) and can provide quick cover. Since ryegrass plants may not provide the most stable footing and are less winter tolerant than Kentucky bluegrass, ryegrass should not compose more than 15% of a Kentucky bluegrass/perennial ryegrass seed mixture. We utilize certified seed blends that is inspected and certified from the Department of Agriculture. We utilize seeds recommended from University of Maryland Mimeo #77.

Seeding rates will vary depending on the amount of area exposed and the seed mix used. Seeding rates range from approximately 2 lb. per thousand square feet when used as a maintenance over seeding to turf which has 95% or higher cover, to 2-3 lbs per thousand square feet when more than 25% of the soil is exposed in an area. For areas, which have less than 80-90% turf cover, sodding may be a better option than over seeding. If the area is sodded, either use a sod grown on a soil which matches that of the root zone mix or use a washed sod to prevent soil layering which will cause water infiltration problems and result in poor rooting. Newly laid sod will require special "spot watering" one or more times daily for up to two weeks until roots start to grow into the field soil, at which time irrigation frequency can be decreased over the following two to six weeks until the roots are sufficiently deep to allow the same irrigation schedule to be followed as the rest of the field

Pest Management

Proper turf management will greatly reduce the need for pesticides by providing dense, healthy turf that will crowd out weeds and tolerate moderate levels of disease, insect, or vertebrate damage. In integrated pest management, pesticides are used only when pests damage the turf up to or past a predetermined threshold level despite proper conventional management techniques.

When pesticides are applied to turf, the area should be fenced in or at least marked with pesticide FY'16 Docs IPM 699-2015 Revised December 1, 2015 application flags ("posting") until the product has dried and the re-entry interval listed on the product label has passed. If no reentry intervals are listed on the label, keep people off the turf for a minimum of 24 hours or longer, if required, for the herbicide to dry on the turf. Most pesticide applications dry on the turf within 60 minutes, so the 24-hour reentry interval actually provides a large safety margin. Some granular pesticides also require a re-entry interval following application so the label must be read and understood in order to comply with the law. Granular pesticides, which are designed to be applied to the soil, may require an irrigation or rainfall event of greater than 1/4" water before the area may be entered

Weed Management

Level **Ia** and **Ib** athletic fields have a threshold population of no more than 5%-10% weeds. Note the type and location of the weeds in order to be able to use the appropriate control measures and time them appropriately. Weeds can be classified according to their life cycle. Annual weeds are those that complete their life cycle in one year and include crabgrass, common chickweed, and knotweed. Perennial weeds survive for two years or more and include dandelion, mouse-ear chickweed, and ground ivy. Weeds are also classified botanically: dicots include all broadleaf weeds, while monocots include all grasses and sedges. It is important to understand which type of weed you are dealing with since management options will vary.

Non-chemical Control

Non-chemical control of weeds includes good management practices and should be the first line of defense in any IPM program. Proper turf management including mowing and fertilization practices can reduce potential weed populations 70% or more. Biological controls relying on microbes are currently in development for a few weeds such as annual bluegrass (*Poa annua*) but are not proven techniques and therefore are not commercially available.

Chemical Control

Herbicide selection should be based on several factors: ability to control the target weed(s), relative safety (both to the applicator and to the environment), formulation (ester forms are more effective than salt-based amines during cool periods but can cause phytotoxicity and are more likely to drift during hot, dry periods), and cost.

Apply herbicides when children are not present (e.g., after school, weekends, summer-time). AACPS will apply liquid herbicides for control of existing weeds (post-emergent application) since liquid herbicides provide better coverage and are typically more effective at controlling existing weeds than granular applications. We will spray only the number of sprays that controls the weed. Always read the label prior to applying any herbicide. Labels are subject to change annually. Applications, which don't adhere to label requirements, are illegal and subject to prosecution by law.

Disease Management

Dozens of diseases can affect turf grass. Generally, appropriate fertility and irrigation will keep disease problems to a minimum. Plant a mix of species and include at least three cultivars of each species to take advantage of the different disease tolerances and resistances of each variety or species. Turf managers can determine based on weather conditions the likelihood of disease FY'16 Docs IPM 699-2015 Revised December 1, 2015 development. AACPS will not apply any preventative applications of fungicide and due to budget constraints would only apply curative fungicides in an extraordinary situation.

Insect Management

Insect problems on athletic fields are rare but may occur periodically, usually white grubs. On level **Ian** and **Ib** fields broadcast curative applications of insecticides may be warranted based on scouting reports that indicate sufficient pest activity exists (numeric thresholds have been established for some insect pests, particularly white grub species). Severe turf loss may occur if infestations are not treated.

Level II Athletic Fields (Baseball and Softball Fields)

IPM Action Points

- # Mowing Mow the turf at 3 inch height at least once weekly. If possible, comply with the "1/3 rule".
- # Irrigation Irrigation will only be used to restore damaged turf areas. Very seldom used. Only a few of our baseball/softball have irrigation systems or couplers for sprinkler head attachments.
- # Fertilization Apply a minimum of 2-3 pounds of nitrogen per thousand square feet annually to low use fields with light to medium traffic. Do not apply more than 1 lb. N/ at any one time.
- # Aerification. Aerification is performed once in spring (May) and once in autumn (Oct.) when the grass is actively growing.
- # Topdressing Topdressing should be concentrated in the center and other problem wear areas in the field.
- # Over seeding Thin areas in which the turf density provides less than 70% coverage should be over seeded as needed. Apply Tall Fescue, Bluegrass, and Perennial Rye Mix at a rate of 3-5 lbs per 1,000 sq.ft. once in the fall and once in the spring.

Level II athletic fields include baseball, softball, and or some multipurpose fields at our high schools. These are often low to medium budget high school game fields. These fields have moderate to good turf (> 70% cover) with up to 30% of the surface covered by weeds but no more than 10% bare ground. The soil type is native soil. Surface drainage generally provides all the drainage; native soil and lack of tiling preclude internal drainage. The field must provide a uniformly smooth surface (no major ruts, rapid divot repair, etc.) and an appropriate turf, which will sustain a high level of traffic. No limits are placed on the number of events the turf will support, but good management practices should be used to prevent unnecessary damage (e.g., rotation of practice areas, proper mowing and fertilizing, etc.).

Primary cultural practices for Level II athletic fields include regular mowing and fertilization. FY'16 Docs IPM 699-2015 Revised December 1, 2015 Irrigation is used only for restoration or establishment. Secondary cultural practices include occasional aeration, topdressing, and over seeding or sodding to replace worn areas. Use of chemicals to control or manage weed and insect pests is usually only applied when grub damage and the subsequent feeding moles disrupt the surface. This damage is usually a safety problem because of the mole furrows and uneven turf surface so curative chemical applications would be allowed as part of an overall integrated pest management program.

Level III Athletic Fields (General Multi-purpose Practice Fields)

IPM Action Points

- # Mowing Mow the turf at 3-inch height at least at 7 to 10-day intervals. If possible, comply with the "1/3 rule".
- # Irrigation Irrigation will only be used to restore damaged turf areas.
- # Fertilization Fertilization rates one pound of nitrogen per 1000 square feet every three years.
- # Aerification Core Aerated once every three years
- # Topdressing Level **III** fields will not be top dressed.
- # Over seeding Level III fields generally will not be over seeded. Large, bare areas may need to be over seeded. Generally the fields are over seeded 3-5 lbs per 1,000 sq ft. once every three years.

Level **III** athletic fields include general use practice fields at the High Schools. These fields have poor to moderate turf with 50% or more of the surface covered by weeds. A fair portion of the fields may be bare ground but this should be kept to no more than 10% bare ground for safety reasons. The soil type is native soil. Surface drainage generally provides all the drainage; native soil and lack of tiling preclude internal drainage. The field should have a relatively smooth surface (no major ruts, rapid divot repair, etc.) for safety reasons. No limits are placed on the number of events the turf will support, but common sense should be used to prevent unnecessary damage (e.g., rotation of practice areas, regular mowing). Primary cultural practices for Level **III** athletic fields include regular mowing and fertilization. Irrigation is used only for restoration or establishment. Secondary cultural practices may, but are not likely to, include over seeding or sodding to replace worn areas. Pesticides to control weeds, diseases or insects will generally not be used.

STADIUM FIELD MAINTENANCE (LEVEL Ia Tall Fescue Mix Turf)

A. Seed and Fertilizer Application

1. Fall Applications

FY'16 Docs IPM 699-2015 Revised December 1, 2015 **Fertilizer**- 18-18-18 2 applications 500 lbs each (.9lbs x 2 = 1.8lbs) 650lbs 24-4-12 I.B.D.U. (1.56lbs) or 3.46lbs total for Fall

Seed- 200 lbs. (2.5lbs) during season (cleat seeding Tall Fescue mix) 300 lbs (3.75lbs) after seasons (Tall Fescue mix)

2. Spring Application

Fertilizer -300 lbs (.72lbs) 24-4-12 IBDU Seed- 500 lbs Tall Fescue Mix (5.25lbs)

0

B. Herbicide Application: (No Pre-emergent controls applied: will evaluate after season)

- 1. Drive/Confront (June and August application)
- 2. Manage (Late June and late July application)

C. Fungus Control:

1. No preventative applications (only extreme curative application)

D. Insecticide Application:

1. Merit 75 wsp (preventative) or Dylox (curative) as needed

E. Topdressing Application: (once per year)

II. Bermuda Fields (Level Ib)

A. Fertilizer

- 1. Urea (46-0-0)/Amm. Sulf. (21-0-17) 8 applics. X .9lbsN = 7.2lbsN annually
- 2. Potash (0-0-50) 2 applications x 11bs K = 21bs K annually
- 3. Summer fertilizer applications only

Beginning on June 1 and ending on August 30 there will be 8 applications of fertilizer. The fertilizer source will be either Urea (46-0-0) or Ammonium Sulfate (21-0-17). No application will exceed 1 lb per thousand square feet and the total nitrogen applied for the year will be approximately 7lbs per thousand N on 15-day intervals. There will also be 2 Potash (0-0-50) applications at 1 lb each in September.

A few more nitrogen applications may need to be applied during a summer when a Bermuda field installation (Sprigging) is being done.

- B. Chemical
 - 1. Escort/Kerb (May) as needed
 - 2. Drive/Confront (June) as needed
 - 3. MSMA (July August) up to four sprays as needed

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FY'16 Docs IPM 699-2015
Revised December 1, 2015
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- 4. Merit WSP or Dylox (May-September) as needed based on scouting
- 5. Ronstar G (only during a summer sprig installation to reduce weed competition)

III. Baseball/Softball Fields (level II)

- A. Softball Field Seed and Fertilizer Applications
 - 1. Fall fertilizer Applications (24-4-12 IBDU) 500lbs (1.2lbs N)
 - 2. Spring fertilizer Applications (24-4-12 IBDU) 300lbs (.9lbs N)
 - 3. Fall seed applications (300lbs Tall Fescue mix 3.75lbs)
 - 4. Spring seed applications (300lbs Tall Fescue mix 3.75lbs)
- B. Baseball Field Seed and Fertilizer Applications
 - 1. Fall fertilizer Applications (24-4-12 IBDU) 700lbs (1.68lbsN)
 - 2. Spring fertilizer Applications (24-4-12 IBDU) 500lbs (1.2lbsN)
 - 3. Fall seed applications (400 lbs Tall Fescue mix 4lbs)
 - 4. Spring seed application (400 lbs Tall Fescue mix 4lbs)

IV. Multi-purpose Practice Fields (Level III)

A. Practice field Seed and Fertilizer Applications

- 1. Fall fertilizer applications (18-18-18) 500lbs x = 2.0lbsN total
- 2. Spring fertilizer applications (18-18-18) 200lbs = .4lbs N total
- 3. Fall seed application (400lbs perennial ryegrass = 4.5lbs)
- 4. Spring seed application (400lbs perennial ryegrass = 4.5lbs)

BASEBALL/SOFTBALL FIELDS SKIN AREAS

We have had a few requests not to apply herbicides on the skin areas of our baseball/softball fields and to use cultural controls exclusively. Presently we use a mixture of Roundup and Surflan in July, after the schools are closed for the summer, to control the vegetative growth on the skin areas of our 26-baseball/softball fields. This application enables us to prepare all of our fields in the fall for the start of the spring season. Cultural controls generally would have to be timed as not to interfere with playability. This would be difficult since these fields are played on from March through October. In addition, the frequency that cultural controls would need to be performed is cost prohibited because of the lack of resources and the manpower required. Weeds on these fields cause many safety concerns such as bad hops to the fielders and uniform footing for the players. Any cultivation of the skin areas is not recommended during the season. Cultivation usually takes about one week per inch of disturbance to resettle after the first heavy rains (e.g. after tilling two inches deep, the soil takes two weeks to settle). The following represents a cost estimate study done by Howard County Public Schools of various cultural controls without the use of pesticides and the costs using chemicals. This FY'16 Docs IPM 699-2015

Revised December 1, 2015

study demonstrates the need for Anne Arundel County to use chemical controls on the skinned portion of baseball and softball fields due to limited resources and manpower. These chemical controls will only be used once per season in the summer when school is on break.

Pre-Emergence/Post Emergence Control Expenditure

•	Total Program Cost (98 Fields)	Total	=	\$ \$6.5	67.00 (Per field) 566.00
•	Materials Labor		=	\$ \$	52.00 15.00
0	U I				

Cultural Control- (Sod Cutter Expenditure) – This process requires a sod cutter, skid steer, and drag. Manpower would consist of 2 men for 8 hrs. Per field. During this process ball diamond mix is removed and would have to be replaced. This would have to be done a minimum of three times per year. This will not keep the skin area weed free in between applications and could cause playability problems.

• Labor 16 hrs	= \$ 2	40.00
• Material (Ball Mix)	= <u>\$ 1</u>	<u>50.00</u>
Total	= \$ 390	0.00 (Per Field)
• Total Cost (98 Fields)	= \$ 38,2	20.00
Total Program Cost	= \$114,6	60.00

Cultural Controls- (Cultivation) - Cultivate with a Howard Rotvator every six weeks starting in March. It would require approximately six applications. The fields would have to be leveled with a York raked and dragged immediately after cultivating. (Price does not include equipment needed.)

•	Total Program Cost			=	\$ 70	,560.00
		Total	=	\$ 11,7	60.00	(One time)
•	Labor 8 Hrs			=	\$	120.00

Cultural Controls- (Dragging) - Dragging would consist of two times per week March thru November. The frequency of this process would take an additional 8 men, 8 vehicles with trailers, and 8 Sand Pro's to drag all the fields we are responsible for in that time frame.

• Labor 2 mer	1 20 fields/day		=	\$	240.00
	-	Total Labor		\$	43,200.00
• Equipment (Cost		=	\$3	376,000.00

COST ESTIMATE FOR OPTIONS ON BASEBALL/SOFTBALL FIELDS:

1.	Round-up/Surflan Application:	=	\$ 6,566.00
2.	Cultural Controls w/Sod Cutter		= \$114,660.00
3.	Cultural Controls w/Cultivation		= \$ 70,560.00
4.	Cultural Controls w/ Dragging	=	\$ 43,200.00

CONCLUSIONS

Anne Arundel County Public Schools Athletic Grounds will do its best to comply with this IPM program. Even though a pre-emergent program has proven to be successful in the past, we will try a post-emergent program outlined previously and rate its success or failure at the end of the 2002-growing season. This rating will be based on field safety, school complaints, visual appearance, and overall quality. Anne Arundel County Athletic Grounds maintains 80.5 athletic fields, of which only 24.5 will receive any chemical controls based on scouting and post-emergent sprays. In developing this IPM program AACPS has tried to time all post-emergent sprays in the summer when students will be out for break to limit exposure and contact. Any chemical application done during the school year will be applied during off hours or weekends or the area will be closed off.

Skinned baseball and softball infields will receive one spray per year to control weeds, due to the lack of manpower and prohibitive costs associated with a mechanical removal of weeds. An occasional grub application may be necessary on a baseball/field hockey field or softball field to maintain safety and playability (also based on scouting only).

AACPS may have to adjust this IPM plan after the 2002-growing season and submit a revised plan, but it is committed to trying a true IPM plan and not saying it will not work first.

Sample IPM Scouting Form Scouting Form for Athletic Fields (IPM Report)

Anne Arundel County Public High Schools

Scout:	Date:	Time: (in)	(out)	
Weather:		# Of E	Degree Days	
School:				

Field	Stadium	Baseball	Softball	Practice 1	Practice 2	Practice 3	Bermuda 1	Bermuda 2
Problem Type								
Insect								
Disease								
Weed								
Unknown								
Other								
Pest Life Stage (check applicable)								
None								
Egg								
Early Larval								
Late Larval								
Pupa								
Adult								
Severity of Problem (check applicable)								
Action inappropriate at this time								
Too light for action at this time								
Action in the next 2-4 weeks								
Action within 1 week								
Action within 24 hours								
Control performed								
Beneficial Activit	y (Please r	note)						
Recommended Action								
Evaluation: Was "Action" Successful Yes - No - N/A								
Explain:								

Significant Changes to the 2004 IPM Plan

- 1: Request to use generic pesticides in lieu of "named brands".
- 2: Request to use pre-emergence pesticides to control or eliminate grubs.

February 28, 2006

Mr. Edward Crow Maryland Department of Agriculture Pesticide Regulatory Section 50 Harry S. Truman Parkway Annapolis, Maryland 21401

RE: AACPS Update to IPM Management System

Dear Mr. Crow:

In accordance with COMAR 15.05.02.03, Anne Arundel County Public Schools is requesting approval from your Department to revise our integrated pest management plan. The details of this request are outlined in the attachment but basically the Athletic Grounds Department wishes to amend page 13 to utilize generic pesticides with the same chemical formulations in lieu of the name brand formulations.

In addition, Anne Arundel County Public Schools would like to take advantage of the newer and safer pesticide technologies as they emerge.

Thank you for your attention to the above and we await your response. Should you have any questions please contact me at 410-360-0138 or should you prefer via e-mail at dlahart@aacps.org.

Sincerely,

Daniel La Hart, CIH Environmental Issues Program Manager Operations Division

w/ attachments

CC: Bill Reinhol

Anne Arundel County Public Schools IPM Plan Justification for Using Merit as a Pre-Pest (Grubs) Problem

- 1. I have been employed with AACPS since August of 2001 and there has been an extensive grub problem in late August to early September each year on our tall fescue stadiums (over 90% infestation 4 consecutive years)
- 2. Dylox (which is an organo-phosphate chemical) has been used curative for the problem, and is the only chemical that can be used at this point of damage
- 3. There are much safer alternatives which can be used as a preventive chemical (Merit, Mach II, Allectus)
- 4. Based on the previous history of grub activity on our stadium fields, the safety of the chemicals being used and also timing. It makes sense to apply preventative.
- 5. While waiting for the grub damage to appear before treating, the field is losing the root system (thus durability and safety) right at the beginning of the fall sports season.
- 6. Merit or Mach II can be applied (June/July) in the summertime when no students are around.
- 7. Dylox is applied once the fall practice season has begun and is a more dangerous chemical (not to mention the field has already been damaged.)
- 8. AACPS had an incident on August 26, 2004 when dylox was applied to the stadium at Annapolis H.S. All regulations were followed in applying the product, but a team entered the field after work hours and an athlete had an allergic reaction to the chemical. The chemical had been watered in, gates locked, and signs posted. All announcement and posting was done inside the school also.
- 9. For all these reasons I think applying Merit pre-emergent would be a wiser, safer, and more effective response to what we have seen over the last four grub seasons.
- 10. AACPS has Merit as a possible chemical that might be used in the AACPS IPM plan that was approved by the Maryland Department of Agriculture in Spring of 2002

March 1, 2006

- Request for Anne Arundel County Public Schools IPM plan modification
- This would be in addition to page 13 in the original 2002 IPM plan

Baseball/Softball Fields Skinned Areas

This would be an addendum to Anne Arundel County Public School's original IPM plan that was approved in the spring of 2002. The original plan called for a cleanup application of roundup and surflan, once a year on the baseball/softball skinned areas. This application was to be applied in July or early August to cleanup the infields before the start of fall sports. It also would be done when school was out and no activities were planned for the fields.

Nothing in theory would change with the reasoning behind the application and timing, which is to eliminate the cost of mechanical removal, and only apply the chemical when school is off for summer break.

However, with the patent having expired on Roundup, the market has been flooded with chemically identical glyphosate products that work and in regards to safety are exactly the same. They can be dramatically cheaper to AACPS due to increased competition. A lot of these products are bid in the County and school-board contracts.

I would like to have the option of using identical glyphosate products if it is exactly the same chemical and at the same concentration. This would offer considerable savings to Anne Arundel County Public Schools.

I would also like to request as new safer technology evolves and becomes available, Anne Arundel County can utilize these advances through a request to the Maryland Department of Agriculture.

Thank you for your consideration in this matter. (March 1, 2006)

CONCLUSIONS

Anne Arundel County Public Schools Athletic Grounds will do its best to comply with this IPM program. Even though a pre-emergent program has proven to be successful in the past, we will try a post-emergent program outlined previously and rate its success or failure at the end of the 2002-growing season. This rating will be based on field safety, school complaints, visual appearance, and overall quality. Anne Arundel County Athletic Grounds maintains 80.5 athletic fields, of which only 24.5 will receive any chemical controls based on scouting and post-emergent sprays. In developing this IPM program AACPS has tried to time all post-emergent sprays in the summer when students will be out for break to limit exposure and contact. Any chemical application done during the school year will be applied during off hours or weekends or the area will be closed off.

Skinned baseball and softball infields will receive one spray per year to control weeds, due to the lack of manpower and prohibitive costs associated with a mechanical removal of weeds. An occasional grub application may be necessary on a baseball/field hockey field or softball field to maintain safety and playability (also based on scouting only).

AACPS may have to adjust this IPM plan after the 2002-growing season and submit a revised plan, but it is committed to trying a true IPM plan and not saying it will not work first.

SECTION 4

INTEGRATED PEST MANAGEMENT PLAN FOR AGRISCIENCE PROGRAMS AND THE CHESAPEAKE CONNECTIONS PROGRAM

Pest Management Policy Statement For Agriscience/ Chesapeake Connections Programs

The propagation and production of plants within a greenhouse environment is an important part of the educational curriculum for students enrolled in Agriscience Programs. Insect, mite and disease pests often infest plants causing significant damage. The control of pests and nutrients associated with horticultural crops is also a vital part of the educational curriculum within Agriscience Programs. Damage to plants resulting from these pests must be managed in order to instruct students in the management of horticultural crops in production greenhouses and to provide quality plants that can be marketed as part of school fund raising projects. The use of pesticides can pose risks through unnecessary exposures to people, property, and the environment. Risks can be kept to a minimum through proper selection and judicious use. Pest control within the Agriscience Program must protect the health and safety of the students, staff, and the environment while teaching students the principles of pest control and proper pesticide use for the production of quality greenhouse and nursery plants. Therefore Anne Arundel County Public Schools has adopted Integrated Pest Management (IPM) for the control of pests encountered within the Agriscience Program and will incorporate the instruction of IPM as part of the curriculum. The Pesticides Safely Modules 1-6 Cooperative Extension Service University of Maryland College Park and University of Maryland Eastern Shore and Maryland Department of Agriculture core training manuals.

Education

Agriscience Programs are designed to <u>teach students</u> about horticulture and to provide them with information on the fundamentals of plant growth and production. As part of the curriculum students will be taught basic IPM practices and principles and how IPM is used in the production and maintenance of horticultural corps. Students will also be instructed on the proper use of pesticides and how they may be used as part of an IPM program. Students will receive instruction in the identification and biology of common pests that may occur in horticultural crops grown as part of the Agriscience Program, the IPM policies and procedures to be used to achieve the desired pest management objectives, and will be informed of their role in meeting these objectives.

Roles and Responsibilities

Chesapeake Connections Environmental Outreach Program

The staff at Arlington Echo Outdoor Education Center provides support and expertise to complete yearlong environmental service-learning projects as part of *Chesapeake Connections* with many Anne Arundel middle and elementary schools. The service-learning projects are infused into each school's curricula and involve using community areas or school grounds for environmental restoration activities.

Best Practice 1: Meet a recognized need in the community

Anne Arundel County's Outdoor Education Center, Arlington Echo, works with many middle and elementary schools to restore and/or create bogs, gardens, and runoff areas on school grounds or in the community. These projects meet growing environmental needs in our area and help protect the Chesapeake Bay.

The IPM program within the Agriscience Program/Chesapeake Connections Program will require the assistance and cooperation of the administration, designated Contact Person, Agriscience teachers and students. The Agriscience / Chesapeake Connections teacher, Sheen Roos, will work with the County School District's/Board of Education's designated Contact Person who serves as a liaison between the administration and pest control programs in order to provide oversight, consistency in pest control programs and ensure that the provisions of the School District's IPM System and notification requirements are fulfilled. The Contact Person, will advise the teacher of IPM program changes and new laws and regulations effecting the School District's IPM System and Agriscience /Chesapeake Connection IPM System.

The Agriscience/Chesapeake Connections teacher will remain in communication with the Contact Person since the Contact Person serves as the liaison between the school administration and parents, guardian, students and staff to address questions and concerns regarding the overall IPM system and pest control practices.

The Agriscience/Chesapeake Connections teacher will comply with the provisions of the IPM system for Agriscience Programs by ensuring good sanitation practices are followed in conjunction with documenting areas requiring maintenance or repair. The teacher will keep the Contact Person apprised of activities within the Agriscience Program and pest problems encountered within the program. Copies of all pesticide labels and Safety Data Sheets (SDS) that may potentially be used within the Agriscience Program will be provided to the Contact Person. The teacher will instruct students enrolled in Agriscience Programs in the principles of IPM in greenhouses and other related subject areas.

Students will comply with the provisions of the IPM system by ensuring that areas requiring maintenance or repair, sanitation problems and pest problems or sightings are documented. Students need to ensure good sanitation practices are followed.

Pests

Pests are populations of living organisms (insects, mites, weeds, or microorganisms) that interfere with the use of the school site for human purposes and in the production of plants. Strategies for managing pest populations will be influenced by specific crops and the pest species. IPM in greenhouse and other similar sites relies on the coordinated use of pest, fertility management, water

AACPS IPM Plan, Notification Procedures and Program Practices

management, other cultural practices and other environmental information in conjunction with the utilization of the best available pest management methods to prevent unacceptable levels of pest damage by the most economical means and with the least possible hazard to students, staff, property and the environment. Long-term control of pests is achieved by using information about the biology and habits of the pest and its interaction with its surroundings.

Pest Management

This Integrated Pest Management Plan for Agriscience/ Chesapeake Connections Programs has been developed as a supplement to the School District's comprehensive IPM system as required by *Maryland's Regulations Pertaining To Integrated Pest Management and Notification of Pesticide Use in a Public School.* Pest management strategies will be developed for each discipline (e.g., greenhouses, nurseries, agriculture, landscaping) of the Agriscience/Chesapeake Connections Program and will include any proposed pest management measures. <u>Students will be instructed</u> on the principles and practices of IPM and pest control procedures, including the proper use of pesticides.

Pests will be managed to:

- **Minimize** the loss or damage to plants and minimize the potential for a recurrence of the pest problem.
- **Maintain** a level of pest infestation or damage that will be acceptable for the marketability of the crop.
- **Prevent** pests from spreading to other parts of the school building and into the community, or areas beyond the site.

Integrated Pest Management Procedures

IPM procedures will determine when to control pests, and identify conditions contributing to pest problems through the use of monitoring and thorough inspections conducted at regular intervals. Problem areas will be identified where alternative pest control techniques can be incorporated in order to eliminate routine pesticide applications. The necessity for pest control, if warranted, will be evaluated based on information obtained from a regular monitoring program that includes random foliage inspections of plants, inspections of greenhouse, monitoring cards and sentinel plants. These actions will be based on action threshold levels that will be established based on the specific crop, developmental stage of the crop and the target pest. When pest control procedures are warranted, the utilization of one or more pest control methods including sanitation, modification of production procedures, cultural practices, mechanical procedures, biological controls, and pesticides will be considered.

IPM practitioners will depend on current, comprehensive information on the pest and its environment and the best available pest control methods. By applying IPM principles, unacceptable levels of pest activity and damage will be suppressed by the most economical means while minimizing the risk to human health and the environment associated with pesticide applications. While the use of biological controls can play an important role in an IPM program designed for

AACPS IPM Plan, Notification Procedures and Program Practices

greenhouses and landscapes, the sole reliance on the use of biological controls to maintain pests below damaging levels if often not feasible. Due to the imprecise nature of biological insect populations and their interaction with pest populations, crops must be closely monitored. If appropriate action is not taken, which may include the use of selected bio-rational pesticides while populations are small, pesticides may have to be applied on a larger scale to maintain pests below damaging levels that may lead to the destruction of the crop.

It is the policy of this School District/Board of Education to utilize IPM principles within the Agriscience / Chesapeake Connections Program to manage pest populations adequately. The full range of pest control alternatives, including no action, will be considered. Selected non-chemical pest management methods will be implemented whenever possible to provide the desired control. The choice of using pesticides will be based on a review of all other available options and a determination that these options are unreasonable or have been exhausted, in order to minimize the use of pesticides. Cost of staffing considerations alone will not be adequate justification for the use of pesticides.

The management of algae and weeds within and around greenhouses is an important component of an IPM program in order to reduce or eliminate additional pest harborage and breeding sites. Weed control may involve the use of pesticides if nontoxic options are unreasonable or have been exhausted.

When it is determined that a pesticide must be used to meet vital pest management goals, the least hazardous pesticide will be selected. Only pesticides registered by the U.S. Environmental Protection Agency and the Maryland State Chemist may be applied. Applications will only be made to those plants or portions of plants that require treatment and during the growth stage of the pest when they will be most effective. The application of such pesticides are subject to the School District's/Board of Education's policies and procedures and all applicable state, federal and local regulations including the Maryland Pesticide Applicators Law and Regulations, and the Federal Insecticide, Fungicide, and Rodenticide Act.

Record Keeping

Information obtained from inspections and monitoring shall be maintained to verify the need for treatments. This information should include the plant height and development, type of pest, population counts, presence and severity of disease, location of weeds and evaluation of previous control measures. The removal of infested plants or plant parts should be documented along with the modification of other cultural changes such as soil fertility and watering. Areas requiring maintenance or repair should be documented as part of the records along with copies of Work Order Requests. Records of pesticide use shall be maintained by the certified applicator at the time of pesticide application, comply with state record keeping requirements and will be maintained for two years. Records must be current and accurate.

Pesticide Purchase and Storage

Pesticide purchases should be limited to the smallest amount available or the amount that may be used during the year. Pesticides will be stored and disposed of in accordance with the pesticide product label directions and state regulations. Pesticides must be stored in an appropriate, secure site inaccessible to students or unauthorized personnel.

Pesticide Applications

Pesticides may be used after it is determined that nontoxic options are unreasonable or have been exhausted. The least hazardous pesticide will be selected and the method and time of application will be based on the goal to minimize the potential for exposure of students and staff to the pesticide. Applications will only be made to those plants or portions of plants, or areas, requiring treatment and during the growth stage of the pest when they will be most effective or to eradicate non-native plant species prior to re-planting a new growth area.

Pesticide applications made as part of the Agriscience/ Chesapeake Connections Program will be conducted by an individual certified as a pest control applicator in the Demonstration and Research Category of Pest Control (Category X), or by a registered employee/trained student working under the supervision of a certified applicator. Applicators must be trained in the principles and practices of IPM and the use of pesticides. Pesticide applications must follow state and federal pesticide regulations, label precautions and comply with this School District's IPM Policy and Plan.

Program Evaluation

Evaluation of the pest control program is a critical component of an IPM program for the production of crops in greenhouses. IPM is a dynamic process and requires pest management strategies to be continually evaluated and modified as needed. Evaluation of crop production program and effectiveness of the pest control program should be made each time the crop is monitored. This will include the review of inspection reports, sanitation reports, fertilization and watering programs and other records to establish current conditions, progress of the program against pest problems and conditions, effectiveness of action thresholds, and to identify problem areas in the IPM system that may need to be modified or changed. Since the evaluation process is a critical component of an IPM program, students enrolled in the Agriscience/ Chesapeake Connections Program should actively participate in the evaluation process to obtain a better understanding of the dynamics involved in an IPM program.

Notification

The Agriscience/Chesapeake Connections teacher, Sheen Roos, will contact the School District's/Board of Education's designated Contact Person, prior to any pesticide application. The contact person will notify all school staff, students, parents and guardians prior to pesticide applications made in school buildings, including greenhouses, or on school grounds in accordance with Maryland regulations.

Notices will be posted in designated areas at schools and sent home to parents and guardians of all elementary school students at the school in which the application was made and in middle schools and high schools to those individuals who wish to be informed in advance of pesticide applications and are on the pesticide notification list.

Section 5

Integrated Pest Management (IPM) Plan of Action For The Center of Applied Technology North (CATN)

Integrated Pest Management Goal

To provide a safe environment in which to learn about Agriscience of which pesticide usage is a necessary component.

The students will be trained in:

Identification, control options, record keeping, safe pesticide handling and other concepts of IPM as part of their Agriscience training.

- 1. To produce quality crops for sale to the public.
- 2. To provide application experience to prepare students for industry employment.

Objective

Pests and Pesticides can pose significant problems to people and plant crops. The objective of the CATN Agriscience program is implement an IPM program that will meet the needs of the greenhouses and landscape classrooms as well as provide instruction to students on the IPM philosophy and practices. These practices will: minimize the amount and toxicity of pesticides used at the school, eliminate unnecessary pesticide spraying, provide educational experience and training to students in preparation of the state pesticide licensing exam.

Rules and Regulations

When it is determined that a pesticide must be used in order to meet important management goals, the least hazardous material adequate to control the pest will be chosen and label directions shall be followed. The application of pesticides is subject to the following Federal, State and Local rules and provisions: the Federal Insecticide, Fungicide, and Rodenticide Act, The Environmental Protection Agency, the Occupational Safety and Health Administration, the Superfund Amendments and Reauthorization Act, The Resources Conservation and Recovery Act, The Hazardous Materials Transportation Uniform Safety Act, the Endangered Species Act, the State of Maryland COMAR regulations, Anne Arundel County regulations and AACPS school district policies and procedures.

OVERVIEW of CATN- AGRISCIENCE DEPARTMENT

Notification Procedures

The Agriscience Department will adhere to the AACPS Notification policy of the "Anne Arundel County Public Schools Integrated Pest Management Plan Notification Procedures and Program Practices".

Posting

CATN will adhere to the label instructions for reentry and the legal requirement for application posting.

Record Keeping

Record of Pesticide us shall be maintained to meet the requirements of the state regulatory agency and AACPS. The site record and safety material data sheets for Agriscience will be kept in the Records station located outside the Agriscience office door next to the rear exit door leading to greenhouse number 3. In addition to a hard copy of the current pesticides, a CD which has been provided by the industry will be maintained in the same location which contains many other SDS sheets of commonly used pesticides as well.

Integrated Pest Management Practices

Pesticides are used extensively in the "Green Industry". At CATN pesticide usage is important for two reasons: they are used to assist in growing quality greenhouse crops and landscape maintenance; and they are used to teach future industry workers common greenhouse and landscape procedures as well as responsible IPM practices. Students will be taught about exposures, risk, tolerance thresholds, and other basic IPM philosophies and chemical usage safety, procedures, and facts. The Agriscience instructor possesses a Pesticide Applicator Certificate issued by the state of Maryland. Level 2 students will complete a lengthy unit on IPM practices and Pesticide usage. The unit exam will be the Maryland Private Pesticide Applicator exam. Students passing the exam can obtain a private applicator certificate. Other students will receive training to satisfy the requirements of the U.S. EPA's Worker Protection Standard for handlers and receive a Worker Protection Standard Handler Training Verification Card upon completion. Recommended pesticides will not hurt the environment or humans if applied according to the label directions and if proper precautions are taken. Because these pesticides are being applied in the school environment, pesticides with the least possible toxicity are used. Pest identification and monitoring will be a major part of the IPM program. Environmental practices will be employed to help reduce pest problems initially. Then Biological controls will be tried. (Note: Many of these biological controls are labeled for use as pesticides and therefore follow the legal responsibilities associated with that status). In some cases it then becomes necessary to use a pesticide to control a situation. All pesticides used in the Agriscience Department at CATN are in the "General Use" category.

A major concern is protection from direct contact with pesticides mist, vapors, and dust during measuring, mixing and application. Wearing protective clothing is required. Only persons who have been properly trained and meet the legal requirements will be allowed to actually handle pesticides. Level II students will perform simulation exercises. Application of pesticides must be in a manner that minimizes drift into sensitive areas such as non-target ornamental plantings, wetlands, and fish and wildlife habitats.

The need for chemical usage varies greatly from the Greenhouse to the Landscape. The pest, the pest threshold, types and forms of chemical must be addresses to fit each situation.

Greenhouse:

Weeds are a major problem within the greenhouse environment. IPM control for bench weeds is

mechanical (hand weeding) however there are at present six (6) herbicides labeled for greenhouse usage. The major chemical needs of the greenhouse are for insecticides and fungicides.

Insect and fungal pest are a common threat in the greenhouse environment that, if left untreated, can result in loss of the crop and economic loss. It is necessary to constantly monitor the greenhouse environment for the identification of a problem and to then decide on the best plan of action. The students will perform daily monitoring during the school year and weekly reports will be kept of identified insects and other pest problems.

The first line of defense is prevention. Greenhouse sanitation in the form of dead leaf removal, pruning infested materials, disposing of infested materials, proper watering, cleaning the floors, weed removal, and other cultural practices are a must. Biological controls such as using predatory insects are another tactic used at CATN. Praying mantis casings are identified in the wild and are then harvested into the greenhouse for hatching as needed. Many biological controls are labeled as pesticides and should be respected as such. These options are considered first to establish control of the pest population. When these options are ineffective then other pesticides will be considered for use if the crop is at risk.

Landscape:

The greatest chemical need within the landscape is for herbicide. Weeds grow in the cracks of sidewalks, fence lines, and along gutters and curbs. In addition, good maintenance practices include the presentation of plantings in a weed free, mulched, environment. This also assists in water conservation and protects the plants from being damaged by equipment. Open wounds invite insect and disease organisms into the plant and initiate decline and death of the plants over time. The student will be taught the industry procedure for protecting plantings from this fate. This includes the use of broad-spectrum herbicides

General Landscape practices of using pre-emergence for annual planting beds will be taught and practiced as well. These practices reduce plant loss and save labor. Without their usage these plantings have no value and become an eyesore.

Insect pests pose a threat to ornamental plants and turf. Students will be taught to scout for insects and learn the life cycles and controls for these problems. Pest thresholds will be determined (this is subjective to a point in this situation). Safe cultural practices such as proper pruning and good sanitation as well as biological controls will be considered first and other control used as needed.

Other pests that may attack landscape plants are disease and fungus. These problems will be dealt with in a similar manor as insects.

SECTION 6

SUMMARY AACPS INTEGRATED PEST MANAGEMENT PLAN, NOTIFICATION PROCEDURES AND, PROGRAM PRACTICES

Since 1989 AACPS has utilized the IPM method of pest control. This method reduces our historical dependence on chemical pest control treatments. It relies on traps, surveys, education and elevated school cleanliness standards to manage pest populations. Pesticides are used only when all else fails. Even then, the least toxic chemical is applied. Pests will be managed to:

Reduce any potential human health hazard or to protect against a significant threat to public safety.

Prevent loss or damage to school structures or property.

Prevent pests from spreading into the community, or to plant and animal populations beyond the site.

Enhance the quality of life to students, staff, and others.

Provide universal notification to all staff, parents, guardians and students whenever a chemical pesticide application is necessary.

Maintain Notification Lists in secondary schools.

Maintain records, SDS and Labels.

Use IPM strategies to control both indoor and outdoor pest.

All pesticide applications conducted inside school buildings are scheduled for after school hours or when students are not present in the classroom.

Requests by a school for special (non-emergency) problems can be called into Operations and receive a work order number. Upon receipt, IPM personnel will coordinate a time for inspection will contact the school.

Emergency situations, i.e., bees, wasps, bats, snakes, black widow spiders should be immediately call into the Operations office at (410) 360-0138. IPM personnel will respond the same day.

Termite applications will be performed after school hours.

Except for pesticide emergency application, it is incumbent upon the school administration to:

- 1. **Provide** advance notice of application to parents/guardians and staff as specified by the Contact Person.
- 2. **Ensure** necessary administrative measures are taken to reduce risk to those individuals who have been identified as potentially sensitive to pesticides.
- 3. **Coordinate** with the Pest Management / Grounds/ Athletic Grounds Managers and Agriscience in the scheduling/notification of pesticide application(s).

PERSONS TO CONTACT

Operations:	IPM Program Contact Person	410 - 360 - 0138
	IPM Pest Management (in school buildings)	410 - 360 - 0138
	Operations Area Managers (emergencies after hours or weekends)	410 - 360-0138
	Operations Supervisor	410 - 360-0138
Maintenance:	Grounds Manager	410 - 439-8000
	Senior Specialist G.M.	410-439-8000
	Maintenance Supervisor	410 - 439-8000
Agriscience:	Coordinator of Applied Technology	410 - 222-5495
5	Center of Applied Technology - North	410 - 969-3100
Arlington Ech	o: Chesapeake Connections Coordinator:	410-222-3822
-	Outdoor Education Coordinator	410-222-3822

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Office of Plant Industries and Pest Management

Martin O'Malley, Governor Anthony G. Brown, Lt. Governor Roger L. Richardson, Secretary Earl F. Hance, Deputy Secretary The Wayne A. Cawley, Jr. Building 50 Harry S. Truman Parkway Annapolis, Maryland 21401 TTY Users: Call via Maryland Relay Internet: www.mda.state.md.us Agriculture | Maryland's Leading Industry

410.841.5700 Baltimore/Annapolis 301.261.8106 Washington, D.C. 410.841.5914 Fax 800.492.5590 Toll Free

PESTICIDE REGULATION SECTION

(410) 841-5710 FAX (410) 841-2765

April 9, 2008

Larry Lancaster Board of Education of Allegany County Assistant Supervisor Operations Department 108 Washington Street, P. O. Box 1724 Cumberland, MD 21501-1724

Dear Mr. Lancaster:

I would like to thank you for submitting a copy of the Board of Education of Allegany County's revised Integrated Pest Management Plan. As you are aware, each Integrated Pest Management Plan must be reviewed by the Maryland Department of Agriculture as set forth under Regulation 15.05.02 Integrated Pest Management and Notification of Pesticide Use in a Public School Building or on School Grounds. Your revised IPM Plan has been reviewed to ensure that it is in compliance with the minimum requirements as specified in Section 15.05.02.03 Integrated Pest Management System.

Upon completing the review of your revised Integrated Pest Management Plan, the Maryland Department of Agriculture has determined that all of the required components have been addressed in your plan. This letter will serve as the formal approval of the Board of Education of Allegany County's Integrated Pest Management Plan.

Please be reminded, if any additional changes are made to the Integrated Pest Management Plan, the revised Plan must be resubmitted to the Maryland Department of Agriculture for approval. If you have any further questions please feel free to contact me.

Sincerely, elwarflo!

Edward A. Crow Entomologist Licensing, Certification and Training

File cc: Dennis Howard Glenn Krout

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MAR 2 4 2008



Board of Education of Allegany County

108 Washington Street, P.O. Box 1724 Cumberland, Maryland 21501-1724 Telephone (301) 759-2000

William J. AuMiller Superintendent of Schools

March 20, 2008

Ed Crowe Office of Pant Industries and Pest Management Maryland Department of Agriculture 50 Harry S. Truman Parkway Annapolis MD 21401

Dear Mr. Crowe,

Enclosed is a revised IPM Policy for Allegany County Public Schools dated March 20, 2008.

If you have any questions or comments please contact me at 301-722-4968.

Sincerely,

head

Larry Lancaster Assistant Supervisor Operations Department



Board of Education of Allegany County

108 Washington Street, P.O. Box 1724 Cumberland, Maryland 21501-1724 Telephone (301) 759-2000

William J. AuMiller Superintendent of Schools

March 20, 2008

Subject: INTEGRATED PEST MANAGEMENT SYSTEM Board of Education of Allegany County

I. IPM Policy

Use of Pesticides File: ECC (Dated 6/10/97)

Attachment I

II. Pest Management Roles and Responsibilities

Use of Pesticides, File ECC-R (Dated 6/10/97)

Attachment II

A. In this case the Assistant Supervisor of Operations is responsible for the administration of the entire pesticide program whether it be applications in school buildings or on school grounds and is also the designated contact person as follows:

> Larry Lancaster, Assistant Supervisor of Operations 108 Washington Street, P.O. Box 1724 Cumberland, Maryland 21501-1724 Phone (301) 722-4968 Fax (301) 722-4985

- B. Although the Assistant Supervisor of Operations is responsible for the administration of the entire pesticide program, everyone within the system can monitor pest activity in school buildings or on school grounds and designated contractors associated with the system can also participate and are encouraged to do so. See Section IV, 1, 2, below.
- III.
 Pest Control Procedures and Pest Management Objectives

 Use of Pesticides, File: ECC-R
 Attachment II

1

- Α. Pests - Pests are populations of living organisms (animals, plants or micro-organisms) that interfere with the use of the school site for human purposes. Strategies for managing pest populations will be influenced by the pest species and whether that species poses a threat to people, property, or the environment. IPM relies on the coordinated use of pest and environmental information and the best available pest management methods to prevent unacceptable levels of pest damage by the most economical means and with the least possible hazard to students, staff, property and the environment. Long-term control of pests is achieved by using information about the biology and habits of the pest and its interaction with its surroundings. Proper installation of plants. appropriate watering regimes, and choosing plant species that are suited to specific sites and usage are some of the most effective measures for achieving long term pest control for school landscapes and grounds.
- B. Pest Management The integrated pest management plan will be developed for the School System as required by the Maryland's Regulations pertaining to Integrated Pest Management and Notification of Pesticide Use in a Public School Building or on School Grounds. Approved pest management plans will be developed for the site and will include any proposed pest management measures.
 - 1. Pests will be managed to:

· . .

- a. Reduce any potential human health hazard or to protect against a significant threat to public safety.
- Prevent loss or damage to school structures or property and prevent a reoccurrence of the problem.
- c. Prevent pests from spreading on the school grounds or to plant and animal populations beyond the site.
- d. Improve the quality of the educational environment for students, staff and the public.

IV. Procedures for Conducting Pest Inspections and Monitoring

Α.	Food Service Areas -	Attachment III
B.	Monthly Schedule for Allegany County Schools All other areas (to include food service areas) "Potential Pest Problem" Form	Attachment IV

1. Although anyone within our system can initiate this form, it is normally done in conjunction with the Head Custodian at each location who is a registered employee. Each Head

2

Custodian does monitoring on a continuing basis as part of their routine job duties.

- 2. The "Potential Pest Problem" form is used to initiate any pest control activity and is sent to the Assistant Supervisor of Operations for further action.
- 3. For grounds monitoring long-term control of pests is achieved by using information about the biology and habits of the pest and its interaction with its surroundings. Proper installation of plants, appropriate watering regimes, and choosing plant species that are suited to specific sites and usage are some of the most effective measures to be used for achieving long term pest control for school landscapes and grounds.

V. Standards to Determine the Severity of Pest Infestations

- A. Upon receipt of the "Potential Pest Problem" form, the Supervisor of Operations will make a site visitation to confirm the type of pest and the degree of infestation. More often than not, additional monitoring by means of increased observation and/or the placement of sticky traps, inert dust, snap traps, etc. will be conducted. Immediate action is always recommended.
- B. Immediate action and pending action may consist of a multitude of recommendations, ranging from increased monitoring to calling in an outside contractor for their technical expertise.
- C. Once the pest and degree of infestation has been confirmed, IPM procedures will determine when to control the pest, and identify conditions contributing to the problems they can cause through the use of monitoring and thorough inspections conducted at regular intervals. Problem areas will be identified where alternative pest control technologies can be incorporated in order to eliminate routine pesticide applications. The necessity for pest control, if warranted, will be evaluated based on information obtained from inspections and monitoring. When pest control procedures are warranted, the utilization of one or more pest control methods including sanitation, structural repair, cultural practices, mechanical control, biological, other non-chemical methods, and pesticides will be implemented. The Supervisor of Operations will work with the Principal of the subject school to determine what IPM procedures will be used and when they will be used.
- D. As a last resort (such as with a termite infestation) a pesticide may be used. This decision will initiate the notification process.

VI. Recordkeeping

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- A. The Supervisor of Operations (Designated Contact Person) maintains a 3-ring binder with a section for each building and location within our system. The information maintained there is generally, but not limited to, the following:
 - 1. Potential Pest Problem forms.
 - 2. Material Safety Data Sheets for any pesticide used.
 - 3. Labels for any pesticide used.
 - 4. Notifications that are required.
 - 5. Invoices for pesticides applied in school buildings or on school grounds or purchased and any services rendered.
 - 6. Correspondence concerning pesticides.
 - 7. Pest control procedures, including cultural practices utilized on school grounds, will be tracked and maintained.
 - 8. The same information is maintained at each location for each incident.

VII. Pest Management Strategies

- A. When the Supervisor of Operations responds to a "Potential Pest Problem" form, he works in conjunction with the Principal and other involved personnel at the site to choose and initiate an IPM procedure or procedures that will hopefully resolve the problem.
 - 1. Example Problem #1 Presence of yellow jackets in kindergarten play area next to dumpster.
 - 2. Recommended Solution to Problem #1:
 - a. Relocate dumpster to parking lot and keep all dumpster doors closed.
 - b. Dump all refuse on second shift after dark when insects are in nest.
 - c. Results No more children/yellow jacket confrontations. No pesticide used.
 - 3. Example Problem #2 Yellow jacket nest in building exterior adjacent to student play area.
 - 4. Recommended Solution to Problem #2:
 - a. Relocate children to different play area on a temporary basis.
 - b. Head Custodian used "stuff-it" to plug access hole after dark followed thereafter by a sealant.
 - c. Head Custodian monitors activity thereafter.
 - d. Results No more children/yellow jacket confrontations. No pesticide used.

VIII. Education and Training

- A. The Assistant Supervisor of Operations is responsible for this aspect of the pest management system and does so as follows:
 - 1. Attends PTA and faculty meetings to explain any school pest problems and the IPM policies and procedures to be used to resolve them as requested or as necessary.
 - 2. Explains the problem and IPM policies to those concerned for any "Potential Pest Problem" form submitted.
 - 3. Assistant Supervisor of Operations will maintain his certification by attending appropriate conferences and/or workshops.
 - 4. Train and update all custodial and maintenance department personnel on IPM and pesticide issues in workshops, either annually or as needed.
 - 5. Send out correspondence concerning IPM and pesticide issues to all principals as the information becomes available.
 - 6. Train all Head Custodians and designated maintenance personnel as registered employees as needed.
 - 7. Update the Board of Education annually, as requested, on the entire program.

IX. Annual Program Evaluation

A. The Assistant Supervisor of Operations, if requested, will present an annual update to the Board of Education at one of their regular monthly meetings. A summary of events for each location will be given to include the IPM procedures used to resolve the problem along with a summary of when pesticides were used. Hopefully, this review will determine the effectiveness of the program and identify changes that should be made.

X. Notification

A. This School District will notify the school staff, students, parents and guardians prior to pesticide application made in school buildings or on school grounds in accordance with Maryland regulations. Notices will be posted in designated areas at school and sent home to parents and guardians of elementary school students and individuals who wish to be informed in advance of pesticide applications in school buildings or on school grounds and are on the pesticide notification list. All Parents or guardians of middle and high school students may be notified prior to pesticide applications if deemed necessary. Structural and landscape pests can pose significant problems to people, property, and the environment. Pesticides can also pose risks to people, property, and the environment. It is therefore the policy of the Board of Education of Allegany County to incorporate Integrated Pest Management (IPM) procedures for control of structural and landscape pests.

June 10, 1997
<u>Pests</u> - Pests are populations of living organisms (animals, plants or micro-organisms) that interfere with the use of the school site for human purposes. Strategies for managing pest populations will be influenced by the pest species and whether that species poses a threat to people, property, or the environment.

<u>Pest Management</u> - Pests will be managed to:

1. Reduce any potential human health hazard or to protect against

- a significant threat to public safety.
- 2. Prevent loss or damage to school structures or property.
- 3. Prevent pests from spreading into the community, or to plant and animal populations beyond the site.
- 4. Enhance the quality of life for students, staff and others.

<u>Integrated Pest Management Procedures</u> - IPM procedures will determine when to control pests and which of the following methods to use.

Mechanical

Physical

*Chemical

- Cultural
- Biological
- No Action

*When it is determined that a pesticide must be used, the least hazardous material will be chosen.

<u>Education</u> - Staff, students, pest managers, and the public will be educated about potential school pest problems and the IPM policies and procedures to be used to achieve the desired pest management objectives.

<u>Record Keeping</u> - Records of pesticide storage and use shall be maintained on site to meet the requirements of the Maryland State Department of Agriculture. Material Safety Data Sheets for pesticides will be maintained at each site.

<u>Notification</u> - School staff and students will be notified of upcoming pesticide treatments. Notices will be posted in designated areas at each application site and sent home to parents who have indicated that their children are pesticide sensitive. Individuals who have registered with the Maryland State Department of Agriculture will also be notified, if appropriate. In all cases, notifications will be made in advance of the pesticide applications.

<u>Pesticide Storage and Purchase</u> - All pesticides for use within the System will be purchased through the Operations Department. Individuals will not bring any pesticides on site or use them. Pesticides will be stored and disposed of in accordance with the EPA - registered label directions and State regulations.

<u>Pesticide Applicators</u> - All pesticide applications, if needed, will be done by registered employees of the Board of Education of Allegany County or contract personnel that are properly licensed and certified. Individuals within the System can not apply pesticides unless they are registered employees.

<u>Pesticide Program Administration</u> - The entire program will be under the direction of the Supervisor of Operations. This individual will have and maintain the certifications necessary to apply pesticides within the System. Other responsibilities include the implementation and management of all of the facets of the use of pesticides within our System.

June 10, 1997



Board of Education of Allegany County

108 Washington Street, P.O. Box 1724 Cumberland, Maryland 21501-1724 Telephone (301) 759-2000

William J. AuMiller Superintendent of Schools

March 20, 2008

To: All Head Custodians

From: Larry Lancaster, Assistant Supervisor of Operations

Subject: IPM Inspections of Food Service Areas of Schools and General Inspection of Support Buildings by Ehrlich Co. Personnel

The following schools will be done on a monthly basis:

Mt. Savage Elementary-Middle Westmar Middle George's Creek Elementary Flintstone Elementary Cresaptown Elementary **Career Center** Bel Air Elementary **Facilities Warehouse** South Penn Elementary John Humbird Elementary West Side Elementary Cash Valley Elementary Parkside Elementary Allegany High Washington Middle Fort Hill High Beall Elementary Mountain Ridge High Frost Elementary Eckhart School – Alternative Braddock Middle Northeast Elementary Westernport Elementary

NOTE: During the scheduled visits, the technician will be providing inspection and monitoring in almost all situations. Pesticides will only be applied in accordance with Board of Education Policy and State Law.

Any questions please contact Larry Lancaster at 301-722-4968.

Poten	Attachment IV tial Pest Problem
Person Reporting Potential Pest:	
Position of person reporting pest:	
Date/Time of sighting:	
Building Name:	
Location in building of sighting:	·
Other witnesses of sighting:	
Estimated quantity of pests:	
Identification of pests:	
Who you reported sighting to: _	Date:
Position of person you reported sig	hting to:
	Follow up
The Integrated Pest Management pr and which method to use:	ocedures will determine when to control pests
Mechanical:	
Physical:	
Cultural:	
Biological:	
Chemical:	
No Action:	
Other Action:	
Principals Signature	

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Office Use Only

Person Investigating Report:	Larry Lancaste	r
Position of person investigat	ting report: Operation	ons Supervisor
Date/Time you received repo	rt:	
Type of pest:	Structural:	Landscape:
Identification of pest:		
Identification confirmed:	Yes,	No, comments:
Immediate action taken:	······································	
Pending Action:		
Signature: Investigator		Date:

Additional Comments:

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BALTIMORE COUNTY PUBLIC SCHOOLS INTEGRATED PEST MANAGEMENT PROGRAM IN SCHOOL BUILDINGS AND ON SCHOOL GROUNDS

The Integrated Pest Management (IPM) program employed by the Baltimore County Public Schools is a proactive rather than a reactive approach to insect, rodent and weed control in school facilities and on school grounds. The IPM program includes routine inspections or surveys of all school facilities to identify conditions conducive to pest invasion, to ensure early detection of pest presence, and to monitor infestation levels. As a first step in pest control, the IPM approach employs a number of preventive strategies and alternatives to pesticide application, such as employee education, source reduction, inspection and identification of potential problem areas, clutter elimination and improved sanitation. Each approach is monitored and evaluated, and modifications are made, if necessary. Pesticides are used only as a last resort.

<u>Responsibilities</u>: The Office of Maintenance, Environmental Services is responsible for the IPM Program. The IPM Representatives and Grounds Foremen (formerly Grounds Crew Chief) will maintain the IPM logbook for all facility locations. Building Operations Supervisors (BOS/formerly Chief Custodians) and grounds workers will communicate pertinent IPM logbook information directly to the IPM Representatives or Grounds Foremen. As Manager of Grounds, Roland Nickoles, will oversee Grounds personnel. **Robert C. Merrey, Supervisor, Environmental Services, is the contact individual for all schools and offices.** He will establish schedules and set priorities with the IPM Representatives. The Supervisor, along with the IPM Representatives, will educate the administration, faculty and staff about IPM procedures and make suggestions to alleviate pest problems. The Supervisor can be contacted at 410-887-6310, Baltimore County Public Schools, Department of Physical Facilities, 9610 Pulaski Park Drive, Suite 204, Baltimore, Maryland 21220.

IPM Representatives: The IPM Representatives inspect, monitor, evaluate and implement a site specific approach to pest management. The IPM Representative is a communicator, record keeper, decision maker, educator and guardian of the well being of everyone who enters Baltimore County Public Schools.

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Building Operations Supervisors and Grounds Foremen: Are responsible for the cleanliness and sanitation of the buildings and grounds. All pest concerns within the building should be directed to the BOS. All pest concerns on school grounds should be directed to the Grounds Foremen. The BOS and grounds workers will notify the IPM Representatives and Grounds Foremen of all pest sightings and relevant updates.

Faculty and Staff: Are responsible for keeping and maintaining a clutter free area and properly storing all food. This procedure is essential to manage pest populations and reduce pest harborage. Place all foods, including those food groups used in curriculum, in tin containers with tight fitting lids. Any pest concerns should be reported to the BOS or Grounds Foremen.

<u>Students</u>: Are responsible for maintaining clean lockers, desks and assisting with keeping a clean environment throughout the school.

PROGRAM COMPONENTS:

<u>Monitoring and Action Thresholds</u>: Regular monitoring of the facility and grounds is critical when evaluating potential pest populations. By using traps, visual inspections, monitoring devices and interviews with the staff, the location, size of the infestation, and the conditions that promote a pest concern will be identified.

<u>Sanitation and Structural Repairs</u>: Pest concerns are often controlled by using proper sanitation procedures, reducing clutter, and completing maintenance repairs to the structure. IPM Representatives will perform exclusion work to prevent the movement of pests into or out of the facility. IPM Representatives will report unsanitary conditions to the BOS, Grounds Foremen or appropriate food service personnel, or administrator.

<u>Pest Control Without Pesticides</u>: IPM practices such as trapping, screening and caulking are effective long term pest control methods. Non-chemical methods also include good sanitation and housekeeping practices that reduce clutter and pest harborage. In order to provide pest control without pesticides or by substantially reducing pesticide usage, we must make the facility and grounds less attractive to pests. Reducing the opportunity for pests to access water, food and harborage areas is a practice that will make the program successful.

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<u>Pest Control With Pesticides</u>: Pesticide use may be necessary in the Baltimore County Public Schools IPM program to effectively control pest infestations. Pesticide applications will only be made when needed and will be applied in a manner that will maximize the effectiveness in controlling the target pest and minimize the exposure to humans and other non-target species. Pesticide formulations such as baits and pastes will be the preferred method of treatment because the potential for exposure to school personnel is minimized. Preventive pesticide treatments are eliminated from the Baltimore County Public Schools IPM program. Pesticides will only be applied by IPM Representatives and Grounds Foremen who are licensed, certified and registered pesticide applicators.

Guidelines For Using Pesticides Are As Follows:

- Read and follow pesticide label directions.
- Use pesticides according to need and not according to a schedule.
- Choose the safest pesticide and method of application that will provide adequate control of the pest problem.
- Liquid and powder pesticides, including herbicides should be applied in cracks, crevices, or voids, whenever possible, and not applied on accessible surfaces.
- Treatments will be performed only after pests are verified and all nonchemical methods exhausted.
- In general, classrooms, hallways, and common areas will be treated with bait stations or traps only during school hours.
- Health suites will not be treated with a pesticide, except in the case of severe pest infestations. Medical personnel should be advised in advance of any planned application.
- Applications of pesticides to the school environment for the control of ectoparasites, such as head lice, body lice, or crab lice, are not effective and will not be made. These pest problems must be diagnosed and addressed by properly trained medical personnel.

<u>Record Keeping</u>: The IPM Representatives and Grounds Foreman will be responsible for maintaining and recording all data on pest numbers and observations in the required logbook for all schools. This will be accomplished by communication from Administrators, cafeteria personnel, staff, and faculty to the BOS or Grounds workers. This information will in turn be relayed to the IPM Representatives or Grounds Foremen for recordation in the logbook. The logbook will also include all IPM Representative and Grounds Foremen exclusion work, remediation of problem, pesticide usage and related data. Material safety data sheets (MSDS) are kept in the health suite and updated by the Supervisor, Environmental Services. The Supervisor also maintains all documentation of communication to students and staff regarding the IPM program.

Program Evaluation: Monitoring data and observations will be periodically summarized and reviewed to evaluate Baltimore County Public Schools IPM program for its effectiveness. Baltimore County Public Schools IPM practices and procedures will be continually reviewed and modified based on past experience and results. Technical oversight provides an objective, ongoing evaluation of program activities and effectiveness. IPM Representatives will evaluate each facility and grounds program and may recommend changes to the IPM program.

Notification: Maryland law requires that parents of all elementary school children be notified a minimum of 24 hours prior to any interior or exterior pesticide application. Parents of middle school or high school students who wish to be notified prior to interior or exterior pesticide applications must request that they be placed on the school system's pesticide notification list. To be added to the notification list, send a written request, which includes your name and school to the principal. In-school notification requires an oral announcement or written notice before a pesticide application. An appropriately worded sign posted at the room or area treated and in a central location is also mandated.

Product Labels and Material Safety data Sheets: Copies of Material Safety Data Sheets (MSDS) and product labels for each pesticide and bait station used on school property are maintained at each school and by the contact person. Persons wishing to review this information should contact Robert Merrey, Supervisor, Environmental Services, Baltimore County Public Schools, 9610 Pulaski Park Drive, Suite 204, Baltimore, Maryland 21220.

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APPLICATION EOUIPMENT								
TREATMENT AREA (Exclusion Work, other)						-		
CHEMICAL USED (Concentration & Total Amt. of Chemical Applied)								
TARGET PEST (Level of Infestation)								
DATE & TIME OF CALL/VISIT								
SCHOOL & ADDRESS (See Inseri)								

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Family Guide

2019-20

BALTIMORE CITY public schools

Quick contacts at the district office

Enrollment (including registration, school choice, school transfers): 410-396-8600

Transportation: 410-396-7440

Family engagement (including volunteering): 410-545-1870

Academic programs: Pre-k and kindergarten, 443-642-3039; K-12, 443-642-3990

Special education: 443-984-1561

School police: 410-396-8588 (in an emergency, call 911)

Reporting inappropriate or potentially illegal activity by a City Schools employee (*can be done anonymously*): 1-800-679-0185

For all other concerns: 443-984-2000

Have a concern at your school? Here's what to do.

1. Talk with your child's teacher.

- 2. Talk with your principal.
- 3. Call the district office (use the numbers above to get to the right department).

Still have a concern? Call the CEO Ombudsman at 410-984-2020.

Be the first to know about school closings or delays.

Bad weather or emergencies can sometimes mean closed schools. To get notifications by phone, text, or email, make sure your school always has your current contact information. You can update information online through Campus Portal or by calling your school.

Find out more about what's happening at Baltimore City Schools:

Visit www.baltimorecityschools.org

Follow BaltCitySchools on Twitter, Facebook, and Instagram.



Ask at your school for the school's website address and social media accounts!



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DEAR CITY SCHOOLS FAMILIES,

Welcome back! As we begin this year, it is important to celebrate our many accomplishments and continue to build on these successes.

Our Blueprint for Success is coming to life in many exciting ways. Students are growing in reading, writing, speaking, and listening. This year, 20 schools will have literacy coaches to help teachers meet all students' needs, adding to the 20 already in schools. We're also making sure our students are excited to come to school, and that school is an inspiring place to be. Last year, 35 of our schools

had a special focus on social and emotional learning or restorative practices, and we're adding 21 more this year. And we're continuing to find leadership opportunities for staff and students.

Our goal is to make sure you – our families – feel informed about your child's education and what's happening at City Schools. In this guide, you'll find information about what's happening in every grade and how to support learning at home. You'll also find contact information for offices and, in the code, you'll find



phone numbers for some of our community partners who can provide additional support to you and your child if needed.

This year, we'll be planning more events where you can tell us what's working, what we need to improve, and your ideas for our best next steps. I hope you'll join us for these important conversations.

On behalf of all of City Schools' principals, teachers, and staff, thank you partnering with us! Thank you for all you do for our students and our schools throughout the school year. We look forward to accomplishing even more this year—together.

Sincerely, **Dr. Sonja Brookins Santelises** *CEO, Baltimore City Public Schools*

About City Schools

OUR SCHOOLS. The 171

schools and programs that make up Baltimore City Public Schools include

- Schools that serve a neighborhood, and schools that serve the whole city
- International Baccalaureate, Advanced Placement, and gifted and advanced learner programs
- Career training that leads to certification in industries from computers to construction to medical professions
- Specialized programming, like the arts, sciences, Montessori, and language immersion
- All-girls schools, all-boys schools
- Schools for students who need extra support and credit options

Each year, City Schools reviews the district's "portfolio," to make sure schools are working for students, families, and communities.

Find out more at www. baltimorecity schools.org/ portfolio.

BLUEPRINT FOR SUCCESS.

At traditional (noncharter) schools, we're focusing on students as whole people, meeting their needs and interests with varied and challenging programs, social and emotional learning, and support services. We're teaching reading, writing, speaking, and listening across subjects, so students have the literacy skills they need to build their knowledge and understanding. And we're supporting staff as leaders who can motivate students, inspire them to reach their potential, and help them on their path to success. It's our blueprint for building a generation. Find out more at www. baltimorecityschools.org/blueprint.

SCHOOL CHOICE. Elementary school students have a "zoned" neighborhood school and can also apply to citywide charter schools, where students are admitted by lottery.

For middle and high school students, there are dozens of options available, including schools with selective programs, career and technical programs, a focus on arts or sciences, and programs to make up credits. Many middle school and all high school students pick their top choices of the schools they want to attend.

Some middle and high schools have "entrance criteria," meaning students need to earn certain grades or test scores, audition, or submit special materials. It's never too early to find out about the options and requirements, so you can plan a path from pre-k to 12th grade. Find out more at www. baltimorecityschools.org/choice or by asking at your school.

SCHOOL BUDGETS. Because

every school community is different, principals — not the district office — have as much control as possible over budgets. Early every calendar year, principals ask parents and community members to share what programs and services are most important to them, so that the budget for the next school year can set aside money to meet priorities. Ask your principal how you can participate in building the budget at your school for the 2019-20 school year!

SCHOOL BUILDINGS.

Through the 21st Century School **Buildings Program and the Capital** Improvement Program, we're continuing to build and renovate school buildings to support 21st-century learning and serve our neighborhoods. We're also working to air-condition more schools around the city, and we're promoting "green schools" where school communities come together around healthy school environments. Have a problem or concern about your school building? Speak with your principal or call us at 443-984-2000, and check out status of maintenance and repairs at our website: www. baltimorecityschools.org/ buildings.

Teaching and Learning



Elementary school, grade by grade

Children in these grades learn skills in reading, writing, speaking, listening, and math, and how to apply them to all subject areas. They find out about the world and practice things like working with others and solving problems. They play sports, learn about music, draw and paint, and discover what interests them most.

Here's what you can expect in core subjects at each grade. Ask your child's teacher for more information throughout the school year.

PRE-K AND KINDERGARTEN

- Learn through play
- Develop skills in reading and writing, like recognizing and writing letters, learning new words, and telling stories
- Build a foundation for math by recognizing numbers, counting, adding, subtracting, and identifying shapes
- Learn about being part of a family and a community
- Study weather, plants, and animals
- Learn habits for staying healthy
- Develop self-esteem and how to manage feelings, behavior, and independence
- Learn to share and work with other children

STATE TESTS

- **Kindergarten Readiness Assessment:** Some tests measure where students are in different areas and help teachers know how best to support each child. The KRA is one of these tests. Kindergarten students take this state test early in the school year to measure where they are in language and literacy, math, social skills, physical well-being, and motor development.
- **Naglieri Nonverbal Ability Test:** All City Schools kindergartners take a test to help identify students who may be ready for more challenging work and may be academically gifted or advanced.

For information about the different types of assessments used in our schools, including a calendar, please visit: **baltimorecityschools.org/assessments**.

1ST GRADE

- Build reading comprehension skills, distinguish between fiction and nonfiction, and compare
- Add and subtract up to 100 and solve word problems
- Investigate light, how plants and animals grow and live, and patterns in space
- Study geography and the environment
- Make comparisons between past and present

2ND GRADE

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characters in stories

- Read stories, fables, and folktales from different cultures
- Ask "who, what, where, when, why, and how" questions about reading
- Add and subtract up to 1,000

- Measure and estimate lengths
- Explore changes to our planet and how plants and animals adapt to where they live
- Understand the difference between needing something and wanting something

3RD GRADE

- Retell important details from fables, folktales, and myths from different cultures
- Learn about point of view in writing
- Multiply and divide numbers up to 100, begin to understand fractions, and solve word problems
- Investigate insects
- Study how individuals and groups protect rights and maintain order in our world
- Learn about money
- Study Baltimore's history, culture, and economy

4TH GRADE

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- Explain differences between poetry, drama, and prose
- Figure out the meaning of words and phrases in writing
- Add, subtract, and multiply fractions, and solve word problems
- Investigate changes to our planet, waves, and energy
- Study Maryland's history, geography, and economy

5TH GRADE

- Explain the structure of different kinds of writing
- Learn more about a narrator's point of view
- Analyze how pictures contribute to a text
- Continue to learn about fractions and study decimals
- Study environmental and earth science
- Explain the differences between the British colonies and America

STATE TESTS

Maryland Comprehensive Assessment

Program (MCAP): Every spring, Maryland students in 3rd, 4th, and 5th grades take tests in English language arts and math. The MCAP is the new test, replacing the PARCC starting this year. The results show whether students are meeting standards for their grade and are on track toward high school graduation. Students and families get the results at the beginning of the next school year.

Maryland Integrated Science Assessment:

This test is given in the spring to all of Maryland's 5th-grade students, to see how they are doing in meeting standards in science.

For information about the different types of assessments used in our schools, including a calendar, please visit: **baltimorecityschools.org/ assessments**.

TIPS FOR SUPPORTING LEARNING AT HOME

Talk. Start a conversation by asking things like "What was something that made you laugh today?" or "What did you and your friends talk about at lunch?" or "What new thing did you find out?" Your child will get practice with speaking and listening, and you'll be showing your child that you think school is important.

Read. Reading is important for learning in all subjects, so getting lots of practice is important for doing well in school. The Enoch Pratt Free Library has special library cards for young children, so you can always have books at home. Set a great example by getting a card and books for yourself.

Make attendance a priority. Success at school starts with being there, on time, every day. Help make that easy for your child and family by having a morning routine, making a back-up plan in case schedules change, and keeping in touch with teachers about make-up work when your child has to miss a day.

TO MOVE UP TO THE NEXT GRADE...

- Children in kindergarten are promoted, except in some extreme circumstances.
- **Students in 1st to 5th grade** must pass English language arts and math or three core subjects.

MAKING THE MOST OF ELEMENTARY SCHOOL

Extra help, clubs, and more. Depending on your school, there may be options for before- and after-school programs—from extra help with school subjects to clubs focused on things like art, robotics, foreign languages, or sports. These fun programs support learning and give students a chance to try new things and find out what they're interested in. Many schools also offer before- and after-school care. Ask your child's teacher or school principal about what's available.

Summer programs. Individual schools, the school district, and community partners often sponsor summer learning at schools around the city. Information about summer programs is usually available in March or April.

Get ready for the next steps. At City Schools, students can choose the middle school they want to go to. Some schools and programs—like Advanced Academics or Ingenuity—have special requirements, so ask at your school or visit **www. baltimorecityschools.org** to find out more. If your child is interested in Baltimore School for the Arts for high school, check out the TWIGS program (**www. bsfa.org/twigs**) that can help your child get ready while having a great experience learning music, dance, or visual arts.



Middle school, grade by grade

Students keep building skills in middle school and apply them in more complex areas to build knowledge, critical thinking, and problem-solving abilities. These are also important years for learning to organize work, manage time, set and meet goals, and work both independently and with others — and to discover interests and talents that might affect decisions about high school, college, or career. Here's a sample of what students will be doing in core subjects in each grade.

6TH GRADE

- Write in different ways for different reasons, like expressing opinions or persuading
- Read a wide variety of literature, analyzing word choice, point of view, and structure
- Study the history and geography of Asia and Africa
- Learn ratios, rates, and statistics
- Explore light, particles, ecosystems, water cycles, and rocks

7TH GRADE

- Study writing techniques such as analogy, allusion, and irony
- Compare and contrast written, audio, and video texts
- Analyze primary and secondary sources in history, and explain the impact of geography on historical developments
- Work with equations, graphs, and two- and threedimensional shapes
- Study matter, energy, weather, and biology
- Learn about managing money

8TH GRADE

- Develop skills in reading, writing, and thinking in different subject areas—for example, historical
- Study linear equations, two- and three-dimensional
- space, distance, and angles
- Investigate geological processes, motion, force, heredity, natural selection, and chemical reactions
- Study U.S. history from the American Revolution through Reconstruction

STATE TESTS

Maryland Comprehensive Assessment Program (MCAP): Every spring, all middle school students in Maryland take these tests in English language arts and math. (Students taking Algebra I in 8th grade take the Algebra I test rather than the 8th-grade math test, which means they can meet a high school graduation requirement before starting high school.) Results show if students are meeting the standards for their grade and are on track toward high school graduation. Students and families get the results at the beginning of the next school year.

Maryland Integrated Science Assessment:

This test is given in the spring to all of Maryland's 8th-grade students, to see how they are doing in meeting standards in science.

For information about the different types of assessments used in our schools, including a calendar, please visit: **baltimorecityschools.org**/ **assessments**.

HONORS

Dozens of middle schools offer honors courses. These courses include curriculum in English language arts that's above grade level, advanced content in math, and long-term research projects, such as the Morgan State Science Fair and National History Day. Grades in 7th- and 8th-grade courses are weighted more heavily when calculating composite scores for admission to high schools with academic entrance criteria.

TO MOVE UP TO THE NEXT GRADE...

• 6th- to 8th-grade students must pass English language arts and math or three core subjects.

GET READY FOR NEXT STEPS

- At City Schools, students choose the high schools they want to go to. Some schools and programs have special requirements, like getting good grades, preparing a portfolio or essay, or going to an audition or interview. Sixth-grade is the right time to start thinking about high school, so by the beginning of 7th grade, students have a plan for getting into one of their top school choices.
- Making a plan means thinking about the subjects and activities students like best at school—and can imagine themselves pursuing in high school and beyond. It's important to experience different things by taking advantage of sports, clubs, and other activities. Ask at your school about what's available.
- Find out more about school options at www. baltimorecityschools.org/choice. Also, all middle schools have a staff member to help

families choose a high school, so contact your school to set up an appointment.

TIPS FOR SUPPORTING LEARNING AT HOME

- Keep talking. Students learn a lot about the world in middle school, along with skills in describing, persuading, and debating. Talking about anything from the latest hit movie to current events to things to do on the weekend can help students develop and apply those skills in real life. These conversations also show students that parents and family members are interested in what's going on with them.
- Keep reading. Students in middle school read, analyze, and create nonfiction and fiction on screen, in print, with images, and more, but there are lots of opportunities to reinforce literacy outside of school. Reading isn't only about chapter books or novels—it can be websites, magazines, advertising, newspapers... Think and talk about what you read every day, and share how you get information.
- **Be organized**. Learning how to meet deadlines and manage time is important for success in the higher grades, college, and most jobs. Keep an eye on your child's school assignments, and help him or her get things done on time.



LEARNING BEYOND ACADEMICS

Part of getting ready for college and adult life is learning how to work with other people, manage emotions and stress, understand and empathize with how other people feel and think, develop positive relationships, and make good choices. These social and emotional skills are important for creating positive communities for teaching and for making sure students are ready to learn and be successful.

That's why social and emotional learning are an important part of City Schools' blueprint for success. Expect teachers to talk to you about how your child is growing socially and emotionally, and ask at your school about how teachers and school staff are promoting your child's well-being and growth.

High school

In grades 9 to 12, students not only keep building skills and knowledge, they take important steps to get ready for college or a career. In addition to core programming in English, math, science, and social studies, students earn credits in technology, health, physical education, art, and languages, and can take specialized programming, like these options:

CAREER AND TECHNOLOGY EDUCATION

Earn hands-on skills and industry certifications in

- Arts, media, and communication
- Business, management, and finance
- Construction
- Consumer services, hospitality, and tourism
- Environmental, agriculture, and natural resources
- Health and biosciences
- Human resources
- Information technology
- Manufacturing, engineering, and technology
- Transportation

OPPORTUNITY TO EARN COLLEGE CREDITS

- Advanced Placement courses are now offered at all high schools
- International Baccalaureate is offered at Baltimore City College
- Students at all high schools can earn college credits (tuition free) through partnerships with University of Baltimore, Baltimore City Community College, and other local colleges. Ask at your school for information.
- Students at Bard High School Early College earn credits up to an associate's degree during their last two years of high school.
- At Carver Vocational-Technical High School, Paul Laurence Dunbar High School, and New Era Academy, students in our Pathways in Technology Early College High Schools (P-TECH) graduate after six years with a high school diploma, tuition-free associate's degree, and first-in-line status for jobs in leading industries.

GRADING

Under the revised grading policy, 70 percent of students' grades are based on a variety of assessments (projects, labs, essays, tests, quizzes). The other 30 percent is based on a school's discretion. Please ask your school for its grading policy.

Grading scale for high school classes

Grade Range (percentages)	Letter Grade	Standard Weight	Honors Weight	IB/AP Weight
97-100	A+	4	5	5.5
93-96	А	4	5	5.5
90-92	A-	4	5	5.5
87-89	B+	3	4	4.5
83-86	В	3	4	4.5
80-82	В-	3	4	4.5
77-79	C+	2	3	3.5
73-76	С	2	3	3.5
70-72	C-	2	3	3.5
67-69	D+	1	2	2.5
63-66	D	1	2	2.5
60-62	D-	1	2	2.5
59 and below	F	0	0	0

MAJOR TESTS

- Maryland Comprehensive Assessment Program (MCAP): Students enrolled in English 10 and Algebra I, in most cases, must earn a passing score (or complete a "bridge" project) to graduate. Ask your school counselor for more information about requirements. (The MCAP replaces the PARCC beginning this year.)
- American Government High School Assessment (HSA): Students must pass the HSA in American Government (or complete a "bridge" project) to graduate. Ask your school counselor for more information.
- High School Maryland Integrated Science Assessment: In most cases, students must pass this assessment also to graduate.
- **PSAT**: Students in 10th and 11th grades take this test in math and language arts at school in the fall. It is not required for graduation, and results don't count toward final grades—but it's a great way to see if a student is on track for being accepted to college, and great practice for the SAT.
- **SAT and ACT**: All students in 11th grade take the SAT in school in the spring. Scores are important for getting into many colleges. It's not unusual for a student to take the SAT more than once. This 11th-grade opportunity comes early enough that students still have time later in 11th grade or early in 12th grade to take the test again and try to earn a higher score. The SAT is given on several weekends throughout the year, and many students qualify for fee waivers. Ask your school counselor for more information. The ACT is accepted equally by colleges. You can also ask your counselor about the ACT.
- Advanced Placement and International Baccalaureate exams: Students enrolled in these courses are expected to take exams in the spring. Passing grades are sometimes accepted for college credit.

For information about the different types of assessments used in our schools, including a calendar, please visit: **baltimorecityschools.org/assessments**

TO MOVE UP TO THE NEXT GRADE...

- 9th-grade students must earn at least 5 credits, including 1 in English I, ESOL English I, or Algebra I.
- **10th-grade students** must earn at least 10 cumulative credits, including 3 in English I, English II, ESOL English I, ESOL English II, Algebra I, or Geometry, and 1 credit each in both social studies and science.
- **11th-grade students** must earn at least 15 cumulative credits, including 5 from English I, English II, ESOL English I, ESOL English II, English III, Algebra I, Algebra II, and Geometry, and 3 credits in science or social students, with at least 1 in each.



TO GRADUATE STUDENTS MUST HAVE...

4 credits in English	0.5 credits in physical education		
4 credits in mathematics, including Algebra I,	0.5 credits in health		
Algebra II, Geometry, and one additional advanced math credit	2 credits in a world or classical language, or 2 credits in advanced technology or 4 to 6 credits in a state-		
3 credits in science, including 1 in Biology and 2 in earth,	approved Career and Technology Education program		
life, or physical sciences (including lab components)	2 credits in an elective course (unless the student is taking a state-approved CTE program)		
3 credits in social studies, including U.S. History,			
American Government, and Widdern World History	75 hours of service learning Met state testing requirements		
1 credit in technology education			
1 credit in fine arts			

FOR DESIGNATION AS COLLEGE AND CAREER READY, STUDENTS MUST...

- Score at a level indicating proficiency on MCAP (or PARCC taken in a prior year), SAT, ACT, Advanced Placement, or International Baccalaureate tests (as relevant, based on course enrollment)
- Pass a college course through dual enrollment
- Complete a college development course or transition course

Ask your school counselor for more details.

GET READY FOR NEXT STEPS

High schools offer many different programs to add to regular classroom learning. Athletics, clubs, music, tutoring, internships, and other activities teach important skills—and help students find their own voices through activities that matter to them. Ask at your school about what's available, and take advantage of every opportunity!

All high school students use an online tool (called Naviance) to help them plan their next steps after high school. Naviance supports students in thinking about their strengths, what careers might be right for them, and how to set and meet college and career goals. When it's time for college applications, Naviance can help students identify which colleges may be right for them and keep applications on track. Following are several websites where students and families can find information and resources to help in college planning:

Maryland Higher Education Commission: mhec.state.md.us/preparing

Free Application for Federal Student Aid: **FAFSA.ed.gov**

BMore Ready: Bmoreready.org

Naviance: Naviance.com

Students with disabilities

Students with disabilities are entitled by law to a free, appropriate public education from birth to age 21. City Schools provides a range of services to ensure that all students' needs are met, whether in regular education classes, resource rooms or self-contained classes at public schools, separate special education centers, or nonpublic special education schools.

To the maximum extent appropriate, students with disabilities are in classes with students who are not disabled. Special classes, separate public day school, or other removal from the regular educational environment occurs only when the nature or severity of a child's disability means that education in regular classes with the help of aides and services cannot be provided satisfactorily.

If you feel your child may need evaluation for special education services, contact Child Find at 410-984-1011. The first step in providing the right services is to confirm the nature of a child's special needs and to develop a program with the necessary support.

- An Individualized Education Program (IEP) outlines in writing the student's educational needs and the supports and services that will be provided from birth to age 21, so that the student can meet educational goals.
- Section 504 is a civil rights law designed to protect the rights of individuals with disabilities. Any student with a physical or mental impairment that substantially limits one or more major life activities may be eligible for a 504 plan. The 504 plan is designed to remove any barriers so that a student with a disability can access the same education as her or his non-disabled peers. If you think your child may need evaluation for 504 services, contact Child Find at 410-984-1011.

If your child has an IEP or 504 plan and you have concerns about how it is being implemented or believe that your child is not receiving required services, please contact the district's Special Education Parent Response Unit at 443-984-1561. Forms for submitting formal written complaints are available on request. Complaints can also be filed with the Maryland State Department of Education. Please call 410-767-7770 for more information.

English learners

English for Speakers of Other Languages (ESOL) programs develops English language skills in listening, speaking, reading, and writing. The goal of ESOL instruction is to build English language proficiency while also ensuring students can meet the same challenging academic standards as their grade-level peers. ESOL teachers implement ESOL programs, help newcomers adjust to the culture of U.S. schools, and collaborate with schoolwide teams to ensure the needs of all English learners are met.

Gifted and advanced learners

City Schools has more than 70 elementary and middle schools with specialized gifted and advanced learning (GAL) opportunities, including 19 recognized for excellence by the state's "EGATE" award.

In 2017, the district implemented universal screening of all kindergarten students to identify children who may be gifted, advanced, or eligible for talent development. If you think your child may be gifted or ready for advanced learning programs, visit the district's website at **www.baltimorecityschools. org** and complete the online referral form.



Connecting



Because families play an important part in student success, we encourage parents, guardians, and other family members to get involved and connect with schools to support your child's learning. Below are a few ideas.

KEEP IN TOUCH WITH YOUR SCHOOL

You should expect to hear from your child's teachers and your school, letting you know about what students are learning at different times of the year, special activities, or any concerns. Please complete the contact information form sent home at the beginning of the year, so your school knows how to reach you. Don't hesitate to send a note in with your child for his or her teachers, letting them know the best way to reach you and sharing any concerns you may have.

Remember: If your contact information changes during the year, be sure to let your school know. Your school will let you know if you need to bring in paperwork for the change.

ACCESS CAMPUS PORTAL

Campus Portal is your online source for your child's schedules, attendance, grades, and more. You can access it from a computer, smart phone, or tablet—anything that's connected to the internet.

City Schools parents and guardians new to the district will receive an activation code at the start of the school year to set up an account. For help, contact your school. Log in at www. baltimorecityschools.org/campus-portal, or download the app for access on your phone.

VISIT SCHOOLS

To ensure safety, all visitors to schools and the district office (including parents and guardians) must provide a photo ID when entering any of our buildings. Visitors get a badge that must be worn while inside.

If you visit often—for example, if you volunteer regularly at a school—you may be eligible for a City Schools identification card. Ask at your school office.

ATTEND PARENT-TEACHER CONFERENCES

Parent-teacher conferences happen at least twice during the school year. These are excellent opportunities for you and your child's teachers to build relationships and discuss academic and social progress, with questions like these:

- What is my child doing well?
- What is my child struggling with?
- Can you show me some examples of my child's work?
- Are there activities we can do at home to support classwork?
- How does my child get along with other students and teachers?
- Has my child missed any assignments?
- What will you be focusing on in the weeks ahead?
- What should my child know by the end of this year?

Remember: You don't have to wait until a parentteacher conference to get answers to your questions. Contact your child's teachers and ask for a meeting, email, or phone call if you have a concern or if the regular conference schedule isn't convenient for you.

FAMILIES WHO DON'T SPEAK ENGLISH

For parents and family members who do not speak English, City Schools will provide information in a language they understand. This includes interpretation of meetings (including IEP meetings). All schools have access to forms and other documents translated into many languages. Schools also have access to language interpreters and to a telephone-based interpretation service. Families should request assistance in a language other than English if they need it.

JOIN PARENT GROUPS

City Schools takes parent and family engagement seriously and encourages parents to participate. Every school has an organized parent group, along with a school family council that supports the principal on topics related to school improvement and engagement. Groups meet regularly. If you want to get involved, ask at your school for the names and contact information of the parent leaders or contact the district's engagement, 410-545-1870 or engagement@bcps.k12.md.us.

INFORMATION FOR PARENTS AND FAMILIES AT TITLE I SCHOOLS

Title I, part of the federal education law, provides extra resources for schools serving low-income students. Title I funds can support teachers, afterschool programs, supplies, family resources and learning opportunities, and schools that receive these funds must have a plan for engaging parents and guardians.

If your child attends a Title I school, here's what you can expect:

- At least one meeting a year for parents and family members to be informed about Title I, your rights, school performance, student progress data, and ways the school will engage you
- Training opportunities on Title I requirements and tips on implementation throughout the school year
- Learning sessions for parents, family members, and educators as equal partners to support achievement
- Links to early learning resources and ways to collaborate with community partners
- School support to implement engagement activities (e.g., training for staff, online resources, capacity building for parents and guardians)
- Workshops and links to resources for parents to support learning at home

For more information, please contact your principal who will connect you to the amily and community engagement liaison at your school. The liaison serves as the link between the school, families, and community for Title I parent and family engagement. City schools also provides enhanced services and supports to schools serving Title I parents and families:

- coaching and guidance to principals, schoolbased staff, and teachers around best practices for family engagement and strengthening school-community partnerships
- Resources, training and professional development for parents, teachers, staff and volunteers
- District-wide learning opportunities for parents and families

Professional qualifications of educators at Title I schools

Students at Title I schools are expected to receive instruction in core academic subjects (including reading and language arts, mathematics, science, social studies, and the arts) from highly qualified teachers. City schools is working hard to ensure that all teachers in all schools meet state and federal "highly qualified" standards. City Schools is committed to ensuring that teachers and paraprofessionals are highly skilled, and the district monitors teachers' qualifications, certifications, and ongoing professional development.

All parents and family members have the legal right to request information regarding the professional qualifications of the teachers and paraprofessionals who work with their children, including

- Whether a teacher has met state qualifications and licensing requirements for the grade levels and subject areas being taught
- Whether a teacher is teaching under a waiver as an emergency, temporary, or provisional teacher
- A teacher's undergraduate degree major and other education and certification background information
- A paraprofessional's qualifications

VOLUNTEER

Whether you're a professional looking to share your time or talent, a community member wanting to give back, or a parent looking to support your child's school, you're welcome in City Schools! To explore volunteer options, contact a specific school directly or call the district's engagement department at 410-545-1870.

CONNECT WITH THE DISTRICT OFFICE

If you have a concern that can't be resolved at your school or have questions about district policies or practices, please call or visit (200 E. North Avenue, Baltimore 21202) between 8:00 a.m. and 5:00 p.m., Monday to Friday. Frequently called numbers are on the inside front cover of this booklet, or you can call 443-984-2000 and follow the prompts to connect with the right department.

Throughout the year, you will receive phone calls, text messages, or emails from the district with important updates about things like school year calendar changes, snow days, or special events. Please keep your contact information updated at your school, so you won't miss out on messages from either your school or the district.

BOARD OF SCHOOL COMMISSIONERS

The Baltimore City Board of School Commissioners oversees the work of the district, to ensure that it is providing excellence in education for every student at every level.

Members of the public are welcome to attend the Board's public meetings, typically held on the second and fourth Tuesday of each month during the school year and once a month during holiday and summer months at the district's main office (200 E. North Avenue, Baltimore 21202). The public session begins at 5:00 p.m., and each meeting includes time for comments from the public (starting after 6:00 p.m.). The sign-up sheet for the ten public seats to speak at a Board meeting is available in the lobby from 4:45 to 5:45 the day of the Board meeting on a first come, first served basis. Find the Board's meeting schedule and information about public comment on the district's website (www.baltimorecityschools. org/board-school-commissioners).



Meetings of the Board's Operations, Policy, and Teaching and Learning committees are also open to the public, and the Board holds work sessions, forums, and other special public events throughout the year. All public meetings held at the district office are also broadcast live on Education Channel 77 (Comcast in Baltimore City) and online through a link on the district website.

PARENT AND COMMUNITY ADVISORY BOARD

PCAB advises City Schools' CEO and the Board of School Commissioners about how parents, families, the community, and educators can collaborate to help students succeed. Public meetings are held throughout the school year, usually on Thursday, at 200 E. North Avenue. All meetings begin at 6:30 p.m.

For questions, updates, or requests for a private meeting with PCAB members, email PCAB@bcps. k12.md.us or call 443-642-4219. For the most up-todate information about meetings and events, follow PCAB on Facebook at @BCPSPCAB.

BALTIMORE CITY SPECIAL EDUCATION CITIZENS' ADVISORY COMMITTEE

BC- SECAC facilitates collaboration among the Board of School Commissioners, district office staff, and other stakeholders to support positive change in delivery of special education services for students with disabilities. BC-SECAC also supports the Narrowing the Achievement Gap initiative to ensure students who have disabilities receive access to the general education curriculum and high quality instruction and services. Meetings are held from 6:00 p.m. to 8:00 p.m. on the second Monday of each month, usually at 200 E. North Avenue. The BC-SECAC office can be reached at 443-642-4502.

Services

TRANSPORTATION

Elementary students who live more than 1 mile from their neighborhood school receive yellow bus service. Middle and high school students who live more than 1.5 miles from their school receive an MTA pass. Students may also be eligible for transportation if they are homeless, have an Individualized Education Program (IEP), or have other special circumstances.



To find out if your child qualifies for transportation, contact your school and ask to speak with the transportation coordinator. You can get more information about transportation at the district's website (www.baltimorecityschools.org/ transportation) or by calling 410-396-7440.

SCHOOL MEALS

Every student can eat breakfast and lunch for free, every school day. Schools with eligible after-school programs also offer free snacks and supper. See what's on the menu and rate your meal at your school through the City Schools App or visiting www.baltimorecityschools.org/menus.

HEATH SERVICES

Immunizations. All City Schools students must have records of up-to-date immunizations to be enrolled in school. Ask at your school about schoolbased health clinics or other locations where children can receive any missing immunizations.

Vision, hearing, and dental care. Students receive vision and hearing screenings when they enroll in City Schools, and in grades 1 and 8. Teachers or other school staff may also refer a student for screening. Through the special Vision for Baltimore program, many students in pre-k to 8th grade can receive additional eye care and, if needed, glasses. Ask your principal if your school is participating this year.

Dental services available in schools include examinations, cleanings, dental x-rays, sealants (when appropriate), and restoration services such as filling cavities. For your child to receive services, complete and return the dental permission form in the back-to-school packet. (Contact a school nurse or other staff member if you need another copy.)

Maryland Crisis Hotline. Students and families can call 1-800-422-0009 24 hours a day for help with drug and alcohol abuse, physical and sexual abuse, depression, loneliness, relationship difficulties, and other issues.

RESOLVING CONCERNS

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For concerns about academic work, homework, grades, or classroom environment, speak with your child's teacher. If your concern is not resolved after talking with the teacher, contact your school's principal.

For concerns about school climate and safety, facilities, school budget, or staff members, contact the principal. If your concern is not resolved at the school, contact the CEO Ombudsman.

The CEO Ombudsman responds to questions and mediates resolutions for concerns or complaints from

parents, guardians, and the public that have not been addressed or resolved at the school level or by the responsible district department. Ombudsman services can be accessed by calling 443-984-2020.

Bullying. City Schools is committed to providing all students with a safe and supportive school environment, free from bullying and harassment. The district takes all incidents of bullying and harassment seriously. Students and families can and should report bullying or harassment incidents by talking to school administrators and by filling out and submitting a bullying report. The form can be found online at **www.baltimorecityschools.org/ bullying**, in the Code of Conduct in the back-to school packet, and at schools.

COMMUNITY SCHOOLS

Local communities all have strengths to contribute to the success of the city's young people. Community schools seek out those assets and bring together partners and resources to promote student achievement, positive conditions for learning, and family and community well-being.

Our community school strategy integrates academics with health services, youth development, expanded learning opportunities, and family and community supports to give students what they need to learn in an inclusive, equitable way. As a result, the community schools can effectively promote children's success, particularly for those who live in neighborhoods of concentrated poverty.

HOMELESS SERVICES

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If you or your child is homeless, City Schools can provide support such as free transportation to and from school, school supplies, and uniforms. To learn about available resources or to request assistance, please contact the homeless liaison at your child's current school, your child's original school, or the closest school to you. You can also call homeless services at 443-642-2424 (direct line) or 410-396-0775 (office).

Policies and Practices



ATTENDANCE

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Attendance is taken once a day in elementary and elementary/middle schools and in every class in middle and high schools. If your child is absent, you should expect to receive an automated phone call at the end of the day letting you know that your child was not in school that day.

If your child is absent, please send a note within five days of his or her return to school explaining the reason. In cases of chronic illness or problems with transportation due to homelessness or other concerns, your school can work with you to find a solution or resources to make sure your child won't miss important teaching and learning.

Absences are considered "excused" for these reasons:

- Student illness (a doctor's note is needed after three days in a row)
- Death in the immediate family
- Court summons (with the child's name on the summons)
- Religious holiday
- Official school closing (a "snow day," for example)
- Work or other activity sponsored and approved by the school
- Suspension
- Lack of authorized, district-provided transportation

EMERGENCY PREPAREDNESS

All schools and the district office have plans to keep students and staff members safe in an emergency. The districtwide plan is reviewed and updated on an ongoing basis. Emergency teams at each school review and update their school emergency safety plans, which are then reviewed and approved by the district's Environmental Health and Safety department. Schools are required to practice fire drills and other drills throughout the year, so that staff and students (including students with disabilities) are prepared to respond depending on the situation.

- Other emergency as determined by City Schools' CEO or designee
- Pregnancy and/or parenting needs
- Deployment visitation with active-duty parents or guardians

Absences for any other reason are unexcused or "unlawful." School staff will follow up with you about unexcused absences, as well as very frequent absences or lateness. The district will provide resources to help improve attendance but if the issue is not resolved, the matter may be referred to the Office of the State's Attorney for Baltimore City. Parents and guardians should note that any person with legal custody or care and control of a child between the ages of 5 and 18 is responsible for making sure that child goes to school or receives instruction. Not doing so is a misdemeanor that may result in a fine or imprisonment or both.

Whenever possible, parents and guardians should schedule children's medical and other appointments outside of school hours. When a late arrival or early dismissal can't be avoided, a written note should be sent in with the child that school day. For early dismissals, a phone number must be provided where the parent or guardian can be reached to confirm details of the dismissal. Please note that a child in pre-k to grade 5 must be picked up by a parent, guardian, or emergency contact.

In the event of an emergency, City Schools will communicate with parents through all appropriate channels, depending on the situation. These channels can include phone calls, text messages, website and social media updates, or announcements from local TV or radio stations. Please make sure your school has up-to-date contact information for you at all times, including emergency contact numbers, so you can be reached in an emergency.

Additional things to keep in mind:

- Talk to your child about emergency preparations, and make sure he or she knows that there are plans in place at your school to ensure all students' safety.
- If you learn that there is an emergency situation, please do not go immediately to your school to pick up your child. In many cases, students are safest inside the building, or the building may be locked. Also, please do not call the school, because staff may need to keep phone lines open. Instead, wait to hear from City Schools about the situation

and what you should do.

- If you are asked to come to pick up your child, either at the school or a different location, please follow instructions about pick-up locations, parking, etc., closely. Remember to bring a photo ID with you, since children will be released only to adults authorized to pick them up.
- In situations involving the police, communications may come from the Baltimore Police Department and be sent according to that agency's policies and procedures.

PEST MANAGEMENT

City Schools facilities are monitored at least once a month to determine the need for pest control and to properly identify any pest problem; grounds are monitored on a regular basis by staff during routine maintenance. If it is determined that pest control is necessary, the first methods used are alternatives to chemical (pesticide or herbicide) applications.

When chemicals are used, the least toxic effective chemical is applied. Applications are made in places and at times that limit the chance for human exposure. No chemical application is made without identifying and meeting a threshold for the pest problem, and after exhausting nonchemical means of pest management.

If a chemical application is found to be necessary, City Schools will notify parents or guardians and staff in the affected facilities 24 hours prior to treatment. (For exterior uses of a chemical—that is, out of doors and not within a school building—Maryland state regulations allow a postponement of application not longer than 14 days after notice is sent to parents/ guardians due to weather or other extenuating circumstances. If application must be postponed more than 14 days, written notice must be reissued, informing families of the new date of application.) Safety Data Sheets for each chemical or bait used on City Schools property are maintained at the district office. Integrated Pest Management notebooks are available for review on request through the main office of each school.

Below are pesticides and herbicides likely to be applied in City Schools buildings or on school grounds following determination of need, exhausting nonchemical options, and notification as described above. (Note that unanticipated pest problems may arise during the school year that could require the use of a pesticide or herbicide not listed.)

Trade Name	Common Name
Maki Mini Blocks	Bromadiolone (7173-202)
Maki Pellet Packs	Bromadiolone (7173-188)
Drax Ant Gel	Boric acid (9444-131)
Maxforce	Hydramethylnon (432-1259)
CB-80	Pyrethrin (444-096)
Lesco Prosecutor Pro	Isoproylamine Salt (524-536-10404)
Monsanto Roundup Pro	Isoproylamine Salt (524-475)
Indoxacarb	Arilon EPA (352-776)
D-trans Allenthrin	Wasp-Freeze (499-362)
2-phenethyl propionate	EcoPco AR-X (67452-15-655)

If you have questions about pest management, contact City Schools at 200 E. North Avenue, Room 407A, Baltimore, MD 21202 or call 443-224-0434.

ASBESTOS MANAGEMENT PLANS

Under the Asbestos Hazard Emergency Response Act of 1986, comprehensive regulations were developed to address asbestos issues in schools. These regulations require schools to inspect for friable and non-friable asbestos, develop asbestos management plans that address asbestos hazards in school buildings, and respond in a timely manner.

City Schools' program for fulfilling these responsibilities is outlined in the asbestos management plan of select school buildings. These plans, located in each school's administrative office, contain the inspection reports and the appropriate response actions, along with plans for periodic reinspection and post-response activities.

The new 21-century schools buildings are not required to be inspected because they have an asbestos exclusionary letter signed by the architect.

A copy of each plan is also located at the City Schools district office and is available for public review during regular business hours. The plans may not be taken from the building. For additional information, contact City Schools at 200 E. North Avenue, Room 407A, Baltimore, MD 21202.

WATER QUALITY

Ensuring the well-being of students and staff members means providing safe, clean water. State law requires that tests for the presence of lead in all drinking water outlets must be done in schools where the drinking water and cafeteria water are served by public water.

In some of our schools, inside plumbing or outside pipes that bring water into the building are old and may contain lead that can transfer into the water flowing through them. As a result, in most buildings, bottled water is used for drinking and cooking. As part of our work to improve buildings, we have installed state-of-the-art water filtration systems in some schools and upgraded plumbing in new buildings or those undergoing extensive renovation. In the 2018-19 school year, 14 schools have working water fountains and kitchen water supplies (though some areas — for example, in science labs — may still have water that is indicated as not suitable for drinking). These schools no longer receive bottled water for drinking or cooking. A further 5 schools use a combination of tap and bottled water, primarily with filtration systems installed at water fountains and bottled water used in kitchens.



STUDENT PRIVACY

Notification of Rights under the Family Educational Rights and Privacy Act. FERPA affords parents, guardians, and students who are 18 years of age or older ("eligible students") certain rights with respect to the student's education records:

- The right to inspect and review the student's education records within 45 days of the day the school receives a request for access. Parents, guardians, or the eligible student should submit to the school principal a written request that identifies the record(s) they wish to inspect. The school principal will make arrangements for access and notify the parents, guardians, or eligible student of the time and place the records may be inspected.
- The right to request the amendment of the student's education records that the parents, guardians, or eligible student believes are inaccurate, misleading, or otherwise in violation of the student's privacy rights under FERPA. They should write the school principal, clearly identify the part of the record they want changed, and specify why it should be changed. If the school decides not to amend the record as requested by the parents, guardians, or eligible student, the school will notify the parents, guardians, or eligible student of the decision and advise them of their right to a hearing regarding the request for amendment. Additional information regarding the hearing procedures will be provided to the parents, guardians, or eligible student when they are notified of the right to a hearing.
- The right to provide written consent before the school discloses personally identifiable information contained in the student's education records, except to the extent FERPA authorizes disclosure without consent. One exception that permits disclosure without consent is disclosure to school officials with legitimate educational interests. A school official is a person employed by the school district as an administrator, supervisor, instructor, or support staff member (including health or medical staff and law enforcement unit personnel) or a person serving on the Baltimore City Board of School Commissioners. A school official also may include a volunteer or contractor

outside of the school who performs an institutional service or function for which City Schools would otherwise use its own employees and who is under the direct control of City Schools with respect to the use and maintenance of personally identifiable information from education records (such as an attorney, auditor, medical consultant, nurse, or therapist); or a parent or student volunteering to serve on an official committee, such as a disciplinary or grievance committee; or a parent, student, or other volunteer assisting another school official in performing his or her tasks. A school official has a legitimate educational interest if the official needs to review an education record in order to fulfill his or her professional responsibility. Upon written request, City Schools discloses education records without consent to officials of another school district in which a student seeks or intends to enroll or is already enrolled if the disclosure is for purposes of the student's enrollment or transfer.

• The right to file a complaint with the U.S. Department of Education concerning alleged failures by City Schools to comply with the requirements of FERPA. The name and address of the office that administers FERPA are Family Policy Compliance Office, U.S. Department of Education, 400 Maryland Ave. SW, Washington, DC 20202.

Notification of Rights under the Protection of Pupil Rights Amendment. The Protection of Pupil Rights Amendment affords parents certain rights regarding City Schools' conduct of surveys, collection and use of information for marketing purposes, and certain physical exams. These include the right to

- Consent before students are required to submit to a survey that concerns one or more of the following protected areas ("protected information survey") if the survey is funded in whole or in part by a program of the U.S. Department of Education
 - **1.** Political affiliations or beliefs of the student or student's parent
 - **2.** Mental or psychological problems of the student or student's family
 - 3. Sexual behavior or attitudes
 - **4.** Illegal, anti-social, self-incriminating, or demeaning behavior
- **5.** Critical appraisals of others with whom respondents have close family relationships
- **6.** Legally recognized privileged relationships, such as with lawyers, doctors, or ministers
- **7.** Religious practices, affiliations, or beliefs of the student or parents, or
- **8.** Income, other than as required by law to determine program eligibility
- Receive notice and opportunity to opt a student out of
 - **1.** Any other protected information survey, regardless of funding
 - 2. Any nonemergency, invasive physical exam or screening required as a condition of attendance, administered by the school or its agent, and not necessary to protect the immediate health and safety of a student, except for hearing, vision, or scoliosis screenings or any physical exam or screening permitted or required under state law, and
 - **3.** Activities involving collection, disclosure, or use of personal information obtained from students for marketing or to sell or otherwise distribute the information to others. (This does not apply to the collection, disclosure, or use of personal information collected from students for the exclusive purposes of developing, evaluating, or providing educational products or services for, or to, students or educational institutions.)
- Inspect, upon request and before administration or use
 - **1.** Protected information surveys of students and surveys created by a third party.
 - **2.** Instruments used to collect personal information from students for any of the preceding marketing, sales, or other distribution purposes, and
 - **3.** Instructional materials used as part of the educational curriculum

These rights transfer from the parents to a student who is 18 years old or an emancipated minor.

City Schools will develop and adopt policies, in consultation with parents, regarding these rights, as well as arrangements to protect student privacy in the administration of protected information surveys and the collection, disclosure, or use of personal information for marketing, sales, or other distribution purposes.

City Schools will directly notify parents of these policies at least annually at the start of each school year and after any substantive changes. City Schools will also directly notify, such as through U.S. mail or e-mail, parents of students who are scheduled to participate in the specific activities or surveys noted below and will provide an opportunity for the parent to opt his or her child out of participation in the specific activity or survey. City Schools will make this notification to parents at the beginning of the school year if it has identified the specific or approximate dates of the activities or surveys at that time. For surveys and activities scheduled after the school year starts, parents will be provided reasonable notification of the planned activities and surveys listed below, and be provided an opportunity to opt their child out of such activities and surveys. Parents will also be provided an opportunity to review any pertinent surveys. Following is a list of the specific activities and surveys covered under this requirement:

- Collection, disclosure, or use of personal information collected from students for marketing, sales, or other distribution
- Administration of any protected information survey not funded in whole or in part by the U.S. Department of Education
- Any nonemergency, invasive physical examination or screening as described above

Parents who believe their rights have been violated may file a complaint with the Family Policy Compliance Office, U.S. Department of Education, 400 Maryland Ave. SW, Washington, DC, 20202.

2019-20 School and Program Directory

Italic names indicate charter schools.

NO.	SCHOOL/PROGRAM	STREET ADDRESS	ZIP	PHONE
50	Abbottston Elementary School	1300 Gorsuch Avenue	21218	443-984-2685
427	Academy for College and Career Exploration	1300 W. 36th Street	21211	410-396-7607
413	Achievement Academy	2201 Pinewood Avenue	21214	410-396-6241
337	Afya Public Charter School	2800 Brendan Avenue	21213	410-485-2102
145	Alexander Hamilton Elementary School	800 Poplar Grove Street	21216	410-396-0520
234	Arlington Elementary School	3705 W. Rogers Ave.	21215	410-396-0567
243	Armistead Gardens Elementary/Middle School	5001 E. Eager Street	21205	410-396-9090
164	Arundel Elementary School	2400 Round Road	21225	410-396-1379
430	Augusta Fells Savage Institute of Visual Arts	1500 Harlem Avenue	21217	410-396-7701
480	Baltimore City College	3220 The Alameda	21218	410-396-6557
375	Baltimore Collegiate School for Boys	2500 E. Northern Parkway	21214	443-642-5320
382	Baltimore Design School	1500 Barclay Street	21202	443-642-2311
335	Baltimore International Academy	4410 Frankford Avenue	21206	410-426-3650
385	Baltimore International Academy West	4300 Sidehill Road	21229	443-275-9417
348	Baltimore Leadership School for Young Women	128 W. Franklin Street	21201	443-642-2048
336	Baltimore Montessori Public Charter School	1600 Guilford Avenue	21202	410-528-5393
403	Baltimore Polytechnic Institute	1400 W. Cold Spring Lane	21209	410-396-7026
415	Baltimore School for the Arts	712 Cathedral Street	21201	443-642-5165
54	Barclay Elementary/Middle School	2900 Barclay Street	21218	410-396-6387
362	Bard High School Early College Baltimore	2801 N. Dukeland Street	21216	443-642-5040

NO.	SCHOOL/PROGRAM	STREET ADDRESS	ZIP	PHONE
124	Bay-Brook Elementary/Middle School	Temporary location until January 2020*: 2501 Seabury Road Permanent location as of January 2020*: 4301 10th Street	21225	410-396-1357
246	Beechfield Elementary/Middle School	301 S. Beechfield Avenue	21229	410-396-0525
231	The Belair-Edison Community School	3536 Brehms Lane	21213	410-396-9150
217	Belmont Elementary School	1406 N. Ellamont Street	21216	410-396-0579
239	Benjamin Franklin High School at Masonville Cove	1201 Cambria Street	21225	410-396-1373
364	Bluford Drew Jemison STEM Academy West	1500 Harlem Avenue	21217	443-642-2110
130	Booker T. Washington Middle School	1301 McCulloh Street	21217	410-396-7734
251	Callaway Elementary School	3701 Fernhill Avenue	21215	410-396-0604
75	Calverton Elementary/Middle School	201 North Bend Road (temporary location until 2021–22*)	21229	410-396-0581
256	Calvin M. Rodwell Elementary/Middle School	Temporary location until January 2020*: 5545 Kennison Avenue Permanent location as of January 2020*: 3501 Hillsdale Road	21215 21207	410-396-0940
854	Career Academy	101 W. 24th Street	21218	410-396-7454
454	Carver Vocational-Technical High School	2201 Presstman Street	21216	410-396-0553
7	Cecil Elementary School	2000 Cecil Avenue	21218	410-396-6385
34	Charles Carroll Barrister Elementary School	1327 Washington Boulevard	21230	410-396-5973
326	City Neighbors Charter School	4301 Raspe Avenue	21206	410-325-2627
346	City Neighbors Hamilton	5609 Sefton Avenue	21214	443-642-2052
376	City Neighbors High School	5609 Sefton Avenue	21214	443-642-2119
8	City Springs Elementary/Middle School	100 S. Caroline Street	21231	410-396-9165
307	Claremont School	5301 Erdman Avenue	21205	410-545-3380
97	Collington Square Elementary/Middle School	1409 N. Collington Avenue	21213	410-396-9198
27	Commodore John Rodgers Elementary/ Middle School	100 N. Chester Street	21231	410-396-9300
325	ConneXions: A Community Based Arts School	2801 N. Dukeland Street	21216	443-984-1418

NO.	SCHOOL/PROGRAM	STREET ADDRESS	ZIP	PHONE
432	Coppin Academy	2500 W. North Avenue	21216	443-642-5060
384	Creative City Public Charter School	2810 Shirley Avenue	21215	443-642-3600
247	Cross Country Elementary/Middle School	6900 Park Heights Avenue (temporary location until September 2021*)	21215	410-396-0602
323	The Crossroads School	802 S. Caroline Street	21231	410-276-4924
207	Curtis Bay Elementary/Middle School	4301 West Bay Avenue	21225	410-396-1397
39	Dallas F. Nicholas, Sr., Elementary School	201 E. 21st Street	21218	410-396-4525
201	Dickey Hill Elementary/Middle School	5025 Dickey Hill Road	21207	410-396-0610
416	Digital Harbor High School	1100 Covington Street	21230	443-984-1256
61	Dorothy I. Height Elementary School	2011 Linden Avenue	21217	410-396-0837
250	Dr. Bernard Harris, Sr., Elementary School	1400 N. Caroline Street	21213	410-396-1452
254	Dr. Martin Luther King, Jr., Elementary/Middle School	3750 Greenspring Avenue	21211	410-396-0756
58	Dr. Nathan A. Pitts-Ashburton Elementary/Middle School	3935 Hilton Road	21215	410-396-0636
884	Eager Street Academy	926 Greenmount Avenue	21202	410-234-1815
62	Edgecombe Circle Elementary School	2835 Virginia Avenue	21215	410-396-0550
67	Edgewood Elementary School	1900 Edgewood Street	21216	410-396-0532
400	Edmondson-Westside High School	501 N. Athol Avenue	21229	410-396-0685
734	Elementary/Middle Alternative Program	1101 N. Wolfe Street	21213	410-396-1720
368	Elmer A. Henderson: A Johns Hopkins Partnership School	2100 Ashland Avenue	21205	443-642-2060
262	Empowerment Academy	851 Braddish Avenue	21216	443-984-2381
11	Eutaw-Marshburn Elementary School	1624 Eutaw Place	21217	410-396-0779
178	Excel Academy	1001 W. Saratoga Street	21223	410-396-1290
241	Fallstaff Elementary/Middle School	3801 Fallstaff Road	21215	410-396-0682
45	Federal Hill Preparatory Academy	1040 William Street	21230	410-396-1207
406	Forest Park High School	3701 Eldorado Avenue	21207	410-396-0753
85	Fort Worthington Elementary/Middle School	2710 E. Hoffman Street	21213	410-396-9161

NO.	SCHOOL/PROGRAM	STREET ADDRESS	ZIP	PHONE
76	Francis Scott Key Elementary/Middle School	1425 E. Fort Avenue	21230	410-396-1503
95	Franklin Square Elementary/Middle School	1400 W. Lexington Street	21223	410-396-0795
450	Frederick Douglass High School	2301 Gwynns Falls Parkway	21217	410-396-7821
260	Frederick Elementary School	2501 Frederick Avenue	21223	410-396-0830
206	Furley Elementary School	5001 Sinclair Lane (temporary location)	21206	410-396-9094
125	Furman Templeton Preparatory Academy	1200 Pennsylvania Avenue	21217	410-396-0882
211	Gardenville Elementary School	5300 Belair Road	21206	410-396-6382
212	Garrett Heights Elementary/Middle School	2800 Ailsa Avenue	21214	410-396-6361
177	George W.F. McMechen High School	4411 Garrison Boulevard	21215	410-396-0980
22	George Washington Elementary School	800 Scott Street	21230	410-396-1445
235	Glenmount Elementary/Middle School	6211 Walther Avenue	21206	410-396-6366
213	Govans Elementary School	900 Woodbourne Avenue (temporary location until January 2021*)	21212	410-396-6396
240	Graceland Park/O'Donnell Heights Elementary/ Middle School	6300 O'Donnell Street	21224	410-396-9083
332	The Green School of Baltimore	2851 Kentucky Avenue	21213	410-488-5312
377	Green Street Academy	125 N. Hilton Street	21229	443-642-2068
214	Guilford Elementary/Middle School	4520 York Road	21212	410-396-6358
60	Gwynns Falls Elementary School	2700 Gwynns Falls Parkway	21216	410-396-0638
236	Hamilton Elementary/Middle School	6101 Old Harford Road	21214	410-396-6375
55	Hampden Elementary/Middle School	3608 Chestnut Avenue	21211	410-396-6004
47	Hampstead Hill Academy	500 S. Linwood Avenue	21224	410-396-9146
37	Harford Heights Elementary School	2050 N. Wolfe Street (temporary location until September 2021*)	21213	410-396-9341
35	Harlem Park Elementary/Middle School	1401 W. Lafayette Avenue	21217	410-396-0633
210	Hazelwood Elementary/Middle School	4517 Hazelwood Avenue	21206	410-396-9098
215	Highlandtown Elementary/Middle School #215	3223 E. Pratt Street	21224	410-396-9381
237	Highlandtown Elementary/Middle School #237	231 S. Eaton Street	21224	443-642-2792

NO.	SCHOOL/PROGRAM	STREET ADDRESS	ZIP	PHONE
21	Hilton Elementary School	3301 Carlisle Avenue	21216	410-396-0634
159	The Historic Cherry Hill Elementary/Middle School	801 Bridgeview Road	21225	410-396-1392
122	The Historic Samuel Coleridge-Taylor Elementary School	507 W. Preston Street	21201	410-396-0783
229	Holabird Elementary/Middle School	1500 Imla Street	21224	410-396-9086
303	Home and Hospital Program	2000 Edgewood Street	21216	410-396-0775
333	Independence School Local I	1300 W. 36th Street	21211	443-642-2504
10	James McHenry Elementary/Middle School	31 S. Schroeder Street	21223	410-396-1621
144	James Mosher Elementary School	3910 Barrington Road (temporary location until September 2021*)	21207	410-396-0506
228	John Ruhrah Elementary/Middle School	Temporary location until January 2020*: 6820 Fait Avenue Permanent location as of January 2020*: 701 Rappolla Street	21224	410-396-9125
16	Johnston Square Elementary School	1101 Valley Street	21202	410-396-1477
345	Joseph C. Briscoe Academy	900 Druid Hill Avenue	21201	410-396-0774
347	KIPP Harmony Academy	2000 Edgewood Street	21216	443-642-2027
12	Lakeland Elementary/Middle School	2921 Stranden Road	21230	410-396-1406
86	Lakewood Elementary School	2625 Federal Street	21213	410-396-9158
245	Leith Walk Elementary/Middle School	1235 Sherwood Avenue	21239	410-396-6380
64	Liberty Elementary School	3901 Maine Avenue	21207	410-396-0571
371	Lillie May Carroll Jackson School	2200 Sinclair Lane	21213	443-320-9499
261	Lockerman Bundy Elementary School	301 N. Pulaski Street	21223	410-396-1364
313	Lois T. Murray Elementary/Middle School	1600 Arlington Avenue	21239	410-396-7463
203	Maree G. Farring Elementary/Middle School	300 Pontiac Avenue	21225	410-396-1404
53	Margaret Brent Elementary/Middle School	100 E. 26th Street	21218	410-396-6509
150	Mary Ann Winterling Elementary School	220 N. Bentalou Street	21223	410-396-1385
204	Mary E. Rodman Elementary School	201 North Bend Road (temporary location until September 2020*)	21229	410-396-0508
29	Matthew A. Henson Elementary School	1600 N. Payson Street	21217	410-396-0776

NO.	SCHOOL/PROGRAM	STREET ADDRESS	ZIP	PHONE
249	Medfield Heights Elementary School	900 Woodbourne Avenue (temporary location until January 2021*)	21212	410-396-6460
410	Mergenthaler Vocational-Technical High School	3500 Hillen Road	21218	410-396-6496
321	Midtown Academy	1398 W. Mount Royal Avenue	21217	410-225-3257
44	Montebello Elementary/Middle School	2040 E. 32nd Street	21218	410-396-6576
105	Moravia Park Elementary School	6201 Frankford Avenue	21206	410-396-9096
220	Morrell Park Elementary/Middle School	2601 Tolley Street	21230	410-396-3426
66	Mount Royal Elementary/Middle School	121 McMechen Street	21217	410-396-0864
221	The Mount Washington School	1801 Sulgrave Avenue	21209	410-396-6354
349	NACA Freedom and Democracy Academy II	2500 E. Northern Parkway	21214	443-642-2031
421	National Academy Foundation	540 N. Caroline Street	21205	443-984-1594
422	New Era Academy	2700 Seamon Avenue	21225	443-984-2415
322	New Song Academy	1530 Presstman Street	21217	410-728-2091
81	North Bend Elementary/Middle School	181 North Bend Road	21229	410-396-0376
242	Northwood Elementary School	5201 Loch Raven Boulevard	21239	410-396-6377
405	Patterson High School	100 Kane Street	21224	410-396-9276
327	Patterson Park Public Charter School	27 N. Lakewood Avenue	21224	410-558-1230
414	Paul Laurence Dunbar High School	1400 Orleans Street	21231	443-642-4478
223	Pimlico Elementary/Middle School	4849 Pimlico Road	21215	410-396-0876
341	The Reach! Partnership School	2555 Harford Road	21218	443-642-2291
419	Reginald F. Lewis High School	6401 Pioneer Drive	21214	410-545-1746
433	Renaissance Academy	1301 McCulloh Street	21217	443-984-3164
142	Robert W. Coleman Elementary School	1807 Harlem Avenue (temporary location until September 2021*)	21217	410-396-0764
233	Roland Park Elementary/Middle School	5207 Roland Avenue	21210	410-396-6420
63	Rosemont Elementary/Middle School	2777 Presstman Street	21216	410-396-0574
28	Sandtown-Winchester Achievement Academy	701 Gold Street	21217	410-396-0800

NO.	SCHOOL/PROGRAM	STREET ADDRESS	ZIP	PHONE
73	Sarah M. Roach Elementary School	3434 Old Frederick Road	21229	410-396-0511
314	Sharp-Leadenhall Elementary School	150 W. West Street	21230	410-396-4325
248	Sinclair Lane Elementary School	3880 Sinclair Lane	21213	410-396-9117
328	Southwest Baltimore Charter School	1300 Herkimer Street	21223	443-984-3385
15	Stadium School	1400 Exeter Hall Avenue	21218	443-984-2682
4	Steuart Hill Academic Academy	30 S. Gilmor Street	21223	410-396-1387
855	Success Academy	2201 Pinewood Avenue	21214	443-642-2101
13	Tench Tilghman Elementary/Middle School	600 N. Patterson Park Avenue	21205	410-396-9247
232	Thomas Jefferson Elementary/Middle School	605 Dryden Drive	21229	410-396-0534
84	Thomas Johnson Elementary/Middle School	100 E. Heath Street	21230	410-396-1575
373	Tunbridge Public Charter School	5504 York Road	21212	410-323-8692
374	Vanguard Collegiate Middle School	5000 Truesdale Avenue (temporary location)	21206	443-642-2069
226	Violetville Elementary/Middle School	1207 Pine Heights Avenue	21229	410-396-1416
429	Vivien T. Thomas Medical Arts Academy	100 N. Calhoun Street	21223	443-984-2831
134	Walter P. Carter Elementary/Middle School	1101 Winston Avenue (temporary location until January 2021*)	21212	410-396-6271
51	Waverly Elementary/Middle School	3400 Ellerslie Avenue	21218	410-396-6394
407	Western High School	4600 Falls Road	21209	410-396-7040
225	Westport Academy	2401 Nevada Street	21230	410-396-3396
88	Wildwood Elementary/Middle School	621 Wildwood Parkway	21229	410-396-0503
83	William Paca Elementary School	200 N. Lakewood Avenue	21224	410-396-9148
301	William S. Baer School	2001 N. Warwick Avenue	21216	410-396-0833
87	Windsor Hills Elementary/Middle School	4001 Alto Road	21216	410-396-0595
23	Wolfe Street Academy	245 S. Wolfe Street	21231	410-396-9140
205	Woodhome Elementary/Middle School	7300 Moyer Avenue	21234	410-396-6398
219	Yorkwood Elementary School	5931 Yorkwood Road	21239	410-396-6364
858	Youth Opportunity	1510 W. Lafayette Avenue	21217	410-962-1905

*Dates for return from temporary locations are based on current construction schedules but are subject to change.

NOTICE OF NONDISCRIMINATION

Baltimore City Public Schools does not discriminate on the basis of race, color, ancestry or national origin, religion, sex, sexual orientation, gender identity, gender expression, marital status, disability, veteran status, genetic information, or age in its programs and activities and provides equal access to the Boy Scouts of America and other designated youth groups.

For inquiries regarding the nondiscrimination policies, please contact

Equal Opportunity Manager, Title IX Coordinator Equal Employment Opportunity and Title IX Compliance 200 E. North Avenue Room 208 Baltimore, MD 21202 Phone 410-396-8542 Fax 410-396-2955

OR

Coordinator – Section 504 Special Education and Student Supports 200 E. North Avenue Room 210 Baltimore, MD 21202 Phone 443-462-4247 Email 504support@bcps.k12.md.us

If you believe you have been treated differently because of your race or color, national origin or ethnicity, religion of creed, sex or gender, age, physical or mental disability, genetic information, marital status, sexual orientation, or gender identify or expression, you have the right to file a complaint with the Equal Employment Opportunity department.

You must file a complaint within 90 days of the most recent act(s) of discrimination or harassment.

Linda Chinnia Chair, Baltimore City Board of School Commissioners

Sonja Brookins Santelises, Ed.D. CEO, Baltimore City Public Schools

200 E. North Avenue Baltimore, MD 21202 www.baltimorecityschools.org 443-984-2000

BALTIMORE CITY public schools

Integrated Pest Management Program

General School Information

- School Name: Baltimore City Public Schools (City Schools)
- Central Office Headquarters: 200 E. North Avenue, Baltimore, MD 21202
- Number of Sites: Approx 200 schools and administrative buildings
- Program Administrator: Alice A. Watson, Director, Department of Health and Safety, 410-396-8679 <u>AdWatson@hens.kl2.md.us</u>
- Date Amended September 0911
- IPM Coordinator: Latanya Carter, 1301 Fillmore Street, Baltimore, MD 21218, <u>LTCarter@bcps.kl2.md.us</u> or 443-642-2106.

Integrated Pest Management Program Statement

Structural pests, i.e. insects and rodents, carry diseases, contaminate food and food preparation areas and can cause structural damage thus posing significant problems to people, property, and the environment. Landscape pests, i.e. insects, weeds and diseases, can pose significant problems to students, staff and users of school properties. Pesticides can also pose risks through unnecessary exposures to people, property, and the environment. Pest control in the school environment must protect the health and safety of the children and staff, minimize pest damage to structures, personal property, improve the quality of the educational environment by avoiding annoyance and disruption of work and learning caused by insects, rodents and other pests. It is therefore the policy of the City Schools to adopt Integrated Pest Management (IPM) for control of pests in school buildings and on school grounds.

Roles and Responsibilities

The IPM program will require the assistance and cooperation of the administration, staff and students. City Schools has established a Coordinator to serve as a liaison between the administration and pest control program in order to provide oversight, consistency in the pest control program and ensure the provisions of the IPM system are fulfilled. The Coordinator will advise the administration, staff, parents and guardians and students as necessary of IPM program changes and new laws and regulations affecting the IPM system.

The Coordinator will discuss the IPM system and problem areas identified through the inspection and monitoring process. The Coordinator also serves as the liaison between the school administration and parents, guardian, students and staff to address questions and concerns regarding the IPM system and pest control practices. The Coordinator will make recommendations to correct problem areas. Students and staff will comply with provisions of the IPM system by ensuring that areas requiring maintenance or repair, sanitation problems and pest problems or sightings are documented. Students and staff need to ensure good sanitation practices are followed.

Pests

INTEGRATED PEST MANAGEMENT PLAN

Pests are populations of living organisms (insects, animals, plants, or microorganisms) that interfere with the use of the school site for human purposes. Strategies for managing pest populations will be influenced by the pest species and whether that species poses a threat to people, property, or the environment. IPM relies on the coordinated use of pest and environmental information and the best available pest management methods to prevent unacceptable levels of pest damage by the most economical means and with the least possible hazard to students, staff, property and the environment. Long-term control of pests is achieved by using information about the biology and habits of the pest and its interaction with its surroundings. Proper installation of plants, appropriate watering regimes, and choosing plant species that are suited to specific sites and usage are some of the most effective measures for achieving long term pest control for school landscapes and grounds.

Pest Management

The IPM plan has been developed for City Schools as required by the Maryland's Regulations Pertaining to Integrated Pest Management and Notification of Pesticide Use in a Public School Building or on School Grounds. Approved pest management plans will be developed for the site and will include any proposed pest management measures.

Pests will be managed to:

- □ Reduce any potential human health hazard or to protect against a significant threat to public safety.
- Prevent loss or damage to school structures or property and prevent a reoccurrence of the problem.
- Prevent pests from spreading on the school grounds or to plant and animal populations beyond the site.
- Improve the quality of the educational environment for students, staff and the public.

Integrated Pest Management Procedures

IPM procedures will determine when to control pests, and identify conditions contributing to pest problems through the use of monitoring and thorough inspections conducted at regular intervals. Problem areas will be identified where alternative pest control technologies can be incorporated in

IPM PLAN

order to eliminate routine pesticide applications. The necessity for pest control, if warranted, will be evaluated based on information obtained from inspections and monitoring. These actions will be based on action threshold levels that will be established based on the site and pest. Within school grounds, these decisions are based on key pests, key plants, and key locations found within the landscape. Action thresholds for school grounds should be based on pest management objectives that have been established to satisfy the needs associated with the usage of specific sites. When pest control procedures are warranted in and around school buildings, one or more pest control methods including sanitation, structural repair, cultural practices, mechanical control, biological, other nonchemical methods and pesticides will be utilized.

IPM practitioners will depend on current, comprehensive information on the pest and its environment and the best available pest control methods. By applying IPM principles, unacceptable levels of pest activity and damage will be prevented by the most economical means while minimizing the risk to human health and the environment associated with pesticide applications.

The choice of using pesticides will be based on a review of all other available options and a determination that these options are unreasonable or have been exhausted, in order to minimize the use of pesticides. Cost or staffing considerations alone will not be adequate justification for the use of pesticides, and selected non-chemical pest management methods will be implemented whenever possible to provide the desired control. It is the policy of the City Schools to utilize IPM principles to manage pest populations adequately. The full range of pest control alternatives, including no action, will be considered.

When it is determined that a pesticide must be used in order to meet vital pest management goals, the least hazardous pesticide will be selected. The application of such pesticides are subject to City Schools policies and procedures and all applicable state, federal and local regulations including the Maryland Pesticide Applicators Law and Regulations, and the Federal Insecticide, Fungicide, and Rodenticide Act.

Record Keeping

Records of pesticide use shall be provided to the school by the licensee, permittee or certified applicator at the time of the pesticide application and will be maintained by the Coordinator for 2 years, and 1 year for school sites. Records must be current and accurate. In addition, pest surveillance data sheets that record the number of pests, location, or other indicators of pest populations are to be maintained to verify the need for treatments. Pest control procedures, including cultural practices utilized on school grounds, will be tracked. Documentation of communications to students and staff regarding IPM and pesticide use must also be maintained by the Coordinator and school principals.

Pesticide Purchase and Storage

Pesticide purchases will be limited to the amount authorized for use during the year. Pesticides will

IPM PLAN

be stored and disposed of in accordance with the EPA-registered label directions and state regulations. Pesticides must be stored in an appropriate, secure site not accessible to students or unauthorized personnel.

Pesticide Applications

Pesticides may be used after it is determined that non-toxic options are unreasonable or have been exhausted. The least hazardous pesticide will be selected and the method and time of application will be based on the goal to minimize the potential for exposure of students and staff to the pesticide. Pesticide applications made on school property will be conducted by an individual certified as a pest control applicator or by a registered employee working under the supervision of a certified applicator. Applicators must be trained in the principles and practices of IPM and the use of pesticides. They must follow state and federal pesticide regulations and label precautions and comply with City School's IPM Policy and Plan.

Education

Staff, students, pest managers, and the public will be educated about potential school pest problems and the IPM policies and procedures to be used to achieve the desired pest management objectives and will be informed of their role in meeting these objectives.

Program Evaluation

An annual review of the IPM system will be conducted to determine the effectiveness of the program and that program objectives have been achieved. This will include the review of inspection reports, sanitation reports, and other records to establish current conditions, progress of the program against pest problems and conditions, effectiveness of action thresholds, and to identify problem areas in the IPM system that may need to be modified or changed. Evaluation is a critical part of a grounds management program and should include quantitative and qualitative assessments of pest population densities, densities of natural enemies, and the quality of the site after the intervention takes place. Often, the evaluation of pest control efforts to school landscapes may be done during the next monitoring cycle, but in some situations special observations may be necessary to assess the success of the pest control tactic.

Notification

City Schools will notify the school staff, students, parents and guardians prior to pesticide applications made in school buildings and on school grounds in accordance with Maryland regulations. Notices will be posted in designated areas at school and sent home to parents and guardians of all students, regardless of age or grade level.

Amended: September 2011 Department of Health and Safety IPMprogramfinal0911 This page intentionally left blank

INTEGRATED PEST MANAGEMENT (IPM) PLAN FOR CALVERT COUNTY PUBLIC SCHOOLS

School Pest Management Policy Statement

Structural pests, i.e. insects and rodents, carry diseases, contaminate food and food preparation areas and can cause structural damage thus posing significant problems to people, property, and the environment. Landscape pests, i.e. insects, weeds and diseases, can pose significant problems to students, staff and users of school properties. Pesticides can also pose risks through unnecessary exposures to people, property, and the environment. Pest control in the school environment must protect the health and safety of the children and staff, minimize pest damage to structures, personal property, improve the quality of the educational environment by avoiding annoyance and disruption of work and learning caused by insects, rodents and other pests. It is therefore the policy of the Calvert County Public School System/Board of Education to adopt Integrated Pest Management for control of pests in school buildings and on school grounds.

Roles and Responsibilities

The IPM program will require the assistance and cooperation of the administration, staff and students. The Calvert County Public School System/Board of Education has established a Contact Person to serve as a liaison between the administration and pest control program in order to provide oversight, consistency in the pest control program, and ensure the provisions of the IPM system are fulfilled. The Contact Person will advise the administration, staff, parents and guardians, and students as necessary of IPM program changes and new laws and regulations effecting the IPM system.

The Contact Person will discuss the IPM system and problem areas identified through the inspection and monitoring process. The Contact Person also serves as the liaison between the school administration and parents, guardians, students and staff to address questions and concerns regarding the IPM system and pest control practices. The Contact Person will make recommendations to correct problem areas.

Students and staff will comply with the provisions of the IPM system by ensuring that areas requiring maintenance or repair, sanitation problems and pest problems or sightings are documented. Students and staff need to ensure good sanitation practices are followed.

IPM POLICY STATEMENT

Pests

Pests are populations of living organisms (insects, animals, plants, or micro-organisms) that interfere with the use of the school site for human purposes. Strategies for managing pest populations will be influenced by the pest species and whether that species poses a threat to people, property, or the environment. IPM relies on the coordinated use of pest and environmental information and the best available pest management methods to prevent unacceptable levels of pest damage by the most economical means and with the least possible hazard to students, staff, property, and the environment. Long-term control of pests is achieved by using information about the biology and habits of the pest and its interaction with

IPM POLICY STATEMENT

Pests (cont.)

its surroundings. Proper installation of plants, appropriate watering regimes, and choosing plant species that are suited to specific sites and usage are some of the most effective measures for achieving long term pest control for school landscapes and grounds.

Pest Management

The integrated pest management plan will be developed for the School System as required by the Maryland's Regulations pertaining to Integrated Pest Management and Notification of Pesticide Use in a Public School Building or on School Grounds. Approved pest management plans will be developed for the site and will include any proposed pest management measures.

Pests will be managed to:

- Reduce any potential human health hazard or to protect against a significant threat to public safety.
- Prevent loss or damage to school structures or property and prevent a reoccurrence of the problem.
- Prevent pests from spreading on the School Grounds or to plant and animal populations beyond the site.
- Improve the quality of the educational environment for students, staff, and the public.

Integrated Pest Management

IPM procedures will determine when to control pests, and identify conditions contributing to pest problems through the use of monitoring and through inspections conducted at regular intervals. Problem areas will be identified where alternative pest control technologies can be incorporated in order to eliminate routine pesticide applications. The necessity for pest control, if warranted, will be evaluated based on information obtained from inspections and monitoring. These actions will be based on action threshold levels that will be established based on the site and pest. Within School Grounds, these decisions are based on key pests, key plants, and key locations found within the landscape. Action thresholds for School Grounds should be based on pest management objectives that have been established to satisfy the needs associated with the usage of specific sites. When pest control procedures are warranted in and around school buildings, one or more pest control methods including sanitation, structural repair, cultural practices, mechanical control, biological control, other non-chemical methods and pesticides will be utilized.

IPM practitioners will depend on current, comprehensive information on the pest and its environment and the best available pest control methods. By applying IPM principles, unacceptable levels of pest activity and damage will be prevented by the most economical means while minimizing the risk to human health and the environment associated with pesticide applications.

IPM POLICY STATEMENT

Integrated Pest Management (cont.)

The choice of using pesticides will be based on a review of all other available options and a determination that these options are unreasonable or have been exhausted, in order to minimize the use of pesticides. Cost or staffing considerations alone will not be adequate

justification for the use of pesticides, and selected non-chemical pest management methods will be implemented whenever possible to provide the desired control. It is the policy of this School System/Board of Education to utilize IPM principles to manage pest populations adequately. The full range of pest control alternatives, including no action, will be considered.

When it is determined that a pesticide must be used in order to meet vital pest management goals, the least hazardous pesticide will be selected. The application of such pesticides are subject to the School System/Board of Education's policies and procedures and all applicable state, federal and local regulations including the Maryland Pesticide Applicators Law and Regulations, and the Federal Insecticide, Fungicide, and Rodenticide Act.

Record Keeping

Records of pesticide use shall be provided to the school by the licensee, permittee, or certified applicator at the time of the pesticide application and will be maintained for two (2) years. Records must be current and accurate. In addition, pest surveillance data sheets that record the number of pests, location, or other indicators of pest populations are to be maintained to verify the need for treatments. Pest control procedures, including cultural practices utilized on school grounds, will be tracked. Documentation of communications to students and staff regarding IPM and pesticide use will be maintained by the Contact Person.

Pesticide Purchase and Storage

Pesticide purchases will be limited to the amount authorized for use during the year. Pesticides will be stored and disposed of in accordance with the EPA-registered label directions and start regulations. Pesticides must be stored in an appropriate, secure site, not accessible to students or unauthorized personnel.

Pesticide Applications

Pesticides may be used after it is determined that non-toxic options are unreasonable or have been exhausted. The least hazardous pesticide will be selected and the method and time of application will be based on the goal to minimize the potential for exposure of students and staff to the pesticide. Pesticide applications made on school property will be conducted by an individual certified as a pest control applicator or by a registered employee working under the supervision of a certified applicator. Applicators must be trained in the principles and practices of IPM and the use of pesticides. They must follow state and federal pesticide regulations and label precautions and comply with this School System's IPM Policy and Plan.

Education

Staff, students, pest managers, and the public will be educated about potential school pest problems and the IPM policies and procedures to be used to achieve the desired pest management objectives and will be informed of their role in meeting these objectives.

Program Evaluation

An annual review of the IPM system will be conducted to determine the effectiveness of the program and that program objectives have been achieved. This will include the review of inspection reports, sanitation reports, and other records to establish current conditions, progress of the program against pest problems and conditions, effectiveness of action thresholds, and to identify problem areas in the IPM system that may need to be modified or changed. Evaluation is a critical part of a grounds management program and should include quantitative and qualitative assessments of pest population densities, densities of natural enemies, and the quality of the site after the intervention takes place. Often, the evaluation of pest control efforts to school landscapes may be done during the next monitoring cycle, but in some situations special observations may be necessary to assess the success of the pest control tactic.

Notification

This School System will notify the school staff, students, parents and guardians prior to pesticide applications made in school buildings or school grounds in accordance with Maryland regulations. Notices will be posted in designated areas at school and sent home to parents and guardians of elementary school students and parents and guardians of middle school students and high school students who wish to be informed in advance of pesticide applications and are on the pesticide notification list.

Contact

The contact individual for Calvert County Public Schools is Mr. Gregory Gott. In the event Mr. Gott is unavailable, please contact Mr. Thomas (Tuck) Powers. They can be reached at 410-535-7282 for assistance. Individuals can also write to: Calvert County Public Schools, 1305 Dares Beach Road, Prince Frederick, MD 20678.

EPA Statement

"The Office of Pesticide Programs of the United States Environmental Protection Agency has stated: 'Where possible, persons who potentially are more sensitive, such as pregnant women and infants (less than two years old), should avoid unnecessary pesticide exposure'."

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PARRIS N. GLENDENING, Governor HAGNER R. MISTER, Secretary BRADLEY H. POWERS, Deputy Secretary



The Wayne A. Cawley, Jr. Building 50 HARRY S. TRUMAN PARKWAY ANNAPOLIS, MARYLAND 21401 Baltimore/Annapolis (410) 841-5700 Washington (301) 261-8106 Facsimile (410) 841-5914 TTY Users 1-800-735-2258 Internet: http://www.mda.state.mdus

STATE OF MARYLAND DEPARTMENT OF AGRICULTURE

PESTICIDE REGULATION SECTION

(410) 841-5710 FAX (410) 841-2765

April 18, 2002

Brett Morton Supervisor of Operations Caroline County Public Schools 414 Gay Street Denton, MD 21629

Dear Mr. Morton:

I have received the corrected copy of Caroline County Public Schools Integrated Pest Management Plan in which the necessary changes have been incorporated. Upon completing the review of your revised Integrated Pest Management Plan, the Maryland Department of Agriculture has determined that all of the required components have been addressed in your plan. This letter will serve as the formal approval of Caroline County Public Schools Integrated Pest Management Plan.

Please be reminded, if any additional changes are made to the approved Integrated Pest Management Plan, the revised Plan must be resubmitted to the Maryland Department of Agriculture for approval. If you have any further questions please feel free to contact me

Sincerely,

Iward Ce. Con

Edward A. Crow, Entomologist Pesticide Regulation Section

File

A. Policy: INTEGRATED PEST MANAGEMENT

Structural pests (insects and rodents) carry diseases, contaminate food and food preparation areas, and can cause structural damage posing potentially significant problems to people, property, and the environment. Landscape pests, such as; insects, weeds and diseases can pose significant problems to students, staff and visitors of school properties. The use of pesticides can pose risks through unnecessary exposure to people, property, and the environment. Pest management in the school environment should meet two objectives: (1) minimize the presence of pests while sustaining the quality of the educational environment and (2) protect the safety and health of students and staff. The Board of Education of Caroline County shall adopt the principles of Integrated Pest Management (IPM) in its efforts to control pests in school buildings and on school grounds.

Purpose

The purpose of this policy is to establish a framework for the management and control of pests that responds positively to the health and safety needs of students and employees, complies with Maryland law and by-law, and has the approval of the Maryland Department of Agriculture (MDA).

Definition

Integrated Pest Management is defined as: "...a managed pest control program in which methods are integrated and used to keep pests from causing economic, health related, or aesthetic injury through the utilization of site or pest inspections, pest population monitoring, evaluating the need for control, and the use of one or more pest control methods including sanitation, structural repair, non-chemical methods, and pesticides, when nontoxic options are unreasonable or have been exhausted, in order to minimize the use of pesticides and the risk to human health and the environment associated with pesticide applications" (MDA, *Public School IPM and Notification Requirements*, 3/99). Operationally, IPM is a strategy that calls for the use of the least toxic application possible to control or eradicate specific pest situations.

Roles and Responsibilities

The IPM program in the Caroline County Public Schools requires the assistance and cooperation of the administration, staff and students. The program will be managed by the Office of Support Services with the Supervisor of Operations assuming the responsibility of Pest Control Manager and primary contact person. The contact person is Brett Morton, Plant Operations Manager. The address is 414 Gay Street, Denton, MD. Telephone number is (410) 479-1463. School administration, staff, parents, guardians and students all will be informed as necessary of IPM program changes and new laws and regulations affecting the IPM program. Students and staff will comply with the provisions of the IPM system by ensuring that areas requiring maintenance or repair, sanitation problems and pest problems or sightings are documented. Students and staff need to ensure good sanitation practices are followed.

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Required Components

The Caroline County Public Schools' IPM program will be structured and implemented in compliance with the provisions of the 1998 legislation and The Maryland Department of Agriculture (MDA) publication, *Public School IPM and Notification Requirements*. This document lists the following components as necessary for an MDA approved program:

- 1. Policy statement
- 2. Pest management roles and responsibilities
- 3. Pest control procedures
- 4. Inspection and monitoring procedures
- 5. Standards for establishing the severity of pest infestation
- 6. Documentation system for recording pest sightings, pest control procedures, communications about IPM or pesticide use
- 7. Pest management strategies (i.e., sanitation, structural repair, non-chemical methods and pesticide application)
- 8. Annual evaluation of IPM strategies
- 9. Notification procedures

Pests

Pests are populations of living organisms (insects, animals, plants, or microorganisms) that Interfere with the use of the school site for human purpose. Strategies for managing pest populations will be influenced by the pest species and whether that species poses a threat to people, property, or the environment. IPM relies on the coordinated use of pest and environment information and the best available pest management methods to prevent unacceptable levels of pest damage by the most economical means and with the least possible hazard to students, staff, property and the environment. Long-term control of pests is achieved by using information about the biology and habits of the pest and its interaction with its surroundings. Proper installation of plants, appropriate watering regimes, and choosing plant species that are suited to specific sites and usage are some of the most effective measures for achieving long term pest control for school landscapes and grounds.

Pest Management Plan

The IPM plan must comply with Maryland's Regulations pertaining to Integrated Pest Management and Notification of Pesticide Use in a Public School Building or on School Grounds. All pest management plans developed for a site will have the approval of the Maryland Department of Agriculture as required.

Pests will be managed to:

- Reduce any potential human health or to protect against a significant threat to public safety.
- Prevent loss or damage to school structures or property and prevent a reoccurrence of the problem.
- Prevent pests from spreading on the school grounds or to plant and animal populations beyond the site.
- Improve the quality of the educational environment for students, staff and public.

For both efficiencies and practical effectiveness the Board of Education of Caroline County will contract for basic pest management services. The acquisition of those services will comply with all applicable state law and regulations and Board policy. Among the criteria any such contractor must meet shall be a corporate policy regarding integrated pest management and assurances and a commitment to the principles and practice of IPM.

Pest Monitoring and Inspection

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IPM principles will determine when and how best to control pests and identify conditions contributing to pest problems through the use of monitoring and through inspections conducted at regular intervals. Problem areas will be identified where alternative pest control technologies can be incorporated with the ultimate goal to eliminate routine pesticide applications as much as possible. Appropriate action will be based on action threshold levels that will be established based on site and pest. Within school grounds, these decisions are based on key pests; key plants, and key locations found within the landscape. Action thresholds for school grounds should be based on pest management objectives that have been established to satisfy the needs associated with the usage of specific sites. When pest control procedures are warranted in and around school buildings, the utilization of one or more pest control methods including sanitation, structural repair, non-chemical methods and pesticides are preferred.

IPM practices may change over time depending on current, comprehensive information on the pest and its environment and the best available pest control methods. By applying IPM principles, unacceptable levels of pest activity and damage will be prevented by the most economical means while minimizing the risk to human health and the environment associated with pesticide applications.

Use of Pesticides

Selected non-chemical pest management methods will be implemented whenever possible. Pesticides are to be applied as a last resort to provide the desired control. The choice of using pesticides will be based on a review of all other available options and a determination that these options are unreasonable or have been exhausted. In each instance the full range of pest control alternatives, including no action, will be considered.

When it is determined that a pesticide must be used in order to meet vital pest management goals, the least hazardous pesticide will be selected. The application of such pesticides are subject to applicable Board of Education policies and procedures and all applicable state, federal and local regulations including the Maryland Pesticide Applicators Law and Regulations, and the Federal Insecticide, Fungicide, and Rodenticide Act.

Pesticide Record Keeping

Records of pesticide use shall be provided to the school by the licensee or certified Applicator at the time of the pesticide application and will be maintained for 2 years. Records must be current and accurate. In addition, pest surveillance data sheets that record the number of pests or other indicators of pest populations are to be maintained to verify the need for treatments. Pest control procedures, including cultural practices utilized on school grounds, will be tracked. Documentation of communications to students and staff regarding IPM and pesticide use will be maintained.

Pesticide Purchase and Storeage

Pesticides must be stored in an appropriate, secure site not accessible to students or unauthorized personnel. The company contracted to manage and control structural pests will provide and store pesticides.

Pesticide Application

Pesticides may be used after it is determined that non-toxic options are unreasonable or have been exhausted. The least hazardous pesticide will be selected. Decisions on the method and time of application will minimize the potential for exposure of students and staff to the pesticide. Pesticide applications made on school property will be conducted by an individual certified as a pest control applicator or by a registered employee working under the supervision of a certified applicator. Applicators must be trained in the principles and practices of IPM and the use of pesticides.

Notification

Notification requirements are categorized into In-School Notification and Out-of-School Notification.

In-School Notification

- Can be either oral or written before application.
- A sign or notice must be posted:
 - 1. in the designated area to be treated
 - 2. at the school's primary entrance or in a central location
- Bait station application notification at the location only is required.
 - Posted notices must include the following information:
 - 1. "Caution-Pesticide Application"
 - 2. common name of pesticide application
 - 3. location and date pesticide or bait station was placed
 - 4. contact person for additional information including potential adverse affects
 - 5. posting must remain in place at least 48 hours or until bait station is removed

Out-of-School Notification

- Elementary Schools School staff, students, parents and guardians will be notified prior to
 pesticide applications made in school buildings or on school grounds in accordance with
 Maryland regulation.
- Middle and High Schools Only those on the notification list need to be notified.
- Methods of Notification:
 - 1. written notice sent home
 - 2. telephone
 - 3. direct contact
 - 4. or mailing three (3) days in advance of application

Notification Types

- Annual universal, beginning of the school year notices (effective 1999).
 - 1. Explanation of IPM program.
 - List of pesticides or bait stations used in the school buildings or on school grounds.
 - 3. Basic information about the contact person.
 - A statement confirming the presence of records regarding labels and material safety data sheets (MSDS) of pesticide products used in school buildings or on school grounds.
 - 5. Instructions for parents or guardians and staff on how to enroll on a pesticide notification list to receive prior notice of applications. This list must be managed with specific components:
 - a. Middle and High School Staff, parents and guardians must notify the principal in writing to be included on the pesticide application notification list.
 b. Elementary Schools Notification is blanket coverage.
- Pesticide application notification requirements

In general, notification of a pesticide application must be sent at least 24 hours in advance of the application. Under emergency application conditions notification must take place within 24 hours of application.

- 1. Middle and High Schools Parents, guardians and staff on the notification list are to be notified.
- 2. Elementary Schools A blanket notification is required

Standardization of Forms, Records, and Notices

The designated Pest Control Manager for the Caroline County Public Schools will design and implement all documents necessary for the implementation of IPM. The objectives of these documents will be as clear and simple as possible, in full compliance with MDA standards and requirements, be accompanied by appropriate information and training for school staff involved in implementing the program, and assure that those providing contracted services operate accordingly.

Education and Training

Staff, students, and the public will be made aware of potential school pest problems, IPM policies and procedures to be used to achieve the desired pest management objectives, and their respective roles in meeting objectives.

Program Evaluation



An annual review will be conducted to determine the effectiveness of the IPM program. This review will include inspection reports, sanitation reports, and other records to establish current conditions, progress of the program against pest problems and conditions, effectiveness of action thresholds, and to identify problem areas in the IPM system that may need to be modified or changed. Evaluation is a critical part of a grounds management program and should include quantitative and qualitative assessments of pest population densities, densities of natural enemies, and the quality of the site after the intervention takes place. Often, the evaluation of pest control efforts to school landscapes may be done during the next monitoring cycle, but in some situations special observations may be necessary to assess the success of the pest control tactic.

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CARROLL COUNTY PUBLIC SCHOOLS

ADMINISTRATIVE PROCEDURES FOR INTEGRATED PEST MANAGEMENT AND NOTIFICATION

INTRODUCTION

The Integrated Pest Management (IPM) program employed by Carroll County Public Schools uses inspection, monitoring, employee education, and sanitation practices to minimize the use of pesticides in our schools and on our school grounds.

Board Policy EBAA states:

"Consistent with the Agriculture Article Sections 5-204 and 5-208.1, Annotated Code of Maryland.

Passage House Bill 286 during the 1997-98 legislative session required public schools to adopt integrated pest management systems and to develop parent and staff notification programs beginning in the 1999-2000 school year. Additional legislation in 1999 required school systems to extend their IPM programs and notification procedures to include school grounds.

PROCEDURES

1. Roles and Responsibilities

The IPM program will require the assistance and full cooperation of the administration, staff, and students. The operation of the IPM program will be under the direction of John Timcheck, Coordinator of Environmental Safety, 125 North Court Street, Westminster, Maryland 21157. The Coordinator of Environmental Safety will serve as the contact person addressing questions and concerns regarding the IPM system and notification procedures, advising the administration, staff, students and parents of changes in the IPM program, including new laws and regulations, and in general, providing oversight and consistency to the program. His telephone number is 410-751-3144.

The Department of Facilities Operations will administer contracts with one or more qualified pest management companies or utilize certified school IPM staff to conduct all IPM programs for all Carroll County Public Schools system-owned or operated facilities. Copies safety data sheets and product labels for each pesticide and bait station used on school property are to be maintained by the Department of Facilities Operations.

School administrators will comply with the provisions of the IPM program by ensuring that areas requiring maintenance, repair, or increased sanitation are addressed, pest problems or sightings are documented, and that proper notification procedures are followed in the event of pesticide application.

Custodial staff for Carroll County Public Schools will function as an integral part of the IPM program, providing important observation of all areas of the building and grounds to locate, identify, and monitor pests, improve sanitation, and recommend repairs.

Students and staff have a responsibility to follow good sanitation practices and to also act as observers.

2. Pest Control Company Qualifications

Pest control contractors shall be licensed in the State of Maryland and be in good standing. A review of the contractor's record with the Maryland Department of Agriculture shall be conducted either over the telephone or in person with a representative of the MDA.

The servicing technician shall be certified in the State of Maryland to conduct pest control operations and be trained in the principals and practices of integrated pest management. The contractor shall provide the appropriate documentation of these requirements. In the event of a change in service technicians priors to servicing any facility, the technician must provide proof of certification to the Facilities Operations Department.

The contracting company shall annually review the IPM program with the Coordinator of Environmental Safety for the program's effectiveness. Any deficiencies shall be noted and the program modified to eliminate these deficiencies. All methods of preventative maintenance (vacuuming, cleaning, caulking, etc.) communications to staff and students should be performed and documented. Only after all appropriate preventative measures have been taken and pest problems are still experienced may a pesticide be applied.

The contracting pest control/management company shall provide complete labels, material safety data sheets, and any other pertinent literature pertaining to the pesticide chemicals and/or methodologies utilized within the school facilities. All facilities and the facilities Operations office shall be provided with a set of these materials.

3. Integrated Pest Management Objectives

Integrated Pest Management takes a non-chemical and proactive approach to pest control by recognizing that pests are only found when they have access to food, water, and shelter and that by eliminating these conditions, the need for extermination is dramatically reduced. This approach includes an ongoing inspection, monitoring, and occupant education program; it does not include routine scheduled spraying of pesticides done as a preventative measure. IPM incorporates structural repair, sanitation, and non-chemical methods prior to the use of chemicals.

Pest will be managed to:

- Reduce any potential human health hazard or to protect against a significant threat to public safety.
- Prevent loss or damage to school structures or property and prevent a reoccurrence of the problem
- Prevent pest from spreading into community or areas beyond the site
- Improve the quality of the educational environment for students, staff, and the public

4. Education

The cooperation and understanding of staff, students, and parents is an important component of an IPM program. Presentations to the Board of Educations, School administrators, and parent groups will explain the program and roles each individual plays in an effective program. Yearly notices in the school calendar will give information on the IPM program, notification procedures, pesticides and bait stations which may be used on school property, the name of the contact person for information, and the location of material safety data sheets.

5. Recordkeeping

Records of pesticide use shall be provided to the school by the certified applicator at the time of the pesticide use recommendation and/or application and will be maintained for two years. This information is essential to the notifications process performed by the facility administration and will include potential adverse effects of the chemical taken from the material safety data sheets. Records must be current and accurate. Documentation of communications to parents, students, and staff regarding IPM and all notifications of pesticides use will be maintained by Facilities Operations. Records shall be maintained with the following information:

- (a) Pest sightings;
- (b) Pest control procedures, and
- (c) Any communications to students and staff members regarding integrated pest management or pesticide use

5. IPM Service Procedure

• Routine Monthly Service Visit

The pest control technician will review the pest observation log, communicate with appropriate staff members, and conduct a visual inspection of the interior and exterior of the building. Pest monitoring devices will be checked during this tour and all observations, recommendations, and actions noted on the service record. The technician will identify the particular pest and determine action thresholds based on the site and the biology and habits of the organism, as well as evaluating previous actions.

• Emergency Service

The pest control contractor will respond immediately to situations where there is a severe threat to human health. Response to all other requests will occur within 48 hours. Calls for emergency or non-typical service should be placed to the Facilities Operations Office. • Exterior Pests

If the problem involves pests on the grounds of the building, contact should be made with the Facilities Operations Office to determine the appropriate action. This includes ground bees and large mammals such as ground hogs and skunks.

6. Pesticide Applications

Sanitation, non-chemical controls, and building repair and modifications will be used whenever possible to provide the desired control. The choice of using pesticides will be based on a review of all other available options and a determination that these options are unreasonable or have been exhausted in order to minimize the use of pesticides. The least hazardous pesticide will be selected, and the method and the time of applications designed to minimize the potential for exposure of students and staff. All pesticide applications will be conducted by a certified contract technician (applicator). The application of pesticides is subject to the Board of Education of Carroll County's policies and procedures and applicable federal, state, and local regulations including the Maryland Pesticide Applicators Law and Regulations and the Federal Insecticide, Fungicide, and Rodenticide Act.

7. Notification

Maryland law requires that parents of all elementary students be notified automatically prior to application of any pesticide. Each parent or guardian, and staff member of secondary students must request to be placed on a pesticide notification list.

Carroll County Schools notifies all students and staff 24 hours prior to scheduled applications of pesticides on school property. If an emergency pest control situation arises and a pesticide is used, notification will be made within 24 hours. Space spraying of a pesticide throughout an entire room or area by a fogger or aerosol device requires one-week advance notice to all students and staff.

Secondary schools require in-school notification prior to a pesticide application in the form of a posted notice at the area of the pesticide application and in a central location accessible to parents, guardians, students and staff such as the main office. The notice shall remain posted for at least 48 hours after a pesticide is applied.

All schools shall post notices before the use of a bait station inside the school on the primary entrance to the area where the bait station is placed. The notice must remain until the bait station is removed.

Effective 2000-01 the pesticide applicator must post a sign at the time a pesticide is applied to school grounds. The term "pesticide" does not include a disinfectant, sanitizer, deodorizer or bait station. The sign must conform to Maryland Department of Agriculture specifications.

The sign must be placed at one of the following locations and posted for at least 48 hours following the application.

- a. At each primary access to the property treated, with the front of the sign facing the access;
- b. If only a spot pesticide application is made, or only a small area of a large area receives a pesticide application, a sign may be posted at the location where the pesticide application was made, with the front of the sign facing the probable path of access to the area.

For application on school grounds, the notice of planned date and time of application may specify that weather conditions or other extenuating circumstances may cause the actual date of application to be postponed to a later date or dates.

If the actual date of application is more than 14 days later than the planned date provided in the notice, notice of the application required under this regulation shall be reissued.

8. Program Evaluation

An annual review of the IPM system will be conducted to determine the effectiveness of the program and program objectives have been achieved. This will include the review of inspection reports, sanitation reports, and other records to establish current conditions, progress of the program against pest problems and conditions, effectiveness of action thresholds, and to identify problem areas in the IPM system that may need to be modified or changed

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Office of Plant Industries and Pest Management

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PESTICIDE REGULATION SECTION

(410) 841-5710 FAX (410) 841-2765

June 2, 2011

Michael Preston Cecil County Public Schools Assistant in Facilities for Operations 801 Elkton Blvd. Elkton, MD 21921

Dear Mr. Preston:

I would like to thank you for submitting a copy of Cecil County Public Schools revised Integrated Pest Management Plan. As you are aware, each Integrated Pest Management Plan must be reviewed by the Maryland Department of Agriculture as set forth under Regulation 15.05.02 Integrated Pest Management and Notification of Pesticide Use in a Public School Building or on School Grounds. Your revised IPM Plan has been reviewed to ensure that it is in compliance with the minimum requirements as specified in Section 15.05.02.03 Integrated Pest Management System.

Upon completing the review of your revised Integrated Pest Management Plan, the Maryland Department of Agriculture has determined that all of the required components have been addressed in your plan. This letter will serve as the formal approval of the Cecil County Public Schools Integrated Pest Management Plan.

Please be reminded, if any additional changes are made to the Integrated Pest Management Plan, the revised Plan must be resubmitted to the Maryland Department of Agriculture for approval. If you have any further questions please feel free to contact me.

Sincerely,

Elwarefle Con

Edward A. Crow Entomologist Licensing, Certification and Training

File cc: Dennis Howard Scott Rowe

CCPS Policies
E - Support Services
INTEGRATED PEST MANAGEMENT (IPM)
ECBA
Active
Title 15, Department of Agriculture, Subtitle 05, Pesticide Use Control
15.05.01 and 15.05.02
April 4, 2011
March 9, 2011

INTEGRATED PEST MANAGEMENT (IPM)

SCHOOL PEST MANAGEMENT POLICY STATEMENT

Structural pests, such as insects and rodents, carry diseases, contaminate food and food preparation areas, and can cause structural damage. Therefore, they pose significant problems to people, property, and the environment. Pesticides can also pose risks through unnecessary exposures to people, property, and the environment. Pest control in the school environment must protect the health and safety of the children and staff, minimize pest damage to structures and personal property, and improve the quality of the educational environment by avoiding annoyance and disruption of work and learning caused by insects, rodents and other pests. It is therefore the policy of the Cecil County Public Schools to adopt Integrated Pest Management (IPM) for control of structural pests in school buildings and on school grounds.

The Cecil County Public Schools will notify all parents, students, guardians and staff in an elementary school of the Integrated Pest Management Program prior to any pesticide application that is not an emergency. The Cecil County Public Schools will notify those parents, students, guardians and staff that have requested notification and are recorded in the notification booklet kept in the office of each Middle/High school of the Integrated Pest Management Program prior to any pesticide application that is not an emergency. In the event of an emergency, all elementary personnel will be notified and those requesting notification in Middle/High schools will be notified within (24) twenty-four hours after the pesticide application. The notice will include an identification of any pesticide used.

The Board of Education authorizes the Superintendent to develop regulations and procedures to comply with the requirements of the State of Maryland in relation to IPM and the use of pesticides in and around schools. The Superintendent is further authorized to clarify roles and responsibilities of staff and appoint a system contact person.

Book:	CCPS Regulations
Section:	E - Support Services
Title:	INTEGRATED PEST MANAGEMENT PLAN
Number:	ECBA-RA
Status:	Active
Legal:	TITLE 15, DEPARTMENT OF AGRICULTURE, SUBTITLE 05
	PESTICIDE USE CONTROL 15.05.01 AND 15.05.02
Adopted: Septem	ber 13, 1999

Last Revised: April 4, 2011 Last Reviewed: March 9, 2011

RELATED ENTRIES:ECBA

OFFICE: ASSOCIATE SUPERINTENDENT FOR ADMINISTRATIVE SERVICES

INTEGRATED PEST MANAGEMENT PLAN

INTRODUCTION

Cecil County Public Schools is very concerned for the health and well being of students, teachers, administrators and all supporting staff personnel. For several years, Cecil County Public Schools has undertaken a policy of minimum pesticide use and the development of an Integrated Pest Management Program to control pests and to provide the human environment in schools and on school grounds with little or no exposure to toxic chemicals.

Cecil County Public Schools is always seeking non-pesticide and non-toxic pest control measures. Cecil County Public Schools is aggressive in combating pests with monitoring, baiting, trapping, vacuuming, other elimination control measures, use of a weed eater and other good sanitation procedures. Pest control in schools is designed to protect health and safety of students and staff while minimizing pest damage to structures, landscapes, personal property and the environment.

Integrated Pest Management (IPM) is a decision-making process to manage pest problems utilizing site or pest inspections, population monitoring, non-pesticide weed control and evaluations of need for control notifications. We also use one or more of the following control methods: sanitation, exclusion, cultural (resistant varieties of plants), biological agents or pesticides, with the goal of minimizing the use of pesticides in or around schools.

IPM is different from traditional pest control service. IPM programs can significantly reduce the use of pesticides. Each program is specifically designed to meet the individual needs of the area serviced. The success of a program depends on the assistance and cooperation of the administration, staff and students in each school. The IPM program is reviewed and evaluated each year for methods of improvement.

The goals of IPM must be to protect the health and safety of children and staff, minimize damage to structures and personal property, and improve the quality of an educational environment by avoiding the annoyance or disruption of work and learning that can be caused by insects, rodents or other pests.

MANAGEMENT ROLES AND RESPONSIBILITIES

The IPM contact person for Cecil County Public Schools is the Assistant in Facilities for Operations. Certified applicators of outdoor pesticides and indoor pesticides are members of the facilities department. The supervisor for all of these individuals is the Supervisor of Facilities. These individuals can be reached at 410-996-5495 by telephone or at 205 Booth Street, Elkton, MD 21921.

PEST CONTROL PROCEDURES

Each site is different, and pest management objectives could vary at each site. By conducting a study of each particular site, pest management needs will be determined for that school.

Operations personnel inspect each site several times a year, and Head Custodians make daily inspections. These inspections determine if a pest problem exists and if the existence of a pest merits control measures. If a control measure was taken, its effectiveness is assessed. Annually, the IPM team reviews new products, past activities, school observations and program function.

PROCEDURES

<u>Responsibilities</u>: The over-all operation of the IPM program is under the direction of the Assistants in Facilities for Operations, who are certified by the State of Maryland in weed and pest control. These individuals work closely with principals, other administrators, and building custodians. They communicate fully to inform everyone of actions and procedures to be taken to control pests in their schools and on school grounds. They also are responsible for implementing the IPM program throughout the entire school system.

<u>Set Management Objectives</u>: Every site is different and pest management objectives could vary in each site. Each site is studied, and a pest management needs assessment is determined for that school.

Inspection and Monitoring: Each site is inspected to determine if a pest problem exists and if the existence of a pest merits control measures. If control measures need to be taken, their effectiveness is assessed.

Summary, Review and Evaluation of Program: Annually, the IPM team reviews new products, past activities, school observations, and program function.

PEST CONTROL PROCEDURES FOR REGULAR INSPECTION AND MONITORING ACTIVITIES

Pest control procedures include monitoring. Monitoring is the regular surveillance of an area for pests using traps, visual inspections, and interviews with staff. Head Custodians and Food and Nutrition Services Managers conduct daily surveys; Assistants in Facilities for Operations, annually.

COMPONENTS

The basic components that make an IPM program successful are:

<u>Monitoring</u> - Monitoring is the regular surveillance of an area for pests using traps, visual inspections, and interviews with the staff. Surveys are conducted to determine if a pest problem exists, the location and size of the infestation, and the conditions that may contribute to pest problems. Within school grounds, pest control decisions are based on key pests, key plants, and key locations found within the landscape. Action thresholds for school grounds should be based on pest management objectives that have been established to satisfy the needs associated with the usage of specific sites.

<u>Sanitation/Structural Repairs</u> - Pest problems often can be prevented through proper sanitation, reduction of clutter and pest harborage, and performing small repairs that exclude pests. When pest control procedures are warranted in and around school buildings, one or more pest control methods including sanitation, structural repair, cultural practices, mechanical control, biological, other non-chemical methods and pesticides will be utilized.

<u>Communication</u> - Staff and student cooperation in correcting conditions that contribute to pest problems is essential to the success of an IPM program. Training and educational programs on subjects such as pest identification, biology, and sanitation can be conducted to promote understanding and assistance with the IPM program.

<u>Record Keeping</u> - Monitoring data on pest numbers and observations on housekeeping and structural deficiencies are recorded in a logbook maintained in each school. A section of each logbook is reserved for use by staff to alert the pest management team of pest sightings between scheduled services.

<u>Pest Control Without Pesticides</u> - Trapping, screening, caulking, using a weed eater, exclusion, steam cleaning and power washing, and freezing are effective long-term pest control methods. Non-pesticidal pest control practices can be effective and applied with a high degree of safety. In addition, the IPM team will constantly review the type of pesticide which is least challenging to non-target species. All efforts will be made to select effective pesticides that are not toxic to non-target species.

<u>Program Evaluation</u> - Monitoring data and observations are periodically summarized and reviewed to evaluate program effectiveness. IPM practices and procedures are continually adopted and modified based on past experience, results, and knowledge of the problems associated with each school. The program is evaluated annually following the Certified Applicator Training and when directed by the Board of Education or Department of Agriculture.

<u>Quality Assurance</u> - Technical oversight provides an objective, ongoing evaluation of program activities and effectiveness. Oversight and review are critical to maintaining an effective IPM program.

STANDARD TO DETERMINE THE QUANTITATIVE AND QUALITATIVE ASPECTS OF THE IPM

Visual sightings of pests will be evaluated by the certified applicators and corrective measures will be implemented on an individual basis pending identification specific to the pest.

Monitoring stations with collections of pests will be evaluated by the certified applicators and corrective measures will be implemented on an individual basis pending identification specific to the pest.

Any pests determined to be a danger to students or staff will be addressed by the certified applicator. Poisonous plants, stinging insects, and other dangerous pests found outdoors will be evaluated by the certified applicator to determine what response is necessary. Response mechanisms include the removal of nests, nesting materials, removal of food sources, aeration, over seeding, and the introduction of predators and other non-chemical methods of abatement. If chemical means of control are used, full notification will take place as required.

IPM STRATEGIES FOR STRUCTURAL PEST CONTROL

<u>Communication</u>: Each adult person occupying a building is to be made aware that there is an IPM program in effect and should be encouraged to report all sightings of pests to the principal or building custodian who would then report the sightings to Plant Facilities and record them in the Pest Sighting Logbook.

<u>Monitoring</u>: Inside monitoring devices, such as sticky glue traps will be used in suspected areas of pest infestations to verify the presence of pests. Outside monitoring devices, such as visual observation, Pest Sightings Logbook, or evidence of nesting will be used in suspected areas of pest infestations to verify the presence of pests.

NON-PESTICIDE CONTROLS:

Where feasible, non-pesticide methods of pest control will be utilized. These include:

1. Inside Sanitation: Keep the kitchens and classrooms cleaned and free of grease and food particles. Remove sources of water that might provide the needs of pests (such as water left in mop buckets, wet mops, standing water). Routinely pour scalding water down drain traps to kill any roaches hiding there.

2. Outside Sanitation: Use weed-eaters instead of herbicides and, if possible, hand pick bagworms from trees instead of using pesticides. Also, clean up litter daily and keep dumpster closed.

3. Non-toxic methods of pest control inside and outside a building: These include sticky traps, bait stations, box traps, trimming plants, sealing holes, and other methods of exclusion.

4. Destroying pest habitat and using methods of exclusion.

5. Removing nests and changing the environment on school grounds.

<u>Use of Pesticides</u>: Pesticides may be used in schools and on school grounds if other alternatives have been researched and found to be ineffective or unreasonable. When pesticides are used, the least toxic substance that will still be effective should be used. When a pesticide application is made in schools or on school grounds, a sign must be posted at the time of the application at each primary access to the school property. If a spot or limited area pesticide application is made, a sign may be posted at the location where the pesticide application was made. The sign must remain posted for at least 48 hours following the application.

EMPLOYEES ARE DIRECTED TO NOT USE ANY TYPE OF OFF-THE-SHELF PESTICIDES AND NOT BRING IN FROM HOME ANY TYPE OF PESTICIDES OR OTHER CHEMICAL SUBSTANCES TO BE USED IN AND AROUND THE SCHOOL.

APPLYING IPM STRATEGIES

Pest prevention measures can be incorporated into existing structures. Such measures can appreciably reduce the need to use pesticides in pest control. The most important assistance that staff and students can give to an effective IPM program is through the use of sanitation. Many of the pest problems in schools can be reduced or prevented from occurring, if students and staff ensure that proper sanitation practices are followed. The more cooperation that is received from these parties the better the results achieved by the IPM program.

Some areas that receive special attention due to their susceptibility for pest problems include coffee and snack areas, staff lounges, refrigerators and microwaves, vending machines, mop closets, trash containers, desks, and lockers.

STRATEGIES FOR INDOOR SITES

Typical pests: Mice, rats, cockroaches, ants, flies, wasps, hornets, yellow jackets, spiders, termites, carpenter ants, and other wood destroying insects. (Wasps, hornets, yellow jackets, and spiders are valuable predators but can be troublesome in the school environment.)

Entryways

- Keep doors shut when not in use.
- · Place weather stripping on doors.
- · Caulk and seal openings in walls, around pipes and windowsills.
- Install or repair screens.
- · Keep vegetation, shrubs, and wood mulch at least one foot away from structures.

Classrooms and Offices

- Allow food and beverages only in designated areas.
- Clean up leftover food.
- Do not place gum under desks.
- Do not move sticky traps or other pest monitoring devices.
- · Do not prop open windows or screens.
- Keep refrigerators, vending machines, and microwaves clean and free of spills at all times.
- Keep areas as dry as possible by removing standing water and water damaged or wet materials.
- In science labs, store animal foods in tightly sealed containers and regularly clean cages.
- · In all areas remove dust and debris.
- · Routinely clean lockers and desks.
- · Frequently vacuum carpeted areas.
- · Keep all food in sealed containers.

Food Preparation and Serving Areas

Dining room, main kitchen, teacher's lounge, home economics kitchen, pre-k and kindergarten kitchen, snack area, vending machines, and food storage rooms:

• Store food and waste in containers that are inaccessible to pests. Containers must have tight lids and be made of plastic, glass or metal.

• Place screens on vents, windows, and floor drains to prevent cockroaches and other pests from using unscreened ducts or vents as pathways.

• Create inhospitable living conditions for pests by reducing availability of food and water. Remove food debris, sweep up all crumbs, fix dripping faucets and leaks, and dry out wet areas. Make sure no wet mops are left around and dump all mop buckets.

• Promptly clean food preparation equipment after use and remove grease accumulation from vents, ovens, and stoves. Use caulk or paint to seal cracks and crevices.

• Capture rodents by using mechanical or glue traps. (Place traps in areas inaccessible to children. Check all traps daily and promptly dispose of dead animals.)

Rooms and Areas with Extensive Plumbing

Bathrooms, rooms with sinks, locker rooms, dish wash rooms, home economic classrooms, science labs, greenhouses, and therapy tank:

• Promptly repair leaks and correct other plumbing problems to deny access to water.

• Routinely clean floor drains, strainers, and grates. Seal pipe chases.

• Keep areas dry. Avoid conditions that cause condensation. Areas that are never dry tend to mold. Increased ventilation may be necessary.

Store paper products or cardboard boxes away from moist areas and direct contact with the floor or walls.

Maintenance Areas

Boiler rooms, mechanical rooms, custodial storage closets, and pipe chases:

• After use, promptly clean mops and mop buckets; dry mop buckets and hang vertically on rack above floor drain.

- · Allow eating only in designated eating areas.
- · Clean trash cans regularly, use plastic liners in trash cans, and secure lids.
- · Keep areas as clean and dry as possible and remove debris.

STRATEGIES FOR OUTDOOR SITES

Typical pests: Mice and rats. Turf pests, such as Japanese beetle grubs. Ornamental plant pests, such as insects, aphids and bagworms.

Playgrounds, Parking Lots, Athletic Fields, Loading Docks, and Dumpsters

• Regularly clean trash containers and gutters and remove all waste, especially food and paper debris.

- · Secure lids on trash containers.
- · Repair cracks in pavements and sidewalks.
- · Provide adequate drainage away from the structure and on the grounds.

Special problems such as groundhogs, moles, birds, rats, mice, yellow jackets, bees, and wasps should be referred to Plant Facilities and registered employees.

Turf pests, pests of ornamental plants and termites require special measures and should also be referred to Plant Facilities.

USE OF WEED KILLERS OR HERBICIDES

Use of herbicides is of special concern because herbicides may enter the soil and disturb the balance of nature. There is a great temptation to want to use herbicides because their use saves labor.

The use of herbicides should be avoided if at all possible. Herbicides should be used only where there is no practical alternative. Generally herbicide use should be limited to fence posts, fences, running tracks, and tennis/basketball courts where it is impractical to use weed-whacking equipment. HERBICIDES SHALL NOT BE USED IN TOT LOTS WHERE SPRAYED BARK OR WOOD CHIPS COULD BE PICKED UP AND CHEWED BY CHILDREN.

RECORD KEEPING

Record keeping will document each of the following items at each site.

All pest sightings will be documented.

All pest control procedures will be documented.

All communications and notifications with staff and the public will be documented.

All MSDS sheets are on file at each site and also with the Contact Person.

Contact Person will retain all reports and correspondence with the Department of Agriculture.

PEST MANAGEMENT STRATEGIES

The pest management strategies of Cecil County Public Schools rest on communication and training so that each adult occupying a building is aware of the IPM program. All building staff is encouraged to report all sightings of pests to the principal or building custodian. Reports of sighting must be made to Plant Facilities within 12 hours of sighting.

Non-pesticide controls will be utilized where feasible. These include:

- 1. Sanitation: etc.
- 2. Non-toxic methods of pest control
- 3. Destroying habitat

EDUCATION AND TRAINING

Training for custodians at inservice meetings.

Training for principals at Regional County meetings.

Training for certified applicators via State of Maryland.

Training for Food and Nutrition Services Workers at inservice meetings.

Training for Nurses at staff development meetings.

Training for Lead Secretaries at staff development meetings.

ANNUAL EVALUATION

The IPM team will evaluate and review annually.

QUALITY ASSURANCE

- 1. Visual inspection by Assistants in Facilities for Operations and by the Head Custodian.
- 2. Monitoring stations will be utilized to evaluate quality assurance.
- 3. Concerns brought to the attention of the Assistants in Facilities for Operations will initiate an evaluation.

NOTIFICATIONS

Annual

At the beginning of each school year, notice of the school's integrated pest management system will be included in the system calendar. The notification will include the common name of any pesticide or bait station that may be used in a school building. It will also include the name, address and phone number of the contact person. The notification will include a statement that explains the school's integrated pest management system. The notification will include a

statement that the contact person maintains the product label and material safety data sheet of each pesticide or bait station used in a school building or on school grounds. It will also cite that these items are available for review by a parent, guardian, staff member or student attending the school and that the contact person is available for information or comment. The notification will include instructions for including parents, guardians or staff members on a pesticide notification list. After the beginning of the school year, a school shall provide the notification in the school calendar to the parent or guardian of a newly enrolled student and newly employed staff members. The notice must be approved by the Department of Agriculture before distribution.

PESTICIDE NOTIFICATION LIST

Middle and High Schools

At the beginning of each school year, each middle school and high school shall develop a pesticide notification list of each staff member and of each parent or guardian of students attending the school who requests, in writing, prior notification of a pesticide application made during the school year in the school or on school grounds. The school shall keep the pesticide notification list current and add names upon written request. Persons on the list shall be notified 24 hours prior to any application of a pesticide.

The following information will be provided in the notification for middle and high schools: The common name of the pesticide, its location and the date and time of application. In addition the statement, "the Office of Pesticide Programs of the USEPA has stated: where possible, persons who potentially are more sensitive, such as pregnant women and infants (less than two years old) should avoid any unnecessary pesticide exposure." Finally, the notice will provide a description, approved by the Department of Agriculture, of potential adverse effects based upon the material safety data sheet of the pesticide applied and the reason for emergency use if applicable. Written notice sent home with the student or provided to the staff member, a telephone call, or direct contact will make the notification. Written notices being mailed must be at least three days before application. For pesticide applications made on school grounds, the notice of planned date and time of application to be postponed to a later date or dates. If the actual date is more than 14 days later than the original planned date of the application, a new notice must be be issued. All of the information that must be provided as part of the notification.

Elementary Schools

During the school year, each elementary school shall notify each parent or guardian of a student attending the school and each staff member, 24 hours before a pesticide is applied in a school building and/or school grounds and in the case of an emergency application, within 24 hours after a pesticide has been applied or the next school day. For pesticide applications made on school grounds, the notice of planned date and time of application may specify that weather conditions or other extenuating circumstances may cause the actual date of application to be postponed to a later date or dates. If the actual date is more than 14 days later than the original planned date of the application, a new notice must be be issued. All of the information that must be provided as part of the notification requirements for pesticide applications made in school buildings must be included as part of the grounds notification.

The notice will include the common name of the pesticide to be applied and the location and date and time of application. It will also include the statement by the USEPA that, "Where possible, persons who potentially are more sensitive, such as pregnant women and infants (less than two years old) should avoid any unnecessary pesticide exposure." There will also be a brief description, approved by the Department of Agriculture of potential adverse effects based upon the material safety data sheets. If the notification is for emergency work, a final statement explaining why the emergency application was necessary should be included.

IN SCHOOL NOTIFICATION

Each elementary, middle, or high school shall develop an appropriate means of notification to students and staff before a pesticide is applied. The in-school notification shall include a sign or notice posted at the room or area of application and either at the primary entrance or central school location. The in-school notification to students and staff may also include oral announcements or written notices.

The notice or sign should include the following information: a) "Caution Pesticide Application" b) common name of the pesticide applied; c) location of the application, date of application, and contact person. The notice or sign shall remain posted for at least 48 hours after a pesticide is applied. The sign for application to grounds will comply with Maryland Department of Agriculture requirements.

BAIT STATIONS

Each school shall provide in-school notification to students and staff when a bait station is used in any school. The inschool notification shall include a sign posted on the door of the room and/or the primary entrance to the area in which the bait station is placed. The notice or sign shall include the following information: a) "Caution Pesticide Application" b) common name of the pesticide applied and the date the bait station was placed in the area; c) the name and phone number of the contact person will also be supplied. The notice will remain in place until the bait station is removed.

EMERGENCY APPLICATION

A pesticide may be applied in a school or on school grounds without prior notification only if an emergency pest situation exists. The next school day, the school shall notify everyone who normally would have been notified in the manner in which they should be notified with particular attention to the reason for the emergency application.

PARENTAL INVOLVEMENT

It is important to receive a commitment from parents, since they also play an important role in the effectiveness of the integrated pest management program in schools. IPM programs and the people providing these services need the support of parents. Parents should be aware of the integrated pest management program being utilized at their children's school.

Parents can help in the prevention of pest problems by:

- · Encouraging children to lend a hand in cleaning up.
- Discouraging children from keeping food in their lockers and desks.

Schools are to notify parents through newsletters or other means of the use of IPM in their school and encourages their cooperation.

SUMMARY

The foundation of an effective integrated pest management program is good sanitation. Trash disposal and sound structural maintenance also must play important roles in an IPM program. Staff and students must understand how their actions can increase or decrease pest problems in the school. With a combined effort by school administrators, staff, students, parents, and the IPM team to incorporate the following practices, many pest problems can be avoided within the school and on school grounds:

- · Clean up spills immediately.
- Store all food items in tightly sealed containers.
- · Wrap or bag food waste before disposal.
- · Remove trash.
- · Do not keep food items in lockers and desks.
- · Report pest sightings.

Through the use of these practices, pest problems can often be eliminated before they ever occur. An inhospitable environment is created for the pest by depriving it of food, water, and harborage needed for its survival.

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PARRIS N. GLENDENING, Governor HAGNER R. MISTER, Secretary BRADLEY H. POWERS, Deputy Secretary



The Wayne A. Cawley, Jr. Building 50 HARRY S. TRUMAN PARKWAY ANNAPOLIS, MARYLAND 21401 Baltimore/Annapolis (410) 841-5700 Washington (301) 261-8106 Facsimile (410) 841-5914 TTY Users 1-800-735-2258 Internet: http://www.mda.state.mdus

STATE OF MARYLAND DEPARTMENT OF AGRICULTURE

PESTICIDE REGULATION SECTION

(410) 841-5710 FAX (410) 841-2765

May 13, 2002

Glenn Belmore Special Assistant for Environment, Safety and Risk Management Charles County Public Schools P.O. Box 2770 LaPlata, MD 20646-0170

Dear Mr. Belmore:

I have received the corrected copy of Charles County Public Schools Integrated Pest Management Plan in which the necessary changes have been incorporated. Upon completing the review of your revised Integrated Pest Management Plan, the Maryland Department of Agriculture has determined that all of the required components have been addressed in your plan. This letter will serve as the formal approval of Charles County Public Schools Integrated Pest Management Plan.

Please be reminded, if any additional changes are made to the approved Integrated Pest Management Plan, the revised Plan must be resubmitted to the Maryland Department of Agriculture for approval. If you have any further questions please feel free to contact me

Sincerely, Elward C. Con

Edward A. Crow, Entomologist Pesticide Regulation Section

File

Charles County Public Schools INTEGRATED PEST MANAGEMENT (IPM) PLAN

Charles County Public School Pest Management Policy Statement

Structural pests, i.e. insects and rodents, carry diseases, contaminate food and food preparation areas and can cause structural damage thus posing significant problems to people, property, and the environment. Pesticides can also pose risks through unnecessary exposures to people, property, and the environment. Pest control in the school environment (indoor and outdoor) must protect the health and safety of the children and staff, minimize pest damage to structures and personal property, improve the quality of the educational environment by avoiding annoyance and disruption of work and learning caused by insects, rodents and other pests. It is therefore the policy of the Charles County School adopt Integrated Pest Management for control of outdoor pests and indoor structural pests.

Roles and Responsibilities

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The IPM program will require the assistance and cooperation of the administration, staff and students. The Charles County Public Schools has established a Contact Person to serve as a liaison between the administration and pest control program in order to provide oversight, consistency in the pest control program and ensure the provisions of IPM system are fulfilled. The Contact Person (Glenn R. Belmore Special Assistant for Environment, Safety and Risk Management Charles County Public Schools, P.O. Box 2770, La Plata Maryland, 20646 (301) 934-7275) will advise the administration, staff, parents and guardians and students as necessary of IPM program changes and new laws and regulations effecting the IPM system.

The Contact Person will discuss the IPM system and problem areas identified through the inspection and monitoring process. The Contact Person also serves as the liaison between the school administration and parents, guardian, students and staff to address questions and concerns regarding the IPM system and pest control practices. The Contact Person will make recommendations to correct problem areas.

Students and staff will comply with the provisions of the IPM system by ensuring that areas requiring maintenance or repair, sanitation problems and pest problems or sightings are documented. Students and staff need to ensure good sanitation practices are followed.

Pests

Pests are populations of living organisms (insects, animals, plants, or microorganisms) that interfere with the use of the school site for human purposes. Strategies for managing pest populations will be influenced by the pest species and whether that species poses a threat to people, property, or the environment. IPM relies on the coordinated use of pest and environmental information and the best available pest management methods to prevent unacceptable levels of pest damage by the most economical means and with the least possible hazard to students, staff, property and the environment. Long-term control of pests is achieved by using information about the biology and habits of the pest and its interaction with its surroundings.

Pest Management

The integrated pest management plan will be developed for the School District as required by the Maryland's Regulations pertaining to Integrated Pest Management and Notification of Pesticide Use in a Public School or its grounds. Approved pest management plans will be developed for the site and will include any proposed pest management measures.

Pests will be managed to:

- Reduce any potential human health hazard or to protect against a significant threat to public safety.
- Prevent loss or damage to school structures or property and prevent a reoccurrence of the problem.
- Prevent pests from spreading into community, or areas beyond the site.
- Improve the quality of the educational environment for students, staff and the public.

Integrated Pest Management Procedures

IPM procedures will determine when to control pests, and identify conditions contributing to pest problems through the use of monitoring and thorough inspections conducted at regular intervals. Problem areas will be identified where alternative pest control technologies can be incorporated in order to eliminate routine pesticide applications. The necessity for pest control, if warranted, will be evaluated based on information obtained from inspections and monitoring. These actions will be based on action threshold levels that will be established based on the site and pest. When pest control procedures are

warranted, the utilization of one or more pest control methods including sanitation, structural repair, nonchemical methods and pesticides.

IPM practioners will depend on current, comprehensive information on the pest and its environment and the best available pest control methods. By applying IPM principles, unacceptable levels of pest activity and damage will be prevented by the most economical means while minimizing the risk to human health and the environment associated with pesticide applications.

The choice of using pesticides will be based on a review of all other available options and a determination that these options are unreasonable or have been exhausted, in order to minimize the use of pesticides. Cost or staffing considerations alone will not be adequate justification for the use of pesticides, and selected non-chemical pest management methods will be implemented whenever possible to provide the desired control. It is the policy of this School District / Board of Education to utilize IPM principles to manage pest populations adequately. The full range of pest control alternatives, including no action, will be considered.

When it is determined that a pesticide must be used in order to meet vital pest management goals, the least hazardous pesticide will be selected. The application of such pesticides are subject to the School District's / Board of Education's policies and procedures and all applicable state, federal and local regulations including the Maryland Pesticide Applicators Law and Regulations, and the Federal Insecticide, Fungicide, and Rodenticide Act.

Record Keeping

Records of pesticide use shall be provided to the school by the licensee, permittee or certified applicator at the time of the pesticide application and will be maintained for 2 years. Records must be current and accurate. In addition, pest surveillance data sheets that record the number of pests or other indicators of pest populations are to be maintained to verify the need for treatments. The Contact Person will maintain documentation of communications to students and staff regarding IPM and pesticide use.

Pesticide Purchase and Storage

Pesticide purchases will be limited to the amount authorized for use during the year. Pesticides will be stored and disposed of in accordance with the EPA-registered label directions and state regulations. Pesticides must be stored in an appropriate, secure site not accessible to students or unauthorized personnel.

Pesticide Applications

Pesticides may be used after it is determined that non-toxic options are unreasonable or have been exhausted. The least hazardous pesticide will be selected and the method and time of application will be based on the goal to minimize the potential for exposure of students and staff to the pesticide. Pesticide applications made on school property will be conducted by an individual certified as a pest control applicator or by a registered employee working under the supervision of a certified applicator. Applicators must be trained in the principles and practices of IPM and the use of pesticides. They must follow state and federal pesticide regulations and label precautions and comply with this School District's IPM Policy and Plan.

Education

Staff, students, pest managers, and the public will be educated about potential school pest problems and the IPM policies and procedures to be used to achieve the desired pest management objectives and will be informed of their role in meeting these objectives.

Program Evaluation

An annual review of the IPM system will be conducted to determine the effectiveness of the program and program objectives have been achieved. This will include the review of inspection reports, sanitation reports, and other records to establish current conditions, progress of the program against pest problems and conditions, effectiveness of action thresholds, and to identify problem areas in the IPM system that may need to be modified or changed.

Notification

This School District will notify the school staff, students, parents and guardians prior to pesticide applications made in school buildings or grounds in accordance with Maryland regulations. Notices will be posted in designated areas at school and sent home to parents and guardians of elementary school students and individuals who wish to be informed in advance of pesticide applications and are on the pesticide notification list.

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Maryland Department of Agriculture

Office of Plant Industries & Pest Management

Martin O'Malley, Governor Anthony G. Brown, Lt. Governor Earl F. Hance, Secretary Mary Ellen Setting, Deputy Secretary The Wayne A. Cawley, Jr. Building 50 Harry S. Truman Parkway Annapolis, Maryland 21401 Internet: www.mda.maryland.gov Agriculture | Maryland's Leading Industry

410.841.5700 Baltimore/Washington 301.261.8106 Washington, D.C. 410.841.5914 Fax 800.492.5590 Toll Free

PESTICIDE REGULATION SECTION

410/841-5710 FAX: 410/841-2765

April 30, 2014

Joseph Spencer Dorchester County Board of Education Box 619 700 Glasgow Street, Room 102 Cambridge Frederick, MD 21613

Dear Mr. Spencer:

I would like to thank you for submitting a copy of the Dorchester County Board of Education's Integrated Pest Management Plan. As you are aware, each Integrated Pest Management Plan must be reviewed by the Maryland Department of Agriculture as set forth under Regulation 15.05.02 - *Integrated Pest Management and Notification of Pesticide Use in a Public School Building or on School Grounds*. Your revised IPM Plan has been reviewed to ensure that it is in compliance with the minimum requirements as specified in Section 15.05.02.03 - Integrated Pest Management System.

Upon completing the review of your revised Integrated Pest Management Plan the Maryland Department of Agriculture has determined that all of the required components have been addressed in your plan. This letter will serve as the formal approval of the Dorchester County Board of Education's Integrated Pest Management Plan.

Please be reminded, if any additional changes are made to the Integrated Pest Management Plan, the revised Plan must be resubmitted to the Maryland Department of Agriculture for approval. Should you have any further questions please feel free to contact me.

Sincerely,

Elwarefle. Con

Edward A. Crow Entomologist Licensing, Certification and Training

File cc: Dennis Howard Petey Councell

DORCHESTER COUNTY PUBLIC SCHOOLS INTEGRATED PEST MANAGEMENT PROGRAM IN SCHOOL BUILDINGS AND ON SCHOOL GROUNDS

Structural pests, i.e. insects and rodents, carry diseases, contaminate food and food preparation areas and can cause structural damage thus posing significant problems to people, property, and the environment. Landscape pests, i.e. insects, weeds and diseases, can pose significant problems to students, staff and users of school properties. Pesticides can also pose risks through unnecessary exposures to people, property, and the environment. Pest control in the school environment must protect the health and safety of the children and staff, minimize pest damage to structures, personal property, improve the quality of the educational environment by avoiding annoyance and disruption of work and learning caused by insects, rodents and other pests. It is therefore the policy of the Dorchester County Public Schools to adopt Integrated Pest Management (IPM) for control of pests in school buildings and on school grounds.

Responsibilities

The Facilities Department is responsible for the IPM program. The Dorchester County Public Schools has established a contact person to serve as a liaison between the administration and pest control program in order to provide oversight, consistency in the pest control program and ensure the provisions of the IPM system are fulfilled. The Operations Department Supervisor or someone in which he designates will serve as the designated contact person for the Dorchester County Public Schools. They will serve as a liaison between the school administration and parents, guardians, students and staff to address questions and concerns regarding the IPM system and pest control practices. They will also educate the administration, faculty, staff and parents and guardians about IPM procedures and make suggestions to alleviate pest problems. The Supervisor can be contacted at 410-901-6947, 2455 Cambridge Bypass, Cambridge, MD 21613.

IPM Representatives

The IPM representatives are (those individuals within the Facilities Department that are either certified, or registered as pesticide applicators) with the Maryland Department of Agriculture. They will maintain the IPM logbook for all facility locations. The IPM Representatives inspect, monitor, evaluate and implement a site specific approach to pest management. The IPM Representative is a communicator, record keeper, decision maker, educator and guardian of the well-being of everyone who enters Dorchester County Public Schools.

New IPM Plan 3/2014

The principal at each school will designate either a School Secretary or the Head Custodian to maintaining the accuracy of the IPM logbook at their school.

Campus Engineers and Head Custodians

These individuals are responsible for the cleanliness and sanitation of the buildings and grounds. All pest concerns within the building should be directed to the Campus Engineer or Head Custodian. All pest concerns on school grounds should be directed to the Operations Department. These individuals will notify the IPM Representatives of all pest sightings and relevant updates.

Faculty and Staff

These individuals are responsible for keeping and maintaining a clutter free area and properly storing all food. This procedure is essential to manage pest populations and reduce pest harborage. Place all foods, including those food groups used as part of the curriculum in tin, or heavy plastic, containers with tight fitting lids. Any pest concerns should be reported to the Operations Department.

Students

These individuals are responsible for maintaining clean lockers, desks and assisting with keeping a clean environment throughout the school.

Program Components

The Integrated Pest Management (IPM) program employed by the Dorchester County Public Schools is a proactive rather than a reactive approach to insect, rodent and weed control in school facilities and on school grounds. The IPM program includes routine inspections or surveys of all school facilities to identify conditions conducive to pest invasion, to ensure early detection of pest presence, and to monitor infestation levels. As a first step in pest control, the IPM approach employs a number of preventive strategies and alternatives to pesticide application, such as employee education, source reduction, inspection and identification of potential problem areas, clutter elimination and improved sanitation. Each approach is monitored and evaluated, and modifications are made, if necessary. Pesticides are used only as a last resort.

Monitoring and Action Thresholds

Regular monitoring of the facility and grounds will be used and information obtained is critical when evaluating potential pest populations.

By using traps, visual inspections, monitoring devices and interviews with the staff, the location, size of the infestation, and the conditions that promote a pest concern will be identified.

Sanitation and Structural Repairs

Pest concerns are often controlled by using proper sanitation procedures, reducing clutter, and completing maintenance repairs to the structure. IPM Representatives will perform exclusion work to prevent the movement of pests into or out of the facility. IPM Representatives will report unsanitary conditions to the Operations Department.

Pest Control Without Pesticides

IPM practices such as trapping, screening and caulking will be utilized and are effective long term pest control methods. The use of other Non-chemical methods also includes good sanitation and housekeeping practices that reduce clutter and pest harborage. In order to provide pest control without pesticides or by substantially reducing pesticides usage, we must make the facility and grounds less attractive to pests. Reducing the opportunity for pests to access water, food and harborage areas is a practice that will make the program successful.

Pest Control With Pesticides

Pesticide use may be necessary in the Dorchester County Public Schools IPM program to effectively control pest infestations. The choice of using pesticides will be based on a review of all other available options and a determination that these options are unreasonable or have been exhausted, in order to minimize the use of pesticides. Cost or staffing considerations alone will not be adequate justification for the use of pesticides, and selected non-chemical pest management methods will be implemented whenever possible to provide the desired control. Pesticide applications will only be made when needed and will be applied in a manner that will maximize the effectiveness in controlling the target pest and minimize the exposure to humans and other non-target species. Pesticide formulations such as baits and pastes will be the preferred method of treatment because the potential for exposure to school personnel is minimized. Preventive pesticide treatments are eliminated from the Dorchester County Public Schools IPM program.

Pesticides will only be applied by Facilities Department IPM Representatives who are certified or registered pesticide applicators.

Guidelines For Using Pesticides Are As Follows:

When it has been determined that a pesticide has to be used the following guidelines will be followed:

- Read and follow pesticide label directions.
- Use pesticides according to need and not according to anything else.
- Choose the least hazardous pesticide and method of application that will provide adequate control of the pest problem.

- Liquid and dust or wettable powders, formulations of pesticides will be applied in cracks, crevices, or voids, whenever possible, and not applied on accessible surfaces. Herbicides should also be applied to cracks and crevices where weeds occur.
- Treatment will be performed only after pests are verified and all non-chemical methods have been exhausted.
- In general, classrooms, hallways, and common areas will be treated with bait or traps only during school hours and when students are not present.
- Health suites will not be treated with a pesticide, except in the case of severe pest infestations. Medical personnel should be advised in advance of any planned application.
- Applications of pesticides to the school environment for the control of ectoparasites, such as head lice, body lice, or crab lice, are not effective and will not be made. These pest problems must be diagnosed and addressed by properly trained medical personnel.

Record Keeping

The Secretary or Head Custodians designated by the principal will be responsible for maintaining and recording all data on pest numbers and observations in the

required logbook for their schools. This will be accomplished by communication from Administrators, cafeteria personnel, staff, and facility to the Operations Department. This information will in turn be relayed to the proper personal within each school for recordation in the logbook. The logbook will also include all IPM Representatives and Facilities Department exclusion work, remediation of problem, other non-chemical pest control methods that were utilized and the required information regarding pesticide applications. These records will be maintained for a period of two years. Safety data sheets (SDS) are kept in the logbook when applicable and updated by the Operations Supervisor or designee. The Supervisor or designee also maintains all documentation of communications to students and staff regarding the IPM program and pesticide use.

Program Evaluation

Monitoring data and observations will be periodically summarized and reviewed to evaluate Dorchester County Public Schools IPM program for its effectiveness. Dorchester County Public Schools IPM practices and procedures will be continually reviewed and modified based on past experiences and results. Technical oversight provides an objective, ongoing evaluation of program activities and effectiveness. IPM Representatives will evaluate each facility and grounds program and may recommend changes to the IPM program.

Notification

School staff, students, parents and guardians will be notified at the beginning of the year regarding the integrated pest management system and prior to pesticide applications made in school buildings and on school grounds in accordance with Maryland regulations. In school notification will be made and signs will also be posted in designated areas as required by Maryland regulations.

Maryland law requires that parents of all <u>elementary school children</u> be notified a minimum of 24 hours prior to any interior or exterior pesticide application and within twenty-four hours of an emergency application. Parents of middle or high school students who wish to be notified prior to interior or exterior pesticide applications must request that they be placed on the school system's pesticide notification list. To be added to the notification list, send a written request, which includes your name and school to the school principal.

Product Labels and Material Safety Data Sheets

Copies of Safety Data Sheets (SDS) and product labels for each pesticide and bait station used on school property are maintained at each school by the designated individual (School Secretary or Head Custodian). Persons wishing to review this information should contact the Operations Manager at 2455 Cambridge Bypass, Cambridge, MD 21613.

Log Sheet Comments

Reminder that records must be maintained for all non-pesticide control methods. When a pesticide is applied the following information must also be recorded in addition to what is listed on your form – name of applicator; a listing of the area treated (i.e., boys locker room, kitchen pantry, etc.); the size of the area treated (i.e. sq. footage, number of plants etc.; the common name and EPA Registration number of the pesticide(s) used, and; rate of application. The record keeping requirements for pesticide applications are found under the Regulations Pertaining to the Pesticide Applicators Law – COMAR 15.05.01. I have attached an information sheet that provides information on these requirements.

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PARRIS N. GLENDENING, Governor HAGNER R. MISTER, Secretary BRADLEY H. POWERS, Deputy Secretary



The Wayne A. Cawley, Jr. Building 50 HARRY S. TRUMAN PARKWAY ANNAPOLIS, MARYLAND 21401 Baltimore/Annapolis (410) 841-5700 Washington (301) 261-8106 Facsimile (410) 841-5914 TTY Users 1-800-735-2258 Internet: http://www.mda.state.md.us

STATE OF MARYLAND DEPARTMENT OF AGRICULTURE

PESTICIDE REGULATION SECTION

(410) 841-5710 FAX (410) 841-2765

April 25, 2002

Laura Olsen Asst. Manager of Operations and Safety Frederick County Public Schools 7446 Hayward Road Frederick, MD 21702

Dear Ms. Olsen:

I have received the corrected copy of Frederick County Public Schools Integrated Pest Management Plan in which the necessary changes have been incorporated. Upon completing the review of your revised Integrated Pest Management Plan, the Maryland Department of Agriculture has determined that all of the required components have been addressed in your plan. This letter will serve as the formal approval of Frederick County Public Schools Integrated Pest Management Plan.

Please be reminded, if any additional changes are made to the approved Integrated Pest Management Plan, the revised Plan must be resubmitted to the Maryland Department of Agriculture for approval. If you have any further questions please feel free to contact me

Sincerely, Elward C. Cow

Edward A. Crow, Entomologist Pesticide Regulation Section

File

Integrated Pest Management Program

for

Frederick County Public Schools

Prepared by: Facilities Services Division-Operations Department (IPM complete/C:my documents-April 2002-version 1)

Integrated Pest Management Program

for

Frederick County Public Schools

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IPM POLICY

The IPM policy statement for FCPS is annually published in the calendar handbook, which is distributed by each school to staff, and to student households. The policy is included in the Calendar Handbook under "Environmental Concerns". The annual publication of this policy meets the requirements of Universal Notification, stipulated by the law. If changes to the content are necessary during the school year, (e.g. a change to a listed pesticide) FCPS will advise schools of such changes through memo, email, etc. Schools shall add the updates to their IPM booklets. The Operations Department reviews the policy notice on an annual basis. The most current version of the policy statement is as follows:

Environmental Concerns

Maryland law requires an Integrated Pest Management (IPM) program to identify and control pest problems inside and outside schools. FCPS utilizes staff training, IPM inspection, and sanitation practices to minimize or eliminate the need for pesticide use.

The law requires that schools notify parents, guardians, and staff 24 hours before pesticides are to be applied inside the school building or on the grounds. At the elementary level, parents/guardians of all students must be notified. At the middle and high school levels, schools must notify only those parents, guardians, or staff who have requested notification. Individuals wishing to be notified can obtain a notification form at each middle or high school office. The form must be updated each schoolyear.

Integrated Pest Management Law

Maryland law requires an Integrated Pest Management (IPM) program to identify and control pest problems in schools and on school grounds. The Maryland Department of Agriculture administers the law. Under an approved program, FCPS utilizes staff training, IPM, inspection, and sanitation practices to minimize or eliminate the need for pesticide use.

The law requires that schools notify parents, guardians, and staff 24 hours before pesticides are to be applied <u>inside</u> or <u>outside</u> the building. At the elementary level, parents/guardians of <u>all</u> students must be notified. At the middle and high school (secondary) levels, only those parents, guardians or staff who have requested notification needs to be sent a notice. Individuals wishing to be notified can obtain a notification request form at each middle or high school office. The form must be completed each year by requestors in order to be considered current.

Contact person

For more information about the IPM program, contact the Supervisor of Operations and Safety, 7446 Hayward Road, Frederick, MD 21702, 301 644-5150.

Pest Management Roles and Responsibilities

The role of the principal and school personnel

Each school administration is responsible for the IPM program at their respective school. The responsibilities were originally outlined in a 1999 memo to principals. This booklet replaces that information and now serves as the FCPS IPM program. Principals will receive updates about the IPM program whenever necessary.

Under the FCPS IPM program, each school is to have at least one qualified custodian trained in IPM methods. Typically this is usually the lead custodian. The Operations Department encourages the training of all custodians in IPM methods. All properly trained custodians can be listed as IPM registered and are the only school-based personnel permitted to apply pesticides. Annual training updates are required in order to maintain registration.

School Procedures:

The IPM procedures that elementary and secondary schools are to follow are outlined in the next section. Schools shall use the appropriate procedure for their level (i.e. elementary or secondary). In addition, various forms (see "Required Forms section of this booklet) are to be used to document pest control efforts, notify staff, students, parents, etc.

An appendix is provided which includes a booklet entitled "Pest Control and Sanitation: What Can I Do?". The booklet is intended as a general reference for school questions about how IPM works. It is also used in IPM training of custodians when they become registered IPM pesticide applicators. There is also a Cross Reference of Pesticides and Health Hazard data. Specific parts of this cross reference are to be included in school notification letters. Even though FCPS uses very few pesticides under IPM, the complete listing was prepared by the MD Department of Agriculture and has been included in this document as a reference tool. Principals and IPM registered staff should familiarize themselves with the appendices.

The role of the Operations Department

Any questions regarding the IPM policy and program should be directed to the IPM contact person: Laura Olsen, Supervisor of Operations and Safety 301 644-5150. As the IPM program designee for FCPS, this office is responsible for general oversight of the program, annual training of personnel and review of records, and coordination with schools in regard to their IPM activities and strategies. In addition, Operations Department staff will provide for the quality assurance of IPM records and coordination with the Maryland Department of Agriculture.

Pest control procedures and pest management objectives

Pest Control Procedures

The major focus of any IPM program is to minimize the use of pesticides. In the event that sanitation, exclusion, and other means do not provide sufficient resolution of a pest problem, pesticides may be used in accordance with the procedures outlined in this booklet.

All schools must participate in IPM practices. In order to effectively control pests, it is useful to monitor pest activity using sticky traps and/or mousetraps, BEFORE pests become a large problem. Integrated Pest Management (IPM) SERVICE REPORTS are used for this purpose (see Required Forms section).

Monitoring is intended to identify potential pests as well as provide data on how minimal or serious a problem may exist. This data MUST be collected and assessed <u>PRIOR</u> to the application of pesticides. Under the law, IPM methods must be applied and utilized and only as a last resort are pesticides considered for use.

Improvements in cleaning, sanitation, occupant education or other non-chemical methods must be used before pesticide use will be authorized. The IPM Service Report Form serves as a record of each school's efforts to monitor, assess, and control pests and documents strategies.

SCHOOLS MUST COMPLETE IPM SERVICE REPORTS ON A MONTHLY BASIS.

A copy of each report shall be submitted monthly, by the Lead Custodian, to the Custodial Services Specialist for that school. This will assist the Operations Department and your school in controlling pests. A copy should be maintained by the Lead Custodian with the school's IPM binder as well. All records pertaining to IPM are subject to inspection by Operations and/or The Maryland Department of Agriculture.

Pesticide Applications: IPM Registered Personnel and Contractors

The Operations Department maintains a list of all registered individuals and must provide this information to the Maryland Department of Agriculture upon request. Schools are NOT allowed to apply pesticides inside or outside a school, unless applied by a registered individual or by a contractor approved by the Operations Department. This includes applications for weed control, athletic fields, etc.

Notification procedures:

School principals are responsible for assuring that all appropriate notifications are made, prior to application of a pesticide inside school or on school grounds. A guidance document entitled "**Public School Notification Requirements**" is included in the next section for easy reference.

Elementary School Procedures:

See "Public School Notification Requirements" chart in this section for typical school pesticide/herbicide applications. It indicates which instances require notification and/or in-school postings.

- 1. Elementary Schools must <u>post</u> a notice in a central location in the building AND <u>send</u> (to <u>all</u> parents, guardians and staff) a letter 24 hours prior to the application of any INDOOR or OUTDOOR pesticide/herbicide.
- 2. Outdoor applications also require posting of yellow placard cards at the time of the application at each primary access to the property. If only a spot or limited application is made, a card may be posted at the location where the application was made. The yellow cards must remain posted for at least 48 hours following the application. (Note: The Operations Department provides packets of placard cards and holders to schools).
- 3. See "Required Forms" section for letters to be used ("Indoor/Outdoor Application notification" and "CAUTION" posting notice). They should be reproduced on school stationary for distribution. When preparing this letter, schools must also copy or attach the appropriate health hazard info for the specific chemical being applied. Excerpts of health data and a cross reference list was prepared by the MD Dept. of Agriculture for this purpose and is located in Appendix A. The excerpt of health hazard data can be "cut and pasted" onto the bottom of the letter. All of the forms for IPM are contained in this booklet and are also posted on the FCPS shared drive (under the folder name "Operations-IPM forms").
- 4. Emergency pesticide applications are allowed. However, if a pesticide is applied as an emergency, the notice letter and posting must be done within 24 hrs of the application with an explanation of the emergency. Use the "Emergency Application" letter and copy or attach the appropriate health hazard data (see 2. above). Indoor applications for such insects as bees, yellow jackets, flies, flying ants, etc. <u>are not necessarily considered emergencies</u>. If a principal determines that an emergency application is warranted they must follow the emergency notification procedure within 24 hours or the next school day.
- 5. Only licensed or registered parties such as IPM trained custodians, grounds crew, and/or contractors authorized by the Operations Dept. are permitted to apply pesticides/herbicides inside or outside a school. Contact the Operations Department for a list of current applicators at your school.
- 6. Schools must have product labels and Material Safety Data Sheets (MSDS) for all pesticide/herbicide products (approved for Frederick County Public Schools) available (upon request) for public review. Pesticides/herbicides *not* approved for use should *not* be applied on school property.
- 7. Schools must maintain a list of students or staff that have been identified as potentially sensitive (e.g. chemically allergic, asthmatics, etc.). This list should be coordinated through health records maintained by the school health room. The Health Form has been modified to assist in collection of this data.

Secondary School Procedures:

See "Public School Notification Requirements" chart in this section for typical school pesticide/herbicide applications. It indicates which instances require notification and/or in-school postings.

- 1. Secondary schools <u>do not</u> automatically send out a notice to all staff, parents and guardians. They <u>must maintain a list</u> of individuals (staff, parents, and guardians) that <u>wish to be notified</u> 24 hours in advance of an INDOOR or OUTDOOR pesticide/herbicide application. Persons on the list <u>MUST</u> be notified of an INDOOR or OUTDOOR pesticide/herbicide use 24 hours prior to the application. See "Required Forms" section for letters to be used ("Pesticide Notification Request", "Indoor/Outdoor Application notification", and "CAUTION" posting notice). They should be reproduced on school stationary for distribution. When preparing the notification letter, schools must also copy or attach the appropriate health hazard info for the specific chemical being applied. Excerpts of health data and a cross reference list was prepared by the MD Dept. of Agriculture for this purpose and is located in Appendix A. The excerpt of health hazard data can be "cut and pasted" onto the bottom of the letter. All of the forms for IPM are contained in this booklet and are also posted on the FCPS shared drive (under the folder name "Operations-IPM forms").
- 2. Outdoor applications also require posting of yellow placard cards at the time of the application at each primary access to the property. If only a spot or limited application is made, a card may be posted at the location where the application was made. The yellow cards must remain posted for at least 48 hours following the application. (Note: The Operations Department provides packets of placard cards and holders to schools).
- 3. Secondary schools must update the notification list on an annual basis and keep it current throughout each school year, adding <u>new</u> students and staff added as appropriate (See "Newly Enrolled Student/Staff Request" form for this purpose). As noted in the calendar handbook, <u>requestors are responsible for keeping their names current EACH year</u>. The "persons to be notified" list must be made available to the Maryland Department of Agriculture or Operations Department upon request. Schools should cross-reference this information on the student health card (which has been modified to assist in the collection of this data).
- 4. Emergency pesticide applications are allowed however, if a pesticide is applied as an emergency, emergency notification must be sent out within 24 hrs of the application with an explanation of the emergency. Indoor applications for such insects as bees, yellow jackets, flies, flying ants, etc. <u>are not necessarily considered emergencies</u>. If a principal determines that an emergency application is warranted they must follow the emergency notification procedure. (See "Emergency application" form).
- 5. Only licensed parties such as IPM trained custodians, grounds crew, and/or contractors authorized by the Operations Dept. are permitted to apply pesticides/herbicides. Contact the Operations Department for a list of current applicators at your school.
- 6. Schools must have Material Safety Data Sheets (MSDS) and labels for all pesticide/herbicide products approved for Frederick County Public Schools available (upon request) for public). Pesticides/herbicides *not* approved for use should *not* be applied on school property.

PUBLIC SCHOOL NOTIFICATION REQUIREMENTS

No = No notifications are required Yes = posting notice and letter sent out 24 hr. in advancePosting = posting of notices only (no letters to be sent)

	NOTICATION REOUIRED	
TYPE OF PEST CONTROL	ELEMENTARY	MIDDLE/HIGH
Use of Disinfectants and Sanitizers	No	No
Use of Sticky Trap	No	No
Use of Insect Monitoring Stations	No	No
Use of Pheromone Traps	No	No
Use of Rodent Snap Traps and Glue Boards	No	No
Physical Removal/Trapping of Skunks, Raccoon, Snakes, etc.	No	No
Bait Stations (Insect and Rodent)	Posting	Posting
Crack & Crevice Insecticide Application (Aerosol)	Yes *	Yes *
Crack & Crevice Insecticide Application (Pressurized Spray)	Yes *	Yes *
Crack & Crevice Insecticide Application (Bait, Paste or Gel)	Yes *	Yes *
Bee and Wasp Spray – Indoors (Including Wall Voids Treated From Outside)	Yes **	Yes **
Bee and Wasp Spray – Outdoors	Yes	Yes
Space Spray, Total Release or Fogging	Yes ***	Yes ***
Building Perimeter Insecticide Application For General Pests	Yes	Yes
Insecticide To Exterior Ornamental Plants	Yes	Yes
Herbicide Applications To Turf Areas and Plant Beds	Yes	Yes
Herbicide applications To Sidewalks, Parking Lots and Along Fences	Yes	Yes

* 24 Hour Advance Notification (Elementary, send to all staff, students, parents & do central posting Middle/High, send to listed parties & do central posting)

** If An Emergency Within 24 Hours of Application (Elementary, same as above Middle/High, same as above)

*** 1 Week Prior Notification (Elementary, same as above Middle/High, same as above)

REQUIRED FORMS

List of forms

- > Monthly IPM Service Report form (part 1): used to document IPM efforts
- > Pest Control Work Order form (part 2)): used to request pesticide application
- Indoor/Outdoor Application Notification Letter: used by all schools to publicly notify of pesticide application
- Emergency Pesticide Application Notification Letter: used by all schools to publicly notify of Emergency pesticide application
- Newly Enrolled Student/Staff Notification Request Form
 (Secondary schools only)
- > Pesticide/Herbicide Notification Request List Form
- ➢ (Secondary schools only)
- > <u>Posting Notice</u> Caution Pesticide/Herbicide Application-used for central posting
- > <u>Posting Notice</u> -Caution Emergency Application-used for central posting
- Space Spraying Notification Form: used by all schools to publicly notify of space spraying (i.e. fogging) pesticide application

Integrated Pest Management (IPM) SERVICE REPORTS

All schools must participate in IPM practices. In order to effectively control pests, it is useful to monitor pest activity using sticky traps and/or mousetraps, BEFORE pests become a large problem.

Monitoring is intended to identify potential pests as well as provide data on how minimal or serious a problem may exist. This data MUST be collected and assessed PRIOR to the application of pesticides.

Improvements in cleaning, sanitation, occupant education or other non-chemical methods must be used before pesticide use will be authorized. The IPM Service Report Form serves as a record of each school's efforts to monitor, assess, and control pests.

SCHOOLS MUST COMPLETE IPM SERVICE REPORTS (part 1) ON A MONTHLY BASIS.

A copy of each report shall be submitted monthly, by the Lead Custodian, to the Custodial Services Specialist for that school. This will assist the Operations Department and your school in controlling pests. A copy shall be maintained by the Lead Custodian with the school's IPM binder. All records pertaining to IPM are subject to inspection by Operations and/or The Maryland Department of Agriculture.

Schools are encouraged to contact their Custodial Services Specialist or the Operations Department if there are questions about IPM or a specific pest problem. Proactive efforts are key components of IPM. Don't wait till a problem becomes severe before contacting us!

Further guidance for resolving specific pest problems may be found in "Pest Control and Sanitation: What Can I do?" (see Appendix B of this booklet).
MONTHLY IPM SERVICE REPORT FORM (part 1)

Submitted for month: Jan Feb Mar Apr May June July Aug Sep Oct Nov Dec (circle month)

School/Facility			Date:
IPM trained person completing form:		I	Phone:
Monitoring Actie checked on at least a monitored each mont	ONS: Rooms/Locations of monito weekly basis. For all traps placed h. A list of the most common loca	ring ("sticky" or mouse) traps sho , mark a diagram AND indicate be ations are noted below.	uld be identified on a separate diagram and low all locations where traps are being
Main office	Faculty lounge	Locker room(s)	Kitchen
Cafeteria	Restroom(s)	Outdoors	Other:
Classrooms		NO traps/monitor	rs were placed this month
Observations: cockroaches (number of roaches and type,	, (if known) observed on trap	·
ants	flies	other(specify):	
Potential sources	s of pest problems (as obser	ved by IPM registered perso	n): (list all that apply)
1. Sanitation prob	lems:area not clean (e.g.	crumbs present, sticky residues, etc)	
occupants no	ot assisting in keeping area c	lean (e.g. leave food out, beverages/wate	r sources, dirty dishes present)
2. Repair/structura	al problems:hole(s) in	n wall/floor(specify location)	
leak(s)(speci	fy location):	other:	
Non-chemical ac	tions taken:		
Area cleane	dCaulk/exclusion me	thod usedIPM literatur	re provided to occupants
Repair Wor	k Ordered submitted to Mai	ntenance Cluster -Enter WO	number
Before any pestic chemical action i	cide can be used, you must s warranted, complete a P	complete the information o est Control Work Order fo	on this page. If is it determined that rm (part 2), attach this form (part 1)

and submit both pages to Custodial Services Specialist for review. Forms can be faxed to Operations at 301 644 5175. (This information will be maintained and reviewed by Operations to determine IPM program needs for training, alternative methods, etc.)

Pest Control Work Order form (part 2)

~

*****IMPORTANT: <u>Attach a copy</u> of	f IPM Service Report Form (part 1)*****
IPM trained person completing this form:	Date:
A pest problem has been verified as foll	lows:
Problem inside the building	problem outside the building
Chemical actions are recommended *, I	based on the following:
Monitored pest populations exceed a depending upon factors such as weather, season, popu	acceptable level(s) (note: acceptable thresholds will be determined on a case by case basis, lation affected, etc.)
Pest identified poses immediate heal	th or other hazards (e.g. stinging insects, poison ivy)
Pest has/will cause damage to structu	are, property, etc. (e.g. termites, insect pests in turf)
Other (specify):	•
complete both forms (part 1 and part 2) approved, pesticide notification must ta this booklet.) and fax to the Custodial Services Specialist at 301 644 5175. If the place in accordance with the IPM policies and procedures in
To be completed by Operations Depart	ment:
Reviewed by:	Date:
Pesticide application by IPM registered er	nployee or contractor is:
ApprovedWO number	NOT Approved:
To be completed by IPM Regis (Submit <u>completed</u> copy of form to Custo	stered employee or contractor: dial Services Specialist. Retain a copy in IPM binder).
Employee or Contractor name:	Date of Application:
Location of application:	Target pest:
Pesticide: (common name)	EPA reg. number on label:
Amount of application	Wind speed:

INDOOR/OUTDOOR PESTICIDE APPLICATION

NOTIFICATION TO PARENTS, GUARDIANS AND STAFF

Integrated pest management procedures such as inspections and monitoring are used to determine when to control pests and to identify conditions contributing to pest problems. The necessity for pest control, if warranted, is evaluated and one or more pest control methods including sanitation, structural repair, non-chemical methods and pesticides is utilized. Problem areas are identified where alternative pest control technologies can be incorporated in order to eliminate routine pesticide applications. It has been determined that a current pest problem warrants the use of a pesticide to effectively control the pest problem.

If you require further information regarding this notice you can contact the school office

School:	Phone:
Common Name of Pesticide To Be Applied:	
Location(s) of the Pesticide Application:	
Planned Date and Time of Application:	

Note: The Maryland Department of Agriculture's Regulations pertaining to Integrated Pest Management and Notification of Pesticide Use in Public Schools requires that the following information be provided as part of this notice:

"The Office of Pesticide Programs of the United States Environmental Protection Agency has stated: 'Where possible, persons who potentially are more sensitive, such as pregnant women and infants (less than two years old), should avoid any unnecessary pesticide exposure'."

EMERGENCY PESTICIDE APPLICATION

NOTIFICATION TO PARENTS, GUARDIANS AND STAFF

Integrated pest management procedures such as inspections and monitoring are used to determine when to control pests and to identify conditions contributing to pest problems. The necessity for pest control, if warranted, is evaluated and one or more pest control methods including sanitation, structural repair, non-chemical methods and pesticides is utilized. Problem areas are identified where alternative pest control technologies can be incorporated in order to eliminate routine pesticide applications. It was determined that an emergency pest situation existed that warranted the use of a pesticide on an emergency basis.

If you require further information regarding this notice you can contact the school office

School:	Phone:
Common Name of Pesticide Applied:	
Location(s) of the Pesticide Application: _	
Planned Date and Time of Application:	
Reason for Emergency Pesticide Applica	tion:

Note: The Maryland Department of Agriculture's Regulations pertaining to Integrated Pest Management and Notification of Pesticide Use in Public Schools requires that the following information be provided as part of this notice: "The Office of Pesticide Programs of the United States Environmental Protection Agency has stated: 'Where possible, persons who potentially are more sensitive, such as pregnant women and infants (less than two years old), should avoid any unnecessary pesticide exposure'."

INTEGRATED PEST MANAGEMENT NOTICE FOR NEWLY ENROLLED STUDENTS OR NEW STAFF

(NOTE: this form applies ONLY to Secondary schools)

INTEGRATED PEST MANAGEMENT AND NOTIFICATION PROGRAM

The Integrated Pest Management (IPM) program employed by the Frederick County Public School is a proactive rather than a reactive approach to insect and rodent control in school facilities. The IPM program includes routine inspections or surveys of all school facilities to identify conditions conducive to pest invasion, to ensure early detection of pest presence, and to monitor infestation levels. As a first step in pest control, the IPM approach employs a number of preventative strategies and alternatives to pesticide application, such as: employee education, source reduction, inspection and identification of potential problem areas, and improved sanitation. Each approach is monitored and evaluated, and modifications are made if necessary. Pesticides are used only as a last resort.

Maryland Law requires that parents of all elementary school children be notified prior to any interior pesticide application. Parents of <u>middle school or high school</u> students who wish to be notified prior to interior pesticide applications must request that they be placed on the school system's pesticide notification list. To be added to the notification list, complete the attached form Pesticide/Herbicide Notification Request List Form to your child's school <u>EACH</u> year.

The following is a list of the pesticides and bait stations, by common name, which may be used in school buildings during the school year:

abamectin	diphacinone	pyrethrin
allethrin	hydramethylnon	silica gel
boric acid	orthoboric acid	sulfuramid
bromadiolone	piperonyl butoxide	sulfonamide

Copies of material safety data sheets (MSDS) and product labels for each pesticide and bait station used on school property is maintained by each school. Persons wishing to review this information should contact the school office. For additional information about the Integrated Pest Management Program, please contact the Supervisor of Operations and Safety at 301 644-5150.

Pesticide/Herbicide Notification Request List Form

(Note: this procedure applies only to Secondary Schools)

House Bill #286, enacted in the 1998 session of the Maryland Legislature, requires that secondary schools maintain a list of parents, guardians and staff who desire notification of pesticide/herbicide application in their child's school. All individuals that request placement on the list will be notified 24 hours prior to a regular application and within 24 hours following an emergency application.

notifications as requeste school by	(School Name) will maintain such a list for the (school year) and will make d. If you wish to be placed on the notification list provide the information requested below and return to the (Date).
PARENT/GUARDIAN (Circle one abo	I/STAFF MEMBER INFORMATION: ove)
NAME:	
ADDRESS:	
PHONE:	Day:
	Evening:
STUDENT INFORMA	TION:
NAME:	
ADDRESS:	
Parents/guardians : providing us with th	In order to assist us in keeping your child's Health Information card current, please e specific information below:
1.Does the s	tudent have allergies or reaction to a specific pesticide/herbicide? (yes/no)
If yes what pesticide	e/herbicide(s)? :
2. Did you li	st this information on your student's health card? (yes/no)
Parent, Guardian, Sta	ff Member Signature: Date:

POSTING NOTICE

CAUTION

Pesticide/Herbicide Application

Notification to Parents/Staff

Frederick County Public Schools practices a method of pest/weed control known as Integrated Pest Management, or IPM. This is an E.P.A. endorsed program that minimizes the use of pesticides/herbicides to control pests and weeds. Therefore, only under certain circumstances is it deemed necessary to use pesticides/herbicides. However, due to a current problem, noted below, an application will be conducted. This Notice has been posted as part of the IPM program requirements.

If you require further information about this notice please contact the school.

School:	Phone:
Principal:	_
Pest/Item to be controlled:	
Planned date and time of application:	
Common name of pesticide/herbicide to be	e used:

Location(s) where pesticide/herbicide will be used:

Note: The Maryland Department of Agriculture's Regulations pertaining to Integrated Pest Management and Notification of Pesticide Use in Public Schools requires that the following information be provided as part of this notice: "The Office of Pesticide Programs of the United States Environmental Protection Agency has stated: 'Where possible, persons who potentially are more sensitive, such as pregnant women and infants (less than two years old), should avoid any unnecessary pesticide exposure'."

POSTING NOTICE

CAUTION

EMERGENCY Pesticide/Herbicide Application

Notification to Parents/Staff

Frederick County Public Schools practices a method of pest control known as Integrated Pest Management, or IPM. This is an E.P.A. endorsed program that minimized the use of pesticides to control pests. Therefore, only under certain circumstances is it deemed necessary to use pesticides indoors or herbicides outdoors. However, due to the current pest problem, noted below, an application was made on an emergency basis. This notice has been posted as part of the IPM program requirements.

If you require further information about this notice please contact the school.

School:	Phone:
Principal:	
Pest/Item to be controlled:	
Date and time of application:	
Common name of pesticide used:	
Location(s) where pesticide was used:	
Reason for emergency application:	

Note: The Maryland Department of Agriculture's Regulations pertaining to Integrated Pest Management and Notification of Pesticide Use in Public Schools requires that the following information be provided as part of this notice:

"The Office of Pesticide Programs of the United States Environmental Protection Agency has stated: 'Where possible, persons who potentially are more sensitive, such as pregnant women and infants (less than two years old), should avoid any unnecessary pesticide exposure'."

SPACE SPRAYING

NOTIFICATION TO PARENTS, GUARDIANS AND STAFF REGARDING THE PLANNED SPACE SPRAYING OF A PESTICIDE

Integrated pest management procedures such as inspections and monitoring are used to determine when to control pests and to identify conditions contributing to pest problems. The necessity for pest control, if warranted, is evaluated and one or more pest control methods including sanitation, structural repair, non-chemical methods and pesticides is utilized. Problem areas are identified where alternative pest control technologies can be incorporated in order to eliminate routine pesticide applications. It has been determined that a current pest problem warrants the use of a pesticide to be applied as a space spray in order to effectively control the pest problem.

If you require further information about this notice please contact the school.

School:	Phone:
Common Name of Pesticide To Be Applied:	
Location(s) of the Pesticide Application:	
Planned Date and Time of Application:	

Note: The Maryland Department of Agriculture's Regulations pertaining to Integrated Pest Management and Notification of Pesticide Use in Public Schools requires that the following information be provided as part of this notice: "The Office of Pesticide Programs of the United States Environmental Protection Agency has stated: 'Where possible, persons who potentially are more sensitive, such as pregnant women and infants (less than two years old), should avoid any unnecessary pesticide exposure'."

Appendix A:

Cross Reference of Pesticides and Health Hazard Data (as prepared by the Maryland Department of Agriculture)

Cross Reference for Pesticides Used in Schools

Last updated 04/01/02

COMMON NAME	PRODUCT NAME	EPA REG. NO.
abamectin	Advance Granular Ant Bait	499-370
abamectin B1	Avert Cockroach Gel Bait	499-410
abamectin B1	Avert Crack and Crevice Bait	499-322
	Prescription Treatment 300	
abamectin B1	Avert Crack and Crevice Bait	499-294
	Preciption Treatment 310	
acephate	PT 280 Orthene	499-230
4-aminopyridine	Avitrol	11649-1
.,		11649-3
		11649-6
		11649-7
amorphous silica gel	Drione Insecticide	4816 353
azoxystrobin	Heritage	10182-408
bentazon	Basagran	7969-45
bendiocarb	Ficam D	45639-3
bendiocarb	Ficam W	45639-1
bendiocarb	Ficam Plus	45639-66
benzvldiethvl	Ro-Pel	45735-2
bifenthrin	Talstar Termiticide/Insecticide	279-3206
boric acid	Niban Granular Bait	64405-2
boric acid	Stapletons M.R.F. 2000	54452-2
boric acid	Biotrol Carpet Powder	64396-1
boric acid	PRO-JOE-S Roach Bait/Gel	54452-6
	Formula 15	
brodifacoum	Final	12455-90
brodifacaum	Final Blox	12455-89
brodifacoum	Talon-G	10182-341
brodifacoum	Weather Blok Bait	10182-339
bromacil	Zep Formula 777	1270-113
bromadiolone	Contrac	12455-34
		12455-69
		12455-82
12455-36		
bromadiolone	Maki Mini Block	7173-202
bromadiolone	Maki Paraffinized Pellets	7173-187
2-butoxyethanol	Wasp & Hornet Killer	9688-49-5741
carbaryl	Dragon Sevin 10% Dust	16-27
carbaryl	Ortho Sevin Insecticide 5 Dust	239-1349
carbaryl	Wasp & Hornet Jet Freeze	9444-098
chlorophacinone	Eaton's A-C Formula 90	56-56
	Ready-To-Use	

chlorophacinone	Rozol	7173-151
chlorpyrifos	Dursban*4E Insecticide	62719-11
chlorpyrifos	Dursban*50W	62719-72
chlorpyrifos	Dursban LO	62719-55
chlorpyrifos	Dursban*Pro	62719-166
chlorpyrifos	Dursban TC	62719-47
chlorpyrifos	Empire*20	62719-88
chlorpyrifos	Ford's Dursban Insecticide Concentrate	10370-64
chlorpyrifos	PT 279 ENGAGE	499-292
chlorpyrifos	PT 400 ULTRABAN	499-271
cholecalciferol	Quintox	12455-57
		12455-39
cyfluthrin	Tempo 0.1% Dust	3125-429
cyfluthrin	Tempo 2 EC	3125-372
		3125-352
cyfluthrin	Temp 20% Wettable Powder	3125-377
		3125-380
		3125-395
		3125-396
		3125-397
		3125-403
cypermethrin	Demon EC Insecticide	10182-105
cypermethrin	Prevail FT Termiticide	279-3082
2,4-D, MCPP, Dicamba	Lesco Three Way Herbicide	10404-43
2,4-D, DMA, MCPP, Dicamba	Trimec 992 Broadleaf Herbicide	2217-656
2,4-D, MCPP, Dicamba	Trimec Classic Broadleaf Herbicide	2217-543
D-trans allethrin	PT 515 Wasp-Freeze Wasp and Hornet Killer	499-362
D-trans allethrin	PT 565 PLUS XLO	499-310
deltamethrin	DeltaDust Insecticide	432-772
deltamethrin	Suspend SC	432-763-62719
diazinon	Garb Spray	
diazinon	Minefield	706-59-40208
diazinon	Pratt Diazinon 5% Granular	904-202
diazinon	Pratt Diazinon 14%	904-228
diazinon	Pratt Diazinon AG4E	904306
diazinon	Prentox Diazinon 4E	655-457
diazinon	PT 265A Knox Out	499-228
diazinon	Spectracide Soil & Turf Insect	8845-95

PRODUCT NAME

EPA REG. NO.

Control 6000 Diazinon Granules

COMMON NAME	PRODUCT NAME	EPA REG. NO.
difethialone	Generation Pellets Placepacks	7173-205 7173-206 7173-211
diphacinone	Ditrac	7173-218 12455-5 12455-14 12455-20
diphacinone	Ditrac Tracking Powder	12455-56
diphacinone disodium octaborate tetrahydrate esbiothrin	P.C.Q./RODENT CAKE/DI-BLOX Bora-Care Flving Insect Killer	12455-12 64405-1
esfenvalerate	Conquer Residual Insecticide Concentrate	1021-1641
ethofumesate	Prograss EC	45639-68
fenoxaprop-p-ethyl	Acclaim Extra	45639-167
fenoxycarb	PT 400 ULTRABAN	499-271
fenvalerate	F-V-S insect Fogger	4758-136
fipronil	Maxforce FC Ant Bait Station	64248-10
fipronil	Maxforce FC Professional Insect Control Roach Bait Stations	64248-11
fipronil	Maxforce FC Roach Killer Gel Bait	64248-14
glycol borate solution	Bora-Care	64405-1
glyphosate	Roundup Pro	524-475
halosulfuron-methyl	Manage	524-465
hexaflumuron	Recruit* II Termite Bait	62719-243
hydramethylnon	Maxforce Roach Control System	64248-1
hydramethylnon	Maxforce Granular Insect Bait	64248-6
hydramethylnon	Maxforce Pharaoh Ant Killer	64248-2
hydramethylnon	Maxforce Professional Insect Control Roach Killer Bait Gel	64248-5
hydramethylnon	Siege Gel	241-313
hydramethylnon	Siege Pro Fire Ant Bait	241-322
hydroprene	Gentrol E.C. IGR	2724-304-50809
hydroprene	Gentrol IGR Concentrate	2724-351
hydroprene	Gentrol Point Source	2724-469
imidacloprid	PreEmpt Professional Cockroach Gel Bait	3125-525
imidacloprid	Premise 75 WP	3125-455
isoxaben	Gallery* 75	62719-145
lambda-cyhalothrin	Demand CS	10182-361
malathion	Claire Bee Wasp & Hornet Killer	706-72
malathion	Kibosh	706-72-40208
medium aliphatic naptha	Kibosh	706-72-40208

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Metarhizium anisopliae (S)-methoprene methoprene

metsulfuron methyl mint oil

MSMA

napthalene/sulfur orthoboric acid orthoboric acid (Boric Acid) orthoboric acid (Boric Acid) orthoboric acid oryzalin oxadizaon permethrin phenothrin

phenothrin phenothrin

piperonyl butoxide piperonyl butoxide

piperonyl butoxide piperonyl butoxide piperonyl butoxide piperonyl butoxide piperonyl butoxide piperonyl butoxide piperonyl butoxide potassium salt or fatty acids prodiamine prometon prometon

PRODUCT NAME

Bio-Path	64296-3
Pharorid Ant Growth Regulator	2724-420
Precor 1% Emulsifiable	2724-352-50809
"Escort"	352-439
Victor Poison Free Wasp &	N/A
Hornet Spray	
Daconate 6	50534-5
Dr. T's Snake-A-Way	58630-1
Borid with Boric Acid	9444-129
Drax Ant Kil Gel	9444-131
Drax Ant Kil PF	9444-135
Drax Roach Kil Gel	9444-131
Surflan* A.S.	62719-113
Ronstar G	264-445
Dragnet FT Termiticide	279-3062
CB Stinger Wasp & Hornet	9444-181
Jet Spray	
PT 120 XLO	499-371
PT 515 Wasp-Freeze Wasp	499-362
and Hornet Killer	
CB-38 Insecticide	9444-021
CB-80 Insecticide	9444-096
CB 123 Extra	9444-188
Drione Insecticide	4816-353
Flying Insect Killer	
F-V-S Insect Fogger	4758-136
Garb Spray	
Kicker	4816-707
Magic Circle Fog Spray Conc.	4704-26
Pro Control II Total Release	11540-27
Fogger	
PT 170A X-CLUDE	499-235
PT 230 TRI-DIE	499-223
PT 3-6-10 Aero-Cide	499-221
PT 565 Pyrethrin	499-182
PT 565 PLUS XLO	499-310
ULD BP-50 Insecticide	11540-13
ULD BP-100 Insecticide	11540-9
Wasp & Hornet Jet Freeze	9444-098
Concern Insect Killing Soap	62355-2-50932
Barricade 65WG	55947-43
Pramitol 5PS	100-479
Pramitol 25E	100-443

EPA REG. NO.

propetamphos propetamphos propetamphos propoxur propoxur propoxur pyrethrins quinclorac resmethrin s-bioallethrin siduron siduron silica gel sodium borate

sodium borate sodium borate sulfluramid sulfluramid

sulfluramid sulfonamide

PRODUCT NAME

Catalvst	2724-450
Safrotin 1% Aerosol	2724-340-50809
Safrotin Emulsifiable	2724-314
Concentrate Insecticide	
Baygon 2% Bait	3125-121
Baygon 70% WP	3125-146
Invader Residual Insecticide	9444-92
CB-38 Insecticide	9444-021
CB-80 Insecticide	9444-096
CB 123 Extra	9444-188
Drione Insecticide	4816-353
Ficam Plus	45639-66
Garb Spray	10000 00
Kicker	4816-707
Magic Circle Fog Conc.	4704-26
Minefield	706-59-40208
Pro Control II Total Release	11540-27
Fogger	
PT 170A X-CLUDE	499-235
PT 230 TRI-DIE	499-223
PT 3-6-10 Aero-Cide	499-221
PT 565 Pyrethrin	499-182
PT 565 PLUS XLO	499-310
Summit Pyrethrin Fog Conc 122	6218-48
ULD BP-50 Insecticide	11540-13
ULD BP-100 Insecticide	11540-9
Wasp & Hornet Jet Feeze	9444-098
Drive 75 DF	7969-130
Flying Insect Killer	
Summit Esbiol Fogging	6218-67
Concentrate 1-2-3	
Crabgrass Preventer with 4.7%	9198-65
Tupersan	
"Tupersan"	352-307
PT 230 TRI-DIE	499-223
Mop Up	9444-132
Tim-Bor	1624-39
Advance Dual Choice	499-459
Firstline GT Plus Termite	279-3170
Bait Station	279-3171
	279-3196
Fluorguard Ant Bait Station	1812-348-279
Pro-Control Ant Bait	11540-20

EPA REG. NO.

tetramethrin

tetramethrin thymol tralomethrin

tralomethrin trichlorfon trifloxystrobin vinclozolin zinc phosphide zinc phosphide zinc phosphide

PRODUCT NAME

EPA REG. NO.

CB Stinger Wasp & Hornet	9444-181
Jet Spray	
HB II Wasp and Hornet Killer	334-567
Ro-Pel	45735-2
Saga Multi Purpose Residual	432-771
Spray Insecticide	
Saga WP Insecticide	432-755
Dylox	3125-184
Compass	100-920
Curalan	7969-62
ZP Rodent Bait	12455-18
ZP Rodent Bait (AG)	12455-17
ZP Tracking Powder	12455-16

Potential Adverse Effects Based Upon Pesticide Product Material Safety Data Sheets (MSDS)

Last updated 04/01/02

PRODUCT NAME: Acclaim Extra COMMON NAME: fenoxaprop-p-ethyl EPA REGISTRATION NUMBER: 45639-167

HEALTH HAZARD DATA: Eyes: Causes moderate eye irritation. Vapors may cause eye irritation. Skin: A slight skin irritant. Ingestion: Harmful if swallowed. Small amounts of the solvent in this product aspirated into the respiratory system during ingestions or vomiting may cause mild to severe pulmonary injury. Inhalation: High vapor/aerosol concentrations (greater than approximately 1,000 ppm) are irritating to the eyes and the respiratory tract, may cause headaches, dizziness, anesthesia, drowsiness, unconsciousness, and other central nervous system effects. Effects of Overexposure: Symptoms of overexposure include headache, nausea, loss of appetite. Ingestion may induce CNS depression-like symptoms and other adverse health effects.

<u>PRODUCT NAME:</u> Advance Dual Choice <u>COMMON NAME:</u> sulfluramid <u>EPA REGISTRATION NUMBER:</u> 499-459 <u>HEALTH HAZARD DATA:</u> Toxicity data and effects of overexposure: Not applicable.

PRODUCT NAME: Advance Granular Ant Bait

COMMON NAME: abamectin

EPA REGISTRATION NUMBER: 499-370

HEALTH HAZARD DATA: Health Hazard (Acute and Chronic) - Signs and Symptoms of Exposure: Eye Contact: May cause some reversible eye irritation.

<u>PRODUCT NAME:</u> Avert Cockroach Gel Bait <u>COMMON NAME:</u> abamectin B1 <u>EPA REGISTRATION NUMBER:</u> 499-410 <u>HEALTH HAZARD DATA:</u> Health Hazard (Acute and Chronic) - Signs and Symptoms of Exposure: Eye: May cause slight irritation reversible within 24 hours.

PRODUCT NAME: Avert Crack and Crevice Bait Prescription Treatment 300 **COMMON NAME:** abamectin B1 **EPA REGISTRATION NUMBER:** 499-322 **HEALTH HAZARD DATA:** Signs and symptoms of exposure: Eye: May cause some reversible eye irritation. Skin: May cause slight irritation to skin.

<u>PRODUCT NAME</u>: Avert Crack and Crevice Bait Prescription Treatment 310 <u>COMMON NAME</u>: abamectin B1 <u>EPA REGISTRATION NUMBER</u>: 499-294 <u>HEALTH HAZARD DATA</u>: Acute and Chronic Signs and Symptoms of Exposure: Eye: May cause some

reversible eye irritation.

PRODUCT NAME: Avitrol

COMMON NAME: 4-aminopyridine

EPA REGISTRATION NUMBER: 11649-1; 11649-3; 11649-4; 11649-6; 11649-7

HEALTH HAZARD DATA: Primary Routes of Entry: Acute effects from overexposure may result from ingestion. Acute Effects of Overexposure: There is no human specific data available. Chronic Effects From Overexposure: There are no known chronic effects of overexposure to these products. However, persons handling large quantities of these products who are allergic to grain and grain dust should anticipate similar allergic reactions. Medical Conditions Which Might Be Aggravated by Exposure: Other than grain allergies, non presently known.

PRODUCT NAME: Barricade 65WG <u>COMMON NAME:</u> prodiamine <u>EPA REGISTRATION NUMBER:</u> 55947-43 <u>HEALTH HAZARD DATA: Signs and Symptoms of Oversynasure</u>

HEALTH HAZARD DATA: Signs and Symptoms of Overexposure: Eye irritation, possible skin sensitization. Sensitizer: Mildly sensitizing.

PRODUCT NAME: Basagran COMMON NAME: bentazon EPA REGISTRATION NUMBER: 7969-45

HEALTH HAZARD DATA: Harmful if swallowed or absorbed through skin. Causes moderate eye irritation. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

PRODUCT NAME: Baygon 2% Bait COMMON NAME: propoxur

EPA REGISTRATION NUMBER: 3125-121

HEALTH HAZARD DATA: Human Effects and Symptoms of Overexposure: Acute Effects of Exposure inhalation, dermal absorption or ingestion of this material may result in systemic intoxication due to inhibition of the enzyme cholinesterase. The sequence of development of systemic effects varies with the route of entry, and the onset of symptoms may be delayed an hour or more. First symptoms of poisoning may be nausea, increased salivation, lacrimation, blurred vision and constricted pupils. Other symptoms of systemic poisoning include vomiting, diarrhea, abdominal cramping, dizziness and sweating. After inhalation, respiratory symptoms like tightness of chest, wheezing, and laryngeal spasms, may be pronounced at first. If the poisoning is severe, then symptoms of convulsions, low blood pressure, cardiac irregularities, loss of reflexes and coma may occur. In extreme cases, death may occur due to a combination of factors such as respiratory arrest, paralysis of respiratory muscles or intense bronchoconstrictions. Complete symptomatic recovery from sublethal poisoning usually occurs within 24 hours once the source of exposure is completely removed. It can cause mild irritation to the conjunctiva with all irritation resolving within 7 days. Chronic Effects of Exposure...Repeated exposure to small amount of this material may result in unexpected cholinesterase depression causing symptoms such as malaise, weakness, and anorexia that resemble other illnesses such as influenza. Exposure to the concentration that would not have produced symptoms in a person that was not previously exposed may produce severe symptoms of cholinesterase inhibition in a previously exposed person.

PRODUCT NAME: Baygon 70% Wettable Powder COMMON NAME: propoxur

EPA REGISTRATION NUMBER: 3125-146

HEALTH HAZARD DATA: ROUTE(S) OF ENTRY: Inhalation; Skin Contact; Skin Absorption HUMAN EFFECTS AND SYMPTOMS OF OVEREXPOSURE: ACUTE EFFECTS OF EXPOSURE: Inhalation, dermal absorption or ingestion of this material may result in systemic intoxication due to inhibition of the enzyme cholinesterase. The sequence of development of systemic effects varies with the route of entry, and the onset of symptoms may be delayed an hour or more. First symptoms of poisoning may be nausea, increased salivation, lacrimation, blurred vision and constricted pupils. Other symptoms of systemic poisoning include vomiting, diarrhea, abdominal cramping, dizziness and sweating. After inhalation, respiratory symptoms like tightness of chest, wheezing, and laryngeal spasms, may be pronounced at first. If the poisoning is severe, then symptoms of convulsions, low blood pressure, cardiac irregularities, loss of reflexes and coma may occur. In extreme cases, death may occur due to a combination of factors such as respiratory arrest, paralysis of respiratory muscles or intense bronchoconstrictions. Complete symptomatic recovery from sublethan poisoning usually occurs within 24 hours once the source of exposure is completely removed. CHRONIC EFFECTS OF EXPOSURE: Repeated exposure to small amounts of this material may result in unexpected cholinesterase depression causing symptoms such as malaise, weakness, and anorexia that resemble other illness such as influenza. Exposure to the concentration that would not have produced symptoms in a person that was not previously exposed may produce severe symptoms of cholinesterase inhibition in a previously exposed person. Excessive long-term exposure to respirable crystalline silica may cause silicosis, a form of progressive pulmonary fibrosis. Severe and permanent lung damage may result. MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: No specific medical conditions are known which may be aggravated by exposure to the active ingredient in this product; however, any disease, medication or prior exposure which reduces normal cholinesterase activity may increase susceptibility to the toxic effects of the active ingredient. In addition, pulmonary and respiratory diseases may be aggravated by exposure to respirable crystalline silica.

<u>PRODUCT NAME:</u> Bio-Path <u>COMMON NAME:</u> Metarhizium anisopliae <u>EPA REGISTRATION NUMBER:</u> 64296-3 <u>HEALTH HAZARD DATA:</u> Effects of Overexposure: Eye Contact: Transient mild conjunctival inflammation.

PRODUCT NAME: Biotrol Carpet Powder COMMON NAME: boric acid EPA REGISTRATION NUMBER: 64396-1

HEALTH HAZARD DATA: Acute Exposure: Eye: Mild irritant. Dermal: May be absorbed through damaged skin. Inhalation: May cause sneezing and coughing if exposed to high concentration (>10mg/ml). Chronic Exposure: Eye: May cause slight reversible conjunctivitis. Inhalation: As with any nuisance dusts, may aggravate chronic respiratory aliments such as asthma. Ingestion: May cause nausea, vomiting, or diarrhea. After 24 hours, erythema, macular skin rash, and dizziness may occur. Eye: Mild irritation.

PRODUCT NAME: Bora-Care

COMMON NAME: disodium octaborate tetrahydrate

EPA REGISTRATION NUMBER: 64405-1

HEALTH HAZARD DATA: Eye Contact: This material may cause eye irritation. Direct contact with the gel may cause burning, tearing and redness in sensitive individuals. Skin Contact: Prolonged or repeated exposure to this material may cause softening of the skin. Persons with pre-existing skin disorders may be more susceptible to the effects of this material. Ingestion: This material can be harmful if swallowed. It is slightly toxic to humans. Ingestion of large amounts may cause nausea, mental sluggishness followed by difficulty in breathing and heart failure, kidney and brain damage, possibly death. Inhalation: Breathing high concentrations of vapors may cause nausea, dizziness or drowsiness, and irritation of the nose and throat. Pre-existing lung disorders may be aggravated by exposure to this material.

PRODUCT NAME: Borid

COMMON NAME: orthoboric acid (Boric Acid) EPA REGISTRATION NUMBER: 9444-129

HEALTH HAZARD DATA: Acute and Chronic: Large amounts absorbed into blood stream from ingestion or through damaged skin may result in erythema, macular rash, nausea, diarrhea, dizziness, depression, CNS effects after 24 hours through broken skin or 36-72 hours from ingestion. May cause slight irritation to broken skin. Signs and Symptoms of Exposure: Ingestion: May cause nausea, vomiting, diarrhea in doses > 15 gms. Eyes: May cause slight, reversible conjunctivitis. Skin: May cause slight irritation on damaged skin. Inhalation: Nuisance dust. May cause transitory sneezing and coughing.

PRODUCT NAME: Catalyst

COMMON NAME: propetamphos

EPA REGISTRATION NUMBER: 2724-450

HEALTH HAZARD DATA: Signs and Symptoms of Overexposure: This product contains a cholinesterase inhibiting compound. Early symptoms are unspecific and may include headache, nausea, vomiting, salivation, sweating, and constricted pupils. If the exposure is severe, symptoms such as diarrhea, tightness in chest, slowing of pulse, and difficulty in breathing may be observed. Skin Irritation: Mild irritant. Eye Irritation: Mild transient irritant. Sensitizer: Non-sensitizing.

PRODUCT NAME: CB-38 Insecticide

COMMON NAME: pyrethrins, piperonyl butoxide

EPA REGISTRATION NUMBER: 9444-021

HEALTH HAZARD DATA: Acute and Chronic: Laboratory studies have shown that petroleum distillates, similar to the one in this product, can produce kidney effects in male rats. The significance of these effects are unlikely, due to a number of human studies, which produced no evidence of such effects at normal occupational levels. Also, chronic overexposures to 1,1,1 Trichloroethane have caused liver toxic effects in experimental animals. Signs and Symptoms of Exposure: Dermatitis, skin disorder, nausea, throat irritation, headaches, dizziness, drowsiness, and other nervous system effects. Medical Conditions Generally Aggravated by Exposure: Acute and chronic liver disease and rhythm disorders of the heart. Skin contact may aggravate an existing dermatitis.

PRODUCT NAME: CB-80 Insecticide

COMMON NAME: pyrethrins, piperonyl butoxide

EPA REGISTRATION NUMBER: 9444-096

HEALTH HAZARD DATA: Acute and Chronic: Laboratory studies have shown that petroleum distillates, similar to the one in this product, can produce kidney effects in male rats. The significance of these effects are unlikely, due to a number of human studies, which produced no evidence of such effects at normal occupational levels. Also, chronic overexposures to 1,1,1 Trichloroethane have caused liver toxic effects in experimental animal. Signs and Symptoms of Exposure: Dermatitis, skin disorder, nausea, throat irritation, headaches, dizziness, drowsiness, and other nervous system effects. Medical Conditions Generally Aggravated by Exposure: Acute and chronic liver disease and rhythm disorders of the heart. Skin contact may aggravate an existing dermatitis.

PRODUCT NAME: CB-123 Extra

COMMON NAME: pyrethrins, piperonyl butoxide

EPA REGISTRATION NUMBER: 9444-188

HEALTH HAZARD DATA: Health Hazards (Acute and Chronic): Health studies have shown many petroleum hydrocarbons pose potential human risks which may vary from person to person. Inhalation of high concentrations of Ethane, 1-1Difluoro-vapors is harmful and may cause heart irregularities, unconsciousness, or death. Intentional misuse or deliberate inhalation may cause death without warning. Signs and Symptoms of Exposure: Dizziness, headaches, drowsiness, incoordination, eye irritation, dermatitis, skin disorders, nausea, throat irritation, loss of consciousness, and other nervous system disorders. Prolonged skin contact may cause mild to moderate local redness and selling. Medical Conditions Generally Aggravated by Expo-sure: Skin contact may aggravate an existing dermatitis. Persons with a pre-existing disease of the central nervous system or cardiovascular system may have increased susceptibility to the toxicity of excessive exposures.

PRODUCT NAME: CB Stinger Wasp & Hornet Jet Spray

COMMON NAME: tetramethrin, phenothrin

EPA REGISTRATION NUMBER: 9444-181

HEALTH HAZARD DATA: Route(s) of Entry: Inhalation - Yes, Skin - Yes, Ingestion - Yes. Health Hazards (Acute and Chronic): Prolonged or repeated exposures can cause irritation of the skin, possibly progressing into dermatitis. Signs and Symptoms of Exposure: Skin disorders, eye irritation, nasal and respiratory irritation, nervous system disorders, such as fatigue, dizziness, headaches.

PRODUCT NAME: Claire Bee Wasp & Hornet Killer

COMMON NAME: malathion

EPA REGISTRATION NUMBER: 706-72

HEALTH HAZARD DATA: Signs and Symptons of Exposure: INHALATION: May cause dizziness and drowsiness. High vapor concentrations may be irritating to the nose, respiratory tract and may cause central nervous system depression. SKIN: Slightly irritating, prolonged or repeated exposure may cause defatting and drying of the skin. EYE: This product is an eye irritant. INGESTION: May result in vomiting. Aspiration of vomitus into the lungs must be avoided, as even small quantities may result in aspiration pneumonitis, which may be evidenced by coughing, labored breathing or cyanosis body becoming blue in color. Medical Conditions Generally Aggravated by Exposure: Preexisting skin or eye disorders may be aggravated by exposure to this product.

<u>PRODUCT NAME:</u> Compass <u>COMMON NAME:</u> trifloxystrobin <u>EPA REGISTRATION NUMBER:</u> 100-920 <u>HEALTH HAZARD DATA:</u> A skin sensitizing (allergic) reaction may occur in some individuals.

PRODUCT NAME: Concern Insect Killing Soap COMMON NAME: potassium salt of fatty acids EPA REGISTRATION NUMBER: 62355-2-50932 HEALTH HAZARD DATA: N/A

PRODUCT NAME: Conquer Residual Insecticide Concentrate COMMON NAME: esfenvalerate

EPA REGISTRATION NUMBER: 1021-1641

HEALTH HAZARD DATA: Symptoms and Effects of Overexposure: Eyes: Can cause temporary irritation, tearing and blurred vision. Skin: Can cause a burning sensation on more sensitive areas (faces, eyes, mouth). Inhalation: Excessive inhalation can cause nasal and respiratory irritation, nausea and nervous system disorders, such as fatigue, dizziness, headaches, lack of coordination, tremors and unconsciousness. Ingestion: Can cause stomach irritation, resulting in nausea, cramps and vomiting. Can also cause nervous system disorders, such as fatigue, dizziness, headaches, lack of coordination, tremors and unconsciousness.

PRODUCT NAME: Contrac <u>COMMON NAME</u>: bromadiolone <u>EPA REGISTRATION NUMBER</u>: 12455-34, 12455-36, 12455-69, 12455-79, 12455-82 <u>HEALTH HAZARD DATA</u>: Signs and Symptoms of Exposure: Nausea, vomiting, loss of appetite, extreme thirst, lethargy, diarrhea, bleeding.

PRODUCT NAME: Crabgrass Preventer with 4.7% Tupersan <u>COMMON NAME</u>: siduron <u>EPA REGISTRATION NUMBER</u>: 9198-65 <u>HEALTH HAZARD DATA</u>: Medical Conditions Aggravated by Exposure: Asthma and other chronic cardiovascular or pulmonary disease.

<u>PRODUCT NAME:</u> Curalan <u>COMMON NAME:</u> vinclozolin <u>EPA REGISTRATION NUMBER:</u> 7969-62 <u>HEALTH HAZARD DATA:</u> Harmful if swallowed, inhaled or absorbed through skin. Causes eye irritation.

Prolonged exposure or frequently repeated skin contact may cause allergic reactions in some individuals.

<u>PRODUCT NAME:</u> Daconate 6 <u>COMMON NAME:</u> MSMA <u>EPA REGISTRATION NUMBER:</u> 50534-5 <u>HEALTH HAZARD DATA:</u> Slight irritant to skin and eyes. Slightly toxic by ingestion.

PRODUCT NAME: DeltaDust Insecticide

COMMON NAME: deltamethrin

EPA REGISTRATION NUMBER: 432-772

HEALTH HAZARD DATA: Health: May be harmful if absorbed through skin. Skin: May cause a transient, localized paresthesia, characterized by tingling, burning or numbness sensation in some individuals.

PRODUCT NAME: Demand CS COMMON NAME: lambdacyhalothrin

EPA REGISTRATION NUMBER: 10182-361

HEALTH HAZARD DATA: Ingestion: This material is classified as "very low toxicity" by ingestion. In humans, severe gastrointestinal disturbance is associated with ingestion of the hydrocarbon solvent. Ingestion of excessive quantities can also induce signs of central nervous system depression (e.g., drowsiness, dizziness, loss of coordination, and fatigue). Small amounts of the hydrocarbon solvent, if aspirated into the lungs during ingestion or subsequent vomiting, may induce severe lung congestion resulting in labored breathing, coma, and death. Eye contact: This material is mildly irritating in rabbit eye irritation studies. A similar degree of irritation will probably occur after human eye contact. Skin contact: Skin exposures may cause a skin sensation called paresthesia, which is usually described as tingling, itching, burning, prickling, glowing, flushing, numbness or a chapped felling. Symptoms usually occur around the face (mouth and eyes) but may involve the arms or hands. Symptoms may develop shortly after exposure or can be delayed up to four hours and can persist between 2 and 30 hours following contact. The effect may result from transferring the material to the face from contaminated gloves and hands. Inhalation: This material is considered moderately toxic by inhalation. At high concentrations, vapors or aerosols of the solvent can produce respiratory and central nervous system depression, headache, dizziness, and nausea. Other effects of overexposure: Ingestion may produce nausea. vomiting, abdominal pain, diarrhea. Large doses ingested may cause disturbance of the nervous system. Facial skin tingling has been described after contact with the active ingredient.

PRODUCT NAME: Demon EC Insecticide COMMON NAME: cypermethrin

EPA REGISTRATION NUMBER: 10182-105

HEALTH HAZARD DATA: Ingestion: Relative to other materials, this material is classified as "moderately toxic" by ingestion. Eye Contact: This material will probably irritate human eyes following contact. Skin Contact: This material will probably irritate human skin. Skin sensitization and irritation may develop after repeated and/or prolonged contact with human skin. Skin exposures may cause a skin sensation called paresthesia, which is usually described as tingling, itching, burning, prickling, glowing, flushing, numbness or a chapped feeling. Symptoms usually occur around the face (mouth and eyes) but may involve the arms or hands. Symptoms may develop shortly after exposure or can be delayed up to four hours and can persist between 2 and 30 hours following contact. There is no evidence of any long-term or cumulative effects on the skin. Inhalation: Systemic toxic effects are likely to develop following exposure to high concentrations.

PRODUCT NAME: Ditrac

COMMON NAME: diphacinone

EPA REGISTRATION NUMBER: 12455-5, 12455-14, 12455-29, 12455-80

HEALTH HAZARD DATA: Caution: May be irritating. Signs and Symptoms of Exposure: May reduce clotting ability of the blood and cause bleeding.

PRODUCT NAME: Ditrac Tracking Powder COMMON NAME: indandione EPA REGISTRATION NUMBER: 12455-56

HEALTH HAZARD DATA: Signs and Symptoms of Exposure: Nausea, vomiting, loss of appetite, extreme thirst, lethargy, diarrhea, bleeding.

PRODUCT NAME: Dragnet FT Termiticide COMMON NAME: permethrin EPA REGISTRATION NUMBER: 279-3062

HEALTH HAZARD DATA: Potential Health Effects: Effects from overexposure result from ingestion or coming into contact with the skin or eyes. Symptoms of overexposure include increased hypersensitivity to touch and sound, tremors and convulsions. Contact with permethrin may produce skin sensations such as numbing, burning or tingling. These skin sensations are reversible and usually subside within 12 hours.

PRODUCT NAME: Dragon Sevin 10% Dust

COMMON NAME: carbaryl

EPA REGISTRATION NUMBER: 16-27

HEALTH HAZARD DATA: Symptoms of Exposure: headache, nausea, vomiting, sweating, abdominal cramps and pinpoint pupils. Carbaryl is a moderate, reversible, cholinesterase inhibitor.

PRODUCT NAME: Drax Ant Kil Gel

COMMON NAME: orthoboric acid (Boric Acid)

EPA REGISTRATION NUMBER: 9444-131

HEALTH HAZARD DATA: (Acute and Chronic): Large amounts absorbed into blood stream from ingestion or through damaged skin may result in erythema, macular rash, nausea, diarrhea, dizziness, depression, CNS effects after 24 hours, through broken skin or 36-72 hours from ingestion. May cause slight irritation to broken skin. Signs and Symptoms of Exposure: Ingestion: May cause nausea, vomiting, diarrhea in doses >15gm. Eyes: May cause slight, reversible conjunctivitis. Skin: May cause slight irritation on damaged skin. Inhalation: Nuisance dust. May cause transitory sneezing and coughing.

PRODUCT NAME: Drax Ant Kil PF

COMMON NAME: orthoboric acid (Boric Acid)

EPA REGISTRATION NUMBER: 9444-135

HEALTH HAZARD DATA: Acute and Chronic: Large amounts absorbed into blood stream from ingestion or through damaged skin may result in erythema, macular rash, nausea, diarrhea, dizziness, depression, CNS effects after 24 hours, through broken skin or 36-72 hours from ingestion. May cause slight irritation to broken skin. Signs and Symptoms of Exposure: Ingestion: May cause nausea, vomiting, diarrhea in doses > 15 gms. Eyes: May cause slight, reversible conjunctivitis. Skin: May cause slight irritation on damaged skin. Inhalation: Nuisance dust. May cause transitory sneezing and coughing.

PRODUCT NAME: Drax Roach Kil Gel COMMON NAME: orthoboric acid EPA REGISTRATION NUMBER: 3095-068-9444

HEALTH HAZARD DATA: (Acute and Chronic): Large amounts absorbed into blood stream from ingestion or through damaged skin may result in erythema, macular rash, nausea, diarrhea, dizziness, depression, CNS effects after 24 hours, through broken skin or 36-72 hours from ingestion. May cause slight irritation to broken skin. Ingestion: May cause nausea, vomiting, diarrhea in doses >15gms. Eyes: May cause slight, reversible conjunctivitis. Skin: May cause slight irritation on damaged skin. inhalation: Nuisance dust. May cause transitory sneezing and coughing.

PRODUCT NAME: Drione Insecticide <u>COMMON NAME:</u> pyrethrins, piperonyl butoxide, amorphous silica gel <u>EPA REGISTRATION NUMBER:</u> 4816-353 <u>HEALTH HAZARD DATA:</u> Potential Health Effects: Eyes: May cause mild irritation.

PRODUCT NAME: Drive 75 DF COMMON NAME: quinclorac EPA REGISTRATION NUMBER: 7969-130

HEALTH HAZARD DATA: Harmful if swallowed, inhaled, or absorbed through the skin. Avoid contact with skin, eyes or clothing. Avoid breathing dust or spray mist. Causes moderate eye injury. May cause allergic skin response. For a minor component of the formulation: Over exposure to crystalline silica results in silicosis, a lung disease characterized by coughing, difficult breathing, wheezing, scarring of the lungs, and repeated, non-specific chest illnesses. The International Academy for Research on Cancer (IARC) has classified crystalline silica in Group 2A (those agents with limited evidence of carcinogenicity to humans).

PRODUCT NAME: Dr. T's Snake-A-Way <u>COMMON NAME</u>: napthalene/sulfur <u>EPA REGISTRATION NUMBER</u>:58630-1 <u>HEALTH HAZARD DATA</u>: Effects of Overexposure: Dust irritating to eyes and respiratory membranes. Low order of oral and skin toxicity.

PRODUCT NAME: Dursban*4E Insecticide COMMON NAME: chlorpyrifos EPA REGISTRATION NUMBER: 62719-11

HEALTH HAZARD DATA: Eye: May cause moderate eye irritation which may be slow to heal. May cause moderate (temporary) corneal injury. Vapors may irritate eyes. Skin Contact: Prolonged or repeated exposure may cause severe irritation, even a burn. Skin Absorption: A single prolonged exposure may result in the material being absorbed in harmful amounts. Ingestion: If aspirated (liquid enters lung), may cause lung damage or even death due to chemical pneumonia. Inhalation: Excessive exposure may produce organophosphate-type cholinesterase inhibition. Excessive vapor concentrations of solvent are attainable and could be hazardous on single exposure, causing respiratory irritation and central nervous system depression. Signs and symptoms of central nervous depression are, in order of increasing exposure, headache, dizziness, drowsiness, and incoordination. Systemic (Other Target Organ) Effects: Excessive exposure may produce organophosphate-type cholinesterase inhibition. Signs and symptoms of excessive exposure to chlorpyrifos may be headache, dizziness, incoordination, muscle twitching, tremors, nausea, abdominal cramps, diarrhea, sweating, pinpoint pupils, blurred vision, salivation, tearing, tightness in chest, excessive urination, convulsions.

PRODUCT NAME: Dursban*50W COMMON NAME: chlorpyrifos EPA REGISTRATION NUMBER: 62719-72

HEALTH HAZARD DATA: Eye: May cause pain and slight eye irritation. Ingestion: Single dose oral toxicity is moderate. Systemic (Other Target Organ) Effects: Excessive exposure may produce organophosphate type cholinesterase inhibition. Signs and symptoms of excessive exposure to active ingredient may be headache, dizziness, incoordination, muscle twitching, tremors, nausea, abdominal cramps, diarrhea, sweating, pinpoint pupils, blurred vision, salivation, tearing, tightness in chest, excessive urination, and convulsions.

PRODUCT NAME: Dursban LO COMMON NAME: chlorpyrifos EPA REGISTRATION NUMBER: 464-571

HEALTH HAZARD DATA: Eye: May cause moderate eye irritation. May cause moderate corneal injury. Skin Contact: Prolonged exposure may cause skin irritation. Ingestion: Single dose oral toxicity is low. If aspirated (liquid enters the lung), may cause lung damage or even death due to chemical pneumonia, a condition caused by petroleum and petroleum-like solvents. Systemic (Other Target Organ) Effects: Excessive exposure may produce organophosphate type cholinesterase inhibition. Signs and symptoms of excessive exposure to active ingredient may be headache, dizziness, incoordination, muscle twitching, tremors, nausea, abdominal cramps, diarrhea, sweating, pinpoint pupils, blurred vision, salivation, tearing, tightness in chest, excessive urination, convulsions.

PRODUCT NAME: Dursban*Pro

COMMON NAME: chlorpyrifos

EPA REGISTRATION NUMBER: 62719-166

HEALTH HAZARD DATA: Eye: May cause slight eye irritation. Ingestion: Single dose oral toxicity is considered to be low. If aspirated (liquid enters the lung), may cause lung damage or even death due to chemical pneumonia. Systemic (Other Target Organ) Effects: Excessive exposure may produce organophosphate type cholinesterase inhibition. Signs and symptoms of excessive exposure to active ingredient may be headache, dizziness, incoordination, muscle twitching, tremors, nausea, abdominal cramps, diarrhea, sweating, pinpoint pupils, blurred vision, salivation, tearing, tightness in chest, excessive urination, or convulsions.

PRODUCT NAME: Dursban TC COMMON NAME: chlorpyrifos EPA REGISTRATION NUMBER: 62719-47

HEALTH HAZARD DATA: Potential Health Effects: Eye: May cause moderate eye irritation. May cause slight corneal injury. Effects may be slow to heal. Vapors may irritate eyes. Skin: Prolonged or repeated exposure may cause skin irritation. A single prolonged exposure may result in the material being absorbed in harmful amounts. Ingestion: Single dose oral toxicity is moderate. Small amounts swallowed incidental to normal handling operations are not likely to cause injury; however, swallowing amounts larger than that may cause serious injury, even death. If aspirated (liquid enters the lung), may cause damage or even death due to chemical pneumonia. Inhalation: Excessive exposure may produce organophosphate type cholinesterase inhibition. Excessive exposure to solvent may cause respiratory tract irritation and central nervous system depression. Signs and symptoms of central nervous system depression, in order of increasing exposure, are headache, dizziness, drowsiness, and incoordination. Systemic (other target organ) Effects: Excessive exposure to chlorpyrifos may be headache, dizziness, incoordination, muscle twitching, tremors, nausea, abdominal cramps, diarrhea, sweating, pinpoint pupils, blurred vision, salivation, tearing, tightness in chest, excessive urination, and convulsions.

PRODUCT NAME: Dylox

COMMON NAME: trichlorfon EPA REGISTRATION NUMBER: 3125-184

HEALTH HAZARD DATA: ACUTE EFFECTS OF EXPOSURE: Inhalation, dermal absorption or ingestion of this material may result in systemic intoxication due to inhibition of the enzyme cholinesterase. The sequence of development of systemic effects varies with the route of entry and the onset of symptoms may be delayed up to 12 hours. First symptoms of poisoning may be nausea, increased salivation, lacrimation, blurred vision and constricted pupils. Other symptoms of systemic poisoning include vomiting, diarrhea, abdominal cramping, dizziness and sweating. After inhalation, respiratory symptoms like tightness of chest, wheezing, laryngeal spasms, may be pronounced and appear first. If the poisoning is severe, then symptoms of weakness, muscle twitching, confusion, ataxia, slurred speech, then convulsions, low blood pressure, cardiac irregularities, loss of reflexes and coma may occur. In extreme cases death may occur due to a combination of factors such as respiratory arrest, paralysis of respiratory muscles or intense bronochoconstrictions. Complete symptomatic recovery from sublethal poisoning usually occurs within one week once the source of exposure in completely removed. Based on the EPA Toxicity Category criteria, this material is moderately toxic orally and mildly toxic dermally. CHRONIC EFFECTS OF EXPOSURE: Cholinesterase inhibition sometimes persists for 2-6 weeks, thus repeated exposure to small amounts of this material may result in an unexpected cholinesterase depression causing symptoms such as malaise, weakness, and anorexia that resemble other illnesses such as influenza. Exposure to a concentration that would not have produced symptoms in a person that was not previously exposed may produce severe symptoms of cholinesterase inhibition in a previously exposed person. MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: Any disease, medication or prior exposure which reduces normal cholinesterase activity may increase susceptibility to the toxic effect of the active incredient.

PRODUCT NAME: Eaton's A-C Formula 90 Ready-To-Use

COMMON NAME: chlorophacinone

EPA REGISTRATION NUMBER: 56-56

HEALTH HAZARD DATA: Acute and Chronic: Normal reaction to overdose of anticoagulant. Initial symptoms may include back pain, vomiting, attacks of nose bleed and gum bleeding, pallor and weakness.

<u>PRODUCT NAME:</u> Empire* 20 <u>COMMON NAME:</u> chlorpyrifos <u>EPA REGISTRATION NUMBER:</u> 62719-88 <u>HEALTH HAZARD DATA:</u> Systemic (Other Target Organ) Effect: Chlorpyrifos is a cholinesterase inhibitor.

PRODUCT NAME: "Escort" COMMON NAME: metsulfuron methyl EPA REGISTRATION NUMBER: 352-439

HEALTH HAZARD DATA: Eye contact may cause eye irritation with tearing, pain or blurred vision. Repeated dermal contact may cause skin irritation with itching, burning redness, swelling or rash.

PRODUCT NAME: Ficam D COMMON NAME: bendiocarb

EPA REGISTRATION NUMBER: 45639-3

HEALTH HAZARD DATA: Potential Health Effects: Eyes: May cause slight or no irritation. Skin: May be absorbed through the skin. Inhalation: May cause respiratory irritation and symptoms associated with reversible cholinesterase inhibition. Signs and Symptoms: Excessive inhalation of bendiocarb can cause reversible cholinesterase inhibition. The symptoms of overexposure are headache, nausea, dizziness, constricted pupils and reversible vision impairment. Ingestion of large amounts may cause vomiting, abdominal cramps, diarrhea, muscular incoordination, and incontinence. Medical Conditions Aggravated by Overexposure: Excessive dust inhalation may aggravate pre-existing respiratory conditions.

PRODUCT NAME: Ficam W

COMMON NAME: bendiocarb

EPA REGISTRATION NUMBER: 45639-1

HEALTH HAZARD DATA: Potential Health Effects: Eyes: May cause temporary and reversible miosis (constriction of the pupil of the eye). Skin: A slight skin irritant. May be absorbed through the skin. Ingestion: Harmful or fatal if swallowed. Inhalation: Excessive dust or mist inhalation can cause symptoms associated with cholinesterase inhibition. Signs and Symptoms: May be fatal if swallowed. May be poisonous if inhaled. Overexposure to bendiocarb produces symptoms associated with cholinesterase inhibition are: a sense of "tightness" in chest, sweating, headache, nausea, dizziness, constricted pupils, reversible vision impairment, salivation, vomiting, abdominal cramps, diarrhea, incontinence, muscular incoordination and twitching. Medical Conditions Aggravated by Overexposure: May possibly aggravate pre-existing respiratory conditions.

PRODUCT NAME: Ficam Plus

COMMON NAME: bendiocarb, pyrethrins EPA REGISTRATION NUMBER: 45639-66

HEALTH HAZARD DATA: Potential Health Effects: Eyes: A moderate eye irritant. Skin: A mild skin irritant. Can be absorbed through the skin. Ingestion: Harmful or fatal if the concentrated FICAM PLUS is swallowed. Inhalation: May be poisonous if the concentrated product is inhaled which may produce effects associated with cholinesterase inhibition. Effects of Overexposure: Overexposure to bendiocarb produces effects associated with cholinesterase inhibition. Symptoms include a sense of "tightness" in chest, sweating, headache, nausea, dizziness, constricted pupils, reversible vision impairment, salivation, vomiting, abdominal cramps, diarrhea, incontinence, muscular incoordination and twitching. Medical Conditions Aggravated by Overexposure: May possibly aggravate pre-existing respiratory conditions.

PRODUCT NAME: Final

COMMON NAME: brodifacoum

EPA REGISTRATION NUMBER: 12455-89, 12455-90

HEALTH HAZARD DATA: Signs and Symptoms of Exposure: Nausea, vomiting, loss of appetite, extreme thirst, lethargy, diarrhea, bleeding.

PRODUCT NAME: Firstline GT Plus Termite Bait Station **COMMON NAME:** sulfluramid

EPA REGISTRATION NUMBER:

HEALTH HAZARD DATA: Potential Health Effects: Effects from overexposure result from swallowing this product. Symptoms of overexposure include diarrhea.

PRODUCT NAME: Flying Insect Killer

COMMON NAME: resmethrin, esbiothrin, piperonyl butoxide

EPA REGISTRATION NUMBER: N/A

HEALTH HAZARD DATA: Primary Route(s) of Exposure: EYE AND SKIN CONTACT, INHALATION, INGESTION - Effects of Overexposure: <u>EYES:</u> Mild irritation. <u>SKIN:</u> Mild irritation with prolonged contact. <u>INHALATION:</u> Nausea, dizziness, headache. <u>INGESTION:</u> gastrointestinal irritation, nausea, diarrhea.

PRODUCT NAME: Ford's Dursban Insecticide Concentrate

COMMON NAME: chlorpyrifos

EPA REGISTRATION NUMBER: 10370-64

HEALTH HAZARD DATA: Potential Health Effects: Eyes: Causes moderate eye irritation. Skin: Slightly irritating to the skin. Ingestion: Harmful if swallowed. Inhalation: Can cause respiratory irritation. Signs and Symptoms: Overexposure to chlorpyrifos may cause headaches, nausea, dizziness, muscle twitches, vomiting, cramps, and sweating. Extreme overexposure may cause unconsciousness, convulsions, and respiratory depression. Medical Conditions Aggravated by Overexposure: Chlorpyrifos is a cholinesterase inhibitor.

PRODUCT NAME: Fluorguard Ant Bait Station

COMMON NAME: sulfluramid

EPA REGISTRATION NUMBER: 1812-348-279

HEALTH HAZARD DATA: Potential Health Effects: Effects from overexposure may result from coming into contact with the skin. Symptoms of overexposure include nasal discharge, emaciation and decreased food consumption.

PRODUCT NAME: F-V-S Insect Fogger

COMMON NAME: fenvalerate, piperonyl butoxide

EPA REGISTRATION NUMBER: 4758-136

HEALTH HAZARD DATA: Signs and Symptoms of Exposure: Headache, nausea, tightness in chest, sweating and blurred vision. Medical Conditions: May cause irritation of skin or eyes.

PRODUCT NAME: Gallery* 75 COMMON NAME: isoxaben EPA REGISTRATION NUMBER: 62719-145

HEALTH HAZARD DATA: POTENTIAL HEALTH EFFECTS: EYE: May cause moderate eye irritation which may be slow to heal. May cause slight transient (temporary) corneal injury. SKIN: Prolonged or repeated exposure may cause slight skin irritation. A single prolonged exposure is not likely to result in the material being absorbed in harmful amounts. **INGESTION:** Single dose oral toxicity is extremely low. No hazards anticipated from swallowing small amounts incidental to normal handling operations. **SYSTEMIC (OTHER TARGET ORGAN) EFFECTS:** Repeated excessive exposure to crystalline silica may cause silicosis, a progressive and disabling disease of the lungs. Some evidence suggests that kidney effects may result from excessive exposure also. **CANCER INFORMATION:** This mixture contains a component which is listed as a carcinogen for hazard communication purposes under OSHA Standard 29 CFR 1910.1200. Component listed by IARC and NTP is crystalline silica.

PRODUCT NAME: Garb Spray

COMMON NAME: pyrethrins, piperonyl butoxide, diazinon EPA REGISTRATION NUMBER: N/A

HEALTH HAZARD DATA: Routes of Entry: Inhalation, skin, ingestion. Signs and Symptoms of Exposure: Dizziness and Drowsiness. Eye irritation. Skin Redness or irritation. Ingestion can cause vomiting. Medic

Dizziness and Drowsiness. Eye irritation. Skin Redness or irritation. Ingestion can cause vomiting. Medical Conditions Generally Aggravated by Exposure: Preexisting skin or eye disorders may be aggravated by exposure to this product.

PRODUCT NAME: Generation Mini Blocks

COMMON NAME: difethialone

EPA REGISTRATION NUMBER: 7173-218

HEALTH HAZARD DATA: This product may be harmful or fatal if swallowed or absorbed through the skin because this material may reduce the clotting ability of the blood and cause bleeding. Bleeding disorders may be aggravated by chronic exposure. **Acute Effects: Eyes:** This product causes mild, transient eye irritation, which may be seen as redness. **Skin:** This product may be harmful or fatal if absorbed through the skin. Initial signs of toxicity may include lethargy, loss of appetite and reduced clotting ability of the blood. **Ingestion:** This product may be harmful or fatal if swallowed. Initial signs of toxicity may include lethargy, loss of appetite and reduced clotting ability of the blood. **Ingestion:** This product cause accumulative toxicity by all primary routes of entry.

PRODUCT NAME: Generation Pellets

COMMON NAME: difethialone

EPA REGISTRATION NUMBER: 7173-205, 7173-211

HEALTH HAZARD DATA: This product may be harmful or fatal if swallowed or absorbed through the skin because this material may reduce the clotting ability of the blood and cause bleeding. **Medical Conditions Aggravated by Long-term Exposure:** Bleeding disorders may be aggravated by chronic exposure. **Acute Effects: Eyes:** This product causes substantial, but temporary, eye injury, which may be seen as redness. **Skin:** This product produces temporary skin irritation, which may be seen as redness and slight edema. This product may be harmful or fatal if absorbed through the skin. Initial signs of toxicity may include lethargy, loss of appetite and reduced clotting ability of the blood. **Ingestion:** This product may be harmful or fatal if swallowed. Initial signs of toxicity may include lethargy, loss of appetite and reduced clotting ability of the blood. **Chronic Effects:** Repeated exposure to small amounts of product can produce accumulative toxicity by all primary routes of entry. PRODUCT NAME: Generation Pellets Placepacks COMMON NAME: difethialone EPA REGISTRATION NUMBER: 7173-206, 7173-218

HEALTH HAZARD DATA: Overexposure Effects: This product is an anticoagulant and can cause bleeding. If in contact with body: This product can be absorbed through the skin. If swallowed: May be harmful or fatal if swallowed because this material may reduce ability of the blood and cause bleeding. Causes substantial, but temporary eye injury.

PRODUCT NAME: Gentrol E.C. IGR <u>COMMON NAME</u>: hydroprene <u>EPA REGISTRATION NUMBER</u>: 2724-304-50809 <u>HEALTH HAZARD DATA</u>: Signs and Symptoms of Exposure: Possible dermal sensitizer. May cause nausea, vomiting, G.I. tract irritation.

PRODUCT NAME: Gentrol IGR Concentrate <u>COMMON NAME:</u> hydroprene <u>EPA REGISTRATION NUMBER:</u> 2724-351 <u>HEALTH HAZARD DATA:</u> Signs and Symptoms of Overexposure: Probable symptoms of overexposure would be nausea, diarrhea, vomiting, G.I. tract irritation

PRODUCT NAME: Gentrol Point Source <u>COMMON NAME:</u> hydroprene <u>EPA REGISTRATION NUMBER:</u> 2724-469 <u>HEALTH HAZARD DATA:</u> Caution: Avoid contact with eyes: Sensitive individuals may have an allergic reaction after repeated use of this product.

PRODUCT NAME: HB II Wasp and Hornet Killer COMMON NAME: tetramethrin EPA REGISTRATION NUMBER: 334-567 HEALTH HAZARD DATA: (ACUTE AND CHR)

<u>HEALTH HAZARD DATA:</u> (ACUTE AND CHRONIC): May cause dizziness or narcosis in high vapor concentrations. Will cause defatting of skin. Effects are reversible. Long term exposure (years) to high concentrations of vapor may cause lung, liver or kidney damage. The solvents listed have been reported to affect the central nervous system. Aspiration hazard if swallowed. Eye and skin irritant. May irritate respiratory tract. Deliberately concentrating and inhaling the vapor of the contents may be harmful or fatal. SIGNS AND SYMPTOMS OF OVEREXPOSURE: Inhalation - Difficulty in breathing. Skin - redness. Ingestion - vomiting. MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: Heart Disease, Respiratory Disorders.

<u>PRODUCT NAME:</u> Heritage <u>COMMON NAME:</u> azoxystrobin <u>EPA REGISTRATION NUMBER:</u> 10182-408 <u>HEALTH HAZARD DATA:</u> This material may cause mild irritation following eye contact.

PRODUCT NAME: Invader Residual Insecticide W/Baygon

COMMON NAME: propoxur

EPA REGISTRATION NUMBER: 9444-92

HEALTH HAZARD DATA: Acute and Chronic: Chronic overexposures to 1,1,1 Trichloroethane have caused liver toxic effects in experimental animals. Cholinesterase inhibition. Signs and Symptoms of Exposure: Headaches, nausea, dizziness, incoordination, muscle twitching, tremors, nausea, abdominal cramps, diarrhea, sweating, pinpoint pupils, blurred vision, salivation, tearing, tightness in chest, convulsions, cholinesterase inhibition. Medical Conditions Aggravated By Exposure: Acute and chronic liver disease and rhythm disorders of the heart. Also, any disease, medication or prior exposure which reduces normal cholinesterase activity may increase susceptibility to the toxic effects of the active ingredient.

PRODUCT NAME: Kibosh

<u>COMMON NAME:</u> medium aliphatic naphtha, propane, malathion EPA REGISTRATION NUMBER: 706-72-40208

HEALTH HAZARD DATA: Effects of Overexposure: Inhaltation: dizziness, headache and anethesia from inhaling vapors. Respiratory irritation. Ingestion: nausea, vomiting, diarrhea. Primary Routes of Entry: Dermal, Inhalation. Medical Conditions Prone to Overexposure: May aggravate existing eye, skin, or upper respiratory conditions. Target Organs Affected: Vapors: Irritation to eyes and respiratory tract. Direct Contact: Irritating to skin and eyes.

PRODUCT NAME: Kicker

COMMON NAME: pyrethrins, piperonyl butoxide

EPA REGISTRATION NUMBER: 4816-707

HEALTH HAZARD DATA: Potential Health Effects: Eyes: Moderately irritating. Skin: Causes moderate irritation. Ingestion: Harmful if swallowed. Inhalation: Harmful if inhaled.

PRODUCT NAME: Lesco Three Way Selective Herbicide

COMMON NAME: 2,4-D, MCPP, Dicamba

EPA REGISTRATION NUMBER: 10404-43

<u>HEALTH HAZARD DATA:</u> Signs & Symptoms of Exposure Acute: Harmful if swallowed. May cause nausea, vomiting, abdominal pains, myotonia, muscle weakness and fall in blood pressure. Harmful if inhaled. May be irritating to the respiratory tract. May cause skin irritation, seen as redness and swelling. Causes irreversible eye damage, seen as corneal opacity. Vapors or spray mists are irritating to the eyes. Chronic: Repeated overexposure to 2,4-D herbicides may cause liver, kidney, gastrointestinal and muscular effects. Rare cases of peripheral nerve damage have been reported, but extensive animal studies have failed to substantiate these observations, even at high doses for prolonged periods.

PRODUCT NAME: Maki Mini Block <u>COMMON NAME</u>: bromadiolone <u>EPA REGISTRATION NUMBER</u>: 7173-202 <u>HEALTH HAZARD DATA</u>: Overexposure Effects: This product is an anticoagulant and can cause bleeding.

<u>PRODUCT NAME:</u> Maki Paraffinized Pellets <u>COMMON NAME:</u> bromadiolone <u>EPA REGISTRATION NUMBER:</u> 7173-187 <u>HEALTH HAZARD DATA:</u> Overexposure Effects: This product is an anticoagulant and can cause bleeding. PRODUCT NAME: Magic Circle Fog Spray Conc.

COMMON NAME: pyrethrins, piperonyl butoxide, petroleum distillate

EPA REGISTRATION NUMBER: 4704-26

HEALTH HAZARD DATA: Effects of Overexposure: Avoid breathing vapors. High vapor concentrations may cause dizziness, headaches, and respiratory irritation. Repeated or prolonged skin contact may cause dermatitis.

PRODUCT NAME: Manage COMMON NAME: halosulfuron-methyl EPA REGISTRATION NUMBER: 524-465

HEALTH HAZARD DATA: EYE CONTACT: May cause pain, redness and tearing based on toxicity studies. SKIN CONTACT: No more than slightly toxic or slightly irritating based on toxicity studies. INHALATION: No more than slightly toxic if inhaled based on toxicity studies. INGESTION: No more than slightly toxic based on toxicity studies. No significant adverse health effects are expected to develop if only small amounts (less than a mouthful) are swallowed. MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: Contains less than 1.0% sodium sulfite. In sulfite-sensitive individuals, skin reactions have been reported following dermal exposures, and respiratory reactions have been reported on ingestion of food, or on ingestion or inhalation of medications which contain related sulfiting agents (bisulfites or metabisulfites) as preservatives. Individuals with asthma may be more prone to these types of reactions.

PRODUCT NAME: Maxforce FC Ant Bait Stations <u>COMMON NAME</u>: fipronil <u>EPA REGISTRATION NUMBER</u>: 64248-10 <u>HEALTH HAZARD DATA</u>: Maxforce FC Professional Insect Control Ant Bait Stations may be minimally irritating to skin following prolonged direct contact.

PRODUCT NAME: Maxforce FC Professional Insect Control Roach Bait Stations **COMMON NAME:** fipronil **EPA REGISTRATION NUMBER:** 64248-11 **HEALTH HAZARD DATA:** May be minimally irritating to skin following prolonged direct contact.

PRODUCT NAME: Maxforce FC Roach Killer Bait Gel <u>COMMON NAME:</u> fipronil <u>EPA REGISTRATION NUMBER:</u> 64248-14 <u>HEALTH HAZARD DATA:</u> May be minimally irritating to eyes following prolonged direct contact.

PRODUCT NAME: Maxforce Granular Insect Bait <u>COMMON NAME:</u> hydramethynon <u>EPA REGISTRATION NUMBER:</u> 64248-6 <u>HEALTH HAZARD DATA:</u> Maxforce Professional Insect Control Granular Insect Bait may be harmful if swallowed.

PRODUCT NAME: Maxforce Pharaoh Ant Killer **COMMON NAME:** hydramethylnon **EPA REGISTRATION NUMBER:** 64248-2 **HEALTH HAZARD DATA:** Effects of Overexposure: This product may produce slight irritation upon ocular contact. <u>PRODUCT NAME:</u> Maxforce Professional Insect Control Roach Killer Bait Gel <u>COMMON NAME:</u> hydramethlynon <u>EPA REGISTRATION NUMBER:</u> 64248-5 <u>HEALTH HAZARD DATA:</u> Maxforce Bait Gel is minimally irritating to the eyes and skin.

PRODUCT NAME: Maxforce Roach Control System <u>COMMON NAME</u>: hydramethylnon <u>EPA REGISTRATION NUMBER</u>: 64248-1 <u>HEALTH HAZARD DATA</u>: Effects of Overexposure: This product may produce slight irritation upon ocular contact.

PRODUCT NAME: Minefield (Aerosol) COMMON NAME: diazinon, pyrethrins EPA REGISTRATION NUMBER: 706-59-40208

HEALTH HAZARD DATA: Effects of Overexposure: Nausea, dizziness, headache, anesthesia, possible skin and eye irritation. Contains petroleum distillates. Harmful if swallowed. Medical Conditions Prone to Overexposure: May aggravate existing eye, skin, or upper respiratory conditions.

PRODUCT NAME: Mop Up COMMON NAME: sodium borate EPA REGISTRATION NUMBER: 9444-132

HEALTH HAZARD DATA: Acute and Chronic: Large amounts absorbed into blood stream from ingestion or through damaged skin may result in erythema, macular rash, nausea, diarrhea, dizziness, depression, CNS effects after 24 hours-through broken skin or 36-72 hours from ingestion. May cause slight irritation to broken skin. Signs and Symptoms of Exposure: Ingestion: May cause nausea, vomiting, diarrhea in doses > 15 gms. Eyes: May cause slight, reversible conjunctivitis. Skin: May cause slight irritation on damaged skin. Inhalation: Nuisance dust. May cause transitory sneezing and coughing.

PRODUCT NAME: Niban Granular Bait

COMMON NAME: boric acid

EPA REGISTRATION NUMBER: 64405-2

HEALTH HAZARD DATA: Eye Contact: May cause eye irritation. Ingestion: This material may be harmful if swallowed. Inhalation: Breathing dust may cause irritation of nose and throat.

PRODUCT NAME: Ortho Sevin Insecticide 5 Dust

COMMON NAME: carbaryl

EPA REGISTRATION NUMBER: 239-1349

HEALTH HAZARD DATA: POTENTIAL HEALTH EFFECTS: EYE: This substance is slightly irritating to the eyes and could cause prolonged (days) impairment of your vision. The degree of the injury will depend on the amount of material that gets into the eye and the speed and thoroughness of the first aid treatment. INGESTION: This substance is slightly toxic to internal organs if swallowed. The degree of injury will depend on the amount absorbed from the gut. INHALATION: This substance is slightly toxic to internal organs if inhaled. The degree of injury will depend on the airborne concentration and duration of exposure. SIGNS AND SYMPTOMS OF EXPOSURE: EYE: May include pain, tears, swelling, redness, and blurred vision. INGESTION: Usually within 1-2 hours following overexposure, signs and symptoms may include, but may not be limited to, headache, constriction of the pupil of the eye, blurred vision, excessive salivation or nasal discharge, profuse sweating, abdominal cramps, nausea, vomiting and diarrhea. Convulsions are rarely seen in carbamate poisoning. In untreated severe poisoning, respiratory depression or cardiac arrest may be fatal. TARGET ORGANS: Carbaryl is an inhibitor of the cholinesterase enzyme. **PRODUCT NAME:** P.C.Q./RODENT CAKE/DI-BLOX <u>COMMON NAME:</u> diphacinone <u>EPA REGISTRATION NUMBER:</u> 12455-5 <u>HEALTH HAZARD DATA:</u> Caution: May be irritating. Signs and Symptoms of Exposure: May reduce clotting ability of the blood and cause bleeding.

PRODUCT NAME: Pharorid Ant Growth Regulator <u>COMMON NAME</u>: (S)-Methoprene <u>EPA REGISTRATION NUMBER</u>: 2724-420 <u>HEALTH HAZARD DATA</u>: No adverse reactions have resulted from normal human exposure during research and testing.

PRODUCT NAME: Pramitol 5PS COMMON NAME: prometon EPA REGISTRATION NUMBER: 100-479

HEALTH HAZARD DATA: Exposure may cause substantial but temporary eye irritation. If swallowed, mucous membranes may be damaged, resulting in breathing difficulty, abdominal pain, nausea, vomiting, gastritis, weakness, or diarrhea. Ingestion of a large amount can lead to cyanosis and hematuria (blood in the urine).

PRODUCT NAME: Pramitol 25E COMMON NAME: prometon

EPA REGISTRATION NUMBER: 100-443

HEALTH HAZARD DATA: Symptoms of Acute Exposure: Exposure may cause irreversible eye damage and severe skin irritation. If swallowed, abdominal pain, nausea, vomiting, gastritis, weakness, headache, or diarrhea can occur. Prolonged inhalation exposure may cause respiratory tract irritation and central nervous system depression, resulting in headache, dizziness, blurred vision or nausea. The petroleum solvent in this product can cause a chemical pneumonitis if aspirated.

PRODUCT NAME: Pratt Diazinon 5% Granular COMMON NAME: diazinon

EPA REGISTRATION NUMBER: 904-202

HEALTH HAZARD DATA: EFFECTS OF OVEREXPOSURE: Headache, giddiness, nausea, blurred vision, cramps, vomiting, excessive sweating, diarrhea, convulsions. Diazinon is a cholinesterase inhibitor.

PRODUCT NAME: Pratt Diazinon 14% COMMON NAME: diazinon EPA REGISTRATION NUMBER: 904-228

HEALTH HAZARD DATA: EFFECTS OF OVEREXPOSURE: Headache, giddiness, nausea, blurred vision, cramps, vomiting, excessive sweating, diarrhea, convulsions. Diazinon is a cholinesterase inhibitor.

PRODUCT NAME: Pratt Diazinon AG4E

COMMON NAME: diazinon

EPA REGISTRATION NUMBER: 904-306

HEALTH HAZARD DATA: EFFECTS OF OVEREXPOSURE: Headache, giddiness, nausea, blurred vision, cramps, vomiting, excessive sweating, diarrhea, convulsions. Diazinon is a cholinesterase inhibitor.

PRODUCT NAME: Precor 1% Emulsifiable Concentrate

COMMON NAME: methoprene

EPA REGISTRATION NUMBER: 2724-352-50809

HEALTH HAZARD DATA: Signs and Symptoms of Exposure: At large exposures may cause headaches, nausea, dizziness, may act as anesthetic, cause drowsiness. Acute: Eye irritation - minimal. Skin Irritation - moderate.

PRODUCT NAME: PreEmpt Professional Cockroach Gel Bait COMMON NAME: imidacloprid EPA REGISTRATION NUMBER: 3125-525 HEALTH HAZARD DATA: Causes eye irritation. PRODUCT NAME: Premise 75 WP COMMON NAME: imidacloprid EPA REGISTRATION NUMBER: 3125-455 HEALTH HAZARD DATA: Human Health Data: Human Effects

HEALTH HAZARD DATA: Human Health Data: Human Effects and Symptoms of Overexposure: Acute Effects of Exposure. It is minimally irritating to the conjunctiva of the eye but the irritation is reversible within 24 hours. It is a slight dermal irritant, but is not a dermal sensitizer.

PRODUCT NAME: Prentox Diazinon 4E

COMMON NAME: diazinon

EPA REGISTRATION NUMBER: 655-457

<u>HEALTH HAZARD DATA</u>: Signs and Symptoms of Overexposure: Symptoms of cholinesterase inhibition can include headache, dizziness, blurred vision, weakness, nausea, cramps, diarrhea, discomfort in the chest, nervousness, sweating, miosis (pinpoint pupils), tearing, salivation, pulmonary edema, uncontrollable muscle twitches, convulsions, coma and loss of reflexes and sphincter control. If swallowed and aspirated into lungs, chemical pneumonia may occur. Eye and skin irritation can occur. Medical Conditions Aggravated By Exposure: Exposure to cholinesterase inhibitors should be restricted in persons with hemolytic anemia for pre-existing depression of cholinesterase.

PRODUCT NAME: Prevail FT Termiticide

COMMON NAME: cypermethrin

EPA REGISTRATION NUMBER: 279-3082

HEALTH HAZARD DATA: Expected to be moderately irritating to the eyes and skin. Potential Health Effects: Effects from overexposure result from either inhaling or coming into contact with the skin or eyes. Symptoms of overexposure include decreased activity, tremors, convulsions, loss of bladder control, incoordination, and increased sensitivity to sound. Contact with cypermethrin may produce skin sensations such as numbing, burning and tingling. These skin sensations are reversible and usually subside within 12 hours.

PRODUCT NAME: Pro-Control Ant Bait COMMON NAME: sulfonamide EPA REGISTRATION NUMBER: 11540-20 HEALTH HAZARD DATA: N/A

PRODUCT NAME: Pro Control II Total Release Fogger COMMON NAME: pyrethrins, piperonyl butoxide EPA REGISTRATION NUMBER: 11540-27

HEALTH HAZARD DATA: Signs and Symptoms of Exposure: Direct contact of product with eyes can cause irritation. Prolonged or repeated contact of product with skin may cause illness. Product may cause severe distress and serious illness if taken internally. If taken internally, aspiration of liquid product may cause chemical pnuemonitis. Inhalation of product vapors may cause chemical intoxication at high airborne concentrations.
PRODUCT NAME: Prograss EC COMMON NAME: ethofumesate EPA REGISTRATION NUMBER: 45639-68

HEALTH HAZARD DATA: EYES: Corrosive to eyes; causes eye damage. The solvent vapor can be a mild eye irritant. SKIN: Harmful if absorbed through the skin. Repeated skin contact removes skin oil, possibly leading to irritation and aggravations of an existing dermatitis. Repeated contact may sensitize the skin, leading to allergic reactions. INGESTION: Can be harmful if swallowed. INHALATION: Prolonged inhalation of high vapor concentrations may cause drowsiness and dizziness. SIGNS AND SYMPTOMS EFFECTS OF OVEREXPOSURE: High concentrations of solvent vapor may cause dizziness, drowsiness, weakness, and incoordination. MEDICAL CONDITIONS AGGRAVATED BY OVEREXPOSURE: Repeated and prolonged skin contacts can aggravate preexisting dermatitis (irritating or/and inflammatory skin conditions).

PRODUCT NAME: PRO-JOE-S Roach Bait/Gel Formula 15

COMMON NAME: boric acid

EPA REGISTRATION NUMBER: 54452-6

HEALTH HAZARD DATA: Potential health effects: Eye Contact: May cause slight, reversible conjunctivitis. Skin Contact: May cause slight irritation on damaged skin. **Signs and symptoms of exposure:** Symptoms of accidental over-exposure to Boric Acid have been associated with ingestion or absorption through large areas of damage skin. These may include nausea, vomiting and diarrhea, with delayed effects of skin redness and peeling.

PRODUCT NAME: PT 120 XLO

COMMON NAME: phenothrin

EPA REGISTRATION NUMBER: 499-371

HEALTH HAZARD DATA: (Acute and Chronic) Signs and Symptoms of Exposure: Eye: May cause eye irritation. Produced slight, reversible conjunctival irritation in rabbits. No corneal opacity or iritis was observed. Skin: Prolonged exposure may cause skin irritation.

PRODUCT NAME: PT 170A X-CLUDE

COMMON NAME: pyrethrins, piperonyl butoxide

EPA REGISTRATION NUMBER: 499-235

HEALTH HAZARD DATA: (Acute and Chronic) Signs and Symptoms of Exposure: Ingestion and Inhalation: A few cases of extrinsic asthma have been reported for pyrethrum.

PRODUCT NAME: PT 230 TRI-DIE

COMMON NAME: pyrethrins, piperonyl butoxide, silica gel EPA REGISTRATION NUMBER: 499-223

HEALTH HAZARD DATA: (Acute and Chronic) Signs and Symptoms of Exposure: Eye: Product is an eye irritant. Skin: Prolonged exposure may cause skin irritation. Ingestion and Inhalation: Unlikely due to the product being pressurized and producing particles large enough not to be respirable. A few cases of extrinsic asthma from pyrethrin mixtures have been reported. Prolonged exposure may cause drying of nose and throat.

PRODUCT NAME: PT 265A Knox Out COMMON NAME: diazinon EPA REGISTRATION NUMBER: 499-228

HEALTH HAZARD DATA: (Acute and Chronic) Signs and Symptoms of Exposure: Signs of Cholinesterase Depression: Discomfort or tightness in chest, difficulty in breathing, stomach pains, nausea, vomiting, diarrhea, cramps, headache, nervousness, weakness, nonactive pinpoint pupils or blurred vision. Symptoms may not occur until 1-8 hours after exposure.

PRODUCT NAME: PT 279 ENGAGE COMMON NAME: chlorpyrifos EPA REGISTRATION NUMBER: 499-292

HEALTH HAZARD DATA: (Acute and Chronic) Signs and Symptoms of Exposure: Eye: Product produced slight reversible conjunctival irritation. Skin: Prolonged exposure may cause skin irritation. Excessive exposure may produce signs of cholinesterase depression. The product produced an average primary skin irritation. Ingestion and Inhalation: Excessive exposure may produce signs of cholinesterase depression. High concentrations of vapor may cause dizziness, respiratory tract irritation. When used according to label directions, this level will not be attained. Signs of Cholinesterase Depression: Discomfort or tightness in chest, difficulty in breathing, stomach pains, nausea, vomiting, diarrhea, cramps, headache, nervousness, weakness, nonactive pinpoint pupils or blurred vision. Symptoms may not occur until 1-8 hours after exposure.

PRODUCT NAME: PT 280 Orthene COMMON NAME: acephate EPA REGISTRATION NUMBER: 499-230

HEALTH HAZARD DATA: (Acute and Chronic) Signs and Symptoms of Exposure: Eye: May produce eye irritation Produced moderate reversible irritation. Skin: Prolonged exposure may cause skin irritation. Excessive exposure may produce signs of cholinesterase depression. Ingestion and Inhalation: Excessive exposure may produce signs of cholinesterase depression. Signs of Cholinesterase Depression: Discomfort or tightness in chest, difficulty in breathing, stomach pains, nausea, vomiting, diarrhea, cramps, headache, nervousness, weakness, nonactive pinpoint pupils or blurred vision. Symptoms may not occur until 1-8 hours after exposure.

PRODUCT NAME: PT 3-6-10 Aero-Cide

COMMON NAME: pyrethrins, piperonyl butoxide

EPA REGISTRATION NUMBER: 499-221

HEALTH HAZARD DATA: (Acute and Chronic) Signs and Symptoms of Exposure: Eye: May cause eye irritation. Skin: Prolonged exposure may cause skin irritation. Ingestion and Inhalation: A few cases of extrinsic asthma from pyrethrin mixtures have been reported. Prolonged exposure may cause drying of nose and throat.

PRODUCT NAME: PT 400 ULTRABAN

COMMON NAME: chlorpyrifos, fenoxycarb

EPA REGISTRATION NUMBER: 499-271

HEALTH HAZARD DATA: (Acute and Chronic) Signs and Symptoms of Exposure: Eye: Product may produce mild eye irritation. Skin: Prolonged exposure may cause skin irritation. Excessive exposure may produce signs of cholinesterase depression. Ingestion and Inhalation: Excessive exposure may produce signs of cholinesterase depression. Signs of Cholinesterase Depression: Discomfort or tightness in chest, difficulty in breathing, stomach pains, nausea, vomiting, diarrhea, cramps, headache, nervousness, weakness, nonactive pinpoint pupils or blurred vision. Symptoms may not occur until 1-8 hours after exposure.

PRODUCT NAME: PT 515 Wasp-Freeze Wasp and Hornet Killer

COMMON NAME: phenothrin, D-trans allethrin

EPA REGISTRATION NUMBER: 499-362

HEALTH HAZARD DATA: (Acute and Chronic) Signs and Symptoms of Exposure: Eye: May cause eye irritation. Skin: Prolonged exposure may cause skin irritation and dermatitis.

PRODUCT NAME: PT 565 Pyrethrin

<u>COMMON NAME</u>: pyrethrins, piperonyl butoxide

EPA REGISTRATION NUMBER: 499-182

HEALTH HAZARD DATA: (Acute and Chronic) Signs and Symptoms of Exposure: Eye: May cause irritation. Skin: Prolonged exposure may cause skin irritation. Ingestion and Inhalation: A few cases of extrinsic asthma from pyrethrin mixtures have been reported. Prolonged exposure may cause drying of nose and throat.

PRODUCT NAME: PT 565 PLUS XLO

COMMON NAME: pyrethrins, piperonyl butoxide, D-trans allethrin

EPA REGISTRATION NUMBER: 499-310

HEALTH HAZARD DATA: (Acute and Chronic) Signs and Symptoms of Exposure: Eye: Product produced slight reversible conjunctival irritation. Skin: Prolonged exposure may cause skin irritation. Ingestion and Inhalation: A few cases of extrinsic asthma from pyrethrin mixtures have been reported.

PRODUCT NAME: Quintox

COMMON NAME: cholecalciferol

EPA REGISTRATION NUMBER: 12455-57, 12455-39

HEALTH HAZARD DATA: Caution: May be irritating. Signs and Symptoms of Exposure: Hypercalcemia if ingested.

PRODUCT NAME: Recruit* II Termite Bait

COMMON NAME: hexaflumuron

EPA REGISTRATION NUMBER: 62719-243

HEALTH HAZARD DATA: Potential Health Effects: EYE: Solid or dust may cause irritation or corneal injury due to mechanical action. SKIN: Prolonged exposure may cause slight skin irritation. A single prolonged exposure is not likely to result in the material being absorbed through the skin in harmful amounts. INGESTION: Single dose oral toxicity is extremely low. Small amounts swallowed incidental to normal handling operations are not likely to cause injury; however, swallowing larger amounts may cause injury. INHALATION: Single exposure to dust is not likely to be hazardous. SYSTEMIC (OTHER TARGET ORGAN) EFFECTS: Excessive exposure may cause blood, spleen, and possibly liver and kidney effects. Excessive exposure may cause methemoglobinemia, thereby impairing the blood's ability to transport oxygen.

PRODUCT NAME: Ronstar G

COMMON NAME: oxadizaon

EPA REGISTRATION NUMBER: 264-445

HEALTH HAZARD DATA: Acute Eye: Causes irritation, tearing, redness. Acute Skin: Low acute dermal toxicity. Causes irritation, redness, swelling. Acute Inhalation: Harmful if inhaled. May cause upper respiratory tract irritation. Acute Ingestion: Harmful if ingested. Chronic Effects: This product contains ingredients that are considered to be probable or suspected human carcinogens. Prolonged contact may cause benign changes in lung tissue.

PRODUCT NAME: Ro-Pel COMMON NAME: benzyldiethyl, thymol EPA REGISTRATION NUMBER: 45735-2 HEALTH HAZARD DATA: Not applicable.

PRODUCT NAME: Roundup Pro COMMON NAME: glyphosate EPA REGISTRATION NUMBER: 524-475

HEALTH HAZARD DATA: Potential Adverse Health Effects: Likely Routes of Exposure: Skin contact and inhalation. Eye Contact: Roundup Pro herbicide may cause pain, redness and tearing based on toxicity studies. Skin Contact: Roundup Pro herbicide is no more than slightly toxic and no more than slightly irritating based on toxicity studies. Ingestion: Roundup Pro herbicide is no more than slightly toxic based on toxicity studies. no significant adverse health effects are expected to develop if only small amounts (less than a mouthful) are swallowed. Ingestion of similar formulations has been reported to produce gastrointestinal discomfort with irritation of the mouth, nausea, vomiting and diarrhea. Oral ingestion of large quantities of one similar product has been reported to result in hypotension and lung edema.

PRODUCT NAME: Rozol

COMMON NAME: chlorophacinone EPA REGISTRATION NUMBER: 7173-151

HEALTH HAZARD DATA: Medical Conditions Aggravated by Long-term Exposure: Bleeding disorders may be aggravated by chronic exposure. Acute Effects: Eyes: This product causes minor, transient eye irritation, which may be seen as redness. Skin: This product may be harmful or fatal if absorbed through the skin. Initial signs of toxicity may include lethargy, loss of appetite and reduced clotting ability of the blood. Ingestion: This product may be harmful or fatal if swallowed. Initial signs of toxicity may include lethargy, loss of appetite and reduced clotting ability of the blood. Ingestion: This product can be harmful or fatal if swallowed. Initial signs of toxicity may include lethargy, loss of appetite and reduced clotting ability of the blood. Chronic Effects: Repeated exposure to small amounts of product can produce accumulative toxicity by all primary routes of entry. The initial signs of toxicity will be the same as for acute effects.

PRODUCT NAME: Safrotin 1% Aerosol

COMMON NAME: propetamphos

EPA REGISTRATION NUMBER: 2724-340-50809

HEALTH HAZARD DATA: Signs and Symptoms of Exposure: Due to product form the main route of intoxication may be through inhalation abuse of solvent and propellant causing dizziness, headache, nausea, and possible asphyxiation. However the active ingredient is a cholinesterase inhibitor. Acute: The signs of acute intoxication may show nausea, vomiting, diarrhea, headache, ataxia, sweating, tearing, anorexia, salivation, pin-point pupils, pulmonary edema, cyanosis, convulsions. Chronic: Long term overexposure to solvent/propellant has been suggested as a cause of cardiac abnormality, liver abnormalities, kidney damage, lung damage.

PRODUCT NAME: Safrotin Emulsifiable Concentrate Insecticide

COMMON NAME: propetamphos

EPA REGISTRATION NUMBER: 2724-314

HEALTH HAZARD DATA: Signs and Symptoms of Exposure: Acute: Active ingredient is a cholinesterase inhibitor: sweating, salivation, edema, nausea, headache, tearing, diarrhea, pin-point pupils, ataxia, tightness in chest, vomiting, cyanosis. Skin irritation moderate. Eye irritation mild.

PRODUCT NAME: Saga Multi-Purpose Residual Spray Insecticide <u>COMMON NAME</u>: tralomethrin <u>EPA REGISTRATION NUMBER</u>: 432-771 <u>HEALTH HAZARD DATA</u>: Potential Health Effects: Skin: May cause slight irritation. Harmful if absorbed. Signs and Symptoms: May cause respiratory irritation and redness of the eyes. <u>PRODUCT NAME</u>: Saga WP Insecticide <u>COMMON NAME</u>: tralomethrin <u>EPA REGISTRATION NUMBER</u>: 432-755 <u>HEALTH HAZARD DATA</u>: Routes of Exposure: Eye Contact: Irritating to the conjunctiva. Effects of Overexposure: Acute Exposure: In humans, might cause a transient stuffy or runny nose and scratchy throat.

<u>PRODUCT NAME:</u> Siege Gel <u>COMMON NAME:</u> hydramethylnon <u>EPA REGISTRATION NUMBER:</u> 241-313 <u>HEALTH HAZARD DATA:</u> Toxicity data and effects of overexposure: Not applicable.

PRODUCT NAME: Siege Pro fire ant bait **COMMON NAME:** hydramethylnon **EPA REGISTRATION NUMBER:** 241-322

HEALTH HAZARD DATA: Toxicity Data and Effects of Overexposure: Acute Toxicity Data: This product is no more than slightly toxic by single skin application.

PRODUCT NAME: Spectracide Soil & Turf Insect Control 6000 Diazinon Granules

COMMON NAME: diazinon

EPA REGISTRATION NUMBER: 8845-95

HEALTH HAZARD DATA: Ingestion: Harmful if swallowed. This product is an organophosphate insecticide. Skin Contact: Harmful if absorbed through skin. Eye Contact: Avoid contact with eyes. Inhalation Toxicity: Harmful if inhaled. Health conditions Aggravated by Exposure: May cause contact sensitization following repeated contact with skin of susceptible individuals.

PRODUCT NAME: Stapletons M.R.F. 2000 COMMON NAME: boric acid

EPA REGISTRATION NUMBER: 54452-2

HEALTH HAZARD DATA: Effects of Exposure (symptoms): Ingestion: In large doses (>15 grams) may cause nausea, vomiting, diarrhea, erythema, macular rash, dizziness and CNS effect after 36-72 hours. Eye: May be slightly irritating as dry powder and may cause slight, reversible conjunctivitis. Skin: May cause slight irritation on damaged skin. Absorption into blood stream through damaged skin may result in erythems, macular rash, CNS effects after 24 hours. Ingestion: Large doses (>15 grams) may cause erythema, macular rash, diarrhea, nausea, dizziness and CNS effect after 36-72 hours. Chronic Overexposure: Large amounts absorbed into blood stream from ingestion or through damaged skin may result in erythema, macular rash, nausea, dizziness, depression.

PRODUCT NAME: Summit Esbiol Fogging Concentrate 1-2-3

COMMON NAME: s-bioallethrin

EPA REGISTRATION NUMBER: 6218-67

HEALTH HAZARD DATA: Health hazards (Acute and Chronic). In case of ingestion of massive amount (over 8 ounces) nervous symptoms such as tremors. May cause respiratory and eye irritation.

PRODUCT NAME: Summit Pyrethrin Fog Conc 122

COMMON NAME: pyrethrins

EPA REGISTRATION NUMBER: 6218-48

HEALTH HAZARD DATA: (Acute and Chronic): In case of ingestion of massive amount (over 8 ounces) nervous symptoms such as tremors. May cause respiratory and eye irritation.

PRODUCT NAME: Surflan* A.S. COMMON NAME: oryzalin EPA REGISTRATION NUMBER: 62719-113

<u>HEALTH HAZARD DATA:</u> EYE: May cause slight transient (temporary) eye irritation. Corneal injury is unlikely. SKIN: Prolonged exposure may cause skin irritation. Prolonged or frequently repeated skin contact may cause an allergic skin reaction in some individuals. A single prolonged exposure is not likely to result in the material being absorbed through skin in harmful amounts. INGESTION: Single dose oral toxicity is low. Small amounts swallowed incidental to normal handling operations are not likely to cause injury; swallowing amounts larger than may cause injury. INHALATION: At room temperature, exposure to vapors are minimal due to physical properties; higher temperatures may generate vapor levels sufficient to cause irritation and other effects. Human signs and symptoms may include central nervous system depression (headache, dizziness, drowsiness and incoordination).

PRODUCT NAME: Suspend SC

COMMON NAME: deltamethrin

EPA REGISTRATION NUMBER: 432-763-62719

HEALTH HAZARD DATA: Eye: May cause slight eye irritation. Skin Contact: May cause slight skin irritation. May cause paresthesia, a numbness, burning, or tingling sensation of the skin, at the site of contact; effects should subside within 24 hours. Ingestion: Single dose oral toxicity is low. Inhalation: Vapors may cause irritation of the upper respiratory tract (nose and throat). Systemic (Other Target Organ) Effects: Repeated excessive exposures may cause kidney, lung, and central nervous system effects.

PRODUCT NAME: Talon-G

COMMON NAME: brodifacoum

EPA REGISTRATION NUMBER: 10182-341

HEALTH HAZARD DATA: Other Effects of Overexposure: Effects are those of anticoagulant overdosage, i.e., reduced blood clotting ability with spontaneous bleeding in various body organs. Individuals with blood clotting disorders may be more susceptible to overexposure effects.

PRODUCT NAME: Talstar Termiticide/Insecticide COMMON NAME: bifenthrin EPA REGISTRATION NUMBER:

HEALTH HAZARD DATA: Moderately toxic if inhaled. Potential Health Effects: Effects from overexposure may result from either swallowing, inhaling or coming into contact with the skin or eyes. Symptoms of overexposure include bleeding from the nose, tremors and convulsions. Contact with bifenthrin may occasionally produce skin sensations such as rashes, numbing, burning or tingling. These skin sensations are reversible and usually subside within 12 hours.

PRODUCT NAME: Tempo 0.1% Dust COMMON NAME: cyfluthrin EPA REGISTRATION NUMBER: 3125-429

HEALTH HAZARD DATA: Human Effects and Symptoms of Overexposure: Mild eye or skin irritation such as itching, stinging, redness or rash may occur from contact with the dust. Paresthesia (a tingling or burning sensation on the surface of the skin) may also result from skin contact. This is a frequently reported symptom associated with sufficient dermal exposure to synthetic pyrethroids and normally subsides without treatment within 24 hours. The onset of these symptoms usually occurs 2-12 hours after exposure. Mucous membrane irritation involving the nose, throat and upper respiratory tract may occur from inhalation of aerosols during end use of the product. *Medical Conditions Aggravated by Exposure*: As with all materials which can cause upper respiratory tract irritation, persons with a history of asthma, emphysema, or hyperreactive airways disease may be more susceptible to overexposure.

PRODUCT NAME: Tempo 2 EC

COMMON NAME: cyfluthrin

EPA REGISTRATION NUMBER: 3125-372 & 3125-352

HEALTH HAZARD: Human Effects and Symptoms of Overexposure: Acute Effects of Exposure: Severe eye irritation may occur from contact with the liquid resulting in tearing and/or reddening of the eyes. Moderate skin irritation may also occur from contact with the liquid and produce symptoms such as itching, skin reddening or rash. Paresthesia (a tingling or burning sensation on the surface of the skin) may also result from skin contact. Mucous membrane irritation involving the nose, throat and upper respiratory tract may occur from inhalation of aerosols during end use of the product such as spray application. The aromatic hydrocarbon solvents in this product can be irritating to the eyes, nose and throat. In high concentration, they may cause central nervous system depression and narcosis characterized by nausea, lightheadedness and dizziness from overexposure by inhalation. Chronic Effects of Exposure: repeated skin contact may result in defatting of the skin by the solvent components, may cause mucous membrane irritation, nausea, headache, loss of appetite, weakness and alcohol intolerance. Medical Conditions Aggravated By Exposure: As with all materials which can cause upper respiratory tract irritation, persons with a history of asthma, emphysema, or hyperactive airways disease may be more susceptible to overexporuse. Certain skin conditions, such as psoriasis, may also be aggravated by repeated contact with the solvents in this mixture.

PRODUCT NAME: Tempo 20% Wettable Powder

COMMON NAME: cyfluthrin

EPA REGISTRATION NUMBER: 3125-377, 3125-380, 3125-395, 3125-396, 3125-397, 3125-403 **HEALTH HAZARD DATA:** Human Effects and Symptoms of Overexposure: Acute Effects of Exposure: Mild eye or skin irritation such as itching, stinging, redness or rash may occur from contact with the powder or spray mixture. Paresthesia (a tingling or burning sensation on the surface of the skin) may also result from skin contact. This is a frequently reported symptom associated with sufficient dermal exposure to synthetic pyrethroids and normally subsides without treatment within 24 hours. The onset of these symptoms usually occurs 2-12 hours after exposure. Mucous membrane irritation involving the nose, throat and upper respiratory tract may occur from inhalation of aerosols during end use of the product such as spray application. Chronic Effects of Exposure: The product contains crystalline silica. Excessive long-term exposure to crystalline silica may cause silicosis, a form of disabling, progressive and sometimes fatal fibrotic lung disease. Severe and permanent lung damage may result. Medical Conditions Aggravated by Exposure: As with all materials which can cause upper respiratory tract irritation, persons with a history of asthma, emphysema, or hyperactive airways disease may be more susceptible to overexposure. In addition, pulmonary and respiratory diseases may be aggravated by exposure to crystalline silica, a component of this formulation.

PRODUCT NAME: Tim-Bor COMMON NAME: sodium borate EPA REGISTRATION NUMBER: 1624-39

HEALTH HAZARD DATA: Effects of Acute Exposure: Ingestion: Human accidental exposure: Nausea, vomiting. Eye: Irritant. May be slightly irritating to humans. Reversible. Inhalation: May be irritating to nose and throat. Eye: May be irritating. Dermal: May be irritating on wet skin. Inhalation: May be irritating to nose and throat.

PRODUCT NAME: Trimec 992 Broadleaf Herbicide **COMMON NAME:** 2,4-D, DMA, MCPP, and dicamba **EPA REGISTRATION NUMBER:** 2217-656

HEALTH HAZARD DATA: EYES: Contact may cause irritation and burning. SKIN: Moderately irritating to the skin; may be absorbed through the skin. INHALATION: Moderately irritating to the mucous membranes. Inhalation of sprays may cause burning sensations in the respiratory tract, resulting in coughing. INGESTION: May irritate the gastrointestinal tract. SIGNS AND SYMPTOMS OF EXPOSURE: Inhalation may cause burning in the chest, with coughing. Prolonged inhalation sometimes causes dizziness. Ingestion usually leads to vomiting. Pain in the chest and abdomen, and diarrhea may follow. MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE: Individuals with chronic skin disease or known sensitivity to chlorophenoxy compounds should either avoid using them or take strict precautions to avoid contact.

PRODUCT NAME: Trimec Classic Broadleaf Herbicide

COMMON NAME: 2,4-D, MCPP, and dicamba

EPA REGISTRATION NUMBER: 2217-543

HEALTH HAZARD DATA: Contact may cause skin irritation. Contact may cause eye burns. Moderately irritating to skin, eyes, and respiratory and gastrointestinal linings. Ingestion of large amounts may result in severe metabolic acidosis followed by muscular irritability, myoglobin in urine and elevated serum creatine phosphokinase.

PRODUCT NAME: "Tupersan" <u>COMMON NAME:</u> siduron <u>EPA REGISTRATION NUMBER:</u> 352-307 HEALTH HAZARD DATA: May irritate eyes, nose, throat and skin.

PRODUCT NAME: ULD BP-50 Insecticide

COMMON NAME: pyrethrins, piperonyl butoxide

EPA REGISTRATION NUMBER: 11540-13

HEALTH HAZARD DATA: Signs and Symptoms of Exposure: Prolonged or repeated contact of product with skin may cause irritation. Product spray mist, fog or vapor may cause irritation to nose, throat and lungs if adequate ventilation is not employed. Direct contact of product with eyes can cause irritation. If taken internally, aspiration of liquid product can cause chemical pnueumonitis.

PRODUCT NAME: ULD BP-100 Insecticide

COMMON NAME: pyrethrins, piperonyl butoxide

EPA REGISTRATION NUMBER: 11540-9

HEALTH HAZARD DATA: Signs and Symptoms of Exposure: Prolonged or repeated contact of product with skin may cause irritation. Product spray mist, fog or vapor may cause irritation to nose, throat and lungs if adequate ventilation is not employed. Direct contact of product with eyes can cause irritation. If taken internally, aspiration of liquid product can cause chemical pnueumonitis.

PRODUCT NAME: Victor Poison Free Wasp & Hornet Spray

COMMON NAME: mint oil

EPA REGISTRATION NUMBER: None

HEALTH HAZARD DATA: Primary Route of Entry: Product can enter via inhalation, ingestion or skin contact. Effects of Acute Overexposure: Eyes - May cause irritation. Skin: Prolonged exposure may cause irritation. Breathing: Vapors may irritate. Swallowing: May cause stomach irritation. Liquid may irritate skin and eyes.

PRODUCT NAME: Wasp & Hornet Jet Freeze

COMMON NAME: pyrethrins, piperonyl butoxide, carbaryl

EPA REGISTRATION NUMBER: 9444-098

HEALTH HAZARD DATA: Health Hazards (Acute and Chronic): Cholinesterase inhibition. Signs and Symptoms of Exposure: Headaches, nausea, dizziness, incoordination, muscle twitching, tremors, abdominal cramps, diarrhea, seating, pinpoint pupils, blurred vision, salivation, tearing, tightness in chest, convulsions, cholinesterase inhibition. Medical Conditions Generally Aggravated by Exposure: Acute and chronic liver disease and rhythm disorders of the heart. Skin contact may aggravate an existing dermatitis. Also, any disease, medication or prior exposure which reduces normal cholinesterase activity may increase susceptibility to the toxic effects of the active ingredient.

PRODUCT NAME: Wasp & Hornet Killer

COMMON NAME: 2-butoxyethanol

EPA REGISTRATION NUMBER: 9688-49-5741

HEALTH HAZARD DATA: May cause eye irritation. Butoxyethanol is absorbed through the skin which may affect the liver, kidneys, lymph and blood systems; inhalation may irritate throat and respiratory system.

COMMON NAME: brodifacoum

EPA REGISTRATION NUMBER: 10182-339

HEALTH HAZARD DATA: Other Effects of Overexposure: Effects are those of anticoagulant overdosage: reduced blood clotting ability with spontaneous bleeding in various body tissues. Body accumulation will probably result after repeated exposures to brodifacoum because its body half-life is estimated to be 120 days.

PRODUCT NAME: Zep Forumula 777

COMMON NAME: bromacil

EPA REGISTRATION NUMBER: 1270-113

HEALTH HAZARD DATA: Acute Effects of Overexposure: Exposure by inhalation may produce eye, nose, and throat irritation. Inhalation of harmful amounts of vapor may produce mild central nervous system depression, characterized by headache, nausea, vertigo, and stupor. Introduction of hydrocarbon into the lungs, as in aspiration of vomitus fluids, may produce chemical pneumonia. Existing respiratory disorders or skin diseases may be aggravated by exposure. Chronic Effects of Overexposure: Repeated or prolonged, skin contact may produce mild central nervous system depression, characterized by headache, nausea, stupor, and coma. Skin which is defatted by repeated exposure to hydrocarbon solvents is more susceptible to irritation, infection, and dermititis.

PRODUCT NAME: ZP Rodent Bait <u>COMMON NAME</u>: zinc phosphide <u>EPA REGISTRATION NUMBER</u>: 12455-18 <u>HEALTH HAZARD DATA</u>: May be irritating. Signs and Symptoms of Exposure: Nausea, abdominal pain, tightness in chest, chills. PRODUCT NAME: ZP Rodent Bait (AG) <u>COMMON NAME:</u> zinc phosphide <u>EPA REGISTRATION NUMBER:</u> 12455-17 <u>HEALTH HAZARD DATA:</u> Caution: May be irritating. Nausea, abdominal pain, tightness in chest, chills.

PRODUCT NAME: ZP Tracking Powder <u>COMMON NAME:</u> zinc phosphide <u>EPA REGISTRATION NUMBER:</u> 12455-16 <u>HEALTH HAZARD DATA:</u> Caution: May be irritating. Signs and Symptoms of Exposure: Nausea, abdominal, pain, tightness in chest, chills.

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Appendix B:

(IPM Booklet supplement)

Pest Control and Sanitation: What Can I do?

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Insert IPM booklet here



MARYLAND DEPARTMENT OF AGRICULTURE, PESTICIDE REGULATION SECTION 50 HARRY S. TRUMAN PARKWAY ANNAPOLIS, MARYLAND 21401 TELEPHONE (410)541-5710

No. 2

PEST CONTROL AND SANITATION -WHAT CAN I DO ?

An effective Integrated Pest Management (IPM) Program must have the cooperation of the entire school staff including teachers, nurses, food service workers, custodial staff and administration. All of these people need to know basic concepts of integrated pest management and how they are utilized to control pest problems within schools.

STUDENTS AND STAFF

The most important assistance that staff and students can give to an effective IPM program is through the use of sanitation. Many of the pest problems in schools can be reduced, or even prevented from occurring, if students and staff ensure that proper sanitation practices are followed. The more cooperation that is received from these parties the better the results achieved by the IPM program.

Some areas that receive special attention due to their susceptibility for pest problems include coffee and snack areas, staff lounges, refrigerators and microwaves, vending machines, mop closets, trash cans, desks and lockers.

Students can help prevent pest problems by:

- Cleaning up leftover food
- Not leaving food in lockers
- Not placing gum under desks
- Removing paper clutter
- Keeping food and beverages in designated areas
- Reporting pests, when noticed, to teachers

Staff can help in the prevention of pest problems by:

- Leaving pest control and pest management to trained professionals
- Not moving sticky traps or other pest monitoring devices
- Not propping open windows or screens
- Removing trash, especially trash that contains food

- Keeping areas dry by removing standing water and items that are wet or have been damaged by water
- Storing animal feed in tightly sealed containers, cleaning up spills immediately and cleaning cages on a regular basis
- Keeping instructional food items, such as dried beans used for math exercises, in tightly sealed containers
- Keeping refrigerators, vending machines and microwaves clean and free of spills at all times
- Avoiding the use of shelf paper
- Discarding any infested materials or food items

PARENTS

It is just as important to receive the same commitment from parents, since they also play an important role in the effectiveness of the pest management program in schools. IPM programs and the people providing these services need the support of parents. Parents should be aware of the pest management programs being utilized at their children's school.

Parents can help in the prevention of pest problems by:

- Encouraging children to lend a hand in cleaning up.
- Discouraging children from keeping food in their lockers and desks.

IPM is a way to help insure a clean and safe school building for students. Additional information on pest management programs within the school system can be obtained by contacting school administrators.

SUMMARY

The foundation of an effective pest management program is good sanitation. Trash disposal and sound structural maintenance also play important roles in an IPM program. Staff and students must understand how their actions can increase or decrease pest problems in the school. With a combined effort by school administrators, staff, students, parents, and the pest control specialist to incorporate the following practices, many pest problems can be avoided within the school.

- Clean up spills immediately
- □ Store all food items in tightly sealed containers
- Wrap or bag food waste before disposal
- Remove trash, and
- Not keep food items in lockers and desks

Through the use of these practices, pest problems can often be eliminated before they ever occur. An inhospitable environment is created for the pest by depriving it of food, water and harborage needed for its survival. Further information on integrated pest management in schools can be obtained from the Maryland Department of Agriculture's IPM Leaflet No. 1, "Integrated Pest Management - What Is It ?".

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Chapter One: Why Integrated Pest Management (IPM)?

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We, as a society, have become increasingly sensitive to our environment; less willing to accept health risks, even very small ones, from contaminants in the food we eat, the water we drink, the air we breathe or in the buildings we occupy. We are especially sensitive about our children's health and well being.

These concerns are changing the way we live. Pest control, too, is changing with the times. What was common and accepted practice a decade ago is no longer seen as acceptable to many people. A new approach to pest control has evolved. It is called integrated pest management or IPM. It reduces the risks from pesticides and improves the quality of pest control. A concerned public is asking, and sometimes demanding, that IPM be used instead of traditional pest control service, particularly in sensitive sites such as schools.

Reducing Pesticide Exposure

Pesticides are regularly applied in and around schools to control unwanted pests such as cockroaches, rats, ants, landscape pests, and weeds. These pesticides are toxic (poisonous) by their very nature, since most are designed to kill pests. They also can harm other living organisms that are exposed to them at sufficiently high levels.

Pest control programs in many schools depend on a regular schedule of insecticide treatments. Hallways, bathrooms, locker rooms, and cafeterias may be sprayed, fogged, or dusted with insecticides every month. Classrooms and other rooms where pests have been reported may also be treated, even if the pests cannot be found and the source of the pests is not known.

Such regular use of insecticides and other pesticides around children, or in areas where children play or study, troubles many parents, teachers, and administrators. Children may be more sensitive to pesticides, and so are more likely to become ill from improper application or excessive exposure than are adults. Young children in particular are more likely to be exposed to pesticides by crawling on the floor or by transferring pesticide residues from application sites to their mouths.

The Governor's Pesticide Council of the State of Maryland recommends using Integrated Pest Management, called IPM for short, to reduce the risk that school children will be exposed to pesticides.

What is IPM?

Integrated pest management, or IPM, is a system of controlling pests that does not depend on automatic application of pesticides. Instead, pests are monitored by regular and careful inspections. The inspections also identify conditions contributing to pest problems. The IPM technician then decides what actions are necessary, if any, based on the biology and habits of the pests involved. Priority is given to nonchemical pest management techniques, particularly those that can prevent a recurrence of the problem. Pesticides are used when necessary, but only in a way that minimizes potential exposure to people and the environment. Records are kept to track problems, prevent recurrences, and evaluate the results of pest management actions.



Developed by university researchers, and refined by over a decade of practical use in the field, IPM is really just good common sense. Schools that have adopted IPM programs notionly report a reduction in their use of pesticides, but a significant improvement in their level of pest control. IPM forces you to look at the big picture and to analyze the problems that caused pest populations to grow in the first place. IPM has proven to be the best alternative to traditional pesticide-based services. It provides effective, long-term control of landscape and structural pests, while protecting the health, environment, and quality of life of our children.

A Typical IPM Service Visit

The procedures followed by an IPM technician are different from those followed by someone doing traditional pest control. As an IPM technician, you will spend far more time inspecting the school and communicating with school workers than you will in simply applying pesticides. You will be making many more decisions about what specific control measures to take. You will need to be better at identifying pests, and know more about pest biology and habits. And you will be filling out and reading more paperwork. In other words, you will be using your eyes, ears, mouth, and brain far more than in traditional pest control.

Here is the way a routine service visit might go. Your first task would be to review the *IPM Logbook* (or books) to see if staff had reported any pest problems, and to review what had been done at the last few service visits. Perhaps you would check in with certain staff members to discuss special pest problems or conditions.

Next you would conduct a walkthrough visual *inspection* from room to room, area to area, both indoors and out, looking for pests and evidence of pest problems, checking sticky traps and other monitoring devices. You would also *communicate* with staff members by asking questions and discussing pest problems. You would *identify* any pests you found, and decide if their numbers were above a predetermined *action threshold* level, which would require some kind of control action.

For each pest problem, you would make a decision about what control tactics to use given the identity of the pest, the extent of the problem, and the sensitivity of the site. You would try to use nonchemical pest management tactics, whenever possible. For example, you might set traps for rodents, use a vacuum to remove cockroaches and their droppings and body parts, and caulk openings around pipes to prevent pests 'rom moving between rooms. On the other hand, you might make recommendations that the school take certain nonchemical pest management actions such as changing food storage procedures to reduce spillage, or repairing a hole in the wall that is allowing pests to enter.

Before completing your service, you would *evaluate* the work that you had done at your last service visit to see if it was successful or if further actions were required. Lastly, you would fill out your *IPM Service Report*, make entries in the *IPM Logbook*, prepare any Sanitation Notices to the school, and complete other recordkeeping requirements.

As an IPM technician working in a school, you are far more than simply a pesticide applicator. You are an inspector, an identifier of pests, a communicator, a recordkeeper, a decision-maker, and, what is most important, a guardian of the wellbeing of students and staff. It is a big responsibility.



You right decide that a *pesticide* application was necessary. If so, you would be sure to choose a pesticide product that posed the *least hazard* to people and the environment. You would apply it in a way that minimizes risks, particularly to school children, and you would never apply it when students were present.

Chapter Two: Monitoring Pests

An IPM program consists of a cycle of monitoring, control, and evaluation. The monitoring component of an IPM program is essential to its success. Monitoring is a documented, systematic inspection conducted at regular intervals. It keeps you informed about all aspects of the pest situation and conditions at the site. Monitoring includes the following:

- Identifying and locating pests
- Identifying areas of critical sensitivity (classrooms, infirmary, etc.)
- Estimating size of pest populations
- Identifying the factors that are contributing to the pest problem (poor sanitation, improper storage, holes in walls, etc.)
- Reporting management practices that could affect pest populations or pest management activities (trash pickup, lighting, evening classes, construction, etc.)
- Identifying nontarget species that could be killed or injured
- Assessing natural enemies and potential secondary pest's
- Assessing environmental conditions (temperature, hum idity, weather or seasonal changes)

Action Thresholds

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> Does a pest, say a single fly, demand immediate action? Not necessarily. In many situations, there may be a specific level of pests (or damage) that can be reached before action is taken. One house fly in a classroom would not normally trigger control. On the other hand, a cockroach in a cafeteria would require a very careful inspection to find out if other cockroaches were present, and probably some kind of control action.

> To decide when to take a control action and when to simply continue monitoring you need to understand the action threshold. An action threshold is the point at which action must be taken. Action thresholds depend on the site and the pest.

An occasional beetle in a hallway can be tolerated. A mouse in a classroom requires immediate action.

Action thresholds change from site to site and even month to month. For example, a couple of ants in a basement storage room might not require any action but ants in the infirmary would.

Different levels of a pest may generate different control actions. For example, if you find three cockroaches in a storage room, you might place a couple of cockroach baits stations. But if you find 30 cockroaches, you might require that the storeroom be extensively cleaned, treated with additional insecticides, and all cracks and crevices carefully caulked.

In a new IPM program, a practical approach is to establish an arbitrary action threshold for the major pests in each type of room (classroom, cafeteria, etc.). If it is your job to set the action thresholds, just use your common sense and experience as a guide. In some situations, you might want to consult with someone at a higher level within the school. Later in the program, the action levels can be revised up or down based on continued observations and experience at a given site.

How to Conduct Inspections

Frequent and thorough inspections allow you to get the jump on newly arrived pests, <u>before</u> they can become a serious problem. There are three basic components to a typical inspection:

- (1) walk-through visual inspections of all areas of the building including outside,
- (2) use of various types of monitoring traps, and
- (3) information from school personnel, including review of the logbook. All occupants should be encouraged to report pest activity.

Visual Inspection

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Use blueprints or create a floorplan of the school showing all rooms, sensitive areas, points of entry, etc., and become familiar with the entire structure. Certain areas are more prone to pests than others and will require more intensive inspections. Examples include cafeterias and snack rooms, food storage areas, staff lounges, home economics rooms, classrooms or labs with live animals, art rooms, locker rooms, recycling collection points, and loading docks.

Use a bright flashlight and a magnifying glass (hand lens) during your inspection. Do not look just for the pests themselves, look for other evidence of pests such as droppings (especially from cockroaches and rodents) and frass (from wood borers), gnawing, tracks, and grease marks (from rodents), damage (such as powderpost beetle exit holes), and shed insect skins. The presence of feeding debris or frass is an indication of infestation.

Examine window sills regularly as many pests fly or crawl towards light. Also check inside ceiling light fixtures. Pests may be found behind baseboards, under furniture, behind moldings, in cracks in floors, behind radiators, or in air ducts. Check around door jambs for cockroaches and spider webs. Spiders often spin their webs across gaps around doors to capture insects trying to enter.



Look, too, for conditions that might lead to pest problems. Check for moisture problems, both indoors and out, which may lead to moisture related pests such as carpenter ants, termites, or mold. Look out for damaged screens, doors, and walls, which could allow pest entry. Note any sanitation problems. Be aware that fresh flowers and other plant materials may be infested with insect pests. Inspect outdoors, also. Heavy landscaping near the foundation and plants such as ivy growing on walls increases the risk of outdoor pests moving inside. Moisture problems around the foundation, gutters, or air conditioning units can favor moisture-related pests. Bright exterior lights may be attracting insects to the outside of the building, and these insects may be finding their way indoors. Poor management of trash may be attracting rodents, which could find their way inside through utility lines or other openings.

Monitoring Traps

There are currently three major types of monitoring traps: sticky traps, which use an adhesive to capture insects; pheromone traps, which use chemical attractants to draw certain species of pests into the trap; and insect blacklight traps, which use ultraviolet light to lure and capture certain flying insects.

Sticky traps are the most common monitoring tools in use today. These gluecovered traps are most often used to trap cockroaches, but they are useful in monitoring for all kinds of crawling insects, and particularly those that are active at night.



Insect sticky traps

Here are some tips for monitoring with sticky traps:

- Place sticky traps where school children are not likely to find them. They will be especially useful in cafeterias and food storage areas.
- Avoid placing the traps in the open, since most pests avoid open areas. Place them inside cabinets, in back corners, in drawers, under sinks and stoves, under furniture, near (but not directly on) water or heat sources, on window ledges (for pests attracted to light), and on food storage shelves.



Check traps regularly

- Initial and date the traps and map their locations on a floor plan. Traps should be checked at each inspection, and any pests should be identified and recorded.
- Replace the traps whenever they have captured pests or if they become contaminated with dust or debris.
- Try to use the same brand of trap each time. Different trap designs catch different numbers of insects, and you want to be able to compare catches.
- Check the traps after the same number of days so that you can accurately compare catch numbers from visit to visit.

- Choose a trap that is easily opened to make counting easy.
- When possible, avoid placing traps right after a pesticide application. First, because most pesticides require a few days to show control. Second, because many pesticides cause insects to "flush" out into new areas.
- Be consistent in how you use the traps to get an accurate picture of any changes in pest status.

Pheromone traps are valuable tools for monitoring certain pests, particularly "stored product pests"such as cigarette beetles, drugstore beetles, sawtoothed grain beetles, Indianmeal moths, and warehouse beetles (Trogoderma) that infest food. Much of what these insects do is directed by certain chemical odors. The odors tell them where to find food, or a mate, or others of their own kind. Pheromones are the natural scents insects use to communicate with each other. Science has discovered how to isolate or mimic some of these pheromones and incorporate them into traps. Certain pests are strongly attracted to the traps, providing an extremely effective early warning system.



Pheromone trap for flying insects

There are many different styles of traps, the most common being hanging traps. These have a sticky surface and a small lure that contains the pheromone to attract certain flying insect pests. Another common type of trap is the pitfall, which lures crawling insects into a container filled with oil. In a school, pheromone traps can be used in food storage areas to identify infested food products.

Here are some tips for monitoring with pheromone traps:

- Most pheromones only attract a particular type of pest. Make sure that you have the right lures for the pests you are monitoring.
- Do not place traps near windows and doors where you might lure insects in from outside.
- In large storage rooms, place traps in a grid pattern about every 50 feet. To pinpoint an infestation, place traps more closely around any trap containing insects.
- Inspect traps every week, twice a week if an infestation is found.
- Replace pheromone lures as recommended since the pheromone becomes less attractive through time.

Insect light traps (also called ILTs, insect electrocutors, and electronic insect traps) are useful for detecting and controlling occasional flying insects. The traps emit ultraviolet light ("black light") that is very attractive to certain insects, particularly to flies and moths. The insects are drawn into the trap and are either "zapped" (electrocuted on a grid) or fall onto a glue board. Flies can see lights from about 25 feet away, moths up to 100 feet away, depending, of course, on the ambient light present in a room. Only industrial grade traps should be used, not the backyard "bug-zappers" sold in retail stores.



Insect light trap (ILT)

In schools, insect light traps are most effective in narrow hallways or 15-25 feet inside main entry points. Traps that are low to the ground usually capture more flies than do ceiling-hung traps. Ceilinghung traps capture more moths. Use insect light traps indoors only. When placed outdoors, they mostly capture nonpest insects.

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Be sure to check and empty the light trap periodically or the dead insects will themselves attract dermestid beetles and other scavengers. Bulbs must be replaced at least annually. Although it appears normal, a blacklight bulb loses about 50 percent of its effectiveness after one year.

Information from School Staff

During inspections, ask staff members if they have seen any pests. School staff should know what to do and who to contact if pests or evidence of pests are seen. Whenever such evidence is discovered, it should be reported and recorded in tr-IPM Logbook.

Other Components

The following items should be considered for use in any school IPM program:

Floor Plan

Maps, blueprints, graphs, or floor plans are extremely helpful in monitoring in and around school buildings. They should note all pertinent factors including high pest risk areas and sensitive areas.

Use working copies of the floor plan during each inspection. You should have access to all areas. Mark any evidence of pests, and related information that may prove useful (sanitation problems, overflowing trash cans, torn screens, moisture problems, etc.).

Pest Identification

Correct identification of the insect or other pest and its life stage is critical. Without it, you cannot make an informed decision about how best to control the pest, and if control is necessary at all. To learn how to identify pests, and to obtain information on a pest's biology and habits, refer to the books and resources referenced in the appendix.

Recordkeeping

Good records help you solve pest problems, give you a historical perspective of pests at the school, and let you anticipate seasonal pest problems. All evidence of pests should be thoroughly documented. Note what was found—species and life stage, where it was found, the day and time it was found, and whether it was found alive or dead. Keep careful records of inspection results, trap catches, etc. to identify seasonal risk factors and areas with a high frequency of problems. Recordkeeping is discussed in chapter six.

Inspection and Service Kit

You might want to put together an inspection kit to be carried in a small tool box or other portable container. Depending on the site to be monitored, it might include such items as --

- Flashlight or headlamp and extra batteries
- Plastic bags, vials, and tweezers to collect samples of insects and other specimens
- Pad of paper and pencil/waterproof marker to make notes and labels to place inside sample containers
- Transparent tape to capture insects or mites too small to pick up with tweezers
- Hand lens or small portable microscope
- Screwdrivers, knife, and small hammer
- Mechanic's mirror to look under heavy objects, inside drop ceilings, etc.
- Caulk and steel wool
- Duct tape
- Sticky traps
- Soap/hand cleaner



Hand-held moisture meter

- Clean rags/paper towels
- Stethoscope or electronic listening device
- Hand-held moisture meter to find areas of high wood moisture
- Rubber gloves
- Polaroid camera to record problem areas
- Borescope for looking inside walls and other voids

Chapter Three: Education and Notification

Probably the least expensive nonchemical control method is education of staff, students, and interested parents about potential pest problems, their causes, and the IPM solutions. Simply having informed individuals who will spot and report pest problems can go a long way toward managing pests in a school. Notification is informing students, staff, and others about pesticide applications.

Education

Building maintenance and grounds personnel should understand pestproofing and other steps they can take to keep pests from entering buildings. Housekeeping staff can learn to find and give special attention to areas with sanitation problems. Food service workers should understand the connection between inadequate sanitation and pests. Students can even help by regularly cleaning leftover food out of their lockers and picking up trash paper.



Involving students in the IPM program



This education process can take place in many ways: features in the school newspaper, notes sent home to parents, presentations at school assemblies, PTA and staff meetings. Science teachers may even be persuaded to teach students about IPM, perhaps including hands-on experience.

The idea is not simply to teach people about pests, but to involve them in the pest management program. Students, parents, and staff should understand that the success of the IPM program is in their own best interest.

Notification and Posting

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Schools have differing policies on notification. They may require that notices be posted, in advance, at the school entrance, lobby, and area to be treated. Some schools also send notices home to those parents who wish to be informed before pesticide application. A school may have a registry of students and staff who are sensitive to pesticides. These people must be notified before pesticides are applied.

After treatment, reduce the risk of exposure to those who may not be aware of your treatment by posting written warnings. Use door hangers, warning notices, and instructional sheets to warn staff and students that an area was treated, to identify the pesticide applied, to tell them when they may reenter the room, and to provide other instruction and warnings. The more specific the warnings, the better. Use the pesticide label as your guide.



Be prepared to provide additional information on pesticides. Maintain a set of product labels and material safety data sheets (MSDS) for all pesticides used. File at least one set in the logbook, along with telephone numbers of poison control centers and emergency personnel. This information should be available to any individual upon request. When a pest problem requires action, look first to those methods not requiring the use of pesticides. Pest control practices such as trapping, caulking, power washing, and vacuuming are control measures you can use with a high degree of safety. Ideally, you should concentrate first on those methods that work over the long term, or that <u>prevent</u> pests in the first place; methods such as pest-proofing (exclusion) or operational changes that improve sanitation. Often, nonchemical measures are combined for the most effective results, and sometimes used together with limited pesticide application. Common nonchemical pest management methods are discussed in this chapter.

Sanitation/Housekeeping

Poor sanitation makes life easy for cockroaches, flies, ants, mice, rats, and other pests that need nothing more than a little spilled food, a drippy faucet and a place to hide.

Removing available food for pests is the most obvious, and probably the most important, sanitation step to reduce pests. However, cleaning up clutter is important, too. Stacks of papers or closets jammed full of "stuff" provide harborage (living and hiding places) for pests.

Good sanitation is a nonchemical pest management measure that does not require specialized training or equipment. All that is needed is an understanding of the connection between food, standing water, clutter... and pests.

Vacuuming

Vacuuming is an important part of a sanitation program since thorough and frequent vacuuming removes food particles and other debris that pests feed on. Vacuuming also can be used to control pests directly. Pest control companies are increasingly using industrial-type vacuums to suck up cockroaches, flies, ants, spiders, and other pests.

For many pest problems, a vacuum

may be all that is needed. A group of cockroaches living under a rabbit cage can best be removed simply by lifting the cage and vacuuming them up. For other pest problems, a vacuum may be the <u>only</u> control method that is acceptable. An example is ants living inside an oven.

Pest control companies and cleaning services often use specialty backpack vacuums equipped with filters that can remove even tiny allergenic particles. Special attachments allow vacuuming under appliances and around sensitive equipment like computers. After vacuuming, the vacuum bag should be dropped into a sealable plastic bag and discarded.

Power Washing

Various types of power washing equipment use a high-pressure stream of water to remove accumulated debris, grease, and other potential food and harborage for pests. Candidates for power washing include the following sites:

- Food carts/tray carts
- Drains
- Trash rooms
- Trash cans/dumpsters
- Compactors
- Loading docks
- Bird roosting area (droppings)



Tray carts can be power washed

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Power washing equipment comes as hot water units or cold water units, built-in units or portable units, gasoline-powered or electric-powered. Power washing is usually done by school staff, but may be a separate service provided by a contractor, sometimes the pest control contractor.

Sanitation in Food Service Areas

Schools should allow food and beverages only in certain designated areas. (Note: Food and beverages should be prohibited in computer rooms and in similar pest-sensitive sites.)

In the main kitchen and cafeteria, food preparation surfaces should be cleaned promptly after use. Grease should be cleaned regularly from ovens, exhaust filters, and grease traps. Power washing is a good way to remove grease and spillage and to flush floor drains. Garbage cans should include plastic liners. The cans should be cleaned regularly, and garbage removed daily. Catch trays in insect light traps should be emptied regularly.

Stored packaged foods should be

stacked on pallets or on shelves that are away from the wall to allow inspection and cleaning. The policy of "first in, first out," ensures that foods do not remain in storage for too long. Empty boxes, cans, and any damaged packages should be promptly discarded. Opened foods should be stored in tightly sealed containers.



In secondary food areas like lounges, snack areas, and the home economics classroom, stoves, refrigerators, and sinks should be kept clean. Leftover food should not be stored for long periods. Spills under and behind vending machines, microwaves, and coffee makers should be cleaned up promptly.

Sanitation in Other Indoor Areas

In the science lab or animal rooms, animal cages should be cleaned and bedding replaced regularly. Spilled feed and animal feces should be removed daily. Animal feed should be stored in tightly sealed containers.

In rest rooms, locker rooms, and janitorial closets, floor drains and shower drains must be cleaned routinely. Mop buckets should be emptied after use and wet mops and rags cleaned and hung to dry. In lockers and desks, regular inspections should look for conditions that attract pests like forgotten bag lunches, discarded candy wrappers, or wet clothing.

Sanitation and Waste Disposal

Garbage cans and recycling containers should have lids that close and should be emptied and cleaned out regularly. The trash room should have a concrete floor with a floor drain so that it can be hosed down or power washed.



Keep dumpster lids closed

The dumpster and compactor should be washed out regularly using high pressure and a degreasing solution. After cleaning, the dumpster's drain plug should always be replaced. Sliding doors or lids on the dumpster should be kept closed. Spilled trash around the dumpster should be picked up daily. Trash cans on playgrounds and in other outside areas should be emptied daily and cleaned regularly.

Sanitation Outside the Building

Trash on the grounds, especially trash that accumulates around the foundation and under shrubbery, should be picked up. Fruits and vegetables that are lying on the ground should be removed to discourage rodents, yellowjackets, and other pests that feed on decaying vegetation.

Roof gutters should be cleaned, and stagnant water in containers and playground equipment should be emptied.

Pestproofing

A straightforward pest control solution is simply to change the conditions that allowed the insect or animal to become a pest in the first place. One way to do this is to make physical or mechanical changes that will make the location less attractive to pests or that will keep them from entering buildings. Pestproofing can be as simple as repairing screens and caulking cracks or as sophisticated as landscaping with pest- and disease-resistant plants. Some physical alterations can be expensive and time-consuming but they usually are permanent solutions. You may do some pestproofing yourself, and you may make pestproofing recommendations to school administrators, maintenance staff, or outside contractors.

Pestproofing Buildings

- Install weather stripping or door sweeps on doors. Inspect them regularly and replace as needed.
- Repair screens on windows and doors and make sure they fit tightly.
- Screen floor drains and outside vent openings.
- Install air curtains over loading docks and other open doorways.
- Seal cracks and crevices in interior and exterior walls.
- Caulk, stuff, or seal openings around pipes and conduits where they enter the building.



- Caulk crevices around doors, windows, vents, plumbing fixtures, equipment, cabinets, and counter tops.
- Repair grout around wall and floor tiles in restrooms, locker rooms, and other sites.
- Repair leaks in the roof, which may attract carpenter ants, fungus beetles, and other moisture-loving pests.
- Repair leaky plumbing in restrooms, kitchens, and laboratories.
- Install porcupine wire, pin and wire, or similar commercial products to keep birds from roosting on window ledges and other building surfaces.



"Porcupine wire" strip

Pestproofing on the Grounds

- Install a concrete pad under the dumpster or garbage pickup area to make it easier to clean the site and to prevent rodents and other pests from burrowing or nesting underneath.
- Make sure that all trash cans on the grounds have closing lids to discourage yellowjackets and flies.
- Pull organic mulch away from the building's walls. Wood mulch invites termites and moisture-loving pests like millipedes, sowbugs, and earwigs. Instead, install a 2-3 foot wide mulch-free band around the perimeter. Leave the area bare or fill it with pea gravel, crushed stone or shell.
- Thin or remove dense shrubbery and ground covers around the building's foundation. Dense vegetation provides good cover for rodents and makes it difficult to inspect and treat burrows.
- Trim tree branches that touch the building and remove vines on the building. Ants, squirrels, and roof rats especially, often follow branches or vines to enter a building.
- Remove plants that are hosts to specific invading pests and replace them with pest- and disease-resistant varieties. For example, boxelder bugs feed on the female boxelder tree, often moving into buildings in the fall. Removing these trees from the area will eliminate problems with boxelder bugs. Keep ornamental plants and lawn healthy and pest-free through proper watering, fertilizing, and pruning.
- Fill or drain low spots to eliminate standing water that breeds mosquitoes and other flies. Align downspouts so that water drains away from the building.
- Remove piles of wood, stone, or other materials or stack them off the ground and away from building foundations.

Trapping

Traps for insects, mice and rats are nontoxic and easy to use. They have the added advantage of containing the pest for disposal so that there is no concern about odors from dead rodents inside wall voids or in other sites. The one disadvantage in a school setting is that school children will often investigate and interfere with traps that are visible and accessible.

Traps for Insects

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The traps commonly used indoors to capture insects are sticky traps, pheromone traps, and insect light traps. These traps are discussed in detail in *Chapter Two: Monitoring Pests.*

Jar traps capture certain insects, particularly yellowjackets and flies. Yellowjacket traps are useful in the fall when yellowjackets are foraging around human food, drinks, and garbage.

Traps for Mice and Rats

Traps used to catch mice and rats are glue boards, snap traps, and multiple-catch or repeating mouse traps. In addition, there are small mouse traps that will capture individual mice alive to be disposed of or relocated, and there are specialty live traps for capturing larger animals like raccoons or skunks. Before trapping animals other than rats and mice, be sure you understand what you are doing and have the proper license or permit.

The common snap trap for mice or rats can be baited with a food bait such as peanut butter, or with cotton balls or other nest material, or left unbaited. Snap traps with an expanded trigger design usually are more effective.



Multiple-catch mouse traps

Multiple-catch or automatic repeating mouse traps are larger, metal traps that are capable of catching up to 20 mice without having to be reset. Mice are usually captured alive.

Glue boards for rodents are similar to insect sticky traps but are usually larger with more adhesive. Mice or rats that walk onto the board are captured.

Placement of Rodent Traps. Trap should be placed in rodent runways Rodents usually travel along baseboards or edges of walls or other objects. Place snap traps perpendicular to the wall with the bait pedal against the wall. Place glue boards parallel to the wall. For mice, traps should be placed about every 10 feet. For rats, place traps approximately 20 feet apart.



Place traps (and glue boards) where they will be inaccessible to children, pets, or other animals. Otherwise, place them inside a tamper-resistant bait station secured so that it cannot be lifted.

Traps can be placed outdoors around the perimeter of the building as well. Put them inside tamper-resistant bait stations to keep them away from children and animals, and to keep them dry and dust-free. Locate the bait stations in inconspicuous locations such as behind shrubbery or inside dumpster enclosures.

Check traps daily and remove captured rodents. Wear gloves when handling dead rodents and dispose of them immediately in a sealed plastic bag. Used glue boards should be disposed of, rodent and all, and replaced. Snap traps and multiple-catch traps can be emptied and reset.

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Number the traps or glue boards and record their location on a map of the building or grounds. Also record on a service sheet when traps are checked, emptied, and/or replaced. Move traps that have had no activity to a new location.

Light Management

Certain flying insects will congregate wherever there is bright exterior lighting such as around doorways, parking lots, loading docks, or ball fields.

When bright lights around the perimeter of a building draw insects, pest problems can result: (1) Dead and dying insects can accumulate around doorways and windows, (2) some of these insects may find their way inside through crevices, faulty screening, etc., and (3) insects flying around lights attract predators, like spiders, that feed on insects.

There are four factors that determine whether insects will fly to a light: (1) its brightness or wattage, (2) its ultraviolet (UV) output, (3) its heat output, and (4) whether there is competition from other lights nearby.

Bright lighting around schools is an important security measure, especially when students are present for nighttime activities. But there are several ways to reduce the problem of insects flying to lights without sacrificing outdoor lighting.

- Wherever possible, replace high wattage bulbs with lower wattage (less bright) bulbs or yellow insect bulbs.
- Mercury vapor lamps and fluorescent lamps have a high UV (ultraviolet) output which attracts insects. Instead, substitute sodium vapor lamps or others with low UV output. In general, yellowish, pinkish, or orange lights are less likely to attract insects.
- Replace bulbs that put out a high amount of heat (such as halogen lamps and incandescent floodlights) when possible.
- Direct or shield outside lights so that the light shines only where it's needed. When possible, install lights 15 to 20 feet away from the entryway, but facing toward it, rather than placing lights directly above doorways.



• When possible, set lights so that they do not turn on until one hour after sunset. This will avoid many insects that fly only at dusk.

• Tighten screens, caulk gaps, and use door sweeps, double doors and other measures to keep insects from entering buildings. Closing curtains or blinds on inside windows at the end of the day will keep interior lights from drawing insects to the building.

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Chapter Five: Using Pesticides in IPM

Pesticides may be used in school IPM programs. However, they should not be applied automatically or on a schedule, but only when justified against identified pests. What is most important, use them in ways that minimize risk to people, particularly to children.

This chapter presents some guidelines to help you use pesticides in schools. It is not a complete review. More detailed information on using pesticides can be found in the Maryland Pesticide Applicator Training Series Core Manual and in other reference materials listed in the appendix.

Pesticide Hazards

A pesticide is any chemical used to control pests. It may be called an insecticide, or a rodenticide, or a herbicide, depending on the target pest. Every pesticide is toxic and poses some risk to people and the environment. People exposed to excessive levels of a pesticide may suffer short-term or long-term health effects, depending on the toxicity of the pesticide and the degree of exposure. Children are especially susceptible to certain pesticides.



People can be exposed to pesticides in several ways. The most common exposures occur during mixing and application. People can also be exposed by entering treated areas too soon after application, before sprays have dried, dusts have settled out, or airborne residues have disappeared. People may be exposed to small but continuous doses if they work, live, or play in rooms with pesticide residues on rugs, furniture, food preparation surfaces, etc., or by inhaling volatile residues in the air. Small children may be exposed by touching, licking, or eating pesticide residues. Spills caused by accident or carelessness can cause dangerous pesticide exposures.

Two documents supply information on handling and use, on storage and disposal, and on hazards to people and the environment for a particular pesticide product. The *pesticide label* provides instruction telling how to correctly use the product. It tells you where you can use the product and what pests are controlled, has specific directions for mixing and application, tells you how toxic the pesticide is to people, and discusses ways to reduce risks (precautions). The label is the law regarding the use of the product. It should be read each and every time you use a pesticide.

The material safety data sheet, called an MSDS for short, is a guide to the hazards of a pesticide. Although an MSDS has some of the same information that you can find on a pesticide label, it provides more technical details on (1) identification and ingredients, (2) potential hazards, and (3) safety recommendations.



Always use pesticides with caution

These two documents, the pesticide label and the MSDS, are the primary sources for information on pesticide toxicity and how to use pesticides safely. Copies should be kept in each logbook.

Choosing the Right Pesticide

There are many factors to consider when choosing a pesticide for use in a school. You want it to be effective, of course. But in a school setting, particularly in rooms used by students, you want to be sure to choose pesticides that pose the least hazard to people. Some schools may limit your choices to a predetermined list of permitted pesticides. Whenever you get to choose a pesticide, be sure to consider the following characteristics:

Toxicity

Toxicity is a property, just like boiling point or color, used to describe a chemical. Toxicity is the capacity of a chemical to cause illness or injury. Pesticides are grouped into categories depending on how toxic they are to people. The more toxic pesticides cause injury at smaller doses and are therefore more hazardous to use. Special identifying words, called *signal words*, are printed in large letters on every pesticide label.

DANGER means highly poisonous WARNING means moderately toxic CAUTION means slightly toxic or relatively nontoxic

Signal words give you a relative measure of the toxicity of the pesticide concentrate or mix *in the container*. In other words it tells you how hazardous a pesticide is if it is swallowed, inhaled or absorbed straight out of its container or while mixing.



However, the toxicity of the end-use product (for example, the spray applied to a surface after being diluted) may be much less. Two pesticide products with the same signal word may pose different risks to people (such as students and teachers) in the treated area if, say, one is designed to be used full strength and the other to be mixed with water and diluted to a 1 percent solution.

As a general rule in schools, when choosing between similar pesticide products, choose the one whose end-use product (the material that is actually applied) is the least toxic to people.

Volatility

This is the measure of how fast a pesticide vaporizes (turns into a gas) when exposed to the air. The lower the volatility, the less insecticide vapor in the air after treatment. Information about a pesticide's volatility can be found on the MSDS.

Sometimes a pesticide with high volatility is a good choice: when doing space treatments (fogging), for example. In most circumstances, however, it is best to choose a product with low volatility to minimize the level of airborne pesticide residues present after treatment.

Formulation

Also consider how a pesticide is formulated, whether as a wettable powder, dust, emulsifiable concentrate, pressurized aerosol, bait, or other form, when deciding which pesticide to use. For certain uses, the type of formulation is very important to the issue of safety. For example, insecticide dust, while a good choice for application into a wall void, would be a poor choice for application into a drop ceiling, where vibration might cause the dust to drift down on those below.



An IPM technician should choose low toxicity insecticides and formulations, and methods of application that reduce potential exposure, particularly in areas that students may enter. Products should have low volatility, be nonirritating, and specifically labeled for the site of application.

Insecticide Application

Use low-exposure application techniques. Most bait, crack and crevice, and void treatments put insecticides where cockroaches and many other indoor pests spend most of their time, and where children are least likely to contact the insecticide. These are also the techniques and sites least likely to generate indoor air residues.

Insecticide Baits

Insecticide baits are among the best choices to reduce potential chemical exposure, since they are normally enclosed inside bait stations or else applied into cracks, crevices, and voids. They also have low volatility, meaning they do not easily vaporize or produce airborne residues.
Insecticide Bait Stations. Insect bait stations are available to control both cockroaches and ants. Their advantages for use inside schools are that the insecticide is enclosed inside a plastic station, the bait remains effective for long periods, and they are very easy to apply. A disadvantage is that they are often visible, and school children may collect and play with them. When used, they should be hidden inside cabinets, equipment, and other infested sites.

Note: Baits do not attract cockroaches over long distances. To be effective, baits must be placed where cockroaches live or travel. Since cockroaches prefer to travel along edges, place bait stations along edges and in corners. The more edges a bait station touches, the better it will work. Do not place bait stations in the middle of open areas. They will be ineffective.



Placing cockroach bait stations

Pastes, Gels, and Other Injectable Baits. There are now a variety of bait formulations for use inside cracks and crevices and in small spots inside hidden areas. Insecticide bait may be packaged inside tubes or syringes that you squeeze to apply, or designed to be applied by various types of bait "guns" or with a small spatula or putty knife. As a rule, baits are odorless, produce no vapors, have low human toxicity, and last for long periods.

To control German cockroaches, place spots or beads of bait in or near dark, protected harborages or aggregation sites. Concentrate on edges, corners, cracks and crevices, and any place you see "spotting," feces, egg cases, or body parts of cockroaches.



Crack and Crevice Treatment

Crack and crevice treatment is the application of small amounts of chemical directly into cracks and crevices where insects hide or enter. It is particularly effective against German cockroaches, which spend over 90 percent of their day hidden away in dark, quiet cracks, crevices, and voids.

You cannot do a proper crack and crevice treatment with a fan spray or pin stream nozzle on a compressed air sprayer. There is too much splash-back, too little penetration, and too many residues left outside. Instead, use an injector tip to inject the insecticide, whether a liquid, dust, or aerosol, into insect hiding places.



A typical crack and crevice treatment

Void Treatment

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Void treatment is the application of insecticide into an empty space inside a wall or ceiling, behind a kickplate, inside a table leg, or in any other void. The application is usually done through an injector tip. Insecticide residues are out of the reach of people, and inside prime harborage sites for cockroaches, ants, and other pests.

There is some risk with void treatments that the insecticide may blow through the void and escape through other holes and "drift" into nontarget areas. Do not overapply or use too high a pressure when treating a void.

Spot Treatment

The application of an insecticide residue to a limited area, not to exceed two-square feet, is called a spot treatment. These areas may occur on floors, walls, and the undersides of equipment. Avoid spot treatments in sites where school children might contact the insecticide.

Other Types of Treatment

There are other types of treatment used to control pests. Some are not suitable for use in schools except in rare instances. Fogging is applying a fine aerosol mist of insecticide into the air. Avoid fogging, directed space treatments, or extensive "flushing" with pressurized aerosols or "foggers." Apply such treatments only as a last resort for emergency knockdown of a large pest population. Clear the room and surrounding areas beforehand and ventilate the room extensively, preferably overnight, before allowing people to return. Avoid applying insecticide residues to surfaces that might be contacted by children.

If you must "fog" or treat accessible surfaces, reduce the risk of exposure to students and staff. Warn them where you have treated and what you have treated with, and *inform* them when they may reenter an area or begin using a room. The more specific the warning, the better. Make sure your warnings are at least as tough as those on the pesticide label. Use written warnings (door hangers, notices, instructions, etc.) when possible, particularly when people might enter an area unaware of your treatment.

General treatment is the application of insecticide to broad expanses of surfaces. Examples include the treatment of carpets and furniture for flea control and lawn insecticide applications. Avoid these types of treatments whenever possible. If general treatment is necessary, do it when students won't be present for a few days. The area should be posted to warn people of the treatment.

Perimeter treatment is an application of a barrier of insecticide to prevent the entry of pests. Typically, a liquid insecticide is applied in a coarse spray around the foundation treating soil, mulch, and lower vegetation from the foundation out 6-10 feet and up the foundation wall 2-3 feet. Additional treatment is made around doorways, windows, and other points of pest entry.



Perimeter treatments have the advantage of putting the insecticide outside to prevent pests from coming inside, thus reducing the need for controls in school rooms. But they have the disadvantage of putting a pesticide residue where small school children might contact it during play. Use perimeter treatments with care and only when other control methods prove ineffective.

Rodenticide Application

There are four major formulations of rodenticide used against rodents: food baits, water baits, tracking powders, and fumigants.

Food Baits

Rodenticide baits combine a poison with a food bait attractive to rodents. Baits may be packaged in large bulk tubs, in individual place packs containing less than one ounce of bait, or anything in between. Baits come in pellets, granules, paraffin blocks. For safety, some baits include chemicals that are extremely badtasting to humans, but not to rodents.

Some baits kill rodents after a single feeding, and some require multiple feedings. Some are anticoagulants, meaning they cause rodents to bleed to death, some affect respiration, and some have totally different modes of action. Some are only slightly toxic to people or pets, some are moderately toxic, and some are very toxic.

Each rodenticide product has different characteristics and you must review the label and supporting information that come with each product to use it safely.

Always review the label before using a rodenticide, no matter how many times you' have used the product before. Labels change and products change and memory fades.

First and foremost, children, pets, wildlife, and domestic animals must be protected from eating the bait. All rodenticides have warnings on the label telling the applicator to place the bait "in locations not accessible to children, pets, wildlife, and domestic animals, or in tamper-resistant bait stations."

No one can give you a list of safe, inaccessible areas in and around a school. Whenever you are using a rodenticide bait in or near a school, ask yourself—Is it possible for a child to get at the bait? Do everything possible to prevent that from happening. Place baits deep inside active rodent burrows or inside tamper-resistant bait boxes.



An example of a tamper-resistant bait station

A tamper-resistant bait station is designed so that a child or pet cannot get to the bait inside, but a rodent can. (Note: A bait tray is NOT a tamper-resistant bait station.) Tamper-resistant stations differ in the type and quality of construction, but they are usually metal or heavy plastic with a locking lid. Rat boxes are larger than those used for mice. Most are not considered truly tamper-resistant unless they can be secured to the floor, wall, or ground, and the lid can be locked into place.

Bait stations should be clearly labeled with a precautionary statement. Check them periodically to see if the bait is being taken and if the bait is fresh.

Place bait only where rodents are active as shown by droppings and other signs. Put bait stations outside near burrows and along travel routes. Put place packs or loose bait *inside* burrows. If a site is damp, such as inside sewers and storm drains, use paraffin bait blocks secured so that they cannot be dragged away or washed away.

Water Baits

Water baits are specially formulated rodenticides mixed with water. Various liquid dispensers are available. The best dispensers are custom designed for toxic water baits. Some tamper-resistant bait stations include compartments for water baits. Do not use standard "chick-founts" or other animal watering devices for liquid baits unless they can be made inaccessible to children, pets, and wildlife.

Water baits can be extremely effective, particularly against rats. However, water baits are attractive to other animals and to small children, and so can be particularly hazardous in a school environment.

Tracking Powders

Rodents groom themselves by licking their fur. Tracking powder makes use of this behavior. This formulation is simply a rodenticide combined with talc or powdery clay. It is applied into inaccessible areas where rats and mice live and travel. The powder sticks to their feet and fur, and is swallowed when the animals groom themselves. The major advantage to tracking powders is that they can kill rodents even when food and water are plentiful, or if rodents have become bait or trap-shy.

Tracking powders are usually applied with hand-operated bulb or bellows dusters. Apply the powder more heavily than you would apply an insecticide dust, but never more than 1/8-inch deep.

The rodenticide active ingredient in tracking powders is generally 5-40 times more concentrated than that in baits. Because of the risk to children, application of tracking powders at schools, when used at all, would be limited mostly to the inside of dry burrows outdoors. (Note: not all tracking powders are labeled for this use.)

If you need to use a tracking powder indoors, apply it inside wall voids, around rub marks, along pipe and conduit runs. Never use tracking powders in suspended ceilings, around air ventilators, or near food or food preparation areas. The powder can become airborne and drift into nontarget areas.

Fumigants

Several fumigants are available for outdoor burrow fumigation including aluminum phosphide, carbon bisulfide, and carbon dioxide. All fumigants are extremely hazardous. They should only be used by those properly trained, licensed, and certified.

— General Guidelines for Using Pesticides in Schools —

- Don't apply pesticides when school children are occupying a room or area.
- Don't apply pesticides in classrooms, hallways, cafeterias, and other common areas during school hours.
- Don't apply insecticide sprays or dusts in infirmaries, nursing stations, and other medical areas except in severe infestations. If such treatment is necessary, notify medical personnel in advance.
- Choose pesticide products that pose the least risk to people, particularly to children.
- Choose an insecticide application from those listed below rather than space treatments (fogging) or general treatment of floors, walls, or furniture.
 - insecticide bait stations
 - insecticide paste, gel, or granule baits applied in cracks and crevices
 - insect growth regulators
 - application of insecticides into cracks, crevices and voids
- Place rodenticides where children cannot get to them, or put rodenticides in tamperresistant bait stations. Where possible, hide bait stations from view.
- Follow notification and posting guidelines set by the school.

Chapter Six: Keeping Records and Evaluating Results

The ongoing IPM cycle of monitoring, control, and evaluation demands good communication between all parties, and detailed records to track pest trends and problems. It also requires a way to periodically evaluate whether the IPM program is succeeding, or whether changes are required.

Communication

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For IPM to work, there has to be twoway communication between those conducting the IPM program and those at the school. Much of this communication involves the IPM technician directly. The communication takes many forms:

- Talking with staff members about pest sightings, discussing ways to reduce pests by improving housekeeping or making repairs, and soliciting staff cooperation.
- Explaining to staff, students, and sometimes even to parents how IPM differs from regular pest control service, and answering questions about the IPM program.

- Reporting pest sightings and control actions in a logbook and reading entries made by staff.
- Providing written reports and recommendations.

Recordkeeping Requirements

Good IPM requires good records to help you solve pest problems, give you a historical perspective of pests, and let you anticipate seasonal pest problems. The information that must be recorded includes pest reports, control actions, housekeeping problems, structural deficiencies, and other problems contributing to pests. In schools, records must identify sensitive areas where pesticides (and certain other control methods) must be used carefully or not at all.

IPM programs may use various types of reports or records. A few of the most common are described below, and examples are provided in the appendix.

Logbook

A logbook is the centerpiece of IPM operations and recordkeeping: the key to the program. It is a permanent record book, usually a loose-leaf book, which is available to school staff at all times. (In large schools there may be different logbooks for different areas, but in most schools there will be but one.) The logbook contains everything about the program, all pest sightings, actions taken, recommendations made, and reports written. A typical logbook might be arranged in tabbed sections as follows:

General information. Includes a general description of the IPM program (its tactics and goals), IPM concepts, directions on how to use the logbook, contacts and technical personnel, and a service schedule. The general information section allows interested staff to learn what is to be expected from the program.

Floor plans/maps. A set of plans that would show sensitive sites and locations of pest control devices and monitoring tools (see discussion below).

Pest activity log. Notes in this section would be made by the IPM technician or any staff member that sees a pest or evidence of pests. Entries would include information such as identification of pest sighted (if known) or description, number of pests seen or trapped, specific locations, date and time, A sample *Pest Activity Log* sheet is provided in the appendix.

Monitoring data. Some IPM programs record catches in monitoring traps. This section would contain data sheets listing trap number/location, date, pest ID, number trapped, etc.



IPM service reports. In this section would be filed any reports noting sanitation or structural deficiencies, and any pesticides applied or other control actions taken (see discussion below and the sample report in the appendix).

Pesticide information. The logbook should include pesticide labels and material safety data sheets (MSDS) for any pesticide used, unless these are kept in a separate book or location.

Miscellaneous information. This section could include educational information on pests and pest management, correspondence, special reports (such as summary reports, see below), or other information about the IPM program.

Review the records in the logbook occasionally to identify pest trends, problems areas, etc.

Floor Plan of School

Sometimes a floor plan can be obtained from the school; sometimes you need to draw your own. All rooms should be labeled (classroom, science lab, bathroom, cafeteria, etc.) and room numbers noted. Hours of use should be noted, if known. The plan should show sensitive areas, the location of traps, bait stations, and other monitoring and control equipment, and pest hotspots or areas that experience regular sanitation problems. Here is a checklist of things to show on the floor plan:

- all buildings and structures
- cafeteria
- other eating areas, snack areas
- home economics kitchen
- teacher's lounges
- vending machines
- food storage
- animal areas/cages
- science labs
- rest rooms
- gym lockers/showers

- computer rooms
- drop ceilings
- crawl spaces

}

- attics and false ceilings
- heating/AC lines, ducts
- floor drains
- pipes through walls
- voids over walk-in coolers
- refrigeration line tunnels in slabs
- steam tunnels
- garbage collection areas
- recycling collection areas
- standing water, leaks, condensation points, etc.
- location of sticky traps, pheromone traps, and other pest monitoring equipment.
- And outdoors:
 - dense brush and weeds
 - heavy ground cover
 - previous rodent nesting and burrowing sites
 - compost piles
 - trash collection areas
 - playground trash cans
 - construction supplies/lumber



IPM Service Report

This report is similar to a "service record" or "service ticket" in regular pest control but includes more information. The IPM Service Report is a record of what was checked, what was found, and what was done by the IPM technician on that service date. If any pesticides were applied, this form would include a description of the product, the treatment, the site, the application rate, and the amount applied. It also includes a section to report poor sanitation and housekeeping, structural deficiencies, or school activities that might cause pest problems (although sometimes IPM programs have separate sanitation or deficiency reports). A sample IPM Service *Report* is provided in the appendix.

Summary Report

Sometimes called a "status report" or a "quality assurance report," this is often a quarterly report, usually prepared by a supervisor, which evaluates the IPM program's recent performance (see discussion below).

Evaluating Success or Failure

IPM programs incorporate a regular and periodic review of inspection reports, sanitation reports, the logbook, and other records to (1) see how the program is working, and (2) identify any changes that are necessary. The review may be conducted by a technician or, more often, by a supervisor. Sometimes, this review process is called "quality assurance" or "quality control." Whatever it is called, the review answers these kinds of questions:

- Are all pest populations below action thresholds?
- Have all objectives been achieved?
- Is the monitoring program adequate?
- Should other actions be tried?

- Can time and effort be reduced?
- What problems have been identified?
- What changes are necessary?
- Who should you contact to carry out these changes?

Typically, an IPM program is evaluated every three months, although some programs may be evaluated every six months or even once per year. A summary report is prepared, usually by a supervisor or even a third party, and submitted to the school. It notes the current conditions, discusses the progress made against particular pests or conditions, identifies problems, and sometimes offers recommendations for change.

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PARRIS N. GLENDENING, Governor HENRY A. VIRTS, D.V.M., Secretary HAGNER R. MISTER, Deputy Secretary



The Wayne A. Cawley, Jr. Building 50 HARRY S. TRUMAN PARKWAY ANNAPOLIS, MARYLAND 21401 Baltimore/Annapolis (410) 841-5700 Washington (301) 261-8106 Facsimile (410) 841-5914 MD Relay 1-800-735-2258 Internet: http://www.mda.state.md.us

STATE OF MARYLAND DEPARTMENT OF AGRICULTURE PESTICIDE REGULATION SECTION

(410) 841-5710 FAX (410) 841-2765

September 23, 1999

Michael Sines Director of Facilities, Maintenance & Operations Board of Education of Garrett County 40 South Fourth Street Oakland, MD 21550

Dear Mr. Sines:

I would like to thank you for submitting a copy of the Board of Education of Garrett County's Integrated Pest Management Plan. As you are aware, each Integrated Pest Management Plan must be reviewed by the Maryland Department of Agriculture as set forth under Regulation 15.05.02 Integrated Pest Management and Notification of Pesticide Use in a Public School. Your Plan has been reviewed to ensure that it is in compliance with the minimum requirements as specified in Section 15.05.02.03 Integrated Pest Management System.

Upon completing the review of your Integrated Pest Management Plan, the Maryland Department of Agriculture has determined that all of the required components have been addressed in your plan. This letter will serve as the formal approval of the Board of Education of Garrett County's Integrated Pest Management Plan.

Please be reminded, if any changes are made to the approved Integrated Pest Management Plan, the revised Plan must be resubmitted to the Maryland Department of Agriculture for approval. If you have any further questions please feel free to contact me or Ed Crow.

Sincerely,

Mary Ellen Setting

(Mrs.) Mary Ellen Setting, Chief Pesticide Regulation Section

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Administrative Procedure

Integrated Pest Management Plan

Garrett County Board of Education

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(IPM) INTEGRATED PEST MANAGEMENT

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INTEGRATED PEST MANAGEMENT FOR THE GARRETT COUNTY PUBLIC SCHOOL SYSTEM

Policy Statement

Structural and landscape pests can pose significant problems to people, property, and the environment. It is therefore the policy of the Garrett County Public School System to incorporate Integrated Pest Management (IPM) procedures for control of structural and landscape pests.

Pests

Pests are populations of living organisms (animals, plants, or microorganisms) that interfere with use of the school site for human purposes. Strategies for managing pest populations will be influenced by the pest species and whether that species poses a threat to people, property, or the environment.

Pest Management

Pests will be managed to:

- reduce any potential human health hazard or to protect against a significant threat to public safety.
- prevent loss of, or damage to, school structures or property.
- prevent pests from spreading into the community, or to plant and animal populations beyond the site.
- enhance the quality of life for students, staff, and others.

Integrated Pest Management Procedures

IPM procedures will determine when to control pests and whether to use mechanical, physical, chemical, cultural, or biological means. IPM practitioners depend on current, comprehensive information on the pest and its environment and the best available pest control methods. Applying IPM principles prevents unacceptable levels of pest activity and damage by the most economical means and with the least possible hazard to people, property, and the environment.

The choice of using a pesticide will be based on a review of all other available options and a determination that these options are not acceptable or are not feasible. Cost or staffing considerations alone will not be adequate justification for use of chemical control agents, and selected non-chemical pest management methods will be implemented whenever possible to provide the desired control. It is the policy of this School System to utilize IPM principles to manage pest populations adequately. The full range of alternatives, including no action, will be considered.

Integrated Pest Managment Procedure Cont'd.

When it is determined that a pesticide must be used in order to meet important management goals, the least hazardous material will be chosen. The application of pesticides is subject to the Federal Insecticide, Fungicide, and Rodenticide Act, School System policies and procedures, Environmental Protection Agency regulations in 40 Code of Federal Regulations, Occupational Safety and Health Administration regulations, and state and local regulations.

Education

Staff, students, pest managers, and the public will be educated about potential school pest problems and the IPM policies and procedures to be used to achieve the desired pest management objectives.

Record Keeping

Records of pesticide use shall be maintained on site to meet the requirements of the state regulatory agency and School System. Records must be current and accurate. In addition, pest surveillance data sheets that record the number of pests or other indicators of pest populations are to be maintained to verify the need for treatments. Documentation of communications to students and staff regarding IPM and pesticide use will be maintained by the school principal and contact person.

Notification

This School System takes the responsibility to notify the school staff and students of upcoming pesticide treatments. Notices will be posted in designated areas at school and sent home to parents of middle school and high school students who wish to be informed in advance of pesticide applications, and all elementary school parents.

Pesticide Storage and Purchase

Pesticide purchases will be limited to the amount authorized for use during each application. Pesticides will be stored and disposed of in accordance with the EPA- registered label directions and state regulations. Pesticides must be stored in an appropriate, secure site not accessible to students or unauthorized personnel.

Pesticide Applicators

Pesticide applicators must be educated and trained in the principles and practices of IPM and the use of pesticides approved by this School System, and they must follow regulations and label precautions. Applicators should be certified and comply with this School System IPM policy and Pest Management Plan.

PEST MANAGEMENT ROLES

Functions and responsibilities of the pest management personnel are as follows:

Students and Staff

Sanitation: Much of the prevention and reduction of pest infestation at the school site depends on the cooperation of students and staff in clearing leftover food, avoidance of placing gum under desks, and performing proper maintenance.

In addition, if pests are observed, they should be reported to the administration.

Parents

Become aware and informed about IPM practices and follow them at home.

Pest Manager

The pest manager is the person who observes and evaluates the site, or directs others to do so, and decides what needs to be done to achieve the site pest management objectives. The pest manager shall be the Head Custodian, or Custodian-in-Charge.

Authorization

The Director of Facilities, Maintenance and Operations shall serve as the primary management administrator. Costs, liability, time expended, safety, occupant satisfaction, and authority to approve pest management solutions will fall within this area of responsibility. The Director of Facilities, Maintenance & Operations is Michael Sines and may be contacted at 301-334-8906, or by writing to the Garrett County Board of Education, 40 South Fourth Street, Oakland, Maryland 21550.

Education

The IPM program shall include a commitment to the education of students, staff, and parents. Basic concepts of IPM and who to contact with questions or problems are to be included. All pesticide products shall be applied only by designated personnel.

PEST MANAGEMENT OBJECTIVES

The Garrett County Public School System has historically minimized the use of pesticides outdoors. The area does not experience comparable infestations of insects; e.g., mosquitos, etc., as do other areas of the state. Therefore, outdoor use of any pesticide will be limited to the possibility of use when, and if, an extremely unusual condition exists.

The same general objectives will be identified and utilized in all facilities within the Garrett County School System. Unique facility features will be addressed by the Pest Manager and handled in accordance with acceptable IPM practices.

Objectives

- Manage pests that may occur on school sites to prevent interference with the learning environment of the students.
- Eliminate injury to students, staff, and other occupants.
- Preserve the integrity of the school building or structures.
- Provide the safest playing or athletic surfaces possible.

INSPECTION

Routine inspection and identification of pests will be employed to ensure that control methods are effective.

Habitat modification (exclusion, repair, and sanitation efforts) can greatly reduce the prevalence of pests. Monitoring includes inspecting areas for evidence, entry point, food, water, and harborage sites, and estimating pest population levels.

ACTION THRESHOLDS

An action threshold is the level at which action is initiated. The action threshold is set by the pest manager and the Director of Facilities, Maintenance and Operations with input from the occupants. The presence of some pests does not, in itself, necessarily require action.

In most instances, a certified contracted applicator will be consulted and secured when pesticides are deemed necessary. A final determination will be based upon the information obtained through inspection, identifying, and monitoring.

IPM STRATEGIES

Universal pest prevention and control measures will be utilized throughout the Garrett County Public School System.

Preventive measures such as structural repair, screens, traps, etc., will be utilized when possible and implemented through the procedures outlined in the county Comprehensive Maintenance Plan.

Preventive measures are designed to reduce the need for pesticide applications and include sanitation measures.

IPM Indoor Strategies

Typical pests: mice, rats, cockroaches, ants, flies, wasps, hornets, yellow jackets, spiders, microorganisms, termites, carpenter ants, and other wood destroying insects.

Entry-ways

(doorways, overhead doors, windows, holes in exterior walls, openings around pipes, electrical fixtures, or ducts):

- Keep doors shut when not in use.
- Caulk and seal openings in walls.
- Install or repair screens.
- Keep vegetation, shrubs, and wood mulch at least 1 foot away from structures.

Classrooms and Offices

(classrooms, laboratories, administrative offices, auditoriums, gymnasiums, and hallways):

- Allow food and beverages only in designated areas.
- If indoor plants are present, keep them healthy. When small insect infestations appear, remove them manually.
- Keep areas as dry as possible by removing standing water and water-damaged or wet materials.

IPM Indoor Strategies Cont'd.

- In the lab, store animal foods in tightly sealed containers and regularly clean cages. In all areas, remove dust and debris.
- Routinely clean lockers and desks.
- Frequently vacuum carpeted areas.
- If students get head lice, consult with local health department and have their parents contact a physician. Discourage students from exchanging hats or caps at school.

Food Preparation and Serving Areas

(dining room, main kitchen, teachers' lounge, home economics kitchen, snack area, vending machines, and food storage rooms):

- Store food and waste in containers that are inaccessible to pests. Containers must have tight lids and be made of plastic, glass, or metal. Waste should be removed at the end of each day.
- Place screens on vents, windows, and floor drains to prevent cockroaches and other pests from using unscreened ducts or vents as pathways.
- Create inhospitable living conditions for pests by reducing availability of food and water -- remove food debris, sweep up all crumbs, fix dripping faucets and leaks, and dry out wet areas.
- Promptly clean food preparation equipment after use and remove grease accumulation from vents, ovens, and stoves. Use caulk or paint to seal cracks and crevices.
- Capture rodents by using mechanical or glue traps. (Note: Place traps in areas inaccessible to children. Mechanical traps, including glue-boards, used in rodent control must be checked daily. Dispose of killed or trapped rodents within 24 hours.)

Rooms and Areas With Extensive Plumbing

(bathrooms, rooms with sinks, locker rooms, dishwasher rooms, home economics classrooms, science laboratories, swimming pools, and greenhouse):

- Promptly repair leaks and correct other plumbing problems to deny pests access to water.
- Routinely clean floor drains, strainers, and grates. Seal pipe chases.

IPM Indoor Strategies Cont'd.

- Keep areas dry. Avoid conditions that allow formation of condensation. Areas that never dry out are conducive to molds and fungi. Increasing ventilation may be necessary.
- Store paper products or cardboard boxes away from moist areas and direct contact with the floor or the walls. This practice also allows for ease in inspection.

Maintenance Areas

(boiler room, mechanical room, janitorial-housekeeping areas, and pipe chases):

- After use, promptly clean mops and mop buckets; dry mop buckets and hang mops vertically on rack above floor drain.
- Allow eating only in designated eating areas.
- Clean trash cans regularly, use plastic liners in trash cans, and use secure lids.
- Keep areas clean and as dry as possible, and remove debris.

IPM Strategies for Outdoors

Typical pests: Mice and rats. Turf pests -- broad-leaf and grassy weeds, insects such as beetle grubs or sod webworms, diseases such as brown patch, and vertebrates such as moles. Ornamental plant pests -- plant diseases, and insects such as thrips, aphids, Japanese beetles, and bag worms.

Playgrounds, Parking Lots, Athletic Fields, Loading Docks, and Refuse Dumpsters:

- Regularly clean trash containers and gutters and remove all waste, especially food and paper debris.
- Secure lids on trash containers.
- Repair cracks in pavement and sidewalks.
- Provide adequate drainage away from the structure and on the grounds.

<u>Turf</u>

(lawns, athletic fields, and playgrounds):

- Maintain healthy turf by selecting a mixture of turf types (certified seed, sod, or plugs) best adapted for the area.
- Raise mowing height for turf to enhance its competition with weeds; adjust cutting height of mower, depending on the grass type; sharpen mower blades; and vary mowing patterns to help reduce soil compaction.
- Provide good drainage, and periodically inspect turf for evidence of pests or diseases.
- Allow grass clippings to remain in the turf compost with other organic material.
- Time fertilizer application appropriately, because excessive fertilizer can cause additional problems, including weak and disease outbreaks. Apply lime if necessary. Use aeration to place soil on top of thatch so that microbes from soil can decompose thatch.
- Seed over existing turf in fall or early spring.

IPM Outdoor Strategies Cont'd.

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Ornamental Shrubs and Trees:

- Apply fertilizer and nutrients to annuals and perennials during active growth and to shrubs and trees during dormant season or early in the growing season.
- If using a fertilizer, use the correct one at the suitable time, water properly, and reduce compaction.
- Prune branches to improve plants and prevent access by pests to structures.
- Select replacement plant material from among the many disease-resistant types being developed by plant breeders throughout the country.
- Remove susceptible plants if a plant disease recurs and requires too many resources, such as time, energy, personnel, or money. Some ornamental plants, trees, and turf are so susceptible to plant diseases that efforts to keep them healthy may be futile.

Use of Pesticides

Due to their potentially toxic nature, pesticides will be applied by qualified applicators in a manner to ensure maximum efficiency with minimal hazard.

The posting of a sign indicating the application of pesticides will conform to Maryland Department of Agriculture regulations.

EVALUATION

Records will be established and maintained by the Pest Manager. The records will include:

• A copy of the Pest Management Plan.

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- A copy of the current **EPA** registered label and the current MSDS for each pesticide product used on the school property.
- Pest surveillance data sheets which record the type and number of pests or other indicators of pest population levels revealed by the monitoring program for the site. (sample attached)
- A diagram noting the location of pest activity, including the location of all traps, trapping devices, and bait stations in or around the site.
- An annual review of the IPM system will be conducted to determine the effectiveness of the
 program and program objectives and that program objectives have been achieved. This will
 include the review of inspection reports, sanitation reports, and other records to establish
 current conditions, progress of the program against pest problems and conditions,
 effectiveness at action thresholds, and to identify problem areas in the IPM system that may
 need to be modified or changed.

PEST SURVEILLANCE DATA SHEET

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Date:
Pest type (mice, rats, spiders, etc.):
Number of pests or other indicators of pest population levels: Action Recommended:
Name of Applicator:
Applicator license number:
Date of Application:
Acreage, square footage, or # of plants or animals or a description of the area or structure treated:
Common name and EPA registration # of pesticide used:
Rate and concentration of pesticides used:
Total amount of pesticides used:
Type of equipment used:
Time of day of application:
Direction and estimated velocity of the wind:

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Garrett County Board of Education 40 South Fourth Street Oakland, Maryland 21550

Memo 910056, '99

То:	Students, Parents, Teachers, and Employees					
From:	Michael Sines, Director of Facilities, Maintenance & Operations					
Date:	June 29, 1999					
Subject:	Department of Agriculture - Pesticide Use Control					

The Garrett County Board of Education shall provide information upon request to parents of middle and high school students and to the parents of elementary school students before a pesticide application is made in the school or on school property.

Policy Statement

Structural and landscape pests can pose significant problems to people, property, and the environment. It is therefore the policy of the Garrett County Public System to incorporate Integrated Pest Management (IPM) procedures for control of structural and landscape pests.

Integrated Pest Management Procedure

IPM procedures will determine when to control pests and whether to use mechanical, physical, chemical, cultural, or biological means. IPM practitioners depend on current, comprehensive information on the pest and its environment and the best available pest control methods. Applying IPM principles prevents unacceptable levels of pest activity and damage by the most economical means and with the least possible hazard to people, property, and the environment.

The choice of using a pesticide will be based on a review of all other available options and a determination that these options are not acceptable or are not feasible. Cost or staffing considerations alone will not be adequate justification for use of chemical control agents, and selected non-chemical pest management methods will be implemented whenever possible to provide the desired control. It is the policy of this School System to utilize IPM principles to manage pest populations adequately. The full range of alternatives, including no action, will be considered.

When it is determined that a pesticide must be used in order to meet important management goals, the least hazardous material will be chosen. The application of pesticides is subject to the Federal Insecticide, Fungicide, and Rodenticide Act, School System policies and procedures, Environmental Protection Agency regulations in 40 Code of Federal Regulations, Occupational Safety and Health Administration regulations, and state and local regulations.

Record Keeping

Records of pesticide use shall be maintained on site to meet the requirements of the state regulatory agency and School System. A product label or Material Safety Data Sheet of each pesticide that may be applied will be maintained at the school and is available for review by a parent, guardian, staff member, or students.

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Questions

If you have any questions about reviewing our IPM Plan you may contact the building principal, or Michael Sines, Director of Facilities, Maintenance and Operations at 301-334-8906, Garrett County Board of Education, 40 South Fourth Street, Oakland, Maryland 21550.

The Garrett County Board of Education shall provide an opportunity for the contact person to receive and address comments regarding IPM during the regularly scheduled monthly meeting to be held in October, 1999.

Notification

This School System takes the responsibility to notify the school staff and students of upcoming pesticide treatments. Notices will be posted in designated areas at school and sent home to parents of middle and high school students who wish to be informed in advance of pesticide applications, and to the parents of elementary school students.

If you would like prior notification of pesticide use you must provide a written request to the respective school principal.

Emergency Use of Pesticides

A pesticide may be applied in an emergency situation without prior written notification to a parent, student, guardian, or staff member. However, notification will be provided within 24 hours after the pesticide application, or on the next school day.

Complete and return the following survey form to the school principal <u>ONLY</u> when you are requesting prior notification of pesticide use.

Pesticides

The following is a list of the pesticides and bait stations, by common name, that may be used in school buildings during the school year.

boric acid pyrethrin sulfuramid bromadiolone silica gel cypluthrin bendiocarb

Copies of material safety data sheets (MSDS) and product labels for each pesticide and bait station used on school property are maintained by the contact person. Persons wishing to review this information should contact the school administration to arrange an appointment. For additional information about the Integrated Pest Management Program, please contact Michael Sines at (301) 334-8906.

****	****	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	*****	*****
Student Name:		/	1	
	Last	First	Middle	
Parent/Legal Guardiar	1:	/	./	
0	Last	First		Middle
Home Address:				
Place of Employment:	Father:			·····
	Phone:	1 1		
	Mother,			
	Mouler:	-1710	u	
	Phone:	//_		

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PEST MANAGEMENT NOTICE FOR NEWLY ENROLLED STUDENTS OR NEW STAFF

INTEGRATED PEST MANAGEMENT AND NOTIFICATION PROGRAM

The Integrated Pest Management (IPM) program employed by the Garrett County Public School System is a proactive rather than a reactive approach to insect and rodent control in school facilities. The IPM program includes routine inspections or surveys of all school facilities to identify conditions conductive to pest invasion, to ensure early detection of pest presence, and to monitor infestation levels. As a first step in pest control, the IPM approach employs a number of preventative strategies and alternatives to pesticide application, such as: employee education, source reduction, inspection and identification of potential problem areas, and improved sanitation. Each approach is monitored and evaluated, and modifications are made if necessary. Pesticides are used only as a last resort.

Maryland Law requires that parents of all elementary school children be notified prior to any interior pesticide application. Parents of middle school or high schools students who wish to be notified prior to interior pesticide applications must request that they be placed on the school system's pesticide notification list. To be added to the notification list, send a written request which includes your name, address, and telephone number as well as your child's name and school to:

Name of School Contact Person Garrett County Public School System Address City, State, Zip

The Appropriate School Principal or

Michael Sines, Director of Facilities, Maintenance & Operations Garrett County Board of Education 40 South Fourth Street Oakland, Maryland 21550 (301) 334-8906

NOTIFICATION TO PARENTS, GUARDIANS AND STAFF OF INDOOR PESTICIDE APPLICATION

Integrated pest management procedures such as inspections and monitoring are used to determine when to control pests and to identify conditions contributing to pest problems. The necessity for pest control, if warranted, is evaluated and one or more pest control methods including sanitation, structural repair, nonchemical methods and pesticides is utilized. Problem areas are identified where alternative pest control technologies can be incorporated in order to eliminate routine pesticide applications. It has been determined that a current pest problem warrants the use of a pesticide to effectively control the pest problem.

School:		· · <i>· ·</i> · ·			 	· · · ·	 	 • • • •	
Common Name	of Pesticide To Be Applie	ed:			 		 ,	 	
Location(s) of th	e Pesticide Application:	· · · <i>·</i> · ·		••••	 		 	 , ,	
Planned Date and	d Time of Application:		<i></i> .		 		 	 	<i>.</i>

Note: The Maryland Department of Agriculture's Regulations pertaining to Integrated Pest Management and Notification of Pesticide Use in Public Schools requires that the following information be provided as part of this notice:

"The Office of Pesticide Programs of the United States Environmental Protection Agency has stated: "Where possible, persons who potentially are more sensitive, such as pregnant women and infants (less than two years old), should avoid any unnecessary pesticide exposure'."

The following information regarding potential adverse effects was taken from the materials safety data sheet (MSDS) of the pesticide to be applied:

If you require further information regarding this notice you can contact Michael Sines at 301-334-8906, or the school principal at ()_____

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NOTICE

CAUTION - PESTICIDE APPLICATION

The following pesticide was applied on:

Date of Application:

Common Name of pesticide applied: _____

Location of application:

For additional information, including information on potential adverse effects, contact:

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Harford

current as of 2/6/13

INTRODUCTION

The pesticides department is a very integrated and vital part of the Harford County Public Schools education process. Insuring that the occupants and outside users of our buildings and grounds have a safe and pest free environment is our ultimate goal. This comprehensive operations manual is provided to all schools and offices so that they understand the basic functions of our "in-house" process.

The Harford County Public Schools pesticides department approach to controlling unwanted pest works in conjunction with Integrated Pest Management (IPM) principles. This manual is designed to provide a reference on notification as well as our general approach of ridding your building or grounds of unwanted pest populations.

The pesticides department has developed an IPM program for all schools and offices. Each school or office is encouraged to have employees receive training through the pesticides department. This would include personnel from both day and evening shifts. Training in the safe and efficient application of "general use" pesticides has been approved by the Maryland Department of Agriculture. These registered individuals are the <u>only</u> employees allowed by state law to apply any type of pesticides on school property. The only exception is application by the registered personnel within the pesticides department. A more detailed description of their responsibilities are discussed in the "Laws and Regulations" section of this manual.

Holly Wasdward. Kon Iddonegs say

Preface

Routinely scheduling applications of pesticides where children study eat, and play has raised public concern whether this is the best approach to controlling pests in schools. **IPM** is a decision-making process to manage pest problems using inspection, monitoring, evaluations and one or more of a variety of control methods. The **Governor's Pesticide Council** has issued the following policy statement regarding **IPM** in schools:

Pest control in schools must protect the health and safety of children and staff, minimize damage to structures and personal property, and improve the quality of the education environment by avoiding the annoyance or disruption of work and learning that can be caused by insects, rodents, or other pests. To meet these goals, the Governor's Pesticide Council recommends that public school facilities adopt and implement an integrated pest management (IPM) strategy to control pests in schools.

Integrated pest management has become mandatory for all Maryland public school systems per the recently enacted regulation Integrated Pest Management and Notification of Pesticide Use in a Public School or on School Grounds.

This manual is written for pest control technicians, custodial staff, building administrators, and others who will be managing structural pests using **IPM**. It is not designed to teach you everything you need to know to control pests safely and effectively, nor does it substitute for pesticides applicator training. If you require further information the contact person for Harford County Public Schools is Jeffrey C. Ayers, Director of Facilities Management, (410) 638-4085.

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References

The following is a list of references used to develop this manual:

Maryland Department of Agriculture. September 1995. Guidelines for Integrated Pest Management (IPM) In Schools. MDA-286-95.

University of Maryland Cooperative Extension Service. 1994. Maryland Pesticides Applicator Training Series Core Manual. P94/V94/R95.

United States Environmental Protection Agency (reprinted with permission by Maryland Department of Agriculture as *Urban Integrated Pest Management Manual*). July 1992. *Urban Integrated Pest Management – A Guide for Commercial Applicators*. EPA-735-B-92-001.

What is IPM?

Integrated pest management, or IPM, is a system of controlling pests that does not depend on automatic application of pesticides. Instead, pests are monitored by regular and careful inspections. The inspections also identify conditions contributing to pest problems. The IPM technician then decides what actions are necessary, if any, based on the biology and habits of the pests involved. Priority is given to nonchemical pest management techniques, particularly those that can prevent a recurrence of the problem. Pesticides are used when necessary, but only in a way that minimizes potential exposure to people and the environment. Records are kept to track problems, prevent recurrences, and evaluate the results of pest management actions.

Developed by university researchers, and refined by over a decade of practical use in the field, IPM is really just good common sense. Schools that have adopted IPM programs not only report a reduction in their use of pesticides, but a significant improvement in their level of pest control. IPM forces you to look at the big picture and to analyze the problems that caused pest populations to grow in the first place. IPM has proven to be the best alternative to traditional pesticide-based services. It provides effective, long-term control of landscape and structural pests, while protecting the health, environment, and quality of life of our children.

A Typical IPM Service Visit

The procedures followed by an IPM technician are different from those followed by someone doing traditional pest control. As an IPM technician, you will spend far more time inspecting the school and communicating with school workers than you will in simply applying pesticides. You will be making many more decisions about what specific control measures to take. You will need to be better at identifying pests, and know more about pest biology and habits. And you will be filling out and reading more paperwork. In other words, you will be using your eyes, ears, mouth, and brain far more than in traditional pest control.

A routine service visit will follow certain steps. First you will discuss with building staff special pest problems or conditions that have been noted.

Next you will conduct a walk-through visual **inspection** from room to room, area to area, both indoors and out, looking for pests and evidence of pest problems, checking sticky traps and other monitoring devices. **Communicating** with staff members by asking questions and discussing pest problems is essential. You will then **identify** any pests you have found, and decide if their numbers are above a predetermined **action threshold** level, which would require some kind of control action.
For each pest problem, you will make a decision about what control tactics to use given the identity of the pest, the extent of the problem, and the sensitivity of the site. Always use nonchemical pest management tactics whenever possible. For example, inside the building you might set traps for rodents, use a vacuum to remove cockroaches, their droppings and their body parts, and caulk openings around pipes to prevent pests from moving between rooms. On the other hand, you might make recommendations that school staff take certain nonchemical pest management actions such as changing food storage procedures to reduce spillage, or repairing a hole in the wall that is allowing pests to enter. On school grounds, consistently maintaining fields with methods such as aerating, overseeding, topdressing, and mowing at the proper height can reduce weeds and thus the need for herbicides.

You might decide that a **pesticide application** is necessary. If so, you must be sure to choose a pesticide product that poses the **least hazard** to people and the environment. Only products registered through the Facilities Management Department may be used in the Harford County Public School system. Applications must be done in a way that minimizes risks, particularly to schoolchildren, and YOU WILL NEVER APPLY IT WHEN STUDENTS ARE PRESENT.

Before completing your service, evaluate the work done during the last service visit to see if it was successful or if further actions are required. Finally, fill out your IPM Service Report, make entries in the IPM Logbook, prepare any Sanitation Notices to the school, and complete other recordkeeping requirements.

An IPM program consists of a cycle of monitoring, control, and evaluation. The monitoring component of an IPM program is essential to its success. Monitoring is a documented, systematic inspection conducted at regular intervals. It keeps you informed about all aspects of the pest situation and conditions at the site. Monitoring includes the following:

- Identifying and locating pests
- Identifying areas of critical sensitivity (classrooms, infirmary, etc.)
- Estimating size of pest populations
- Identifying the factors that are contributing to the pest problem (poor sanitation, improper storage, holes in walls, etc.)
- Reporting management practices that could affect pest populations or pest management activities (trash pickup, lighting, evening classes, construction, etc.)
- Identifying nontarget species that could be killed or injured
- Assessing natural enemies and potential secondary pests
- Assessing environmental conditions (temperature, humidity, weather or seasonal changes)

Action Threshold

An action threshold is the point at which action must be taken. Action thresholds depend on the site and the pest. An occasional beetle in a hallway can be tolerated. A mouse in a classroom requires immediate action.

Action thresholds change from site to site and even month to month. Different levels of a pest may generate different control actions. For example, if you find three cockroaches in a storage room, you might place a couple of cockroach baits stations. But if you find 30 cockroaches, you might require that the storeroom be extensively cleaned, treated with additional insecticides, and all cracks and crevices carefully caulked.

In a new **IPM** program, a practical approach is to establish an arbitrary action threshold for the major pests in each type of room (classroom, cafeteria, etc.). If it is your job to set the action thresholds, just use common sense and experience as a guide. In some situations, you might want to consult with someone at a higher level within the school. Later in the program, the action levels can be revised based on continued observations and experience at a given site.

How to Conduct Inspections

Frequent and thorough inspections allow you to get the jump on newly arrived pests, <u>before</u> they can become a serious problem. There are three basic components of a typical inspection:

- 1. Visual inspection of the building interior and exterior
- 2. Use of various types of monitoring traps, and
- 3. Information from school personnel, including review of the logbook. All occupants should be encouraged to report pest activity.

Visual Inspection

Certain areas are more prone to pests than others and will require more intensive inspections. Examples include cafeterias, snack rooms, food storage areas, staff lounges, home economics rooms, classrooms or labs with live animals, art rooms, locker rooms, recycling collection points, and loading docks.

Use a bright flashlight and a magnifying glass (hand lens) during your inspection. Do not look just for the pests themselves, look for other evidence of pests such as droppings (especially from cockroaches and rodents) and frass (from wood borers), gnawing, tracks, and grease marks (from rodents), damage (such as powderpost beetle exit holes), and shed insect skins. The presence of feeding debris or frass is an indication of infestation.

Look, too, for conditions that might lead to pest problems. Check for moisture problems, both indoors and out, which may lead to moisture related pests such as carpenter ants, termites, or mold. Look out for damaged screens, doors, and walls, which could allow pest entry.

Monitoring Traps

Sticky traps are the most common monitoring tools in use today. These glue-covered traps are most often used to trap cockroaches, but they are useful in monitoring for all kinds of crawling insects, particularly those that are active at night.

Here are some tips for monitoring with sticky traps:

- Place sticky traps where school children are not likely to find them. They will be especially useful in cafeterias and food storage areas.
- Avoid placing the traps in the open, since most pests avoid open areas. Place them
 inside cabinets, in back corners, in drawers, under sinks and stoves, under furniture,
 near (but not directly on) water or heat sources, on window ledges (for pests attracted
 to light), and on food storage shelves.
- Initial and date the traps and map their locations on a floor plan. Traps should be checked at each inspection, and any pests should be identified and recorded.

- Replace the traps whenever they have captured pests or if they become contaminated with dust or debris.
- Try to use the same brand of trap each time. Different trap designs catch different numbers of insects, and you want to be able to compare catches.
- Check the traps after the same number of days so that you can accurately compare catch numbers from visit to visit.

Information from School Staff

During inspections, ask staff members if they have seen any pests. School staff should know what to do and who to contact if pests or evidence of pests are seen.

Pest Identification

Correct identification of the insect or other pest and its life stage is critical. Without it, you cannot make an informed decision about how best to control the pest and if control is necessary at all. Additional sources of information on identifying pests, their biology and habits are referenced in "Trumans Scientific Guide to Pest Control Operations" Bennett, Conaisan, Owens (Fourth Edition).

Recordkeeping

Good records help you solve pest problems, give you a historical respective of pests at the school, and let you anticipate seasonal pest problems. All evidence of pests should be thoroughly documented. Keep careful records of inspection results, trap catches, etc. to identify seasonal risk factors and areas with a high frequency of problems.

NONCHEMICAL PEST MANAGEMENT

If a pest problem requires action, look first to those methods not requiring the use of pesticides. Pest control practices such as trapping, caulking, power washing, and vacuuming are control measures you can use with a high degree of safety and success. Ideally, you should concentrate first on those methods that work over the long term, or that <u>prevent</u> pests in the first place such as pest-proofing (exclusion) or operational changes that improve sanitation. Often nonchemical measures are combined for the most effective results and sometimes used together with limited pesticide application. Common nonchemical methods are discussed in this chapter.

Sanitation/Housekeeping

Poor sanitation makes life easy for cockroaches, flies, ants, mice, rats, and other pests that need little more than spilled food, a drippy faucet and a place to hide.

Removing available food for pests is the most obvious, and probably the most important sanitation step to reduce pests. However, cleaning up clutter is also important. Stacks of papers or full closets provide harborage (living and hiding places) for pests.

Good sanitation is a nonchemical pest management measure that does not require specialized training or equipment. All that is needed is an understanding of the connection between food, standing water, clutter and pests.

Vacuuming

Vacuuming is an important part of a sanitation program since thorough and frequent vacuuming removes food particles and other debris that pests feed on. Vacuuming also can be used to control pests directly.

For many pest problems, a vacuum may be all that is needed. A group of cockroaches living under a rabbit cage can best be removed simply by lifting the cage and vacuuming them up. For other pest problems, a vacuum may be the <u>only</u> control method that is acceptable. An example is ants living inside an oven.

Sanitation in Food Service Areas

Schools should allow food and beverages only in certain designated areas. (Note: Food and beverages should be prohibited in areas determined to be pest-sensitive such as computer rooms). In the main kitchen and cafeteria, food preparation surfaces should be cleaned promptly after use. Grease should be cleaned regularly from ovens, exhaust filters, and grease traps. Trash containers should include plastic liners. The can should be cleaned regularly, and trash removed daily. Empty boxes, cans, and damaged packages should be promptly discarded. Open foods should be stored in tightly sealed containers.

In secondary food areas like lounges, snack areas, and the home economics classroom, stoves, refrigerators, and sinks should be kept clean. Leftover food should not be stored for long periods. Spills under and behind vending machines, microwaves, and coffee makers should be cleaned up promptly.

Sanitation in Other Indoor Areas

In the science lab or animal rooms, cages should be cleaned and bedding replaced regularly. Spilled feed and animal feces should be removed daily. Animal feed should be stored in tightly sealed containers.

In rest rooms, locker rooms, and custodial closets, floor drains and shower drains must be cleaned routinely. Mop buckets should be emptied after use and wet mops and rags cleaned and hung to dry.

In lockers and desks, regular inspections should look for conditions that attract pests like forgotten bag lunches, discarded candy wrappers, or wet clothing.

Sanitation and Waste Disposal

Trash and recycling containers should have lids that close and should be emptied and cleaned out regularly. The trash can room should have a concrete floor with a floor drain so that it can be hosed down or power washed.

The trash compactor should be washed out <u>regularly using germicidal disinfectant.</u> Sliding doors and/or lids on the dumpster should be kept closed. Spilled trash around the dumpster should be picked up daily. Trash containers on playgrounds and in other outside areas should be emptied daily and cleaned regularly.

Sanitation Outside the Building

Trash on the grounds, especially trash that accumulates around the foundation and under shrubbery, should be picked up. Fruits and vegetables that are lying on the ground should be removed to discourage rodents, yellow jackets, and other pests that feed on decaying vegetation. Roof gutters should be cleaned, plus stagnant water in containers and playground equipment should be emptied.

Mowing to an appropriate height, aerating, topdressing and overseeding should be used to address lawns or athletic fields.

Pestproofing Buildings

A straightforward pest control solution is simply to change the conditions that allowed the insect or animal to become a pest in the first place. One way to do this is to make physical or mechanical changes that will make the location less attractive to pests or that will keep them from entering buildings. Pestproofing can be as simple as repairing screens and caulking cracks or as sophisticated as landscaping with pest and disease-resistant plants.

TRAPPING

Traps for insects, mice and rats are nontoxic and easy to use. They have the added advantage of containing the pest for disposal so that there is no concern about odors from dead rodents inside wall voids or in other sites. The one disadvantage in a school setting is that school children will often investigate and tamper with traps that are visible and accessible.

Traps for Insects

The traps commonly used indoors to capture insects are sticky traps.

Traps for Mice and Rats

Traps used to catch mice and rats are glue boards, snap traps, and multiple-catch or repeating mousetraps.

The common snap trap for mice or rats can be baited with a food bait such as peanut butter, or with nest material such as cotton balls. Snap traps with an expanded trigger design usually are more effective.

Glue boards for rodents are similar to insect sticky traps but are usually larger with more adhesive. Mice or rats that walk onto the board are captured.

Placement of Rodent Traps. Traps should be placed in rodent runways. Rodents usually travel along baseboards or edges of walls or other objects. Place snap traps perpendicular to the wall with the bait pedal against the wall. Place glue boards parallel to the wall.

Place traps (and glue boards) where they will be inaccessible to children, pets, or other animals. Otherwise, place them inside a tamper-resistant bait station secured so that it cannot be lifted.

Check traps daily and remove captured rodents. Wear gloves when handling dead rodents and dispose of them immediately in a sealed plastic bag. Used glue boards should be disposed of, rodent and all, and replaced. Snap traps and multiple-catch traps can be emptied and reset.

Traps for Larger Animals

The Facilities Management Department shall be contacted for all larger animal issues. Facilities Management Department staff will place, maintain, and remove all live animal traps on school grounds. Live animals include squirrels, groundhogs, raccoons, etc. All live animals will be released off-site to a set location.

USING PESTICIDES IN IPM

Pesticides may be used in school IPM programs. However, they should not be applied automatically or on a schedule. **Only when justified against identified pests should pesticides be applied.** What is most important, is that use should be in ways that minimize risk to people, particularly to children. When applications are necessary all appropriate notification procedures must be followed as discussed in this manual.

Pesticide Hazards

A pesticide is any chemical used to control pests. It may be called an insecticide, or a rodenticide, or a herbicide, depending on the target pest. Every pesticide is toxic and poses some risk to people and the environment. People exposed to excessive levels of a pesticide may suffer short-term or long-term health effects, depending on the toxicity of the pesticide and the degree of exposure. Children are especially susceptible to certain pesticides.

Two documents supply information on handling and use, on storage and disposal, and on hazards to people and the environment for a particular pesticide product. The **pesticide label** provides instruction telling how to correctly use the product. It tells you where you can use the product and what pests are controlled, has specific directions for mixing and application, tells you how toxic the pesticide is to people, and discusses ways to reduce risks (precautions). The label is the law regarding the use of the product. It should be read each and every time that you use a pesticide.

The material safety data sheet (MSDS) is a guide to the hazards of a pesticide. Although an MSDS has some of the same information that you can find on a pesticide label, it provides more technical details on (1) identification and ingredients, (2) potential hazards, and (3) safety recommendations.

These two documents, the pesticide label and the MSDS, are the primary sources for information on pesticide toxicity and how to use pesticides safely. Copies should be kept in each logbook.

General Guidelines for Using Pesticides in Schools or on School Grounds

- Pesticides should not be applied when school children are occupying a room or area.
- Pesticides should not be applied in classrooms, hallways, cafeterias, and other common areas during school hours.
- Only in the case of sever infestations, should insecticide sprays or dusts be used in infirmaries, nursing stations, and other medical areas except in severe infestations.
- Choose products that pose the least risk to people, particularly to children.
- Choose an application from those listed below:
 - insecticide bait stations
 - insecticide paste, gel, or granule baits applied in cracks and crevices
 - insect growth regulators
 - application of insecticides into cracks, crevices and voids
- Place rodenticide where children cannot get to them, or put rodenticide in tamper-resistant bait stations. Where possible, hide bait stations from view.
- Follow notification and posting requirements set by current regulations.
- Herbicides may be used to control perimeter weeds once all other non-chemical alternatives have been exhausted. Herbicide use must be justified through accurate, detailed recordkeeping.

KEEPING RECORDS AND EVALUATING RESULTS

The ongoing IPM cycle of monitoring, control, and evaluation demands good communication between all parties, and detailed records to track pest trends and problems. It also requires a way to periodically evaluate whether the IPM program is succeeding, or whether changes are required.

Communication

For IPM to work there has to be communication between those conducting the IPM program and those at the school. Much of this communication involves the IPM technician directly. The communication can take many forms:

- Talking with staff members about pest sightings, discussing ways to reduce pests by improving housekeeping or making repairs, and soliciting staff cooperation.
- Explaining to staff, students, and sometimes even to parents how IPM differs from regular pest control service, and answering questions about the IPM program.
- Reporting pest sightings and control actions in a logbook and reading entries made by staff.
- Providing written reports and recommendations.

RecordKeeping

Good IPM requires good records to help you solve pest problems, give you a historical perspective of pests, and let you anticipate seasonal pest problems. The information that must be recorded includes pest reports, control actions, housekeeping problems, structural deficiencies, and other problems contributing to pests. In areas where application is necessary, pesticides (and certain other control methods) must be used carefully or not at all.

Notification and Posting

Harford County Public Schools' (HCPS) has several forms for notification, depending on the application. However, if insecticides other than bait stations are necessary notification is required. These are the different types of notification:

- School Notice The school calendar must provide universal notification at the beginning of the school year.
- Notification To Parents of A Newly Enrolled Student And New Staff Members After the beginning of the school year, written information must be provided to the parent or guardian of a newly enrolled student and to a newly employed staff member. This is also accomplished through the school calendar.

- Notification Of A Pesticide Application In An Elementary, Middle and High School -Notification must be provided to each parent or guardian of an elementary student and to each parent or guardian and staff member on the pesticide notification list 24 hours prior to a pesticide application.
- Notification Of A Pesticide Application To School Grounds Notification must be provided to
 each parent or guardian of an elementary student and to each parent or guardian and staff member
 on the pesticide notification list 24 hours prior to a pesticide application on school grounds.
- Notification Of An Emergency Pesticide Application Notification must be provided to each
 parent or guardian of an elementary student and to each parent or guardian and staff member on
 the pesticide notification list within 24 hours of an emergency pesticide application.
- Notification Of A Space Spraying Notification (a separate 8 ½ x 11 inch notice) must be
 provided at least one week prior to a space spraying to each parent or guardian and staff member
 on the pesticide notification list. Must be provided to each student + staff
- In-School Notification: Posted Sign or Notice For Pesticide Application In-School Notification prior to a pesticide application in a middle school or high school must include a sign or notice posted at the room or area of the pesticide application and a central location accessible to parents, guardians, students, and staff. The notice or sign must remain posted for at least 48 hours after the pesticide application.
- In-School Notification: Posted Sign or Notice For Use of Bait Station In-School Notification must be provided prior to the use of a bait station. The notice or sign must be posted on the door of the room or primary entrance to the area where the bait station is place. The notice or sign must remain until the bait station is removed.

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or sign must remain until the balt station is removed. Outdoor Pesticides Application – Posting of Sign – When a pesticide application is made on school grounds, a sign must be posted at the time of the application. The sign(s) are to be at the primary access to the school property. If a spot treatment pesticide application is made, a sign may be posted at the location where the pesticides application was made. The sign must remain posted for at least 48 hours following the application. Sec 1505.01.05, 15.05.02.08 (15.05.02.06, 15.05.02, 06, 06, 15.05.02, 06, 06, 15.05.02, 06, 06, 15.05.02, 06, 06, 15.05, 06, 06, 15.05, 06, 06, 15.05, 06, 06, 15.05, 06, 06, 15.05, 06, 06, 15.05, 06, 06, 15.05, 06, 06, 15.05, 06, 06, 15.05, 06, 06, 15.05, 06, 15.05, 06, 15.05, 06, 15.05, 06, 15.05, 06, 15.05, 06, 15.05, 06, 15.05, 06, 15.05, 06, 15.05, 06, 15.05, 15.05,

Material Safety Data Sheet (MSDS) for chemicals commonly used at school sites are enclosed. This information is available to any individual upon request.

For food handling locations such as kitchens, cafeterias, and home economics, a precautionary notice outlining clean-up procedures and re-igniting gas pilot lights, etc. is enclosed.

Evaluation

Annually the IPM program will be evaluated system-wide. This is in addition to the techniques described for on-going evaluation of current IPM practices at each location.

PESTICIDE TREATMENT PRECAUTIONS AND CLEAN-UP PROCEDURES

School Date____

Your facility was treated with residual and fogging chemicals today. The following precautions should be taken:

- Residual spray around edges of room, under counters and tables, drains and compactors should 1. remain as long as possible. Odor from this material may be noticeable.
- Pilot lights on ovens and boilers have been turned off. They may be re-lit two (2) hours after 2. treatment. This does not apply to schools with electrical heating elements.
- Thoroughly wash all counters, utensils and other food handling equipment before using. 3.

Pesticide Applicator's Signature

Integrated Pest Management And Notification of Pesticide Use in a Public School Building or on School Grounds

Integrated pest management (IPM) is a system of controlling pests that does not depend on automatic application of pesticides. As implemented by the Harford County Public School system, pests are monitored by regular and careful inspections. Through a system of inspection, documentation, communication with building occupants and evaluation of any required actions, an effective program of pest control is currently in-place.

Priority is given to non-chemical pest management techniques. However, there will be occasions when pesticide application is necessary. Application will be done in a manner sufficient to minimize potential exposure to occupants and the building environment. In compliance with regulations as set forth by Maryland Department of Agriculture, notification will be made to the parent(s)/guardian(s) of all elementary students and the parent(s)/guardians(s) of secondary students on the school's notification list. If you are the parent/guardian of a student attending a secondary school in the Harford County Public School system and wish to be notified of all pesticide applications (building and grounds), contact school administration to request written notification. In addition, there will be an opportunity at a regularly scheduled meeting of the county board in the fall of 2000 for the contact person to receive and address public comments regarding IPM.

Information about pesticides or bait stations that may be used in a school building or on school grounds when non-chemical techniques are exhausted or inappropriate can be obtained through the Facilities Management Department, 2209 Conowingo Rd., Bel Air, MD 21015. The program coordinator, Mr. Jeffrey Ayers, maintains product labels and material safety data sheets (MSDS) for each product. Currently, these pesticides and bait stations include (by common name) Abamectin B 1, Bendiocarb & Pyrethrins, Bromadiolone, Carbaryl, Chlorophacinone, Cyfluthrin, Diaphacinone, Dimethylamine salt of 2,4 & Dichlorophenox-acetic acid, Glyphosate, Hydramethylnon, Hydropene, Isoxaben, Malathion, Methoprene, Orthoboric Acid, Ozyzalin, Prometon, Propoxur, Pyrethrins, Resmethrin, and Tetramethrin. The public can review this information by contacting the program coordinator at (410) 638-4088. Copies can be obtained for the cost of reproduction. A more detailed description of IPM techniques employed by Harford County Public Schools may found in the IPM manual located at each school site. This page intentionally left blank

Howard County Public School System



Integrated Pest Management Program February 21, 2002

EXCELLENCE IN TEACHING AND LEARNING

Howard County Public School System = 10910 Route 108 = Ellicott City, MD 21042 = 410.313.6600

Acknowledgements

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HCPSS Integrated Pest Management Committee

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Organizations

University of Maryland – Cooperative Extension Service University of Maryland – Department of Agronomy University of Maryland – Department of Entomology

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IPM Program Contacts

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HCPSS Pest Control Operator

Western Pest Services 4333 Washington Blvd. Baltimore, MD 21227 Contact Person: Brian Durham, Manager 410-536-0191

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Howard County Public Schools Pest Management Program

Program Statement

Structural and landscape pests can pose significant problems for people and property and pesticides can pose risks to people, property, and the environment. To manage pest problems on school sights and to insure pesticides are utilized as a last resort for pest control, the Howard County Public School System will incorporate Integrated Pest Management (IPM) procedures for control of structural and landscape pests. The objective of this program is to provide necessary pest control while minimizing pesticide use.

Program Objectives

This school system will manage pests to:

- Reduce any potential human health hazard or threat to public safety
- Prevent loss or damage to school structures or property. .
- Prevent pests from spreading into the community, or to plant and animal • populations beyond the site.
- Enhance the quality of life for students, staff, and others.

IPM Coordinator

The Department of School Facilities Safety and Regulatory Affairs Specialist will serve as the IPM Coordinator. The coordinator will be responsible for implementing the IPM policy and plan. The coordinator will:

- Insure pest sightings are recorded. .
- Record all pesticide use. .
- Share information about pest problems in schools with the contract Pest Control Operator.
- Insure that the PCO's recommendations on maintenance and sanitation are carried out within budget limitations.
- Insure whenever possible that pesticide applications are made when school is not in session or after regular school hours.
- Evaluate the school systems progress in the IPM plan.
- Insure that the PCO and Grounds Services comply with the HCPSS IPM program and Maryland Department of Agriculture regulations.
- Insure that the maintenance and sanitation recommendations made by the PCO and Grounds Services are forwarded to appropriate departments or staff members.
- Evaluate all pesticide products prior to use on school property to determine if they are appropriate for use on school grounds.
- Approve all pesticide applications carried out by the PCO and Grounds Services.
- Coordinate notification of parents and staff about pesticide applications as required by MDA regulations and the HCPSS notification procedure.

Pesticide Applicators

Any person applying pesticides on school grounds must be trained and knowledgeable in the principles and practices of IPM and must be properly licensed or registered with the Maryland Department of Agriculture. Applicators must follow state regulations and label precautions. Applicators must comply with the School IPM policy and Pest Management

Selection of pesticides When pesticide use is necessary, the IPM Coordinator and The Maryland Department of Agriculture must approve the pesticide for school use. The schools preferred pesticides for use are pesticide products with the signal word of caution.

Notification

A. **Calendar** Notice

At the beginning of the school year, written information will be included in the school calendar that is distributed to all students and staff summarizing the school system IPM program. Included in the notice will be an offer to middle and high school staff, students, and parents to be placed on the pesticide notification register for their child's school. Parents must submit a written request for notification each year on or before October 1st.

В. **General Requirements**

Maryland Department of Agriculture regulations require Maryland school systems to provide information about their pest management program to parents, students, and staff. As part of these requirements school systems must notify those listed below 24 hours in advance anytime a pesticide is applied during the school year.

- All elementary school parents, students, and staff.
- Any middle and high school parents, students and staff who have requested notification through the IPM Coordinator.

C. **General Procedures**

- Parents of middle and high school students must submit a written request for 1. notification to the HCPSS IPM Coordinator on or before September 30th each year.
- No later then November 1st each year, Principals at middle and high schools 2. will be provided with the list of the parents and staff members that have requested notification.
- If applications are made prior to November 1st, the previous years notification 3. list will be utilized and the IPM Coordinator will provide a list of those who are new to the list.

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- Parents of middle and high school students must submit a written request for notification to the HCPSS IPM Coordinator on or before September 30th each year.
- 2. No later then November 1st each year, Principals at middle and high schools will be provided with the list of the parents and staff members that have requested notification.
- 3. If applications are made prior to November 1st, the previous years notification list will be utilized and the IPM Coordinator will provide a list of those who are new to the list.

- The contractor contacts the HCPSS IPM Coordinator to notify that an application is needed.
- 3. The IPM Coordinator will contact the Principal or their designee to determine an appropriate date and time for the application to be made.
- 4. IPM Coordinator will provide the Principal or their designee with written notice via email as well as by either phone, fax, or pony. A standard letter that can be sent home to parents should be included with the notice. The letter and notice must include the common name of the pesticide applied, location of application, date and time of application, EPA warning statement, MDA adverse effects summary, and if the application was an emergency the reason for the application.
- 5. The school site Principal must make the appropriate notifications to parents, students, and staff.
- 6. The IPM Coordinator will contact school administration the day before the scheduled application by phone or email to insure the appropriate notifications were made.
- 7. The contract applicator will check in with school office staff when they arrive on site to insure they are aware a pesticide application is being done.
- 8. The contract applicator will post caution notices on the front door and in treated areas.
- Application record sheets must be completed and signed by the applicator and school office staff immediately upon completion of the application.
- 10. All applications must be recorded in the school site IPM notebook.

F. Posting of Pesticide Applications

In addition to notification home, on site information about pesticide applications will be provided through the posting of notices.

Posting of Outdoor Areas

Posting notice signs for outdoor areas must:

- Be yellow, at least 4" high x 5" wide and have bold-faced lettering.
- Be sturdy and weather resistant and displayed on a flexible stake at least 12 inches but not more then 16 inches above the soil surface.
- The front of the sign must contain the words Caution Pesticide Application and Keep Off and have the symbol required by the MD Dept. of Ag.
- Contain the following information on the back of the sign: the date of application, common name of the pesticide, the name and telephone number

Pesticide Applicators

Any person applying pesticides on school grounds must be trained and knowledgeable in the principles and practices of IPM and must be properly licensed or registered with the Maryland Department of Agriculture. Applicators must follow state regulations and label precautions. Applicators must comply with the School IPM policy and Pest Management Plan.

Selection of pesticides

When pesticide use is necessary, the IPM Coordinator must approve and insure the pesticide is registered for school use with the MD Department of Agriculture. The schools preferred pesticides for use are pesticide products with the signal word of caution.

Notification

A. Calendar Notice

At the beginning of the school year, written information will be included in the school calendar that is distributed to all students and staff summarizing the school system IPM program. Included in the notice will be an offer to middle and high school staff, students, and parents to be placed on the pesticide notification register for their child's school. Parents must submit a written request for notification each year on or before October 1st.

B. General Requirements

Maryland Department of Agriculture regulations require Maryland school systems to provide information about their pest management program to parents, students, and staff. As part of these requirements school systems must notify those listed below 24 hours in advance anytime a pesticide is applied during the school year.

- All elementary school parents, students, and staff.
- Any middle and high school parents, students and staff who have requested notification through the IPM Coordinator.

C. General Procedures

- Parents of middle and high school students must submit a written request for notification to the HCPSS IPM Coordinator on or before September 30th each year.
- No later then November 1st each year, Principals at middle and high schools will be provided with the list of the parents and staff members that have requested notification.
- 3. If applications are made prior to November 1st, the previous years notification list will be utilized and the IPM Coordinator will provide a list of those who are new to the list.

of the licensed applicator and the name and contact information of the IPM Coordinator.

- The sign must be placed at either each primary access to the property being treated with the front of the sign facing the point of access or in the case of spot or isolated area treatments the sign can be posted at the location where the application was made.
- Signs must remain posted for at least 48 hours after the application is made.

Variance Posting Notices

For the posting of large areas of school grounds variance signs may be used if they meet the approval of the Maryland Department of Agriculture. Variance notices must:

- Be posted in a conspicuous place at each primary access to the treated area and in locations where people entering the treated area can read the sign.
- The sign must be at least 12" x 18".
- The sign must be sturdy and weather resistant.
- The sign must have a light background and have boldfaced lettering of at least 1/2" high.
- The words Caution Pesticide Application, the date and time of application, the common name of the product used, the name of the licensed applicator and the name and contact information of the IPM Coordinator.
- The sign must remain posted for at least 48 hours after the application is made.

Posting of Indoor Areas

When a structural pesticide application is made a notice shall be posted. A sample copy of the notice utilized by the HCPSS is contained in the appendix of this document.

G. Available Information

People requesting additional information about a specific pesticide application may request information from either the applicator (for hire or not for hire) or the school system IPM Coordinator.

The following information will be provided upon request:

- The name of the department or contractor who made the application.
- The common chemical or brand name of each pesticide applied and the EPA registration number of that pesticide.
- The date and approximate time of application.
- Any post-application precautions stated on the pesticide label including precautions related to re-entry into or use of treated areas.
- A copy of the Material Safety Data Sheet for each pesticide applied.

The applicator or business may provide the information requested either orally or in writing. The commercial applicator or business may require the requester to pay reasonable copying and postage costs before providing a copy of a pesticide label.

Record Keeping

Keeping appropriate records is essential to the success of any Integrated Pest Management program. As part of our IPM program the following record keeping guidelines will apply.

- Records of pesticide use will be maintained on site for two years.
- Records of applications will be completed on the day of pesticide use.
- Pest surveillance records will be maintained in each sites IPM notebook to help verify the need for pesticide treatments and to document non-chemical control efforts.
- The Custodial Building Supervisor shall coordinate the recording of all school staff structural pest sightings in the IPM notebook and present them to the PCO Technician to aid in their routine inspection.
- The IPM Coordinator will maintain a record of the pesticides used by PCO or school staff and Material Safety Data Sheets for each product to insure compliance with this IPM policy and MDA regulations.
- Pesticide records must be accessible to MDA inspectors at all times.
- The PCO and Grounds Services shall record in the IPM notebook at each site all pest sightings, recommendations for mitigation of pest problems, and any and all actions taken to control pest problems.

Education

Staff, students, pest managers, parents and the public will be informed about potential school pest problems, the IPM policies and procedures, and their respective roles in achieving the desired pest management objectives.

Considerations and Precautions in Selection and Use of Pesticides

- Monitor for pests and base applications on established thresholds.
- Identify the pest and understand its biology.
- See what measures as far as site modification, sanitation and exclusion can be utilized.
- Look into the effectiveness of pest trapping for pest control.

If the above suggestions do not provide control of the problem, pesticides may be necessary.

- Choose products wisely. The pesticide section of the appendix discusses many different types of pesticides and should aid your decision.
- Choose pesticide baits over other products when possible.
- Try to use products with the lowest level of risk. All pesticide product labels have "signal words" that help identify the level of risk. Pesticides with the signal word "caution" have the lowest level of risk.
- Use all pesticides with care. Choose pesticides with the least potential for exposure. Use pesticides only when and where people cannot be exposed to these pesticides through direct contact, inhalation of vapors, or allowing premature access to a treated area.

- If pesticides are used, apply them at times when the building will not be occupied for an extended period of time, especially when children are not present.
- If pesticides must be used when children are present, isolate treated area from any human activity.

Integrated Pest Management

What is Integrated Pest Management

Integrated Pest Management (IPM) is a decision-making process that uses all available pest management strategies to prevent economically damaging pest outbreaks while reducing risks to human health and the environment. IPM is a continuum along which there are many levels of adoption from simple monitoring to properly timed pesticide applications.

IPM Goals

IPM in schools protects human health by:

- Reducing human exposure to pesticides
- Reducing environmental pollution
- Suppressing pests that may cause disease
- Reducing pest damage

In an IPM program, treatments are not made without first monitoring the situation and evaluating whether a pest is likely to be a problem. In schools, there are three injury levels used to determine when to implement pest management strategies:

Thresholds

Medical Injury Levels are used whenever a pest can cause illness to humans either directly or indirectly. Rodent-transmitted diseases would be one example.

Economic Injury Levels determine the level of damage to a structure or plant. Once damage has reached a level that is severe enough to cause economic loss, control should be implemented. An example would be a termite infestation that requires replacement of some structure.

Aesthetic Injury Levels, on the other hand, are the levels at which a pest becomes a nuisance for whatever reason. Perhaps this is the level at which an aphid population drops enough honeydew onto a picnic table beneath a shade tree to disturb the people using the table. Aesthetic injury levels are subjective, that is, what is tolerated by one person may not be tolerated by another.

Components of an IPM Program

All IPM programs, regardless of the situation, share the same components.

- Monitoring pest populations and other relevant factors.
- Accurate identification of pests.
- Determination of the injury thresholds that trigger treatment.

- Timing treatments to insure the most effective control of the pest problem.
- Spot-treating for pests.
- Use of non-chemical pest control measures whenever feasible.
- Evaluating the effectiveness of treatments.
- Education of all people involved with the pest problem

IPM is a Decision-Making Process

Is treatment necessary? The mere presence of a pest doesn't necessarily warrant treatment. Sometimes a fairly large population of pests can be tolerated while other times the presence of a single pest is intolerable. In addition, the determination of treatment will vary among individuals.

Where should the treatment take place? Pest managers must look at the whole system to determine the best place to solve the problem. Apply treatments where the actions will have the greatest effect. In order to do this you must completely understand the biology and behavior of the pest at hand.

When should action be taken? Timing is very important. There are optimum times in both insect and disease life cycles when they are most susceptible to control. Again, it is very important to understand the biology and behavior of your pest.

Which strategies should be used? IPM uses a multi-tactic approach. Because biological systems are complex, management strategies must also integrate several strategies. Rarely will a single tactic solve the problem for long. Implementing an IPM program means taking a "whole system" or ecosystem approach to solve a pest problem. You must think of both the living and non-living components when determining which approach to take. Each component has an impact on every other component. This manual will help you look at the specific pest problems you are likely to encounter using a system approach. It will also help you develop an integrated management plan to deal with the problem.

There are four control strategies that can be used in developing an IPM program.

Cultural control uses fertilization, irrigation, site selection, plant selection and/or sanitation to prevent pest problems in the first place.

Physical control is another preventative strategy. It includes screens or other barriers, temperature and humidity modification, traps, physical repellents, and hand removal of weeds.

Biological control uses beneficial organisms (insects, bacteria, etc.) to control pests. IPM programs seek to conserve naturally occurring beneficial insects by providing them with food and shelter and not using broad-spectrum insecticides that will inadvertently kill the beneficial insects.

Chemical control is used only after all other suitable control strategies are not fully effective or practical. Always use chemicals in an environmentally responsible manner and in accordance with the label.

Exterior IPM

Turf Grass Maintenance - General

A. Mowing

The turf needs to be mowed with sufficient frequency to adhere to the "1/3 Rule" which states one-third or less of the leaf tissue is removed at any one mowing. Mowing height will vary depending on the field's intended use (type and frequency of sport) but in general will be within one to three inches. Clippings should not need to be collected if the one-third rule is followed. Keep mower blades sharp to provide a clean cut that allows the cut leaves to quickly recover, which will minimize disease and maintain stress tolerance. Keep mowers in good repair as leaking oil and grease can damage and even kill turf.

B. Irrigation

Irrigation should be supplied to replenish the amount of moisture lost from the turf on a weekly or daily basis. If information is unavailable, irrigate sufficiently to provide approximately one inch of water to the turf each week; rainfall amounts need to be considered in this calculation so it is important to monitor weekly rainfall using a simple rainfall collection device. Irrigation systems in Level A athletic fields will often be permanent, in ground systems. Irrigate according to the soil permeability, do not try to supply all the weekly requirements with one irrigation if the soil cannot absorb all the water; instead, irrigate two or three times over one or more days to supply the necessary amount of water. The best time to irrigate is early morning (3 am or later); late afternoon or early evening irrigation can promote diseases, which may necessitate fungicide applications. Do not irrigate fields less than 24-48 hours before events unless a light application is required to prevent wilting.

C. Fertilization

Apply a minimum of four pounds of nitrogen per thousand square feet (4 lb. N/M) annually to low use fields with light to medium traffic. Higher use fields may require up to six or more lb. N/M annually; do not apply more than 1 lb. N/M at any one time. Fertilizers with an approximately 30-50% slowly available N are appropriate. Apply with a properly calibrated and functioning fertilizer spreader to obtain a uniform distribution. Irrigate with approximately 1/2-inch of water within 24 hours of fertilization unless rainfall occurs. Base phosphorus and potassium inputs on soil tests collected every two to three years. Otherwise, use a fertilizer which supplies at least a 2:1 ratio of nitrogen to potassium. Since phosphorus requirements are significantly less than nitrogen or potassium, little to no phosphorus is usually required unless indicated by a soil test. Other nutrients are rarely if ever limiting, although sand based root zones should be soil tested for P, K, Ca., Ma, Fe, Mn, Zn, Cu, B, Mo, and Cl at least once each year, and corrective applications made as needed. There is no reliable test for N in turf as forms of nitrogen fluctuate constantly. We are currently using Par-ex 24-4-12 for the stadium fields and 46-0-0 for the Bermuda Fields.

D. Aerification

Aerification is used to aid drainage, alleviate compaction, and promote turf growth, particularly rooting, resulting in increased stress tolerance, improved nutrient uptake, and reduced weed invasion. Aerification can also manage thatch buildup, although this is rarely a concern on athletic fields and other high traffic areas.

Aerification should be performed as needed to minimize compaction, up to two to three week intervals during the growing season, although one aerification in spring and/or autumn may be sufficient. Use hollow tines, which pull cores out of the field rather than solid tines or water injection systems. The cores can be left on the surface and will disintegrate within a few weeks, or they can be broken up using a drag mat. Cores can also be removed with sweepers, rakes or shovels, but the field will then need to be top dressed to replace the lost soil. The soil must be moist enough to allow good penetration of the tines but not so moist as to result in rutting or compaction from the machinery. Use at least 3" long tines and set the aerifier to penetrate to at least a 3-inch depth.

We shatter aerate annually in the fall with a yeager twose or verti-drain. These processes can also be contracted out.

E. Topdressing

Athletic fields require topdressing to maintain a uniform surface and a crown that is imperative for surface drainage. Soil based fields rely almost solely on surface drainage. Topdressing consists of regular applications of soil or sand, ranging from 1/16-1/4-inch layers each time. Our Topdressing equipment is a Ty crop top dresser that holds 4 cu. Yards. We can top dress a stadium in less than two hours. Annual application of 90% silica sand which meets the USGA specification and 10% peat humus. The mixture is a homogeneous sterilized mixture.

Other topdressing source must:

- Be free from glass, rocks, or other debris.
- Match the soil type of the root zone, a requirement that is almost impossible for native soil fields.
- Be able to supply a consistent material (both size and type) for years to come, which further limits the types of acceptable topdressing. If a soil type is used which has finer particle sizes than the underlying soil root zone, a surface layer will be formed which prevents proper water infiltration, and root growth.

F. Overseeding

Thin areas in which the turf density provides less than 90-95% coverage should be overseeded as needed to maintain a weed-free, uniform surface to minimize injury resulting from ruts and compaction. Overseeding can be performed using either broadcast or slit seeding. Slit seed largely, or totally bare areas in two to three directions to provide sufficient seed; otherwise, a single pass is sufficient. Broadcast seeding can be performed a variety of ways. One of the best methods is to overseed concurrent with aerification. Spikers or vertical mowers may also be used to expose soil to aid seedling establishment. Once an area has been overseeded, apply topdressing to help ensure seed to soil contact to aid germination. An area may also be overseeded shortly before a game in which case the cleats from the athletes will help push the seed into the soil.

Our seed mixture contains 80% Tall fescue, 10 % Kentucky bluegrass, 10 % perennial ryegrass for overseeding. Kentucky bluegrass plants form rhizomes (underground lateral shoots) which are important for providing traction and allow the plant to fill in bare areas, while perennial ryegrass germinates quickly (3-5 days) and can provide quick cover. Since ryegrass plants may not provide the most stable footing and are less winter tolerant than Kentucky bluegrass, ryegrass should not compose more than 15% of a Kentucky bluegrass/perennial ryegrass seed mixture. We utilize certified seed blends that is inspected and certified from the Department of Agriculture. We utilize seeds recommended from University of Maryland Memo #77.

Seeding rates will vary depending on the amount of area exposed and the seed mix used. Seeding rates range from approximately 2 lb. per thousand square feet when used as a maintenance overseeding to turf which has 95% or higher cover, to 2-3 lbs per thousand square feet when more than 25% of the soil is exposed in an area. For areas which have less than 80-90% turf cover, sodding may be a better option than overseeding. If the area is sodded, either use a sod grown on a soil which matches that of the root zone mix or use a washed sod to prevent soil layering which will cause water infiltration problems and result in poor rooting. Newly laid sod will require special "spot watering" one or more times daily for up to two weeks until roots start to grow into the field soil, at which time irrigation frequency can be decreased over the following two to six weeks until the roots are sufficiently deep to allow the same irrigation schedule to be followed as the rest of the field

G. Pest Management

Proper turf management will greatly reduce the need for pesticides by providing dense, healthy turf that will crowd out weeds and tolerate moderate levels of disease, insect, or vertebrate damage. In integrated pest management, pesticides are used only when pests damage the turf up to or past a predetermined threshold level despite proper conventional management techniques.

When pesticides are applied to turf, the area should be fenced in or at least marked with pesticide application flags ("posting") until the product has dried and the re-entry interval listed on the product label has passed. If no reentry intervals are listed on the label, keep people off the turf for a minimum of 24 hours or longer, if required, for the herbicide to dry on the turf. Most pesticide applications dry on the turf within 60 minutes, so the 24-hour reentry interval actually provides a large safety margin. Some granular pesticides also require a re-entry interval following application so the label must be read and understood in order to comply with the law. Granular pesticides, which are designed to be applied to the soil, may require an irrigation or rainfall event of greater than 1/4" water before the area may be entered

H. Weed Management

Level A athletic fields have a threshold population of no more than 5% weeds. Note the type and location of the weeds in order to be able to use the appropriate control measures and time them appropriately. Weeds can be classified according to their life cycle. Annual weeds are those that complete their life cycle in one year and include crabgrass, common chickweed, and knotweed. Perennial weeds survive for two years or more and include dandelion, mouse-ear chickweed, and ground ivy. Weeds are also classified botanically: dicots include all broadleaf weeds, while monocots include all grasses and sedges. It is important to understand which type of weed you are dealing with since management options will vary.

1. Non-chemical Control

Non-chemical control of weeds includes good management practices and should be the first line of defense in any IPM program. Proper turf management including mowing and fertilization practices can reduce potential weed populations 70% or more. Biological controls relying on microbes are currently in development for a few weeds such as annual bluegrass (Poa annua) but are not proven techniques and therefore are not commercially available.

2. Chemical Control

Herbicide selection should be based on several factors: ability to control the target weed(s), relative safety (both to the applicator and to the environment), formulation (ester forms are more effective than salt-based amines during cool periods but can cause phytotoxicity and are more likely to drift during hot, dry periods), and cost.

Apply herbicides when children are not present (e.g., after school, weekends). Tupersan is a granular formulation of herbicide which works well when applied as pre-emergent herbicides for control of annual crabgrass in two applications six weeks apart. We usually apply the first application in late March or early April. In addition, we apply liquid herbicides for control of existing weeds (post-emergent application) since liquid herbicides provide better coverage and are typically more effective at controlling existing weeds than granular applications. We typically only spray one time per target pest. Always read the label prior to applying any herbicide. Labels are subject to change annually. Applications, which don't adhere to label requirements, are illegal and subject to prosecution by law.

I. Disease Management

Dozens of diseases can affect turfgrass. Generally, appropriate fertility and irrigation will keep disease problems to a minimum. Plant a mix of species and include at least three cultivars of each species to take advantage of the different disease tolerances and resistances of each variety or species. Turf managers can determine based on weather conditions the likelihood of disease development. Preventive applications of fungicides

may be applied when the turf manager determines conditions make it likely disease will develop. These applications are typically made at low rates and are only required three or four times for control as opposed to the higher mix rate and frequency of curative applications.

J. Insect Management

Insect problems on athletic fields are rare but may occur periodically, usually white grubs. On level A fields broadcast application of insecticides may be warranted based on scouting reports which indicate sufficient pest activity exists (numeric thresholds have been established for some insect pests, particularly white grub species). Severe turf loss may occur if infestations are not treated.

K. School Management Zones

In order to help develop planning strategies for integrated pest management, various school grounds areas are identified based on their function and requisite level of quality; e.g., athletic fields versus general lawns. These areas are further designated as a series of zones or levels: A, B, and C. Level A areas are high maintenance, high use areas where few if any weed and pest problems would be allowed. Levels B and C areas would require less management and tolerate more pests, and have lower aesthetic quality compared to Level A. Since athletic fields generally have the most amount of traffic and least tolerance for bare, compacted soil areas and pests (including weeds), the manual will start with these areas. Landscape areas are discussed next, followed by miscellaneous areas including playground cribs, fence lines, parking lots and sidewalks.

L. Designating School Turf Areas

There are three general areas on school grounds, athletic fields, turf/ landscape areas, and non-turf areas such as parking lots, fence-lines, and playground cribs. Each area has different levels of use. For example, high school playing fields have a higher level of maintenance than grade school general use playing fields. These areas have different acceptance for weed pressure, and different amounts of effort will be needed to produce these results.

Turf Grass Maintenance - Athletic Fields

The HCPSS has identified three levels of athletic fields for our IPM program. We chose the levels by certain criteria such as: the intended purpose, was the field subject to cause injury from the groups who participated on the field, and how much funding is available.

Cultural controls for athletic field maintenance are an ongoing operation. It takes a cumulative effort over a period of months and years to be successful. Developing a consistent maintenance schedule is critical for any program to be successful. Being persistent about completing assignments in a timely and efficient manner will enhance your chances of providing an acceptable field.

Weeds are almost always a problem on sports fields, a problem that is often accelerated by the fact that a heavily used field has a more open turf canopy due to the traffic on the turf. The weeds provide competition for the desirable turfgrass species, affect playability, and cause injuries to the players, particularly around the ankles and knees, because of no uniformity of footing for the athletes. In our level A fields, because of lack of manpower on staff to mechanically remove the weeds, we utilize a pre-emergence herbicide and properly timed post emergence application when the weeds are in the early stage of development to maintain the turf and provide safe playing fields. Utilizing culture controls along with pre-emergence will reduce the multiple application of post-emergence and reduces the competition from desirable turf.

The following are a break down of our three levels of Athletic Fields.

A. Level A Athletic Fields

These are prime athletic fields, high school stadiums and Bermuda playing fields. Level A athletic fields are typically reserved for games. These fields should have dense turf (> 90% cover), good drainage, and irrigation. The soil types are native soil. The field must provide a uniformly smooth surface and have an appropriate turf that will sustain a high level of traffic. Annual events on these fields should be limited. Grounds Services Managers have authority to cancel events in case of inclement weather to prevent major and costly repairs to these fields. A dedicated field manager with turf management education and/or experience with proper training is considered vital to allow proper decisions and implementation of management strategies on a day-to-day basis.

Primary cultural practices for Level A athletic fields include regular mowing, fertilization and irrigation. Secondary cultural practices include routine aeration, topdressing, and overseeding or sodding to replace worn areas. Use of chemicals to control or manage weed, disease, and insect pests is allowed as a function of the overall integrated pest management program which stresses ideal turf management as a means to limit the extent of damage from pests.

Level "A" IPM Action Points

Mowing

Mow with enough frequency to adhere to the "1/3 rule" which states that one third or less of the leaf tissue is removed at any one mowing. Mowing heights are 3 inches for stadium fields and 3/4-1 inch for Bermuda fields.

Irrigation

Irrigate sufficiently -to provide approximately one inch of water to the turf each week with rainfall amounts included. For example, if 1/4 inch of rain falls one week, supply 3/4 inch through irrigation.

Fertilization

On the stadium fields: Apply a minimum of four pounds of nitrogen per thousand square feet annually to low use fields with light to medium traffic. Higher use fields may require six or more pounds of nitrogen per thousand square feet. Two applications, one in late November and one in late May are slow release nitrogen with I.B.D.U. On the

turf. The weeds provide competition for the desirable turfgrass species, affect playability, and cause injuries to the players, particularly around the ankles and knees, because of no uniformity of footing for the athletes. In our level A fields, because of lack of manpower on staff to mechanically remove the weeds, we utilize a pre-emergence herbicide and properly timed post emergence application when the weeds are in the early stage of development to maintain the turf and provide safe playing fields. Utilizing culture controls along with pre-emergence will reduce the multiple application of post-emergence and reduces the competition from desirable turf.

The following are a break down of our three levels of Athletic Fields.

A. Level A Athletic Fields

These are prime athletic fields, high school stadiums and Bermuda playing fields. Level A athletic fields are typically reserved for games. These fields should have dense turf (> 90% cover), good drainage, and irrigation. The soil types are native soil. The field must provide a uniformly smooth surface and have an appropriate turf that will sustain a high level of traffic. Annual events on these fields should be limited. Grounds Services Managers have authority to cancel events in case of inclement weather to prevent major and costly repairs to these fields. A dedicated field manager with turf management education and/or experience with proper training is considered vital to allow proper decisions and implementation of management strategies on a day-to-day basis.

Primary cultural practices for Level A athletic fields include regular mowing, fertilization and irrigation. Secondary cultural practices include routine aeration, topdressing, and overseeding or sodding to replace worn areas. Use of chemicals to control or manage weed, disease, and insect pests is allowed as a function of the overall integrated pest management program which stresses ideal turf management as a means to limit the extent of damage from pests.

Level "A" IPM Action Points Mowing

Mow with enough frequency to adhere to the "1/3 rule" which states that one third or less of the leaf tissue is removed at any one mowing. Mowing heights are 3 inches for stadium fields and 3/4-1 inch for Bermuda fields.

Irrigation

Irrigate sufficiently -to provide approximately one inch of water to the turf each week with rainfall amounts included. For example, if 1/4 inch of rain falls one week, supply 3/4 inch through irrigation.

Fertilization

On the stadium fields: Apply a minimum of four pounds of nitrogen per thousand square feet annually to low use fields with light to medium traffic. Higher use fields may require six or more pounds of nitrogen per thousand square feet. Two applications, one in late November and one in late May are slow release nitrogen with I.B.D.U. On the
Bermuda Fields: Apply 6-10 lbs of Nitrogen during the months of May and the end of August.

Aerification

Perform core aerification as needed to minimize compaction. Aerification can be performed at up to two to three week intervals during the growing season, although one aerification in spring and one in autumn may be sufficient. The stadium is also shatter aerated once per year with a yeager twose or verti-drain.

Topdressing

Topdressing consists of regular applications of soil and sand, ranging from 1/16 - 1/4 inch layers each time. Annual application of 90% silica sand which meets the USGA specification and 10% peat humus. The mixture is homogeneous sterilize mixture.

Overseeding/Sodding

Overseed thin areas in which the turf density provides less than 90-95% coverage as needed. Overseed a minimum of two times with mechanical overseeding and broadcast between games. Sod crease areas after the spring sport season. Sprig and plug bare areas on Bermuda fields at least once per year.

B. Level "B" Athletic Fields

Level B athletic fields include baseball, softball, and multipurpose fields at our high schools. These are often low to medium budget high school game fields. These fields have moderate to good turf (> 70% cover) with up to 30% of the surface covered by weeds but no more than 10% bare ground. The soil type is native soil. Surface drainage generally provides all the drainage; native soil and lack of tiling preclude internal drainage. The field must provide a uniformly smooth surface (no major ruts, rapid divot repair, etc.) and an appropriate turf, which will sustain a high level of traffic. No limits are placed on the number of events the turf will support, but good management practices should be used to prevent unnecessary damage (e.g., rotation of practice areas, proper mowing and fertilizing, etc.).

Primary cultural practices for Level B athletic fields include regular mowing and fertilization. Irrigation is used only for restoration or establishment. Secondary cultural practices include occasional aeration, topdressing, and overseeding or sodding to replace worn areas. Use of chemicals to control or manage weed and insect pests is allowed as part of an overall integrated pest management program.

Level "B" IPM Action Points

Mowing

Mow the turf at 3-inch height at least once weekly. If possible, comply with the "1/3 rule".

Irrigation

Irrigation will only be used to restore damaged turf areas. Very seldom used. We are implementing a program to start installing irrigation systems on our baseball/softball fields at our high schools.

Fertilization

Apply a minimum of 2-3 pounds of nitrogen per thousand square feet annually to low use fields with light to medium traffic. Do not apply more than 1 lb. N/ at any one time.

Aerification.

Aerification is performed once in spring (May) and once in autumn (Oct.) when the grass is actively growing.

Topdressing

Topdressing should be concentrated in the center and other problem wear areas in the field.

Overseeding

Thin areas in which the turf density provides less than 70% coverage should be overseeded as needed. Apply Tall Fescue, Bluegrass, Perennial Rye Mix at a rate of 3-5 lbs per 1,000 sq.ft. once in the fall and once in the spring.

C. Level "C" Athletic Fields and other turf areas

Level C athletic fields include elementary fields, practice areas at middle schools, and general turf areas. These fields have poor to moderate turf with 50% or more of the surface covered by weeds. A fair portion of the fields may be bare ground but this should be kept to no more than 10% bare ground for safety reasons. The soil type is native soil. Surface drainage generally provides all the drainage; native soil and lack of tiling preclude internal drainage. The field should have a relatively smooth surface (no major ruts, rapid divot repair, etc.) for safety reasons. No limits are placed on the number of events the turf will support, but common sense should be used to prevent unnecessary damage (e.g., rotation of practice areas, regular mowing). Primary cultural practices for Level C athletic fields include regular mowing and fertilization. Irrigation is used only for restoration or establishment. Secondary cultural practices may, but are not likely to, include overseeding or sodding to replace worn areas. Pesticides to control weeds, diseases or insects will generally not be used.

Level "C" IPM Action Points

Mowing

Mow the turf at 3-inch height at least at 7 to 10-day intervals. If possible, comply with the "1/3 rule".

Irrigation

Irrigation will only be used to restore damaged turf areas.

Fertilization

Fertilization rates one pound of nitrogen per 1000 square feet every three years.

Aerification

Core Aerated once every three years

Topdressing

Level C fields will not be topdressed.

Overseeding

Level C fields generally will not be overseeded. Large, bare areas may need to be overseeded. Generally the fields are overseeded 3-5 lbs per 1,00 sq ft. once every three years.

Ornamental Plants and Beds

A. General Information

Ornamental landscape areas are areas associated with the front entrance and other visible areas of the school building. This category includes trees, shrubs, ground covers, annual and perennial flowers and turf. It is important to properly identify all plants in these landscape areas and become familiar with their specific requirements. Common pest problems in these landscape areas are weeds, insects, diseases, and environmental stresses.

B. Plant Selection

In any landscape IPM program, it is important to maintain the balance of nature by preserving diversity and encouraging harmonious coexistence of plants in the landscape, i.e. group plants together that have similar requirements, select plants that are low maintenance, not prone to pest problems, and appropriate for the site. Plant selection and installation plans should take into consideration:

- University of MD recommendations
- soil type
- location on the site
- climate
- availability of water
- drainage
- light
- pest resistance
- spacing

C. Key Plants

Not all plants in the landscape will require the same level of care. Key Plants are those plants that provide aesthetic or functional attributes to the landscape's value or are more likely to suffer from serious, annual problems that will dominate your control practices. These are the plants that will require more time and money to maintain and installation of

Irrigation

Irrigation will only be used to restore damaged turf areas. Very seldom used. We are implementing a program to start installing irrigation systems on our baseball/softball fields at our high schools.

Fertilization

Apply a minimum of 2-3 pounds of nitrogen per thousand square feet annually to low use fields with light to medium traffic. Do not apply more than 1 lb. N/ at any one time.

Aerification.

Aerification is performed once in spring (May) and once in autumn (Oct.) when the grass is actively growing.

Topdressing

Topdressing should be concentrated in the center and other problem wear areas in the field.

Overseeding

Thin areas in which the turf density provides less than 70% coverage should be overseeded as needed. Apply Tall Fescue, Bluegrass, Perennial Rye Mix at a rate of 3-5 lbs per 1,000 sq.ft. once in the fall and once in the spring.

C. Level "C" Athletic Fields and other turf areas

Level C athletic fields include elementary fields, practice areas at middle schools, and general turf areas. These fields have poor to moderate turf with 50% or more of the surface covered by weeds. A fair portion of the fields may be bare ground but this should be kept to no more than 10% bare ground for safety reasons. The soil type is native soil. Surface drainage generally provides all the drainage; native soil and lack of tiling preclude internal drainage. The field should have a relatively smooth surface (no major ruts, rapid divot repair, etc.) for safety reasons. No limits are placed on the number of events the turf will support, but common sense should be used to prevent unnecessary damage (e.g., rotation of practice areas, regular mowing). Primary cultural practices for Level C athletic fields include regular mowing and fertilization. Irrigation is used only for restoration or establishment. Secondary cultural practices may, but are not likely to, include overseeding or sodding to replace worn areas. Pesticides to control weeds, diseases or insects will generally not be used.

Level "C" IPM Action Points

Mowing

Mow the turf at 3-inch height at least at 7 to 10-day intervals. If possible, comply with the "1/3 rule".

Irrigation

Irrigation will only be used to restore damaged turf areas.

key plants is discouraged. Key plants include: birch, crabapples, dogwoods, euonymus, junipers, flowering plums, and any plant in the rose family.

D. Maintenance

Although the Howard County Public School System recognizes the value of these landscape areas, due to staffing issues minimal time is available for intensive maintenance efforts in these planting areas. Basic maintenance will be completed as follows:

1. Pruning

Pruning will be done to remove dead, damaged, or diseased limbs as necessary during the dormant season. Pruning for form will be done annually.

2. Mulching

Trees, shrubs, and planting beds will be mulched annually to conserve water, moderate soil temperature, and to control weeds.

3. Weed Control

Control of weeds around trees and in planting beds through non-chemical means is the preferred method. However, in many cases this method is impractical and not cost effective. Where impractical or not cost effective, weeds in these areas will be controlled through the application of a post-emergent systemic herbicide and/or a pre-emergent herbicide on an as needed basis. Use of pre-emergent controls will be based on a documented past history of weeds in the areas of application. Properly applied pre-emergent weed controls can effectively reduce the number of applications and the total amount of pesticide required to effectively control weed populations.

Miscellaneous Areas

These areas include non-turf areas such as playground cribs, fence-lines, sidewalks, and parking lots and other paved areas. Control of weeds in these areas is necessary for aesthetic reasons and to protect concrete and asphalt structures from associated damage. Mechanical removal of weeds in these areas is impractical with current staffing levels. Chemical control of weeds in these areas will be achieved through the application of post-emergent and/or pre-emergent herbicide applications on an as needed basis.

A. Miscellaneous Area A

Miscellaneous area A includes playground cribs with a perimeter fall zone. Weed barriers (e.g., landscape fabrics) should be used to underlay mulch when the cribs are built. Weeds in these areas will be mechanically removed.

B. Miscellaneous Area B

Miscellaneous area B includes areas under fences, bleachers and other structures. Turf may or may not be present or desired. In these areas mechanical means should be utilized whenever possible to minimize pesticide use. If the surface is blacktop, cracks should be sealed regularly. Proper sanitation (garbage removal, cutting grass, etc.) should be conducted to minimize weed, insect and rodent problems. If a fence is not needed and weeds are a problem, the fencing could be removed. If chemicals are used they should be applied when school is not in session (weekend or summer). Chemical weed control provides longer lasting weed control than mechanical control methods, particularly for perennial weeds. Control of weeds in these areas through non-chemical means is in most cases impractical and not cost effective. Weeds in these areas will in most cases be controlled through the application of a post-emergent systemic herbicide and/or a pre-emergent herbicide on an as needed basis.

C. Miscellaneous Area C

Miscellaneous area C includes parking lots, blacktop play areas, and sidewalks. Weeds can cause crumbling of the blacktop and damage to concrete structures. Control of weeds in these areas through non-chemical means is in most cases impractical and not cost effective. Weeds in these areas will be controlled through the application of a post-emergent systemic herbicide and/or a pre-emergent herbicide on an as needed basis. In areas where children are more likely to come in contact with treated surfaces, less toxic products will be considered for control.

Structural IPM

Structural IPM General

A contract pest control operator (PCO) licensed by the Maryland Department of Agriculture will provide administration and management of the structural Integrated Pest Management program. The contractor shall:

- Be licensed in appropriate pest control categories by the Maryland Department of Agriculture.
- Have a Board Certified Entomologist on staff that is an active participant in the HCPSS IPM program.
- Service school sites with Maryland Department of Agriculture licensed applicators only.
- Insure PCO employees servicing school sites receive appropriate training and retraining.
- Insure the HCPSS IPM Coordinator is provided with current Material Safety Data Sheets and labels for all pesticide products that are or could potentially be used on school property.
- Insure copies of Material Safety Data Sheets and labels for all pesticide products that are or could potentially be used on school property are placed in the IPM notebook at each school site.
- Insure all pesticide products are registered with the IPM Coordinator and the MDA prior to use.
- Meet the guidelines established by the Maryland Department of Agriculture's "Contracting Guidelines for Integrated Pest Management in Schools" and school system established rules and procedures.

Structural and Procedural Recommendations

- The PCO shall inspect buildings to identify pest, housekeeping, and maintenance problems that need to be corrected initially upon award of the contract, and then at least monthly thereafter.
- The PCO shall make a list of any recommended changes related to the building or grounds, record them in the school sites IPM notebook, and present them to the IPM Coordinator for further action.
- The PCO shall use site visits to prepare a pest management plan.

Timing of Services

- Inspection and other non-chemical activities can be done while school is in session.
- Pesticide applications should be made when exposure to children and other people will not occur. Holiday, weekend and evening pesticide applications are preferred.

Structural Control Measures

Sanitation Indoors

Clean all areas of the school regularly.

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- Insure PCO employees servicing school sites receive appropriate training and retraining.
- Insure the HCPSS IPM Coordinator is provided with current Material Safety Data Sheets and labels for all pesticide products that are or could potentially be used on school property.
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- Insure all pesticide products are approved by the IPM Coordinator and the MDA prior to use.
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- Pesticide applications should be made when exposure to children and other people will not occur. Holiday, weekend and evening pesticide applications are preferred.

Structural Control Measures

Sanitation Indoors

Clean all areas of the school regularly.

- Pay special attention to cleaning areas where food is eaten, stored, served, cooked or disposed.
- Keep areas with pets clean. Store all pet food in pest resistant containers.
- Keep areas around sinks and toilets dry.
- Clean up spills as they happen. Possibly make spill clean up the responsibility of the group that makes them.
- Focus cleaning efforts on areas that have more pest problems.
- Remove trash more frequently in problem areas. Empty any trash receptacles that have food or food-related items in them at least daily.
- Maintain school interiors to reduce the areas where pests can hide and to reduce food and water sources.

Sanitation – Outdoors

- Clean areas around dumpsters and outdoor trash receptacles at least once a week.
- In (at least) the late summer and early fall try to keep trash receptacles away from areas where children play outdoors because trash receptacles attract wasps, other insects, and rodents.
- Keep grass and brush along the sides of the school well trimmed. A two-foot vegetation free barrier of stone or dirt around the school is ideal.
- Pick up outdoor trash regularly. Too much clutter can interfere with plant and grass growth and food and drink containers will attract wasps and other insects.

Maintenance/Pest Exclusion

- Screen windows that will be opened or keep them closed.
- Caulk or fill all holes and cracks in the walls, around pipes, etc.
- Fix leaky or "sweaty" piping to reduce water supplied to pests.
- Use pest-resistant food storage containers for pet or human food. These containers will be plastic or glass containers with a tight seal that can be closed easily.
- Make sure all doors that lead outdoors are self closing, or if they will be kept open, have another self closing screen door present.
- Doors should be tight fitting with weather-stripping and door sweeps to keep out crawling pests.

Outdoor Animals

- Use pest resistant, self-closing trash receptacles and dumpsters. Keep them closed and remove garbage before it keeps the trash receptacle or dumpster open.
- Do not allow high grass or shrub areas to border athletic fields and other turf areas.

Monitoring

- Monitor for pests routinely. Incorporate monitoring into other activities such as cleaning.
- Look for pests or evidence of pests (droppings, chew marks or other damage).
- Routinely check these key areas:
 - * Food storage and preparation areas.
 - Garbage storage areas
 - * Areas around water pipes.
- Place sticky traps in key areas (useful for insects as well as rodents)

Pesticides

- Pesticides will be utilized to control pest problems only after all other reasonable non-chemical measures have been exhausted.
- In cases where a pest presents a serious and documented safety or health problem for students, staff or visitors, pesticides may be the only option. (Example Yellow Jackets near a sidewalk)

Control of Stinging Insects on School Property

Background

Employees of the Howard County Public School System, Department of School Facilities encounter biting and stinging insects in the course of their work with some regularity. These insects pose a very real threat to the health and safety of staff and students and often interfere with the completion of work. The best method of control for these insects when they are posing an immediate threat is the application of insecticide spray. Department of Agriculture School Pesticide Regulations impose notification and other requirements on anyone who applies pesticide products on a school site during the school year, including bee spray. The procedure that follows has been developed to insure that when needed, bee spray is applied in a safe manner and that the regulatory requirements set forth by the Department of Agriculture are met.

Definitions

Stinging insects:	bees, wasps, hornets, and other insects that pose an immediate threat to health and safety.
Outdoor Areas:	Any area outside of the main school structure including but not restricted to storage buildings not used by students, penthouses, light fixtures, and roof areas.
Indoor Areas:	Any area inside the main school structure. Includes mechanical rooms, crawl spaces, and areas above ceilings.
Emergency Application:	Insecticide application that is made to control insects posing a threat to the health and safety of students and/or staff.
PPE:	Gloves, goggles, or other protective equipment designed to protect applicators from exposure to chemical products.
School Year:	The period of time starting with the first day of school in August and ending with the last day of school in June

Applicability

These procedures in their entirety apply when any insecticide application is made to a school site during the school year. Applications made during non-school year periods do not require the notification procedures covered in A, B, and H below.

Procedures

If stinging insects are encountered in a work area and pose a threat to health and safety, employees can utilize insecticide spray to control the hazard. Pesticide applications can only be made by employees who are trained and registered with the Maryland Department of Agriculture to make such applications. To insure the safety of students and staff and to insure we are in compliance with Maryland Department of Agriculture Regulations, the following procedures must be followed if pesticides are applied during the school year. Please note that if large infestations are encountered or if the employee encountering the insects has insect allergies, the employee's supervisor should be contacted and Custodial Service's notified so a call for emergency service can be submitted to the contract pest management company.

General

- A. Use pesticides that are registered with the Department of Agriculture and approved by the licensed applicator and the Safety and Regulatory Affairs Specialist.
- B. Always read the pesticide label before use.
- C. Use pesticides in strict accordance with Maryland Pesticide Laws and product labels.
- D. Observe all precaution in the handling, use, storage, and disposal.
- E. Consider recommended alternative pest control methods.
- F. Wear PPE required by the label.
- G. Immediately notify supervisor of pesticide accidents. It is the supervisor's responsibility to notify the licensed applicator and the Safety and Regulatory Affairs Specialist.
- H. Employees must be registered with the Department of Agriculture prior to applying any pesticide product.
- I. Pesticides must be secured during transport to prevent spillage and damage to the containers.
- J. Notification signs must be posted at the main entrance of the school building following every application. The signs must be removed after 48 hours.

Outdoor Areas

- A. Whenever possible reschedule the work so control measures can take place after school hours.
- B. If spraying must be done, notify the school office and your supervisor and isolate the area to insure students and staff will not be exposed to the insects or the insecticide spray.
- C. Close windows and doors and turn off any air intake equipment in proximity to the spray area.
- D. Spray the insects according to label instructions, utilizing all recommended PPE. Use only the amount of insecticide spray necessary to control the hazard.
- E. After you are sure all active insects have been controlled, remove the nest.
- F. Post the Emergency Application notification sign on the front door of the school.
- G. Complete the spray application record sheet and record information in the school site IPM record book.
- H. During the school year school office staff must insure those listed below receive notification that an emergency application was made not more then 24 hours after the application.
 - All elementary school students and staff
 - Middle and High School students and staff who have requested notification

Indoor Areas

A. Whenever possible reschedule the work so control measures can take place after school hours.

- B. If spraying must be done, notify the office and isolate the area to insure students and staff will not be exposed to the insects or the insecticide spray.
- C. Close windows and doors and turn off any air intake equipment in proximity to the spray area.
- D. Spray the insects according to label instructions, utilizing all recommended PPE. Use only the amount of insecticide spray necessary to control the hazard.
- E. After you are sure all active insects have been controlled, remove the nest.
- F. Post Emergency Application notification sign on front door of the school.
- G. Complete the spray application record sheet and record information in the school site IPM record book.
- H. School office staff must insure those listed below receive notification that an emergency application was made not more then 24 hours after the application.
 - All elementary students and staff
 - Middle and High School students and staff who have requested notification.

Air Intake Areas

Controlling insects in air intake areas poses a particular challenge. To insure insecticide sprays are not picked up by the air intake and transmitted through out the building, the applicator must take special precautions.

- A. Whenever possible reschedule the work so control measures can take place after school hours.
- B. If spraying must be done, notify the office and isolate the area to insure students and staff will not be exposed to the insects or the insecticide spray.
- C. Close windows and doors and turn off air intake equipment in the spray area.
- D. Spray the insects according to label instructions, utilizing all recommended PPE. Use only the amount of insecticide spray necessary to control the hazard.
- E. After you are sure all active insects have been controlled, remove the nest.
- F. Do not restart the air-handling unit until the insecticide residue has dried and all odors have dissipated. Minimum one hour.
- G. Post Emergency Application notification sign on front door of school.
- H. Complete the spray application record sheet and record information in the school site IPM record book.
- I. School office staff must insure those listed below receive notification that an emergency application was made not more then 24 hours after the application.
 - All elementary students and staff
 - Middle and High School students and staff who have requested notification

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PARRIS N. GLENDENING, Governor HAGNER R. MISTER, Secretary BRADLEY H. POWERS, Deputy Secretary



The Wayne A. Cawley, Jr. Building 50 HARRY S. TRUMAN PARKWAY ANNAPOLIS, MARYLAND 21401 Baltimore/Annapolis (410) 841-5700 Washington (301) 261-8106 Facsimile (410) 841-5914 TTY Users 1-800-735-2258 Internet: http://www.mda.state.md.us

STATE OF MARYLAND DEPARTMENT OF AGRICULTURE

PESTICIDE REGULATION SECTION

Behind Greenhouse

WAYNE BEDWELL

25301 Lambs Meadow Ad.

Worton, Md. 21678

410-778-7142

Haro Id Dear Mr. McCoy:

Kent Co. PS

(410) 841-5710 FAX (410) 841-2765

April 25, 2002

Harold McCov Coordinator of Buildings & Grounds Kent County Public Schools 215 Washington Avenue Chestertown, MD 21620

N 39°12.863' W 76°03.951

I have received the corrected copy of Kent County Public Schools Integrated Pest Management Plan in which the necessary changes have been incorporated. Upon completing the review of your revised Integrated Pest Management Plan, the Maryland Department of Agriculture has determined that all of the required components have been addressed in your plan. This letter will serve as the formal approval of Kent County Public Schools Integrated Pest Management Plan.

Please be reminded, if any additional changes are made to the approved Integrated Pest Management Plan, the revised Plan must be resubmitted to the Maryland Department of Agriculture for approval. If you have any further questions please feel free to contact me

Sincerely,

Edwarf G. Con

Edward A. Crow, Entomologist Pesticide Regulation Section

File

INTEGRATED PEST MANAGEMENT (IPM) PLAN FOR GROUNDS KENT COUNTY PUBLIC SCHOOLS

Kent County Public Schools Pest Management Policy Statement

Structural pests, i.e. insects and rodents, carry diseases, contaminate food and food preparation areas, and can cause structural damage, thus posing significant problems to people, property, and the environment. Landscape pests, i.e. insects, weeds, and diseases, can pose significant problems to students, staff, and users of school properties. Pesticides can also pose risks through unnecessary exposure to people, property, and the environment. Pest control in the school environment must protect the health and safety of the students and staff, minimize pest damage to structures, personal property, improve the quality of the educational environment by avoiding annoyance and disruption of work and learning caused by insects, rodents, and other pests. It is therefore the policy of the Kent County Public School System/Board of Education to adopt Integrated Pest Management for control of pests in school buildings and on school grounds. This Integrated Pest Management Plan for Grounds is intended to supplement the Integrated Pest Management Plan currently used for school buildings.

Roles and Responsibilities

The IPM program will require the assistance and cooperation of the administration, staff, and students. The Kent County Public School System/Board of Education has established a Contact Person to serve as a liaison between the administration and pest control program, in order to provide oversight, consistency in the pest control program, and ensure provisions of IPM are fulfilled. The Contact Person will advise the administration, staff, parents and guardians, and students, as necessary of IPM program changes, and new laws and regulations affecting the IPM system. The Contact Person for Kent County Public Schools is Harold McCoy, Coordinator of Buildings and Grounds. His phone number is 410/778-7142 and address is 215 Washington Avenue, Chestertown, Maryland 21620.

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The Contact Person will discuss the IPM system and problem areas identified through the inspection and monitoring process. The Contact Person also serves as the liaison between the school administration and parents, guardians, students, and staff to address questions and concerns regarding the IPM system and pest control practices. The Contact Person will make recommendations to correct problem areas.

Students and staff will comply with the provisions of the IPM system by ensuring that areas requiring maintenance or repair, sanitation problems, and pest problems or sightings, are documented. Students and staff need to ensure good sanitation practices are followed.

Pests

Pests are populations of living organisms (insects, animals, plants, or microorganisms) that interfere with the use of the school site for human purposes. Strategies for managing pest populations will be influenced by the pest species, and whether that species poses a threat to people, property or the environment. The focus of Kent County Public Schools Grounds IPM program will be on controlling the most frequently incurred pests, including but not limited to: ants, termites, ground beetles, bees, wasps, yellow jackets, rodents and weed growth in sidewalks, parking lots, and along fence lines. No routine program using pesticides is maintained for control of turf weeds or insects.

IPM relies on the coordinated use of pest and environmental information, and the best available pest management methods to prevent unacceptable levels of pest damage by the most economical means and with the least possible hazard to students, staff, property and the environment. Long term control of pests is achieved by using information about the biology and habits of the pest, and its interaction with its surroundings. Proper installation of plants, and choosing plant species that are suited to specific sites and usage are some of the most effective measures for achieving long term pest control for school landscapes and grounds.

Pest Management

The integrated pest management plan was developed for Kent County Public Schools as required by Maryland's Regulations pertaining to Integrated Pest Management and Notification of Pesticide Use in a Public School Building or on School Grounds.

Pests will be managed to:

- Reduce any potential human health hazard or to protect against a significant threat to public safety.
- Prevent loss or damage to school structures or property, and prevent a recurrence of the problem.
- Prevent pests from spreading on the school grounds, or to plant and animal populations beyond the site.
- Improve the quality of the educational environment for students, staff, and the public.

A licensed pest control contractor will inspect all buildings at least monthly, as well as review the pest control logbooks maintained in each building to evaluate pest sightings. Non-toxic monitors and traps will be used in areas of probable or active pest activity, to evaluate the level of activity and help control certain pests. Levels of activity requiring further mediation will be discussed with the Contact Person.

Integrated Pest Management Procedures

IPM procedures will determine when to control pests, and identify conditions contributing to pest problems through the use of monitoring and thorough inspections conducted at regular intervals. Problem areas will be identified where alternative pest control technologies can be incorporated in order to eliminate routine pesticide applications. The necessity for pest control, if warranted, will be evaluated based on information obtained from inspections and monitoring. These actions will be based on action threshold levels that will be established based on the site and the pest. With school grounds, these decisions are based on key pests and key locations found in the landscape. Action thresholds for school grounds are based on pest management objectives that have been established to satisfy the needs

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associated with the usage of specific sites. When pest control procedures are warranted around school buildings, one or more pest control methods including sanitation, structural repair, cultural practices, mechanical control, biological, other non-chemical methods, and pesticides will be utilized.

IPM practitioners will depend on current, comprehensive information on the pest and its environment, and the best available pest control methods. By applying IPM principles, unacceptable levels of pest activity and damage will be prevented by the most economical means, while minimizing the risk to human health and the environment associated with pesticide applications.

The choice of using pesticides will be based upon a review of all other available options, and a determination that these options are unreasonable or have been exhausted, in order to minimize the use of pesticides. Cost or staffing considerations alone will not be adequate justification for the use of pesticides, and selected non-chemical pest management methods will be implemented whenever possible to provide the desired control. It is the policy of the Kent County Public Schools to utilize IPM principles to manage pest populations adequately. The full range of pest control alternatives, including no action will be considered.

When it is determined that a pesticide must be used in order to meet pest management goals, the least hazardous pesticide will be selected. The application of such pesticides are subject to Kent County Public Schools' policies and procedures, and all applicable state, federal, and local regulations including the Maryland Pesticide Applicator's Law and Regulations, and the Federal Insecticide, Fungicide, and Rodenticide Act.

Record Keeping

Records of pesticide use shall be provided to the Contact Person by the contractor. The groundskeepers that are certified applicators shall maintain records of herbicide use for weed control. Records will be maintained for two years, and must be current and accurate. In addition, service and inspection reports that record the pests, location, or other indicators of pest populations are maintained to verify the need for treatments. Pest control procedures will be tracked. Documentation of

communications to students and staff regarding IPM and pesticide use will be maintained by the Contact Person.

Pesticide Purchase and Storage

Pesticide purchases by Kent County Schools will be limited to herbicides for weed control on parking lots, sidewalks, and fence lines. Purchases will be limited to the amount authorized for use during the year. Herbicides will be stored at the Worton grounds complex, in a locked flammables cabinet. Any pesticide disposal will be done in accordance with the EPA registered label directions and State regulations. The pest control contractor will not store pesticides on-site.

Pesticide Applications

Pesticide may be used after it is determined that non-toxic options are unreasonable, or have been exhausted. The least hazardous pesticide will be selected. The method and time of application will be based on the goal to minimize the potential for exposure of students and staff to the pesticide. Pesticide applications made on school property will be conducted by an individual certified as a pest control applicator. Applicators must be trained in the principles and practices of IPM and the use of pesticides. They must follow State and Federal pesticide regulations and label precautions. They must also comply with Kent County Public Schools' IPM Policy and Plan.

Education

Staff, students, pest managers, and the public will be educated about potential school pest problems, and the IPM policies and procedures to be used to achieve the desired pest management objectives, and will be informed of their role in meeting these objectives.

Program Evaluation

An annual review of the IPM system will be conducted to determine the effectiveness of the program, and documented. This will include a review of the contractor's service and inspection reports, pest logbooks, and other records to establish current conditions, progress of the program against

identify problem areas in the IPM system that may need to be modified or changed.

Notification

Kent County Public Schools will notify the appropriate school staff, students, parents and guardians prior to pesticide applications made in school buildings and/or school grounds, in accordance with Maryland regulations. Notices will be posted in designated areas in schools, on school grounds where treated and sent home to parents and guardians of elementary school students. Parents and guardians of middle school and high school students who wish to be informed in advance of pesticide applications and are on the pesticide notification list will also be notified. Staff members also have the opportunity to be notified once they have requested to be on the notification list. After the beginning of the school year, written information will be provided to the parent or guardian of a newly enrolled student and to newly employed staff members. In the event of an emergency pesticide application, notification will be done within 24 hours. Notification of a space spraying will be provided at least one week prior to space spraying. Notifications will be prepared and initiated by the Contact Person and carried through by the respective school secretaries.

The contractor shall post notices in schools or areas treated with pesticides as required by the school district. In-school notification prior to a pesticide application in a middle school or high school must include a sign or notice posted at the room or area of the pesticide application and either at the primary entrance to the school or a central location accessible to parents, guardians, students and staff. In-school notification must be provided before the use of a bait station. The notice must include a sign or notice posted on the door of the room or the primary entrance to the area where the bait station is placed. The notice or sign must remain in place until the bait station is removed.

FACILITIES LIST

KENT COUNTY 5608 Boundary Avenue Rock Hall, Maryland 21661

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Senior High Schools	252011	
Kent County	Worton, Maryland 21678	
Middle Schools		
Kent County	400 Campus Avenue Chestertown, Maryland 21620 ムローファター1フフル	
Elementary Schools		
Henry Highland Garnett	320 Calvert Street Chestertown, Maryland 21620 410-778-6890	
Millington	172 Sassafras Street Millington, Maryland 21651 レルレータスター こちらこ	
Rock Hall	21203 Sharp Street Rock Hall, Maryland 21661 4/10-8/10 - こらここ	
Worton	11095 Worton Road Worton, Maryland 21678 ムロレーファタ 21.24	
Galena Muid	114 S. Main Street Galena, Maryland 21635 ロロータロー こち16	
Other Facilities		
Board Building	5608 Boundary Avenue Rock Hall, Maryland 21661 ロルレーフィ 多ー 1595	
The "Farm"	11005 Worton Road Worton, Maryland 21678	

Dependable 29190

2/7/12 Worton Elem, Roch Hollelin, Kent G. Middle 2/26/13 KCHS, Colene Keller, Millington Elem 11/12/13 Roch Holl, Waton, Garnett elem.

INTEGRATED PEST MANAGEMENT (IPM) PLAN FOR MONTGOMERY COUNTY PUBLIC SCHOOLS

School Pest Management Policy Statement

Structural pests, i.e. insects and rodents, carry diseases, contaminate food and food preparation areas and cause structural damage thus posing significant problems to people, property, and the environment. Landscape pests, i.e. insects, weeds and diseases, can pose significant problems to students, staff and users of school properties. Pesticides can also pose risks through unnecessary exposures to people, property, and the environment. Pest control in the school environment must protect the health and safety of the children and staff, minimize pest damage to structures and personal property, improve the quality of the educational environment by avoiding annoyance and disruption of work and learning caused by insects, rodents, and other pests. It is therefore the policy of the Montgomery County Public school District/ Board of Education to adopt Integrated Pest Management for control of pests in school buildings and on school grounds.

Roles and Responsibilities

The IPM program will require the assistance and cooperation of the administration, staff, and students. The Montgomery County Public School District/ Board of Education has established a Contact Person to serve as a liaison between the administration and pest control program in order to provide oversight, consistency in the pest control program, and ensure the provisions of the IPM system are fulfilled. The Contact Person will advise the administration, staff, parents and guardians and students as necessary of IPM program changes and new laws and regulations effecting the IPM system.

The Contact Person will discuss the IPM system and problem areas identified through the inspection and monitoring process. The Contact Person also serves as the liaison between the school administration and parents, guardians, students and staff to address questions and concerns regarding the IPM system and pest control practices. The Contact Person will make recommendations to correct problem areas.

Students and staff will comply with the provisions of the IPM system by ensuring that areas requiring maintenance or repair, sanitation problems, and pest problems or sightings are documented. Students and staff need to ensure good sanitation practices are followed.

Pests

Pests are populations of living organisms (insects, animals, plants, or microorganisms) that interfere with the use of the school site for human purposes. Strategies for managing pest populations will be influenced by the pest species and whether that species poses a threat to people, property, or the environment. IPM relies on the coordinated use of pest environmental information and the best available pest management methods to prevent unacceptable levels of pest damage by the most economical means and with the least

possible hazard to students, staff, property, and the environment. Long term control of pests is achieved by using information about biology and habits of the pest and its interaction with its surroundings. Proper installation of plants, appropriate watering regimes, and choosing plant species that are suited to specific sites and usage are some of the most effective measures for achieving long term pest control for school landscapes and grounds.

Pest Management

The Integrated Pest Management plan will be developed for the Montgomery County Public School District as required by the Maryland regulations pertaining to Integrated Pest Management and notification of Pesticide use in a Public School or on School grounds. Approved pest management plans will be developed for the site and will include any proposed pest management measures.

Pests will be managed to:

- Reduce any potential human health hazards or to protect against a significant threat to public safety.
- Prevent loss or damage to school structures or property and prevent a reoccurrence of the problem.
- Prevent pests from spreading into the community, or areas beyond the site.
- Improve the quality of the educational environment for students, staff, and the public.

Integrated Pest Management Procedures

IPM procedures will determine when to control pests, and identify conditions contributing to pest problems through the use of monitoring and thorough inspections conducted at regular intervals. Problem areas will be identified where alternative pest control technologies can be incorporated in order to eliminate routine pesticide applications. The necessity for pest control, if warranted, will be based on information obtained from inspections and monitoring. These actions will be based on action threshold levels that will be established based on the site and the pest. Within school grounds, these decisions are based on key pests; key plants, and key locations found within the landscape. Action thresholds for school grounds should be based on pest management objectives that have been established to satisfy the needs associated with the usage of specific sites. When pest control procedures are warranted in and around school buildings, one or more pest control methods including sanitation, structural repair, cultural practices, mechanical control, biological, other non-chemical methods and pesticides will be utilized. IPM practitioners will depend on current, comprehensive information on the pest and its environment and the best available pest control methods. By applying IPM principals, unacceptable levels of pest activity and damage will be prevented by the most economical means while minimizing the risk to human health and the environment associated with pesticide applications.

The choice of using pesticides will be based on a review of all other available options and a determination that these options are unreasonable or have been exhausted, in order to minimize the use of pesticides. Cost or staffing considerations alone will not be adequate justification for the use of pesticides, and selected non-chemical pest management methods will be implemented whenever possible to provide the desired control. It is the policy of the Montgomery County Public School District / Board of Education to utilize IPM principals to manage pest populations adequatly. The full range of pest control alternatives, including no action, will be considered.

When it is determined that a pesticide must be used in order to meet vital pest management goals, the least hazardous pesticide will be selected. The application of such pesticides are subject to the Montgomery County Public School District/ Board of Education's policies and procedures and all applicable state, federal, and local regulations including the Maryland Pesticide Applicators Law and Regulations, and the Federal Insecticide, Fungicide, and Rodenticide Act.

Record Keeping

Records of pesticide use shall be provided to the school by the licensee, permittee, or certified applicator at the time of the pesticide application and will be maintained for 2 years. Records must be current and accurate. In addition, pest surveillance data sheets that record the number of pests or other indicators of pest populations are to be maintained to verify the need for treatments. Pest control procedures, including cultural practices utilized on school grounds, will be tracked. Documentation of communications to students and staff regarding IPM and pesticide use will be maintained by the contact person.

Pesticide Purchase and Storage

Pesticide purchases will be limited to the amount authorized for use during the year. Pesticides will be stored and disposed of in accordance with the EPA- registered label directions and state regulations. Pesticides must be stored in an appropriate, secure site not accessible to students or unauthorized personnel.

Pesticide Applications

Pesticides may be used after it is determined that non-toxic options are unreasonable or have been exhausted. The least hazardous pesticide will be selected and the method and time of application will be based on the goal to minimize the potential for exposure of students, and staff to the pesticide. Pesticide applications made on school property will be conducted by an individual certified as a pest control applicator or by a registered employee working under the supervision of a certified applicator. Applicators must be trained in the principals and practices of IPM and the use of pesticides. They must follow state and federal pesticide regulations and label precautions and comply with the Montgomery County Public Schools/ Board of Education's IPM policy and plan.

Education

Staff, students, pest managers, and the public will be educated about potential school pest problems and the IPM policies and procedures to be used to achieve the desired pest management objectives and will be informed of their role in meeting these objectives.

Program Evaluation

An annual review of the IPM system will be conducted to determine the effectiveness of the program and that program objectives have been achieved. This will include the review of inspection reports, sanitation reports, and other records to establish current conditions, progress of the program against pest problems and conditions, effectiveness of action thresholds, and to identify problem areas in the IPM system that may need to be modified or changed. Evaluation is a critical part of a grounds management program and should include quantitative and qualitative assessments of pest population densities, densities of natural enemies, and the quality of the site after intervention takes place. Often, the evaluation of pest control efforts to school landscapes may be done during the next monitoring cycle, but in some situations special observations may be necessary to assess the success of the pest control tactic.

Notification

The Montgomery County Public School District/ Board of Education will notify the school staff, students, parents, and guardians prior to pesticide applications made in school buildings or on School grounds in accordance with Maryland regulations. Notices will be posted in designated areas at school and sent home to parents and guardians of elementary school students and parents and guardians of middle and high school students who wish to be informed in advance of pesticide applications and are on the pesticide notification list.

INTEGRATED PEST MANAGEMENT (IPM) PLAN FOR AGRISCIENCE PROGRAMS IN MONTGOMERY COUNTY PUBLIC SCHOOLS

Pest Management Policy Statement For Agriscience Programs

The propagation and production of plants within a greenhouse environment is an important part of the educational curriculum for students enrolled in Agriscience Programs. Insect, mite and disease pests often infest plants causing significant damage. The control of pests and nutrients associated with horticultural crops is also a vital part of the educational curriculum within Agriscience Programs. Damage to plants resulting from these pests must be managed in order to instruct students in the management of horticultural crops in production greenhouses and to provide quality plants that can be marketed as part of school fund raising projects. The use of pesticides can pose risks through unnecessary exposures to people, property, and the environment. Risks can be kept to a minimum through proper selection and judicious use. Pest control within the Agriscience Program must protect the health and safety of the students, staff, and the environment while teaching students the principles of pest control and proper pesticide use for the production of quality greenhouse and nursery plants. It is therefore the recommendation of the Montgomery County Public School District / Board of Education to adopt Integrated Pest Management (IPM) for the control of pests encountered within Agriscience Program and to incorporate the instruction of IPM as part of the curriculum.

Education

Agriscience Programs are designed to teach students about horticulture and to provide them with information on the fundamentals of plant growth and production. As part of the curriculum students will be taught basic IPM practices and principles and how IPM is used in the production and maintenance of horticultural crops. Students will also be instructed on the proper use of pesticides and how they may be used as part of an IPM program. Students will receive instruction in the identification and biology of common pests that may occur in horticultural crops grown as part of the Agriscience Program, the IPM policies and procedures to be used to achieve the desired pest management objectives, and will be informed of their role in meeting these objectives.

Roles and Responsibilities

The IPM program within the priscience Program will require the assistance and cooperation of the administration, designated Contact Person, Agriscience teachers and students. Agriscience teachers must work with the County School District's/Board of Education's designated Contact Person who serves as a liaison between the administration and pest control programs in order to provide oversight, consistency in

pest control programs and ensure the provisions of the School District's IPM System and notification requirements are fulfilled. The Contact Person will advise Agriscience teachers of IPM program changes and new laws and regulations effecting the School District's IPM System and Agriscience IPM System.

The Agriscience teachers must remain in communication with the Contact Person since the Contact Person serves as the liaison between the school administration and parents, guardian, students and staff to address questions and concerns regarding the overall IPM system and pest control practices.

Agriscience teachers will comply with the provisions of the IPM system for Agriscience Programs by ensuring good sanitation practices are followed in conjunction with documenting areas requiring maintenance or repair. Teachers will keep the Contact Person appraised of activities within the Agriscience Program and pest problems encountered within the program. Copies of all pesticide labels and Material Safety Data Sheets (MSDS) that may potentially be used within the Agriscience Program will be provided to the Contact Person. Teachers will instruct students enrolled in Agriscience Programs in the principles of IPM in greenhouses and other related subject areas.

Students will comply with the provisions of the IPM system by ensuring that areas requiring maintenance or repair, sanitation problems and pest problems or sightings are documented. Students need to ensure good sanitation practices are followed.

Pests

Pests are populations of living organisms (insects, mites, weeds, or microorganisms) that interfere with the use of the school site for human purposes and in the production of plants. Strategies for managing pest populations will be influenced by specific crops and the pest species. IPM in greenhouse and other similar sites relies on the coordinated use of pest, fertility management, water management, other cultural practices and other environmental information in conjunction with the utilization of the best available pest management methods to prevent unacceptable levels of pest damage by the most economical means and with the least possible hazard to students, staff, property and the environment. Long-term control of pests is achieved by using information about the biology and habits of the pest and its interaction with its surroundings.

Pest Management

This Integrated Pest Management Plan for Agriscience Programs has been developed as a supplement to the School District's comprehensive IPM system as required by Maryland's *Regulations Pertaining To Integrated Pest Management and Notification of Pesticide Use in a Public School.* Pest management strategies will be developed for

each discipline (e.g., greenhouses, nurseries, agriculture, landscaping) of the Agriscience Program and will include any proposed pest management measures.

Pests will be managed to:

- Minimize the loss or damage to plants and minimize the potential for a recurrence of the pest problem.
- Maintain a level of pest infestation or damage that will be acceptable for the marketability of the crop.
- Prevent pests from spreading to other parts of the school building and into the community, or areas beyond the site.
- Instruct students on the principles and practices of IPM and pest control procedures, including the proper use of pesticides.

Integrated Pest Management Procedures

IPM procedures will determine when to control pests, and identify conditions contributing to pest problems through the use of monitoring and thorough inspections conducted at regular intervals. Problem areas will be identified where alternative pest control techniques can be incorporated in order to eliminate routine pesticide applications. The necessity for pest control, if warranted, will be evaluated based on information obtained from a regular monitoring program that includes random foliage inspections of plants, inspections of the greenhouse, monitoring cards and sentinel plants. These actions will be based on action threshold levels that will be established based on the specific crop, developmental stage of the crop and the target pest. When pest control procedures are warranted, the utilization of one or more pest control methods including sanitation, modification of production procedures, cultural practices, biologicals, mechanical procedures. of and use pesticides will be considered.

IPM practioners will depend on current, comprehensive information on the pest and its environment and the best available pest control methods. By applying IPM principles, unacceptable levels of pest activity and damage will be suppressed by the most economical means while minimizing the risk to human health and the environment associated with pesticide applications. While the use of biologicals can play an important role in an IPM program designed for greenhouses and landscapes, the sole reliance on the use biologicals to maintain pests below damaging levels is often not feasible. Due to the imprecise nature of biological insect populations and their interaction with pest populations, crops must be closely monitored. If appropriate action is not taken, which may include the use of selected biorational pesticides while populations are small, pesticides may have to be applied on a larger scale to maintain pests

below damaging levels that may lead to the destruction of the crop.

It is the policy of this School District/Board of Education to utilize IPM principles within the Agriscience Program to manage pest populations adequately. The full range of pest control alternatives, including no action, will be considered. Selected non-chemical pest management methods will be implemented whenever possible to provide the desired control. The choice of using pesticides will be based on a review of all other available options and a determination that these options are unreasonable or have been exhausted, in order to minimize the use of pesticides. Cost or staffing considerations alone will not be adequate justification for the use of pesticides.

The management of algae and weeds within and around greenhouses is an important component of an IPM program in order to reduce or eliminate additional pest harborage and breeding sites. Weed control may involve the use of pesticides if nontoxic options are unreasonable or have been exhausted.

When it is determined that a pesticide must be used to meet vital pest management goals, the least hazardous pesticide will be selected. Only pesticides registered by the U.S. Environmental Protection Agency and the Maryland State Chemist may be applied. Applications will only be made to those plants or portions of plants that require treatment and during the growth stage of the pest when they will be most effective. The application of such pesticides are subject to the School District's/Board of Education's policies and procedures and all applicable state, federal and local regulations including the Maryland Pesticide Applicators Law and Regulations, and the Federal Insecticide, Fungicide, and Rodenticide Act.

Record Keeping

Information obtained from inspections and monitoring shall be maintained to verify the need for treatments. This information should include the plant height and development, type of pest, population counts, presence and severity of disease, location of weeds and evaluation of previous control measures. The removal of infested plants or plant parts should be documented along with the modification of other cultural changes such as soil fertility and watering. Areas requiring maintenance or repair should be documented as part of the records along with copies of Work Order requests. Records of pesticide use shall be maintained by the certified applicator at the time of the pesticide application, comply with state record keeping requirements and will be maintained for two years. Records must be current and accurate.

Pesticide Purchase and Storage

Pesticide purchases should be limited to the smallest amount available or the amount that may be used during the year. Pesticides will be stored and disposed of in accordance with the pesticide product label directions and state regulations. Pesticides

must be stored in an appropriate, secure site inaccessible to students or unauthorized personnel.

Pesticide Applications

Pesticides may be used after it is determined that nontoxic options are unreasonable or have been exhausted. The least hazardous pesticide will be selected and the method and time of application will be based on the goal to minimize the potential for exposure of students and staff to the pesticide. Applications will only be made to those plants or portions of plants, or areas, requiring treatment and during the growth stage of the pest when they will be most effective. Pesticide applications made as part of the Agriscience Program will be conducted by an individual certified as a pest control applicator in the Demonstration and Research Category of Pest Control (Category X), or by a registered employee/trained student working under the supervision of a certified applicator. Applicators must be trained in the principles and practices of IPM and the use of pesticides. Pesticide applications must follow state and federal pesticide regulations, label precautions and comply with this School District's Agriscience IPM Policy and Plan.

Program Evaluation

Evaluation of the pest control program is a critical component of an IPM program for the production of crops in greenhouses. IPM is a dynamic process and requires pest management strategies to be continually evaluated and modified as needed. Evaluation of the crop production program and effectiveness of the pest control program should be made each time the crop is monitored. This will include the review of inspection reports, sanitation reports, fertilization and watering programs and other records to establish current conditions, progress of the program against pest problems and conditions, effectiveness of action thresholds, and to identify problem areas in the IPM system that may need to be modified or changed. Since the evaluation process is a critical component of an IPM program, students enrolled in the Agriscience Program should actively participate in the evaluation process to obtain a better understanding of the dynamics involved in an IPM program.

Notification

The Agriscience teacher will contact the School District's/Board of Education's designated Contact Person prior to any pesticide application. The School District/Board of Education will notify the school staff, students, parents and guardians prior to pesticide applications made in school buildings, including greenhouses, or on school grounds in accordance with Maryland regulations. Notices will be posted in designated areas at schools and sent home to parents and guardians of all elementary school

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students at the school in which the application was made and in middle schools and high schools to those individuals who wish to be informed in advance of pesticide applications and are on the pesticide notification list.

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Prince George's County Public Schools 14201 School Lane • Upper Marlboro, Maryland 20772 • www.pgcps.org



INTEGRATED PEST MANAGEMENT PROGRAM

UNIVERSAL NOTIFICATION FOR PARENTS, GUARDIANS, AND STAFF School Year 2021-2022

Prince George's County Public Schools controls unwanted insects and rodents through Integrated Pest Management (IPM) as required by State law and approved by the Maryland Department of Agriculture (MDA). IPM is part of our continuing commitment to provide healthy learning environments for students and staff by strictly limiting the use of chemical pesticides. IPM calls for practices such as inspections and monitoring to identify conditions contributing to pest problems and to determine when chemicals are required. Non-toxic correction methods will be used, such as increased sanitation, minor structural repair and/or maintenance, insect monitors and traps, and occupant education and involvement. Least toxic chemicals will only be approved for use after documentation indicates that non-toxic means and methods are unsuccessful and an unacceptable level of infestation remains.

Maryland State certified, licensed, or registered applicators employed or contracted by Prince George's County Public Schools only are authorized to use pesticides or herbicides on school property. Inside buildings, chemicals are applied only when the area treated is vacant and will remain vacant overnight. On grounds, chemicals are only approved for application when there is no risk of exposure to students, staff, or the public. Appropriate signs will be posted and parental notification will be provided.

Notification requirements: Parents, guardians, and staff will be notified twentyfour hours before application of certain pesticides at elementary schools. Middle schools, high schools and offices: only those individuals who have requested prior notification. Signs will be placed where interior bait stations are used, at site of pesticide applications on grounds, and at a main or central location. In case of emergency applications, notification will take place within twenty-four hours or on the next school day.

Parents/guardians of middle or high schools students and staff at middle schools, high schools, and offices must submit a written request to the school or office to receive prior notification of pesticide applications. Middle schools, high schools, and offices are required to develop and retain a pesticide notification list on file, keep it current, and make it available to MDA upon request.

IPM regulations also apply to pesticide use on school grounds, which includes use for weed control, poison ivy or stinging insects. Herbicides are used for the removal of excessive weed growth at fence lines or to eradicate poison ivy. State notification procedures will be followed.

IPM questions may be directed to Mr. Alex Baylor, Environmental Officer, 13300 Old Marlboro Pike, Upper Marlboro, MD or by calling 301-952-6500. This office maintains copies of labels and Material Safety Data Sheets that may be reviewed. You may refer to the Integrated Pest Management book located in the school's main office for additional information on integrated pest management.

Pesticide products approved for, but not necessarily used by, Prince George's County Public Schools' licensed applicators:

- 1. Abamectin B1 (Avert PT300 and PT310)
- 2. Bedlam bedbug bicyloheptene dicarboximide
- 3. Bendiocarb (Ficam Dust)
- 4. Brodifacoum (Talon G Rat Pellets, exterior rodenticide)
- 5. Cholecalciferol (Quintox, exterior rodenticide)
- 6. Fipronil (Max Force Bait Stations or Trays)
- 7. Fipronil (Termidor, for exterior and interior ground treatment of termites)
- 8. Flying Insect traps (Non-toxic sticky traps or jars)
- 9. Gentrol IGR-Hydroprene
- 10. Glyphosate (Round-up, weed killer)
- Gourment Ant bait Disodium Octaborate Tetrahydrate
- 12. Hydramethylnon (Siege, gel insecticide for crack and crevice)
- 13. Insect Bait Stations
- 14. Insect glue traps/monitors (Non-toxic traps to indicate type and size of infestation of insects)
- 15. Mouse/Rat traps (Non-toxic, spring mechanism or glue trap)
- 16. Napthalene/sulfur (Snake Away, granules for control of snakes)
- 17. Niban Granular bait Boric Acid
- 18. Phantom Aerosol Chlorfenapyr
- 19. Pheromone traps (Glue traps treated with insect attractant)
- 20. Propoxur (Lava Lur, granules for control of interior insects)
- 21. Pyrethrins (Wasp/Bee Freeze, for immediate knock-down of flying/stinging insects)
- 22. Talstar-P Bifenthrin
- 23. Tempo 0.1 Dust, Cyfluthrin
- 24. Ditrac (exterior rodenticide)



PGCPS PROGRAMA INTEGRADO DE MANEJO DE EXTERMINACION DE NOTIFICACION UNIVERSAL PARA PADRES DE FAMILIA, GUARDIANES, Y **EMPLEADOS AÑO ESCOLAR 2021-2022**

Las Escuelas Públicas del Condado de Prince George	Productos de Pesticidas
controlan insectos and roedores no deseados por medio de	aprobados por pero no
un Programa Integrado de Exterminación de Pestes (IPM	necesariamente utilizados por
(siglas en Inglés) como lo exige la ley del estado y aprovado	los aplicadores con licensia que
por el Departmento de Agricultura de Maryland (MDA por	laboran directament para las
sus siglas en Ingles). IPM es parte de nuestro compromiso	Escuelas del Condado de Prince
continuo de brindar un ambiente de aprendizaje saludable	George:
para nuestros estudiantes y empleados al restringir el uso	
de pesticidas químicos. IPM nos indica que se utilizen	1—Abamectin B1 (Avert PT300
otros metodos como por ejemplo inspecciones y	and PT310)
monitoreo de las instalaciones para identificar condiciones	2—Bedlam bedbug –
que contribuyen a problemas de pestes y determiner	bicyloheptene dicarboximide
cuando el uso de pesticidas químicos es absolutamente	3—Bendiocarb (Ficam Dust)
necesario. Metodos correctivos no-tóxicos serán utilizados	4—Brodifacoum (Talon G
como por ejemplo: saneamiento aumentado, pequeñas	Pelets para ratas, rodenticida
reparaciones a la infraestructura, y/o mantenimiento,	exterior)
monitores de insectos y trampas, y educación e involucrar	5—Cholecalciferol (Quintox,
a las personas que habitan las instalaciones. Los químicos	rodenticide exterior)
menos tóxicos serán aprobados para su uso solo después	6—Fipronil (Max Force
de que se pruebe que los métodos no-tóxicos no han	Estaciones de Cebo or
tenido el resultado deseado y un nivel de infestación	bandejas)
inacceptable todavía existe.	7—Fipronil (Termidor, para el
	tratamiento de comején en
Personas con su respectivas licencias, registrados y	áreas exteriores e interiores.
certificados por el estado de Maryland para aplicar	8—Trampas para insectos
químicos, ya sea empleados de las Escuelas del Condado de	voladores (Trampas o frascos
Prince George o contratistas contratados por las Escuelas	pegajosos no-tóxico)
del Condado de Prince George son las únicas personas	9—Gentrol IGR-Hydroprene
authorizadas para aplicar/utilizar pesticidas or herbicidas	10—Glyphosate (Round-up,
en las instalaciones de las escuelas. Dentro de las	mata maleza)
instalaciones, químicos son utilizados únicamente cuando	11—Gourment estación de
el área a tratarse esta vacante y seguirá vacante durante	cebo para hormigas—Disodium
Baylor, Oficial del Medio Ambiente o persona encargada	
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del Medio Ambiente, 13300 Old Marlboro Pike, Upper	
Marlboro, MD. También puede llamar a (301) 952-6760.	
Esta oficina mantiene copias de los etiquetas y las hojas	
con la información del material de seguridad de cada	
pesticide que pueda ser revisada. Tambié puede referirse	
al libro que contiene el IPM que esta ubicado en la oficina	
principal de las escuelas para más información con respect	
al Programa Integrado de Manejo de Pestes.	

ADMINISTRATIVE PROCEDURE



SAFETY WITH REGARDS TO USE OF APPLIANCES IN CLASSROOMS AND FIRE SAFE FURNITURE

2807

Procedure No.

August 23, 2019 Date

- I. **<u>PURPOSE</u>**: To develop procedures for the enforcement of individual classrooms free of appliances and the utilization of fire safe furniture and furnishings.
- II. **BACKGROUND:** Microwaves, coffee makers and refrigerators, when left plugged in, increase the potential for fires. Cooking in the classroom also increases the chances of rodents and pests in the classroom due to the presence of food sources. For fire prevention purposes, all classroom furniture and rugs must contain the Underwriters Laboratories, Inc. (UL) product certification tag and all curtains must comply with NEFA 701.
- III. <u>POLICY</u>: PGCPS is committed to providing accident-free school environment by identifying and eliminating recognized safety hazards. This requires on-going evaluation of current safety conditions in the schools. (Policy 2801)

IV. **PROCEDURES**:

- A. An inspection shall occur quarterly by the principal and building supervisor to promote a healthy classroom environment.
- B. The principal of the school shall deny the use of microwaves, coffee makers, and refrigerators in all individual teachers' classrooms.
- C. A microwave, coffee maker, and refrigerator shall be provided for teacher use in designated teacher areas.
- D. All furniture, rugs and curtains shall be approved by the principal prior to being placed in the classroom.

V. MONITORING AND COMPLIANCE:

All principals will submit the results of the classroom inspections to the Safety and Security Services Department which will be responsible for monitoring the results. The Safety and Security Services Department will conduct annual inspections of schools to ensure compliance with this procedure.

- VI. **RELATED PROCEDURES:** Administrative Procedure 2512.1 Attention to Fire and Safety Inspections and Administrative Procedure 2805.6 Safety Inspection.
- VII. <u>MAINTENANCE AND UPDATE OF THESE PROCEDURES</u>: These procedures originate with the Department of Plant Operations and will be updated as needed.
- VIII. **CANCELLATIONS AND SUPERSEDURES:** This procedure cancels and supersedes



ADMINISTRATIVE PROCEDURE

SAFETY WITH REGARDS TO USE OF APPLIANCES IN CLASSROOMS AND FIRE SAFE FURNITURE

2807

Procedure No.

August 23, 2019 Date

the version dated January 1, 2009.

IX. EFFECTIVE DATE: August 23, 2019

Distribution: Lists 1, 2, 3, 4, 5, 6, 10, 11, and 12



Prince George's County Public Schools

Department of Plant Operations 13300 Old Marlboro Pike • Upper Marlboro, Maryland 20772

SPECIAL MEMORANDUM PEST CONTROL PROCEDURES

Our school system continues to conduct pest control practices according to Maryland State law, specifically by following Integrated Pest Management (IPM) guidelines. IPM restricts the use of chemical pesticides to control insects or rodents by prescribing the use of non-toxic, common sense means and methods.

IPM is based on the fact that insects and rodents will not stay where they do not have access to food, water or harborage. Additionally, one "best practice" is to prohibit their access into our buildings by ensuring that doors have rodent-proofing strips, exterior cracks and/or holes are filled, window or door screens are in good repair, and grounds (especially the dumpster areas) are kept free from litter.

It is our common goal to provide learning environments for students, staff, and visitors that are free from pests or pesticides. To attain and maintain this goal, all building occupants must contribute to the pest control effort – not by using pesticides but by doing their part to keep the areas they use clean and tidy. We cannot control pests by leaving the job to pest technicians or custodians.

As an example, those who use coffee pots, refrigerators, toasters, microwaves, and the like are responsible for keeping these appliances and the surrounding area clean, on a continuing basis. Dishes, cups, saucers, plates, etc. should be washed immediately after use by those who used them. Wherever students are permitted to eat or drink, they should use appropriate maners, practices, and receptacles. Any type of foodstuff kept anywhere in the building must be contained in airtight, preferably metal cans, such as a coffee can. Vendors should be held responsible for cleaning their food or beverage machines on a regular schedule. Storage rooms and all areas must be kept clean and tidy, and <u>all clutter</u> must be removed from the building.

Pest control will not be effective if all building occupants do not do their part. Pest technicians and custodians cannot be successful unless students, teachers, other staff and visitors do their part. With cooperation and collaboration from all involved our schools will provide inviting learning environments for students and staff.

JLG:phb



PRINCE GEORGE'S COUNTY PUBLIC SCHOOLS Upper Mariboro, Maryland 20772

Department of Plant Operations

INTEGRATED PEST MANAGEMENT ** SPECIAL NOTICE

This special notice shall serve as an overview of Integrated Pest Management procedures and a general guide (not all inclusive) of what to expect when a pest controller responds to a reported pest problem.

Pest Controllers will:

- 1. Identify the pest which helps determine the best course of action.
- 2. Find the cause of infestation (food, water), or access permitting infestation.
- 3. Correct or remove the cause, or seal access to stop infestation.
- 4. Seal, caulk or use other means to stop access (instruct building custodian to accomplish same or submit maintenance work order).
- 5. Place non-toxic monitors; explain responsibilities of building personnel such as cleaning, removing clutter and boxes, remove food, etc.
- 6. Write complete report on request ticket -- including level of infestation and need for work order, if required.
- 7. Use non-toxic bait and additional monitors if monitors indicate infestation remains 'heavy; re-inspect area to identify cause.
- 8. Request approval for use of least toxic aerosol if all of the above procedures prove ineffective; application will be after school hours, with area posted.
- 9. Request emergency approval of aerosol application if condition is severe.
- 10. If not an emergency, prior to an aerosol application, school system personnel responsible for the building will be notified; the areas involved must be vacant and remain vacant overnight and the area must be posted with the appropriate school system sign at all entrances to the area. These signs shall not be removed until the next school day. (Lock the treated area if possible.)

Do not hesitate to call Plant Operations at 301-952-6550 with any questions or concerns.

PRINCE GEORGE'S COUNTY PUBLIC SCHOOLS

Upper Marlboro, Maryland

DEPARTMENT OF PLANT OPERATIONS

«Date»

NOTIFICATION OF EMERGENCY PESTICIDE OR HERBICIDE APPLICATION

Parents, Guardians, and Staff:

Prince George's County Public School System controls unwanted insects, rodents, and weeds using an Integrated Pest Management (IPM) program approved by the Maryland State Department of Agriculture. IPM is followed as part of our continuing commitment to provide healthy learning environments for students and staff. Integrated pest management procedures such as inspections and monitoring are used to determine when chemicals are needed and to identify conditions contributing to pest problems. One or more non-toxic pest control methods may be used such as increased sanitation, minor structural repair, insect monitors and traps, and occupant education and involvement. Least toxic chemicals are approved for use only after documentation indicates that non-toxic means and methods have not been successful and an unacceptable level of infestation remains.

State law requires notification of parents, guardians, and staff at public secondary schools who requested notification and all elementary schools within twenty-four hours after the emergency application of pesticides. Prince George's County Public Schools is also notifying after emergency applications of exterior pesticides or herbicides. Notices will be posted at the time and location of emergency applications.

The following application was made at:

School or Building: <u>«S</u>	School»
Room or Area: «Area	3>>
Datas "AnDatas Tir	mor "Times Type of Pest, "Pests
Date: <u>«ApDate»</u> III	me. <u>«Inne»</u> Type of Fest. <u>«Cest»</u>
Pesticide/Herbicide:	Pesticide»
Reason for Application	n:

This application was made after school and the area remained vacant overnight. The following information regarding potential adverse effects was taken from the material safety data sheet (MSDS) for the pesticide to be applied:

<u>«MSDSinfo»</u> «<u>MSDSinfo2»</u> «MSDSinfo3» ۲⁺

The Office of Pesticide Programs of the United States Environmental Protection Agency has stated: "Where possible, persons who potentially are more sensitive, such as pregnant women and infants (less than two years old), should avoid any unnecessary pesticide exposure."

Questions regarding IPM or requests for Material Safety Data Sheets may be directed to the Department of Plant Operations, at 301-952-6550.

Prince George's County Public Schools



Upper Marlboro, Maryland 20772

PESTICIDE NOTIFICATION LIST

Please list any middle or high school student, or any staff member, who wishes to be notified of any interior or exterior pesticide application made in your building or on the exterior grounds during the school year.

1.	Name:	6.	Name:
	Address:		Address:
	Telephone:		Telephone:
2.	Name:	7.	Name:
	Address:		Address:
	Telephone:		Telephone:
3.	Name:	8.	Name:
	Address:		Address:
	Telephone:		Telephone:
4.	Name:	9.	Name:
	Address:		Address:
	Telephone:		Telephone:
5.	Name:	10	. Name:
	Address:		Address:
	Telephone:		Telephone:

FOR ALL BUILDING OCCUPANTS

TERMITE FACTS

Termites swarm for several days during warm weather. Follow these instructions to <u>immediately</u> control the problem <u>without using chemicals, waiting for a pest technician</u>, or <u>interrupting the learning process</u>.

Termites are harmless - they do not bite, sting, carry germs or disease.

They cannot be transported home to start an infestation.

Swarms do not always indicate the location of an infestation.

Pesticides <u>are not used</u> for swarming termites. New swarmers may reappear for several days.

Knock down the swarm with water; clean the area to remove. Mark the site of entry and block with caulk or tape.

Save a sample insect for identification by pest technician. Swarmers may be flying ants, not termites.

If swarmers are not controlled with water students may have to be relocated for several days.

Remain calm, follow these guidelines, and continue the education of our children.

Call Plant Operations to report location of suspected termites.

Use of pesticides/herbicides by anyone other than a system and State approved, licensed applicator is strictly prohibited and punishable by law.

For more information refer to Administrative Procedure 3522.1 and/or Bulletin B-17-97.

PRINCE GEORGE'S COUNTY PUBLIC SCHOOLS

Upper Marlboro, Maryland 20772

DEPARTMENT OF PLANT OPERATIONS

Integrated Pest Management

FLYING STINGING INSECTS

As school begins again, so will a new season of flying stinging insects. These insects can become problematic for schools and offices. Following these tips to help protect students and staff from these unwanted pests.

- 1. Dumpsters must be thoroughly hosed down every night.
- 2. Keep dumpsters closed when not loading trash, and keep all trash inside dumpster.
- 3. Do not permit students or staff to stand or play in dumpster area.
- 4. Place bee jar--with a small amount of orange juice--where bees are seen.
- 5. Empty and reuse bee jar often. Bee jars may be purchased or made.
- 6. Develop the habit of looking for nests daily. They can be knocked down easily when small.
- 7. Aerosols cannot be used to eliminate flying insects. The nest must be located and destroyed.
- 8. Ask your pest technician for more helpful hints.

PRINCE GEORGE'S COUNTY PUBLIC SCHOOLS

Upper Mariboro, Maryland

DEPARTMENT OF PLANT OPERATIONS

INTEGRATED PEST MANAGEMENT PROGRAM OVERVIEW

This overview of our Integrated Pest Management (IPM) program is a general guide (not all inclusive) of what to expect when a pest controller conducts an inspection or responds to a reported pest problem. Buildings are scheduled for monthly inspections; however, you may contact Plant Operations, 301-952-6550, with questions or concerns at any time.

Maryland State law prohibits possession or use of pesticides on public school property by anyone other than a State licensed pest technicia; punishable by fines up to \$25,000.

Pest Technicians will:

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- 1. Identify the pest to determine the appropriate course of action.
- 2. Find the cause of the infestation, such as food, water, access, clutter or structural deficiencies.
- Take or direct appropriate action to reduce infestation, i.e. seal, caulk, or use other means to block access into or throughout building. Action to be accomplished by custodian or maintenance, if work order is required.

Place non-toxic monitors; explain responsibilities for required action, such as cleaning, removing clutter/boxes, removing food, etc. Everyone is responsible for keeping their personal space or the area where they consume food or drink clean, neat, and tidy. Microwaves, refrigerators, dishes, sinks, etc., as in teachers lounges, should be cleaned immediately after each use by the person who uses the area. Administrative offices, closets, classrooms, etc., should be kept clean, neat, and tidy by those individuals who use them, including students. Nothing should be stored on floor; shelves should be provided to keep all boxes off floor by six inches to permit thorough cleaning.

All findings will be written on the IPM report form -- including the level and type of infestation, cause, and corrective action required.

6. Use of non-toxic bait may be approved if monitors indicate infestation remains heavy after other methods fail. Reinspection will be done to ensure corrective actions have been taken.

7. Pest technician will request approval for aerosol use if the above procedures prove ineffective or if students or staff are in immediate danger. Pesticides will be used after school hours, when the area is vacant, will remain vacant, is posted, and notification completed.

8. Principals or building administrators will be provided with a copy of the appropriate parental/staff/student notification. Notifications must be provided for each child/parent and staff at elementary or special centers. At secondary schools and offices, only those individuals who requested to be notified must be provided with the form (see Universal Notification).

PRINCE GEORGE'S COUNTY PUBLIC SCHOOLS UPPER MARLBORO, MARYLAND 20772

DEPARTMENT OF PLANT OPERATIONS

INTEGRATED PEST MANAGEMENT

PLEASE POST

FOR

ALL CUSTODIANS

CUSTODIANS SHOULD TAKE THE FOLLOWING STEPS BEFORE CALLING PLANT OPERATIONS TO REQUEST

PEST CONTROLLER VISIT

After finding an insect problem other than roaches...

TAKE A SAMPLE

VACUUM OR CLEAN TO REMOVE

FIND ENTRY SITE OR CAUSE OF INFESTATION

BLOCK ENTRY OR REMOVE CAUSE IF POSSIBLE

IF NECESSARY, CREATE WORK ORDER AND CALL MAINTENANCE



Prince George's County Public Schools

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Department of Plant Operations13300 Old Marlboro Pike • Upper Marlboro, Maryland 20772

KITCHEN AND CAFETERIA SANITATION GUIDELINES

These guidelines from Operations are provided to remind school-based personnel of basic daily sanitation measures to reduce pest populations. Principals are requested to share this information will ALL staff to ensure compliance with school system and health department requirements.

Loading docks must be clear of debris and washed, and dumpster lids must not be left open.

Empty cartons upon delivery, break down, and remove cartons from building. (Roaches live and breed in cardboard boxes and paper bags.)

Do not store items on floor or against walls. There must be space to clean behind and under all items.

All clutter must be removed from building, such as non-working, non-used equipment, furniture, files, etc. (Warehouse truck may be required).

Can washroom and custodial closets must be clean and not used for general storage or clutter.

Submit work order for all loose floor tiles.

Doors must self-close tightly. One-quarter inch openings or larger must be sealed. (Work order required.)

Door sweeps must be on all exterior doors to block access to building. (Work order required.)

Cove base molding must be tight to wall or removed. (Work order may be required.)

Storage rooms must be accessible to custodians and cleanable. Do not store clutter or debris.

Check under shelves daily. The area must be clean and free of cob webs, mouse droppings, dead insects, etc.

Caulk around bulletin boards on walls, clocks, electrical panels, windows, and pipes.

Pipes or conduits that go through ceilings or walls must be caulked.

Univent and water fountain panels must be removed, vacuumed, and replaced.

Vending machines must be kept clean inside and moved from walls to clean behind and under.

All interior and exterior holes larger than one-quarter inch must be sealed. (Work order may be required.)

Mouse droppings must be removed each morning, especially from behind equipment and along floor and wall juncture.

Place sticky traps to monitor insects or where there is evidence of mice.

Floor and wall juncture and corners must be swept daily by food service personnel and mopped by custodial personnel to be free from dirt, wax buildup, and dead insects.



Prince George's County Public Schools

Department of Plant Operations 13300 Old Marlboro Pike • Upper Marlboro, Maryland 20772

KITCHEN CLEANING

The following instructions shall be followed by all building supervisors to ensure thorough cleaning of the kitchen **immediately** after the end of summer school programs with food service. If there is no use of the kitchen during summer, complete thorough cleaning immediately after the close of school. This will allow our pest technicians to inspect the kitchens to ensure insect or rodent infestations do not occur over the summer months.

High cleaning walls Light fixtures & lights Change bad ceiling tiles Ceiling vents, exhaust fans Door jams Storage room – especially door jams Venetian blinds, windows, and sills Hood, hood filter and lights Baseboards Wall and floor junction especially under equipment Lavatories Floor drain – open, clean and leave open Grease trap Floors t Prepare maintenance work-orders as needed.

Call your Chief Building Supervisor to report when completed. This should be completed prior to June 30 or at the end of any food service summer program.



DEPARTMENT OF PLANT OPERATIONS

PEST SIGHTINGS LOG SHEET

SCHOOL: (SAMPLE)

1/2 8:00pm INSPECTION OF SCHool FOUND No PESTicide.	6 11
	<u> </u>
For PESTICIDES-CLOSET	
CLASSFORM - OFFICE - STORAGE room	
1/2 8:00 PM SECTION 1-12 Found No PESTICIDE	5 N.T.
Ir Mic it	
12 8:00 PM JONES 3 CADINET RAID - REMOVE	N. T.
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rt .	
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Department o Uilding Services Pest Sighting Log Sheet

School:__

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Initials						
Pest Sighting (Be specific; insect or rodent activity, location, etc.)						
Kitchen						•
Date/Time						



Sec.

[-800-222-1222

TOLL FREE HOTLINE

IPM SERVICE AND INSPECTIONS

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INTEGRATED PEST MANAGEMENT (IPM) PLAN FOR QUEEN ANNE'S COUNTY PUBLIC SCHOOLS

School Pest Management Policy Statement

Structural pests, i.e. insects and rodents, carry diseases, contaminate food and food preparation areas and can cause structural damage thus posing significant problems to people, property, and the environment. Pest control in the school environment must protect the health and safety of the children and staff, minimize pest damage to structures and personal property, improve the quality of the educational environment by avoiding annoyance and disruption of work and learning caused by insects, rodents and other pests. It is therefore the policy of the Queen Anne's County Public Schools to adopt Integrated Pest Management for control of structural pests.

Roles and Responsibilities

The IPM program will require the assistance and cooperation of the administration, staff and students. The Queen Anne's County Public Schools has established Mr. James O'Donnell, Board of Education Queen Anne's County, 202 Chesterfield Avenue, Centreville, Maryland 21617 as a Contact Person to serve as a liaison between the administration and pest control program in order to provide oversight, consistency in the pest control program and ensure the provisions of IPM system are fulfilled. Mr. O'Donnell will advise the administration, staff, parents and guardians and students as necessary of IPM program changes and new laws and regulations affecting the IPM system.

Students and staff will comply with the provisions of the IPM system by ensuring that areas requiring maintenance or repair, sanitation problems and pest problems or sightings are documented. Students and staff need to ensure good sanitation practices are followed.

Pests

Pests are populations of living organisms (insects, animals, plants, or microorganisms) that interfere with the use of the school site for human purposes. Strategies for managing pest populations will be influenced by the pest species and whether that species poses a threat to people, property, or the environment. IPM relies on the coordinated use of pest and environmental information and the pest available pest management methods to prevent unacceptable levels of pest damage by the most economical means and with the least possible hazard to students, staff, property and the environment. Long-term control of pests is achieved by using information about the biology and habits of the pest and its interaction with its surroundings.

Pest Management

The Integrated Pest Management plan will be developed for the School District as required by the Maryland's Regulations pertaining to Integrated Pest Management and Notification of Pesticide Use in a Public School. Approved pest management plans will be developed for the site and will include any proposed pest management measures.

Pests will be managed to:

- Reduce any potential human health hazard or to protect against a significant threat to public safety.
- Prevent loss or damage to school structures or property and prevent a reoccurrence of the problem.
- Prevent pests from spreading into community, or areas beyond the site.
- Improve the quality of the educational environment, for students, staff and the public.

Integrated Pest Management Procedures

IPM procedures will determine when to control pests and identify conditions contributing to pest problems through the use of monitoring and thorough inspections conducted at regular intervals. Problem areas will be identified where alternative pest control technologies can be incorporated in order to eliminate routine pesticide applications. The necessity for pest control, if warranted, will be evaluated based on information obtained from inspections and monitoring. These actions will be based on action threshold levels that will be established based on the site and pest. When pest control procedures are warranted, the utilization of one or more pest control methods including sanitation, structural repair, nonchemical methods and pesticides will be used.

IPM practices will depend on current, comprehensive information on the pest and its environment and the best available pest control methods. By applying IPM principles, unacceptable levels of pest activity and damage will be prevented by the most economical means while minimizing the risk to human health and the environment associated with pesticide applications.

The choice of using pesticides will be based on a review of all other available options and a determination that these options are unreasonable to have been exhausted, in order to minimize the use of pesticides. Cost or staffing considerations alone will not be adequate justification for the use of pesticides, and selected non-chemical pest management methods will be implemented whenever possible to provide the desired control. It is the policy of this School District/Board of Education to utilize IPM principles to manage pest populations adequately. The full range of pest control alternatives will be considered.

When it is determined that a pesticide must be used in order to meet vital pest management goals, the least hazardous pesticide will be selected. The application of such pesticides are subject to the School District's/Board of Education's policies and procedures and all applicable state, federal and local regulations including the Maryland Pesticide Applicators Law and Regulations, and the Federal Insecticide, Fungicide, and Rodenticide Act.

Record Keeping

Records will be established and maintained by the certified pest control specialist with assistance from the school secretary for maintaining notification records. The records will include:

- A copy of the Pest Management Plan
- A copy of the current EPA registered label and the current MSDS for each pesticide product used on the school property.

- IPM service report sheets which record the type and number of pests or other indicators of pest population levels revealed by the monitoring program for the site.
- Pest control procedures
- Application records
- Documentation of notices

Records of pesticide use shall be provided to the school by the licensee, permit holder or certified applicator at the time of the pesticide application and will be maintained for 2 years. Records must be current and accurate. In addition, pest surveillance data sheets that record the number of pests or other indicators of pest populations are to be maintained to verify the need for treatments. Documentation of communications to students and staff regarding IPM and pesticide use will be maintained by the Contact Person.

Pesticide Applications

Pesticides may be used after it is determined that non-toxic options are unreasonable or have been exhausted. The least hazardous pesticide will be selected and the method and time of application will be based on the goal to minimize the potential for exposure of students and staff to the pesticide. Pesticide applications made on school property will be conducted by an individual certified as a pest control applicator or by a registered employee working under the supervision of a certified applicator. Applicators must be trained in the principles and practices of IPM and the use of pesticides. They must follow state and federal pesticide regulations and label precautions and comply with this School District's IPM Policy and Plan.

Education

Staff, students, pest managers, and the public will be educated about potential school pest problems and the IPM policies and procedures to be used to achieve the desired pest management objectives and will be informed of their role in meeting these objectives.

Program Evaluation

An annual review of the IPM system will be conducted to determine the effective ness of the program and program objectives have been achieved. This will include the review of inspection reports, sanitation reports, and other records to establish current conditions, progress of the program against pest problems and conditions, effectiveness of action thresholds, and to identify problem areas in the IPM system that may need to be modified or changed.

Notification

The School District will notify the school staff, students, parents and guardians prior to pesticide applications made in school buildings in accordance with Maryland regulations. Notices will be posted in designated areas at schools and sent home to parents/guardians of all students.

Copies of materials safety data sheets (MSDS) and product labels for each pesticide and bait station used on school property is maintained by the contact person. Persons wishing to review this information should contact Supporting Services to arrange an appointment. For additional information about the Integrated Pest Management Program, please contact 410-758-2403 x 140.

IPM STRATEGIES FOR OUTDOORS TYPICAL PESTS

Mice and rats. Turf pests-broad-leaf and grassy weeds, insects such as beetle grubs or sod webworms, diseases such as brown patch, vertebrates such as moles. Ornamental plant pests-plant diseases and insects such as aphids, Japanese beetles, and bag worms.

PLAYGROUNDS, PARKING LOTS, ATHLETIC FIELDS, LOADING DOCKS and REFUSE DUMPSTERS

- Regularly clean trash containers and gutters and remove all waste, especially food and paper debris.
- Secure lids on trash containers.
- Repair cracks in pavement and sidewalks in a timely manner.
- Provide adequate drainage away from the structure and on the grounds.

TURF (lawns, athletic fields, and playgrounds)

- Maintain healthy turf by selecting a mixture of turf types (certified seed, sod, or plugs) best adapted for the area.
- Raise mowing height for turn to enhance its competition with weeds; adjust cutting height of mower, depending on the grass type; sharpen mower blades; and vary mowing patterns to help reduce soil compaction.
- Provide good drainage and periodically inspect turf for evidence of pests or diseases. Allow grass clippings to remain in the turf.
- Have soil tested by Certified Person to determine pH and fertilizer requirements.
- Time fertilizer application appropriately because excessive fertilizer can cause additional problems, including week and disease outbreaks. Apply lime if necessary. Use aeration to place soil on top of thatch so that microbes from soil can decompose thatch.
- Seed over existing turf in fall and early spring.

ORNAMENTAL SHRUBS AND TREES

- Apply fertilizer and nutrients to annuals and perennials during active growth and to Shrubs and trees during dormant season or early in the growing season.
- If using a fertilizer, use the correct one at the suitable time, water properly and reduce compaction.
- Prune branches to improve plants and prevent access by pests to structures.
- Select replacement plant material from among the many disease-resistant types being developed by plant breeders throughout the country.
- Correctly identify the pest in question. When in doubt, send several specimens to your local Cooperative Extension Service. Once the pest is identified, recommendations can be made.
- Remove susceptible plants if a plant disease recurs and requires too many resources, such as time, energy, personnel, or money. Some ornamental plants, trees and turf are so susceptible to plant diseases that efforts to keep them healthy may be useless.

USE OF PESTICIDES

Due to their potentially toxic nature, pesticides will be applied by qualified applicators in a manner to ensure maximum efficiency with minimal hazard. Pesticides should be applied only when occupants are not present in areas there they may be exposed to materials applied.

• The posting of a sign indicating the application of pesticides will conform to Maryland Department of Agriculture 15.05.01.15 regulations.

ADDENDUM TO THE INTEGRATED PEST MANAGEMENT PLAN (IPM) FOR QUEEN ANNE'S COUNTY PUBLIC SCHOOLS March 15, 2018

Exterior spray records performed by the Department of Parks & Recreation will all be maintained at the Board of Education Office. Contact Supporting Services Department at the Board of Education Queen Anne's County if you wish to review these records. Contact number 410.758.2403 x 140.

INTEGRATED PEST MANAGEMENT (IPM) PLAN FOR ST. MARY'S COUNTY PUBLIC SCHOOLS

School Pest Management Policy Statement

Structural pests, i.e., insects and rodents, carry diseases, contaminate food and food preparation areas and can cause structural damage, thus posing significant problems to people, property, and the environment. Pesticides can also pose risks through unnecessary exposures to people, property, and the environment. Pest control in the school environment must protect the health and safety of the children and staff, minimize pest damage to structures and personal property, improve the quality of the educational environment by avoiding annoyance and disruption of work and learning caused by insects, rodents and other pests. It is therefore the policy of St. Mary's County Public Schools to adopt Integrated Pest Management for control of pests in school buildings and on school grounds.

Roles and Responsibilities

The IPM program will require the assistance and cooperation of the administration, staff and students. St. Mary's County Public Schools have established a contact person to serve as a liaison between the administration and pest control program in order to provide oversight, consistency in the pest control program, and ensure that the provisions of IPM system are fulfilled. The contact person will advise the administration, staff, parents, guardians, and students as necessary of IPM program changes, new laws, and regulations effecting the IPM system.

The contact person will discuss the IPM system and problem areas identified through the inspection and monitoring process. The contact person also serves as the liaison between the school administration, parents, guardian, students, and staff to address questions and concerns regarding the IPM system and pest control practices. The contact person will make recommendations to correct problem areas.

The contact person for St. Mary's County Public Schools is Mr. Terry Fenwick. Mr. Fenwick's address is as follows:

Mr. Terry Fenwick Operations Foreman, St. Mary's County Public Schools 27190 Point Lookout Road Loveville, MD 20656 (301) 475-4256 ext. 34114

Students and staff will comply with the provisions of the IPM system by ensuring that areas requiring maintenance or repair, sanitation problems and pest problems or sightings are documented. Students and staff need to ensure good sanitation practices are followed.

Pests

Pests are populations of living organisms (insects, animals, plants, or microorganisms) that interfere with the use of the school site for human purposes. Strategies for managing pest populations will be influenced by the pest species and whether that species poses a threat to people, property, or the environment. IPM relies on the coordinated use of pest and environmental information and the best available pest management methods to prevent unacceptable levels of pest damage by the most economical means and with the least possible hazard to students, staff, property, and the environment. Long-term control of pests is achieved by using information about the biology and habits of the pest and its interaction with its surroundings.

Pest Management

The Integrated Pest Management plan will be developed for the school district as required by Maryland's Regulations pertaining to Integrated Pest Management and Notification of Pesticide Use in a public school building or on school grounds. Approved pest management plans will be developed for the site and will include any proposed pest management measures.

Pests will be managed to:

- Reduce any potential human health hazard or to protect against a significant threat to public safety.
- Prevent loss or damage to school structures or property and prevent a reoccurrence of the problem.
- Prevent pests from spreading into community, or areas beyond the site.
- Improve the quality of the educational environment for students, staff and the public.

Integrated Pest Management Procedures

IPM procedures will determine when to control pests and identify conditions contributing to pest problems through the use of monitoring and thorough inspections conducted at regular intervals. Problem areas will be identified where alternative pest control technologies can be incorporated in order to eliminate routine pesticide applications. The

necessity for pest control, if warranted, will be evaluated based on information obtained from inspections and monitoring. These actions will be based on action threshold levels that will be established based on the site and pest. When pest control procedures are warranted, one or more pest control methods are utilized including sanitation, structural repair, nonchemical methods and pesticides.

IPM practitioners will depend on current, comprehensive information on the pest and its environment and the best available pest control methods. By applying IPM principles, unacceptable levels of pest activity and damage will be prevented by the most economical means while minimizing the risk to human health and the environment associated with pesticide applications.

The choice of using pesticides will be based on a review of all other available options and a determination that these options are unreasonable or have been exhausted, in order to minimize the use of pesticides. Cost or staffing considerations alone will not be adequate justification for the use of pesticides, and selected non-chemical pest management methods will be implemented whenever possible to provide the desired control. It is the policy of St. Mary's County Public Schools to utilize IPM principles to manage pest populations adequately. The full range of pest control alternatives, including no action, will

When it is determined that a pesticide must be used in order to meet vital pest management goals, the least hazardous pesticide will be selected. The application of such pesticides is subject to the policies and procedures of St. Mary's County Public Schools and all applicable state, federal and local regulations including the Maryland Pesticide Applicators Law and Regulations, and the Federal Insecticide, Fungicide, and Rodenticide

Record Keeping

Records of pesticide use shall be provided to the school by the licensee, permittee or certified applicator at the time of the pesticide application and will be maintained for 2 years. Records must be current and accurate. In addition, pest surveillance data sheets that record the number of pests or other indicators of pest populations are to be maintained to verify the need for treatments. The contact person will maintain documentation of communications to students and staff regarding IPM and pesticide use.

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Pesticide Purchase and Storage

Pesticide purchases will be limited to the amount authorized for use during the year. Pesticides will be stored and disposed of in accordance with the EPA-registered label directions and state regulations. Pesticides must be stored in an appropriate, secure site not accessible to students or unauthorized personnel.

Pesticide Applications

Pesticides may be used after it is determined that non-toxic options are unreasonable or have been exhausted. The least hazardous pesticide will be selected and the method and time of application will be based on the goal to minimize the potential for exposure of students and staff to the pesticide. Pesticide applications made on school property will be conducted by an individual certified as a pest control applicator or by a registered employee working under the supervision of a certified applicator. Applicators must be trained in the principles and practices of IPM and the use of pesticides. They must follow state and federal pesticide regulations and label precautions and comply with this School District's IPM Policy and Plan.

Education

Staff, students, pest managers, and the public will be educated about potential school pest problems and the IPM policies and procedures to be used to achieve the desired pest management objectives and will be informed of their role in meeting these objectives.

An annual review of the IPM system will be conducted to determine the effectiveness of the program and whether program objectives have been achieved. This will include the review Program Evaluation of inspection reports, sanitation reports, and other records to establish current conditions, progress of the program against pest problems and conditions, effectiveness of action thresholds, and to identify problem areas in the IPM system that may need to be modified or changed.

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Notification

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St. Mary's County Public Schools will notify the school staff, students, parents and guardians prior to pesticide applications made in school buildings or on school grounds in accordance with Maryland regulations. Notices will be posted in designated areas at school and sent home to parents and guardians of elementary school students and individuals who wish to be informed in advance of pesticide applications and are on the pesticide notification list.

INTEGRATED PEST MANAGEMENT PROGRAM

SOMERSET COUNTY PUBLIC SCHOOLS

August 2021



Governor's Pesticide Council

Policy Statement

Integrated Pest Management in Schools

Integrated Pest Management (IPM) is a decision making process to manage pest problems utilizing site or pest inspections, population monitoring, evaluations of need for control, and use of one or more of a variety of control methods, such as sanitation, exclusion, cultural (resistant varieties of plants), biological agents or pesticides, with the goal of minimizing the use of pesticides in[or on school grounds.]

Pesticides are applied in schools or on school grounds as a means of reducing pest problems, such as cockroaches, mice, ants, bees, weeds, etc. The traditional method of controlling pests often has been to apply an insecticide or rodenticide as a general treatment throughout an entire school, whether pests are known to be present or not. The practice of routinely using pesticides in areas where children learn, eat, and play has raised public concern as to whether this is the best approach to controlling pests in schools.

Integrated pest management (IPM) has been used very effectively in sensitive areas where control of pests is needed and the general application of pesticides is undesirable, e.g., office buildings, hospitals, research facilities, and schools. Schools that have implemented IPM programs have reported an improvement in the control of pests along with a reduction in the use of pesticides. IPM is the best alternative to traditional pesticide-based pest control services. It provides effective control of insects, rodents, and other pests while protecting the safety and health of children and preserving the environment. Therefore, Somerset County Board of Education adopts the following policy:

"Pest control in schools must protect the health and safety of children and Staff, minimize damage to structures and personal property, and improve the quality of the education environment by avoiding the annoyance or disruption of work and learning that can be caused by insects, rodents or other pests. To meet these goals, the Governor's Pesticide council recommends that public school facilities adopt and implement an integrated pest management (IPM) strategy to control pests in schools or on school grounds.

I. INTRODUCTION

A. <u>Overview</u>

Integrated Pest Management (IMP) is an effective and environmentally sensitive approach to pest management that relies on a combination of common sense practices. IPM programs use current, comprehensive information on the life cycles of pests and their interactions with the environment. This information, in combination with available pest control methods, is used to manage pest damage by the most economical means, and with the least possible hazard to people, property and the environment.

To improve the level of pest control and to minimize the potential exposure of school children to pesticides, The Somerset County Board of Education has adopted an integrated pest management approach to pest control.

Integrated pest management strategies limit pest problems without applying pesticides on a regular basis. IPM uses regular inspections to determine if and when treatment is necessary, and then employs a variety of environmentally sound techniques to limit pests over the long term. The goal of IPM is to keep pest numbers low enough to make them essentially non-detectable. Pesticides, if and when applied, are applied according to need and not according to a regular schedule.

A. <u>Policy Statement</u>

1. Integrated Pest Management Procedures

IPM procedures will determine when to control pests and whether to use mechanical, physical, chemical, cultural, or biological means. Applying IPM principles prevents unacceptable levels of pest activity and damage. The choice of using a pesticide will be based on a review of all other available options and a determination that these options are not acceptable or are not feasible. Cost or staffing considerations alone will not be adequate justification for use of chemical control agents, and selected non-chemical pest management methods will be implemented when ever possible to provide the desired control. It is the policy of the Somerset County Board of Education to utilize IPM principles to manage pest populations adequately. The full range of alternatives, including no action will be considered. When it is determined that a pesticide must be used in order to meet important management goals, the least hazardous material will be chosen. The application of pesticides is subject to a number of Federal, State, and local regulations. They are the Federal Insecticide, Fungicide, and Rodenticide Act

(7 United States Code 136 et seq.), the Environmental Protection Agency Regulations in Title 40 of the Code of Federal Regulations, The Occupational Safety and Health Administration Regulations, Maryland Department of Agriculture Pesticide Applicators Laws and Regulations, Code of Maryland Regulations (COMAR) Title 15, Subtitle 05, Chapter 01 and Chapter 02, as well as the Somerset County Board of Education policies and procedures as specified in this program.

2. *Education*

The Somerset County Board of Education will endeavor to educate staff, students, pest managers and the public about potential pest problems on school property and the IPM policies and procedures to be used to achieve the desired pest management objectives.

Record Keeping

Records of pesticide use are maintained at each facility or school to meet the requirements of the state regulatory agency. Duplicate copies are also available from the Facilities Department of the Board of Education Central Office. Records must be current and accurate if IPM is to work. In addition, pest surveillance data sheets that record the number of pests or other indicators of pest populations shall be maintained to verify the need for treatments.

Notification

In accordance with state law, the Board of Education has taken on the responsibility of notification to the school staff, parents/guardians and students of upcoming pesticide treatments. Notification policies are different for Elementary schools and Middle/High schools and can be found later in this program in the Attachments section. Generally, notices will be posted in designated areas at school and in some cases may be sent home to parents who wish to be informed in advance of pesticide applications. (Please refer to the Notifications Section for more details.)

II. DEFINITION OF TERMS

<u>Action threshold</u> - The level of infestation at which action must be taken to control the infestation.

<u>Active monitoring</u> - Regularly scheduled visual inspections of all buildings and grounds to assess pest populations.

Bait Station - Containers enclosing an insecticide or rodenticide bait.

<u>Beneficial organisms</u> - A plant, animal or microbe (often a parasite, pathogen or predator of insects) that has a direct or indirect negative effect on pest populations.

<u>Biological control agent</u> - Any biological agent that adversely affects pest species.

<u>Botanical *pesticide*</u> - A pesticide produced from naturally occurring chemicals found in some plants. Examples are nicotine, pyrethrum, strychnine and rotenone.

Broad-spectrum insecticides - Non-selective, having about the same toxicity to most insects.

<u>Certified application</u> - Commercial applicator or public agency applicator certified by the Maryland Department of Agriculture to apply restricted use pesticides as defined by the EPA.

<u>Chemical name</u> - Scientific name of the active ingredients found in a formulated pesticide. The name is derived from the chemical structure of the active ingredient.

<u>Common name</u> - Name given to pesticide's active ingredient by a recognized committee on pesticide nomenclature. An active ingredient only has 1 recognized common name.

<u>Crack & Crevice treatment</u> - Pesticide application method in which small quantities, if possible, are placed into cracks, crevices and other small openings where cockroaches and other pests hide.

<u>Ecosystem</u> - The interacting system of all the living organisms of an area and their nonliving environment.

Environmental Protection Agency (EPA) - The Federal agency responsible for pesticide rules
and regulations, and all pesticide registrations.

<u>EPA Registration Number</u> - A number assigned to a pesticide product by EPA when the product is registered by the manufacturer or his designated agent. The number must appear on all labels for a particular product. FEPCA - The Federal Environmental Pesticide Control Act of 1972

FIFRA - The Federal Insecticide, Fungicide, and Rodenticide Act of 1974

Foaming agent - A chemical which causes a pesticide preparation to produce a thick foam.

Fog treatment - The application of a pesticide as a fine mist for the control of pests.

Fungicide - A chemical that kills fungi.

<u>General-use pesticide</u> - A pesticide which can be purchased and used by the general public without undue hazard to the applicator and environment as long as the instructions on the label are followed carefully.

<u>Growth regulator</u> - Organic substance effective in minute amounts for controlling or modifying (plant or insect) growth processes.

<u>Inert ingredients</u> - The inactive materials in a pesticide formulation, which would not destroy pests if used alone.

<u>Ingredient statement -</u> That portion of the label on a pesticide container which gives the name and amount of each active ingredient and the total amount of inert ingredients in the formulation.

<u>Insect growth regulator (IGR)</u> - Chemical substance which disrupts the action of insect hormones controlling molting, maturity from pupal state to adult, and other life processes.

Key locations - Areas where there are chronic or more severe problems with pests.

Key pests - Pests that recur regularly in densities that warrant control.

Label - All printed material attached to or part of the container.

Labeling - Supplemental pesticide information which complements the information on the

label, but is not necessarily attached to or part of the container.

Mildew - Fungus growth on a surface.

<u>Monitoring</u> - The regularly conducted diagnosis and recording of pest activities, population levels or levels of damage to any resource.

<u>Pesticide -</u> Defined in most State and Federal laws as any substance used for controlling, preventing, destroying, repelling, or mitigating any pest.

<u>Poison</u>- Any chemical or agent that can cause illness or death when eaten, absorbed through the skin, or inhaled by humans or animals.

<u>Poison Control Center</u> - Information source for human poisoning cases, including pesticides, usually located at major hospitals.

<u>ppb</u> - Parts per billion is the number of parts of toxicant per billion parts of the substance in question. They may include residues in soil, water or whole animals.

<u>ppm</u> - parts per million is the number of parts of toxicant per million parts of the substance in question.

<u>Protective clothing</u> - Clothing to be worn under certain conditions as required by federal law.

<u>Registered pesticides</u> - Pesticide products which have been approved by the Environmental Protection Agency for the uses listed on the label.

<u>Repellent (insects)</u> - Substance used to repel ticks, chiggers, gnats, flies, mosquitoes, and fleas.

<u>Resistance (insecticide)</u> - Natural or genetic ability of an organism to tolerate the poisonous effects of a toxicant.

<u>Restricted-use pesticide</u> - One of several pesticides designated by the EPA that can be applied only by certified applicators, because of their inherent toxicity or potential hazard to the environment.

Rodenticide - Pesticide applied as a bait, dust, or fumigant to destroy or repel rodents.

<u>Signal word</u> - A required word which appears on every pesticide label to denote the relative toxicity of the product. The signal words are either "Danger-poison" for highly toxic compounds, "Warning" for moderately toxic, or "Caution" for slightly toxic.

<u>Spot treatment</u> - Application of a pesticide to localized or restricted areas as differentiated from overall, broadcast, or complete coverage.

<u>Sticky cards</u> - A passive monitoring tool that consists of a colored piece of material (often yellow cardboard) covered with a tacky substance that insects will stick to.

<u>Structural pests</u> - Pests which attach and destroy buildings and other structures, clothing, stored food, and manufactured and processed goods. Examples: Termites, cockroaches, clothes moths, rats and dry-rot fungi.

<u>Target</u> - The plants, animals, structures, areas, or pests to be treated with a pesticide application.

Toxic - Poisonous to living organisms.

<u>Trade name (Trademark name, Proprietary name, brand name)</u> - Name given a product by its manufacturer or formulator, distinguishing it as being produced or sold exclusively by that company.

<u>Vermin</u> - Pests, usually rats, mice or insects.

III. ROLES AND RESPONSIBILITIES

The following persons are the ones who will interact throughout the system and will compose the pest management team. Their effective communication is important in assuring that our goals of maintaining an environmentally sensitive approach to pest management are met.

A. <u>Decision Makers</u>: The Decision Makers are the ones who authorize the pest management program. They control the monies to fund the program and direct the Management and Administration of the schools.

Concerned with: Costs, liability, time expended, method effectiveness, safety and occupant satisfaction.

Who are they? The Somerset County Board of Education (Administration) Supervisor of Operations (Contact Person)

B. <u>Contact Person</u>: The contact person is responsible for the implementation of the program and facilitates the communication between the decision makers and site workers. The Contact Person oversees the program and assure the program requirements are met. The Contact Person is also available to answer questions from occupants and parents.

Concerned with: Achieving pest management objectives and with customer satisfaction.

The Pest Control Manager is:	Michael Bartemy
	Supervisor of Transportation and Operations
	Somerset County Public Schools
	7982A Tawes Campus Drive
	Westover, Maryland 21871
	Phone: 410-651-1616 ext. 10227

C. <u>Occupants:</u> The occupants are our customers and are the ones who should cooperate with the sanitation requirements of the school system. Their assistance with the program is also requested by reporting any evidence of pest activity which they find.

Concerned with: Safety of pest control methods, effectiveness, possible adverse effects of any pesticides used.

D. <u>Parents</u>: Through the assistance of the Somerset County Board of Education, our parents will learn about our IPM practices and be able to follow them at home so as to not to allow pests to be carried into the school. The parents should also be aware of their child's school pest management practices.

Concerned with: Possible adverse effects of any pesticides used and the safety and well being of their children.

IV. PROCEDURES FOR CONDUCTING THE PEST CONTROL PROGRAM (Including Pest Management Objectives)

A. Procedures

Our IPM program procedures consist of various components which may not be conducted in any particular order, but are overlapping in nature when used as intended. They are a combination of practices which will help us achieve our goals for a long term pest control program. The main elements of our plan can be described as follows.

Notices will be sent out in the fall of each school year informing parents/guardians and staff of the existence of the IPM program and describing what it is.

Periodic inspections will be made to monitor pest conditions. Along with the inspections and monitoring elements will be the availability of open communication between the building occupants, the pest control manager and the contract service provider.

A logbook will be maintained so as to document the communications, reports, and/or records of the ongoing program.

Basic pest-prevention strategies will be undertaken as the fundamental concepts of our program. Such preventive measures should reduce the need for pesticide applications and include sanitation and structural repair and using physical and mechanical controls such as screens and traps.

Our IPM program will undergo periodic review to assure that the expectations of the programs intent are being met. This review will allow us to see how the program is working on a day-to-day basis and to see if any changes are necessary. Additionally, a more structured review will be undertaken annually by the Facilities department along with our IPM service provider to assess the programs effectiveness overall and make any adjustments as needed.

B. Objectives

1. Manage pests that may occur in school or on school grounds] to prevent interference with the learning environment of the students.

2. Eliminate potential injury to students, staff and other occupants.

3. Preserve the integrity of the school building or structures and grounds.

V. PROCEDURES FOR INSPECTIONS AND MONITORING

The regular inspection of the schools, including the grounds, is a vital part of our Integrated Pest Management Program. Through these inspections we can identify pests and evaluate if any further action is needed. We will use three basic components to conduct our inspections. They are:

Walk-through visual inspections of all areas of the building including grounds, use of monitoring traps, and information from school personnel, including review of the logbook.

A. Visual Inspections

The contract service provider who will be conducting the periodic inspections at the school will be familiar with the floor plan and the entire structure. The inspections will be conducted in accordance with the approved action plan. Special attention will be paid to those areas which are more prone to pests than others.

These areas include:

Cafeterias and snack rooms Food storage areas Staff lounges Family and consumer science rooms Classrooms or labs with live animals Art rooms Locker rooms Recycling collection points Loading docks.

The following guidelines will be followed when conducting the visual inspections.

1. A bright flashlight will be used during inspections to insure all areas will be seen.

2. Numbers and kinds of pests will be noted and areas will be marked on the floor plan.

3. Other evidence of pests will be noted also. This will include any

Droppings

Gnawing and/or tracks (from rodents)

Damage (such as beetle exit holes)

Shed insect skins

- 4. Window sills and door jambs will be inspected
- 5. Ceiling light fixtures will be checked
- 6. Underneath furniture will be inspected
- 7. Potential moisture problems will be indicated
- 8. Damaged screens, doors and walls which could allow pest entry, will be

noted

- 9. Most importantly, any sanitation problems will be indicated
- 10. School grounds will be inspected for signs of pest activity.

B. Monitoring Traps

1. Sticky traps

Sticky traps are glue-covered traps which are generally used to trap cockroaches, but can also be used to monitor all kinds of crawling insects. Sticky traps will be used as a monitoring device in highly susceptible areas or other areas which have had reports of pest sightings. The information gained from the numbers of pests found will be used to determine if our action threshold has been met and what, if any, further action will be undertaken.

2. Procedures for using sticky traps

a. The traps will be placed where school children are not likely to find them and will not be placed in the open.

b. Traps will also be located so as not to be affected by routine cleaning procedures.

c. Traps may be placed in the following areas:

Inside cabinets In drawers

Under sinks and stoves

Under furniture

Near water or heat sources (but not directly on)

On window ledges

On food storage shelves

d. Traps will be dated and their location noted on a floor plan

e. Traps will be checked at every inspection and will not be left out during periods when maintenance will be delayed by holidays, weekends, etc.

f. Traps will be replaced whenever they have captured pests or if they become contaminated with dust or debris.

C. Other <u>Information</u>

Communication between school staff and the contract service provider is a vital part of the IPM program record keeping. Communication may take many forms, such as:

General day-to-day discussions about ways to reduce pests by improving housekeeping or making repairs.

Answering questions about the IPM program

Reports of pest sightings and what action was taken will be recorded in the logbook

Written reports and recommendations

1. Pest Management Logbook

Each school will keep its own log book on site. The logbook shall be kept in the school office. The logbook will contain everything about the program, all pest sightings, actions taken, recommendations made and reports written. A typical logbook will be divided into the following sections:

a. General *information* - This section will contain a copy of the Integrated Pest Management Plan for the school.

b. <u>*Floor plans & map*</u>-This section will have copies of floor plans for the school which would show locations of pest control devices and areas of particular concern.

c. Pest<u>activity</u>- The log will contain information about any pest activity that has been reported on school property. The log will identify the pest sighted (if known) or description, number of pests seen or trapped, specific locations and the date and time reported.

d. Monitoring *data* - The data that is collected from monitoring traps will be recorded in this section. Information will include trap location, date, pest ID and number trapped.

e. IPM <u>service reports</u> - This section will include copies of inspection reports which may report sanitation or structural problems that need addressing and any evidence of pests found during inspections.

f. Pesticide *information* - The logbook will include pesticide labels and material safety data sheets (MSDS) for any pesticide used at the schools.

g. <u>*Pesticide information*</u> - The logbook will include pesticide labels and material safety data sheets (MSDS) for any pesticide used at the schools.

h. <u>*Miscellaneous information*</u> - This section will include any educational information on pests or pest management, correspondence or special reports.

VI. INTEGRATED PEST MANAGEMENT STRATEGIES

Pest-prevention measures can be incorporated into existing structures and on school grounds. Such preventive measures reduce the need for pesticide applications and include sanitation and structural repair and employing physical and mechanical controls such as screens and traps. The Somerset County Board of Education will endeavor to follow these policies by enforcing and adhering to practices below.

A. <u>Entryways</u>-(doorways, overhead doors, windows, holes in exterior walls, openings around pipes, electrical fixtures or ducts):

Keep doors shut when not in use. Place weather stripping on doors. Caulk and seal openings in walls. Install or repair screens. Install air curtains. Keep vegetation, shrubs, and wood mulch at least 1 foot away from structures.

B. <u>Classrooms and Offices</u> - (classrooms, laboratories, administrative offices, auditoriums, gymnasiums and hallways):

Allow food and beverages only in designated areas.

If indoor plants are present, keep them healthy. When small insect infestations appear, remove them manually.

Keep areas as dry as possible by removing standing water and water damaged or wet materials.

In the science lab, store animal foods in tightly sealed containers and regularly clean cages. In all areas, remove dust and debits.

Routinely clean lockers and desks.

Frequently vacuum carpeted areas.

If students get head lice, consult with your local health department and have their parents contact a physician. Discourage students from exchanging hats or caps at school.

C. <u>Food Preparation and Service Areas</u> - (dining room, main kitchen, teachers' lounge, home economics kitchen, snack area, vending machines, and food storage rooms):

Store food and waste in containers that are inaccessible to pests. Containers must have tight lids and be made of plastic, glass, or metal. Waste should be removed at the end of each day.

Place screens on vents, windows, and floor drains to prevent cockroaches and other pests from using unscreened ducts or vents as pathways.

Create inhospitable living conditions for pests by reducing availability of food and water - remove food debris, sweep up all crumbs, fix dripping faucets and leaks, and dry out wet areas.

Improve cleaning practices, including promptly cleaning food preparation equipment after use and removing grease accumulation from vents, ovens, and stoves. Use caulk

or paint to seal cracks and crevices.

Capture rodents by using mechanical or glue traps. (Traps will be placed in areas that are inaccessible to children. Mechanical traps including glue boards, used in rodent control will be checked daily. Dispose of killed or trapped rodents within 24 hours.)

D. <u>Rooms and Areas With Extensive Plumbing</u> - (bathrooms, rooms with sinks, locker rooms, dishwasher rooms, home economics classrooms, science laboratories, swimming pools, and greenhouses):

Promptly repair leaks and correct other plumbing problems to deny pests access to water.

Routinely clean floor drains, strainers and grates. Seal pipe chases.

Keep areas dry. Avoid conditions that allow formation of condensation. Areas that never dry out are conducive to molds and fungi. Increasing ventilation may be necessary.

Store paper products or cardboard boxes away from moist areas and direct contact with the floor or walls. This practice also allows for ease in inspection.

E. <u>Maintenance Areas - (boiler room, mechanical room, janitorial-housekeeping areas, and pipe chases)</u>:

After use, promptly clean mops and mop buckets; dry mop buckets and hang mops vertically on rack above floor drain.

Allow eating only in designated eating areas.

Clean trash cans regularly, use plastic liners in trash cans, and use secure lids. Keep areas clean and as dry as possible, and remove debris.

F. Grounds - (lawns, flower beds, environmental areas, ditches, etc.)

Pickup food wrappers and drink containers to remove food sources. Check plants for pest activity. Caulk cracks and crevices permitting pest access to interior of buildings.]

G. Pesticide Use Control Methods - Interior

Pesticide applications shall be made only to areas of known pest infestation or activity and where alternative control measures such as traps, caulking, sealing, cleaning and disposal of goods were not successful or are not feasible. Application of pesticides shall not occur until each inspection has been completed. Pesticide applications which may impact the operations or occupants of a school building or its grounds shall be permitted only during hours when the school building is closed. A contingency plan for performing pesticide application in a school building will be part of the Pest Management Action Plan and Service Schedule. This should include a list of pesticide products, formulations, application methods, etc., that may be needed in a specific school building. The threshold levels for pests at which action will be taken will be recommended by the Contract Service Provider.

H. Pesticide Use Control Methods - Grounds

Selected non-chemical pest management methods will be implemented whenever possible to provide the desired control. The choice of using pesticides will be based on a review of all other available options and a determination that these options are unreasonable or have been exhausted, in order to minimize the use of pesticides. Our in house site grounds crew shall minimize the use of any potential exposure to pesticides wherever possible. For example:

- 1. Use nonchemical control methods and materials.
- 2. Use spot treatments of pesticides. Treat only heavily infested plants.
- 3. Integrate control methods (i.e., plant selection, timing of watering, mechanical weed control, etc).
- 4. Use pesticide application techniques, such as soil injections, rather than foliar applications, when possible.
- 5. Routine spray treatments are prohibited unless specifically requested and approved by the contact person and are acceptable only on a case-by-case basis.

Pesticides applications that may impact the operations or occupants of a school building shall be permitted only during hours when the school building is closed and after all notification procedures have been met.

The management of weeds on school grounds is an important component of an IPM program in order to reduce or eliminate additional pest harborage and breeding sites when approximately 10 percent of the plant is affected. Treatments should be considered when 10 percent of a plant's foliage is removed or discolored, or if the pest has the potential to kill the plant, as is the case with some boring and scale insects. Weed control may involve the use of pesticides if nontoxic options are unreasonable or have been exhausted.

Controls should be initiated against weeds in sidewalks, play areas, parking areas, and driveways when they pose a threat to safe pedestrian traffic or create serious structural damage to these surfaces.

When it is determined that a pesticide must be used to meet vital pest management goals, the least hazardous pesticide will be selected. Only pesticides registered by the U.S. Environmental Protection Agency and the Maryland State Chemist may be applied. Applications will only be made to those weeds or plants that require treatment. The application os such pesticides are subject to the School District's/Board of Education's policies and procedures and all applicable state, federal and local regulations including the Maryland Pesticide Applicators Law and Regulations, and the Federal Insecticide, Fungicide, and Rodenticide Act.

We shall minimize the use of and potential exposure to pesticides wherever possible. For example:

1. We will use alternative control methods and materials.

2. We will use crack and crevice application of pesticides in pest harborage areas.

3. We will integrate control methods (i.e., structural repairs, trapping, sanitation, etc.)

4. Pesticide space sprays (including fogs and ultra low volume applications) will be restricted

to unique situations for which no alternative measures are practical or effective.

5. Routine preventive spray treatments are prohibited. The broadcast or barrier treatment of an interior or exterior area with a pesticide must be specifically requested by the Contractor and approved by the SDR prior to performing the treatment.

Use of Pesticides: Our Contract Service Provider will be responsible for application of pesticides according to the label. All pesticides that will be used will be registered with the U.S. Environmental Protection Agency (EPA) and by the State of Maryland. Transport, handling and use of all pesticides shall be in strict accordance with the manufacturers label instructions and all applicable Federal, state and local laws and regulations.

Our Contract Service Provider will adhere to the following rules for pesticide selection and use:

1. <u>Application by Need:</u> Pesticide application shall be according to need and not by schedule. As a general rule, application of pesticides in any inside or outside area shall not occur unless visual inspections or monitoring devices indicate the presence of pests in that specific area.

No application of a pesticide will be undertaken by a Contract Service Provider without the express permission from BOE in order to assure compliance with Notification requirements of the Integrated Pest Management Program as regulated by the Maryland Department of Agriculture.

2. <u>Pesticide Products and Their Use:</u> When it is determined that a pesticide must be used in order to obtain adequate control, we will employ the least hazardous material, most precise application technique and minimum quantity of pesticide necessary to achieve control. Containerized and other types of crack and crevice applied bait formulations, rather than sprays, shall be used for cockroach and ant control wherever appropriate. As a general rule, liquid aerosol or dust formulations shall be applied only as crack and crevice treatments with application devices specifically designed or modified for this purpose. "Crack and crevice treatment" is defined as an application of small amounts of insecticides into cracks and crevices in which insects hide or through which they may enter a building.

Application of pesticide liquid, aerosol or dust to exposed surfaces and pesticide space sprays (including fogs, mists and ultra-low volume applications, or outside spot applications), shall be restricted to unique situations where no alternative measures are practical. All necessary precautions will be taken to ensure student and staff safety and all necessary steps to ensure the containment of the pesticide to the site of application.

3. <u>Pesticide Storage/Disposal:</u> We shall not store or dispose of any pesticide product for interior use on Somerset County Board of Education property. Products stored for outside/grounds use will comply with all federal, state and local regulations.

4. <u>Rodent Control</u>: As a general rule, rodent control inside occupied buildings shall be accomplished with trapping devices. All such devices shall be concealed out of the general view and in protected areas so as not to be affected by routine cleaning and other operations. Trapping devices shall be checked on a regular schedule. Trapping shall not be performed during periods when maintenance will be delayed by holidays, weekends, etc.

In circumstances when rodenticides are deemed essential for adequate rodent control inside occupied buildings[or on school grounds,] the rodenticides, regardless of packaging, shall be placed either in locations inaccessible to children, pets, wildlife and domestic animals-or in EPA approved, tamper-resistant bait boxes. As a general rule, rodenticide applications outside buildings shall emphasize the direct treatment of rodent burrows, wherever feasible. Frequency of bait box servicing shall depend upon the level of rodent infestation. All bait boxes shall be maintained in accordance with EPA regulations, with an emphasis on the safety of non-target organisms. We will endeavor to adhere to the following rules:

Before any bait boxes are set, we will post notifications in required areas as per our IPM Program and the Maryland Department of Agriculture regulations. All bait boxes shall be placed out of the general view, in locations where they will not be disturbed by routine operations.

The lids of all bait boxes shall be securely locked or fastened shut.

All bait boxes shall be securely locked, attached or anchored to the floor ground, wall or other surface, so that the box cannot be picked up or moved.

Bait shall always be placed in the baffle-protected feeding chamber of the box and never in the runway of the box.

All bait boxes shall be labeled with the Contract Service Provider's business name and address and dated by the Service Provider at the time of installation and at each servicing.

Location of bait boxes should be documented on a floor plan or log book or site plan.

VII. EDUCATION AND TRAINING OF STAFF, PARENTS/GUARDIANS AND STUDENTS.

The education and training of staff, parents/guardians and students is an important aspect of a working Integrated Pest Management Plan. We may conduct this training in any number of ways including informational letters at the beginning of each school year, newsletters, announcements, hand delivered letters, notice postings, etc. The Pest Control Manager is also available for any further information that is desired by parents or staff.

Additionally, the Contractor's Technical Program Supervisor shall annually attend a meeting with the Pest Manager, School Administration and other concerned individuals to review the status of the program and address the pest management activities provided by the Contractor. Once each school year the Contractor's Technical Program Supervisor/or Pest Control Manager will attend a Board of Education meeting where they will inform the public of the IPM program and be available to address any concerns the public may have.

VIII. ANNUAL REVIEW AND EVALUATION OF IPM PROGRAM

The IPM program will undergo periodic review by the Contractor along with the Pest Manager to assure that all expectations are being met. This review will allow us to see how the program is working on a day-to-day basis and to see if any changes are necessary. Additionally, a more structured review will be undertaken annually by the Facilities Department along with the Contractors Technical Program Supervisor to assess the program's effectiveness overall and make any adjustments as needed.

In general the annual review will answer questions similar to:

Are all pest populations below action thresholds? Have all objectives been achieved? Is the monitoring program adequate? Should other actions be tried? What problems have been identified? What changes are necessary?

IX. PROCEDURES FOR NOTIFICATION OF PESTICIDE APPLICATIONS.

The following information will constitute our procedures for notification of staff, parents/guardians and students, before a pesticide application is conducted in any Somerset County School or on any school grounds.

A. Space Spraying- Attachment C

.Before there is any type of space spraying done in any school building written notice shall be sent home by the school with every student and staff member at least one week before the application. (*Note: If an emergency exists, a pesticide may be applied in a school or on school grounds, without prior notification. If such a situation occurs, notifications will be sent out within 24 hours of the application or on the next school day.*) The Notice content will be recommended by the Pest Control Manager as specified in the Department of Agriculture regulations.

The Notices shall be on an 8 ¹/₂ x 11 piece of paper and will contain the following information:

1. Common name of pesticide

2. Location of space spraying

3. Planned date and time of space spraying

4. A brief description of the potential adverse effects of the pesticide as described on the MSDS.

5. And the following language: "The Office of Pesticide Programs of the United States Environmental Protection Agency has stated: *'Where possible, persons who potentially are more sensitive, such as pregnant women and infants (less than 2 years old), should avoid any unnecessary pesticide exposure.*"

6. A brief description, approved by the MDA, of the pesticide if it was not listed at the beginning of the year.

B. Bait Stations - Attachment D

Before any type of bait station is used in any school an in-school Notice shall be posted by the Service Provider on the door of the room or primary entrance to the area in which the bait station is placed. The Notice will include the following information and will remain posted until the bait station is removed.

1. The words "Caution - Pesticide Application"

2. The common name of the pesticide in the bait station

3. The date the bait station was placed in the room

4. The name and phone number of the contact person (the Pest Manager) for additional information, including information on potential adverse effects.

C. Pesticide Application - Attachment E

1. Elementary School

During the school year, if a pesticide is going to be applied in an Elementary School or on school grounds,] a written notice shall be sent home <u>by the school</u> with each student and staff member at least 24 hours prior to the application. <u>The Notice contents will be recommended</u> <u>by the Pest Control Manager based on specifications in the Department of Agriculture</u> <u>regulations.</u> (Note: If an emergency exists, a pesticide may be applied in a school or on school grounds without prior notification. If such a situation occurs, notifications will be sent out within 24 hours of the application or on the next school day.) The written Notice will contain the following information:

a. The common name of the pesticide that will be applied

b. The location of the application

c. The date and time of the application

d. A brief description, approved by the Department of Agriculture, of potential adverse effects of the pesticide applied, based upon the material safety data sheet.

e. The following language: "The Office of Pesticide Programs of the United States Environmental Protection Agency has stated: *'Where possible, persons who potentially are more sensitive, such as pregnant women and infants (less than 2 years old), should avoid any unnecessary pesticide exposure.*",

f. Reason for emergency application, if applicable.

2. Middle and/or High Schools

a. Individuals on Pesticide Notification List

During the school year, if a pesticide is going to be applied in a Middle or High School, or [on school grounds] notice shall be given to each parent/guardian and staff member that is on the Pesticide Notification list at least 24 hours prior to the application. This notification <u>shall be made by the school</u> and may be made by a written notice sent home with the student/staff member, a telephone call, by direct contact; or a written notice mailed at least 3 days prior to the application. <u>Any written Notice content will be recommended by the Pest Control Manager as specified in the Department of Agriculture regulation. (Note: If an emergency exists, a pesticide may be applied in a school or on school grounds without prior notification. If such a situation occurs, notifications will be sent out within 24 hours of the application or on the next school day.) The Notice will contain the following information:</u>

i. The common name of the pesticide that will be applied ii. The location of the application iii. The date and time of the application

iv. A brief description, approved by the Department of Agriculture, of potential adverse effects of the pesticide applied, based upon the material safety data sheet.

v. The following language: 'The Office of Pesticide Programs of the United States Environmental Protection Agency has stated: 'Where possible, persons who potentially are more sensitive, such as pregnant women and infants (less than 2 years old), should avoid any unnecessary pesticide exposure.'''

vi. Reason for emergency application, if applicable.

b. In-School Notification for all Students & Staff - Attachment F

Before a pesticide is applied in any middle/high school, in addition to the notifications specified in subsection a) above, in-school and grounds signage shall be posted at the room or area of the pesticide application by the Service_Provider. Also, a Notice will be posted either at the primary entrance to the school, in a central school location, or at the exterior site which is accessible to parents/guardians, students and staff.

The in-school notification may also be made by an oral announcement or by written notice.

The Notice or sign will contain the following information:

- i. The words "Caution Pesticide Application'
- ii. The common name of the pesticide applied.
- iii. The date of the application

iv. The name and phone number of the contact person (the Pest Manager) for additional information.

c) Posting on School Grounds.

When a pesticide application is made on school grounds, a sign must be posted at the time of the application at each primary access to the school property. If a spot or limited area pesticide application is made, a sign may be posted at the location where the pesticide application was made.

This notice will remain posted for at least 72 hours after a pesticide is applied.

I.P.M Program Initial Notice for Secondary Schools

At the beginning of each school year, each school must notify all parents/guardians and staff of their school, about the Somerset County Board of Education Integrated Pest Management System.

A. What is the Integrated Pest Management System?

Integrated Pest Management, or IPM, is a system of controlling pests that does not depend on automatic application of pesticides. Instead, pests are monitored by regular and careful inspections. The inspections also identify conditions contributing to pest problems. It is then decided what actions are necessary, if any, based on the biology and habits of the pests involved. Priority is given to nonchemical pest management techniques, particularly those that can prevent a recurrence of the problem. Pesticides are used when necessary, but only in a way that minimizes potential exposure to people and the environment. Records are kept to track problems, prevent recurrences, and evaluate the results of pest management actions.

 B. What are the names of the pesticides and bait stations that may be used in my School? Wasp-Freeze, Catalyst, Weather Blok Bait, Max Force Roach FC Gel Max Force FC Ant Station, Diazinon 4E, Round Up



C. Who is the person that I may call if I have any question?

Michael Bartemy Supervisor of Transportation and Operations Somerset County Public Schools 7982A Tawes Campus Drive Westover, Maryland 21871 410-651-1616 xt.10227

Mr. Bartemy, identified above as the contact person for further questions, will also have the product labels and Material Safety Data Sheets for all pesticides and bait stations that may be used in your school. This information is available at your school and at the following location: Facilities Department, Somerset County Board of Education, 7982-A Tawes Campus Drive, Westover,

Maryland 21871 and is available for your review at any time. Mr. Bartemy is also available for any additional information you may need and will be happy to listen to any comments you may have.

Attachment A-1

We understand that certain individuals may have conditions that may be aggravated by the use of any of the above listed materials. As a result, Somerset County School System has established a registry for those *Middle and High School* students and staff who may have medical conditions requiring notification <u>prior to the use of these</u> materials. Each Middle School and High School shall develop a pesticide notification list of each staff member and parent/guardian of a student attending the school who requests in writing to have prior notification of a pesticide application made during the school year. A list of these individuals will be maintained at your school's office and at the Board of Education Central Office. Further questions and additional information can be obtained by contacting Michael Bartemy at (410)-651-1616 x 227.

In order to have your child placed on the Registry, please complete and return the following information.

	(Detach and Return to Your School) CHEMICAL SENSITIVITY REGISTRY	
Date:		
Student's (Staff) Name: Name of Parent or Guardian Address:	1:	-
Telephone Number:.		
	FOR OFFICE USE ONLY	
Date Mailed	Date Received	
Additional Information or C	Comments:	

Attachment A-1

I.P.M. INITIAL NOTICE FOR ELEMENTARY SCHOOLS

At the beginning of each school year, each school must notify all parents/guardians and staff of their school, about the Somerset County Board of Education Integrated Pest Management System.

A. What is the Integrated Pest Management System?

Integrated Pest Management, or IPM, is a system of controlling pests that does not depend, on automatic application of pesticides. Instead, pests are monitored by regular and careful inspections. The inspections also identify conditions contributing to pest problems. It is then decided what actions are necessary, if any, based on the biology and habits of the pests involved. Priority is given to nonchemical pest management techniques, particularly those that can prevent a recurrence of the problem. Pesticides are used when necessary, but only in a way that minimizes potential exposure to people and the environment. Records are kept to track problems, prevent recurrences, and evaluate the results of pest





B. What are the names of the Pesticides and bait stations that may be used in my school?

Wasp-Freeze, Catalyst, Weather Blok Bait, Max Force Roach FC Gel Max Force FC Ant Station, Diazinon 4E, Round Up

B. Who is the person that I may call if I have any questions?

Michael Bartemy Supervisor of Transportation and Operations Somerset County Public Schools 7982A Tawes Campus Drive Westover, Maryland 21871 410-651-1616 x 10227

Mr. Bartemy, identified above as the contact person for further questions, will also have the product labels and Material Safety Data Sheets for all pesticides and bait stations that may be used in your school. This information is available at your school and at the following locations: Facilities Department, Somerset County Board of Education, 7982-A Tawes Campus Drive, Westover, Maryland 21871 and is available for your review at any time. Mr. Bartemy, Supervisor of Transportation and Operations is also available for any additional information you may need and will be happy to listen to any comments you may have.

D. Notifications before pesticide use.

Additional notifications throughout the school year will be sent to all parents/guardians and staff members in an Elementary School before any application of a pesticide is necessary. These written notices will be sent home with each student and provided to each staff member at least 72 hours before any application. Please remember that the idea behind an Integrated Pest Management Plan is to utilize all other non-chemical means to eliminate pests before a pesticide is used. It is our intention to continue to adhere to this

practice.

PESTICIDE NOTIFICATION LIST

SCHOOL NAME: _____

SCHOOL YEAR:

Student/St	aff Name	Parent/Guard	ian Name
Addr	955	- Phone No	Imber
Date Planned Pest, Appl.	Date Contacted	Date Planned Pest Appl.	Date Contacted

Attachment B

NOTIFICATION OF SPACE SPRAYING AT LEAST ONE WEEK IN ADVANCE * ALL SCHOOLS *

Dear [parent/guardian/staff member]:

Please accept this letter as written notification that it will be necessary to conduct a space spraying of a pesticide at ______ (insert name of school). Following is the pertinent information you should be aware of about the specific pesticide that will be used.

- 1. The Name of the pesticide:
- 2. The location of the pesticide application:
- 3. The date and time of the application:

Based upon the Material Safety Data Sheet from the manufacturer, the following information is listed as *potential* adverse effects of exposure to this chemical. Please note: It is important to remember that the word *'potential'* is used here and to not assume that any/all of these reactions are going to occur.

Potential effects:

Additionally, we have been advised to inform you of the following. 'The Office of Pesticide Programs of the United States Environmental Protection Agency has stated: 'Where possible, persons who potentially are more sensitive, such as pregnant women and infants (less than two years old), should avoid any unnecessary pesticide exposure."

[If pesticide is not on original list at beginning year] The pesticide listed above is a – and is used to -.

If you have any questions, or would like additional information on the above, feel free to contact Michael Bartemy, Supervisor of Transportation and Operations for Somerset County Board of Education, who is our Pest Control Coordinator. He may be reached at (410) 651-1616 x 227.

Sincerely,

Attachment C

NOTICE PEST BAIT STATIONS HAVE BEEN PLACED ON THESE PREMISES CAUTION - PESTICIDE APPLICATION

AREA CONTAINING BAIT STATIONS:

DATE BAIT STATION PLACED:

FOR FURTHER, INFORMATION & INFORMATION ON POTENTIAL ADVERSE EFFECTS CONTACT:

Michael Bartemy, Supervisor of Transportation and Operations Integrated Pest Management Plan Manager Somerset County Board of Education

410-651-1616 ext. 10227

For non-emergency pesticide information on product chemistry, protective equipment, safety, health and/or environmental effects, clean- up, disposal, and regulations call the:

Pesticide Information: National Pesticide Telecommunications Network 1-800-858-7378

This toll-free service is funded by EPA and operated by the Oregon State University. The service is available from 9:30 AM to 7:30 PM EST Monday through Friday.

Attachment D

NOTIFICATION OF PESTICIDE APPLICATION ELEMENTARY AND MIDDLE/HIGH SCHOOL NOTIFICATION LIST AT LEAST 24 HOURS IN ADVANCE

(will also be used for emergency applications)

Dear [parent/guardian/staff member]:

Please accept this letter as written notification that it **[will be] [was]** necessary to apply a pesticide at (**insert name of school**). Following is the pertinent information you should be aware of about the specific pesticide that **[was] [will be]** used.

- 1. The Name of the pesticide:
- 2. The location of the pesticide application
- 3. The date and time of the application:

Based upon the Material Safety Data Sheet from the manufacturer, the following information is listed as *potential* adverse effects of exposure to this chemical. Please note: It is important to remember that the word "*potential*" is used here and to not assume that any/all of these reactions are going to occur.

Potential effects:

Additionally, we have been advised to inform you of the following. 'The Office of Pesticide Programs of the United States Environmental Protection Agency has stated: 'Where possible, persons who potentially are more sensitive, such as pregnant women and infants (less than two years old), should avoid any unnecessary pesticide exposure.''

[If an Emergency] We apologize for not being able to notify you before the application, but the school administration felt that this was an emergency situation. [Due to an ingestion of in the ________it was necessary to conduct an immediate application in order to assure a safe and healthy school environment for the children and staff.

Sincerely,

NOTICE CAUTION-PESTICIDE APPLICATION

AREA TO BE TREATED:

DATE OF APPLICATION:

FOR FURTHER, INFORMATION & & INFORMATION ON POTENTIAL ADVERSE EFFECTS CONTACT:

Michael Bartemy, Supervisor of Transportation and Operations Integrated Pest Management Plan Manager Somerset County Board of Education

410-651-1616 ext. 10227

For non-emergency pesticide information on product chemistry, protective equipment, safety, health and/or environmental effects, clean- up, disposal, and regulations call the:

Pesticide Information: National Pesticide Telecommunications Network 1-800-858-7378

This toll-free service is funded by EPA and operated by the Oregon State University. The service is available from 9:30 AM to 7:30 PM EST Monday through Friday.

PEST ACTIVITY LOG

DATE	LOCATION	PEST DESCRIPTION/NUMBER	NAME/PHONE	TECHNICIAN	

WEED CONTROL

DURING THE REGULAR SCHOOL YEAR, SCPS WILL USE THE FOLLOWING METHODS TO CONTROL WEEDS AROUND OUR SCHOOLS.

- Manually or mechanically pull weeds from flower beds.
- Weed eat weeds/grasses from sidewalks, parking lot cracks, exterior of buildings, etc.
- Mulch areas to keep weeds down.

These methods will be in effect from **September through mid June of each school year.

PESTICIDE APPLICATION RECORDS

NAME OF APPLICAT OR	TIME AND DAT E	CUSTOM ER NAME AND ADDRES S OF PROPER TY TREATE D	SITE OF APPLI CATIO N AND TARGE T PEST	SIZE OF AREA TREAT ED	COMMON NAME OF PESTICID E(S) USED	EPA REG. NUMB ER OF PESTI CIDE(S) USED	RATE AND CONCEN TRATION OF PESTICI DE(S)	TOTAL AMOUN T OF PESTICI DE(S)	TYPES OF APPLICATI ON EQUIPME NT	WIND SPEED AND DIRECTIO N	ADDITION AL COMMENT S

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SOMERSET COUNTY PUBLIC SCHOOLS July 2020 INTEGRATED PEST MANAGEMENT PROGRAM CALENDAR NOTIFICATION

The Integrated Pest Management (IPM) program employed by the Somerset County Public Schools is a proactive rather than a reactive approach to insect and rodent control in school facilities. The IPM program includes routine inspections or surveys of all school facilities to identify conditions conducive to pest invasion, to ensure early detection of pest presence, and to monitor infestation levels. As a first step in pest control, the IPM approach employs a number of preventative strategies and alternatives to pesticide application, such as: employee education, source reduction, inspection and identification of potential problem areas, and improved sanitation. Each approach is monitored and evaluated, and modifications are made if necessary. Pesticides are used only as a last resort.

Maryland Law requires that parents of all elementary school children be notified prior to any interior or exterior pesticide application. Parents of middle and/or high school students who wish to be notified prior to interior or exterior pesticide applications must request that they be placed on the school system's pesticide notification list. To be added to the notification list, send a written request which includes your name, address, and telephone number as well as your child/children's name(s) to:

Michael Bartemy, Supervisor of Transportation and Operations Integrated Pest Management Plan Manager Somerset County Board of Education 410-651-1616 ext. 10227

The following is a list of the pesticides and bait stations, by common name, that may be used in school buildings or on school grounds during the school year:

abamectin	diphacinone	pyrethrin
allethrin	hydramethylnon	glyphosate
boric acid	orthoboric acid	silica gel
bromadiolone	piperonyl butoxide	sulfuramid
Round-Up	sulfonamide	

Copies of material safety data sheets (MSDS) and product labels for each pesticide and bait station used on school property are maintained by the contact person. Persons wishing to review this information should contact Michael Bartemy to arrange an appointment. For additional information about the Integrated Pest Management Program, please contact Michael Bartemy at (410) 651-1616 x 227.

PARRIS N. GLENDENING, Governor HAGNER R. MISTER, Secretary BRADLEY H. POWERS, Deputy Secretary



The Wayne A. Cawley, Jr. Building 50 HARRY S. TRUMAN PARKWAY ANNAPOLIS, MARYLAND 21401 Baltimore/Annapolis (410) 841-5700 Washington (301) 261-8106 Facsimile (410) 841-5914 TTY Users 1-800-735-2258 Internet: http://www.mda.state.md.us

STATE OF MARYLAND DEPARTMENT OF AGRICULTURE

PESTICIDE REGULATION SECTION

(410) 841-5710 FAX (410) 841-2765

February 4, 2002

Bruce Horvath Talbot County Public Schools Plant Operations Department Talbot County Education Center 12 Magnolia Street P.O. Box 1029 Easton, MD 21601

Dear Bruce:

I have received the copy of Talbot County Public Schools Integrated Pest Management Plan in which you have incorporated the name and address of the Contact Person as required under Regulation 15.05.02 Integrated Pest Management and Notification of Pesticide Use in a Public School.

Upon completing the review of your revised Integrated Pest Management Plan, the Maryland Department of Agriculture has determined that all of the required components have been addressed in your plan. This letter will serve as the formal approval of Talbot County Public Schools Integrated Pest Management Plan.

Please be reminded, if any additional changes are made to the approved Integrated Pest Management Plan, the revised Plan must be resubmitted to the Maryland Department of Agriculture for approval. If you have any further questions please feel free to contact me

Sincerely.

Edward A. Crow, Entomologist

File

3/3/03

Pg1 - maintenance, repairs, sanitetur, suptrass one documented Pg3 - documentation of communications to students + staff Pg9 - label + MSDS in legbooks No appl- during visits Pg1 - No walent boit in bldg. Home Paramout 1146

"Bruce Horvath" < bhorvath@tcps.k12.md.us> From: <crowea@mda.state.md.us> To: 2/4/02 8:07AM Date: FOR YOUR APPROVAL DRAFT #3 Subject:

ED,

2

IF YOU NEED A PRINTED COPY JUST LET ME KNOW AND I WILL SEND IT OUT. THANKS, BRUCE HORVATH

TALBOT COUNTY PUBLIC SCHOOLS EASTON, MD 21601 POLICY CODE EFDA ADOPTED 1/21/98 Revised

INTEGRATED PEST MANAGEMENT PROGRAM (IPMP)

1. Policy Statement

Talbot County Public Schools (TCPS) is committed to providing a pest-free environment in all schools through the implementation of an Integrated Pest Management Program (IPMP). Our primary concern is for the health and safety of the students and staff at TCPS by avoiding the use of chemical treatment and improving the quality of the educational environment. In 1996 TCPS made the decision to concentrate our efforts in pest control through preventative routines as the main defense against pest infestation. This methodology emphasizes the use of non-chemical prevention techniques and corrective measures such as inspections, improved custodial practices, monitoring, non-chemical treatment, and structural corrections. Chemical spraying, fogging and other related treatment methods of pest problems and infestations are only to be used during the school year within the strict guidelines contained within the IPMP Program.

Structural pests, i.e. insects and rodents, carry diseases, contaminate food and food preparation areas and can cause structural damage thus posing significant problems to people, property, and the environment. Landscape pests, i.e. insects, weeds and diseases, can pose significant problems to students, staff and users of school properties. Pesticides can also pose risks through unnecessary exposures to people, property, and the environment. Pest control in the school environment must protect the health and safety of the children and staff, minimize pest damage to structures, personal property, improve the quality of the educational environment by avoiding annoyance and disruption of work and learning caused by insects, rodents and other pests. It is therefore the policy of TCPS to continue to update its Integrated Pest Management (IPMP) program for control of pests in school buildings and on school grounds.

2. Roles and Responsibilities

The IPM program will require the assistance and cooperation of the administration, staff and students. The TCPS has established the Plant Operations Supervisor to be its School District Representative (SDR) to serve as a liaison between the administration and pest control program in order to provide oversight, consistency in the pest control program and ensure the provisions of IPMP system are fulfilled. The SDR will advise the administration, staff, parents and guardians and students as necessary of IPMP program changes and new laws and regulations affecting the IPMP program.

The SDR will discuss the IPMP program and problem areas identified through the inspection and monitoring process. The SDR also serves as the liaison between the school administration and parents, guardian, students and staff to address questions and concerns regarding the IPM system and pest control practices. The SDR will make recommendations to correct problem areas.

Students and staff will comply with the provisions of the IPMP program by ensuring that areas requiring maintenance or repair, sanitation problems and pest problems or sightings are documented. Students and staff need to ensure good sanitation practices are followed.
3. Pests

Pests are populations of living organisms (insects, animals, plants, or microorganisms) that interfere with the use of the school site for human purposes. Strategies for managing pest populations will be influenced by the pest species and whether that species poses a threat to people, property, or the environment.

IPM relies on the coordinated use of pest and environmental information and the best available pest management methods to prevent unacceptable levels of pest damage by the most economical means and with the least possible hazard to students, staff, property and the environment. Long-term control of pests is achieved by using information about the biology and habits of the pest and its interaction with its surroundings.

Proper installation of plants, appropriate watering regimes, and choosing plant species that are suited to specific sites and usage are some of the most effective measures for achieving long term pest control for school landscapes and grounds.

4. Pest Management

The integrated pest management plan will be developed for TCPS as required by the Maryland's Regulations pertaining to Integrated Pest Management and Notification of Pesticide Use in a Public School Building or on School Grounds. Approved pest management plans will be developed for the site and will include any proposed pest management measures.

Pests will be managed to:

- Reduce any potential human health hazard or to protect against a significant threat to public safety.
- Prevent loss or damage to school structures or property and prevent a reoccurrence of the problem.
- Prevent pests from spreading on the school grounds or to plant and animal populations beyond the site.
- Improve the quality of the educational environment for students, staff and the public.

5. Integrated Pest Management Procedures

IPMP procedures will determine when to control pests, and identify conditions contributing to pest problems through the use of monitoring and thorough inspections conducted at regular intervals. Problem areas will be identified where alternative pest control technologies can be incorporated in order to eliminate routine pesticide applications.

The necessity for pest control, if warranted, will be evaluated based on information obtained from inspections and monitoring. These actions will be based on action threshold levels that are to be established based on the individual school site and specific pest. Within school grounds, these decisions are based on key pests; key plants, and key locations found within the landscape. Action thresholds for school grounds should be based on pest management objectives that have been established to satisfy the needs associated with the usage of specific sites.

When pest control procedures are warranted in and around school buildings, one or more pest control methods including sanitation, structural repair, cultural practices, mechanical control, biological, other non-chemical methods and pesticides will be utilized.

IPMP Contractor(s) will depend on current, comprehensive information on the pest and its environment and the best available pest control methods. By applying IPM principles, unacceptable levels of pest activity and damage will be prevented by the most economical means while minimizing the risk to human health and the environment associated with pesticide applications.

When it is determined that a pesticide must be used in order to meet vital pest management goals, the least hazardous pesticide will be selected. The application of such pesticides are subject to the TCPS policies and procedures and all applicable state, federal and local regulations including the Maryland Pesticide Applicators Law and Regulations, and the Federal Insecticide, Fungicide, and Rodenticide Act.

The choice of using pesticides will be based on a review of all other available options and a determination that these options are unreasonable or have been exhausted, in order to minimize the use of pesticides. Cost or staffing considerations alone will not be adequate justification for the use of pesticides, and selected non-chemical pest management methods will be implemented whenever possible to provide the desired control.

It is the policy of Talbot County Public Schools to utilize IPMP principles to manage pest populations adequately. The full range of pest control alternatives, including no action, will be considered.

6. Record Keeping

Records of pesticide use shall be provided to the school by the Contractor(s) at the time of the pesticide application and will be maintained by the SDR for 2 years. Records must be current and accurate. In addition, pest surveillance data sheets that record the number of pests, location, or other indicators of pest populations are to be maintained to verify the need for treatments.

Documentation of communications to students and staff regarding IPM and pesticide use will be maintained by the SDR.

7. Pesticide Purchase and Storage

Pesticide purchases will be limited to the amount authorized for use during the year. Pesticides will be stored and disposed of in accordance with the EPA-registered label directions and state regulations. Pesticides must be stored in an appropriate, secure site not accessible to students or unauthorized personnel.

8. Pesticide Applications

3

Pesticides may be used after it is determined that non-toxic options are unreasonable or have been exhausted. The least hazardous pesticide will be selected and the method and time of application will be based on the goal to minimize the potential for exposure of students and staff to the pesticide.

Pesticide applications made on school property will be conducted by a properly licensed Contractor(s), an individual certified as a pest control applicator or by a registered employee working under the supervision of a certified applicator. Applicators must be trained in the principles and practices of IPM and the use of pesticides. They must follow state and federal pesticide regulations and label precautions and comply with this IPM Policy.

- instante days

9. Program Evaluation

An annual review of the IPMP program will be conducted by the SDR to determine the effectiveness of the program and that program objectives have been achieved. This will include the review of inspection reports, sanitation reports, and other records to establish current conditions, progress of the program against pest problems and conditions, effectiveness of action thresholds, and to identify problem areas in the IPMP program that may need to be modified or changed.

10. Notification

4

TCPS will notify the school staff, students, parents and guardians prior to pesticide applications made in school buildings and on school grounds in accordance with Maryland regulations. Notices will be posted in designated areas at school and sent home to parents and guardians of elementary school students and parents and guardians of middle school students and high school students who wish to be informed in advance of pesticide applications and are on the pesticide notification list.

11. IPMP Program Manual

Each school/building's Head Custodian is provided with their own copy of the IPMP Program Manual. Additional copies are available for review in the Plant Operations Office.

TALBOT IPM PLAN 2/25/13

Talbot County Education Center

12 Magnolia St. Easton, Md 21601 Phone: 410-822-0330 Fax: 410-820-4260 www.talbotschools.org

Easton Elementary Moton

307 Glenwood Ave Easton, Md 21601 Phone: 410-822-0686 Fax: 410-822-1890 Principal: James Redman Start Time: 9:15 Regular Dismissal: 3:45 Early Dismissal: 1:45 Half Day Dismissal: 12:30 www.eastonelementary.org

Easton Elementary Dobson

305 Glenwood Ave Easton, Md 21601 Phone: 410-822-0550 Fax: 410-822-9508 Principal: James Redman Start Time: 9:15 Regular Dismissal: 3:45 Early Dismissal: 1:45 Half Day Dismissal: 12:30 www.eastonelementary.org

Chapel District Elementary

11430 Cordova Rd Cordova, Md 21625 Phone: 410-822-2391 Fax: 410-822-2039 Principal: Lisa Donmoyer, Ed.D. Start Time: 9:15 Regular Dismissal: 3:45 Early Dismissal: 1:45 Half Day Dismissal: 12:30 www.chapeldistrict.org

St. Michaels Elementary

100 Seymour Ave St. Michaels, Md 21663 Phone: 410-745-2882 Fax: 410-745-2473 Principal: Tracy Elzey Start Time: 8:02 Regular Dismissal: 2:35 Early Dismissal: 12:35 Half Day Dismissal: 11:20 www.stmichaelselementary.org

Tilghman Elementary

21374 Foster Ave Tilghman, Md 21671 Phone: 410-886-2391 Fax: 410-886-2149 Principal: Joyce Crow Start Time: 8:40 Regular Dismissal: 3:20 Early Dismissal: 1:20 Half Day Dismissal: 12:05 www.tilghmanelementary.org

White Marsh Elementary

4322 Lovers Lane Trappe, Md 21673 Phone: 410-476-3144 Fax: 410-476-5187 Principal: Marcis Sprankle, Ed.D. Start Time: 9:15 Regular Dismissal: 3:45 Early Dismissal: 1:45 Half Day Dismissal: 12:30

www.whitemarshelementary.org

Easton Middle 201 Peach Blossom Rd Easton, Md 21601 Phone: 410-822-2910 Fax: 410-822-7210 Principal: Norby Lee Start Time: 8:00 Regular Dismissal: 2:55 Early Dismissal: 12:55 Half Day Dismissal: 11:40 www.eastonmiddle.org

Easton High

723 Mecklenberg Ave Easton, Md 21601 Phone: 410-822-4180 Fax: 410-819-5814 Principal: Dave Stofa Start Time: 7:40 Regular Dismissal: 2:45 Early Dismissal: 12:45 Half Day Dismissal: 11:30 www.eastonhigh.org

St. Michaels Middle High

200 Seymour Ave St. Michaels, Md 21663 Phone: 410-745-2852 Fax: 410-745-9939 Principal: Helga Einhorn Start Time: 7:50 Regular Dismissal: 2:50 Early Dismissal: 12:45 Half Day Dismissal: 11:30 www.stmichaelsmiddlehigh.org

MDA 24937 3C,6 Tom Wunch #18090 Rolph Potter



The Wayne A. Cawley, Jr. Building 50 HARRY S. TRUMAN PARKWAY ANNAPOLIS, MARYLAND 21401 Baltimore/Annapolis (410) 841-5700 Washington (301) 261-8106 Facsimile (410) 841-5914 TTY Users 1-800-735-2258 Internet: http://www.mda.state.md.us

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STATE OF MARYLAND DEPARTMENT OF AGRICULTURE

PESTICIDE REGULATION SECTION

(410) 841-5710 FAX (410) 841-2765

March 18, 2002

Dennis McGee Director of Facilities Management Washington County Public Schools Office of Facilities Management P.O. Box 730 820 Commonwealth Avenue Hagerstown, MD 21741-7030

Dear Mr. McGee:

PARRIS N. GLENDENING, Governor

BRADLEY H. POWERS, Deputy Secretary

HAGNER R. MISTER, Secretary

I have received the corrected copy of Washington County Public Schools Integrated Pest Management Plan in which the necessary changes have been incorporated. Upon completing the review of your revised Integrated Pest Management Plan, the Maryland Department of Agriculture has determined that all of the required components have been addressed in your plan. This letter will serve as the formal approval of Washington County Public Schools Integrated Pest Management Plan.

Please be reminded, if any additional changes are made to the approved Integrated Pest Management Plan, the revised Plan must be resubmitted to the Maryland Department of Agriculture for approval. If you have any further questions please feel free to contact me

Sincerely. Elward a. Cow

Edward A. Crow, Entomologist Pesticide Regulation Section

File cc: Paul Breakall

Integrated Pest Management Plan WASHINGTON COUNTY PUBLIC SCHOOLS P. O. BOX 730, 820 COMMONWEALTH AVENUE, HAGERSTOWN, MD 21741-0730 PHONE: 301-766-2860 • FAX: 301-766-2867 • E-MAIL: MCGEEDEN@WCBOE.K12.MD.US SCHOO Updated February 2002

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INTEGRATED PEST MANAGEMENT for the WASHINGTON COUNTY PUBLIC SCHOOL SYSTEM

POLICY STATEMENT

Structural and landscape pests can pose significant problems to people, property, and the environment. It is, therefore, the policy of the Washington County Public School System to incorporate Integrated Pest Management (IPM) procedures for control of structural and landscape pests.

PESTS

Pests are populations of living organisms (animals, plants, or microorganisms) that interfere with use of the school site for human purposes. Strategies for managing pest populations will be influenced by the pest species and whether that species poses a threat to people, property, or the environment.

PEST MANAGEMENT

Pests will be managed to:

- Reduce any potential human health hazard or to protect against a significant threat to public safety.
- Prevent loss of or damage to school structures or property.
- Prevent pests from spreading into the community, or to plant and animal populations beyond the site.
- Enhance the quality of life for students, staff, and others.

INTEGRATED PEST MANAGEMENT PROCEDURES

IPM procedures will determine when to control pests and whether to use mechanical, physical, chemical, cultural, or biological means. IPM practitioners depend on current, comprehensive information on the pest and its environment and the best available pest control methods. Applying IPM principles prevents unacceptable levels of pest activity and damage by the most economical means and with the least possible hazard to people, property, and the environment.

The choice of using a pesticide will be based on a review of all other available options and a determination that these options are not acceptable or are not feasible. Cost or staffing considerations alone will not be adequate justification for use of chemical control agents, and selected non-chemical pest management methods will be implemented whenever possible to provide the desired control. It is the policy of this school system to utilize IPM principles to manage pest populations adequately. The full range of alternatives, including no action, will be considered. When it is determined that pesticide must be used in order to meet important management goals, the least hazardous (*) material will be chosen. The application of pesticides is subject to the Federal Insecticide, Fungicide, and Rodenticide Act (7 United States Code 136 et seq.). School System policies and procedures, Environmental Protection Agency regulations in 40 Code of Federal Regulations, Occupational Safety and Health Administration regulations, and State and Local regulations.

*Precautionary statements are required on all pesticide labels. Signal words indicate the level of acute toxicity, the hazard to humans posed by the pesticide product. Every label bears the child hazard warning: "Keep out of reach of children."

EDUCATION

Staff, students, pest managers, and the public will be educated through notices and the school calendar about potential school pest problems and the IPM policies and procedures to be used to achieve the desired pest management objectives.

RECORD KEEPING

Records of pesticide use shall be maintained on site to meet the requirements of the State regulatory agency and School System. Records must be current and accurate if IPM is to work. In addition, pest surveillance data sheets that record the number of pests or other indicators of pest populations are to be maintained to verify the need for treatments.

NOTIFICATION

This School district will notify the school staff, students, parents and guardians prior to pesticide applications made in accordance with Maryland regulations. Notices will be posted in designated areas at school and sent home to parents and guardians of elementary school students and individuals who wish to be informed in advance of pesticide applications and are on the pesticide notification list.

Maryland Law requires that parents of all elementary school children be notified prior to pesticide applications. Parents of middle school or high school students who wish to be notified prior to pesticide applications must request that they be placed on the school system's pesticide notification list. To be added to the notification list, send a written request which includes your name, address, and telephone number as well as your child's name and school to:

Dennis McGee, Director of Facilities Management Washington County Public School System 820 Commonwealth Avenue Hagerstown, Md. 21740

<u>BUILDINGS</u>

Notification of a pesticide application in an Elementary, Middle and High School The notification will be provided to each parent or guardian of an elementary student and to each parent or guardian and staff member on the pesticide notification list 24 hours prior to a pesticide application.

Notification of an Emergency Pesticide Application

The notification will be provided to each parent or guardian of an elementary student and to each parent or guardian and staff member on the pesticide notification list within 24 hours of an emergency pesticide application.

Notification of a Space Spraying

The notification (a separate $8-1/2 \times 11$ inch notice) will be provided at least one (1) week prior to a space spraying to each parent or guardian and staff member on the pesticide notification list.

GROUNDS

ELEMENTARY SCHOOL

Parents or guardians of elementary school students and staff members employed by elementary schools must be notified at least 24 hours before a pesticide is applied to school grounds, notification must be made within 24 hours of the application. For pesticide applications made on school grounds, the notice of planned date and time of application may specify that weather conditions or other extenuating circumstances may cause the actual date of application to be postponed to a later date or dates. If the actual date of application is more than 14 days later than the original planned date of the application, a new notice will be issued. All of the information that must be provided as part of the notification requirements for pesticide applications made in school buildings will be included as part of the grounds notification.

MIDDLE SCHOOL AND HIGH SCHOOL

Parents or guardians of middle school or high school students and staff members employed by middle schools and high schools who are on the pesticide notification list will be notified by the school 24 hours before a pesticide is applied to school grounds. Notification will occur within 24 hours after an emergency pesticide application to school grounds. For pesticide applications made on school grounds, the notice of planned date and time of application may specify that weather conditions or other extenuating circumstances may cause the actual date of application to be postponed to a later date or dates. If the actual date of application is more than 14 days later than the original planned date of the application, a new notice will be issued. All of the information that must be provided as part of the notification requirements for pesticide applications made in school buildings will be included as part of the grounds notification.

PESTICIDE STORAGE AND PURCHASE

Pesticide purchases will be limited to the amount authorized for use during the year. Pesticides will be stored and disposed of in accordance with the EPA

registered label directions and State regulations. Pesticides must be stored in an appropriate, secure site not accessible to students or unauthorized personnel.

PESTICIDE APPLICATORS

Pesticide applicators must be educated and trained in the principles and practices of IPM and the use of pesticides approved by this School System, and they must follow regulations and label precautions. Applicators must be certified or registered and comply with this School System IPM policy and Pest Management Plan.

CONTRACT SERVICES

A licensee, permittee, or certificate holder may not apply a pesticide in schools and on school grounds until the proper notification has been provided, unless the pesticide application has been made in accordance with an emergency situation.

Any individual applying a pesticide in a school must be:

- Certified as a pest control applicator or public agency applicator through the Maryland Department of Agriculture, or
- A registered employee that has completed a training program as required under Section 15.05.01.04 of the Regulations pertaining to the Pesticide Applicators Law. Each registered employee must work under the supervision of a certified applicator.

A licensee, permittee, or certified applicator must provide the school with a record of each pesticide application at the time of the application.

PEST MANAGEMENT ROLES

Functions and responsibilities of the pest management personnel are as follows:

STUDENTS AND STAFF

The most important assistance that staff and students can give to an effective IPM program is through the use of sanitation. Many of the pest problems in schools and on school grounds can be reduced, or even prevented from occurring, if students and staff ensure that proper sanitation practices are followed. The more cooperation that is received from these parties the better the results achieved by the IPM program.

Some areas that receive special attention due to their susceptibility for pest problems include coffee and snack areas, staff lounges, refrigerators and microwaves, vending machines, mop closets, trash cans, desks and lockers.

Students can help prevent pest problems by:

- Cleaning up leftover food
- Not leaving food in lockers
- Not placing gum under desks
- Removing paper clutter
- Keeping food and beverages in designated areas
- Reporting pests, when noticed, to teachers

Staff can help in the prevention of pest problems by:

- Leaving pest control and pest management to trained professionals
- Not moving sticky traps or other pest monitoring devices
- Not propping open windows or screens
- Removing trash, especially trash that contains food
- Keeping areas dry by removing standing water and items that are wet or have been damaged by water
- Storing animal feed in tightly sealed containers, cleaning up spills immediately and cleaning cages on a regular basis
- Keeping instructional food items, such as dried beans used for math exercises, in tightly sealed containers
- Keeping refrigerators, vending machines and microwaves clean and free of spills at all times
- Avoiding the use of shelf paper
- Discarding any infested materials or food items

PARENTS

It is just as important to receive the same commitment from parents, since they also play an important role in the effectiveness of the pest management program in schools. IPM programs and the people providing these services need the support of parents.

Parents can help in the prevention of pest problems by:

- Encouraging children to lend a hand in cleaning up
- Discouraging children from keeping food in their lockers and desks

IPM is a way to help insure a clean and safe school environment for students. Additional information on pest management programs within the school system can be obtained by contacting school administrators.

PEST MANAGEMENT TEAM

The pest management team consists of the people who observe and evaluate the site, direct others to do so, and decide what needs to be done to achieve the site pest management objectives. The pest management team shall be the head custodian, pest control specialist and the director of facilities management.

CONTACT PERSON

Copies of M.S.D.S. and product labels for each pesticide and bait stations used on school property are maintained by the contact person. <u>Persons wishing to review</u> this information should contact Dennis McGee to arrange for an appointment. For additional information about the I.P.M. program you may also contact Dennis McGee - phone 301-766-2862.

AUTHORIZATION

The pest control specialist at the facilities management department shall serve as the primary management administrator. Costs, time expended, safety, occupant satisfaction, and authority to approve pest management solutions will fall within this area of responsibility.

EDUCATION

The IPM program shall include a commitment to the education of students, staff and parents. Basic concepts of IPM and who to contact with questions or problems are to be included. All pesticide products shall be applied only by designated personnel.

PEST MANAGEMENT OBJECTIVES

Pest management objectives differ from site to site and these differences must be considered before setting action threshold levels.

Examples of pest management objectives include:

- Manage pests that may occur on school sites to prevent interference with the learning environment of the students.
- Eliminate injury to students, staff and other occupants.
- Preserve the integrity of the school building or structures.
- Provide the safest playing or athletic surfaces possible.

INSPECTION

An IPM program consists of a cycle of inspecting, identifying, monitoring, evaluating, and choosing the appropriate method of control. Routine inspection and accurate identification of pests are vital steps in IPM to ensure that control methods will be effective. Once the pest has been identified and the source of its activity pinpointed, habitat modifications - primarily, exclusion, repair, and sanitation efforts -may greatly reduce the prevalence of the pest. Monitoring includes inspecting areas for pest evidence, entry points, food, water, and harborage sites, and estimating pest population levels. The information gained through monitoring is evaluated to determine whether the action threshold has been exceeded and what can be done in the way of prevention.

ACTION THRESHOLDS

An action threshold is the level at which action is initiated. The action threshold is set by the custodial engineer and the pesticide specialist with input from the occupants. The presence of some pests does not, in itself, necessarily require action.

In most instances, a certified applicator (pest control specialist) will be consulted and secured when pesticides are deemed necessary. A final determination will be based upon the information obtained through inspection, identifying and monitoring.

PEST	NUMBER OF PESTS
ANTS	When determined a nuisance by management team
BEES & WASPS	When nests are present
BOXELDER BUGS	When determined a nuisance by management team
FLEAS	-1-
FLYS	When determined a nuisance by management team
MICE/RODENTS	-1-
ROACHES	-1-
SPIDERS	When determined a nuisance by management team
TERMITES	-1-

THRESHOLD NUMBERS

IPM STRATEGIES

Universal pest prevention and control measures will be utilized throughout the Washington County Public School System.

Preventive measures such as structural repair, screens, traps, air door etc., will be utilized when possible and implemented through the procedures outlined in the county Comprehensive Maintenance Plan.

Preventive measures are designed to reduce the need for pesticide applications.

IPM INDOOR STRATEGIES

Typical Pests

Mice, rats, cockroaches, ants, flies, wasps, hornets, yellow jackets, spiders, microorganisms, termites, carpenter ants, and other wood destroying insects. Although beneficial as predators, wasps, hornets, yellow jackets, and spiders can be troublesome.

Entry-ways

(doorways, overhead doors, windows, holes in exterior walls, openings around pipes, electrical fixtures or ducts):

- Keep doors shut when not in use.
- Place weatherstripping on doors.
- Caulk and seal openings in walls.
- Install or repair screens.
- Keep vegetation, shrubs and wood mulch at least one (1) foot away from structures.

Classrooms and Offices

(classrooms, laboratories, administrative offices, auditoriums, gymnasiums and hallways):

- Allow food and beverages only in designated areas.
- If indoor plants are present, keep them healthy. When small insect infestations appear, remove them manually.
- Keep areas as dry as possible by removing standing water and water-damaged or wet materials.
- In the lab, store animal foods in tightly sealed containers and regularly clean cages. In all areas, remove dust and debris.
- Routinely clean lockers and desks.
- Frequently vacuum carpeted areas.
- If students get head lice, consult with local health department and have their parents contact a physician. Discourage students from exchanging hats or caps at school.

Food Preparation and Serving Areas

(dining room, main kitchen, teachers lounge, home economics kitchen, snack area, vending machines, and food storage rooms):

Improve cleaning practices, including promptly cleaning food preparation

equipment after use and removing grease accumulation from vents, ovens, and stoves. Use caulk or paint to seal cracks and crevices.

- Store food and waste in containers that are inaccessible to pests. Containers must have tight lids and be made of plastic, glass, or metal. Waste should be removed at the end of each day.
- Place screens on vents windows, and floor drains to prevent cockroaches and other pests from using unscreened ducts or vents as pathways.
- Create inhospitable living conditions for pests by reducing availability of food and water - remove food debris, sweep up all crumbs, fix dripping faucets and leaks, and dry out wet areas.
- Capture rodents by using mechanical or glue traps. (Note: place traps in areas inaccessible to children. Mechanical traps, including glue boards, used in rodent control must be checked daily. Dispose of killed or trapped rodents within 24 hours).

Rooms and Areas With Extensive Plumbing

(bathrooms, rooms with sinks, locker rooms, dishwasher rooms, home economics classrooms, science laboratories, swimming pools, and greenhouse):

- Promptly repair leaks and correct other plumbing problems to deny pests access to water.
- Routinely clean floor drains, strainers, and grates. Seal pipe chases.
- Keep areas dry. Avoid conditions that allow formation of condensation. Areas that never dry out are conducive to molds and fungi. Increasing ventilation may be necessary.
- Store paper products or cardboard boxes away from moist areas and direct contact with the floor or the walls. This practice also allows for ease in inspection.

Maintenance Areas

(boiler room, mechanical room, custodial-housekeeping areas, and pipe chases):

- After use, promptly clean mops and mop buckets, dry mop buckets and hang mops vertically on rack above floor drain.
- Allow eating only in designated eating areas.
- Clean trash cans regularly, use plastic liners in trash cans, and use secure lids.
- Keep areas clean and as dry as possible, and remove debris.

IPM STRATEGIES FOR OUTDOORS

Typical Pests

Mice and rats. Turf pests-broad-leaf and grassy weeds, insects such as beetle grubs or sod webworms, diseases such as brown patch, and vertebrates such as moles. Ornamental plant pests-plant diseases, and insects such as thrips, aphids, Japanese beetles, and bag worms.

Playgrounds, Parking Lots, Athletic Fields, Loading Docks and Refuse Dumpsters

- Regularly clean trash containers and gutters and remove all waste, especially food and paper debris.
- Secure lids on trash containers.
- Repair cracks in pavement and sidewalks.
- Provide adequate drainage away from the structure and on the grounds.
- Keep dumpster away from building in an effort to minimize the potential for pest problems.

<u>Turf</u>

(lawns, athletic fields, and playgrounds):

- Maintain healthy turf by selecting a mixture of turf types (certified seed, sod, or plugs) best adapted for the area.
- Raise mowing height for turf to enhance its competition with weeds; adjust cutting height of mower, depending on the grass type; sharpen mower blades; and vary mowing patterns to help reduce soil compaction.
- Provide good drainage and periodically inspect turf for evidence of pests or diseases.
- Allow grass clippings to remain in the turf.
- Have soil tested to determine PH and fertilizer requirements.
- Time fertilizer application appropriately, because excessive fertilizer can cause additional problems, including weed and disease outbreaks. Apply lime if necessary. Use aeration to place soil on top of thatch so that microbes from soil can decompose thatch.
- Seed over existing turf in fall and early spring.

Ornamental Shrubs and Trees

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- Apply fertilizer and nutrients to annuals and perennials during active growth and to shrubs and trees during dormant season or early in the growing season.
- If using a fertilizer, use the correct one at the suitable time, water properly and reduce compaction.
- Prune branches to improve plants and prevent access by pests to structures.
- Select replacement plant material from among the many disease-resistant types being developed by plant breeders throughout the country.
- Correctly identify the pest in question. When in doubt, send several specimens to your local Cooperative Extension Service. Once the pest is identified, recommendations can be made.
- Remove susceptible plants if a plant disease recurs and requires too many resources, such as time, energy, personnel, or money. Some ornamental plants, trees and turf are so susceptible to plant diseases that efforts to keep them healthy may be useless.

Use of Pesticides

- Due to their potentially toxic nature, pesticides will be applied by qualified applicators in a manner to ensure maximum efficiency with minimal hazard. Pesticides should be applied only when occupants are not present in areas where they may be exposed to materials applied.
- The posting of a sign indicating the application of pesticides will conform to Maryland Department of Agriculture 15.05.01.15 regulations.

EVALUATION

<u>Records</u> will be established and maintained by the custodial engineer and certified pest control specialist. The records will include:

- A copy of the Pest Management Plan.
- A copy of the current EPA registered label and the current MSDS for each pesticide product used on the school property.
- IPM service report sheets which record the type and number of pests or other indicators of pest population levels revealed by the monitoring program for the site. (sample attached)
- Chemicals used in performing the work.
- A diagram noting the location of pest activity, including the location of all traps, trapping devices and bait stations in or around the site.

<u>Quality Assurance</u> will be measured through the above records to determine the effectiveness of the program, repeat problem areas and use of materials.

IPM SERVICE REPORT

School:	Address:		
	Date:		Time
IPM Technician:		Start:	Finish:

PESTS OBSERVED: Cockroaches Rats Mice Stored product pests Flies Ants
□ Other
Approx. number of pests:
Area pest was found:
SANITATION PROBLEMS:
Yes No
\Box \Box Food kent in sealed containers
□ □ Proper storage
Comments:
STRUCTURAL DEFICIENCIES:
Yes No
□ □ Areas need caulking
\Box \Box Lighting problem
Comments:
OTHER PROBLEMS/RECOMMENDATIONS:
ACTIONS TAKEN
NONCHEMICAL CONTROL ACTIONS:
\Box Put glue boards out
□ Clean area that is dirty
Repair structural problem
Comments:
PESTICIDES APPLIED:
Emergency application
Comments
Li keter to pesticide application sheet if box is checked.
Technicians Signature
I COMMINING OFFICIAL

SCOUTING FORM FOR LANDSCA	PES OR INTERIORSCAPES IPM REPORT
Name:	Date: Time: (in) (out)
School:	Plant Location:
Weather:	# of Degree Days
Plant #	
Problem Type	
insect disease weed unknown	n 🗍 other:
Pest Life Stage	
none egg early imm. Itate in	nm. 🗆 pupa 🔲 adult
Pest Density: # per monitoring unit (i.e., tim	ed count, pitfall trap, per 3 beats, low, medium, high)
Percentage of Plant Damage	
□ none □ 1-10% □ 11-25% □ 26-5	50% 🗍 51-100%
Severity of Problem	
action inappropriate at this time	action within 1 week
too light for action at this time	action within 24 hours
action in the next 2-4 weeks	C control performed
Beneficial Activity Level	
none low moderate high	
Recommended Action	
Evaluation: Was "Action" Successf	iul
□ yes □ no □ not applicable	
Explain:	

HERBICIDE USAGE RECORD

SCHOOL

				TI	ME	WE	ATHER
DATE	LOCATION (area treated, etc.)	CHEMICAL APPLIED	AMOUNT USED	Start	Finish	Temp.	Wind Dir.

Applicator's Signature

Board of Education of Washington County Office of Facilities Management and Planning **PESTICIDE USAGE FORM**

	Scho	ol:			
	Add	ress:			an a
		TARGETED PEST Bees Mice Rats Roaches Silverfish Ants		AREA TREATED Classrooms Exterior Doorways Exterior Eaves Hallways Mechanical Rooms Rest Rooms Storage Rooms Tractor Shed Offices	
	Comm	ients:		Kitchen	
N	ATERIA	AL USED	EPA	Reg No.	AMOUNT USED
□с	atalyst (pi	ropetamphos 0.5%, 1.0%)	2724	450	ang ang ing ing ing ing ing ing ing ing ing i
🗆 Fi	icam W (b	endiocarb .25%, .50%)	4563	9-1	
ПТ	empo (cyf	luthrin .05% mixture, .10%)	3125	-372	
🗆 P'	T 565XLC	Inspector (pyrethrins 0.50%-piperonyl butoxide,			
te	echnical 1	.00%, n-octyl bicycloheptene dicarboximide 1.00%)	499-2	.90	
DD	rax Gel, P	F (orthoboric acid 5.0%)	9444	131,9444-135	
DD	ual Choice	e Bait Stations (perfluoroctanesulfonamide 0.500%)	1154	0-20	
	aygon Bai	t (methylcarbamate 2%)	3125	-121	<mark></mark>
	laxforce B	ait Gel (hydramethylnon 2.15%)	6424	8-5	
	laxforce A	Ant Killer Granular Bait (hydramethylnon 1.0%)	6424	8-6	
	laxforce E oison Free	lait Station-large, small (hydramethylnon 2.00%) 9 Wasp & Hornet	6424	8-1 .	9 - 19 - 19 - 19 - 19 - 19 - 19 - 19 -
(n	nint oil 8.	00%, sodium lauryl sulfate 1.00%)	none		
D P Ki	T Wasp Fi ibosh Was ompounds	reeze (allethrin 0.129%, carboxylate 0.120%) sp Killer (malthion 2%, dichloruos 0.184%, related 0.016%, pyrethrins 0.025%, piperonyl butoxide,	499-3		
te	echnical O	.062%)	706-7	2-40208	
🗆 Fi	icam D (b	endiocarb 1%)	4563	9-3	tan dan tan karang manang m
□ 0	rtho Horn	et & Wasp (phenyl methcarbamate .50%)	23-23	190-ZB	والمراجع
C	ontrac Blo	ox (bromadiolone .005%)	1245	5-34	
ΠΟ	uintox (cl	nolecalciferol .075%)	1245	5-37	
Β	ell RTU St	ations	none		an - San Jan - San - Sa
🗆 Ea	ateris Glu	e Boards	none		a daga daga daga daga daga daga daga da
□ c	atchmaste	er Monitors	none		
	atchmaste	er Glue Boards	none		
<u>п</u> _					
Ц_	lang ang ting ting ting ting ting ting ting ti				
Арр	olication	Date: Time: Start		Complet	ed
Sigr	nature:				
Con	nments				

NOTIFICATION TO PARENTS, GUARDIANS AND STAFF OF INDOOR PESTICIDE APPLICATION

Integrated pest management procedures such as inspections and monitoring are used to determine when to control pests and to identify conditions contributing to pest problems. The necessity for pest control, if warranted, is evaluated and one or more pest control methods including sanitation, structural repair, nonchemical methods and pesticides is utilized. Problem areas are identified where alternative pest control technologies can be incorporated in order to eliminate routine pesticide applications. It has been determined that a current pest problem warrants the use of a pesticide to effectively control the pest problem.

School:

Common Name of Pesticide To Be Applied:

Location(s) of the Pesticide Application:

Planned Date and Time of Application:

Note: The Maryland Department of Agriculture's Regulations pertaining to Integrated Pest Management and Notification of Pesticide Use in Public Schools requires that the following information be provided as part of this notice:

"The Office of Pesticide Programs of the United States Environmental Protection Agency has stated: "Where possible, persons who potentially are more sensitive, such as pregnant women and infants (less than two years old), should avoid any unnecessary pesticide exposure'."

The following information regarding potential adverse effects was taken from the material safety data sheet (MSDS) of the pesticide to be applied:

 PRODUCT NAME

 COMMON NAME EPA REG. NO.

 HEALTH HAZARD DATA:

If you require further information regarding this notice you can contact either Dennis McGee at 301-766-2862 or Paul Breakall at 301-766-2885.

SAMPLE.....SAMPLE.....SAMPLE.....

F:\GLORIA\BREAKALL\INDOORNO.WPD

NOTIFICATION TO PARENTS, GUARDIANS AND STAFF REGARDING THE EMERGENCY APPLICATION OF A PESTICIDE

Integrated pest management procedures such as inspections and monitoring are used to determine when to control pests and to identify conditions contributing to pest problems. The necessity for pest control, if warranted, is evaluated and one or more pest control methods including sanitation, structural repair, nonchemical methods and pesticides is utilized. Problem areas are identified where alternative pest control technologies can be incorporated in order to eliminate routine pesticide applications. It was determined that an emergency pest situation existed that warranted the use of a pesticide on an emergency basis.

School:

Common Name of Pesticide Applied:

Location(s) of the Pesticide Application:

Date and Time of Application:

Reason for Emergency Pesticide Application:

Note: The Maryland Department of Agriculture's Regulations pertaining to Integrated Pest Management and Notification of Pesticide Use in Public Schools requires that the following information be provided as part of this notice:

"The Office of Pesticide Programs of the United States Environmental Protection Agency has stated: "Where possible, persons who potentially are more sensitive, such as pregnant women and infants (less than two years old), should avoid any unnecessary pesticide exposure'."

The following information regarding potential adverse effects was taken from the material safety data sheet (MSDS) of the pesticide applied:

 PRODUCT NAME

 COMMON NAME EPA REG. NO.

 HEALTH HAZARD DATA:

If you require further information regarding this notice you can contact either Dennis McGee at 301-766-2862 or Paul Breakall at 301-766-2885.

SAMPLE.....SAMPLE.....SAMPLE.....

NOTIFICATION TO PARENTS, GUARDIANS AND STAFF REGARDING THE PLANNED SPACE SPRAYING OF A PESTICIDE

Integrated pest management procedures such as inspections and monitoring are used to determine when to control pests and to identify conditions contributing to pest problems. The necessity for pest control, if warranted, is evaluated and one or more pest control methods including sanitation, structural repair, nonchemical methods and pesticides is utilized. Problem areas are identified where alternative pest control technologies can be incorporated in order to eliminate routine pesticide applications. It has been determined that a current pest problem warrants the use of a pesticide to be applied as a space spray in order to effectively control the pest problem.

School:

Common Name of Pesticide To Be Applied:

Location(s) of the Pesticide Application:

Planned Date and Time of Application:

Note: The Maryland Department of Agriculture's Regulations pertaining to Integrated Pest Management and Notification of Pesticide Use in Public Schools requires that the following information be provided as part of this notice:

"The Office of Pesticide Programs of the United States Environmental Protection Agency has stated: "Where possible, persons who potentially are more sensitive, such as pregnant women and infants (less than two years old), should avoid any unnecessary pesticide exposure'."

The following is a brief description of the pesticide that is planned to be applied as a space spray:

PRODUCT NAME -COMMON NAME - EPA I

EPA REG. NO.

The following information regarding potential adverse effects was taken from the material safety data sheet (MSDS) of the pesticide to be applied:

HEALTH HAZARD DATA:

If you require further information regarding this notice you can contact either Dennis McGee at 301-766-2862 or Paul Breakall at 301-766-2885.

SAMPLE.....SAMPLE.....SAMPLE.....

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NOTIFICATION TO PARENTS, GUARDIANS AND STAFF REGARDING THE APPLICATION OF A PESTICIDE TO SCHOOL GROUNDS

Integrated pest management procedures such as inspections and monitoring are used to determine when to control pests and to identify conditions contributing to pest problems. The necessity for pest control, if warranted, is evaluated and one or more pest control methods including sanitation, structural repair, nonchemical methods and pesticides is utilized. Problem areas are identified where alternative pest control technologies can be incorporated in order to eliminate routine pesticide applications. It has been determined that an current pest problem warrants the use of a pesticide to effectively control the pest problem.

School:

Common Name of Pesticide to be Applied:

Location(s) of the Pesticide Application:

Planned Date and Time of Application:

If unfavorable weather conditions or other extenuating circumstances arise, the intended pesticide application may have to be delayed or postponed to a later date(s). If the application cannot be made within 14 days of the original planned date a new notice will be issued.

Reason for Pesticide Application:

Note: The Maryland Department of Agriculture's Regulations pertaining to Integrated Pest Management and Notification of Pesticide Use in Public Schools requires that the following information be provided as part of this notice:

"The Office of Pesticide Programs of the United States Environmental Protection Agency has stated: 'Where possible, persons who potentially are more sensitive, such as pregnant women and infants (less than two years old), should avoia any unnecessary pesticide exposure'."

The following information regarding potential adverse effects was taken from the material safety data sheet (MSDS) o the pesticide to be applied:

<u>PRODUCT NAME</u> -<u>COMMON NAME</u> -

EPA Reg.No.

HEALTH HAZARD DATA: Potential Health Effects:

If you require further information regarding this notice you can contact either Dennis McGee at 301-766-2862 or P Breakall at 301-766-2885.

SAMPLE...SAMPLE...SAMPLE



Department of Facilities Management

Dennis McGee, Director P.O. Box 730, 820 Commonwealth Avenue Hagerstown, Maryland 21741-0730 Phone: 301-766-2860 E-mail: mcgeeden@wcboe.k12.md.us

TO: Employees and Parents of Students

FROM: Dennis McGee Director of Facilities Management

DATE: September 6, 2001

SUBJECT: Integrated Pest Management Program

The integrated Pest Management (IPM) program employed by the Washington County Public Schools is a proactive rather than a reactive approach to insect and rodent control in school facilities. The IPM program includes routine inspections or surveys of all school facilities to identify conditions conducive to pest invasion, to ensure early detection of pest presence, and to monitor infestation levels. As a first step in pest control, the IPM approach employs a number of preventative strategies and alternatives to pesticide application, such as: employee education, source reduction, inspection and identification of potential problem areas, and improved sanitation. Each approach is monitored and evaluated, and modifications are made if necessary. Pesticides are used only as a last resort.

Maryland Law requires that parents of all elementary school children be notified prior to any interior pesticide application. Parents of middle school or high school students who wish to be notified prior to interior pesticide applications must request that they be placed on the school system's pesticide notification list. To be added to the notification list, send a written request which includes your name, address, and telephone number as well as your child's name and school to:

Dennis McGee, Director of Facilities Management Washington County Public School System 820 Commonwealth Avenue Hagerstown, Md. 21740

The following is a list of the pesticides and bait stations, by common name, that may be used on school premises during the school year:

glyphosate
fipronil
hydramethylnon
diuron
benefin
diazinon
mint oil
bromadiolone
bifenthrin
MCPP
piperonyl_butoxide
orthoboric acid
phrethrin

dichlorprop malathion resmethrin allethrin abamectin trifluralin atrazine bendiocarb cholecalciferol napthalene 2-4-D propoxur perfluoractanesulfonamide disodium octaborate tetrahydrate prometon siduron PCNB permethrin boric acid imidacloprid dicamba lambda-cyhalothrin diphacinone sulfur cyfluthrin

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Copies of material safety data sheets (MSDS) and product labels for each pesticide and bait station used on school property are maintained by the contact person. Persons wishing to review this information should contact Dennis McGee to arrange appointment. For additional information about the Integrated Pest Management Program, please contact Dennis McGee a. (301)766-2862.

NOTICE

CAUTION - PESTICIDE APPLICATION

The following pesticide was applied on:

Date of Application:

Common Name of pesticide applied:

Location of application:

For additional information, including information on potential adverse effects, contact:

ſ	NOTICE - BAIT STATION IN USE
	CAUTION - PESTICIDE APPLICATION
Dat	te of Placement:
Со	mmon Name of Pesticide:
	For additional information, including information on potential adverse effects, contact:

NOTICE - BAIT STATION IN USE
CAUTION - PESTICIDE APPLICATION
Date of Placement:
Common Name of Pesticide:
For additional information, including information on potential adverse effects, contact:



Office of Plant Industries and Pest Management

Robert L. Ehrlich, Jr., Governor Michael S. Steele, Lt. Governor Lewis R. Riley, Secretary John R. Brooks, D.V.M., Deputy Secretary The Wayne A. Cawley, Jr. Building 50 Harry S. Truman Parkway Annapolis, Maryland 21401 TTY Users: Call via Maryland Relay Internet: www.mda.state.md.us Agriculture | Maryland's Leading Industry

410.841.5700 Baltimore/Annapolis 301.261.8106 Washington, D.C. 410.841.5914 Fax 800.492.5590 Toll Free

PESTICIDE REGULATION SECTION

(410) 841-5710 FAX (410) 841-2765

May 31, 2006

David Fulton Environmental/Safety Specialist Facilties Department. Wicomico County Board of Education P.O. Box 1538 101 Long Avenue Salisbury, MD 21802-1538

Dear Mr. Fulton:

I would like to thank you for submitting a copy of the Wicomico County Board of Education's revised Integrated Pest Management Plan. As you are aware, each Integrated Pest Management Plan must be reviewed by the Maryland Department of Agriculture as set forth under C.O.M.A.R. 15.05.02 Integrated Pest Management and Notification of Pesticide Use in a Public School Building or on School Grounds. Your revised IPM Plan has been reviewed to ensure that it is in compliance with the minimum requirements as specified in Section 15.05.02.03 Integrated Pest Management System.

Upon completing the review of your revised Integrated Pest Management Plan, the Maryland Department of Agriculture has determined that all of the required components have been addressed in your plan. This letter will serve as the formal approval of the Wicomico County Board of Education's Integrated Pest Management Plan.

Please be reminded, if any additional changes are made to the Integrated Pest Management Plan, the revised Plan must be resubmitted to the Maryland Department of Agriculture for approval. If you have any further questions please feel free to contact me.

Sincerely.

Edward A. Crow Entomologist Licensing, Certification and Training

File cc: Dennis Howard Petey Councell

INTEGRATED PEST MANAGEMENT PROGRAM

WICOMICO COUNTY BOARD OF EDUCATION

May 2006

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I. INTRODUCTION

A. <u>Overview</u>

Legislation was passed in 1998 which requires public schools to adopt Integrated Pest Management (IPM) systems and to develop parental and staff notification programs by the 1999-2000 school year for any school that applies pesticide inside schools buildings. In addition, legislation was passed in 1999 which require public schools to develop parental and staff notification programs by the 2000-2001 school year for pesticide applications made to school grounds during the school year and requires schools to adopt IPM system for school grounds.

Integrated Pest Management (IPM) is an effective and environmentally sensitive approach to pest management that relies on a combination of common sense practices. IPM programs use current, comprehensive information on the life cycles of pests and their interactions with the environment. This information, in combination with available pest control methods, is used to manage pest damage by the most economical means, and with the least possible hazard to people, property and the environment.

To improve the level of pest control, and to minimize the potential exposure of school children to pesticides, the Wicomico County Board of Education has adopted an integrated pest management approach to pest control.

Integrated pest management strategies limit pest problems without applying pesticides on a regular basis. IPM uses regular inspections to determine if and when treatment is necessary, and then employs a variety of environmentally sound techniques to limit pests over the long term. The goal of IPM is to keep pest numbers low enough to make them essentially non-detectable. Pesticides, if and when applied, are applied according to need and not according to a regular schedule.

B. Policy Statement

1) Integrated Pest Management Procedures

IPM procedures will determine when to control pests and whether to use mechanical, physical, chemical, cultural, or biological means. Applying IPM principles prevents unacceptable levels of pest activity and damage. The choice of using a pesticide will be based on a review of all other available options and a determination that these options are not acceptable or are not feasible. Cost or staffing considerations alone will not be adequate justification for use of chemical control agents, and selected non-chemical pest management methods will be implemented whenever possible to provide
the desired control. It is the policy of the Wicomico County Board of Education to utilize IPM principles to manage pest populations adequately. The full range of alternatives, including no action, will be considered.

When it is determined that a pesticide must be used in order to meet important management goals, the least hazardous material will be chosen. The application of pesticides is subject to a number of Federal, State and local regulations. They are the Federal Insecticide, Fungicide, and Rodenticide Act (7 United States Code 136 et seq.), the Environmental Protection Agency regulations in Title 40 of the Code of Federal Regulations, the Occupational Safety and Health Administration regulations, Maryland Department of Agriculture, Pesticide Applicators Laws and Regulations, Code of Maryland Regulations (COMAR) Title 15, Subtitle 05, Chapter 01 and Chapter 02, as well as the Wicomico County Board of Education policies and procedures as specified in this program.

II. DEFINITION OF TERMS

<u>Action threshold</u> - The level of infestation at which action must be taken to control the infestation.

<u>Active monitoring</u> - Regularly scheduled visual inspections of all buildings and grounds to assess pest populations.

Bait - An insecticide or rodenticide mixed with a food material that attracts a pest.

<u>Beneficial organisms</u> - A plant, animal or microbe (often a parasite, pathogen or predator of insects) that has a direct or indirect negative effect on pest populations.

Biological control agent - Any biological agent that adversely affects pest species.

<u>Botanical pesticide</u> - A pesticide produced from naturally occurring chemicals found in some plants. Examples are nicotine, pyrethrum, strychnine and rotenone.

<u>Broad-spectrum insecticides</u> - Nonselective, having about the same toxicity to most insects.

<u>Certified applicator</u> - Commercial applicator or public agency applicator certified by the Maryland Department of Agriculture (MDA) to apply general use or restricted-use pesticides.

<u>Chemical name</u> - Scientific name of the active ingredients found in a formulated pesticide. The name is derived from the chemical structure of the active ingredient.

<u>Common Name</u> - Name given to a pesticide's active ingredient by a recognized Committee on pesticide nomenclature. An active ingredient only has one recognized common name.

<u>Crack and Crevice Treatment</u> - A pesticide application method in which small quantities of pesticide are placed into cracks, crevices and other small openings where cockroaches and other pests hide.

<u>Ecosystem</u> - The interacting system of all the living organisms of an area and their nonliving environment.

Environmental Protection Agency (EPA) - The Federal agency responsible for pesticide rules and regulations, and all pesticide registrations.

<u>EPA Registration Number</u> - A number assigned to a pesticide product by EPA when the product is registered by the manufacturer or his designated agent. The number must appear on all labels for a particular product. FEPCA - The Federal Environmental Pesticide Control Act of 1972.

FIFRA - The Federal Insecticide, Fungicide, and Rodenticide Act of 1974.

Foaming agent - A chemical which causes a pesticide preparation to produce a thick foam.

Fog treatment - The application of a pesticide as a fine mist for the control of pests.

Fungicide - A chemical that kills fungi.

<u>General-use pesticide</u> - A pesticide which can be purchased and used by the general public without undue hazard to the applicator and environment as long as the instructions on the label are followed carefully.

<u>Growth regulator</u> - Organic substance effective in minute amounts for controlling or modifying insect (plant or insect) growth processes.

<u>Inert ingredients</u> - The inactive materials in a pesticide formulation, which would not destroy pests if used alone.

<u>Ingredient statement</u> - That portion of the label on a pesticide container which gives the name and amount of each active ingredient and the total amount of inert ingredients in the formulation.

<u>Insect growth regulator (IGR)</u> - Chemical substance which disrupts the action of insect hormones controlling molting, maturity from pupal state to adult, and other life processes.

Key locations - Areas where there are chronic or more severe problems with pests.

Key pests - Pests that recur regularly in densities that warrant control.

Label - All printed material attached to or part of the pesticide container.

<u>Labeling</u> - Supplemental pesticide information which complements the information on the label, but is not necessarily attached to or part of the container.

<u>Material Safety Data Sheet (MSDS)</u> - Contains printed information concerning a hazardous chemical as prescribed by law concerning the manufacture, storage, use and disposal information needed to insure the safety and health of the user.

Mildew - Fungus growth on a surface.

<u>Monitoring</u> - The regularly conducted diagnosis and recording of pest activities, population levels or levels of damage to any resource.

<u>Passive monitoring</u> - Recording the activity of pest species by weather tracking or the use of insect pheromone traps and sticky cards rather than direct inspection of the resource.

<u>Pesticide</u> - Defined in most state and Federal laws as any substance used for controlling, preventing, destroying, repelling, or mitigating any pest.

<u>Poison</u> - Any chemical or agent that can cause illness or death when eaten, absorbed through the skin, or inhaled by humans or animals.

<u>Poison Control Center</u> - Information source for human poisoning cases, including pesticides, usually located at major hospitals.

<u>ppb</u> - Parts per billion is the number of parts of toxicant per billion parts of the substance in question. They may include residues in soil, water or whole animals.

<u>ppm</u> - parts per million is the number of parts of toxicant per million parts of the substance in question.

<u>Protective clothing</u> - Clothing to be worn under certain conditions as required by federal law.

<u>Registered pesticides</u> - Pesticide products which have been approved by the Environmental Protection Agency for the uses listed on the label.

<u>Repellent (insects)</u> - Substance used to repel ticks, chiggers, gnats, flies, mosquitoes, and fleas.

<u>Resistance (insecticide)</u> - Natural or genetic ability of an organism to tolerate the poisonous effects of a toxicant.

<u>Restricted-use pesticide</u> - One of several pesticides designated by the EPA that can be applied only by certified applicators, because of their inherent toxicity or potential hazard to the environment.

<u>Rodenticide</u> - Pesticide applied as a bait, dust, or fumigant to destroy or repel rodents.

<u>Signal word</u> - A required word which appears on every pesticide label to denote the relative toxicity of the product. The signal words are either "Danger-poison" for highly toxic compounds, "Warning" for moderately toxic, or "Caution" for slightly toxic.

<u>Spot treatment</u> - Application of a pesticide to localized or restricted areas as differentiated from overall, broadcast, or complete coverage.

<u>Sticky cards</u> - A passive monitoring tool that consists of a colored piece of material (often yellow cardboard) covered with a tacky substance that insects will stick to.

<u>Structural pests</u> - Pests which attach and destroy buildings and other structures, clothing, stored food, and manufactured and processed goods. Examples: Termites, cockroaches, clothes moths, rats and dry-rot fungi.

<u>Target</u> - The plants, animals, structures, areas, or pests to be treated with a pesticide application.

<u>Toxic</u> - Poisonous to living organisms.

<u>Trade name (Trademark name, proprietary name, brand name)</u> - Name given a product by its manufacturer or formulator, distinguishing it as being produced or sold exclusively by that company.

<u>Vermin</u> - Pests, usually rats, mice or insects.

III. ROLES AND RESPONSIBILITIES

The following persons are the ones who will interact throughout the system and will comprise the pest management team. Their effective communication is important in assuring that our goals of maintaining an environmentally sensitive approach to pest management are met.

- A. <u>Decision Makers</u>: The Decision Makers are the ones who authorize the pest management program. They control the monies to fund the program and direct the Management and Administration of the schools.
 - Concerned with: Costs, liability, time expended, method effectiveness, safety and occupant satisfaction.
 - Who are they?The Wicomico County Board of EducationThe Department Head of Facilities Management
- B. <u>Contact Person</u>: The contact person is responsible for the implementation of the program and facilitates the communication between the decision makers and site workers. They oversee the program and assure the program requirements are met. They are also available to answer questions from occupants and parents.
 - Concerned with: Achieving pest management objectives and with customer satisfaction.
 - Who are they ?: The Pest Control Manager: David Fulton Environmental/Safety Specialist Facilities Department Wicomico County Board of Education P.O. Box 1538 Salisbury, Maryland 21802-1538 (410) 677-4593
- C. <u>Occupants</u>: The occupants are our customers and are the ones who should cooperate with the sanitation requirements of the school system. Their assistance with the program is also requested by reporting any evidence of pest activity which they find.

Concerned with: Safety of pest control methods, effectiveness, possible

adverse effects of any pesticides used.

Who are they?: Students and staff

IV. PROCEDURES FOR CONDUCTING THE PEST CONTROL PROGRAM (including Pest Management Objectives)

A. Procedures

Our IPM program procedures consist of various components which may not be conducted in any particular order, but are overlapping in nature when used as intended. They are a combination of practices which will help us achieve our goals for a long term pest control program. The main elements of our plan can be described as follows.

- Notices will be sent out at the beginning of each school year informing parents/guardians and staff of the existence of the IPM program and describing what it is.
- > Periodic inspections will be made to monitor pest conditions.
- Along with the inspections and monitoring elements will be the availability of open communication between the building occupants, the pest control manager and the contract service provider.
- A logbook will be maintained so as to document the communications, reports, and/or records of the ongoing program.
- Basic pest-prevention strategies will be undertaken as the fundamental concepts of our program.
- Our IPM program will undergo an annual review to assure that the expectations of the programs intent are being met. This review will allow us to see how the program is working and to see if any changes are necessary

B. Objectives

- 1) Manage pests that may occur on school sites to prevent interference with the learning environment of the students.
- 2) Eliminate potential injury to students, staff and other occupants.
- 3) Preserve the integrity of the school building or structures.

V. PROCEDURES FOR INSPECTIONS AND MONITORING

The inspection of the schools, including the grounds, is a vital part of our Integrated Pest Management program. Through these inspections we can identify pests and evaluate if any further action is needed. We will use three basic components to conduct our inspections. They are:

> walk-through visual inspections of all areas of the building including outside,

- use of monitoring traps, and
- information from school personnel, including review of the logbook.

A. Visual Inspections

The contract service provider who will be conducting the periodic inspections at the school will be familiar with the IPM procedures and how they relate to our schools. The inspections will be conducted in accordance with the approved action plan. Special attention will be paid to those areas which are more prone to pests than others.

These areas include:

➤ cafeterias and snack rooms

- ≻food storage areas
- >staff lounges
- >family and consumer science rooms
- ≻Loading docks.
- Side walks
- >Driveways
- ≻Around buildings
- ≻Athletic fields

The following guidelines will be followed when conducting the visual inspections.

- 1) A bright flashlight will be used during inspections to insure all areas will be seen.
- 3) Other evidence of pests will be noted also. This will include any
 - > droppings
 - gnawing and/or tracks (from rodents)
 - damage (such as beetle exit holes)
 - shed insect skins
- 4) Window sills will be inspected
- 6) Underneath furniture will be inspected
- 7) Potential moisture problems will be inspected
- 8) Damaged screens, doors and walls which could allow pest entry will be inspected
- 9) Sanitation problems will be inspected

B. Monitoring Traps

1) Sticky traps

Sticky traps are glue-covered traps which are generally used to trap cockroaches, but can also be used to monitor all kinds of crawling insects. Sticky traps will be used as a monitoring device in highly susceptible areas or other areas which have had reports of pest sightings. The information gained from the numbers of pests found will be used to determine if our action threshold has been met and what, if any, further action will be undertaken.

2) Procedures for using sticky traps

- a) The traps will be placed where school children are not likely to find them and will not be placed in the open.
- b) Traps will also be located so as not to be affected by routine cleaning procedures.
- c) Traps may be placed in the following locations:
- Inside cabinets
- In drawers
- Under sinks and stoves
- Under furniture
- > Near water or heat sources (but not directly on)
- > On window ledges
- On food storage shelves

C. Action Thresholds

An action threshold is the level at which action is initiated. The action threshold is set by our **pest provider** with input from the occupants as well as our Building Service Manager. In most cases our certified service provider will be consulted and if an application is needed it will be based on their recommendation. However, this is a case by case decision and may vary depending on each situation. Our pest providers decisions are usually based upon the information obtained through inspection, identifying and monitoring.

VI RECORD KEEPING

Communication between school staff and the contract service provider is a vital part of the IPM program record keeping. Communication may take many forms, such as:

A) Pest Management Logbook

Each school will keep its own logbook on site. The logbook will contain

everything about the program, all pest sightings, actions taken, and recommendations. Each log book will have a Special Service Record that will be used to report any pest problems which occur between service visits. The special service record will contain the following information:

- Date of pest sighting
- Pest Problem (Ants, Roaches ect.)
- Location and description
- Person reporting condition
- Date for Service technician service visit
- Service technician initials
- Follow- up date
- Follow up initials

B. Pest Management Grounds Logbook

The logbook shall be maintained by the grounds crew and kept in a location where they can have easy access to it. In addition, the contact person will maintain the Material Safety Data Sheets as well as the product labels, and the logbook will also contain pesticide application record sheets. The pesticide application record sheets will contain the following information:

- > Name of applicator
- > Type of application
- > Name of pesticide
- > The property name
- > Address of treated property
- > Date of application
- > Mixture rate
- > Type of sprayer used
- > Time of day for application
- > Wind direction and speed
- > General weather conditions

VII. INTEGRATED PEST MANAGEMENT STRATEGIES

Pest-prevention measures can be incorporated into existing structures. Such preventive measures reduce the need for pesticide applications and include sanitation and structural repair and employing physical and mechanical controls such as screens and traps. The Wicomico County Board of Education will make every effort to follow these policies by enforcing and adhering to practices below.

- A. <u>Entryways</u> (doorways, overhead doors, windows, holes in exterior walls, openings around pipes, electrical fixtures or ducts):
 - > Keep doors shut when not in use.
 - Caulk and seal openings in walls.
 - Install or repair screens.
 - > Keep vegetation, and shrubs away from structures as much as possible.
- B. <u>Classrooms and Offices</u> (classrooms, laboratories, administrative offices, auditoriums and hallways):
 - > Allow food and beverages only in designated areas.
 - If indoor plants are present, keep them healthy. When small insect infestations appear, remove them manually.
 - Keep areas as dry as possible by removing standing water and water damaged or wet materials.
 - Clean lockers and desks.
 - Frequently vacuum carpeted areas.
 - If students get head lice, they should consult with your local health department and have their parents contact a physician.
- C. <u>Food Preparation and Serving Areas</u> (dining room, main kitchen, teachers' lounge, home economics kitchen, snack area, vending machines, and food storage rooms):
 - Place screens on vents, windows, and floor drains to prevent cockroaches and other pests from using unscreened ducts or vents as pathways.
 - Create inhospitable living conditions for pests by reducing availability of food and water - remove food debris, fix dripping faucets and leaks, and dry out wet areas.
 - Improve cleaning practices, including promptly cleaning food preparation equipment after use. Use caulk or paint to seal cracks and crevices.
 - Capture rodents by using mechanical or glue traps. (Traps will be placed in areas that are normally inaccessible to children and staff.
- D. <u>Rooms and Areas With Extensive Plumbing</u> (bathrooms, rooms with sinks, dishwasher rooms, home economics classrooms, science laboratories and swimming pools,):
 - Promptly repair leaks and correct other plumbing problems to deny pest access to water.
 - > Clean floor drains, and seal pipe chases.
 - ➢ Keep areas dry

- Store paper products or cardboard boxes away from moist areas and direct contact with the floor or walls.
- E. <u>Maintenance Areas</u> (boiler room, mechanical room, janitorial-housekeeping areas, and pipe chases):
 - > After use, promptly clean mops and mop buckets.
 - > Allow eating only in designated eating areas.
 - Use plastic liners in trash cans.
 - > Keep areas clean and as dry as possible, and remove debris.
- F. Playgrounds, Parking Lots, Athletic fields, and sidewalks
 - > Repair cracks in pavement and sidewalks.
 - > Provide adequate drainage away from the structure and on the grounds.
 - > Use hand weeding practices or weed whackers.
 - > Cracks should be sealed regularly.
 - > On asphalt, weeds maybe burned
- G.______ (Lawns, athletic fields, and playgrounds)
 - Maintain healthy turf by selecting a mixture of turf types (certified seed, sod, or plugs) best adapted for the area.
 - > Raise mowing height for turf to enhance its competition with weeds: adjust and vary mowing patterns to help reduce soil compaction.
 - Provide good drainage and periodically inspect turf for evidence of pests or diseases.
 - > Seed over existing turf in fall and early spring or when needed.

1a. Pesticide Use Control Methods

Pesticide applications shall be made only to areas of known pest infestation or activity and where alternative control measures such as traps, caulking, sealing, cleaning and disposal of goods were not successful or are not feasible. Application of pesticides shall not occur until each inspection has been completed. Pesticide applications which may impact the operations or occupants of a school building shall be permitted only during hours when the school building is closed The threshold levels for pests at which action will be taken will be recommended by the Contract Service Provider.

We shall minimize the use of and potential exposure to pesticides wherever possible. For example:

- 1. We will use alternative control methods and materials.
- 2. We will use crack and crevice application of pesticides in pest harborage areas.
- 3. We will integrate control methods (i.e., structural repairs, trapping, sanitation, etc.)
- Pesticide space sprays (including fogs and ultra low volume applications) will be restricted to unique situations for which no alternative measures are practical or effective.

Use of Pesticides: Our Contract Service Provider will be responsible for application of pesticides according to the label. All pesticides that will be used will be registered with the U.S. Environmental Protection Agency (EPA) except for those products classified as 25b that are exempt from the federal registration, but must registered by the State of Maryland. Transport, handling and use of all pesticides shall be in strict accordance with the manufacturer's label instructions and all applicable Federal, state and local laws and regulations.

Our Contract Service Provider will adhere to the following rules for pesticide selection and use:

Pesticide application shall be according to need and not by schedule. As a general rule, application of pesticides in any inside or outside area shall not occur unless visual inspections or monitoring devices indicate the presence of pests in that specific area.

No application of a Pesticide will be undertaken by our Contract Service Provider without the express permission from WCBOE.

When it is determined that a pesticide must be used in order to obtain adequate control, we will allow the pest provider to make that determination. It is our goal that the pest provider will use the minimum quantity of pesticide necessary to achieve control. Containerized and other types of crack and crevice applied bait formulations, rather than sprays, shall be used for cockroach and ant control wherever appropriate. As a general rule, liquid aerosol or dust formulations shall be applied only as crack and crevice treatments with application devices specifically designed or modified for this purpose. "Crack and crevice treatment" is defined as an application of small amounts of insecticides into cracks and crevices in which insects hide or through which they may enter a building. to provide the desired control. The choice of using pesticides will be based on a review of all other available options and a determination that these options are unreasonable or have been exhausted, in order to minimize the use of pesticides. Our in house site grounds crew shall minimize the use of and potential exposure to pesticides wherever possible for example:

- 1. Use non chemical control methods and materials.
- 2. Use spot treatments of pesticides. Treat only heavily infested plants.
- 3. Integrate control methods (i.e. plant selection, timing of watering, mechanical weed control, etc)
- 4. Routine spray treatments are prohibited unless specifically requested and approved by the contact person and are acceptable only on a case-by- case basis.

Pesticide applications that may impact the operations or occupants of a school building shall be permitted only during hours when the school building is closed and after all notification procedures have been met.

The management of weeds on school grounds is an important component of an IPM program. Controls will be initiated against weeds in sidewalks, play areas, parking areas, and driveways when they pose a threat to safe pedestrian traffic or create serious structural damage to these surfaces. Weed control may involve the use of pesticides if nontoxic options are unreasonable or have been exhausted. When 10 percent of a plant's foliage is removed or discolored, or if the pest has the potential to kill the plant, as in the case with some boring and scale insects pesticide use maybe considered.

MAY 1 9 2006

In the case of ornamental plants treatments should be considered when approximately 10 percent of the plant is affected treatments should be considered.

When it is determined that a pesticide must be used to meet vital pest management goals the appropriate pesticide will be selected. Only pesticides registered by the US. Environmental Protection Agency and the Maryland State Chemist may be applied. Applications will only be made to those weeds or plants that require treatment. The application of such pesticides are subject to the School District's/Board of Education's policies and procedures and all applicable state, federal and local regulations including the Maryland Pesticide Applicators Law and Regulations, and the Federal Insecticide, Fungicide, and Rodenticide Act. Application of pesticide liquid, aerosol or dust to exposed surfaces and pesticide space sprays (including fogs, mists and ultra-low volume applications), shall be restricted to unique situations where no alternative measures are practical. All necessary precautions will be taken to ensure student and staff safety and all necessary steps to ensure the containment of the pesticide to the site of application.

Pesticide will be stored and disposed of in accordance with the EPA registered label directions and State regulations. Pesticides must be stored in an appropriate, secure site not accessible to students or unauthorized personnel.

Pesticide use control methods for Rodent control.

As a general rule, rodent control inside occupied buildings shall be accomplished with trapping devices. All such devices shall be concealed out of the general view and in protected areas so as not to be affected by routine cleaning and other operations. Trapping devices shall be checked when ever possible.

In circumstances when rodenticides are deemed essential for adequate rodent control inside occupied buildings, the rodenticides, regardless of packaging, shall be placed either in locations inaccessible to children, pets, wildlife and domestic animals-or in EPA approved, tamper-resistant bait boxes. As a general rule, rodenticide application outside buildings shall emphasize the direct treatment of rodent burrows, wherever feasible. Frequency of bait box servicing shall depend upon the level of rodent infestation. All bait boxes shall be maintained in accordance with EPA regulations, with an emphasis on the safety of non-target organisms.

Before any bait boxes are set, we will post Notifications in required areas as per our IPM Program and the Maryland Department of Agriculture regulations.

- All bait boxes shall be placed out of the general view, in locations where they will not be disturbed by routine operations.
- The lids of all bait boxes shall be securely fastened shut.
- * Bait shall always be placed in the baffle-protected feeding chamber of the box and never in the runway of the box.
- 1c Pesticide Use Control Methods- Grounds

It is the policy of the School District/Board of Education to utilize IPM principles. Selected non-chemical pest management methods will be implemented whenever possible

VIII. EDUCATION AND TRAINING OF STAFF, PARENTS/GUARDIANS AND STUDENTS.

The education and training of staff, parents/guardians and students is an important aspect of a working Integrated Pest Management Plan. We may conduct this training in any number of ways including informational letters at the beginning of each school year, newsletters, announcements, meetings, hand delivered letters, notice postings, etc. The Pest Control Manager is also available for any further information that is desired by parents or staff.

IX. ANNUAL REVIEW AND EVALUATION OF IPM PROGRAM

The Contractor's Technical Supervisor shall attend an annual meeting with the Pest Manager, and other concerned individuals to review the status of the IPM program to assess the program's effectiveness and to determine if any adjustments are needed. In addition, once each school year the Contractor's Technical Supervisor will attend a Board of Education meeting where they will inform the public of the IPM program and be available to address any concerns the public may have.

In general the annual review will answer questions similar to:

- Have all objectives been achieved?
- Is the monitoring program adequate?
- Should other alternatives be explored?
- What problems have been identified?
- What changes are necessary?

X. PROCEDURES FOR NOTIFICATION OF PESTICIDE APPLICATIONS.

In accordance with state law, the Board of Education has taken on the responsibility of notification to the school staff, parents/guardians and students of upcoming pesticide treatments. The following information will represent our procedures for notification of staff, parents/guardians and students, before a pesticide application is conducted in any Wicomico County School.

A. Space Spraying - Attachment C

Before there is any type of space spraying done in any school building, written notice shall be sent home by the school with every student and staff member at least one week before the application. (*Note: If an emergency exists, a pesticide may be applied in a school without prior notification. If such a situation occurs, notifications will be sent out within 24 hours of the application or on the next school day.*) The Notice content will be recommended by the Pest Control Manager as specified in the Department of Agriculture regulations.

The Notices shall be on an 8 $\frac{1}{2}$ x 11 piece of paper and will contain the following information:

- 1) Common name of pesticide
- 2) Location of space spraying
- 3) Planned date and time of space spraying
- A brief description of the potential adverse effects of the pesticide as described on the MSDS.
- 5) And the following language: "The Office of Pesticide Programs of the United States Environmental Protection Agency has stated: 'Where possible, persons who potentially are more sensitive, such as pregnant women and infants (less than 2 years old), should avoid any unnecessary pesticide exposure.'"
- 6) A brief description, approved by the MDA, of the pesticide if it was not listed at the beginning of the year.
- B. Bait Stations Attachment D

Before any type of bait station is used in any school, an in-school Notice shall be posted by the <u>Service Provider</u> on the door of the room or primary entrance to the area in which the bait station is placed. The Notice will include the following information and will remain posted until the bait station is removed.

- 1) The words "Caution Pesticide Application"
- 2) The common name of the pesticide in the bait station.
- 3) Location and date of pesticide application or date bait station was placed.
- Contact person for additional information, including information on potential adverse effects.

The notice or sigh must remain posted for at least 48 hours after the pesticide is applied or until the bait station is removed.

C. Pesticide Application - Attachment E

1) Elementary School

During the school year, if a pesticide is going to be applied in an Elementary School, a written notice shall be sent home <u>by the school</u> with each student and staff member at least 24 hours prior to the application. <u>The Notice contents will be recommended by the Pest Control Manager based on specifications in the Department of Agriculture regulations</u>. (*Note: If an emergency exists, a pesticide may be applied in a school without prior notification. If such a situation occurs, notifications will be sent out within 24 hours of the application or on the next school day.*) The written Notice will contain the following information:

- a) The common name of the pesticide that will be applied
- b) The location of the application
- c) The date and time of the application
- d) A brief description, approved by the Department of Agriculture, of potential adverse effects of the pesticide applied, based upon the material safety data sheet.
- e) The following language: "The Office of Pesticide Programs of the United States Environmental Protection Agency has stated: 'Where possible, persons who potentially are more sensitive, such as pregnant women and infants (less than 2 years old), should avoid any unnecessary pesticide exposure.'"
- f) Reason for emergency application, if applicable.
- 2) Middle and/or High Schools
 - a) Individuals on Pesticide Notification List.

During the school year, if a pesticide is going to be applied in a Middle or High School, notice shall be given to each parent/guardian and staff member that is on the Pesticide Notification list at least 24 hours prior to the application. This written notice will be distributed to the students and staff by the school, or a written notice mailed at least 3 days prior to the application. Any written Notice content will be recommended by the Pest <u>Control Manager as specified in the Department of Agriculture regulations</u>. (Note: If an emergency exists, a pesticide may be applied in a school without prior notification. If such a situation occurs, notifications will be sent out within 24 hours of the application or on the next school day.) The Notice will contain the following information:

- I) The common name of the pesticide that will be applied
- ii) The location of the application
- iii) The date and time of the application
- iv) A brief description, approved by the Department of Agriculture, of potential adverse effects of the pesticide applied
- v) The following language: "The Office of Pesticide Programs of the United States Environmental Protection Agency has stated: 'Where possible, persons who potentially are more sensitive, such as pregnant women and infants (less than 2 years old), should avoid any unnecessary pesticide exposure.'"
- vi) Reason for emergency application, if applicable.
- b) In-School Notification for all Students/Staff Attachment F

Before a pesticide is applied in any middle/high school, in addition to the notifications specified in subsection a) above, in-school sign shall be posted at the room or area of the pesticide application by the Service <u>Provider</u>. Also, a sign will be posted either at the primary entrance to the school or in a central school location which is accessible to parents/guardians, students and staff.

The in-school notification may also be made by an oral announcement or by written notice.

The Notice or sign will contain the following information:

- I) The words "Caution Pesticide Application"
- ii) The common name of the pesticide applied.
- iii) The date and location of the application
- iv) The name and phone number of the contact person (the Pest Manager) for additional information.

This Notice will remain posted for at least 48 hours after a pesticide is applied.

D) Public School Grounds

1) In School Notification for Elementary Schools

Parents or guardians of elementary school students, and staff members employed by elementary schools, must be notified at least 24 hours before a pesticide is applied to school grounds. If an emergency pest situation arises and a pesticide is applied to school grounds, notification must be made within 24 hours of the application. For pesticide applications made on school grounds, the notice of planned date and time of application may specify that weather conditions or other extenuating circumstances may cause the actual date of application to be postponed to a later date or dates, If the actual date of application is more then 14 days later than the original planned date of the application, a new notice must be issued. All of the information that must be provided as part of the notification requirements for pesticide applications made in school buildings must be included as part of the grounds notification.

2) Middle School and High School on Pesticide Notifications List

Parents or guardians of middle school or high school students, and staff members employed by middle schools and high schools, who are on the pesticide notifications list will be notified by the school 24 hours before a pesticide is applied to school grounds. Notifications must occur within 24 hours after an emergency pesticide application to school grounds. For pesticide applications made on school grounds, the notice of planned date and time of application may specify that weather conditions or other extenuating circumstances may cause the actual date of application to be postponed to a later date or dates. If the actual date of application is more than 14 days later than the original planned date of the application, a new notice must be issued. All of the information that must be provided as part of the notification requirements for pesticide applications made in school buildings must be included as part of the grounds notification.

3) Middle School and High School on Pesticide Notification List

Middle schools and high schools must provide in school notification, by oral announcements or written notice, before a pesticide is applied on school grounds. A sign or notice must be posted at the primary entrance to the school or in central location.

The notice or sign posted as part of the in school notification must include the following information:

- > The words "Caution Pesticide Application"
- > The common name of the pesticide applied.
- > The date and location of the application
- > The name and phone number of the contact person (the Pest Manager) for additional information.

This Notice will remain posted for at least 48 hours after a pesticide is applied.

4) Posting On Site

When a pesticide application is made on school grounds, a sign must be posted at the the time of the application at each primary access to the school property. If a spot or limited area pesticide application is made, a sign may be posted at the location whyere the pesticide application was made. The sign must conform to the Maryland Department of Agriculture regulations, C.O.M.A.R. 15.05.0115B-G and remain posted for at least 48 hours following the application.

INTEGRATED PEST MANAGEMENT PROGRAM

Dear Parent/Guardian or Staff Member:

Legislation was passed in 1998 which requires public schools to adopt Integrated Pest Management (IPM) systems and to develop parental and staff notification programs by the 1999-2000 school year for any school that applies pesticides in school buildings during the school year. In addition, legislation was passed in 1999 which requires public

schools to expand the IPM system to include school grounds by the 2000-2001 school year for pesticide applications made to school grounds during the school year.

At the beginning of each school year, each school must notify all parents/guardians and staff at their school, about the Wicomico County Board of Education Integrated Pest Management System.



A. What is the Integrated Pest Management System?

Integrated Pest Management, or IPM, is a system of controlling pests that does not depend on automatic application of pesticides. Instead, pests are monitored by regular and careful inspections. The inspections also identify conditions contributing to pest problems. It is then decided what actions are necessary, if any, based on the biology and habits of the pests involved. Priority is given to non-chemical pest management techniques, particularly those that can prevent a recurrence of the problem. Pesticides are used when necessary, but only in a way that minimizes potential exposure to people and the environment. Records are kept to track problems, prevent recurrences, and evaluate the results of pest management actions.



B. What are the names of the pesticides and bait stations that may be used on school property. This includes but is not limited to:

Mefenoxam Boric Acid Paclobutrazol Hydramethylon Brodifacoum Sulfonamide AbamectinPermethrinPyrethrinPropoxurCyfluthrinImidaclopridPiperonyl ButoxideGlyphosateGlufosinate AmmoniumMethoprene

Remember, it would not be unusual for an unanticipated pest problem to arise during the school year that could warrant the use of a pesticide that is not listed above. In addition, if a new, less, toxic product became available and was a better alternative we would opt to use it.

C. Who is the person that I may call if I have any questions?

Mr. David Fulton

Environmental/Safety Specialist c/o Facilities Department Wicomico County Board of Education (410) 677-4593

Mr. Fulton, identified above as the contact person, will also have the product labels and Material Safety Data Sheets for all pesticides and bait stations that are listed above. In addition, product labels and Material Safety Data Sheets for any new pesticides that are deemed necessary through out the school year will also be kept by Mr. Fulton. This information is also available at Facility Services Department, Wicomico County Board of Education, 101 Long Avenue, Salisbury, Maryland 21802, and it is available for your review during normal working hours. Mr. Fulton is also available for any additional information you may need and will be happy to listen to any comments you may have.

We understand that certain individuals may have conditions that may be aggravated by the use of any of the above listed materials. As a result, the Wicomico County School System has established a registry for any *Middle and High school* students and staff who may wish to be notified <u>prior to the use of these materials</u>. Each Middle School and High School shall develop a pesticide notification list of each staff member and parent/guardian of a student attending the school who requests in writing to have prior notification of a pesticide application when made in a school building or to school grounds during the school year. A list of these individuals will be maintained at your school's office and at the Board of Education Facility Services. Further questions and additional information can be obtained by contacting Mr. David Fulton, Environmental/Safety Specialist at (410) 677-4593.

In order to have your child placed on the Registry, please complete and return the following information to your child's school:

(Detach and Return to Your School) CHEMICAL SENSITIVITY REGISTRY		
Date:	School Name:	
Student's (Staff) Name:		
Name of Parent or Guardian:		
Address:		

Telephone Number:

INTEGRATED PEST MANAGEMENT PROGRAM

Dear Parent/Guardian or Staff Member:

Legislation was passed in 1998 which requires public schools to adopt Integrated Pest Management (IPM) systems and to develop parental and staff notification programs by the 1999-2000 school year for any school that applies pesticides in school buildings during the school year. In addition, legislation was passed in 1999 which requires public schools to expand the IPM system to include school grounds by the 2000-2001 school year for pesticide applications made to school grounds during the school year.

At the beginning of each school year, each school must notify all parents/guardians and staff of their school, about the Wicomico County Board of Education Integrated Pest Management System.

A. What is the Integrated Pest Management System?

Integrated Pest Management, or IPM, is a system of controlling pests that does not depend on automatic application of pesticides. Instead, pests are monitored by regular and careful inspections. The inspections also identify conditions contributing to pest problems. It is then decided what actions are necessary, if any, based on the biology and habits of the pests involved. Priority is given to non-chemical pest management techniques, particularly those that can prevent a recurrence of the problem. Pesticides are used when necessary, but only in a way that minimizes potential exposure to people and the environment. Records are kept to track problems, prevent recurrences, and evaluate the results of pest management actions.

B. What are the names of the pesticides and bait stations that may be used on school property. This includes but is not limited to:

Propoxur Orthoboric acid Mefenoxam Boric Acid Paclobutrazol Hydramethylon Brodifacoum Sulfonamide M Abamectin F Imidacloprid C Pyrethrin Cyfluthrin Piperonyl Butoxide Glufosinate ammonium

Methoprene Permethrin Glyphosate



Who is the person that I may call if I have any questions?

Mr. David Fulton Environmental/Safety Specialist c/o Facilities Department Wicomico County Board of Education (410) 677-4593

Mr. Fulton, identified above as the contact person, will also have the product labels and Material Safety Data Sheets for all pesticides and bait stations that are listed above. In addition, product labels and Material Safety Data Sheets for any new pesticides that are deemed necessary through out the school year will also be Kept by Mr. Fulton. This information is available at your school and at the following location: Facilities Department, Wicomico County Board of Education, 101 Long Avenue, Salisbury, Maryland 21802 and is available for your review at any time. Mr. Fulton is also available for any additional information you may need and will be happy to listen to any comments you may have.

D. Notifications before pesticide use

Additional notifications throughout the school year will be sent to all parents/guardians and staff members in an Elementary school before any application of a pesticide are made in a school building or to school grounds. These written notices will be sent home with each student and provided to each staff member at least 24 hours before each application. Please remember that the idea behind an Integrated Pest Management Plan is to utilize all other non-chemical means to eliminate pests before a pesticide is used. It is our intention to continue to adhere to this practice.

WCBOE

FACILITY SERVICES

MEMO:

TO:	Parents and Employees	DATE:
FROM:	David Fulton Environmental/Safety Specialist	
RE:	Pesticide Application	

The Wicomico County Board of Education, being consistent with Maryland law (HB 286) effective July 1, 1998, is to provide written notification to parents and employees whenever pest treatments are conducted in or on school property. Notifications must be provided at least 24 hours before a pesticide is applied, or notification must occur within 24 hours after an emergency pesticide application. The purpose of this memorandum is to notify you that one of our contractors will be applying the following pesticide treatment:

On ______

At _____.

Pesticide(s) Applied _____

To Control _____School _____

Location _____Company _____

The Office of Pesticide Programs of the United States Environmental Protection Agency has stated: "Where possible, persons who potentially are more sensitive, such as pregnant women and infants (less than two years old) should avoid any unnecessary pesticide exposure."

Copies of the Material Safety Data Sheet, Product Labels, and answers to specific questions regarding our Integrated Pest Management Program may be obtained by calling David Fulton at 410-677-4593.

Potential Adverse Effects:

Potential Adverse Effects:

NOTIFICATION TO PARENTS, GUARDIANS AND STAFF REGARDING THE PLANNED SPACE SPRAYING OF A PESTICIDE

Dear parents/guardian/staff members:

Please accept this letter as written notification that it will be necessary to conduct a space spraying of a pesticide at:

School:_____

To Control:_____

Common Name of Pesticide to be applied: _____

Location (s) of the pesticide application:

Date and Time of application:

Note: The Maryland department of Agriculture's Regulations pertaining to Integrated Pest Management and Notification of Pesticide Use in Public Schools requires that the following information be provided as part of this notice.

"The Office of Pesticide Programs of the United States Environmental Protection Agency has stated: Where possible persons who potentially are more sensitive, such as pregnant women and infants (less than two years old) should avoid any unnecessary pesticide exposure."

The following information regarding potential adverse effects was taken from the material safety data sheet (MSDS) of the pesticide to be applied._____

If you have any questions or would like additional information on the above, feel free to contact David Fulton, Environmental/Safety Specialist for Wicomico County Board of Education. Mr. Fulton is our Pest Control Coordinator. He may be reached at (410)- 677-4593.



Maryland Department of Agriculture

Office of Plant Industries and Pest Management

Martin O'Malley, Governor Anthony G. Brown, Lt. Governor Earl F. Hance, Secretary The Wayne A. Cawley, Jr. Building 50 Harry S. Truman Parkway Annapolis, Maryland 21401 TTY Users: Call via Maryland Relay Internet: www.mda.state.md.us Agriculture | Maryland's Leading Industry

410.841.5700 Baltimore/Washington 301.261.8106 Washington, D.C. 410.841.5999 Fax 800.492.5590 Toll Free

PESTICIDE REGULATION SECTION

(410) 841-5710 FAX (410) 841-2765

August 26, 2009

Anthony McNabb Worcester County Public Schools 6270 Worcester Highway Newark, MD 21841

Dear Tony:

I would like to thank you for submitting a copy of the Worcester County Public Schools revised Integrated Pest Management Plan. As you are aware, each Integrated Pest Management Plan must be reviewed by the Maryland Department of Agriculture as set forth under Regulation 15.05.02 Integrated Pest Management and Notification of Pesticide Use in a Public School Building or on School Grounds. Your revised IPM Plan has been reviewed to ensure that it is in compliance with the minimum requirements as specified in Section 15.05.02.03 Integrated Pest Management System.

Upon completing the review of your revised Integrated Pest Management Plan, the Maryland Department of Agriculture has determined that all of the required components have been addressed in your plan. This letter will serve as the formal approval of the Worcester County Public Schools revised Integrated Pest Management Plan.

Please be reminded, if any additional changes are made to the Integrated Pest Management Plan, the revised Plan must be resubmitted to the Maryland Department of Agriculture for approval. If you have any further questions please feel free to contact me.

Sincerely,

Eleverand to how

Edward A. Crow Entomologist Licensing, Certification and Training

File cc: Dennis Howard Petey Councell

WORCESTER COUNTY PUBLIC SCHOOLS

North Press

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INTEGRATED PEST MANAGEMENT (IPM) PROGRAM FOR SCHOOL BUILDINGS and GROUNDS

October, 2009

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For P. C. Andrew M. Berner, et al., M. Berner, et al.,

Worcester County Board of Education Integrated Pest Management Program

I. Integrated Pest Management Policy

The Worcester County Public Schools are committed to providing young people with a safe school environment. In an effort to protect the health and safety of all students, an Integrated Pest Management (IPM) program has been put into effect to control insects and other pests in school buildings and on school grounds. The goal of the IPM program is to eliminate the use of chemical pesticides by taking a proactive approach of frequent inspections of buildings and grounds to identify conditions conducive to pest invasion, to ensure early detection of pest presence and to monitor infestation levels. As a first step in pest control, the IPM approach employs a number of preventative strategies and alternatives to pesticide application, such as: employee education, source reduction, inspection and identification of potential problem areas and improved sanitation and maintenance. Chemical pesticides are used only as a last resort.

The primary objective of the IPM program is to provide effective, long term pest control while minimizing the use of pesticides. Scheduled or routine pesticide treatments in any area in or around a school is expressly prohibited. Pesticides shall be applied only when non-chemical methods have been shown to be ineffective or are impractical and shall be applied only in areas of known infestation. Application of any pesticide, as defined by the Maryland Department of Agriculture, shall be done in full compliance with Maryland laws and Worcester County Public Schools policies controlling Integrated Pest Management programs.

It is essential for the success of the IPM program that the IPM Pest Contractor and school personnel provide proactive services that identify housekeeping, structural deficiencies and other conditions that contribute to pest problems.

All IPM services and activities shall be planned and performed with the needs of students and staff of the schools as the foremost priority.

II. Pest Management Roles and Responsibilities

The Worcester County Board of Education and the Superintendent of Schools shall be the primary decision makers in determining the expenditure of funds and in setting the policies for the IPM program.

An IPM Coordinator shall be designated by the Superintendent of Schools to be responsible for the implementation of all aspects of the IPM program. The IPM Coordinator will serve as the Contact Person to handle all questions and concerns from students, parents, school staff and the general public relating to the IPM Program. The IPM Coordinator will be the liason between the IPM Contractor and the schools to arrange the schedule of inspections and any necessary treatments or actions to be taken by school personnel. The IPM Coordinator and Contact Person is:

H. Stephen Price Supervisor of Transportation, Maintenance and Plant Operations Worcester County Board of Education 6270 Worcester Highway Newark, Maryland 21841 Telephone: 410-632-5008 An IPM Contractor shall be selected by the Board of Education to provide the basic services of the IPM Program. These services will include regular monthly inspections of schools and grounds, routine methods to monitor pest infestations, non-pesticide treatments and recommendations for actions to be taken by school occupants to eliminate pest infestations and pesticide treatments when all other actions have failed.

Each school shall designate two persons to serve as contact persons to be responsible for communicating with the IPM Coordinator and for communicating with the IPM Pest Technicians during inspections and treatments. The school contact persons will be responsible for maintaining the Pest Management Logbook to record sightings of pests by students or school staff members and to report pest sightings to the IPM Coordinator.

Occupants of the schools, including students and school staff, shall be educated in the principles of IPM and shall be responsible for reporting the location of pests to the school contact person. In addition, the occupants will be expected to assist in achieving the goals of the IPM program by cooperating with the sanitation procedures for the school.

A Central Maintenance Technician shall be trained and licensed as required by the Maryland Department of Agriculture to handle the IPM procedures for the control of weeds on school grounds. These procedures include inspections, recommendations for controlling weeds other than by applying an herbicide and applications of a herbicide to control weeds.

III. Pest Control Procedures and Pest Management Objectives

A. Procedures

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The fundamental procedures that shall be used to ensure the success of the IPM Program include:

- 1. Parents, students and school staff will receive information about the IPM Program and the Contact Person at the beginning of each school year in the school system Student Handbook and Calendar of Events. A sample of the notification is in Apendix A of this document.
- 2. All schools will be inspected monthly by the IPM Pest Contractor or more frequently as required by the sightings of pests. The IPM Coordinator will maintain communications between the IPM Pest Contractor and the schools to ensure prompt response to the needs for service and to ensure that recommended actions are taken to resolve problems.
- 3. A Pest Management Logbook will be maintained in the administrative office of each school to document the sightings of pests, the actions taken by IPM Pest Technicians, and actions recommended for school personnel to resolve pest problems. A sample Logbook sheet is in Appendix B of this document.
- 4. The IPM Pest Contractor will provide a written report of infestations of pests and of actions taken by the Pest Technicians and recommendations for actions to be taken by school personnel to eliminate pest infestations. Examples of actions to be taken include: using traps and bait stations to monitor the extent of pest infestations, making repairs to and sealing cracks in structures to exclude pests and adjusting sanitation practices to eliminate sources of food and environment conducive to pest infestations. A sample report sheet is in Appendix C of this document.

- 5. The Maintenance Technician responsible for the IPM procedures to control weeds on school grounds will maintain records of inspections and applications of herbicide. A sample record of application and the sign to be posted are included in Appendix F of this document.
- 6. It is the Policy of the Worcester County Board of Education to utilize IPM principles to manage pest populations adequately. The full range of pest control alternatives, including no action, will be considered.
- 7. When it is determined that a pesticide must be used in order to meet vital pest management goals, the least hazardous pesticide will be selected. The application of such pesticides will be handled subject to Worcester County Board of Education policies and Procedures and all applicable state, federal and local regulations including the Maryland Pesticide Applicators Law and Regulations and the Federal Insecticide, Fungicide and Rodenticide Act.
- 8. The IPM Program will be reviewed and evaluated each year by the IPM Coordinator and the IPM Pest Contractor to determine the success of program and to make adjustments to procedures and/or actions to improve the effectiveness of the program.

B. Objectives

- The primary objectives of the IPM Program are to eliminate pest infestations and to take actions to prevent future infestations without the use of pesticides. Included in these objectives are the goals of:
- 1. Reducing any potential health hazard or to protect against a significant threat to public safety.
- Preventing loss or damage to school structures or property and preventing a reoccurrence of the problem.
- 3. Preventing pests from spreading on the school grounds or to plant and animal populations beyond the site.
- 4. Managing pest infestations in ways that improve the quality of the educational environment for students, staff and the public.

IV. Procedures for Conducting Pest Inspections and Monitoring

The procedures for conducting pest inspections and monitoring of pest infestations shall be determined by the IPM Coordinator in cooperation with the IPM Pest Contractor and school personnel. The basic procedures shall include:

- 1. A monthly inspection of areas of the building and grounds noted in the Pest Management Log Book shall be performed to monitor pest infestations; other areas where pests were noted previously will be inspected for success of treatments.
- 2. Adequate bait stations, traps, glue boards, etc. shall be provided to effectively monitor the extent of pest infestations in and around schools to formulate actions other than application of pesticides to control pest infestations.

- 3. Written reports shall be provided to the IPM Coordinator of findings in each school and recommendations for handling pest infestations, noting the specific location of pests by name and actions to be taken to alleviate problems. Recommendations may include specific actions to be taken by school personnel to improve sanitation practices, to modify structures or conditions, or to change personnel practices.
- A written log of pest activity and actions taken to handle any problems will be maintained in each school or facility office.

The intent of these procedures is for the IPM Pest Contractor to provide necessary services to effectively monitor and control pest activity and to make recommendations of proactive measures to school personnel to eliminate environmental conditions conducive to pest infestations.

A sample of the current IPM Pest Contractor's inspection criteria is in Appendix D of this document.

V. Standards to Determine the Severity of Pest Infestations

The action threshold for which specific steps will be taken to eliminate pest infestations will be made on a case by case basis by the IPM Coordinator, the IPM Pest Contractor and school personnel including the school principal, custodial staff, cafeteria staff, and others as circumstances require. Actions taken will depend on the type of pest involved, the severity of the threat to the health and safety of school occupants and the size and duration of the pest infestation. The final determination of when and what actions will be taken will be made using results from inspections, monitoring devices and success of prior actions over a period of time.

VI. Record Keeping

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Records of pest sightings, actions taken by the IPM Pest Contractor and recommendations for actions to be taken by school personnel to manage pest infestations shall be maintained in each school administrative office in a Pest Management Logbook provided by the IPM Pest Contractor. In addition, the written reports submitted by the IPM Pest Contractor for each inspection / service call to the school shall be kept in the Logbook and a copy shall be sent to the IPM Coordinator.

The Maintenance Technician licensed to apply herbicides to control weeds on school grounds shall be responsible for maintaining records of inspections and applications of herbicides.

The IPM Coordinator shall be responsible for maintaining records of the application of a pesticide and shall be responsible for handling the required notification of students, parents and school staff whenever a pesticide is applied and for maintaining records of notifications.

VII. Pest Management Strategies

Pest management strategies shall include the use of non-pesticide methods and the use of a pesticide only after all other strategies have failed or there is an immediate danger to the health or safety of school occupants.
Non-pesticide methods shall include but are not limited to:

- Exclusion of pests by caulking and sealing cracks or other pest pathways is the preferred method of preventing and controlling infestations and shall be a part of the basic services. The IPM Pest Contractor shall make limited applications of approved sealants and other exclusion materials under sinks and around cabinets, pipe chases, windows and doors and exterior areas. The IPM Pest Contractor shall make recommendations for large scale application of sealants or other exclusion materials in whole rooms or around the exterior of buildings.
- The use of vacuum cleaners, mechanical traps, insect light traps and glue traps are methods that the IPM Pest Contractor will use in providing the basic IPM service. Traps should be placed in areas that are safe with respect to health and safety concerns of students and school staff.
- The IPM Pest Contractor must be proactive in identifying known and suspected problem areas that provide food, water, harborage and access for pests in and around the school buildings and shall provide specific recommendations for sanitation practices, methods of operation or changes in structure to control pest infestations.
- School personnel shall be responsible for maintaining sanitation of the school in a manner that eliminates the sources of food and environments conducive for pests. The primary personnel involved in these efforts will be the cafeteria and custodial staffs to ensure the cleanliness of the cafeteria kitchen and serving areas and restrooms.
- Students, teachers and other occupants of the school will assist in the sanitation efforts by monitoring food sources in lockers, cabinets and other areas and by cooperating with efforts to keep the school clean.
- On school grounds methods to control weeds and pests in school landscaping will include using string trimmers, garden implements and other tools to cut and/ or cultivate gardens, fencing, building edges, ditches, etc. Proper installation of plants, appropriate watering regimes and selecting plant species that are suited to specific sites are other measures that will be used.

VIII. Pesticide Applications

Pesticide applications shall be made only to areas of known pest infestation in situations where the health and safety of students and staff members are endangered and where non-pesticide methods have failed. The application of any pesticide will be done in full compliance with federal laws, Maryland Department of Agriculture regulations and Worcester County Public Schools policies. The application of any pesticide in any school building or facility must be approved in advance by the IPM Coordinator.

Application of pesticides will be scheduled at times when the areas to be treated are not occupied or in emergency situations when the area to be treated has been cleared of occupants. In most situations the application of pesticides will be done after school hours or on week ends.

Pesticide applications made on school property will be conducted by a certified pest control applicator who has been trained in the principles and practices of IPM and the use of pesticides. Pesticide applications will be done in compliance with state and federal pesticide regulations, label precautions and the Worcester County Board of Education IPM Policy and Plan.

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IX. Pesticide Purchase and Storage

It is the policy of the Worcester County Board of Education to purchase and store only the herbicide for controlling weeds on school grounds. This pesticide is stored at the Central Maintenance facility in a secure area that is posted by appropriate signage as required by EPA regulations in a locked cabinet that is not accessible to students or unauthorized personnel.

Pesticides to control insects or other pests in or around any school facility are provided by the IPM Contractor. The Worcester County Board of Education IPM Policy and Plan prohibit the purchase or storage of any pesticide in any school building or storage area on school grounds.

X. Education and Training

School occupants, including students, staff and parents, shall be informed about the IPM Program components and shall be urged to cooperate with the IPM procedures.

School staff shall be advised annually by memo of the IPM procedures to report sightings of pests to the school contact persons and to support the IPM efforts by monitoring the sources of food and environments conducive to pest infestations in their work areas. Custodians and cafeteria personnel will receive written information yearly in sanitation methods to eliminate the food sources and environments conducive to pest infestations in the school building or on school grounds.

Further training of school personnel shall be provided as it is deemed necessary by the IPM Coordinator in cooperation with school administrators and the IPM Pest Contractor.

XI. Program Evaluation

The IPM Program shall be evaluated annually by the IPM Coordinator and the IPM Pest Contractor to determine the effectiveness of the procedures in controlling the infestations of pests.

The Pest Management Logbooks that note the number and severity of pest infestations and sightings and the monthly written service reports provided by the Pest Control Technicians will be used as data in determining whether to continue current practices or to make adjustments.

The IPM Coordinator, the Maintenance Technician responsible for handling the control of weeds on school grounds and other school personnel will review procedures for controlling weeds and will make adjustments to methods used as needed.

XII. Notification Procedures

Whenever a pesticide is applied in a school or on school grounds it is the policy of the Worcester County Board of Education that all students, parents and school staff shall be notified in writing as required by the Annotated Code of Maryland pertaining to the Maryland Department of Agriculture's regulation of Integrated Pest Management programs. The IPM Coordinator will be responsible for ensuring that written notification is made as required.

Samples of letters of notification and posting notices are in Appendix E of this document.

Appendix A

The Worcester County Public Schools are committed to providing young people with a safe school environment. In an effort to protect the health and safety of all students, an Integrated Pest Management (IPM) program is used to control insects and other pests in and around school buildings. The goal of the IPM program is to eliminate the use of chemical pesticides by conducting frequent inspections to identify conditions conducive to pest invasion, to ensure early detection of pest presence and to monitor infestation levels. As a first step in pest control, the IPM approach employs a number of preventative strategies and alternatives to pesticide application, such as: employee education, source reduction, inspection and identification of potential problem areas and improved sanitation. Chemical pesticides are used only as a last resort.

Plant growth in cracks and along edge areas in sidewalks and driveways around schools are controlled by manual or mechanical weeding and filling cracks to prevent future growth. When these efforts are not successful, areas are sprayed by a licensed pesticide applicator using Roundup Pro at times when students and staff are not in school.

In the event it is necessary to use a chemical pesticide, all students, parents and staff in the school where an application is made will be notified in writing at least twenty-four hours before the pesticide is applied. If a chemical pesticide must be applied in an emergency situation as defined by Maryland law to be " ... a sudden need to mitigate or eliminate a pest which threatens the health or safety of a student or staff member," written notification will be sent to all students, parents and staff of the school within twenty-four hours of the emergency application.

The following pesticides and bait stations, by common name, may be used by the IPM contractor whenever it becomes necessary to chemically control pests inside of and around school buildings:

abamectin	deltamethrin	pyrethrins
fipronil	polybutylenes	cypermethrin

Any questions or comments regarding the Worcester County Public Schools' Integrated Pest Management program should be directed to:

II. Stephen Price, Supervisor of Maintenance and Plant Operations Worcester County Board of Education 6270 Worcester Highway Newark, Maryland 21841 Telephone: 410-632-5008

A description of the Integrated Pest Management program is maintained in each school that includes a pest inspection schedule, results of past inspections and actions taken to control pests. Material Safety Data Sheets and product labels for each pesticide and bait station used in or around any school will be maintained in the Maintenance Supervisor's Office at the Board of Education complex. Persons wishing to review this information should contact Steve Price, Supervisor of Maintenance and Plant Operations to arrange an appointment.

		[T	T			
	Date		 							
Reported S	Location									
Ehrlich	By Whom									
Pest Cont	Pest Sighted									
rol - Sighting Log Ehrlich Res	Action Taken				•					
ponse	Date									
	Technican									<u></u>

Appendix B

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Appendix C

SUPERIOR BUSINESS SOLUTIONS (717) 854-7855

PEST CONTROL INSPECTION AND SERVICE REPORT



RECEIPT		•	ongoing maintenance service is in place
PROOF OF		\$	Maintenance Service. A planned visit that is part of an ongoing
	Sales Tax	\$	Service to prevent pest concerns
be mailed)	TOTAL	\$	property under a service warranty. There is NO service fee for this work today.
INVOICE	AMOUNT PAID	\$	During this service today, I inspected and/or treated for some or all
	Thank	you for your payment!	of the following pests based on the Service Program established:
(Please Retu	irn Payment Wit	h Yellow Copy).	Mice
MAKE CHECKS		ah Ca Ina	Rats
PAYABLE TO: n	J.C. ENFIL		Roaches - German, Oriental and/or American
P.	U. BOX 13848, Rea	aing, PA 19012-3040	Pavement Ants
Please use th	e envelope included nevment information	with this report.	Silverlish and Centipedes
routional	payment mornalion	01/10/0/00	OTHER
NEXT SERVICE SCHE	DULED FOR		•
			`
CUSTOMER			
			SERVICE WARRANTY
			Service warranty period is
J.C. Ehrlich Co., Inc.			performed to be effective. We will perform additional treatment for
			covered pests at no charge should a reinfestation occur during the
			Service warranty period.
DATE	TIME		WE WANT TO ENSURE YOUR SATISFACTION WITH OUR WORK.

TECHNICIAN COMMENTS ABOUT TODAY'S SERVICE:



HOW ARE WE DOING? We want you to be pleased with the results of today's service. A Customer Satisfaction Survey is included on the reverse of the yellow portion of this report. May be continued on reverse 1.

CUSTOMER COPY

9



Report Number: 020039144-000

Servicing Office: EHRLICH - 18904 MARANATHA WAY UNIT 2 , BRIDGEVILLE, DE 19933 Phone: 302-337-8100

Client: WORCESTER COUNTY BOARD O Service Location: WORCESTER COUNTY BOARD OF EDI 6270 WORCESTER HWY 800 EIGHTH ST POCOMOKE MIDDLE SCHOOL NEWARK, MD 21841 POCOMOKE CITY, MD 21851 Work Started: Work Finished: Status: **Actual Duration: Customer Signature Technician Signature** 8LC: Customer Name: Technician Name: SHAWN SWAIN Lic.#: Service Order Details for Visit Service Order # Service Type Service Charge Tax Total 020039144-000 PEST CONTROL MAINT-C \$0.00 \$0.00 \$0.00 Grand Total: \$0.00 Payment Type: **Payment Amount: Device Summary for Visit Devices with Activity Devices without Activity** Number of Devices Inspected **Device Type** Area 1 2 3 3 2 - Totais 1 **Device Exceptions for Visit** Inaccessible **Device Type** Repaired Replaced Removed , Area 0 0 0 1 0 0 - Totals 0 1 Site Deficiencies Site Deficiency Date Status **Device Deficiencies** Site / Device Date Deficiency Status Recommendations Site Recommendation **Device Pesticide Applications** EPA Number Lot Number Pesticide N/A No Product Used Site \ Device Quantity: Concentration: Area: INTERIOR -> CAFETERIA / AREACAFETERIA 0.00 Other Method: General Target Pest(s): Other



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Provide the providence of the

800000 E.C.

With Array

Report Number: 020039144-000

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Device	Pesticide Ap	olications						
EPA Number Lot Number			Pesticide					
NA			Insect Glue Monitor					
Site INTE	\ Device RIOR -> KITCHEN / ARI	EAKITCHEN	Quantity: 6.00_EA	Concentration:	Агеа:			
	Method:	Space						
	Target Pest(s): Notes:	Occasional invaders Replaced as needed.						
EPA Numt NA	ber Lot	t Number	Pesticide Rodent Glue	board				
Site	Device		Quantity:	Concentration:	Area:			
INTER	NOR -> KITCHEN / ARI	EAKITCHEN	6.00 _EA					
	Method:	Space						
	Target Pest(s): Notes:	Occasional Invaders Replaced as needed.						
Site Pea	ticide Applic	ations	<u></u>					
Site Ins	pections				Inspection Date/Time			
Notes								
	<u>,</u>		······································					

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Appendix D

SEhrlich

18904 Maranatha Way Unit 2 Bridgeville, DE 19933

T 302-337-8100 F 302-337-8797 Delmarva@JCEhrlich.com www.JCEhrlich.com

Your Local Pest Control Experts

Inspection Guidelines for Service at Worcester County Public Schools

The following areas will be inspected at the monthly maintenance service to all locations for Worcester County Public Schools.

- Exterior Areas inspect for evidence of pest activity, harborage areas, proper disposal of trash, good drainage, maintenance of exterior building perimeter – any deficiencies/recommendations to be included on monthly service report
- Building Interior inspect areas on interior of building including cafeteria, offices, food storage, kitchen, food prep areas, common areas, restrooms, vending areas – any deficiencies/recommendations to be included on monthly service report

Should an infestation of any covered pest be found at any location, recommendations will be made to the Board of Education regarding treatment or prevention of future problems. If recommendations include application of pesticides, time will be scheduled, with the Board of Education's approval, for service to occur to address the pest problem. Should a school or Board of Education report an issue, Ehrlich Pest Control will inspect the area(s) of reported problems, and make recommendations to correct the situation with Board approval.

Appendix E

NOTIFICATION TO PARENTS, GUARDIANS, STUDENTS AND STAFF REGARDING THE PLANNED SPACE SPRAYING OF A PESTICIDE

Integrated pest management procedures such as inspections and monitoring are used to determine when to control pests and to identify conditions contributing to pest problems. The necessity for pest control, if warranted, is evaluated and one or more pest control methods including sanitation, structural repair, non-chemical methods and pesticides are utilized. Problem areas are identified where alternative pest control technologies can be incorporated in order to eliminate routine pesticide applications. It has been determined that a current pest problem warrants the use of a pesticide to be applied as a space spray in order to effectively control the pest problem.

SCHOOL: _____

DATE OF NOTIFICATION: _____

REASON FOR PESTICIDE USE: _____

COMMON NAME OF PESTICIDE TO BE APPLIED:_____

LOCATION OF THE PESTICIDE APPLICATION: _____

PLANNED DATE AND TIME OF APPLICATION:

NOTE: The Maryland Department of Agriculture's Regulations pertaining to Integrated Pest Management and Notification of Pesticide Use in Public Schools requires that the following information be provided as a part of this notice:

"The Office of Pesticide Programs of the United States Environmental Protection Agency has stated: Where possible, persons who potentially are more sensitive, such as pregnant women and infants (less than two years old), should avoid any unnecessary pesticide exposure."

Information about the pesticide being applied is available on the material safety data sheets (MSDS) for the product in the school office. The following information regarding potential adverse effects was taken from the MSDS sheets:

If you require further information regarding this notice you may contact H. Stephen Price, Supervisor of Transportation, Maintenance and Plant Operations at 410-632-5008.

NOTIFICATION TO PARENTS, GUARDIANS, STUDENTS AND STAFF OF PESTICIDE APPLICATION

Integrated pest management procedures such as inspections and monitoring are used to determine when to control pests and to identify conditions contributing to pest problems. The necessity for pest control, if warranted, is evaluated and one or more pest control methods including sanitation, structural repair, non-chemical methods and pesticides are utilized. Problem areas are identified where alternative pest control technologies can be incorporated in order to eliminate routine pesticide applications. After considering all possibilities it has been determined that a current pest problem warrants the use of a pesticide to be applied in order to effectively control a pest problem as described below.

SCHOOL: _____

DATE OF NOTIFICATION:

REASON FOR PESTICIDE USE:

COMMON NAME OF PESTICIDE TO BE APPLIED: _____

LOCATION OF THE PESTICIDE APPLICATION:

PLANNED DATE AND TIME OF APPLICATION:

NOTE: The Maryland Department of Agriculture's Regulations pertaining to Integrated Pest Management and Notification of Pesticide Use in Public Schools requires that the following information be provided as a part of this notice:

"The Office of Pesticide Programs of the United States Environmental Protection Agency has stated: Where possible, persons who potentially are more sensitive, such as pregnant women and infants (less than two years old), should avoid any unnecessary pesticide exposure."

Information about the pesticide being applied is available on the material safety data sheets (MSDS) for the product in the school office. The following information regarding potential adverse effects was taken from the MSDS sheets:

If you require further information regarding this notice you may contact H. Stephen Price, Supervisor of Transportation, Maintenance and Plant Operations at 410-632-5008.

NOTIFICATION TO PARENTS, GUARDIANS, STUDENTS AND STAFF REGARDING THE APPLICATION OF A PESTICIDE IN AN EMERGENCY SITUATION

Integrated pest management procedures such as inspections and monitoring are used to determine when to control pests and to identify conditions contributing to pest problems. The necessity for pest control, if warranted, is evaluated and one or more pest control methods including sanitation, structural repair, non-chemical methods and pesticides are utilized. Problem areas are identified where alternative pest control technologies can be incorporated in order to eliminate routine pesticide applications. It was determined that an emergency pest situation existed that warranted the use of a pesticide on an emergency basis.

SCHOOL: _

DATE OF NOTIFICATION: _____

REASON FOR EMERGENCY PESTICIDE APPLICATION:

COMMON NAME OF PESTICIDE TO BE APPLIED:

LOCATION OF THE PESTICIDE APPLICATION:

PLANNED DATE AND TIME OF APPLICATION:

NOTE: The Maryland Department of Agriculture's Regulations pertaining to Integrated Pest Management and Notification of Pesticide Use in Public Schools requires that the following information be provided as a part of this notice:

"The Office of Pesticide Programs of the United States Environmental Protection Agency has stated: Where possible, persons who potentially are more sensitive, such as pregnant women and infants (less than two years old), should avoid any unnecessary pesticide exposure."

Information about the pesticide being applied is available on the material safety data sheets (MSDS) for the product in the school office. The following information regarding potential adverse effects was taken from the MSDS sheets:

If you require further information regarding this notice you may contact H. Stephen Price, Supervisor of Transportation, Maintenance and Plant Operations at 410-632-5008.

NOTICE CAUTION – PESTICIDE APPLICATION

The following pesticide was applied :

Date of Application: _____

Common Name of Pesticide: _____

Location of Application:

For additional information, including on potential adverse effects, contact:

H. Stephen Price Supervisor of Transportation and Maintenance Worcester County Board of Education 410-632-5008

NOTICE – BAIT STATION IN USE CAUTION – PESTICIDE APPLICATION

Date of Placement: _____

Common Name of Pesticide: _____

For additional information, including information on potential adverse effects, contact:

H. Stephen Price Supervisor of Transportation & Maintenance Worcester County Board of Education Telephone 410-632-5008

NOTICE – BAIT STATION IN USE CAUTION – PESTICIDE APPLICATION

Date of Placement: _____

Common Name of Pesticide: _____

For additional information, including information on potential adverse effects, contact:

H. Stephen Price Supervisor of Transportation & Maintenance Worcester County Board of Education Telephone 410-632-5008

Appendix F

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20110-004

NTROL PESTICIDE APPLICATION
: Name and Address of Applicator (If Different):
Time of Day:
Estimated Wind Velocity:
EPA Registration Number Rate . 524-475 .
,
n and Size



Date Applied:

Constantine constantin