

**SAN FRANCISCO UNIFIED SCHOOL
DISTRICT**

**INTEGRATED PEST MANAGEMENT (IPM)
SITE COORDINATOR INFORMATION
BINDER**



**Healthy Schools Act Spurs Integrated Pest
Management in California Public Schools**

Prepared by the Facilities Management Department October 1999
Updated with Additional Information
From the State of California Healthy School Act 2016



Forward

The Facilities Management Department prepared this binder to assist Principals, Assistant Principals and Site Managers (IPM Site Coordinators) in performing Integrated Pest Management (IPM) responsibilities at District sites. It is designed to be user-friendly with easily identified tabs and with a systematic approach.

The IPM Site Coordinator will normally be the principal at an elementary school, an assistant principal at a high school and middle school and the site manager at a child development center. However, the authority for assigning the IPM Site Coordinator responsibilities rests with the administration at individual schools and sites.

The NOTICE TO PARENTS, STUDENTS AND STAFF is provided in English, Spanish and Chinese and can be removed from the binder for ease of reproduction and dissemination. We are indebted to the Bilingual Education and Language Academy for translating these documents.

We owe a note of gratitude to contributing members of the IPM Committees for their recommendations and assistance on this project. I am particularly indebted to Justin Rubin of Pesticide Watch and Beverly Koenig, parent, and Garden Coordinator at Rooftop Elementary School. Gratitude to all the individuals who participated in updating the IPM manual. I am indebted to Ulises Parada, Custodian Supervisor, Olivia Johnson, Custodian Supervisor, Margine Ruiz, Secretary, Nick Fowler, President of Applied Pest Management and Carolyn Fore, Office Manager of Applied Pest Management.

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INTEGRATED PEST MANAGEMENT (IPM)
SITE COORDINATOR INFORMATION BINDER

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HEALTHY SCHOOLS ACT REQUIREMENTS

FOR SCHOOLS AND CHILD CARE CENTERS

Identify school designee

- choose a person {at the center, school, or district level) to make sure the requirements of the Healthy Schools Act (HSA) are met
 - also known as the Integrated Pest Management (IPM) Coordinator
-

Develop an IPM plan*

NEW as of January 1, 2015:

- create an IPM plan using the template for an IPM plan provided by the Department of Pesticide Regulation (DPR); or get your IPM plan approved by DPR
 - post the IPM plan on the center, school, or district Web site if you do not have a Web site send the IPM plan to all parents, guardians, and staff with the annual written notification
 - the IPM plan must be available to view in the center or school office
 - the Web site for the IPM plan must be included in the annual written notification
 - the template for an IPM plan will be available on the DPR School IPM Web site¹ by January 2015
-

Provide annual

written

notification •

- Send all parents, guardians, and staff a written notification of pesticide products expected to be applied at schools and child care centers (school sites) during the year provide product name, active ingredient, Web site for the IPM plan, and the DPR School IPM Web site
 - the notification must also inform parents, guardians, staffs that the IPM plan is available to view in the center or school office
 - If you hire a pest control business, include any pesticides they may use
 - If a product is not included in the annual notification used give a written notification to all parents, guardians, and staff at least 72 hours before application
-

Establish individual notification

registry •

- Allow all parents, guardians, and staff the opportunity to register to be notified before each pesticide application
 - Notify everyone on the registry about individual pesticide applications at least 72 hours before each application
 - Provide product name, active ingredient, and intended date of application
-

Post warning signs*

- Post warning signs at each area where pesticides will be applied so that they are visible to anyone entering the area
 - Post signs at least 24 hours before and leave up at least 72 hours after an application
 - Signs must read "*Warning-Pesticide Treated Area*" and include product name, manufacturer's name, U.S. EPA registration number, scheduled date and areas of application, and reason for application
-

Visit DPR's School IPM Web site: www.cdpr.ca.gov/schoolipm/

Keep records•

- Keep records of all pesticide applications for four years at each school site
 - Records must include product name, manufacturer's name, U.S. EPA registration number, date and areas of application, reason for application, and amount used
 - Make records available to the public when requested
-

Send pesticide use reports. to DPR*

NEW as of January 1, 2015:

- Send pesticide use reports for pesticide applications made by school site employees
 - DPR annually or more frequently
 - Submit reports no later than January 30 for the previous year (for example, submit your 2015 reports no later than January 30, 2016)
 - Use the DPR form HSA-118 (Pesticide Use Reporting For School And Child Care Employees) which will be available on the DPR School IPM Web site in January 2015
 - Do Not submit pesticide use reports for pesticides applied by contractors; they will submit their reports to DPR
-

Don't use prohibited pesticides

- Pesticides with inactive registrations or that are on the *List of Pesticide Products Prohibited from Use in Schools and Child Care Facilities* cannot be used on school sites
 - This list is posted on the DPR School IPM Website
 - always check this list prior to using a new pesticide product
 - Check the DPR product database at [www.cdpr.ca.gov/docs/label/labelque. htm](http://www.cdpr.ca.gov/docs/label/labelque.htm) before using old products to verify that the registration is still active
-

Complete IPM training

NEW as of July 1, 2016:

- Take a DPR-approved training course before applying pesticides, and renew annually
 - The list of DPR-approved courses meeting this requirement will be available on the DPR School IPM Website in spring 2016
 - This training is required for the IPM coordinator and anyone who will apply pesticides (including disinfectants) at the school site
 - The training must focus on school site IPM and the safe use of pesticides in relation to the unique nature of school sites and children's health, and is in addition to the required annual pesticide safety training
-

*The HSA exempts certain types of reduced-risk pesticides from the IPM plan, notification, posting, record keeping, and reporting requirements. These reduced-risk pesticides include self-contained baits or traps, gels or pastes used for crack-and-crevice treatments, antimicrobials, and pesticides exempt from registration under the Federal Insecticide, Fungicide, and Rodenticide Act (Education Code Section 17610.5). To determine whether a product is exempt, or not, read the label carefully, and consult DPR's *Exempt Pesticides Worksheet* on the DPR School IPM Web site.

For School Administrators, Risk Managers & IPM Coordinators

Complying with the Healthy Schools Act

The Healthy Schools Act establishes requirements for school districts when pesticide applications are made at California public K-12 schools. Below is a step-by-step guide that school IPM coordinators and administrators can follow to meet the requirements of the law:

1. Identify an IPM Coordinator. This person will ensure the district meets the requirements of the law.
2. Develop an IPM plan using the DPR template. Post the IPM plan to the school or district Website, or, if no Web site exists, include it with the annual written notification.*
 - o [IPM Plan Template PDF](#) (722 kb)
3. Notify all parents and school staff of pesticides expected to be used during the coming year.*
4. Give all parents and school staff the opportunity to register to receive notification of individual pesticide applications. Notify registered parents and school staff at least 72 hours before each pesticide application.*
5. Starting July 1, 2016 and annually thereafter, the IPM Coordinator and everyone applying pesticides must complete a DPR-approved school IPM training course prior to applying any pesticide (including disinfectants such as bleach).
 - o Check the [Required HSA Training](#) web page for course availability!
6. Post warning signs around the application area 24 hours before pesticide applications and keep signs posted for 72 hours afterward.*
7. Keep pesticide use records on site for 4 years.*
8. Submit pesticide use reports to DPR annually for all applications made by school employees.*
Do not report pesticide use by contracted pest management professionals.
 - o [Pesticide Use Report form for school employee applications, PDF](#) (228 kb)
9. Check if pesticides are prohibited for use in schools and child care centers in [English, PDF](#) (50 kb) or [En Español, PDF](#) (53 kb).

* Exemptions may apply to these requirements. See the Exemptions from the Healthy Schools Act section below.

For a more detailed, printer-friendly version of this step-by-step: Healthy Schools Act Requirements [English, PDF](#) (134 kb) or [En Español, PDF](#) (125 kb)

Exemptions from the Healthy Schools Act

The Healthy Schools Act does not require an IPM plan, notification, posting, recordkeeping, or reporting when the following pesticide products are used:

- Self-contained baits and traps
- Gels or pastes used for crack-and-crevice treatments
- [Antimicrobials](#)
- Products listed as "minimum-risk" pesticides by the U.S. EPA

Training is always required when any pesticides are used.

[HSA Exempt Products Flowchart, PDF](#) (319 kb) - The Healthy Schools Act exempts some products because they are reduced risk or used for health and safety purposes. Use this flow chart to help determine if you're using a lower risk product!

Healthy Schools Act Compliance Kit

To make it easier for school districts to meet the requirements of the Healthy Schools Act, DPR created Healthy Schools Act Compliance templates and sample forms.

- Healthy Schools Act Requirements ([English, PDF](#), 391 kb) [En Español, PDF](#) (125 kb)
- [IPM plan template, PDF](#) (722 kb)
- [Sample annual notification of pesticide use, PDF](#) (43 kb)
- [Sample notice of opportunity to register for receiving treatment notifications, PDF](#) (88 kb)
- [Sample notice of individual pesticide application, PDF](#) (37 kb)
- [Sample warning sign, PDF](#) (53 kb)
- [Pesticide Use Reporting form for School Employees,, PDF](#) (228 kb)
- **Choosing Least Hazardous Pesticides**

With heightened awareness of pesticide used at schools, you are likely to receive more inquiries on the safety of particular products. DPR created the School Integrated Pest Management Health and Environmental impacts Look up Resource ([School IPM HELPR](#)) to help you choose the least hazardous, effective treatment for your pests.

Contracting with a Pest Management Professional

If your school contracts a pest management professional for all or part of its pest management activities, you should make sure to include IPM practices in the contract. Note that beginning July 1, 2016 anyone hired to apply pesticides must complete a DPR-approved school IPM training course prior to applying any pesticides at a school.

Resources:

- [Sample IPM Contracts and Guidance When Hiring a Pest Control Company, PDF](#) (108 kb)
- [IPM contract performance specifications, PDF](#) (24 kb) from the U.S. EPA Integrated Pest Management for Schools: A How-To Manual.
- [Hiring a Pest Control Company Guidelines](#) from the UC IPM Statewide Integrated Pest Management Program

GENERAL INSTRUCTIONS FOR THE USE OF THIS BINDER

This binder is designed primarily to assist the **IPM Site Coordinator** in carrying out the important oversight responsibilities associated with Integrated Pest Management (IPM) in a school environment. It is a step-by-step approach as follows:

The IPM Site Coordinator's Responsibilities

1. Records
2. Notification protocols prior to spraying
3. Posting warning signs
4. Submitting work requests
5. Informing students and staff about IPM

Pest Sighting Log maintained by the IPM Site Coordinator and for use by teachers and staff to report the date and time of sighting, the exact location, the type of pest etc.

Record of visits by the pest control contractor and pest prevention recommendations including action taken.

The use of "Request line" to submit work requests necessary to accomplish Integrated Pest Management. IPM related work requests are submitted electronically using the District web page and "flagging" the work as IPM / health and safety issues.

Information on the most common pests in and around school buildings: (rats, mice, cockroaches and ants) and weeds in gardens, playgrounds and fence lines. Included in this section is a series of pictures to help identify these pests and information on prevention and control measures.

The creative approaches to IPM contains a very thoughtful tutorial "What You Can DO About Pesticide Use in Schools" prepared by the Washington Toxics Coalition. This is a very useful tool for informing students of the problems associated with the use of hazardous pesticides at school. It provides examples of IPM techniques, what individuals and groups can do a list of resources and a reading list.

Board policy on IPM for easy reference.

The "Points of Contact for IPM Information" is a quick reference guide for local individuals and agencies you may contact for IPM related matters.

The binder should be located in the school office in the immediate vicinity of the Pest Control Log and the "Blue Book" (Crafts Sign-in Book). It should be immediately available to parents and staff interested in the IPM program in their school.

INTEGRATED PEST MANAGEMENT (IPM) FACT SHEET

I. POLICY

The San Francisco Board of Education established an Integrated Pest Management (IPM) policy on February 10, 1998. The policy bans the most toxic pesticides and mandates that pest control begins with a non-toxic or least toxic method. In the event a chemical pesticide must be used, families and school staff will be notified beforehand, the area to be treated will be posted three days prior to and after application and the IPM Site Coordinator will maintain on-site records. SFUSD families and staff will be provided with an IPM fact sheet on an annual basis. The new policy mandates the establishment of IPM Advisory Committee to implement the program.

II. COMMITMENT

Following the District's formal commitment to IPM, an IPM Advisory Committee was formed consisting of parents, teachers, a student representative, District officials and environmentalists. Numerous meetings have been held and the binder containing this Fact Sheet was produced for the IPM Site Coordinators at all school sites. Records of pesticide use are maintained at each site and are public information. Implementation of non-toxic techniques for pest control is ongoing as is the creation of IPM training programs.

III. PESTICIDES AND CHILDREN'S HEALTH

The SFUSD has adopted a model Integrated Pest Management (IPM) program because there are several very good reasons to minimize pesticide use in schools:

- 1) Pesticides can cause serious health problems. There is a growing body of evidence linking pesticides (including insecticides, rodenticides, herbicides, etc.) to a wide range of health effects. Acute (short-term) effects of pesticide exposure include eye and skin irritation, nausea, vomiting, headaches, respiratory distress, allergic reactions and, in serious cases, coma or death. The flu-like nature of many of these symptoms is one reason pesticide poisoning is often misdiagnosed.
- 2) Long term (chronic) health effects of pesticide exposure -which may include cancer, birth defects, miscarriages, and learning disabilities---can be equally serious, but are often harder to link to pesticide exposure, because they can occur years later.
- 3) Children are particularly vulnerable to pesticides. Children are not little adults. Their behavior and immature bodies make them more susceptible to pesticide poisoning. Kids may be exposed to more pesticides because they eat, drink, and breathe more for their body weight than adults do. Kids are also more likely to put hands or objects in their mouths, or to roll on a rug or lawn that has been sprayed with pesticides. Finally, children's developing organs are not able to handle toxins in the same way that adult's can.

A number of studies attest to the potential impacts of pesticides on children's health.

For example:

A study of children in Los Angeles found that they were four times more likely to get Leukemia if their parents used pesticides in their homes once a week or more compared to children whose parents did not.

A study of Northern Mexico found that children who were exposed to neurotoxic pesticides (similar to those used in many homes and buildings) had poorer memory, coordination, and drawing ability than other children.

IV. NON-TOXIC ALTERNATIVES

Non-toxic alternatives to pesticides include good housekeeping (maintaining a sanitary and healthy environment), addressing pest problems at an early stage to preclude large infestations that are difficult to control, insuring building integrity (maintaining doors and windows in a good state of repair) to keep pests from easy entrance to school sites and using traps for rodents, soapy water solutions for ants in place of pesticides when possible.

V. YOU CAN HELP

- Learn more about IPM
- Become involved in IPM at your school
- Practice IPM in your home
- Join the SFUSD IPM Advisory Committee



IPM SITE
COORDINATOR'S RESPONSIBILITIES
(List of instructions and recommendations)

- Conduct a walk-through of the site at least once a year in the company of the pest control contractor (see attached).
- Maintain service records and recommendation forms in the IPM Binder.
- Ensure that teachers and other site staff are aware of the PEST SIGHTING LOG and pest sightings are entered in the log.
- Ensure that recommendations made by the pest control contractor are followed (recommendation forms should be placed in the RECOMMENDATIONS section of this binder and individual recommendations should be checked off after they have been taken care of).
- **Notify parents, students and staff before spraying** (see guidelines and sample forms in section on (Posting)).

Step 1. If the pest control contractor tells you that pesticide spraying will be necessary, ensure that the technician completes the NOTIFICATION FORM (available in English, Spanish and Mandarin).

Step 2. Ensure that parents, teachers, students and staff are notified four (4) days before application of pesticides. This must include sending a copy of the NOTIFICATION FORM home to all parents and distributing copies to teachers and staff.

Step 3. Post WARNING SIGNS (see **POSTING-NOTICE OF PESTICIDE USE**).

- Submit maintenance requests as necessary (Use the **SFUSD Request line**).
- Distribute Pest Control Fact sheet to all teachers and staff at the beginning of each school year.
- To the maximum extent possible, ensure that students, teachers and staff are aware of the IPM program and the important role they play in its implementation (sanitation, not storing food in lockers and desks, etc.).
- Call the Pest Control Contractor as necessary (see PEST SIGHTING LOG).

INTEGRATED PEST CONTROL SANITATION CLEANING REPORT

Inspection carried out by: _____ Date: _____
(Custodial supervisor or Coordinator/designate)

School Site _____ Custodians Name: _____

Date	Time	Location	Clean	Vacuum	Disinfect	Initials
12/5/16	7:00 am	Room 102	X		X	UP

Make Sure to Check the Sightseeing Log Book Daily

Verified By: _____ Date: _____

PEST SIGHTING LOG

PEST SIGHTINGS

A key element of good pest control is accurate reporting. It is vitally important that staff provide accurate and prompt reporting when roaches, mice and other pests are observed.

More often than not, the pest control technician hears, especially from professional staff persons who should know better, "we have roaches all over the place," when actually only two or three were seen on a shelf above the sink. With this kind of vague and indefinite reporting, the pest control technician is apt to waste a great deal of time, inconvenience others and probably not get to the source of the problem.

Careful **OBSERVATION** and **PROMPT** and **ACCURATE** reporting are the basic elements necessary for controlling pests.

PEST SIGHTING LOG

In most cases, sighting a pest is not an emergency. Prompt and accurate recording of pest sightings in the **PEST SIGHTING LOG** will allow your pest control technician to address any pest problems during regular service visits.

WHEN TO MAKE A COMPLAINT CALL

1. Any time you receive a complaint from students or staff.
2. If pests are seen in public areas such as dining rooms or cafeterias.
3. When roaches are seen crawling on walls, out of cracks and in or on equipment.
4. When rodent droppings are observed.

PEST SIGHTING LOG

DATE & TIME OF SIGHTING	PERSON REPORTING	EXACT LOCATION	TYPE OF PEST	NAME OF PERSON REPORTED TO	DATE APM RESPONDED	SERVICEMAN'S NAME & TIME

Note: Please reference the INFORMATION ON COMMON PESTS section to ensure proper pest identification.



POSTING

(NOTICE OF PESTICIDE USE)

Posting signs are available in English, Spanish and Mandarin.

Signs must be posted in areas being treated at least four (4) days prior to application of the pesticide product and remain posted at least four (4) days after application of the pesticide.

DANGER/WARNING signs are designed to alert individuals to the impending application (e.g. **DO NOT ENTER**).

Copy of the **NOTIFICATION FORM** sent home to parents must be posted alongside the **WARNING** sign to provide detailed information.

Signs must be posted: (1) at every entry point where the pesticide is applied in an enclosed area, and (2) in highly visible locations around the perimeter of the area where the pesticide is applied if the application is in an open area

Signs shall be of a standardized design that is easily recognizable to the public, students and staff. Signs shall contain the name and active ingredient of the pesticide product, the target pest, the date of pesticide use, the signal word indicating the toxicity category of the pesticide product, the date of re- entry to the area treated and the name and contact number for the Pest Control Contractor responsible for the application.

The Facilities Management Department may authorize application of a pesticide without providing a four-day advance notification in the event of a public health emergency or to comply with student and staff safety requirements.



San Francisco Unified School District 555 Franklin San Francisco California 94102-5299

NOTICE OF PESTICIDE(S) APPLICATION

Pesticide(s) Name

Active Ingredient

Target Pest

Area to be treated

Date/Time of Application

Signal Word

EPA#

Re-entry Period

Spray should be dry and dust settled

Detailed information (NOTICE TO PARENTS, STUDENTS AND STAFF sheet) should be posted next to this notice.

For further information call:



SFUSD

NOTICE TO PARENTS, STUDENTS AND STAFF

CHEMICAL PESTICIDES WILL BE APPLIED AT _____ SCHOOL

Pesticide Product: _____ Date of intended application _____

EPA reg. no.: _____

Ingredient(s): _____

Target pest: *Ants* *Cockroaches*
 Rats *Fleas* *Termites*
 Other _____

Area(s) to be treated: _____

HEALTH RISKS:

Acute Toxicity Level: *Caution* *Warning* *Danger* *Danger / Poison*

Short-term effects of exposure to this pesticide may include: *nausea* *diarrhea* *dizziness*
 depression *uncoordination* *abdominal cramps* *sweating* *nasal discharge* *vomiting*
 skin irritation *Numbness, burning, or tingling skin* *respiratory irritation* *eye irritation*
convulsions *Other* _____

Health condition aggravated by this pesticide: _____

This pesticide contains one or more chemicals that are:

- Known or suspected of causing cancer*
- Known or suspected of damaging blood, liver, or other organs*
- Known or suspected reproductive or developmental toxins*
- Known or suspected neurotoxins (nervous system poisons)*
- Known or suspected immune system toxins*

This pesticide is applied as part of the School District's least-toxic Integrated Pest Management (IPM) program. Chemical pesticides are applied only as a last resort, after non-chemical alternatives have failed or are not feasible.

Almost all pesticide products contain secret "inert" ingredients, many of which are toxic. This product contains _____ % inerts. The long-term health effects of exposure to the mixture of chemicals in this pesticide product are unknown.

According to the U.S. Environmental Protection Agency, "Pesticides are not 'safe.' They are produced specifically because they are toxic to something."

CONTACT: Principal _____ Phone _____ Pesticide Watch - San Francisco: 415-292-1486
National Pesticide Telecommunications Network: 800-858-7378 San Francisco Poison Control 800-523-2222

INFORMACIÓN PARA PADRES, ESTUDIANTES Y PERSONAL EN GENERAL
PESTICIDAS QUIMICOS SERÁN APLICADOS EN LA ESCUELA

Nombre del producto: _____ Fecha que se piensa aplicar: _____
EPA Reg. No. _____ Peste que se intenta eliminar:
Ingredientes: _____ _ hormigas cucarachas ratones
_____ _ pulgas _ termitas (comejen)
_____ otros _____
Area donde se aplicaran los pesticidas: _____

RIESGOS PARA LA SALUD:

Nivel de tóxico: ___ Precaución ___ Advertencia ___ Peligro ___ Peligro Veneno

Efectos secundarios a corto plazo:

Nausea Diarrea Mareos ___ Depresion Falta de coordinaci6n
Colicos abdominales Sudores ___ Hemorragia nasal Vomitos ___ Irritacion de la piel
___ Respiracion agitada ___ Sensacion de adormecimiento, quemadura o picazon en la piel
___ Irritacion de los ojos ___ Convulsiones ___ Otros _____

Condiciones de salud que pueden agravarse por este pesticida: _____

Este pesticida contiene uno o mas quimicos que se sabe o sospecha que pueden:

- causar cancer
- ___ danar la sangre, higado o otros organos
- ___ reproducir o desarrollar toxinas
- ___ causar neurotoxinas (veneno para el sistema nervioso)
- ___ afectar el sistema inmunologico

Este pesticida es aplicado como parte del Programa de Control de Pestes menos toxico del Distrito Escolar. Pesticidas que contienen ingredientes quimicos son usados como ultimo recurso, despues de haber agotado la eliminacion de la peste usando insecticidas sin quimicos.

Casi todos los productos pesticidas contienen ingredientes "inertes" secretos, muchos de los cuales son toxicos. Este producto contiene % de ingredientes inertes. Los efectos secundarios para la salud a largo plazo que podrian causar estar expuesto a los compuestos quimicos de este pesticida se desconocen.

De acuerdo a la Agencia de Proteccion Ambiental de los Estados Unidos, "los pesticidas no son seguros". Son producidos especificamente porque son toxicos para algo.

Para mas informacion pongase en contacto con el Departamento de Alerta de Pesticidas de San Francisco al

telefono (415) 292-1486

Red Nacional de Telecomunicaciones sobre Pesticidas : (1-800) 858-7378

Departamento de Control de Venenos de San Francisco: (1-800) 523-2222

Director de la Escuela _____ Telefono _____

家長學生及教職員通告

nff@.1 ii J

除蟲劑名稱： _____

除蟲劑施放日期： _____

環保處登記號碼： _____

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除蟲劑施放範圍： _____

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PEST PREVENTION RECOMMENDATIONS
(To be completed by Pest Control Contractor at each site)

RECOMMENDATIONS:

1. _____

____ Maintenance Action Required — Work Request Submitted ____ Problem Solved

2. _____

____ Maintenance Action Required ____ Work Request Submitted ____ Problem Solved

3. _____

____ Maintenance Action Required ____ Work Request Submitted ____ Problem Solved

4. _____

____ Maintenance Action Required ____ Work Request Submitted ____ Problem Solved

5. _____

____ Maintenance Action Required ____ Work Request Submitted ____ Problem Solved

Pest Control Contractor DATE

Site Coordinator DATE

Comments



"REQUESTLINE"

The Buildings and Grounds Department installed and updated maintenance management software program over the summer of 2016. This software program is called School Dude, links all school sites by internet with a central work order station where all requests for repairs are reviewed, prioritized and work over assignments made including work order histories and completion date. This part of the software package is known as "request line". Before "request line", Act 1000 didn't provide total histories and completion dates and tracking of work order status. **The new School Dude program enhance/improve tracking of the work order repairs and allow the District Building & Grounds to notify school sites with continued updated status on the outstanding work order until it has been completed.**

"Request line" is available to all school sites and many offices within the District. Through the internet, site administrators can contain to submit work order requests directly to the Buildings and Grounds Department electronically. B&G staff continually reviews these requests throughout the day, set priorities, and immediately identifies and dispatches emergency items. Individual shop supervisors also review these requests and set work schedules for craft personnel based upon need, and the staff available to complete the work.

An additional feature of this system allows the schools under the "work order request report" screen to view all work orders in the system for their school. This includes work orders that have been approved, incomplete, completed, as well as other status information. Schools now can more easily make requests and follow their status. When the school feels that a specific work order item in the system has not been properly addressed and is an "emergency" (life threatening) they can call the B&G Department (695- 5525) and ask to speak with a manager.

Priorities are set as follows; life safety and general safety issues get top priority. This includes failed fire alarm and security systems and any other conditions that pose a danger to students and teachers, **including serious pest infestation problems.** Next priority is given to repairing building systems needed to operate the school including heating, plumbing and electrical system repairs. Routine repair requests are given lowest priority.

SUBMITTING AN IPM WORK REQUEST

Whenever the pest control technician makes a maintenance recommendation or you identify repairs that are necessary to alleviate/prevent a pest problem, submit a work request via request line. Be sure to check the PROJECT box indicating that the request is IPM related.

PESTS ON SCHOOL GROUNDS

PESTS

Pests on playgrounds may include flies, mosquitoes, ants, and wasps, various types of weeds and invasive vegetation, and vertebrates such as rats, birds and feral cats. Wood destroying fungi and insects such as termites may reach damaging levels in wooden play structures.

PEST BIOLOGY AND HABITAT

Pests need food, water and shelter in order to survive and proliferate. Playgrounds and structures possess characteristics suitable for pest habitats. Play structures that collect water are ideal habitats for mosquitoes and other pests. Playgrounds often have trash and bits of food that provide nourishment for pests. Sand and sometimes soil in large planter boxes used in playgrounds are attractive to cats, dogs, and other animals. Excrement in these areas leads to problems with flies, rats, and other pests.

MONITORING

Pest monitoring must be performed on a regular basis in order for the IPM plan to be effective. It is very important to identify in a timely manner, potential pest problems within or in close proximity to playgrounds and play structures. Yellow jacket nests may be found near playgrounds. Rats may reside in dense plantings in or near playgrounds.

Monitoring for these pests is performed mainly by means of visual inspection, evaluating and rating what are observed and keeping simple records. Since playgrounds are cleaned and inspected daily for hazards, weekly pest monitoring is readily assimilated into habitual work. The overall condition of the facility, level of sanitation, signs of pest activity, unusual occurrences, and recent weather date (rain, excessive heat, etc.) should be accounted for when monitoring for pests.

When pest population grow beyond a certain point, alternatives to pesticides may be less effective. Early detection is critical if chemical controls are to be avoided.

PREVENTION

Replacing open trash cans with cans with tight fitting lids will effectively reduce or eliminate problems associated with rats, yellow jackets, and flies. Avoiding the use of tires or drilling holes in them to provide free drainage of water can help eliminate mosquitoes from play areas. Landscaped areas within the playgrounds and surrounding play areas should be carefully designed to discourage pest infestation. Wooden play structures should be maintained in good condition and have no earth to wood contact.

School outreach to promote playground sanitation can help alleviate a variety of pests attracted to general litter, spilled and discarded snacks and beverages. Neighborhood outreach may aid in the elimination of pet defecation on school grounds. Habitat modification and physical barriers are additional preventative measures.

PEST CONTROL

Physically removing pests or nests, traps and implementation of biological controls are some methods to use once an infestation is established.

CHEMICAL CONTROL

No liquid, aerosol, or poison bait traps shall be used unless approved by IPM Coordinator, who will ensure that use is consistent with the SFUSD IPM policy.

FLOWERS AND ORNAMENTAL PLANTINGS

PESTS

Pests include weeds, insects, mollusks, rodents, deer, birds, and other vertebrates and pathogens that cause disease. Pests must be specifically identified in order to develop a control strategy. The pest's stage of development or point in its life cycle is also important information. Available treatment options vary considerably and can lead to additional problems when performed incorrectly. The IPM Coordinator, the district pest control advisor, the San Francisco Department of Agriculture, or the University of California Cooperative extension may make correct identification.

PEST BIOLOGY AND HABITAT

In cool, moist, and shady locations, water-mold fungi, snails and slugs, and moisture loving insects and weeds become a problem. In sunny areas, drought-stressed plants are vulnerable to attack by insects, notably thrips and mites, and certain diseases. Some insects, thrips or aphids, for example will always be troublesome. The best defense against pests in plants is for the plants to be healthy, and planted in appropriate locations. The environment should be suitable for support and reproduction of natural predators of the target pest.

PEST MONITORING

Pest monitoring may simply be routine visual inspections beginning in early spring continuing through the growing season. Noting potential "hot spots" where pest problems may be just starting is an important first step. Noting conditions that stress plants such as broken sprinkler heads, poor soil, or accumulating plant debris (potential pest habitat) is also important. Monitoring may be aided by traps and lures to more accurately gauge pest numbers.

PREVENTION

Healthy plants are the best defense against pest infestations. Proper planning, soil preparation and plant selection are the crucial for prevention. Fencing and other barriers will exclude foraging animals. Copper flashing can provide long-term deterrent to snails and slugs. Organic mulch, weed cloth, and a variety of ground cover plantings will smother weeds while providing food for beneficial insects. Clover and buckwheat provide a ground cover that may be later tilled into the soil to provide nitrogen for the soil.

PEST CONTROL

Removal and disposing of infested plants or parts of plants is an effective control. Timely releases of beneficial insects may provide natural "biocontrol". Application of non-toxic dormant control oils or simply washing plants with a high-pressure spray from a hose will help. Some spray applications using ground plant materials or "compost tea" may be appropriate. Hand weeding before seeds are set or using plastic mulch to cook weeds and seeds are labor intensive, but good controls.

CHEMICAL CONTROLS

All methods of managing pests including the use of pesticides involve some levels of risks. No liquid, aerosol or poison bait traps shall be used unless approved by the IPM Coordinator, who will ensure that use is consistent with the SFUSD IPM policy.

Pest Info



INTEGRATED PEST MANAGEMENT FOR SCHOOLS **PREVENTING MICE AND RATS** **FROM INVADING YOUR SCHOOL**



When mice or rats invade a school, they chew on anything that resembles food or nesting material, including cardboard boxes, books, art projects, plastic bags and their contents, and electrical wires. Mice and rats also make a mess by urinating and defecating wherever they feed, and leaving smelly trails of urine and droppings. Both mice and rats can transmit parasites, diseases, and aggravate allergies.

BIOLOGY AND BEHAVIOR A MISCHIEF OF MICE

The house mouse, *Mus musculus*, lives throughout the United States in open fields as well as indoors. Mice live in wall voids, above drop ceilings, drawers and cupboards, on high shelves, and in clutter. They prefer to feed on grains, but will nibble on anything. They can fit through 1/4+inch spaces – that is, under most doors.

A PACK OF RATS

The Norway rat, *Rattus norvegicus*, also known as the sewer rat, lives throughout California. Its burrows are found along building foundations, beneath trash piles, around gardens, and in unused sewers and storm drains. Indoors, Norway rats prefer living close to the ground floor in basements and wall voids.

The roof rat *Rattus rattus*, lives in the Western half of California in trees, woodpiles, and debris. Roof rats are good climbers and indoors like to live in attics and ceiling voids. Both rat species are omnivorous-they'll eat almost anything.

CHECKLIST FOR MANAGING MICE AND RATS

MECHANICAL CONTROL

RATS

When setting traps, be aware that rats are cautious, so prebaiting will get them used to feeding from the trap. Snap traps work well when pre-baited keep - them out of the reach of children. Sticky traps (or glue traps) are not as effective as snap traps. Rats will usually sense and avoid them.

MICE

Place snap traps in corners with the trigger facing out Traps can be placed along walls with the trigger end toward the wall. Be aware that at many schools and offices, staff or students who have discovered a live or dead rodent affixed to a glue trap have raised a ruckus. (It's the issue of a quick death with a snap trap or a slow, tortuous death with a glue trap.) Ultrasonic devices don't waste your money there is no evidence that these devices consistently repel rodents.

CHEMICAL OPTIONS

Prevention through exclusion and sanitation is the most important way to avoid rodent visitors inside school buildings and on school grounds. If a rodenticide is necessary because of high populations, enclose the poisoned bait in a tamper-resistant bait station. See UC IPM's Pest Notes #7483 (house mice) and #74106 (rats) for guidance.

If mice suddenly invade an inaccessible place such as a ceiling void, don't scatter pellet bait. Mice sometimes move the bait from well-hidden to public places.

WHAT YOU CAN DO TO HELP MANAGE RODENTS

TEACHERS

- Allow food and beverages only in designated areas.
- Minimize clutter in the classroom. Mice love to nest in fabric, stacks of construction paper, and other art supplies. Store these in large plastic boxes with tightly fitting lids.
- Store food in tightly sealed containers, including chow for students, classroom pets, and your own consumption. Remove edible art projects from walls. Ask students to remove food from lockers, cubbies, and desks daily.
- Communicate with custodial staff about evidence of rodents such as gnaw marks, destroyed material, or droppings.
- Place received goods on clean shelves or mobile storage carts.



CUSTODIAL/MAINTENANCE STAFF

Indoors

- Seal all electrical conduits, heating ducts, pipes, and pipe chases. Don't seal potential rodent entry points with gnawable material such as rubber, plastic, or wood.

Weather strip doors and windows. Repair all broken panes in windows or skylights. Keep indoor garbage in lined, covered containers and empty daily.

Outdoors

- Clean all garbage containers regularly. Make sure all outdoor garbage containers have plastic liners and tightly-fitting, spring-loaded lids. Don't let garbage spill over the container.
- Empty garbage cans in outdoor lunch areas
Immediately after lunch and remove any food debris on the ground.
- Collect and move recyclables and stored waste off site at least once weekly.

FOOD SERVICE STAFF

Food-serving areas

- Clean floors, counters, cabinets, and tables, and vacuum carpets daily in areas where food is served.
- Remove garbage at the end of each day.

Kitchen

- Store and seal food waste (from prep and serving areas) in plastic bags before removal.
- Clean food-soiled dishes, utensils, appliances, cabinets, shelving, and surfaces by the end of each day.

Food-receiving and storage areas

- Maintain an inspection procedure for all received goods, and establish procedures for rejecting anything that's infested, leaking, or contaminated.
- Store nonperishable food in pest-proof containers, not in cardboard boxes.

GROUNDS STAFF

- Avoid planting fruit-bearing trees – the fruit attracts roof rats. Harvest fruit, including citrus, before you start a rat feeding frenzy.
 - Don't plant vegetation directly against buildings because this provides shelter and runways for rodents.
 - Thin out or eliminate dense ground covers such as ivy – it creates a perfect rodent habitat
-

THINK OF PREVENTION BEFORE RODENTS INVADE

Before the rodents invade, let's consider the main preventive strategies and how we can avoid rodent invasions in the first place.

EXCLUSION

Rodent-proof the school

Build in pest-proofing strategies that prevent rodent access, make the school easier to clean, and minimize tempting food and nesting material.

SANITATION

Deny Food

Keep the school clean of food scraps. Keep food and beverages only in designated area.

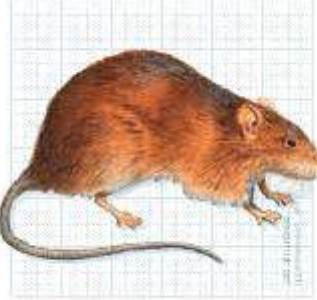
HORTICULTURAL FIXES

Deny Access

Trim trees and shrubs 3 to 6 feet away from buildings and keep vines off building walls.

Written by Nita Davidson with assistance from Sewell Simmons, Tom Babb, Lisa Ross, Nan Gorder, and Veda Federighi (DPR); Tanya Drlik (Marin County Model 1 PM Plan for Schools); Sherry Bryan (Ecology Action); Ingrid Carmean (Carmean Consulting). Image courtesy of Orkin, Inc

NORWAY RAT



RATS DETECTION AND PREVENTION

Detection

Rats can be detected by droppings, gnaw marks, tracks, and spilled or stashed food. Listen for noises at night. Nest size is larger than mice, usually 8"-12" in diameter. Rats can spread diseases to humans and animals and their urine and droppings can contaminate food.

Two types of rats are commonly found in San Francisco: Norway rats and Roofrats.

Norway rats eat meat, grains, pet food, garbage, etc. They are found on lower floors of buildings and in wall voids, crawl spaces, or any cluttered area that is seldom used. Outside, they are found in ground burrows unused sewers, or street drains.

Roof rats prefer fresh plant material, such as fruits, vegetables, and tree bark. They are found in attics, but will nest on lower floors. Outside, they are found above ground in dense overgrown vegetation, but also in wood and debris piles, unused sewers, and street drains.

Prevention

- Eliminate clutter inside and out
- Repair broken sewer pipes
- Remove overgrown vegetation
- Ivy is a favorite hiding place for rats
- Break up existing dense plantings with exposed paths, stretch of lawn, or low ground covers

Less Toxic Controls

- Use traps for minor infestations
- Pre-bait traps, but do not set. Check daily. When bait is taken, add fresh bait, then set.
- For Norway rats, bait with liver, hot dog, peanut butter, oatmeal, or nuts.
- For Roof rats, bait with nuts, dried fruit, bananas, or apples.

For severe infestations, hire a licensed Pest Control Operator



Mice Detection

Mice can be detected by droppings, gnaw marks, tracks, and spilled or stashed food. Listen for noises at night. Mice eat just about anything and they can contaminate food with their droppings and urine. Nests are made of shredded paper, plastic, fabric, etc., usually 5" in diameter and are found in secluded locations, such as stored boxes and false ceilings.

Less Toxic Controls

- Trapping is the most effective control for minor infestations. Use live or snap traps, and plenty of them.
- Bait with raisins, gumdrops, peanut butter, or oatmeal.
- Place traps: along walls or other runways, near droppings and gnaw marks, and in dark corners.
at right angles to wall with trigger near wall side by side to prevent rodents from jumping over them.
-by wiring to pipes or nailing to rafters.
- Be persistent. Keep bait fresh, inspect traps frequently, and try new locations.
- To dispose of mice and their droppings, [see page 10](#).
- For severe infestations, hire a licensed pest control operator.

Prevention

- Sanitation and prevention are important.
- Repair any hole, inside and out that is approximately like the size of your finger
- Fix gaps around windows.

Cockroaches Detection

Cockroaches are flat-bodied, oval-shaped insects with long antennae. They are tan through dark brown or black in color. Cockroaches are most active at night. Cockroaches may harbor diseases that can harm humans and animals.

Less Toxic Controls

- For minor infestations, locate hiding places by using sticky traps.
- Use commercial baits or baited traps containing abamectin, boric acid, fipronil, or hydramethylnon (follow all label instructions). Do not place them in the open, but along edges (where the counter meets the wall, the wall meets the floor, etc.).
- Vacuum cracks and crevices and around motors of appliances to remove roaches, eggs, and food particles.
 - Apply a light dusting of boric acid powder (roaches will avoid clumps) under refrigerators and stoves, and in cracks and crevices. When using boric acid, be sure to read the entire label carefully and follow all directions.
- For severe infestations, hire a licensed pest control operator.
 - Seal cracks, crevices, and openings especially around pipes.
- In heavy infestations, remove all garbage from the house each evening .
- Remove pet food at night.



Fleas Detection

Adult Fleas are most often found on pets. Flea eggs larvae and pupae are found in cracks and crevices, rugs, upholstered furniture, and anywhere animals rest or sleep. Flea season commonly occurs in summer and fall.

Less Toxic Controls

- For your pet, use pills containing lufenuron or products containing fipronil or imidacloprid that are applied to the skin in one small spot. Ask your vet or pet store. These products are effective and have a low acute toxicity for mammals. Use these products only during flea season to prevent fleas from becoming resistant to the chemicals.
- Comb pets with a flea comb. Dispose of fleas in soapy water.
- Vacuum carpets, furniture, and floors frequently to pick up eggs and pupae (larvae coil themselves around carpet fibers and are difficult to remove).
- Wash or vacuum pet bedding frequently to remove immature fleas.
- Use commercial flea traps made of a light bulb and sticky paper.
- Spot-treat problem areas with an insect growth regulator such as methoprene to arrest flea development.
- If necessary, hire a licensed pest control operator to treat your carpet.

Prevention

- Restrict pets to specified areas and vacuum those areas frequently.
- Flea comb pets throughout the year.



Yellow jackets Detection

Yellow jackets search aggressively for sweet and protein-rich foods around picnics and garbage in late summer and early fall.

They can inflict multiple stings. Papery nests are large globe-like structures with an entrance hole at the bottom. Nests are mainly found underground, but can be found in wall voids and hanging from eaves or branches.

Paper wasps, like bees, are not aggressive unless disturbed and usually need no control. Paper wasps resemble yellow jackets but have longer legs. Papery nests are open and look like small umbrellas hanging from eaves, etc. Wasps and yellow jackets help us by feeding on insects.

Less Toxic Controls (Yellow jackets)

- Use commercial traps. Bait house-shaped traps with liverwurst. Bait cone-type traps with sweet liquids. Before emptying, seal traps in plastic bags and freeze overnight or set in the sun for several hours.
- Hire a licensed pest control operator to treat nests that directly threaten humans. They should use a very small amount of a pyrethrin insecticide, remove nests from walls or eaves, and seal access holes in walls.

Prevention

- Keep garbage cans sealed.
- Remove fallen fruit.
- Install screens on windows and doors.
- Never swat at a wasp. Move slowly to



Argentine Ants Detection

Argentine ants are common household ants. Look for single scouts or long lines of ants in or around the house, near food, or water. Distinguish Argentine ants from carpenter ants by size - Argentine ants are small (1/8) whereas carpenter ants are large and dark (5/16 or more).

Less Toxic Controls

- Use soapy water in a spray bottle to clean counter tops and wipe up ant trails.
- Follow trails to find entry points. Temporarily close with petroleum jelly or duct tape. Use silicone caulk for a permanent seal.
- Use commercial baits containing boric acid, borax, or hydramethylnon (follow all label instructions. Do not spray near baits because ants will be repelled.
 - Try different kinds of bait. Argentine ants change their food preferences frequently: If one bait is not working, try another.
 - Do not leave bait out after ant trails have disappeared.

Prevention

- Good sanitation is very important.
- Destroy scouts whenever you see them.
- Empty garbage often and keep sweet, protein-rich or greasy items in the refrigerator.
- Don't leave pet food out all day or night. If this is not practical, place pet dishes in low baking pan filled with soapy water.



Carpenter Ants Detection

Worker ants range from 5/16" to 7/16." When viewed from the side, the top of the thorax (the middle segment of the body) is smooth and rounded. Carpenter ants excavate nests in wood (usually moist wood) but do not feed on the wood itself. Small piles of sawdust are often visible near their nests. They forage inside homes for water and human or pet food and are most active at night between 11 p.m. and 2 a.m.

Less Toxic Controls

- Nests are difficult to find. It's better to hire a licensed pest control operator to find and destroy the nest. Less-toxic controls a professional may use include: treating wall voids with diatomaceous earth, silica aerogel, boric acid, or borate (these also work for prevention), vacuuming ants from the nest, treating nests directly with a small amount of pyrethroid insecticide, and/or using heat treatment.
- After a professional has completed the work, be sure the damaged wood is replaced with borate-treated wood.

Prevention

- Control moisture by repairing all water leaks inside and out. Make sure the house is adequately ventilated.
- Store firewood on a metal rack away from the house.
- Keep vegetation and tree branches pruned away from the building.
- Have a professional treat vulnerable wood with borate.

Preventing



Simple preventive measures discourage over 50% of your unwanted pest problems. Pests need food, water, and shelter to survive. By removing these sources, you will force them to go elsewhere.

Indoors

Keep IT clean. Pests love leftovers.

- Wipe counters and sweep daily to keep your kitchen free of crumbs. (Ants and cockroaches.)
- Do the dishes- don't let them sit overnight. As a last resort, submerge dishes in soapy water until you have time to do them. (Ants and cockroaches.)
- Keep your stove area clean and free from cooking grease. (Ants and cockroaches.)
- Vacuum and sweep frequently to remove food and eggs. (Cockroaches, dust mites, fleas, grain moths, and spiders.)

Don't feed them.

- Store all food in tightly sealed containers. (Ants, cockroaches, grain moths, and rodents.)
- Compost food scraps or seal waste in plastic bags and place in a container with a tight fitting lid. (Ants, cockroaches, flies, pigeons, rodents, and yellow jackets.)
- Wash recyclables in soapy water and drain before storing. (Ants, cockroaches, flies, rodents, and yellow jackets.)
- Empty the garbage frequently and place in a closed can or dumpster. Keep the area clean and dry. (Ants, cockroaches, flies, pigeons, and rodents.)
- Remove pet dishes at night or place in soapy moats. (Ants, cockroaches, flies, and rodents)



Outdoors

Get them where they hide. Pests can't set up house if you get rid of the materials that shelter them.

- Trim plants, shrubs, trees, and ground covers so they don't touch the house. (Ants; especially carpenter ants, mosquitoes, rodents, and termites.)
- Store wood away from your home, elevated above the ground, preferably on a metal rack. (Carpenter ants, rodents, and termites.)
- Remove diseased plants, tree prunings, fallen fruits and leaves. (Carpenter ants, termites, flies, and rodents.)
- Remove piles of rocks, lumber, or debris. (Rodents, spiders, and termites.)
- **Remove breeding sites. Pests breed where there is water and food.**
- Scoop up pet droppings promptly. (Flies and rodents.)
- Don't leave pet food outside where pests can feast. (Ants, cockroaches, flies, pigeons, and rodents.)
- Look for and drain any standing water. (Mosquitoes and rodents.)
- Direct drain pipes and other water sources away from your house. (Carpenter ants and termites.)
- Eliminate direct contact between wood and soil. Ideally, wood should be at least 8" above soil level. (Carpenter ants, rodents, and termites.)
- Use rot-resistant plastic lumber in landscaping. (Carpenter ants and termites.)



Indoors

Reduce sources of water. Moisture attracts pests.

- Remove standing water in rays under your house plants and refrigerator (Ants, cockroaches, mosquitoes, and rodents.)
- Fix leaky plumbing promptly (Ants, cockroaches, rodents, and termites.)
- Check the attic regularly for slow roof leaks (Termites.)

Bar the door. Keep out crawling and flying pests.

- Caulk cracks and crevices inside your home (Ants and cockroaches.)
- Seal openings in the walls around baseboards, in the backs and floors of cabinets, and around shelves. (Ants, cockroaches, and rodents.)
- Keep doors to the outside shut when not in use (Cockroaches, flies, mosquitoes, rodents, and spiders.)

Tidy up. Clutter provides homes for pests.

- Organize papers and boxes so you can clean around them (Cockroaches, rodents, and spiders.)
- Recycle newspapers and cartons frequently (Cockroaches, rodents, and spiders.)
- Regularly inspect stored materials for pests. (Ants, cockroaches, clothes moths, grain moths, rodents, and spiders.)
- Revive the custom of a thorough spring cleaning and routine vacuuming. (Ants, cockroaches, clothes moths, grain moths, rodents, fleas, and spiders)



Outdoors

Bar the door. Keep out crawling and flying pests.

- Install tight fitting screens and weather stripping on windows and doors (Ants, cockroaches, mosquitoes, rodents, and spiders.)
- Caulk cracks and crevices outside your home. (Ants, bees, cockroaches, termites, and yellow jackets.)
- Install screens on air vent openings (Pigeons, rodents, wasps, and yellow jackets.)
- Seal or screen crawl-space openings (Bees, rodents, and yellow jackets.)
- Patch holes and cracks in the foundation and siding of your home. (Bees, rodents, spiders, and termites.)
- Install screens on roof vent pipe openings (Pigeons and rodents.)
- Paint exterior regularly (Termites.)
- Caulk holes in siding where wires, cables, and plumbing enter the house (Ants, bees, cockroaches, rodents, termites, and yellow jackets.)

Pesticide

INFO



What is a pesticide?

Pesticides are unique among toxic substances. Most environmental toxins are an unwanted by-product of another process (for example, outflow from a manufacturing plant or emissions from an automobile engine) Pesticides are chemicals designed to be harmful to a target pest and purposely introduced into the environment to do their job of managing insects, bacteria, weeds, rodents, or other pests. Farmers use pesticides to control the pests that can destroy or damage food and other crops. Health agencies use pesticides to combat insects and other organisms known to carry disease (like West Nile virus). Hospitals use disinfecting pesticides to destroy other "germs" on floors and equipment. Many of us use pesticides to control pests in our home and gardens. Because most pesticides are designed to be toxic to their target pest and because any substance can be harmful if used improperly, pesticide use is strictly controlled. The Department of Pesticide Regulation (DPR) protects human health and the environment by regulating pesticide sales and use and by fostering reduced-risk pest management. Pesticides must be registered with both the U.S. Environmental Protection Agency and DPR before they can be sold or used in California



DPR will not allow any pesticide to be registered unless it determines it can be used safely. DPR's strict oversight also includes environmental monitoring, residue testing of fresh produce, licensing of pesticide professionals, strict rules to protect workers and consumers, and local use enforcement administered by the county agricultural commissioners.

While pesticides can be useful, they can also harm people, animals or the environment if misused or used indiscriminately. That is why the most desirable pest control is to prevent pests in the first place. If that doesn't work and you choose to use pesticides, use the least-toxic product available and make sure to follow the label directions carefully.

What is a pesticide?

People often think pesticide means *insecticide*. *Pesticide* refers to not only insecticides but many other kinds of chemicals. Under state and federal law, a pesticide is any substance intended to control, destroy, repel, or attract a pest.

Some common pesticides include

- **Insecticides**
- **Herbicides**
- **Rodenticides**
- **Repellents**
- **Disinfectants**
- **Fungicides**
- **Wood preservatives**
- **Pheromones**
- **Attractants**
- **Plant growth regulators**



Single copies of this handout are available by calling your County Agricultural Commissioner's office, from DPR at 916-445-3974, or can be downloaded from DPR's Web site, www.cdpr.ca.gov, "Consumer Fact Sheets."

**Go to DPR's Web site,
www.cdpr.ca.gov.**

California also regulates adjuvants as pesticides. This class of chemicals is exempt from federal licensing but must be registered in California. Adjuvants are emulsifiers, spreaders, and other compounds added to improve the effectiveness of a pesticide.

What is a pest?

Any living organism that causes damage or economic loss or transmits or produces disease may be the target pest. Pests can be animals (like insects or mice), unwanted plants (weeds), or microorganisms (like plant diseases, bacteria and viruses)

Do household products contain pesticides?

Many household products are pesticides, including cockroach sprays, mosquito repellents, rat baits, and kitchen and bath disinfectants, products that kill mold and mildew and many lawn and garden and swimming pool chemicals.

What about pest control devices?

State law requires specific types of pest control devices to be registered by DPR. The devices that require registration are those that control wood destroying insects including termites, carpenter ants and powder post beetles. Devices are defined as "any method, instrument, or contrivance intended to be used to prevent, eliminate, destroy, repel, attract, or mitigate any wood-destroying pest."

Exempt from registration are devices that claim to control wood-decaying fungi, general household pests such as cockroaches, and vertebrate pests such as rats and mice.

Pesticides, equipment used to apply pesticides, and firearms are not considered devices.

Are consumer products treated with pesticides regulated?

Many products, ranging from toothbrushes

to children's toys, are treated with antimicrobial pesticides to get rid of bacteria. The pesticides are usually added to the product during manufacture (for example, plastic shower curtains), but may be added afterwards (for example, mixing a mold-preventing pesticide into paint).

If a treated product makes public health claims-that is, it claims to "fight germs," or "control fungus"-the article must be registered as a pesticide. If no public health claims are made, the product is exempt from federal or state regulation.

In either instance, the product label must make clear that the benefits of pesticide treatment do not extend beyond the article itself. Products like sponges or cutting boards, used in the kitchen or other areas where disease-causing organisms may be present, can give the false impression that the treated article provides extended protection against food-borne and disease-causing bacteria. Therefore, the law requires that the label make clear the treatment is to protect the article, not to prevent infection of people or animals with bacteria or other microbes

.What substances are not regulated as pesticides?

California's definition of pesticides is broad, but does have some exclusions:

- Over-the-counter and prescription treatments for head lice, which are regulated by the U.S. Food and Drug Administration.
- Cosmetics and similar products (including antibacterial soaps and lotions, and antifungal creams) intended to be applied to the human body.
- Fertilizers, nutrients and other substances used to promote plant survival and health.
- Biological control agents, except for certain microorganisms. (Biological control agents include beneficial predators such as birds or ladybugs that eat insect pests.)
- Certain products which contain low-risk ingredients, such as garlic and cedar.



What YOU CAN DO About Pesticide Use in Schools



IPM is an ecologically sound approach to pest control that emphasizes prevention, physical or biological control where possible, and the use of least toxic chemicals only as a last resort.



THE PROBLEM

You and your children may be exposed to hazardous pesticides at school. Many schools routinely spray pesticides on fields and grounds, and in classrooms, locker rooms, gym and cafeterias. Most schools in Washington State do not have policies on pest control practices that emphasize pest prevention. Pest control companies are contracted to spray on a routine basis.

The pesticides most commonly used in and around schools can cause learning disabilities and behavior changes, damage the nervous and endocrine (hormone) systems, and cause cancer. A recent report by the National Academy of Sciences has shown that children are more susceptible than adults to the health effects from low-level exposures to pesticides over the long term, and that exposure of pesticides to children at levels believed to be safe for adults could result in permanent loss of brain function.

Across the nation, there have been cases of schools closed for several weeks following pesticide applications because teachers and students became ill. Washington State, the Department of Health has investigated seven cases of pesticide poisoning in schools since 1992. In the worst case in recent years, 7-year old Michael Storey of Yakima County was in a coma for two days and almost died after eating granules of *disulfoton*, an acutely toxic insecticide that he found on school grounds



The Solution

In response to a growing concern over the ill effects of repeated low-level exposure to pesticides, schools districts, cities and states are adopting approach to pest control that emphasizes prevention, physical or biological control where possible, and the use of less toxic chemicals as a last resource. Integrated Pest management (IPM) programs to control problem pest.

IPM is an ecological sound approach to pest control that emphasizes prevention, physical or biological control only as a last resort

IPM has been used successfully for ten years in schools in Eugene, Oregon, and is mandated or encouraged by law in Texas, Michigan, Florida, Montana, and Louisiana. The Environmental Protection Agency (EPA) and National Parent Teachers Association, have both endorsed the use of **IPM** in schools.



Students learn about organic vegetable and plants at SFUSD, where IPM is used at school grounds. Parents and community groups help maintain the school grounds without using herbicides.

EXAMPLES OF IPM SCHOOLS

In Washington State, Integrated Pest Management in Schools is now an official policy recommended by an interagency task force made up of representatives of the U.S. EPA, the Superintendent of Public Instruction, the Washington Association of Maintenance Operators Administrators, the Departments of Health, Ecology, and Agriculture, pest control companies, the Washington Toxics Coalition, and other citizens groups. This voluntary program relies on the active participation of school administrators, maintenance operators, teachers, parents, and students like you.

WHY PESTICIDES

ARE NOT SAFE

Pesticides are poisons intended to kill insects, plants, fungi, rodents, and other living things. The EPA has stated that no pesticide can claim to be "safe", because pesticides are by their very nature designed to be biologically active and kill various kinds of organisms. Pesticides can be registered by the EPA even when studies show that they pose risks to human or environmental health.

Economic benefits can outweigh safety considerations under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA).

In addition, the testing of health and environmental effects of pesticides is grossly inadequate. Tolerance level are established based upon effects on health, adult males and not on children, who are more vulnerable to adverse health effects. Pesticides are not tested for the effects they have on the immune, neuro, or endocrine systems or when used in combination with other toxic compounds. Moreover, only the "active ingredient" the part of a pesticide intended to kill or repel pests, is identified on the container label. Inerts", which can make up to 99 percent of the product, are sometimes even more acutely toxic than the active ingredient. These hazardous compounds are considered trade secrets and only the most toxic are required to be revealed by the manufacturer.

Bainbridge Island, Washington

The Bainbridge Island School District was the first in Washington State to pass a comprehensive IPM policy, in June 1997. This policy calls for alternative controls to be used before chemicals, and for decisions to be made by an IPM Advisory Committee; made up of school staff, parents, and community members. In addition to reducing herbicides used on school grounds, the policy has also changed other practices. Pest control companies contracted by the district are selected on their ability to use IPM, and must abide by the IPM policy. IPM is being considered in the design of new buildings and landscapes, with input from maintenance staff.

Eugene, Oregon

Since 1984, the Eugene 4J School District has been developing an IPM based landscape management program. The 4J district manages just over 600 acres of developed grounds. Prior to 1983, 180 acres (or 30 percent) were sprayed annually, including herbicide or soil sterilant application to approximately 40 acres of tracks, softball diamonds and shrub beds. The district now uses no herbicides at all on these tracks and fields. Weeds (and gophers) are kept in good control in high school fields using irrigation, aeration, fertilization, top dressing and over-seeding to keep them healthy. Through measures such as these, the district has reduced its pesticide use dramatically. Pesticide applications are permitted only in response to concerns of safety, site preservation, or if initial use of pesticides allows a landscape to be changed so that it can, on a sustainable basis, be managed by chemical-free means.

Montgomery County, Maryland

According to Bill Forbes, pest management supervisor for Montgomery County, Maryland's school system, "The county has reduced its pest control costs by implementing IPM, and at the same time has improved teacher, parent, student and administrative satisfaction with the program. Most importantly, we have fewer pest problems than ever before! While noting that subtle costs, like changes in sanitation practices can be difficult to calculate, Forbes says, "Under the conventional systems of pest control, the schools spent an average of \$513 per school per year. This cost covered two salaries, two vehicles, and materials for two employees. Their scope of operation included only crawling insects and rodents at 150 locations. Other work, including termite control, was contracted out at additional cost" He notes that, "Current cost for IPM programs cover 200 services locations, three vehicles, three full time employees, and virtually every structural pest from pigeons to roaches to termites, for a cost \$575 per school per year. Prior to the implementation of the of the IPM program, 11 locations were contracted out to a local firm. The firm charged \$2400 per school year, while the IPM costs for those schools FY 1991 should run about \$500 per school" As personal gain experience and structural changes are implemented, costs continue to go down.

PESTICIDES COMMONLY USED IN SCHOOLS

Pesticides are frequently used in schools and on school grounds to kill insects, weeds, rodents, and mildew. Some specific pesticides commonly use include 2,4-D (*trade name Weed-B-Gone, Lawnkeep, and other*) diazinon (*Spectracide or Knox out 2FM*), chlorpyrifos (*Dursban*), and glyphosate (*Roundup*). The following are some of the health hazards associated with each of these pesticides

2 , 4 - D

2,4-D is a very controversial but widely-used herbicide of the phenoxy family. A number of studies have demonstrated that *2,4-D* is associated with an increased cancer risk. *2,4-D* also affects the endocrine system. Tests performed by the manufacturer revealed the presence of highly toxic dioxins in *2,4-D*, including *2,3,7,8-TCDD* (known as the most toxic dioxin). Dioxins are among the most lethal chemicals known and can cause cancer in humans. They are of particular concern because they are persistent and bioaccumulate (which means they are stored in fatty tissue and build up along the food chain).

DIAZINON

Diazinon is an insecticide which belongs to the class of chemicals known as organophosphates. It works by disabling nerve signal transmission. Signs of poisoning include headache, dizziness, muscle weakness and problems with coordination, intestinal cramps, vision problems, and bronchial tube spasms. While it is harmful to humans, *Diazinon* is even more toxic to birds and fish. *Diazinon* was responsible for the deaths of hundreds of migrating birds, which led to a ban of its use on golf courses and grass turf farms by EPA. *Diazinon* is still on the market and is permitted for use on lawns, in buildings and for agricultural use.

CHLORPYRIFOS

It has similar poison
Chlorpyrifos is the most widely-used organophosphate insecticide in the United States. It has similar poisoning symptoms to *diazinon*, and has also been linked to depression, asthma, and birth defects. Although people are usually told they may re-enter rooms one to two hours following broadcast applications, more than half of the applied dosage may remain after 30 days
Chlorpyrifos is manufactured by DowElanco under the brand names *Dursban* and *Lorsban*. A class action lawsuit filed against the company revealed the disabling effects of *Dursban* on the human immune system of hundreds of victims. The EPA fined DowElanco \$732,000 for failing to report the adverse health effects of *Dursban*.

Glyphosate

Glyphosate is the active ingredient of *Roundup*, one of the most commonly used herbicides. Symptoms of poisoning include gastrointestinal pain, vomiting, swelling of lungs, pneumonia, clouding of consciousness, and destruction of red blood cells. *Roundup* contains *POEA*, an inert ingredient that is three times more toxic than *glyphosate*, and *1,4-dioxane*, a contaminant which can cause cancer in animals. *1,4 dioxane* is also suspected to be carcinogenic in humans.

EXAMPLES OF IPM TECHNIQUES

WEED CONTROL

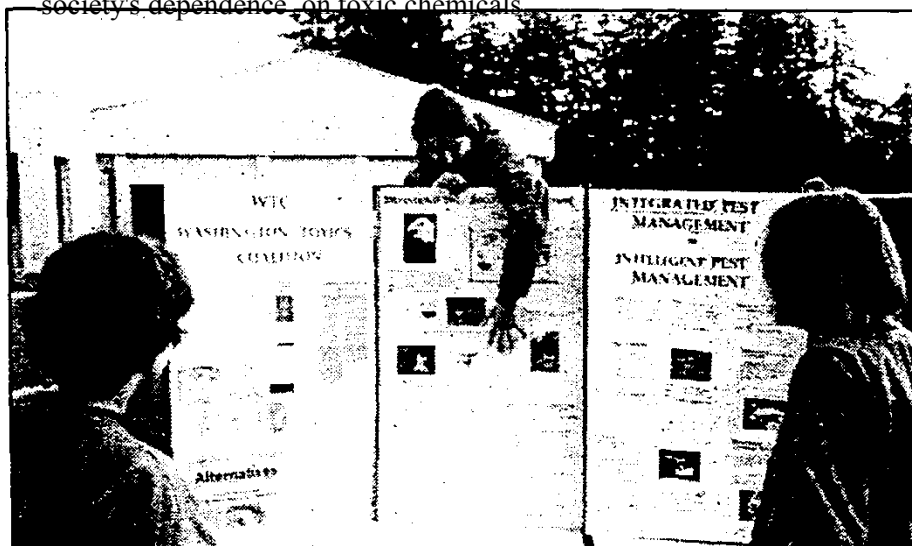
- ** Use ground cover, mulch or weed mats to suppress weeds in shrub beds.
- ** Chose disease-resistant grass varieties that will out-compete weeds.
- ** Remove weeds manually with flamers or weed eaters for spot treatment.
- ** Use native and pest-resistant trees and plants for new plantings.
- ** Re-evaluate tolerance levels for weeds.

INSECT CONTROL

- ** Prevent infestation problems by eliminating sources of food and water
- ** Rinse recyclables before storing.
- ** Make sure dumpsters have tight-fitting lids and are regularly cleaned.
- ** Install screens on doors and windows.

WHAT CAN YOU DO

- ** Find out your school's current policy and practices on pest management. The Washington Toxics Coalition has a survey you can use to determine which compounds are used and how pest management decisions are made.
- ** Work with school grounds building and maintenance staff. Their input and support will be necessary for an IPM plan to succeed.
- ** Raise the issue with your PTA, and encourage them to set up a standing Committee to oversee development and implementation of an IPM policy.
- ** Start projects such as an *Adopt-a-Flowerbed* program to get students and staff involved in grounds maintenance.
- ** Incorporate IPM into the school's curriculum so that students can learn about ecology and the role of beneficial insects in the web of life.
- ** Contact the Washington Toxics Coalition. We will assist your school in establishing an IPM program, and provide information and technical support in implementation.
- ** Join the Washington Toxics Coalition to keep informed on these and other important environmental issues, and to support our work in reducing society's dependence on toxic chemicals.



Washington Toxics Coalition, 4516 University Way NE, Seattle, WA 98105 (206) 632-1545

RESOURCES

Elizabeth Loudon
 The Washington Toxics Coalition
 4516 University Way NE
 Seattle, WA 98105
 (206) 632-1545
 email: eloudon@watoxics.org
<http://www.accessone.com/~watoxics>

The Washington Toxics Coalition (WTC) has information on the health effects associated with pesticides, a model IPM policy, pledge, survey, and suggestions on how to encourage your school to adopt IPM, as well as information on less-toxic alternatives for specific pest problems. We also have a slideshow presentation on IPM in schools.

Becky Riley
 Northwest Coalition for Alternatives to Pesticides (NCAP)
 P.O. Box 1393
 Eugene, OR 97440
 (503) 344-5044
<http://www.cfn.org/~ncap>
 NCAP has numerous publications on pesticides and alternatives and a program on promoting IPM in schools.

National Coalition Against the Misuse of Pesticides
 701 E Street, SE - Suite 200
 Washington, DC 20003
 (202) 543-5450

FOR FURTHER READING

Loudon, Elizabeth. *No Place For Poisons: Reducing Pesticides in Schools*. 1997. WTC.

This 14-page report describes the experiences of three schools in Washington in adopting IPM.

Riley, Becky. *Getting Pesticides Out of Our Schools*. 1994. NCAP.

Pesticides and Schools. [a collection of issues and articles]. NCAMP.

Article: BUSINESS AND NON INSTRUCTIONAL OPERATIONS
Section: INTEGRATED PEST MANAGEMENT PRACTICES FOR SFUSD FACILITIES
Sub-section

BACKGROUND PREAMBLE:

- The maintenance of a safe, clean, healthy environment for students and staff is essential to learning and is a goal of the San Francisco Unified School District.
- The use of toxic chemicals to control pests **and** weeds may itself threaten staff and students' health and ability to learn.
- The City and County of San Francisco has adopted a model Integrated Pest Management (IPM) policy that ended the use of the most toxic pesticides on San Francisco City and County property and greatly reduced the County's reliance on chemical pesticides.
- Similar programs in other school districts and institutions have shown that IPM is a viable, cost-effective approach to controlling pests.

POLICY

- I. That the District shall establish and follow an IPM policy based on the model policy established by the City and County of San Francisco, containing the following elements:
 - 1.) Monitoring to determine pest population levels.
 - 2.) Use of biological, cultural, physical tolls to minimize health, environmental and financial risks from pests.
 - 3.) Use of chemical controls only as a last resort.
 - 4.) Use of chemical controls that pose the least possible hazard to people, property and the environment.
 - 5.) Careful monitoring of treatment to evaluate effectiveness.
- II. That, effective immediately, the following categories of highly toxic pesticides shall not be used by District employees or used on property owned or leased by the District except as specifically exempted by this policy:
 - 1.) U.S. Environmental Protection Administration (U.S. E.P.A.) acute toxicity category I and II pesticides.
 - 2.) Pesticides identified by the State of California as chemicals known to the State of California to cause cancer, developmental or reproductive toxicity pursuant to California Safe Drinking Water and Toxic Enforcement Act of 1986 (Prop 65).
 - 3.) Pesticides found by the U.S. E.P.A. to show evidence of causing cancer (E.P.A.) carcinogenicity categories A, B, and C)

- III. That effective January 1, 1999, only pesticides identified by the S.F. Department of the Environment as "reduced risk pesticides" pursuant to San Francisco Administrative Code 39.8 (g) may be used by District employees or used on property owned or leased by the District, except as specifically exempted by this policy.

 - IV. The District and school sites shall, through various communication means, provide pre-notification to students, parents and staff of non-bait pesticide applications. The District shall post all areas treated with non-bait pesticide applications and posted notification shall remain from three days before to three days after treatment. The District shall provide publicly posted notification that identifies areas treated with pesticide baits. The District shall distribute a fact sheet outlining the IPM program and pest control activities within the District to parents, students and staff at the beginning of the school year. The District and each site shall maintain a record of pesticide use on school grounds and make that information available to the public.

 - V. The District shall establish an IPM committee to develop implementation guidelines and oversee implementation of the new policy. The committee shall be comprised of parents, students, teachers, school administrators, representatives from the administration, facilities and landscape staff, any pest control company or companies contracted by the District to manage pests, and community environmental and public health organizations.

 - VI. The District shall designate an IPM coordinator who shall be responsible for coordinating school district efforts to adopt IPM techniques, communicating goals and guidelines of the IPM program to staff and students, including conducting training, tracking pesticide use and ensuring that related information is available to the public, and presenting an annual report to the school board evaluating the progress of the IPM program.

 - VII. The IPM committee may allow District staff or any company contracted to provide pest control to the District to apply a pesticide otherwise banned under this resolution based upon a finding that the protection of public health requires the use of that pesticide. Such exemption shall be granted on a per-case basis and shall apply to a specific pest problem for a limited time. The IPM coordinator may grant emergency exemptions in fraction is required before the next meeting of the IPM committee. The IPM coordinator shall report all such emergency exemptions to the IPM committee.
-

HISTORY/AUTHORIZATION

Adopted: Resolution # Date:

POINTS OF CONTACT FOR IPM INFORMATION

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PEST CONTROL CONTRACTOR

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1800 244-1176