

# Integrated Pest Management (IPM)

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# The California Healthy Schools Act (HSA)

- HSA was enacted in 2000
- It is a right to know law that provides parents and staff with information about pesticide use at public schools and child care centers
- The law encourages the adoption of effective, lower risk pest management practices also known as Integrated Pest Management

## California Healthy Schools Act

HSA Compliance Requirements in California School Districts



**California**  
School & Child Care IPM

# What is Integrated Pest Management?

- Integrated Pest Management (IPM) is an effective and environmentally sensitive approach to pest management that relies on a combination of common-sense practices
- Manages pests primarily by focusing on eliminating the reasons pests are present
- Takes advantage of all pest management strategies and the use of pesticides as the last option
  - Weeds are also considered pests as part of the IPM because pesticides are often used for control



# What is an Integrated Pest Management Plan?

- Provides information about how pests are managed
- Provides annual written notification
- Creates a registry (contact information for parents who request to be notified)
- Requires the posting of warning signs 24 hours before and 72 hours after application of pesticides
- Requires additional record keeping and reporting on pesticide use annually to Department of Pesticide Regulations
- Annual training

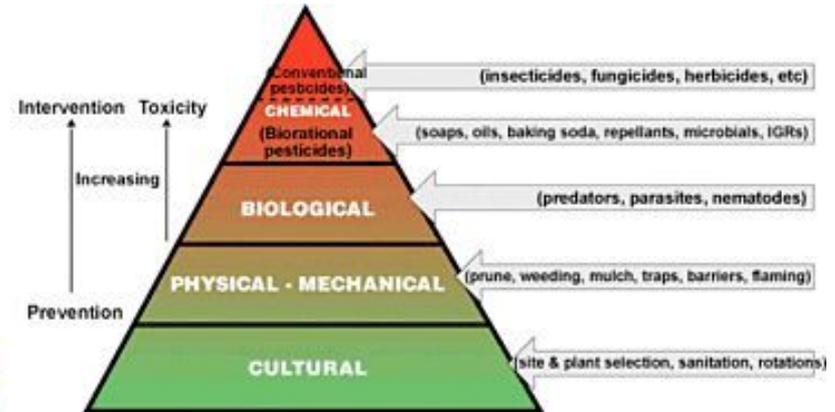


**IPM Policy and Plan**

# Benefits of Integrated Pest Management

“Standard” Pest Control	Integrated Pest Management
<ul style="list-style-type: none"><li>• Chemical intensive</li><li>• Largely reactive to pest outbreaks</li><li>• Less emphasis on prevention</li><li>• Emphasizes killing pests directly</li><li>• Major purpose of most site visits is to apply pesticides</li><li>• General and widespread use of pesticides</li></ul>	<ul style="list-style-type: none"><li>• Knowledge intensive</li><li>• Systematic program of long-term pest control</li><li>• Major emphasis on prevention of pest problems</li><li>• Emphasizes modifications of conditions that favor pests</li><li>• Major purpose of most site visits is to inspect and monitor</li><li>• Pesticide use is limited in terms of types, amounts, and locations</li></ul>

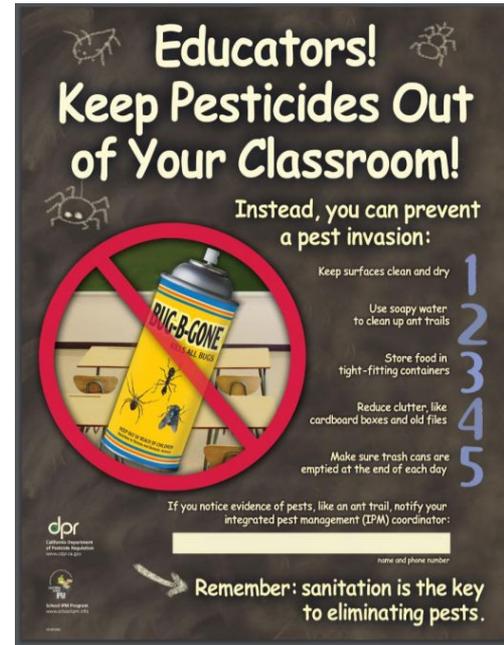
# Integrated Pest Management Pyramid



**Pyramid of IPM Tactics**  
*Plants*

# Prevention through Education

- IPM is a cooperative effort
- Everyone must understand the basic concepts and receive ongoing training
  - This includes custodians, kitchen personnel, maintenance and ground staff, teachers and principals



# Cultural and Sanitation Practices

- Eliminate areas where pests can find the basics:
  - Food
  - Shelter
  - Water
- Pay attention to pest vulnerable areas such as:
  - Kitchens/cafeterias
  - Dumpsters
  - Grounds



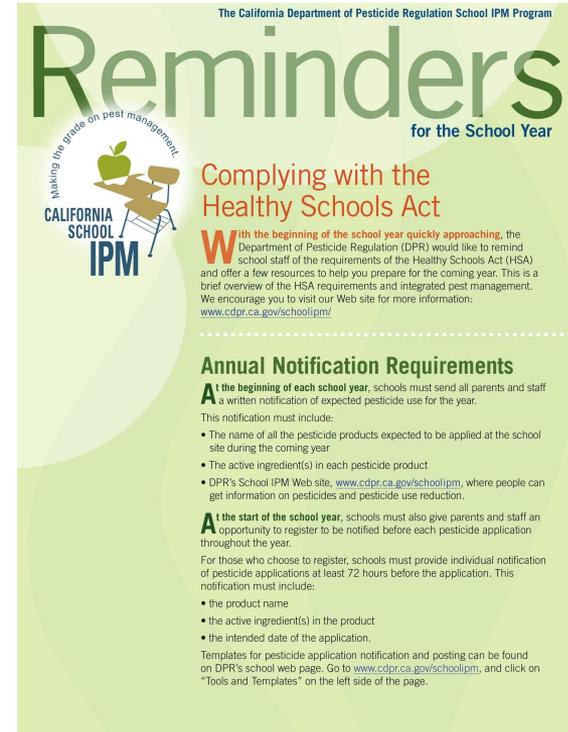
# Physical/Mechanical Practices

- Includes erecting barriers, using traps, hand-picking and other activities that disrupt insect breeding and feeding. For instance, spraying plants with a water hose to knock off aphids and mites is a mechanical practice



# Chemical Practices

- The general term “pesticide” applies to a large group of chemicals that are intended to control, destroy, repel or attract a pest
- Common types include:
  - Insecticides (control of insects)
  - Rodenticides (control of rodents)
  - Herbicides (control of weeds & plants)
  - Disinfectants and sanitizers (control bacteria & viruses)



The California Department of Pesticide Regulation School IPM Program

# Reminders

for the School Year

Making the grade on pest management.



**Complying with the Healthy Schools Act**

**W**ith the beginning of the school year quickly approaching, the Department of Pesticide Regulation (DPR) would like to remind school staff of the requirements of the Healthy Schools Act (HSA) and offer a few resources to help you prepare for the coming year. This is a brief overview of the HSA requirements and integrated pest management. We encourage you to visit our Web site for more information: [www.cdpr.ca.gov/schoolipm/](http://www.cdpr.ca.gov/schoolipm/)

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### Annual Notification Requirements

**A**t the beginning of each school year, schools must send all parents and staff a written notification of expected pesticide use for the year. This notification must include:

- The name of all the pesticide products expected to be applied at the school site during the coming year
- The active ingredient(s) in each pesticide product
- DPR's School IPM Web site, [www.cdpr.ca.gov/schoolipm/](http://www.cdpr.ca.gov/schoolipm/), where people can get information on pesticides and pesticide use reduction.

**A**t the start of the school year, schools must also give parents and staff an opportunity to register to be notified before each pesticide application throughout the year. For those who choose to register, schools must provide individual notification of pesticide applications at least 72 hours before the application. This notification must include:

- the product name
- the active ingredient(s) in the product
- the intended date of the application.

Templates for pesticide application notification and posting can be found on DPR's school web page. Go to [www.cdpr.ca.gov/schoolipm/](http://www.cdpr.ca.gov/schoolipm/), and click on "Tools and Templates" on the left side of the page.

# Examples of strategies and methods in place within MHUSD

- Traps
  - Currently used in the interior for mice, roaches & ants
- Gel or paste
  - Used in cracks and crevice treatment indoors
- Antimicrobial cleaners
  - Currently using Sparks 64
- Manual labor - aerating, mowing, hoeing, pruning, weed eating, and hand pulling



# New(er) practices in the Grounds Department

- Organic weed killers as an alternative to Ranger Pro
  - Avenger, Weed Zap and Weed Pharm
  - The active ingredient in most is an emulsified d-Limonene (citrus oil), which acts as a natural degreaser
  - The District will continue to test numerous organic products to see which one works best for our sites
- The District has also purchased a Weedtechnics SW900 trailer mount steamer



# Demonstration at Sobrato



Before



2 days after



# Cost considerations for implementation of new IPM practices

- Additional Labor
  - \$70,500 per groundskeeper plus equipment
- Weed killer
  - Ranger Pro - 30 gallons \$427.99: 2 oz per 1 gallon of water
  - Avenger Organic Weed Killer - 2.5 gallons \$208: 1 oz per 4.5 ozs water
- Steamer Trailer
  - Mounted with 2 hoses: \$27,530
- Antimicrobial (Sparks 64) - 1 gallon \$10.25: 3 oz per 1 gallon of water



# Conclusions

- The Grounds and Maintenance Department has formalized its current practices into an IPM Plan
- The IPM Plan prioritizes the incorporation of prevention strategies as well as physical and cultural practices only using pesticides when all other strategies are not successful
- The IPM Plan is flexible to allow for the continued incorporation of new materials and evolving technology
- The District's IPM Plan attempts to achieve an effective balanced approach with minimal fiscal impact