

School IPM 2015

Reducing Pest Problems and Pesticide Hazards in Our Nation's Schools

School IPM 2015 Newsletter: November 2011

In This Issue

[What's New?](#)

[Upcoming Events](#)

[Building Out Pests: Part Two of a Three Part Series](#)

[Environmentally Conscious Schools Receive a Green Ribbon](#)

[EPA Releases School Siting Guidelines](#)

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What's New This Month

- *Allergy and Asthma Today* published an article, "[We Are What We Breathe](#)," that contains a calculation for potential school funding losses due to asthma.
- Join the [Schoolbugs listserv](#) to ask questions, learn from others and share successes and

*View this newsletter as a [PDF](#) .

Greetings from School IPM 2015!

Every day, 49 million children attend school in the United States, served by nearly seven million teachers and staff. But they're not alone. Schools are also frequented by a number of pests including cockroaches, mice, dust mites and more. Asthma is epidemic among children, impacting nearly 6% of school children nationally with rates as high as 25% in urban centers. Cockroaches are potent asthma triggers.

Integrated Pest Management (IPM) is a prevention-based, highly effective approach proven to reduce pest complaints and pesticide use by up to 90% in schools and other public buildings. IPM practices such as sanitation and exclusion also improve food safety, fire safety and energy conservation. Our newsletter highlights real-life examples of IPM in practice and can help you start an IPM program in your school district. For more information, visit www.schoolipm2015.com.

Building Out Pests: Part Two of a Three Part Series

Designing, maintaining and operating buildings and grounds with pest prevention in mind is an enormous time and money saver! Here we focus on doors, windows, exterior lighting and landscaping in new construction and existing school buildings. If you missed Part One on foundations, roofing and architectural elements, please see the [October School IPM 2015 eNewsletter](#).

According to Dr. Michael Merchant, professor and extension urban entomologist at Texas AgriLife Extension Service, pests are much



challenges

Upcoming Events

December 6-7, 2011

School IPM Coordinator Training
Lubbock, TX

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December 13, 2011

School IPM Coordinator Training
Stafford, TX

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March 24, 2012

California DPR IPM Workshops
Chico, CA

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March 27-29, 2012

7th International IPM Symposium
Memphis, TN

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May 20-23, 2012

2012 National Conference on
Urban Entomology
Atlanta, GA

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Properly installed and maintained door sweeps can reduce pest complaints by up to 65% according to research from the University of Florida.

like people in that "Doorways are probably the number one entry point for pests into a school." It's important to ensure that all doors are well-designed and installed, and are equipped with either rubber or nylon brush door sweeps. All doors should be inspected after installation, ensuring that there are no gaps or spaces around the frame and the door closes tightly. Dr. Chris Geiger, municipal toxics reduction coordinator for the San Francisco Department of the Environment, emphasizes that doors should have no more than ¼ inch of clearance. If you can slide a pencil under the door, the gap is too big. University of Florida data shows that effective door sweeps alone can cut pest complaints by 65%!

In addition to making pest access into the building more difficult, door sweeps also block air flow, keeping dirt out and reducing heating and cooling losses. Self-closing doors can be used to prevent doors from being left open inadvertently. Dr. Merchant asserts that schools need to take responsibility for these details; architects and building contractors simply don't have pest prevention at the top of their priority lists.

Windows are another common pest entry point. All windows should be tight-fitting and should include well-maintained screens. An article by Sewell Simmons in the Journal of School Business Management entitled "[Pest Prevention Construction Guidelines and Practices](#)" states that, "Screens on windows, crawl spaces, and vents are often damaged in school buildings. Check these carefully for needed repair or replacement." Dr. Geiger suggests looking into Teflon coatings or bird-repellant gels for exterior window ledges, which may provide a surface that's too slippery or sticky for birds to roost comfortably.

[School IPM 2015: A Strategic Plan for Integrated Pest Management in Schools in the United States](#) recommends that "weep holes, or openings in masonry to allow moisture to escape, are screened to prevent pest access, e.g., stinging insect nesting." Fine net screens or stainless steel batting can be used to prevent pest entry through weep holes, as long as they allow water to escape.

Lights Out on Pests!

We're all familiar with how insects can be drawn in by sources of light at night. Since doorways are so critical to keeping pests out, sources of light should not be mounted above doorways, but rather on poles away from the building, with the light directed where needed. The [International Dark-Sky Association](#) provides guidelines on lighting that reduces light pollution. Low-UV-production bulbs, such as yellow insect

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lights can help reduce attraction. Sodium vapor lights are also an option, however these require special light fixtures rather than simply replacing a bulb.

Pest-Free Landscaping

One of the easiest mistakes to make in landscaping is choosing plants based on their dimensions when planted, rather than size at maturity. Shrubs are often planted too close together, obscuring the ground and creating harborage for rodents and insects.



Low-growing vegetation that conceals the ground encourages rodents and insect problems.

Trees can grow into power lines or too close to buildings, allowing branches to provide easy access for insects and animals to buildings. Tree and shrub branches should be kept at least six feet away from structures, and ten feet if tree squirrels are a problem.

Decorative elements such as lattices and vines climbing up the side of buildings can also provide bird roosting sites and a handy ladder for roof rats--avoid these if possible. Dr. Merchant also suggests choosing native plants and those that are well-adapted to your area. These varieties may be more resistant to the common pests in your locale, requiring less pest prevention and elimination. If you have questions about pest-resistant plants, consult your [cooperative extension service](#) for recommendations.

Sidewalk cracks can provide an ideal place for weeds to thrive, and can also act as pathways for insects such as ants. Any cracks should be filled with an appropriate sealant or concrete. Dr. Geiger suggests installing concrete, brick or paver mowing strips under fences and around buildings and plantings to prevent weeds from growing in locations that can't be easily mowed. Mowing strips save on labor and reduce the need for pesticides to control weeds in unmowable areas.

Good moisture control can help with the management of subterranean termites, carpenter ants and some wood-boring beetles. Simmons' article provides good tips for reducing moisture, such as using moisture barriers in both above-ground and slab foundations. Additionally, all exterior grades should be sloped away from the building to provide good drainage and prevent moisture from building up. Sprinkler irrigation heads should be aligned and/or shielded to keep spray from hitting buildings. Foundation wall vents should be included to provide cross-ventilation for

buildings with crawl spaces.

With a little effort and foresight, any district can pest proof their school buildings to keep out unwanted critters and reduce the need for chemical prevention. Look for the final article in this series next month, addressing kitchens, classrooms and other interior school areas.

Environmentally Conscious Schools Receive a Green Ribbon

The US Department of Education, with support from the White House Council on Environmental Quality and the US Environmental Protection Agency (EPA), has announced the creation of the [Green Ribbon Schools Program](#). The program recognizes schools that promote healthy and sustainable practices, and teach environmental issues. According to US Secretary of Education Arne Duncan, "Preparing our children to be good environmental citizens is some of the most important work any of us can do."

Specifically, the award acknowledges the work of schools in three areas: environmental impact and energy efficiency, healthy environment and environmental literacy. These criteria promote a healthy learning environment and encourage dissemination of environmentally conscious principles that students can apply in their future lives and careers. EPA administrator Lisa P. Jackson said, "The schools taking part in this initiative will help kids connect what they're learning in science class with the world around them." State education authorities will nominate schools based on [criteria and instructions](#) provided by the Department of Education.

The new program is modeled after the Department of Education's Blue Ribbon Schools Program, which recognizes schools that are high performing academically.

EPA Releases School Siting Guidelines

The US Environmental Protection Agency's (EPA) Office of Children's Health Protection has released a set of voluntary guidelines to help school officials evaluate the health risks and benefits of potential locations for new schools. Examples of health risks include nearby industrial facilities or chemicals in the soil from prior activity. Students benefit from school locations that are within walking or biking distance of their homes, and locations that allow the school to take advantage of neighboring community facilities such as parks or athletic centers.

Because children spend about a third of their day in school, it is particularly important to reduce their exposure to environmental hazards in that environment. EPA recommends that school boards or other decision-making bodies use the siting guidelines to assess each potential school site. EPA also advocates for public involvement in the process and a "Meaningful Public Involvement" section in the document provides guidance.

EPA's [school siting website](#) provides access to a [PDF of the guidelines](#) to view, download or print, as well as [overviews of the main sections of the guidelines](#), [frequent questions](#) and [links to resources](#). To request a hard

copy of the School Siting Guidelines, contact EPA's Office of Children's Health Protection at 202-564-2188 or U.S. Environmental Protection Agency, Office of Children's Health Protection MC: 1107T, 1200 Pennsylvania Ave., NW, Washington, DC 20460.