

School IPM 2015

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

School IPM 2015 Newsletter: October 2011

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What's New This Month

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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 One of a Three Part Series](#)

Preventing pest problems begins with designing, maintaining and operating buildings and grounds to reduce food, water and harborage. This month's article features tips on how to effectively pest-proof foundations, architectural elements and roofing for new construction as well as existing school buildings.

From the Ground Up

Neglected or poorly constructed building foundations provide an ideal entry point for pests. Regular visual inspections are critical. Dr. Michael Merchant, professor and extension urban entomologist at Texas AgriLife Extension Service, advises, "You always want to have clearance, or a field of vision, around the foundation of a building." Not only does this allow for easier access for inspections, it also denies pests access to concealed travelways and entry points.

- EPA announced the release of [voluntary school siting guidelines](#) to help school districts and communities select environmentally healthy and safe locations for schools.
- Join the [Schoolbugs listserv](#) to ask questions, learn from others and share successes and



challenges

Upcoming Events

October 26-27, 2011

Texas School IPM Coordinator Training
Van, TX

[More Information](#)

November 13-16, 2011

The annual Entomology Society of America
(ESA) conference features a number of

[sessions on school IPM](#)

Reno, NV

[More Information](#)

November 16-17, 2011

Texas Integrated Pest Management
Affiliate for Public Schools (TIPMAPS)

IPM Symposium,
San Marcos, TX

[More Information](#)



Vegetation grows! Be sure to have trimming vegetation back from buildings on your preventive maintenance schedule.

Dr. Merchant suggests positioning sidewalks next to the building, with any decorative plantings or shrubs on the outer side of the sidewalk, away from the building. This provides an attractive visual barrier just as if the plants were right next to the buildings. If it's not possible to put the sidewalk next to the building, all plants should be kept a minimum of 18 inches away from the foundation. Crushed stone barriers can also be placed next to the foundation to provide an open space and keep rodents from digging.

Avoid using wood within 18 inches of soil to reduce the potential for termite infestation. Sewell Simmons reports, "The only sure prevention of termite problems is the use of building materials other than materials they thrive on and enjoy consuming." (See "[Pest Prevention Construction Guidelines and Practices](#)" in the *Journal of School Business Management*.) Additionally, all materials that contain cellulose including wood scraps, vegetation, stumps and dead roots should be removed from areas under and around the foundation of all buildings. According to Dr. Chris Geiger, municipal toxics reduction coordinator for the San Francisco Department of the Environment, chemical treatments that are put down under the foundation to deter termites generally only last a few years, so they're not a good long-term prevention method. It's also difficult to treat every inch of dirt. Any gaps permit termites to bypass the treatment. Instead, consider solutions such as a layer of sand or other physical barriers such as metal shields under the slab which keep termites out and provide a moisture barrier.

A variety of materials are available to seal foundation cracks and holes, which are common pest access points. Stainless steel batting can be cut to size and stuffed into gaps to block pests. Concrete, expanding foams and caulks are other options for sealing gaps and cracks left by poor construction practices and deterioration. It's critically important to choose the best material for the job at hand. For great information on selecting the right product, see Bobby Corrigan's "[Recommendations for Selecting and Using Caulks and Sealants in Pest Management Operations](#)."

An Ounce of Prevention

Pest-proofing building designs, as well as conducting regular inspections

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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for pest-friendly deterioration, is a sure recipe for avoiding pest management headaches down the road. Dr. Geiger points out, "Pest management and especially pest prevention is one of the big gaping holes in green building certification programs and building design in general. Just a few carefully chosen design tactics can reduce the need for pesticide use significantly over the life of the building."

For example, bird-proofing after the fact can be prohibitively expensive. Consulting a pest management professional with bird expertise before finalizing designs can be well worth the investment. Facades with fancy detail can provide birds with roosts and perches for nest building. If eliminating ledges from the design isn't an option, Dr. Merchant suggests putting the ledges at a steep angle, at least 45 degrees, which will have the same aesthetic value as traditional ledge angles but will deter bird roosting. Ledges should also be shallow rather than deep, and nooks and crannies should be avoided to eliminate sources of shelter for nesting birds. Dr. Merchant points out that "someone's idea of what might be pretty isn't necessarily a good decision from a pest management perspective."



Make sure gaps like these between the siding and roof trim are sealed so bats don't make themselves at home in your school. Photo courtesy of Texas AgriLife Extension Service.

Particularly in the southern United States, bats roosting in buildings can be a major issue. Bats can transmit rabies and bat removal and cleanup can cost thousands of dollars. Typically, bats enter the building through gaps under roof edging. Since bats only need a ¼- ½" space to enter a structure, it is important to ensure that all gaps and holes are completely sealed.



[New School IPM Business Case and Asthma Documents Spread the Word about IPM Benefits](#)

In September, the National School IPM 2015 Steering Committee released two new documents to educate schools and parents about the cost benefits and asthma reduction that can be achieved through IPM implementation. [Reducing your Child's Asthma using Integrated Pest Management: A Practical Home Guide for Parents](#) states that asthma can be caused, and asthma attacks triggered, by common allergens such as cockroaches, dust mites and rodents, or irritants like cleaning products and aerosols, including pesticides. According to the Pew Environmental Health Commission, asthma rates rose by 75% between 1980 and 1994, and by 160% for those under four years of age.

Asthma, a health condition that causes inflammation of the lungs and airways, accounts for more than 12.8 million missed school days per year. Additionally, students who regularly miss school due to asthma symptoms tend to receive lower test scores and lower grades overall. Since many pest problems and pesticide applications can be avoided altogether by using IPM methods, the Centers for Disease Control and Prevention recommends IPM to address asthma.

One effective, simple message conveys how pest management can lessen children's asthma symptoms: "Keep out, clear out, and watch out." These three steps include actions such as installing door sweeps, sealing cracks and crevices, storing food in pest-proof containers, fixing water leaks and wiping up spills and using monitoring devices to watch high-risk areas.

[The Business Case for Integrated Pest Management in Schools: Cutting Costs and Increasing Benefits](#) presents case studies of schools that have implemented IPM and are models of the financial and other benefits that can be reaped from the transition from conventional pest management methods to IPM. For example, Indianapolis' Pike Township "turned an old-style extermination approach into a safer, far more effective IPM program, reducing the annual number of pesticide applications by 88%," all without increasing long term costs.

Since many schools receive funding from the state based on attendance rates, an IPM program can lead to reduced asthma-related absences and therefore increase school funding. IPM also reduces the amount of pesticides used, which means added savings. The Montgomery County Public Schools in Maryland initially made 5,000 pesticide applications per year, and just 600 three years after transitioning to IPM.

Implementation of an IPM program for turf grass maintenance can also provide significant savings. A report written in 2010 by Charles Osborne and Doug Wood stated that the switch from a conventional turf management program to an IPM turf program led to an average savings of 25% per year after five years.

The compounded benefits from IPM cost savings can mean more money for schools to teach their students, not to mention a healthier, safer environment in which to learn.



Three Texas School Districts Become IPM STAR Certified

Three school districts in Texas - Klein Independent School District (ISD), Katy ISD and Spring ISD - earned [IPM STAR Certification](#) this fall. IPM STAR Certification is a nationally recognized program that evaluates school systems and childcare centers on a rigorous 37-point IPM inspection.

Klein ISD encompasses 45,000 students in 39 schools. Education is a large part of the IPM program at Klein ISD. IPM staff focuses on educating teachers and school personnel about why pest problems occur and what they can do to help. Klein is also committed to reducing their pesticide usage by choosing non-chemical pest management approaches before considering the use of pesticide products. According to Louis Currie, certified applicator for Klein ISD, "if we can solve a problem without chemicals, we'll do it. Sometimes, the only tools we need are a fly swatter and soapy water."

Katy ISD includes 62,000 students and 7,655 staff in 52 schools and nine supporting facilities. Sandy Scott, head custodian for the Katy ISD administrative offices and multi-purpose arena comments, "Due to the continued monitoring and evaluating, the IPM system in place at Katy ISD keeps everyone working in a clean and safe environment." This kind of commitment to IPM is important to the school district because, according to Ms. Scott, "Our district is located in both a rural and a suburban area that has the potential for many types of environmental concerns," such as cockroaches and rodents. Their IPM team also provides mentoring and educational opportunities to other Texas school districts that are interested in implementing IPM.

Spring ISD serves 36,000 students in 36 schools, and has transitioned from a reactive mode of pest management to a more proactive approach through IPM, which relies on sanitation, exclusion and monitoring as the first line of defense. C.G. Cezeaux, IPM coordinator for Spring ISD, reports that his team "looks for a non-chemical solution first because that's what we want for the long term." In accordance with Texas law, Spring ISD places the pesticide products they use into three categories, red, yellow and green, with red including the most toxic products and green the least. Since implementing IPM, they have reduced their use of red category pesticides from 20% of their total pesticide use to zero.

These three districts join Carrollton-Farmers Branch ISD and Plano ISD as IPM STAR Certified districts in Texas. IPM STAR Certification is presented by the IPM Institute of North America in partnership with the US Environmental Protection Agency Pesticide Environmental Stewardship Program. The program has been introduced to Texas schools with the support and assistance of the Southwest Technical Resource Center and Texas AgriLife Extension Service.