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. House mice and 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.

Childhood Behavior Problems Linked to Common Insecticides

According to a recent study, commonly used household insecticides are associated with behavioral problems in children. The study focused on pyrethroids, compounds used in more than 3,500 commercial products. Pyrethroids kill insects by compromising their nervous systems.

In the Canadian study, 779 children between the ages of six and eleven had their urine tested. Pyrethroid breakdown products were found in the urine of 97% of study participants. Ninety-one percent had traces of organophosphates, another class of pesticides with a neurotoxic mode of action.

A 10-fold increase in urinary levels of one pyrethroid breakdown product was linked with doubling the risk of behavior problems.
product, cic-DCCA, was linked with doubling the risk of behavior problems such as hyperactivity. There was no association between the levels of organophosphate breakdown products and behavioral scores.

Pyrethroids use has greatly increased as organophosphate use has declined. According to the study authors, the only published study addressing pyrethroids and effects on children was in New York City where prenatal exposure of 348 mother-child pairs to pyrethroids was examined. The study reported that exposure was associated with considerably lower scores on the Bayley Scales of Infant Development (BSID) Mental Development Index.

Association does not prove causation. The findings do suggest a need for additional research. Please visit Environmental Health Perspectives to read the full research report.

Getting the Most from Your Pest Management Professional

Mike Mascia, quality manager/account manager at Plunkett’s Pest Control, recently shared some tips for schools working with Pest Management Professionals (PMPs) on a North Central IPM Working Group conference call. Mascia has spent six of his 28 years with Plunkett implementing an IPM program within Madison Wisconsin city buildings. Here are some of the strategies discussed on the call:

1. **Ask Questions:** Does the company provide IPM services for other school districts? If not, you are not likely to get IPM services. If so, ask to speak to those in charge of managing the contract in other districts served. What is the response time in the event of an emergency? Which insects are included in the services offered? Does the company have a successful track record addressing bed bugs if they were to become a problem?

2. **Verify Credentials:** Ask the PMP if they belong to the National Pest Management Professional Association or another state or regional pest management professional association. Ask about any third-party certifications held by the company or technicians including GreenPro, ACE, EcoWise the Associate Certified Entomologist or Green Shield Certified programs. Third-party certifications suggest a higher-than-average level of performance and professionalism.

3. **Establish Clear Expectations:** IPM bid specifications and contracts can be helpful. For an example bid specification, see Appendix D of the University of Nebraska-Lincoln’s Integrated Pest Management in Sensitive Environments: A How To Guide. For a model contract, see the University of Florida’s example.

4. **Provide Effective Oversight:** It’s critical to train your IPM coordinator to oversee your contractor effectively. For a concise guide to evaluating contractor performance, see Albert Greene’s example. To learn more about what an IPM coordinator is and their responsibilities, visit the IPM Institute of North America’s IPM Coordinator job description.

Who Is Your 2014 Healthy Schools Hero?

Do you know someone whose sense of responsibility, inspirational leadership, and exemplary persistence and courage protects children from school hazards and unhealthy school conditions?

Send your hero’s story, name, and email/phone number by February 1, 2014 to healthykids@rcn.com

The annual Healthy Kids Healthy Schools Hero Award was created as an annual opportunity to tell the story of the 1937 Texas School Explosion and to inspire leadership to protect children from the chemical hazards and unhealthy conditions in today’s schools.

**Highlights**

Recognizing excellence in asthma management!

The 2014 National Environmental Leadership Award in Asthma Management surfaces and illuminates best-practices in delivering environmental asthma.
environmental asthma management! Help us identify these successful programs in your community.

Have any questions? Check our the FAQ webpage.

Applications are due on February 3, 2014, 11:59 p.m. EST

Upcoming Events

December 20, 2013
IPM Coordinator Training
Lubbock, TX
More Information

February 5th, 2013
Half Day Bed Bug Workshop
Rockford, IL
More Information

Quick Links

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No, That's Not a Bed Bug!

Bed bugs continue to be a cause for concern in schools and other environments. An untrained eye can mistake bed bugs for other common pests. Here are some look-alikes that can lead to misidentification and undue alarm:

1. Spider Beetle
Spider beetles are the shape and size of fleas, oval and dark brown. They may appear bloated and reddish brown, as if they had just fed on human blood. Au contraire! Spider beetles typically feed on goods found in household pantries during the night or in dark locations, and are not blood suckers.

2. Cockroach Nymphs
Cockroach nymphs hide in cracks and crevices preferring to stay close to food, warmth and moisture. They are most active at night. They appear white immediately after hatching or molting, and quickly turn a reddish brown, much like a bed bug. However the cockroach nymph is more like the shape of a cylinder, whereas a bed bug is shorter and oval, or apple-seed shaped. Exposure to cockroaches can lead to asthma and trigger asthma attacks, good reasons for using IPM to prevent problems with these pests, and to act effectively if they appear.

3. Booklice
Booklice are commonly mistaken for bed bug nymphs. They are smaller in size, ranging from translucent white, to gray or brown in color. They can often be found under wallpaper and along the sides of windows and window sills. Their primary food source is fungi, pollen, mold and fragments of dead insects.

4. Carpet Beetles
Although carpet beetles are small, round and brown they have distinct wings. Their larvae look like furry caterpillars. Carpet beetles do not bite, but allergic people can experience welts if exposed to their tiny hairs. Carpet beetles can damage fabric.
exposed to their tiny hairs. Carpet beetles can damage fabric, furniture, carpeting and clothing that contain natural animal fibers.

5. Bat Bugs
Bat bugs are very similar in appearance to bed bugs and are best identified by an expert entomologist with a microscope. The primary difference is the longer length of fringe hairs located just below their head. Also, as their name suggests, they feed on the blood of bats, commonly found in attics. If bats are eliminated and bat bugs left behind, feeding on humans and pets can occur.

The bottom line: Avoid jumping to conclusions before getting an accurate identification. For a good on-line description of bed bug external anatomy, visit FMC Pest Wire’s free Guide to Bed Bug Anatomy.

Adult Bed Bug

Photo credits: University of Florida IFAS Extension

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