

# School IPM 2015

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

School IPM 2015 Newsletter: June 2012

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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](http://www.schoolipm2015.com).

### ➔ Tips for More Effective Asthma Management in Schools

Asthma is a growing health problem, especially among school-aged children. Asthma prevalence has increased from 7.3% of the population in 2001 to 8.4% in 2010 ([CDC NCHS Data Brief no 94 May 2012](#)). In its 2011 [Asthma & Children Fact Sheet](#), the American Lung Association reported that 7.1 million children under 18 had asthma. The Association also reports that the annual direct health care cost of asthma is approximately \$50.1 billion ([Asthma in Adults Fact Sheet](#)). In 2008, there were more than 14.8 million asthma-related school absences ([Meng et al. 2012](#)).

A life-long disease once acquired, asthma causes wheezing, shortness of breath, chest tightening and coughing. Susan Hoffmann, the Delaware director of the National Association of School Nurses and lead school nurse for the Caesar Rodney School District in Camden, Delaware, compares asthma episodes to the embers of a fire - "sometimes it's just smoldering in the background but then you have flare-ups." Asthma symptoms are caused by three issues: inflamed airways, increased mucus production and tightening, called bronchoconstriction, of the smooth muscles that surround the airways.

According to Hoffmann, schools should "develop a multi-disciplinary team of administrators, teachers, parents, custodial staff and coaches to create asthma management policies and look at ways to reduce triggers throughout the school." Hoffmann recommends the following actions to deal with asthma at school.

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## What's New This Month

The US Department of Education (ED) honored the 2012 Green Ribbon Schools on June 3 and 4. Watch the [plenary session](#), including remarks from ED Secretary Arne Duncan, EPA Administrator Lisa Jackson and Council on Environmental Quality Chair Nancy Sutley.

There will be a Northeast Organic Farming Association Advanced Workshop, [Compost Tea and Air Spading: Complimentary Practices for your Organic Management Plan](#), on August 9 from 8:30-4:30 in Rye, NY.

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## Upcoming Events

September 18-19, 2012  
Texas School IPM Coordinator  
Training  
Corpus Christi, TX  
[More Information](#)

October 12-15, 2012  
ASBO 2012 Annual Meeting and  
Expo  
Phoenix, AZ  
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November 13-15, 2012  
TIPMAPS/TASBO Second Annual  
Facility Masters Conference  
San Marcos, TX  
[More Information](#)

1. Establish strong links with asthma-care clinicians to ensure appropriate and ongoing medical care. Medical providers should develop an [asthma action plan](#). Plans should include actions for tiered symptom levels, such as green (no symptoms), yellow (moderate symptoms) and red (asthma crisis). The school nurse should keep plans for each student on file and share them with teachers, physical education coaches and other staff.
2. Use a coordinated, multi-component and collaborative approach that includes school nursing services, asthma education for students and professional development for school staff.
3. Ensure that students have access to all medications. Consult state laws to determine if children are allowed to carry their own quick relief medications.

Well-controlled asthma should not limit a child's ability to participate in school activities. However, uncontrolled asthma is the leading reason for school absences. "Asthma symptoms can lead to a disruption in sleep because the child cannot rest due to coughing, which can result in decreased school performance, learning difficulties, restlessness or fatigue," comments Hoffmann. Additionally, the side effects of some asthma medications include irritability and sleeplessness.

IPM in schools and homes goes hand-in-hand with asthma management. [Common triggers](#) for asthma include mold, pet dander, and cockroach and pest allergens. Sealing leaky pipes, promptly cleaning up spills, and sealing cracks and crevices can greatly reduce these triggers by denying pests water, food and shelter. Reducing moisture is critical to eliminating mold.

According to the US EPA's [Asthma Triggers: Gain Control](#), "Droppings or body parts of cockroaches and other pests can trigger asthma. Certain proteins are found in cockroach feces and saliva and can cause allergic reactions or trigger asthma symptoms in some individuals." Some IPM tips for reducing cockroach allergens include:

- Keep counters, sinks, tables and floors clean and clutter-free. Cluttered areas provide harborage for cockroaches and are difficult to clean. (More information about cockroach habits can be found in our [December 2011 newsletter](#).)
- Clean up any crumbs and spills right away. These are a great source of food and water for roaches.
- Store any food or food products (like pasta or rice used for art projects) in airtight containers, such as Tupperware® containers or Ziplock® bags.
- Seal cracks or openings around or inside cabinets.

### Resources

The US EPA Indoor Air Quality (IAQ) Tools for Schools program has a number of free [resources](#) to help schools implement IAQ programs, including a set of [lesson plans](#) to teach children about asthma. To manage IAQ in schools, EPA recommends six technical solutions, including providing quality HVAC systems, controlling moisture and mold, practicing IPM and using proper cleaning and maintenance techniques. The American Lung Association's [Asthma-Friendly Schools Initiative](#) also includes information and tools for school asthma management. The National School IPM Working Group created a document, [Reducing your Child's Asthma using Integrated Pest Management: A Practical Home Guide for Parents](#), to educate schools and parents about the cost benefits and asthma reduction that can be

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achieved through IPM implementation.

Educators and others can gain access to best practices, tools and resources with [AsthmaCommunityNetwork.org](http://AsthmaCommunityNetwork.org), a national network designed for community-based asthma programs. EPA's School IAQ Connector email discussion list is also available for members to ask questions about asthma management. Join by sending a blank email message to [schools\\_iaq\\_connector-subscribe@lists.epa.gov](mailto:schools_iaq_connector-subscribe@lists.epa.gov).



## IPMPro Mobile Device App Supplies Plant-Care Help



A new mobile device app, [IPMPro](#), provides information and suggestions for landscape pest management. The app contains plant pest and disease information and plant care recommendations. Users can also sign up to receive alerts when destructive pests move into their area.

Although officially created for nurseries and landscaping companies, IPMPro could also be used on school grounds. It includes a calendar for keeping track of inspections and other regularly-occurring landscape management tasks like soil testing and aerating, and a recordkeeping function to allow for pesticide application documentation while on the go. The app also has a library of images, pest life cycle and behavior information, and management options for major plant pests, which makes it a useful tool for training employees.

According to Amy Fulcher, lead developer and University of Tennessee (UT) Institute of Agriculture plant scientist, IPMPro "provides a library of information in the convenience of an app, and features real-time alerts to help professionals stay on top of emerging pests and timely plant care."

The app is available for iPad, iPhone and Android phones and costs \$24.99. It was built specifically for USDA Plant Hardiness Zones four

through eight, which include 22 states from west of the Mississippi River, east and north to Pennsylvania and New Jersey, and south to the Gulf Coast.

IPMPro development was funded by the UT Institute of Agriculture through its Extension and AgResearch units in cooperation with the UT Research Foundation. Collaborators included horticulturists, entomologists and plant pathologists at seven land-grant universities, including Clemson, North Carolina State University and University of Georgia.



## California Reports School Pest Management Survey Results

The California Department of Pesticide Regulation (DPR) School IPM Program published a [report](#) on a pest management survey they conducted in California public school districts in 2010. The survey measured compliance with the California [Healthy Schools Act \(HSA\)](#) and adoption of IPM programs and practices. The poll also sought to identify barriers to IPM adoption and provide a comparison to surveys conducted in 2001, 2002, 2004 and 2007.

HSA requires school districts to notify parents and staff annually of specific pesticides applied, keep a registry of parents interested in notification of individual pesticide applications, post signs on school grounds if pesticides are applied and keep records of applications for four years. The survey found that three factors predict better HSA compliance: attendance at a [DPR training](#), contracting for pest management services with a licensed professional and employing a more experienced IPM coordinator.

According to the 2010 survey responses, more than two thirds of reporting districts had adopted an IPM program. The survey focused on management of weeds and ants, two of the top pests in California schools. Nearly all districts reported using some physical controls for weeds and sanitation for ants, in addition to approved pesticides. DPR published a [separate 2012 report](#) on district ant and weed management practices and districts' use of IPM for these pests.

Survey responses have shown that districts are voluntarily adopting more IPM policies and practices each survey year. According to the report, "There is also an increase in awareness and use of [IPM resources](#)." In each survey conducted, respondents have named understaffing as the number one barrier to IPM adoption. Budget restrictions were the second highest ranked barrier.

DPR hopes to use the information collected in the surveys to improve training and outreach, such as by providing more in-depth training on addressing key pest management challenges. They also plan to share IPM programs and strategies from districts that have successfully implemented IPM and have reported a decrease in pest management costs. Of the responding districts, 56% reported a decrease or no change in long-term costs of pest management, while only 24% reported an increase in costs and 21% were uncertain.