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.

EPA Releases Strategic Plan for IPM

US EPA released its strategic plan for school IPM this week, detailing the Agency's leadership role reducing pest and pesticide risks to children and staff. EPA has committed to creating a clearinghouse for existing tools and information, increasing demand for school IPM by working with state agencies, school-related professional associations and others, and creating a center of expertise for school IPM based in Dallas, Texas. The Agency has also committed to growing four stakeholder-led working groups that have been advocating for and supporting adoption of high-level IPM in schools since 2007 with funding from EPA, the USDA Regional IPM Centers, the Centers for Disease Control and Prevention and others. EPA's strategic plan can be downloaded from the EPA website. To learn more about the stakeholder-led effort, visit the School IPM 2015 website.

Go Beyond the IPM Basics

An advanced green approach benefits schools by providing a safe, healthy environment for students, staff and the community. Green Shield Certified, an independent, award-winning IPM certification program operated by the IPM Institute, hosted a fall webinar, "Advanced Techniques for Green Pest Management," which focused on IPM strategies for those who want to go beyond the basics. Dr. Thomas Green, president of the IPM Institute, described the IPM continuum, from basic to advanced. "Advanced IPM requires you to think about why the pest is there and work to resolve those conducive conditions," says Green.

Keith Willingham, vice president of technical services for Western Exterminator Company, defined advanced IPM as "a program that includes defined protocols that must be followed, which are audited regularly." He suggested that organizations consider a certification program that provides these protocols and audits, such as Green Shield Certified and USGBC's LEED program.

Willingham noted that practicing advanced IPM provides opportunities to increase sales and improve the services you offer including how you use pesticides and other products. A reported 60 percent of consumers prefer to purchase from environmentally responsible companies, making these opportunities for review and evaluation critical.

Dr. Austin Frishman recommended a well-reasoned approach to IPM. "Cookie-cutter pest management doesn't cut it. You have to look at each account and figure out how to tailor-make your program to fit," he said. Frishman asks four questions each time he approaches a pest management issue:

1. What is the pest?
2. Why is it there?
3. What should be done about it immediately?
4. What should be done to keep it from coming back in the long term?

Keep pest exclusion in mind when designing new structures or modifying old ones. "I call it archepestology, or the study of architecture to keep out pests," says Frishman. Installing door sweeps on exterior doors is one of the easiest ways to keep pests out; data from the University of Florida shows just this small step can reduce pest complaints by 65%.

Conduct regular inspections to identify conducive conditions. "I try to think like the insect," comments Frishman. Get down on your hands and knees and shine a flashlight into dark corners and under equipment and shelves. Know about the biology and behavior of each pest you're dealing with to help you know where to look for them and how to keep them out.

Creative solutions and innovative technologies can be the key to managing pests using advanced IPM in the future. For example, GPS-based technologies are available to alert you of animals caught in traps so you can remove the captured animal immediately. Aerial photographs can be used to identify potential pest problems, such as water sources or wooded areas. Install air vents in crawl spaces to keep cockroaches out-they won't stay in places where air moves over them. Strategies like these can reduce reliance on harmful pesticides and still manage the pests.
Each school environment is different as well, with different pest pressures and conducive conditions. For more ideas on structural design and modification, see our three-part *Building Out Pests* article in the October-December School IPM 2015 newsletters.

#### Gaining Administrator Buy-in for IPM in Schools

Westville Public Schools, a rural Illinois district with three schools and 1,200 students, transitioned to IPM in 2009 with assistance from the University of Illinois School IPM Program that receives funding from the USDA-NIFA Extension IPM Grant Program. In just over three years, IPM has become an integral part of how Westville manages its facilities. The program has reduced pest problems and improved indoor air quality. During the first year of the program, pesticide applications were reduced by 80 percent. Since April 2010, no pesticides have been applied in the schools.

According to Sue Ratcliffe, director of the North Central IPM Center, “When you have the buy-in from high level administrators, IPM programs have a greater chance of success since the schools have a sense of ownership in the process.” On a recent conference call for the North Central School IPM Working Group, Seth Miller, director of operations for Westville, shared his insights on building a successful IPM program by gaining buy-in and cooperation from school administrators and facilities staff.

“Focus on the positive” is Miller’s mantra. He regularly reminds school decision makers about the benefits of IPM, including a healthier work environment for teachers, administrators, maintenance, custodial and kitchen staff, and a safer and more productive learning environment for students. Miller also uses the *Business Case for Integrated Pest Management in Schools* and *Reducing Your Child's Asthma using IPM* to help document the case for IPM to school administrators and parents.

Miller has benefited from opportunities for awards and recognitions available for districts that implement IPM. In 2010, Westville was recognized by the US EPA as a school IPM leader for successfully implementing the pilot. In 2012, they were recognized at the Seventh International IPM Symposium, receiving the IPM Innovator award with several other school districts nationwide. Miller suggests setting up a ceremony in the district for each award received, including the school board, local government officials and local media personnel. “Awards are very helpful when trying to recruit administrators, maintenance staff and custodial staff to change behaviors,” reported Miller. Mid-level administrators and facility managers are often only called out when something goes wrong; IPM awards provide opportunities for positive reinforcement for these professionals, and a clear accomplishment to add to resumes.

Miller recommends that facility managers and others interested in implementing IPM in their districts arm themselves with information before meeting with school administrators. Find out what pest management services the district currently purchases, including costs. If your district contracts for services from a pest management professional, present your plan as to how you would like to eliminate routine pesticide applications and increase assessments, monitoring, sanitation and exclusion. Terminix continues to service Westville’s schools, and has been successful with the new emphasis on IPM.

Research training opportunities for you and your staff, including
training on how to successfully engage with key staff. It can be a challenge to retrain experienced maintenance, custodial or kitchen staff to effectively fill their roles in reducing pest access to food, water and shelter. Having a third party provide specific pest management suggestions can make for easier conversations about IPM. Sue Ratcliffe, Marc Lame, clinical assistant professor at Indiana University, and Jerry Jochim were instrumental in supporting implementation of Westville's IPM program. Pilots are also a very useful tool. “If school officials are skeptical, offer to test the IPM practices in a single school and let the results speak for themselves,” suggests Miller.

The district’s IPM coordinator can serve as a leader throughout the process of implementing and maintaining an IPM program. “Without a dedicated individual who serves as the IPM coordinator, a verifiable IPM program is unlikely to succeed,” comments Ratcliffe. “Thanks to the efforts of Seth Miller, Westville Public Schools has become a model for school IPM in the state of Illinois.”

Two Washington State School Districts Achieve IPM STAR Certification

Walla Walla Public Schools and the Colville School District earned IPM STAR certification this fall after passing a rigorous 37-point inspection.

“IPM STAR certification recognizes and rewards schools and childcare centers that have met a rigorous standard for IPM and had their performance verified through an independent, professional audit,” said Dr. Thomas Green, president of the IPM Institute, which operates the IPM STAR program. Certification is based on compliance with a set of guiding principles including monitoring and inspection, setting action thresholds, recordkeeping, continuous performance evaluation and notification requirements. "With IPM STAR certification, a community can be confident its district is doing an excellent job managing pests and reducing risks from pesticides to students, staff and environment,” said Green. The IPM STAR evaluation form shows the criteria on which participants are assessed.

Walla Walla Public School's IPM program began in 2002 in response to the Washington State Posting and Notification Law. “Walla Walla’s IPM team works to regularly inspect new construction and renovation projects to ensure pest-proofing,” said IPM STAR project coordinator Caitlin Seifert. The program serves 6,297 students and 850 staff in six elementary schools, two middle schools, one high school and one alternative school. "We are proud to have an IPM program in our district and believe it helps keep our staff and students in a safer environment,” commented Cindy Cutlip, IPM coordinator for Walla Walla. With just two grounds staff in charge of one million square feet of buildings and 125 acres of property, this IPM program has thrived.

Notification is crucial to help avoid exposure that might lead to dangerous reactions. “We have some students who are allergic to certain chemicals, so in our IPM program, application notification is key to help avoid exposure,” says Cutlip. To ensure that everyone is on the same page, “Walla Walla Public Schools has implemented an extensive IPM education program for staff and students,” said Seifert.

The Colville School District serves 2,000 students and 425 staff in three elementary schools, one middle school, one high school and eight athletic fields totaling 120 acres. “The Colville School District has a comprehensive IPM policy which is distributed annually, and continues
their commitment to limiting the use of pesticides. Colville makes a great effort to notify parents, staff and students before and after pesticide applications," said Seifert.

Educating staff and students has been a key component of the Colville IPM program. Facilities director Jeff Wolfe developed support for the program by explaining the health, environmental and financial advantages of IPM to district decision makers and staff. Colville also received support from Washington State University (WSU) and the IPM Institute. "We did not have to reinvent the wheel," commented Wolfe. "Carrie Foss, urban IPM coordinator at WSU, and Caitlin Seifert provided outlines and resources to help in developing Colville's IPM systems." WSU helped fund the certification process for both Walla Walla and Colville, and Foss evaluated both schools.

The Colville School District meets state legal requirements for pesticide application notification and recordkeeping, and produces annual reports that will help other districts develop similar IPM programs. These reports also help identify IPM program needs and justify funding requests for the district. "The program we developed consolidates and properly stores records and product inventory and, as a result, it increases our effectiveness and accountability," said Wolfe.

IPM STAR certification is presented by the IPM Institute of North America in partnership with the US Environmental Protection Agency Pesticide Environmental Stewardship Program.