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.

Don’t Let Mice Move Into Your School!

It’s that time of year when heating systems turn on, and warm air leaking out gaps in exterior door sweeps and seals acts like a beacon, calling mice to a nice warm winter home! Add food smells from kitchens and cafeterias, and you have a perfect storm for mouse move ins!

Though considered harmless and cute by some, just consider these mouse facts:

- Able to transmit Hantavirus as well as *Salmonella*, bacteria responsible for food poisoning.
- Urinates several hundred - even several thousand - "micro droplets" per day!
- Can produce from 25 to 60 young each year!
- May transmit the following parasites to humans and pets:
What's New This Month

The Pesticide Research Institute released of a new, free, online pesticide product assessment tool, PestSmartTM, with pesticide product information for IPM managers, farm workers, beekeepers, LEED APs, pest control operators, and consumers. PestSmart provides a quick reference to the product Hazard Tier rating and is a companion tool for the more comprehensive PRI Pesticide Product Evaluator. Check out their latest blog post for additional information.

Highlights

EPA is hosting a one hour FREE webinar on "The Basics of School Integrated Pest Management" followed by a 20-minute Q&A session. This presentation is geared specifically to school and school district facility managers, buildings and grounds managers and childcare facility managers. School nurses and school administrators are always welcome to attend. Click here to register.

For information on other school IPM related webinars go to: http://epa.gov/pestwise/events/sipm-webinars.html

Ringworm, mites, tapeworm and ticks.
• Mice chewing on wires can cause electrical fires.

Keep mice out of schools and homes by:
• Repairing or replacing damaged or missing door sweeps on exterior doors, and sealing all other openings that allow entrance. Any hole ¼" or larger can accommodate a mouse. That means if you can stick a pencil into a hole, a mouse can also get through it!
• Removing indoor and outdoor debris that could harbor mice such as woodpiles, clutter and mulch piles.
• Clearing high weeds - since weeds and seeds serve as food and shelter for mice during warm weather.
• Cleaning up food scraps and storing foods appropriately to prevent easy access to food. All pet foods, bird seed and human food should be stored off the floor and in freezer zip lock bags or plastic containers with lids.

Once mice get in, trapping is the best strategy:
• Place multiple snap traps along the base of walls and in corners of rooms where mice are suspected. Chocolate syrup makes a good bait.
• Set traps in the evening and collect them the following morning prior to the arrival of students. Number each trap so that you are sure to collect them all.

Glue boards are inhumane and only catch immature mice, allowing adults to continue breeding. Mice can take a long time to die stuck on traps, risking exposing students to very upsetting noises and sights.

Careful inspection should be done before ending trapping as multiple infestations are not uncommon. For more information, see the Pest Press at http://cals.arizona.edu/apmc/docs/October_mice_and_rats.pdf

IPM in the Classroom

Now that the new school year is well underway, take a minute to check out your classroom for pest-friendly conditions!

• Cluttered cubbyholes, piles of classroom materials, items stored on the floor or in corners makes it impossible for custodial staff to clean, and IPM staff or contractors to inspect.
• Snacks and edible art supplies stored in unsealed containers are an invitation to pests.
• Report spills on carpet or hard to reach areas to custodian staff immediately.
• Emphasize the importance of keeping personal space clean to
Set aside a few minutes each week for you and your students to conduct a classroom round-up. Have students clean out their desks and cubbyholes of any unwanted papers and trash. Hand out wet wipes for students to use on their desks, chairs and other areas.

**Teach IPM!**

Teaching IPM in the classroom encourages environmental stewardship, critical thinking and problem solving skills, hands-on science learning and engages students in STEM (science, technology, engineering and math). Check out these IPM curriculum resources:

1. Maine Department of Agriculture, Conservation and Forestry has [IPM curricula](#) for K-12 students.
2. Check out the article below to learn more about A Classroom InPestigation: Life Science Curriculum for grades 3-5
3. School IPM 2015 [Student IPM Curriculum for K-12 Teachers](#)

**Have fun**

Challenge your students to become IPM ambassadors. After learning all about IPM, students will understand the key principles of an IPM program: identify, decide, act and evaluate. Students can contribute to the classroom IPM policy and use the skills they have learned at home too.

**Classroom InPestigation!**

Students will see the world of insects from an entirely new perspective by participating in A Classroom InPestigation. This life science curriculum for grades three to five guides students to conduct scientific investigations about the world of insects.

The curriculum is built upon problem and inquiry-based design principles. Each lesson contains questions and worksheets to help engage students to make evidence-based claims. Comprised of five, 50-minutes lessons the curriculum summarizes these IPM components:

1. Accurately identify the pest
2. Understand the biology and ecology of the pest
3. Monitor the environment to determine the pest levels
4. Determine when action is required
5. Select an appropriate course of action
6. Gather data and evaluate results

InPestigation was piloted in Washington and Colorado grades schools. Teachers were asked to fill out an evaluation form after they completed the program. Lauren Urbina, 3rd Grade Teacher at STEM Launch Elementary School said, “My kids loved the entire unit. They loved them all! We learned a ton and had a great time doing...
so."

Through education and teacher support, IPM can become a permanent fixture in classrooms. Guided by their teachers, students can become "InPestigators" and learn to evaluate situations to ensure the healthiest environment possible. To view the curriculum, click here.

Funded by the Western IPM Center, Ian Renga, University of Colorado at Boulder, Dr. Deborah Young, Colorado State University, and Carrie Foss, Washington State University collaborated to write and develop the program.

Carrie Foss will be presenting the curriculum at a 2014 Teacher Workshop in conjunction with the Entomological Society of America’s Annual Meeting, on November 15, 2014 in Portland, OR. To learn more about the workshop, click here.