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The Pennsylvania INTEGRATED PEST MANAGEMENT PROGRAM
Pennsylvania Department of AGRICULTURE

News Release

September 11, 2007

New Asthma Guidelines Stress Importance of Safe Pest Control

UNIVERSITY PARK, Pa. – New guidelines from the National Asthma Education and Prevention Program (NAEPP) for diagnosing and treating asthma emphasize the management of potential asthma triggers such as pests and pesticides.

Asthma is one of the most common health problems in the United States, and it can significantly affect peoples' lives at school, at work, at play, and at home. Asthma is a chronic, treatable disease that causes narrowing of the airways, making breathing difficult at times. More than 22 million people in the United States have asthma, including 6.5 million children under age 18, according to the Centers for Disease Control and Prevention (CDC). Without appropriate treatment, asthma can significantly limit individuals' activities and result in asthma exacerbations, which can lead to hospitalization and even death. The CDC estimates that 4,000 Americans die from asthma exacerbations each year.

In response to this rising concern, the NAEPP recently issued the first changes to its clinical guidelines for the diagnosis and management of asthma in ten years. It includes an expanded section on childhood asthma, new guidance on medications, new recommendations on patient education in settings beyond the physician's office, and new advice for controlling environmental factors that can cause asthma symptoms.

“Environmental factors that can trigger asthma and asthma symptoms include pests, such as cockroaches and mice, pest by-products such as feces, cast skins and urine, as well as the pesticides used to treat pests,” says Lyn Garling of the Pennsylvania IPM Program. “Indoor air quality has a big effect on asthma sufferers, especially children who spend most of their time indoors at home and at school. One component of indoor air quality includes the levels of pests and pesticide use inside buildings.”

An integrated pest management (IPM) approach to pest control can effectively reduce pest populations while simultaneously reducing pesticide exposure in indoor environments. IPM is a safe, effective, and scientific approach to managing pests. IPM uses knowledge of pests’ habits and needs to help residents implement pest prevention tactics as a first line of defense. Because pesticides are poisonous, they are chosen only as a temporary tool, and may not have to be used at all. Only pesticide products that pose the least-toxic, least risk of exposure to residents are chosen. Information about proper use, storage and disposal of pesticide products is also critical to avoid personal and environmental contamination.

According to the NAEPP guidelines, recent studies suggest that mouse and rat allergen exposure and sensitization are common in urban children who have asthma. The NAEEP suggests mouse allergen exposure can be reduced by a combination of IPM tactics such as blocking access, low-toxicity pesticides, traps, vacuuming and cleaning.

In addition, the NAEPP says cockroach sensitivity and exposure are also common among patients who have asthma and live in inner cities. In a study of asthma in an inner-city area, asthma severity increased with increasing levels of cockroach antigen. The NAEPP guidelines recommend that cockroach control measures such as good sanitation and using poison baits, gels, boric acid, and traps are preferred to other chemical agents, because the later can trigger asthma attacks.

The new asthma guidelines emphasize that while asthma can be controlled, multiple approaches are needed to limit exposure to allergens and other substances that can worsen asthma. “Research shows that single steps are rarely sufficient,” Garling explains. “Using preventative practices and systematic monitoring of buildings and surrounding grounds, IPM can stop a pest infestation before it gets out of hand.”
She has some tips to keep pests at bay in your home and limit the use of pesticides:
• Keep living areas clean and uncluttered.
• Keep yards and vacant lots maintained (mowing and trash pickup).
• Repair holes and cracks in walls, windows, and screens.
• Seal routes of pest entry using caulking, copper mesh, or other pest-proof materials for gaps in walls, windows and pipes.
• Share information with neighbors! Pests do not stay in one place!
• If you decide to use a pesticide, read the label! Choose the least-toxic product (one that says “Caution”, not “Danger” or “Warning”) that will target the pest of concern.
• Avoid home sprays and foggers and use powders and baits carefully! Fine aerosol mists can easily be breathed and coat surfaces with pesticides.
• Find a reputable pest control specialist, and ask about IPM.

Five years ago, the Pennsylvania Integrated Pest Management Program (PA IPM) at Penn State began looking for community-based solutions to manage pests effectively and safely in indoor environments and formed Philadelphia School and Community IPM Partnership (PSCIP). PSCIP members include community groups, schools and child development centers, tenant groups, environmental groups, health professionals, pest control professionals, university staff and city and state agencies. According to Garling, PSCIP, with the aid of the U.S Environmental Protection Agency, the U.S. Department of Agriculture and the Pennsylvania Department of Agriculture has delivered programs to provide kid-safe pest control education and outreach in Philadelphia to reduce asthma rates in inner-city environments.

For more information on pests and pesticides and their effects on public health, visit the PA IPM Program’s Web site at http://paipm.org and click on ‘Public Health’.
For more information on PSCIP, including meeting minutes, partners in the initiative, and current and future activities, visit Web site http://www.pscip.org. Or, you may contact

Michelle Niedermeier, PSCIP coordinator, at the Philadelphia IPM office, phone (215) 471-2200, ext. 109, or e-mail pscip@psu.edu.

To view the new NAEPP asthma guidelines in their entirety, see Web site http://www.nhlbi.nih.gov/guidelines/asthma/06_sec3_comp3.pdf.

The Pennsylvania IPM program is a collaboration between the Pennsylvania State University and the Pennsylvania Department of Agriculture aimed at promoting integrated pest management in both agricultural and urban settings. For more information, contact the program at (814) 865-2839, or Web site http://www.paipm.org. To view our archived news releases, see Web site http://paipm.cas.psu.edu/newsrelease.html.