

# BETTER PEST MANAGEMENT WITH IPM

Purdue University  
IPM Technical Resource Center

Integrated Pest Management for Schools and Childcare Facilities

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## **Pest Can Threaten Children's Health**

Certain pests that are often common in schools and childcare centers can threaten children's health. For example:

- Flies and cockroaches mechanically spread bacterial diseases.
- Cockroaches have been implicated in allergies and acute asthma attacks.
- Yellowjacket stings are painful and can be life-threatening for some individuals.
- Spiders can inflict painful bites, and the brown recluse, a spider that thrives in paper-clutter, has a bite that can be disfiguring.
- Mice contaminate food and can cause structural damage. Certain species of mice common in Indiana can carry Hantavirus, a relatively rare but potentially deadly disease of humans.

## **Pesticide Use Can Pose Potential Risks**

On the other hand, some of the chemical tools traditionally used to control these threats have themselves raised concerns related to children's health. Traditional pest control programs in schools have often relied heavily upon the use of *preventive residual insecticides*. These products kill insects by contact, and they work by leaving a residue behind after treatment. The residue may last several days, weeks, or longer than a month, depending on the product and a number of other factors.

A report from the National Academy of Science from 1993 found that children are more sensitive than adults in both their potential for exposure to pesticide residues and the potential for negative health effects following exposure. Consider the following:

- Children's bodies and nervous systems are still in a developing state.
- Children eat and drink more per pound of body weight than adults do.
- Children's behaviors may put them at risk: crawling or playing on floors or in outdoor areas that have been sprayed, and the increased hand-to-mouth activity of younger children.

These factors, taken together, indicate that children may be more at risk than adults when it comes to potential pesticide exposure.

## **The Integrated Pest Management (IPM) Solution**

Integrated Pest Management, or IPM, is an ecological approach to pest management that effectively manages pests in a way that minimizes adverse effects on people and the environment. It emphasizes an understanding of pest biology and behaviors. IPM employs a number of different strategies designed to reduce the things pests need to survive and reproduce, including water, food, living space, and a way into the building. Pest vulnerable areas of the school are monitored for the presence of pests and preventive insecticide treatments are discontinued. When a pest problem occurs, it is resolved by eliminating pest access or removing pest resources, or through the use of targeted "least risk" pesticide products. The end result with IPM is fewer pests with fewer pesticides.