Roaches and Rodents and Mice: Oh, My!

BY REBECCA MORLEY

Cockroaches, mice, rats and other pests are a major problem for many affordable housing managers, especially in urban areas. Getting rid of them takes considerable time and resources and may seem like a never-ending battle.

Plus, pests are more than just a nuisance. Cockroaches and mice dander, for example, can worsen asthma—a disease that affects an estimated 17 million Americans, including 4.8 million children. Asthma is the leading cause of school absenteeism and the second greatest cause of home confinement for adults.

TRADITIONAL PEST CONTROL

Traditionally, most pests have been managed by periodic spraying or fogging with pesticides. These practices can result in potentially significant pesticide exposure. Used incorrectly, pesticides can cause skin rashes, headaches, dizziness, nausea and vomiting, and difficulty breathing. Chronic effects may include the development of cancer, damage to reproductive organs, and the weakening of the central nervous system. One study found that 74 percent of pregnant women reported using pesticides in their homes during pregnancy.

A NEW APPROACH: INTEGRATED PEST MANAGEMENT

Many of these chemicals are unnecessary if preventive steps are taken to reduce access to food and water sources that attract pests. Some housing providers have adopted Integrated Pest Management (IPM) and found it to be more effective at getting rid of pests and less toxic to residents.

The basic components of IPM are:

1. Identifying and monitoring pest infestations: Tools like glue traps help monitor cockroach populations, identify where they are concentrated and help evaluate progress.

2. Educating and involving residents: One of the best models of IPM includes training residents as “IPM educators.” IPM educators communicate with other residents about keeping pests out of the house, reducing available hiding places, and making sure pests do not have access to food and water.

3. Blocking access points and hiding places: The maintenance staff also plays a critical role in changing the surrounding landscape, blocking pest
entries and passages (with caulk, screens or wire mesh) and cleaning up clutter to reduce hiding places.

4. Reducing food availability: Properly storing food and waste, and regularly washing and degreas- ing all hard surfaces decreases the risk of infestation.

5. Using low-toxicity methods to get rid of existing pests: In combination with the steps above, baits, traps, gels and low-toxicity pesticides can also decrease the length and severity of infestations.

As you can see in the chart above, IPM differs substantially from traditional attempts at pest control. The main differences are summarized in the chart.

**HOW ABOUT COST?**

More research is needed to compare IPM costs with the costs of traditional methods. One study (Wang 2006) showed that IPM is initially more expensive but evens out over the longer-term because it is more effective than traditional methods. The studies are exceptionally clear on effectiveness—to improvements in the health of children in several housing developments. Following treatment, the percent of children slowing down or stopping play due to asthma dropped from 64 to 26 percent and the percent of children waking up at night due to asthma dropped from 64 to 30 percent.

In Cleveland, Environmental Health Watch teamed with the Department of Housing and Urban Development to study the effectiveness of IPM in an affordable housing development. Residents worked with pest control contractors, enabling the housing authority to make necessary repairs to their units. This strategy resulted in a 95 percent reduction in the roach population in all but one unit.

Similarly, in New York City, The Mount Sinai Children’s Environmen- tental Health and Disease Prevention Research Center tested IPM in East Harlem. It found that households receiving individually tailored IPM education, repairs, least-toxic pest control application, and supplies experienced an almost 50 percent decline in cockroaches after six months.

Pests really need to be dealt with effectively, and IPM is an approach that can help you and your residents be rid of them while also keeping yourselves healthy.

**FOR MORE INFORMATION**

For more information, contact Susan Aceti at the National Center for Healthy Housing at 443-539-4153. NU

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**REFERENCES**


U.S. Environmental Protection Agency. Consumer web site on pests and pesticides: http://www.epa.gov/oppe1/ln/publications/catalog/subpage1.htm


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**TABLE 1: TRADITIONAL METHOD AND IPM**

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<thead>
<tr>
<th>Approach</th>
<th>Reactive</th>
<th>Proactive</th>
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<tbody>
<tr>
<td>Infestation is identified and treated with chemicals.</td>
<td>Preventive maintenance processes reduce the frequency of pest problems.</td>
<td></td>
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<table>
<thead>
<tr>
<th>Role of Residents</th>
<th>Uninvolved</th>
<th>Critical</th>
</tr>
</thead>
<tbody>
<tr>
<td>The main responsibility falls on the exterminator with little or no involvement from residents.</td>
<td>Residents contribute to decreasing infestation through training and monitoring.</td>
<td></td>
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<tr>
<th>Frequency of Pesticide Use</th>
<th>Routine</th>
<th>Rare</th>
</tr>
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<tbody>
<tr>
<td>Pesticides continually applied regardless of pest presence.</td>
<td>Pesticides applied only after evidence of an infestation and non-chemical methods have proven unsuccessful.</td>
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<table>
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<tr>
<th>Use of Pesticides</th>
<th>Broad</th>
<th>Limited</th>
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<tbody>
<tr>
<td>Toxic pesticides applied liberally, using methods like baseboard spraying and room fogging.</td>
<td>Pesticides restricted to specific and small areas, like cracks and crevices.</td>
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