

# INTEGRATED PEST MANAGEMENT

Identifier: PLN-004

Revision: 0

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**1. PURPOSE**

It is the policy of Idaho Falls School District #91 to provide a place of education and employment that is free from recognized hazards. This procedure provides guidelines to reduce pest related issues from District buildings.

**2. SCOPE AND APPLICABILITY**

The Environmental Protection Agency (EPA) opposes spraying pesticides at schools. Instead, EPA suggests an “integrated pest control” approach, relying strongly on housekeeping and maintenance. Spraying is only to be used as a last resort for controlling pests and as spot application in problem areas when school is not in session. This procedure provides recommendations for District custodial and staff on how to reduce and control pest related problems in District buildings.

**3. SPIDERS**

You can control the number of spiders in an area by reducing their food supply. Study the situation to locate the source of their prey. Are too many flies getting in? If so, screens should be installed or repaired. Is security lighting attracting insects at night for spiders to feed on? Insects may also be attracted to poorly stored food or mishandled organic wastes. Eliminating the food source for these insects will reduce the food source for the spiders. The three potentially dangerous spiders—black widow, brown recluse, and aggressive house spider—nest in undisturbed areas, often near the floor; therefore, thorough vacuuming from time to time in these areas can also help in their control. Following is a list of actions that should be taken to reduce the number of spiders:

**3.1 Maintenance**

- 3.1.1 Walk around the outside of the school and look for cracks in the foundation. If you have cracks, have them filled with caulk or paint.
- 3.1.2 Look at screens (if applicable) in the outside doors and windows; if they need to be repaired or replaced, put in a work order.
- 3.1.3 Use weather stripping and door sweeps around doors to create a tight seal.

**INTEGRATED PEST MANAGEMENT**Identifier: PLN-004  
Revision: 0**3.2 Housekeeping**

Look closely around the areas you are seeing the spiders for housekeeping issues; spiders don't travel far.

- 3.2.1 Review the housekeeping in areas where food is present. If you have a kitchen or food preparation area, pay special attention to those places. Also pay special attention to the basement.
- 3.2.2 Unwanted spiders and their webs can be removed simply by vacuuming. In most cases, vacuuming and reducing the spiders' food source will be sufficient to control the problem

**3.3 Trapping and Spraying**

- 3.3.1 Use sticky traps; however, if you use these traps, making sure the children cannot come in contact with them. Sticky traps will also help you narrow down the locations that you have a spider infestation so you can be more stringent about housekeeping in those areas.
- 3.3.2 For further information; read Chapter 15 on spider management of the EPA brochure "Integrated Pest Management for Schools; A How-To Manual" (<http://www.epa.gov/opp00001/ipm/schoolipm/index.html>)
- 3.3.3 Contact the ES&H Engineer if you still have a spider problem after you've followed these recommendations. The ES&H Engineer will evaluate pesticides to find the most effective and safest one for you to use for spot spraying.

**4. COCKROACH CONTROL**

Integrated Pest Management works better than sprays or baits at keeping roaches away, and IPM is safer because it reduces exposure to pesticides. Professional pest control companies now use IPM in conjunction with spraying. Use the following methods to control cockroaches in buildings.

**4.1 Maintenance**

Maintenance is critical to keeping roaches from entering buildings. A young roach can fit in a space as thin as a dime. An adult male can fit in a space as thin as a quarter.

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- 4.1.1 Use a caulk gun to seal cracks and holes around baseboards, shelves, cupboards, pipes, sinks and bathtub fixtures.
  - 4.1.2 Use spray foam to fill holes, openings and electric outlet boxes where roaches like to hide.
  - 4.1.3 Use plaster to repair large holes or damaged walls.
  - 4.1.4 Screen opening such as vents to block roach's entry.
  - 4.1.5 Knitted copper mesh (for example, Stuf-fit) is a good barrier for holes that are hard to block and lasts longer than steel wool.
  - 4.1.6 Use weather stripping and door sweeps around doors to create a tight seal.

**4.2 Housekeeping**

Roaches like to hide in very small spaces. They hate open spaces and love clutter. Good housekeeping is essential to avoiding cockroach problems.

- 4.2.1 Clean up clutter such as piles of newspaper and clothing.
- 4.2.2 Throw out grocery bags, cartons, boxes and other containers. They may bring roaches and roach eggs in from the outside and provide hiding places.
- 4.2.3 Clean all surfaces where food is prepared, stored, eaten or spilled.
- 4.2.4 Clean up food scraps from floors, tables, chairs, counters, around appliances and anywhere food spills.
- 4.2.5 Don't leave food out on counters after use and store all food in tightly sealed containers.
- 4.2.6 Keep trash in a closed container. Remove all trash from the house daily. Keep the outside of the garbage container clean.
- 4.2.7 Roaches are attracted to water; fix all water leaks immediately and don't allow a moist environment. German roaches, for example, are usually found in warm, moist locations such as underneath sinks or around plumbing lines in a kitchen or bathroom.

**4.3 Roach Bait Stations**

A roach bait station is often called a "roach trap" but the device is far from being a trap. A roach bait station consists of a killing agent, an attractant and a device (station) to hold the first two components. Roach baits contain poison that attracts the roaches and kills

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them. After a roach eats the bait, it goes back to its hiding place and dies. Other roaches eat the body of the poisoned roach and die too. Each roach that eats the bait can poison dozens of roaches, so only a small amount of bait is needed to do the job.

The actual station is usually constructed of plastic or a combination of plastic and thin cardboard. There are small openings on the sides of these stations which allow cockroaches (or other targeted insect pest) to enter.

- 4.3.1 Place the bait in a safe place, out of the reach of children and pets.
- 4.3.2 Place baits within 10-12 inches of hiding places, food sources, water sources and where you see droppings. Roaches need to find the bait during their normal activity.
- 4.3.3 Place baits next to the wall, along baseboards, at edges and in corners. Good spots are under sinks, in cabinets, under appliances, and near plumbing fixtures. Roaches will eat the first food that they find. To work the bait has to be closer to the roach hiding place than other sources of food.
- 4.3.4 Contact the ES&H Engineer if you still have a spider problem after you've followed these recommendations. The ES&H Engineer will evaluate pesticides to find the most effective and safest one for you to use for spot spraying.

**4.4 Roach Bait Gels**

Pest control technicians will often use a bait gun filled with bait gel, which allows small, precise bait placements. Small cartridges (filled with bait) are inserted into the bait gun; the bait is dispensed by squeezing the bait gun trigger. Gels are more versatile and economical to use and can be precisely placed, reducing the potential hazards to non-target animals, children and pets.

Gels have the extra advantage of being moist. Moisture is a well known attractant to roaches and young roaches that cannot always feed on solid baits (such as those found in roach bait stations) can easily feed on gel baits.

**4.5 Cockroaches and Asthma**

People with asthma are often allergic to "roach dust." Roach dust is made up of roach body parts and droppings. Roach dust is a very strong asthma "trigger;" triggers cause asthma attacks. A person with asthma should not be in the room being cleaned. The cleaning can stir up the roach dust into the air. The cleaning can stir up the roach dust into the air. If the person with asthma has to do the cleaning, a dust mask may help.

**4.6 Wet Cleaning**

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- 4.6.1 For surfaces that can be wet-cleaned, use a paper towel or rag dipped in cleaning water and household cleaner. Throw away the towel or rag after each use; don't dip the dirty towel or rag back into the cleaning water. The idea is to pick the roach dust up and not just spread it around.
  - 4.6.2 Use a cleaning bucket and a rinse bucket for large floor areas. Rinse the mop each time before dipping back in the cleaning bucket. Change the rinse water often.
  - 4.6.3 Cleaning with bleach destroys the chemicals in roach dust that trigger an allergy reaction. Use about  $\frac{3}{4}$  of a cup of household bleach in a gallon of water. Wait ten minutes to give the bleach time to work before rinsing the surface. Bleach is a skin irritant. Wear rubber gloves to protect your hands. **Never mix bleach with any other cleaning products. Dangerous vapors can be produced.**

**4.7 Cleaning Rugs and Carpets**

It is best to use area rugs that can be washed often. If you have (or had) a roach infestation, use a High Efficiency Particulate Air (HEPA) or "allergen" or "low emission" vacuum and bags if possible. These reduce the amount of roach dust that gets in the air during vacuuming. If you don't have the special vacuum or bags, use bags already 1/2 full. A new empty bag lets too much dust out. It also may help to clog the bag with flour or cornstarch when you put in a new bag. Pour a cup of flour or cornstarch on the floor and vacuum it up.

**4.8 Roaches Can Come Back -- Stick with the Plan**

Roaches "hitchhike." They can hide inside bags, soft drink cartons, cardboard boxes, used appliances, furniture, TVs, radios, or anything that people bring in from places that have roaches.

- 4.8.1 Do not spray a roach if you see one. Smack it dead. Then check all around the area where you first saw the roach
- 4.8.2 Stick with the methods for roach removal in this guide even if you think the roaches are gone. New roaches may find their way in.