

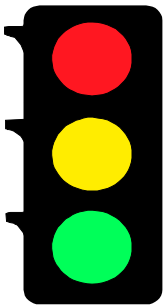
DON'T BE A NOZZLEHEAD!

THINK BEFORE
YOU SPRAY



HOUSEHOLD INSECTS

USING INTEGRATED PEST MANAGEMENT (IPM)



- *Do you have ants on the kitchen counter?*
- *Crickets in the basement?*
- *Small holes in the wool suit stored in the closet?*

If your first thought is to reach into the back of the closet for the can of insect killer or get the sprayer out of the garage and fill it with pesticide and wage war against these pests—

STOP!

Maybe you should consider another traffic signal—the common traffic light. **Red—Stop**—don't do anything yet. **Yellow—Caution**—think about the consequences (good and bad) of applying a pesticide. **Green—Proceed**—but in an orderly fashion. What (exactly) are the insects? Monitor the insects and see what they are doing. Are they causing significant damage, or are they just a nuisance? Are there alternatives to applying a pesticide that may be safer for the environment, for you, your children? Could they be just as effective as a spray? Congratulations! You have, in a simple way, just followed the principles of Integrated Pest Management (IPM) to help you make educated, environmentally friendly decisions.

Integrated Pest Management (IPM) may sound like a fancy, hard to understand system. It is not. IPM is a simple, practical and flexible way to help manage pests in

the home. It involves the use of a blend of pest management tactics to protect the home environment from uninvited guests. People who practice IPM monitor their homes and integrate cultural, biological, mechanical and chemical techniques to suppress pests. Think about going to the doctor. Your doctor uses a form of IPM on you. Information is gathered about history, signs and symptoms. Tests may be performed. Only after a diagnosis is made are treatment options considered.

Basic IPM Principles

Identification and Diagnosis of the Pest

The first step in pest control is accurate identification. Early, accurate identification and diagnosis are essential to a successful IPM program.

Monitoring

Monitoring is the regular inspection of the home to determine the nature of the pest problem. This information can then be utilized to make decisions about management of the pest.

Action Threshold

It is important to know that all pests don't have to be controlled. The term "action threshold" is used to describe the level of pest presence that requires control. Action thresholds vary considerably from pest to pest.

Pest Management Strategies

IPM uses a combination of compatible control techniques. These include cultural, biological, mechanical, plant selection and chemical techniques. In many cases a combination of these strategies may be necessary.

continued



Cornell University
Cooperative Extension
Nassau County

Nassau County

40 Main Street, Lower Level
Hempstead, NY 11550

516 292-7990

Fax 516 292-7990

nassau@cornell.edu

www.cce.cornell.edu/nassau

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- **Cultural controls** are modifications of practices to disrupt or reduce pest populations. *For example:* storing foods in sealed containers can discourage uninvited pantry pests.
- **Mechanical control** refers to the use of barriers or traps to exclude or catch pests.
- **Chemical control** includes the use of pesticides. The least toxic pesticide should be used initially. **Use pesticides as a last resort after other techniques have failed or show little success.** If applied at the correct time and rate, pesticides are usually safe and effective. **READ AND FOLLOW DIRECTIONS ON THE LABEL.**

Using IPM on Household Pests

The following IPM strategies for household pests will greatly reduce many of the insect pests in the home and reduce the need for pesticides.

Monitoring

- Be nosy—routinely look around the home for pests or signs of their activity. Check cabinets, food and clothes storage areas, basements and crawl spaces. Especially note moist areas which can attract pests. Inspect during the day and at night. Many insect pests are more active during the nighttime hours.
- Identify the pest and decide if it is really a problem. Not all insects that are found are actually causing problems. For example, the Western conifer seed bug, which invades homes in the fall, is harmless. Consult your local Cornell Cooperative Extension office for proper identification.
- Follow up—after treatment, monitor the areas to see if the problem has been resolved.

Cultural

- Be neat—keep your home clean. Wipe up spills, remove clutter that could be a breeding ground for insect pests, do not leave pet food in the bowl for long periods of time and wipe up spills immediately.
- Remove insect attractants such as sweet or greasy foods that can attract ants and other insects.
- Control moisture—fix leaks and encourage ventilation—many insects seek out wet spots.

Mechanical

- Vacuum on a regular basis. A good mechanical control, in many instances, is to vacuum the insects and then discard the bag (to prevent insects from crawling out and reinfesting the area).
- Store pet food, dry food products and bird seed in tightly covered containers—plastic bags may not be satisfactory.
- Use sticky boards or traps to control insects. They also can be used for monitoring to see where the pests are most prevalent.
- Prevent entry into the home. Note any cracks in foundations, air spaces between windows and frames or poorly fitting doors and correct these situations. Caulk and seal all openings where possible.

IPM Tips for Specific Pests

Carpenter ants— often (especially initially) make a nest in wet or damaged wood in the home. Fix the problem (leaks) and replace damaged wood. Baits are available and are usually effective.

Carpet beetles— may damage home furnishing and clothing containing natural fibers such as wool or fur. May also be found in grain and cereal products and dried flower arrangements. Vacuum the insects and discard bag. Clean shelves and corners in closets and cabinets. Dry clean clothes regularly especially before storing away for the season. Store clothes in heavy, sealed plastic bags.

Clothes moths— feed on untreated fibers, food stains, perspiration and oils. Be absolutely sure that all clothing is clean before it is stored away for any length of time. Store clothing, especially natural fibers such as wool, in tightly sealed heavy plastic bags. Thin plastic from the dry cleaners will not do the job.

Cockroaches— feed on a variety of foods—practically all the foods that we eat. Eliminate hiding places (stacks of cardboard, paper bags and clutter in warm, moist locations), empty garbage frequently, especially in the evening as cockroaches feed at night, keep all drawers, counters and stovetops clean, store food in refrigerator if possible and empty the refrigerator defrost pan often. Use roach traps and empty when full.

Crickets— are usually just a minor pest but seem to be on the increase.

- 1) seal entry points such as vents and doorways
- 2) remove moist harborage areas inside and outside the home
- 3) keep basements and crawl spaces as dry as possible
- 4) use sticky traps to reduce population
- 5) vacuum up insects and discard bag

Fleas— vacuum regularly and discard bag. Treat the animal, preferably by a veterinarian.

Flies— fix screens, eliminate breeding areas (garbage, grass piles), hang fly paper.

Grain beetles and flour moths— keep nuts dried fruits, flour and other cereal and grain products in glass or plastic containers with tightly closing lids.

Mosquitoes—prevent water (breeding areas for mosquitoes) from accumulating in low spots in the yard, old trees, garbage cans, pool covers, gutters, tires, sandbox toys and potted plant saucers. Replace bird bath water every few days. Be sure that window and door screens are tight and leave up until after mosquito season.

Termites— be sure to obtain proper identification of any suspect insects. Termites and ants may be confused by the untrained eye. Your local Cornell Cooperative Extension office is a resource for ID. Design the home to exclude termites, reduce moisture and/or hire a professional to use baits or other methods.

Chemical Control

IPM is not a pesticide free program. IPM incorporates all of the cultural factors discussed previously. Practicing IPM should greatly reduce the need for pesticides. However, if insects reach levels or an action threshold, use of a pesticide may be necessary.

Proper identification of the pest (insect) is critical before any pesticide is applied. Timing of the application and the rate applied depend on proper identification of the problem.

Read and follow directions on the label.

Boric acid, the active ingredient in many household pest control products, is a very safe and effective product which can be used in and around the home to control many of the common insect pests.



Using Integrated Pest Management (IPM) is the best way to safe, long-term pest management with minimal adverse effects on the surrounding environment. Careful record keeping on what has been successful is also a portion of the whole process. Pesticides are just one of the tools used to effectively manage pests. Integrated Pest Management (IPM) practices can help you have an attractive, healthy home while minimizing adverse impacts on the environment and others.

OTHER BROCHURES AVAILABLE

- **IPM – Basic IPM Principles**
- **IPM – Home Landscape**
- **IPM – Lawn Care**

FOR ADDITIONAL INFORMATION

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